HISTORIC AND DESIGN REVIEW COMMISSION

August 05, 2015

Agenda Item No: 3

HDRC CASE NO:	**2015-296**
ADDRESS:	300 CONVENT
LEGAL DESCRIPTION:	NCB 410 BLK 4 LOT 15
ZONING:	D RIO-3
CITY COUNCIL DIST.:	1
APPLICANT:	Brad Kaufman
OWNER:	CP/IPERS Griffin Texas Tower LLC
TYPE OF WORK:	Exterior lighting

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to install a light sculpture at 300 Convent. The proposed lighting equipment will be replaced with new equipment that will control which portions of the facades are illuminated.

APPLICABLE CITATIONS:

UDC Section 35-674. - Building Design Principles

(j) Lighting. Site lighting should be considered an integral element of the landscape design of a property. It should help define activity areas and provide interest at night. At the same time, lighting should facilitate safe and convenient circulation for pedestrians, bicyclists and motorists. Overspill of light and light pollution should be avoided.

(1) Site Lighting. Site lighting shall be shielded by permanent attachments to light fixtures so that the light sources are not visible from a public way and any offsite glare is prevented.

A. Site lighting shall include illumination of parking areas, buildings, pedestrian routes, dining areas, design features and public ways.

B. Outdoor spaces adjoining and visible from the river right-of-way shall have average ambient light levels of between one (1) and three (3) foot-candles with a minimum of 0.5-foot candles and a maximum of six (6) foot-candles at any point measured on the ground plane. Interior spaces visible from the river right-of-way on the river level and ground floor level shall use light sources with no more than the equivalent lumens of a one hundred-watt incandescent bulb. Exterior balconies, porches and canopies adjoining and visible from the river right-of-way shall use light sources with the equivalent lumens of a sixty-watt incandescent bulb with average ambient light levels no greater than the lumen out put of a one hundred-watt incandescent light bulb as long as average foot candle standards are not exceeded. Accent lighting of landscape or building features including specimen plants, gates, entries, water features, art work, stairs, and ramps may exceed these standards by a multiple of 2.5. Recreational fields and activity areas that require higher light levels shall be screened from the river hike and bike pathways with a landscape buffer.

C. Exterior light fixtures that use the equivalent of more than one hundred-watt incandescent bulbs shall not emit a significant amount of the fixture's total output above a vertical cut-off angle of ninety (90) degrees. Any structural part of the fixture providing this cut-off angle must be permanently affixed.

D. Lighting spillover to the publicly owned areas of the river or across property lines shall not exceed one-half (½) of one (1) foot-candle measured at any point ten (10) feet beyond the property line.

(2) Provide Lighting for Pedestrian Ways That is Low Scaled for Walking. The position of a lamp in a pedestrian-way light shall not exceed fifteen (15) feet in height above the ground.

(3) Light Temperature and Color.

A. Light temperature and color shall be between 2500° K and 3500° K with a color rendition index (CRI) of eighty (80) or higher, respectively. This restriction is limited to all outdoor spaces adjoining and visible from the river right-of-way and from the interior spaces adjoining the river right-of-way on the river level and ground floor level. Levels shall be determined by product specifications.

(4) Minimize the Visual Impacts of Exterior Building Lighting.

A. All security lighting shall be shielded so that the light sources are not visible from a public way.

B. Lighting (uplighting and downlighting) that is positioned to highlight a building or outdoor artwork shall be aimed at the object to be illuminated, not pointed into the sky.

C. Fixtures shall not distract from, or obscure important architectural features of the building. Lighting fixtures shall be a subordinate feature on the building unless they are incorporated into the over-all design scheme of the building.

(5) Prohibited Lighting on the Riverside of Properties Abutting the River.

A. Flashing lights.

B. Rotating lights.

C. Chaser lights.

D. Exposed neon.

E. Seasonal decorating lights such as festoon, string or rope lights, except between November 20 and January 10.

F. Flood lamps.

(6) Minimize the visual impacts of lighting in parking areas in order to enhance the perception of the nighttime sky and to prevent glare onto adjacent properties. Parking lot light poles are limited to thirty (30) feet in height, shall have a 90° cutoff angle so as to not emit light above the horizontal plane.

FINDINGS:

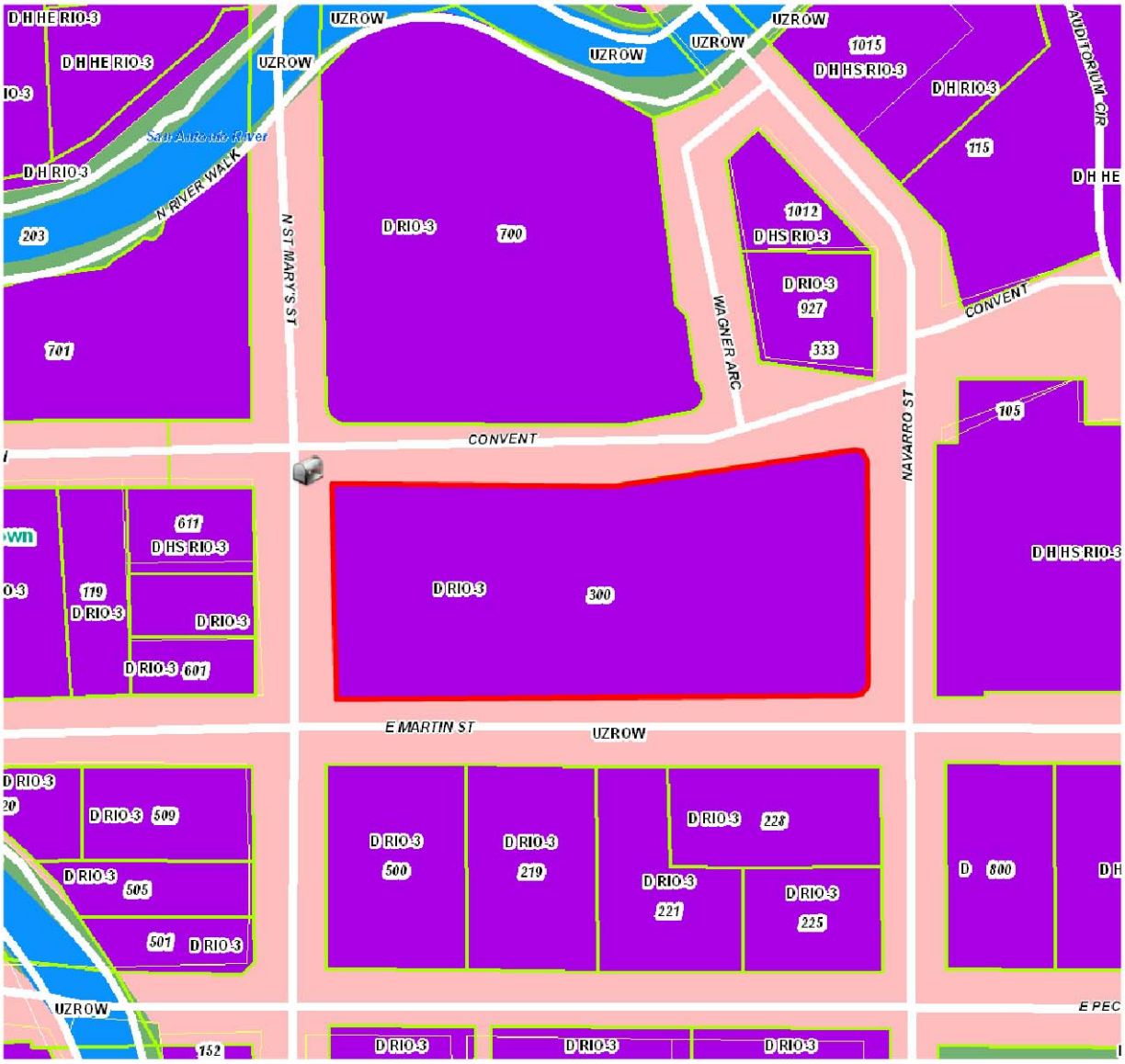
a. The applicant has proposed to remove the existing lighting fixtures which currently provide the architectural lighting and to replace them with new, LED light fixtures that will illuminate the façade at 300 Convent in a similar manner. The applicant has proposed to change the color of the architectural lighting and the lighting source. The existing lighting is gold in color and the proposed lighting will be purple and green lit by LED lighting.
b. According to the UDC Section 35-674(j)(5), lighting that is positioned to highlight a building shall be aimed at the object to be illuminated, not pointed into the sky and lighting fixtures shall not distract from or obscure important architectural features of the building. This lighting proposal is consistent with the UDC.
c. The UDC Section 35-674(3) addresses light temperature and color. The applicant is responsible for complying with this section of the UDC and ensuring that the proposed lighting remain consistent with the UDC after installation.

RECOMMENDATION:

Staff recommends approval as submitted based on findings a through c.

CASE MANAGER:

Edward Hall



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Flex Viewer

Powered by ArcGIS Server

Printed:Jul 28, 2015

TRANSWESTERN®

July 17, 2015

Mr. Edward Hall
City of San Antonio
Office of Historic Preservation
1901 S. Alamo
San Antonio, TX 78204

RE: Written Narrative – Historic & Design Review Commission Application
300 Convent Street, San Antonio, Texas 78205

Dear Edward:

On behalf of the owner of 300 Convent Street, CP/IPERS Griffin Texas Tower LLC c/o Griffin Partners, Inc., we respectfully submit this application and accompanying information on the scope of work. This narrative, acting as a detailed description of the project, is meant to explain in detail the light sculpture project that our owner is commissioning for the building.

CP/IPERS Griffin Texas Tower LLC c/o Griffin Partners, Inc. purchased 300 Convent at the end of 2014. In our early conversations with CP/IPERS Griffin Texas Tower LLC c/o Griffin Partners, Inc., they had discussed the existing lights on the exterior of the building. These lights are either the original fixtures or original style fixtures from the early 1980s, which are not nearly as efficient as the newer LED lights. The owner asked us how we could both make an impact in their replacement that could be valued by the tenants and citizens, as well as pay homage to downtown San Antonio, at which time we put them in touch with Bill Fitzgibbons as he is one of San Antonio's pre-eminent artists and lighting experts. His resume and curriculum vitae are included in our submittal, which details his history and domestic/international art pieces.

Bill Fitzgibbon's plan is to create a lighting sculpture, commission by the owners of 300 Convent and using 300 Convent as the canvas. Included in our application is a list of the lighting counts, the locations of the lights, the frame specs to hold the lights, light fixture specifications, renderings of the planned sculpture scope/location, and artist information. We invite you to visit Bill Fitzgibbon's website at www.billfitzgibbons.com to see his previous light sculptures.

We have two existing lights at each building niche on the north and south sides. We do not have existing lights on the three (3) separate west-facing areas detailed in the application. Based on the distance of the run on the building, we will replace the existing lights with new efficient LED light fixtures, add some additional LED lights to account for the distance of light needed to reach the top of the building features, and add new LED light fixtures on the west side two-lower roofs and top of parking garage to wash the central west-side features. These lights, based on the locations, will either be put on Unistrut frames to slightly hang over the side of the building (which allows the fixture to reach the top of the building feature) or be roof-mounted. We have details of both types of frames in our accompanying information. All of the lighting will be going up the building and will only be aimed at the building to create a "wash" effect as detailed in the renderings of the light locations. We did use temporary test-fixtures to see how the lights would hit the building, which are included with the light location photos for your review.

Transwestern Commercial Real Estate T 210-341-1344
8200 IH-10 West, Suite 800, San Antonio, TX 78230
Transwestern.com

With the growth of downtown San Antonio, CP/IPERS Griffin Texas Tower LLC c/o Griffin Partners, Inc. wants to not only benefit from the power efficiencies of replacing the exterior lights with programmable LED lights, but also provide a piece of art that can be enjoyed by the public. In commissioning one of San Antonio's preeminent local artists, the idea is to pay homage to the city by building on art already existing within the city. We hope that the accompanying information is enough for the HDRC to properly evaluate the project, and wish to help in the process in any way that we can.

Best Regards,

Transwestern Commercial Real Estate

Brad Kaufman
Broker Associate

Larry Mendez
Executive Managing Director

Date: _____ Type: _____

Firm Name: _____

Project: _____

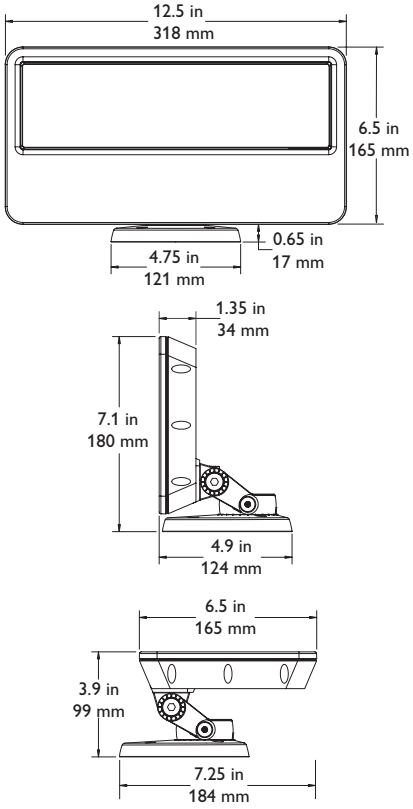
ColorBlast Powercore

10° clear lens

The world's leading exterior LED wash fixture with intelligent color light

ColorBlast Powercore high-performance LED fixtures combine rich, saturated, wall-washing color and color-changing effects with simplified installation. ColorBlast Powercore offers a range of beam angles for wall washing, grazing, floodlighting, and spotlighting, along with the efficiency and cost-effectiveness of Powercore technology in a rugged die-cast aluminum housing.

- Superior light output — Produces saturated, full-color light output of up to 1471 lumens with light projection of up to 204 feet. Fixtures are available in four beam angles: 23° and 36° for soft edges, 86° with no optic for uniformly washing façades, and a 10° beam for extended light projection.
- Integrates patented Powercore technology — Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. The Philips Color Kinetics Data Enabler Pro merges line voltage with control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Versatile light positioning — Locking canopy base offers friction-free rotation of up to 350°, and 110° fixture tilting lets you quickly aim the fixture without special tools.
- Easy installation — By providing line voltage directly to fixtures, Powercore eliminates the need for external power supplies and special wiring. Fixtures can be mounted to a junction box on a wall, ceiling, or floor.
- Universal power input range — ColorBlast Powercore accepts power input of 100 – 240 VAC, allowing the installation of many fixtures in a continuous run.
- Industry-leading controls — ColorBlast Powercore works seamlessly with the complete Philips Color Kinetics line of controllers, including ColorDial Pro, iPlayer 3, and Light System Manager, as well as third-party controllers.



- Efficient and cost-effective — Replacing metal halide fixtures with ColorBlast Powercore fixtures can dramatically reduce electricity and maintenance costs while delivering superior consistency and uniformity of light and color.
- Outdoor rated — Fully sealed for maximum fixture life and IP66 rated for outdoor applications, ColorBlast Powercore meets or exceeds specifications for use in wet locations. Rugged, die-cast aluminum housing is available in white or black powder-coated finish.

For detailed product information, please refer to ColorBlast Powercore Product Guide at www.philipscolorkinetics.com/ls/rgb/colorblast12pc/

PHILIPS

Specifications

Due to continuous improvements and innovations, specifications may change without notice

Item	Specification	Details
	Lumens*	1418
	LED Channels	Red / Green / Blue
	Mixing Distance	6 in (152 mm) to uniform light
	Lumen Maintenance†	50,000+ hours L_{50} @ 50° C (full output)
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	50 W maximum at full output, steady state
	Power Factor	.98 @ 120 VAC
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	7.1 x 12.5 x 4.9 in (172 x 317 x 125 mm)
	Weight	6.4 lb (2.9 kg)
	Effective Projected Area	0.05211 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Clear tempered glass
	Fixture Connections	6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

* Lumen measurement complies with IES LM-79-08.

† L_{50} = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.

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Data Enabler Pro

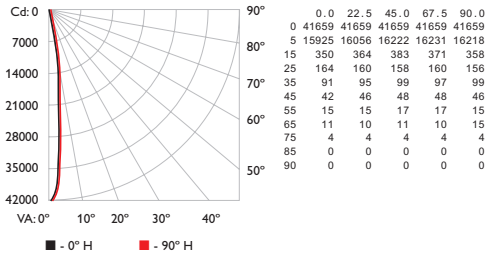
Item	Type	Item Number	Philips 12NC
Data Enabler Pro	3/4 in / 1/2 in NPT (US trade size conduit)	106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)	106-000004-01	910503701211

Use Item Number when ordering in North America.

Photometrics

10° clear lens

Polar Candela Distribution



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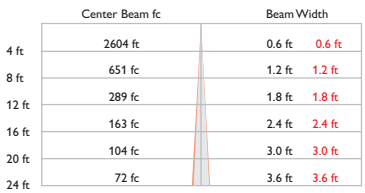
15	350	364	383	371	358
25	164	160	158	160	156
35	91	95	99	97	99
45	42	46	48	48	46
55	15	15	17	17	15
65	11	10	11	10	15
75	4	4	4	4	4
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



204 ft (62.2 m)
1 fc maximum distance

Vert. Spread: 8.6°
Horiz. Spread: 8.7°

For lux multiply fc by 10.7

LED	Lumens	Efficacy
RGB	1418	27.7

Refer to the ColorBlast Powercore Product Guide for information on available accessories, including top hats, half top hats, egg crate louvers, barndoors, and spread lenses.

Fixtures

Item	Type	Housing	Item Number	Philips 12NC
ColorBlast Powercore UL / cUL CE / PSE	10°	White	123-000021-00	910503702321
		Black	123-000021-01	910503702350
	23°	White	123-000021-02	910503702334
		Black	123-000021-03	910503702351
	36°	White	123-000021-04	910503702352
		Black	123-000021-05	910503702353
	86°	White	123-000021-06	910503702354
		Black	123-000021-07	910503702355
ColorBlast Powercore CQC	10°	White	123-000021-08	910503702434
		Black	123-000021-09	910503702435
	23°	White	123-000021-10	910503702436
		Black	123-000021-11	910503702437
	36°	White	123-000021-12	910503702827
		Black	123-000021-13	910503702828
	86°	White	123-000021-14	910503702829
		Black	123-000021-15	910503702830

Use Item Number when ordering in North America.

Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com

DAS-000008-02 R08 07-12

ColorBlast Powercore

The world's leading exterior LED wash fixture with intelligent color light

PHILIPS

COLOR KINETICS

ColorBlast Powercore

The world's leading exterior LED wash fixture with intelligent color light

ColorBlast Powercore high-performance LED fixtures combine rich, saturated, wall-washing color and color-changing effects with simplified installation. ColorBlast Powercore offers a range of beam angles for wall washing, grazing, floodlighting, and spotlighting, along with the efficiency and cost-effectiveness of Powercore technology in a rugged die-cast aluminum housing.

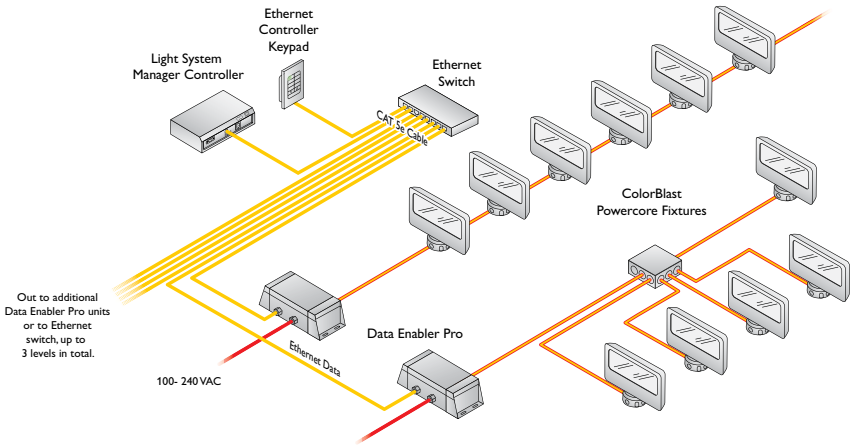
- Superior light output — Produces saturated, full-color light output of up to 1471 lumens with light projection of up to 204 feet. Fixtures are available in four beam angles: 23° and 36° for soft edges, 86° with no optic for uniformly washing façades, and a 10° beam for extended light projection.
- Integrates patented Powercore technology — Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. The Philips Color Kinetics Data Enabler Pro merges line voltage with control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Versatile light positioning — Locking canopy base offers friction-free rotation of up to 350°, and 110° fixture tilting lets you quickly aim the fixture without special tools.
- Easy installation — By providing line voltage directly to fixtures, Powercore eliminates the need for external power supplies and special wiring. Fixtures can be mounted to a junction box on a wall, ceiling, or floor.
- Universal power input range — ColorBlast Powercore accepts power input of 100 – 240 VAC, allowing the installation of many fixtures in a continuous run.
- Industry-leading controls — ColorBlast Powercore works seamlessly with the complete Philips Color Kinetics line of controllers, including ColorDial Pro, iPlayer 3, and Light System Manager, as well as third-party controllers.
- Efficient and cost-effective — Replacing metal halide fixtures with ColorBlast Powercore fixtures can dramatically reduce electricity and maintenance costs while delivering superior consistency and uniformity of light and color.

Outdoor Rated
Fully sealed for maximum fixture life and IP66 rated for outdoor applications, ColorBlast Powercore meets or exceeds specifications for use in wet locations. Rugged, die-cast aluminum housing is available in white or black powder-coated finish.

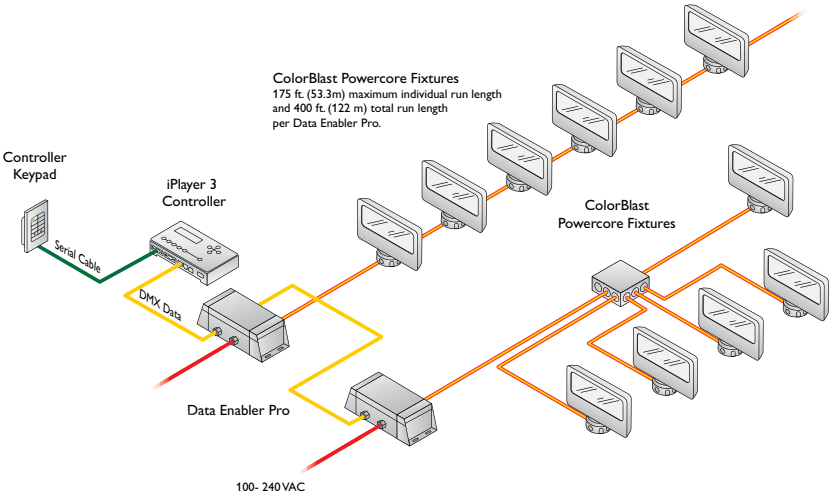
Versatile Installation Options

ColorBlast Powercore offers saturated, color-changing LED light, both indoors and outdoors. With its low-profile design, IP66-rated housing, multiple beam angles, and ease of installation and maintenance, ColorBlast Powercore is ideal for applications ranging from backlighting and display and signage lighting to floodlighting, façade- and wall-grazing, architectural detail highlighting, and artistic displays.

Philips offers a range of controllers to support installations from the simplest to the most complex. A simple application might use two ColorBlast Powercore fixtures with a ColorDial Pro controller to dramatically illuminate store window displays with pre-programmed color washes or fades. A larger installation might use Philips Color Kinetics iPlayer 3 controller and its ColorPlay 3 light show authoring software to run transformative and imaginative custom light shows on dozens of ColorBlast Powercore fixtures installed in multiple interior or exterior locations.



Large-scale Ethernet installation with Light System Manager
Large-scale installations may include multiple runs of ColorBlast Powercore fixtures controlled by Light System Manager. Each Data Enabler Pro supports a single run of fixtures, and connects to an available port on the Ethernet Switch.



Small-scale DMX installation with iPlayer 3
Small-scale installations may feature one or more runs of ColorBlast Powercore fixtures controlled by iPlayer 3. Data Enabler Pro devices can be connected in series to one or both DMX output ports on the iPlayer 3.

Philips Color Kinetics Light System Manager, an Ethernet-based integrated controller and light show authoring system, cost-effectively enables large-scale, complex, and intricately designed installations. The LAX Gateway at Los Angeles International Airport (shown on the cover) uses Light System Manager and approximately 1,800 ColorBlast Powercore fixtures to generate color-changing light within 26 glass pylons ranging in height from 25 to 110 feet.

Regardless of the size and complexity of your installation, the planning time you spend up front can help streamline the installation and configuration of your fixtures. Keep these points in mind as you plan your installation:

- Create a lighting design plan that identifies and locates all fixtures, Data Enabler Pro devices, and controllers. Use this Product Guide and the online Configuration Calculator to determine whether to install fixtures in series or in parallel, how many fixtures you can install in a single run, and the maximum distances between Data Enabler Pro devices, fixtures, and controllers.
- To aid in addressing fixtures for color-changing light shows, record the serial number of each fixture as you assign it to your lighting design plan, and create a layout map that records the address or position of each fixture within a sequence of fixtures.
- Determine whether to address fixtures and configure your lighting system offline or interactively. With offline configuration, you stage and configure your system off-site, prior to installation. Offline configuration can be convenient when fixtures are to be installed in multiple locations or locations with difficult access. Interactive configuration is typically performed by an experienced technician, after fixtures have been installed. The interactive method can save time, since you connect and test your fixtures only once.

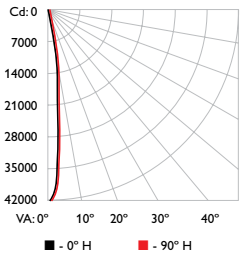
Photometrics

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.philipscolorkinetics.com/support/ies.

ColorBlast Powercore 10° clear lens

LED	Lumens	Efficacy
RGB	1418	27.7

Polar Candela Distribution



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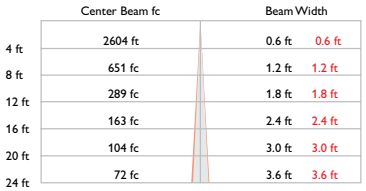
45	42	46	48	48	46
55	15	15	17	17	15
65	11	10	11	10	15
75	4	4	4	4	4
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



204 ft (62.2 m)
1 fc maximum distance

Vert. Spread: 8.6°
Horiz. Spread: 8.7°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	1289	90.9
0- 40	1352	95.3
0- 60	1404	99.0
0- 90	1418	100.0
90-180	0	0.0
0-180	1418	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

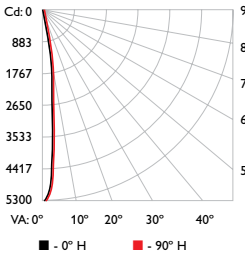
RC	80			70			50		30		10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98
2	113	110	107	105	111	108	106	104	105	103	101	102	101	99	99	98	97	96
3	110	106	103	101	108	105	102	100	102	100	98	100	98	97	98	97	95	94
4	107	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93
5	105	101	97	95	104	100	97	94	98	96	94	97	95	93	96	94	92	91
6	103	98	95	93	102	98	95	93	97	94	92	95	93	91	94	92	91	90
7	102	97	93	91	101	96	93	91	95	92	91	94	92	90	93	91	90	89
8	100	95	92	90	99	95	92	90	94	91	89	93	91	89	92	90	89	88
9	99	94	91	89	98	93	90	89	93	90	88	92	90	88	91	89	88	87
10	97	93	90	88	97	92	89	88	92	89	87	91	89	87	91	88	87	86

RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

ColorBlast Powercore 23° frosted lens

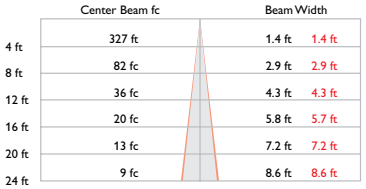
LED	Lumens	Efficacy
RGB	1222	23.9

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	5229	5229	5229	5229	5229
5	4382	4385	4380	4372	4375
15	1395	1394	1387	1376	1374
25	415	413	407	402	399
35	179	178	176	173	172
45	91	91	90	89	89
55	50	50	50	50	50
65	27	27	28	29	28
75	10	11	12	13	13
85	1	1	2	2	2
90	0	0	0	0	0

Illuminance at Distance



72.2 ft (22 m)
1 fc maximum distance

Vert. Spread: 20.4°
Horiz. Spread: 20.3°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	950	77.8
0- 40	1062	87.0
0- 60	1179	96.5
0- 90	1222	100.0
90-180	0	0.0
0-180	1222	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RC	80			70			50		30		10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	83
4	100	93	88	84	98	92	87	83	90	86	82	88	84	81	86	83	81	79
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	79	75	91	83	78	75	82	78	74	81	77	74	79	76	73	72
7	89	80	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	69
8	85	77	72	69	84	77	72	68	76	71	68	75	71	68	74	70	68	66
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	72	67	64	79	71	67	64	71	66	63	70	66	63	69	66	63	62

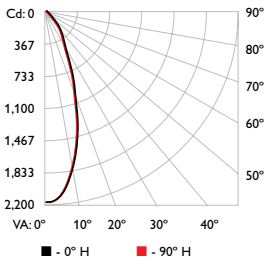
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

ColorBlast Powercore 36° frosted lens

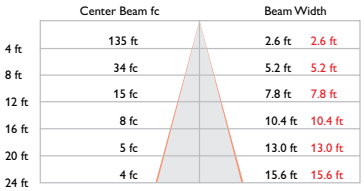
LED	Lumens	Efficacy
RGB	1217	23.8

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	2167	2167	2167	2167	2167
5	2061	2063	2060	2059	2059
15	1331	1330	1329	1329	1331
25	614	614	613	614	614
35	262	262	262	263	263
45	123	123	124	124	124
55	64	65	65	65	66
65	33	34	35	36	35
75	13	14	15	16	16
85	1	2	2	3	3
90	0	0	0	0	0

Illuminance at Distance



46.5 ft (14.2 m)
1 fc maximum distance

Vert. Spread: 35.9°
Horiz. Spread: 36.0°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	838	68.9
0- 40	1006	82.7
0- 60	1163	95.6
0- 90	1217	100.0
90-180	0	0.0
0-180	1217	100.0

Coefficients Of Utilization - Zonal Cavity Method

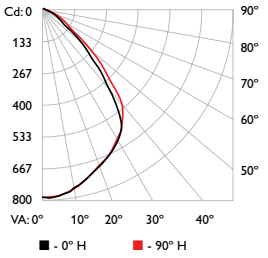
Effective Floor Cavity Reflectance: 20%

RC	80			70			50		30		10	0
RW	70	50	30 10	70	50	30 10	50	30 10	50	30 10	50	30 10 0
0	119	119	119 119	116	116	116 116	111	111 111	106	106 106	102	102 102 100
1	113	110	107 105	110	108	105 103	104	102 100	100	98 97	97	95 94 92
2	107	102	97 94	105	100	96 93	97	93 91	94	91 89	91	89 87 85
3	101	95	89 85	99	93	88 84	90	86 83	88	85 82	86	83 80 79
4	96	88	82 78	94	87	82 78	85	80 77	83	79 76	81	78 75 73
5	91	83	77 72	90	82	76 72	80	75 71	78	74 71	77	73 70 68
6	87	78	72 67	85	77	71 67	75	70 67	74	69 66	73	69 66 64
7	83	73	67 63	81	73	67 63	71	66 62	70	66 62	69	65 62 60
8	79	69	63 59	78	69	63 59	68	63 59	67	62 59	66	62 58 57
9	76	66	60 56	74	65	60 56	64	59 56	64	59 56	63	58 55 54
10	72	63	57 53	71	62	57 53	62	56 53	61	56 53	60	56 53 51

ColorBlast Powercore 86° no optic

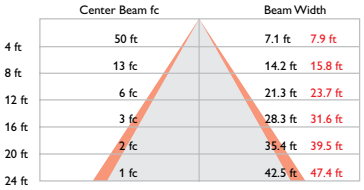
LED	Lumens	Efficacy
RGB	1471	29.0

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	794	794	794	794	794
5	787	789	787	785	784
15	733	736	737	735	732
25	668	669	668	667	666
35	584	585	584	582	583
45	301	327	420	395	389
55	119	120	116	157	156
65	54	72	75	99	94
75	11	14	18	23	29
85	6	6	6	4	7
90	0	0	0	0	0

Illuminance at Distance



28.2 ft (8.6 m)
1 fc maximum distance

Vert. Spread: 83.1°
Horiz. Spread: 89.3°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	590	40.1
0- 40	950	64.6
0- 60	1366	92.9
0- 90	1471	100.0
90-180	0	0.0
0-180	1471	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

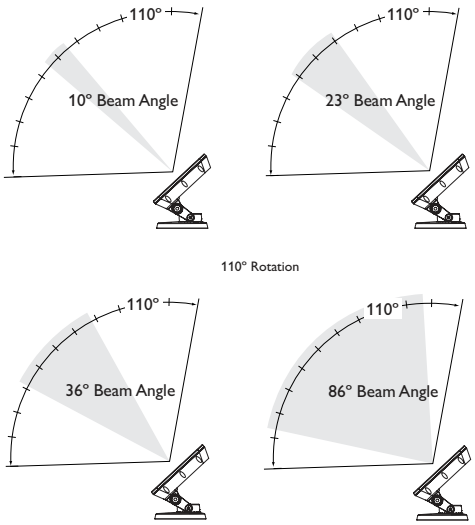
RC	80			70			50		30		10	0
RW	70	50	30 10	70	50	30 10	50	30 10	50	30 10	50	30 10 0
0	119	119	119 119	116	116	116 116	111	111 111	106	106 106	102	102 102 100
1	111	108	104 102	109	106	103 100	101	99 97	98	96 94	94	93 91 89
2	104	97	92 87	101	95	90 86	92	88 84	89	85 82	86	83 81 79
3	96	88	81 76	94	86	80 75	83	78 74	81	76 73	78	75 71 69
4	89	79	72 66	87	78	71 66	76	70 65	74	68 64	71	67 64 62
5	83	72	64 59	81	71	64 59	69	63 58	67	62 57	66	61 57 55
6	77	66	58 53	76	65	58 52	63	57 52	62	56 52	60	55 51 49
7	72	60	53 47	71	60	52 47	58	52 47	57	51 47	56	50 46 45
8	68	56	48 43	66	55	48 43	54	47 43	53	47 42	51	46 42 40
9	63	51	44 39	62	51	44 39	50	43 39	49	43 39	48	42 38 37
10	60	48	41 36	59	47	40 36	46	40 36	45	40 35	45	39 35 34

For lux multiply fc by 10.7

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

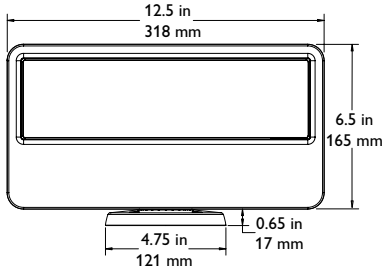
Item	Specification	Details
Output	Beam Angle	10° / 23° / 36° / 86°
	Lumens*	1418 (10° clear lens) 1222 (23° frosted lens) 1217 (36° frosted lens) 1471 (86° no optic)
	LED Channels	Red / Green / Blue
	Mixing Distance	6 in (152 mm) to uniform light
	Lumen Maintenance†	50,000+ hours L_{50} @ 50° C (full output)
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	50 W maximum at full output, steady state
	Power Factor	.98 @ 120 VAC
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	7.1 x 12.5 x 4.9 in (172 x 317 x 125 mm)
	Weight	6.4 lb (2.9 kg)
	Effective Projected Area (EPA)	0.05211 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Clear tempered glass (10° and 86° beam angles) Frosted tempered glass (23° and 36° beam angles)
	Fixture Connections	6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

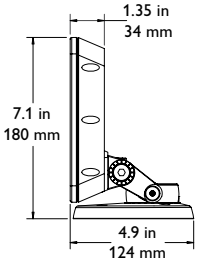


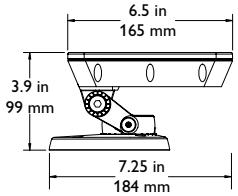
* Lumen measurement complies with IES LM-79-08.

† L_{50} = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.

CHROMACORE® CK TECHNOLOGY | OPTIBIN® CK TECHNOLOGY | POWERCORE® CK TECHNOLOGY







Included in the box

ColorBlast Powercore fixture
(2) 8-32 screws for indoor installation
(4) 10-24 stainless steel screws for outdoor installation
1/8 in hex key wrench for fixture positioning and locking
Junction box gasket
Installation Instructions

Fixtures and Data Enabler Pro

ColorBlast Powercore fixtures are part of a complete system which includes:

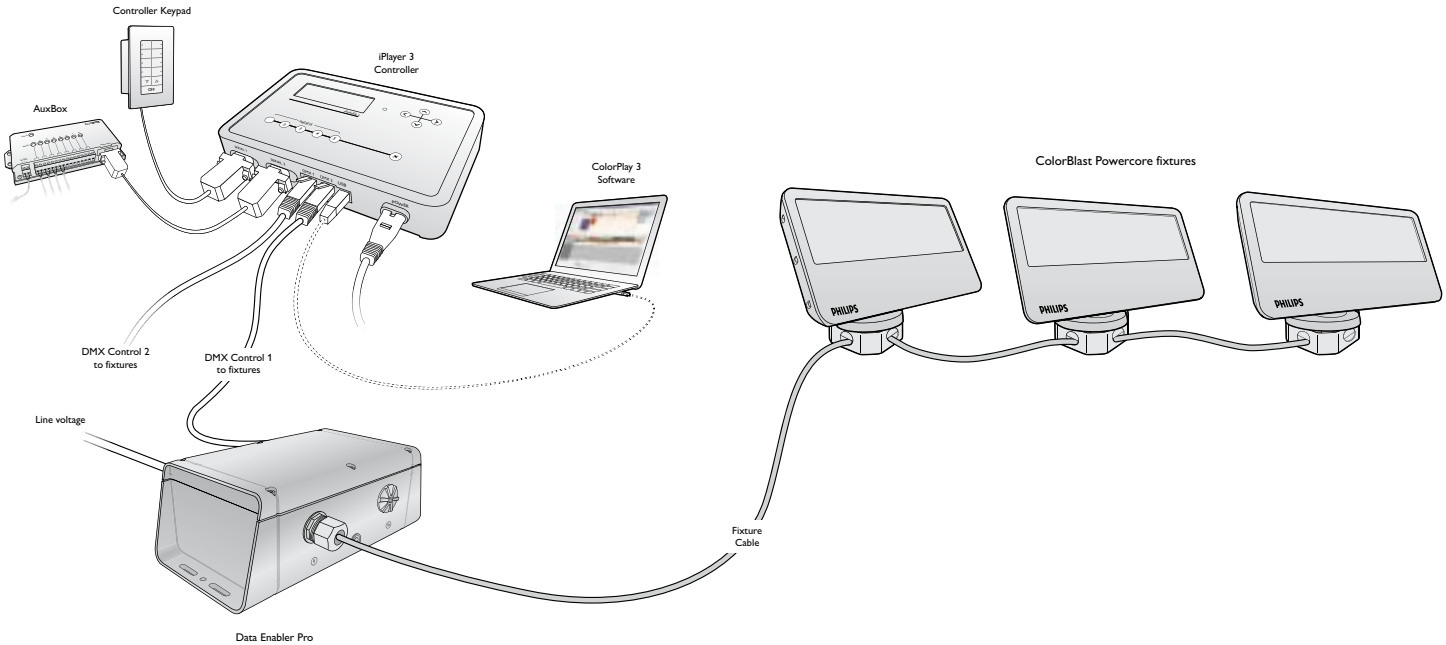
- One or more Data Enabler Pro devices
- Any Philips controller, including Light System Manager, iPlayer 3, and ColorDial Pro, or a third-party controller
- 4-conductor copper wire to connect ColorBlast Powercore fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended.

Item	Type	Housing Color	Item Number	Philips 12NC
ColorBlast Powercore UL / cUL / CE / PSE	10° (clear lens)	White	123-000021-00	910503702321
		Black	123-000021-01	910503702350
	23° (frosted lens)	White	123-000021-02	910503702334
		Black	123-000021-03	910503702351
	36° (frosted lens)	White	123-000021-04	910503702352
		Black	123-000021-05	910503702353
	86° (no optic)	White	123-000021-06	910503702354
		Black	123-000021-07	910503702355
ColorBlast Powercore CQC	10° clear lens	White	123-000021-08	910503702434
		Black	123-000021-09	910503702435
	23° frosted lens	White	123-000021-10	910503702436
		Black	123-000021-11	910503702437
	36° frosted lens	White	123-000021-12	910503702827
		Black	123-000021-13	910503702828
	86° no optic	White	123-000021-14	910503702829
		Black	123-000021-15	910503702830
Data Enabler Pro	3/4 in / 1/2 in NPT (U.S. trade size conduit)		106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)		106-000004-01	910503701211

Use Item Number when ordering in North America.

Typical ColorBlast Powercore system installation

For detailed wiring diagrams visit www.philipscolorkinetics.com/support/wiring/ls_prod.html



Accessories

Designed specifically for the family of Blast fixtures, accessories provide additional options for controlling and dispersing light. Accessory holders snap to the front of the fixture and are required for mounting accessories. Accessory holders prevent accessories from falling out if the fixture is tipped or hung upside down.

Item	Housing Color	Item Number	Philips 12NC
Accessory Holders	White	120-000070-00	910503702864
	Black	120-000070-01	910503702863
Top Hats	White	120-000005-03	910503702847
	Black	120-000005-04	910503702848
Half Top Hats	White	120-000009-03	910503702843
	Black	120-000009-04	910503702844
Egg Crate Louvers	White	120-000015-03	910503702851
	Black	120-000015-04	910503702852
Barndoors	White	120-000019-03	910503702855
	Black	120-000019-04	910503702856
Horizontal Glass Spread Lens*	36° (ribs out) / 50° (ribs in)	120-000025-00	910503703897
Horizontal / Vertical Glass Spread Lens*	40°	120-000025-01	910503703898

* Intended for use with Blast fixtures with 10° clear lens

Use Item Number when ordering in North America.

Installation

ColorBlast Powercore offers rich, saturated wall-washing color and color-changing effects with Powercore technology. Powercore, which integrates LED power and data management within the fixture, eases installation by eliminating the need for external power supplies.

Owner / User Responsibilities

Refer to the ColorBlast Powercore Installation Instructions for specific warning and caution statements.

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate ColorBlast Powercore fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

Installing in Damp or Wet Locations

When installing in damp or wet locations, it is good practice to seal all fixtures and junction boxes with electronics-grade RTV silicone sealant to ensure that moisture cannot enter or accumulate in wiring compartments, cables, or other electrical parts. You must use suitable outdoor-rated junction boxes when installing in damp or wet locations. Additionally, you must use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes

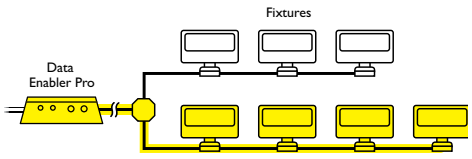
Create a Lighting Design Plan and Layout Grid

To streamline the configuration of complex installations, record the serial number (DMX) or IP address (Ethernet) and location of each Data Enabler Pro.

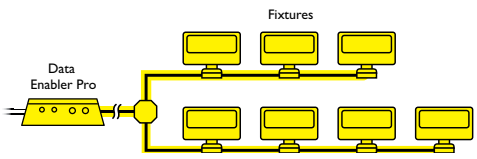
1. Determine the appropriate location of each Data Enabler Pro in relation to the light fixtures, and of the light fixtures in relation to each other.

   ColorBlast Powercore fixtures can be installed in series or in parallel (wired to a common junction box). The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture spacing, circuit size, line voltage, and method of connection (in series or in parallel). For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.colorkinetics.com/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.

   In addition to maximum fixture run lengths determined by the electrical configuration, each Data Enabler Pro imposes maximum run lengths based on data integrity. To ensure data integrity, maximum individual run length should not exceed 175 feet (53.3 m), and the total cable length per Data Enabler Pro should not exceed 400 feet (122 m).



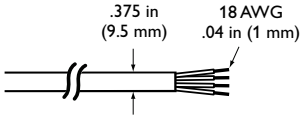
Data Integrity — maximum individual length 175 ft (53.3 m)



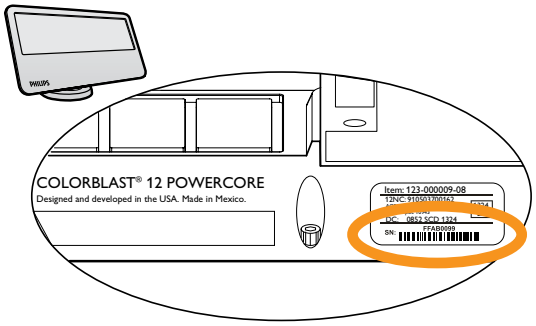
Data Integrity — total length 400 ft (122 m)

2. On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all switches, controllers, Data Enabler Pro devices, fixtures, and cables.

Leader Cable connector dimensions



3. Each ColorBlast Powercore fixture comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.

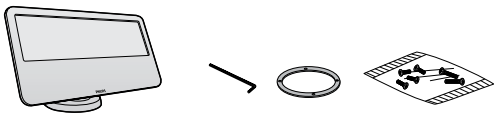


4. Assign each fixture to a position in the lighting design plan.
5. To streamline installation and aid in light show programming, you can affix a weatherproof label identifying the order or placement in the installation to an inconspicuous location on each light fixture's housing.

Start the Installation

1. Install all Data Enabler Pro devices, including any interfaces with controllers. Data Enabler Pro devices and external controllers send power and control signals to the fixtures over the single fixture cable. Additional cabling is required to connect fixtures together in series.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. Ensure that all additional parts and tools are available, including:
   - The included 8-32 screws for indoor installations, or the 10-24 stainless steel screws for outdoor installations
   - The included 1/8 hex key wrench
   - The included junction box gasket
   - In the US, one 4 in (102 mm) round US electrical junction box per fixture, rated for your application, with 3.5 in (89 mm) center-to-center screw holes for attaching the fixture's base. (Refer to the junction box manufacturer's literature for additional items required for mounting or sealing.)
   - A sufficient length of 12 AWG (2.05 mm), 4-conductor stranded copper wire
   - Conduit as required
   - Electronics-grade room temperature vulcanizing (RTV) silicone sealant

For complete instructions on how to wire the Data Enabler Pro, refer to the Data Enabler Pro Product Guide or Installation Instructions.



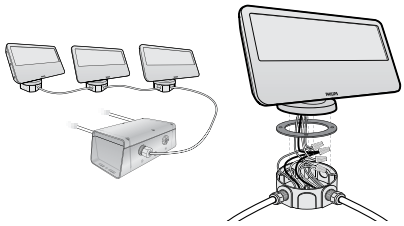
Included in the box

ColorBlast Powercore fixture
(2) 8-32 screws for indoor installation
(4) 10-24 stainless steel screws for outdoor installation
1/8 in hex key wrench for fixture positioning and locking
Junction box gasket
Installation Instructions

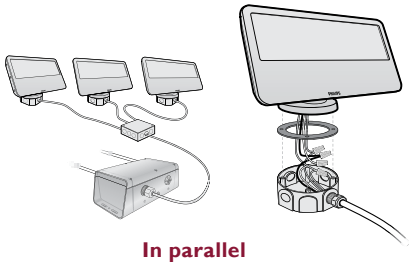
When installing ColorBlast Powercore fixtures, the input earth ground, canopy earth ground, and fixture cable earth ground must all be connected together.

Install the Fixtures

ColorBlast Powercore fixtures can be installed in series or in parallel (wired to a common junction box). Each fixture requires a dedicated junction box for mounting. Ensure that all junction boxes are suitable for the environment and sealed, if necessary, and that all wiring between junction boxes complies with local codes.



In series



In parallel

Make sure the power is OFF before mounting and connecting ColorBlast Powercore fixtures.

1. Mount junction boxes in accordance with the lighting design plan. Each fixture is designed for mounting in a 4 in (102 mm) round US electrical junction box, rated for your application, with 3.5 in (89 mm) center-to-center screw holes for attaching the fixture's base.

   Architectural fixtures are supplied with a grounding wire attached to the fixture's base (canopy). The canopy ground wire can be attached to a grounding point in the junction box, or connected with the ground in the fixture cable.

2. If installing fixtures in a series, pull 4-conductor copper wire between each junction box in the series.

   If installing fixtures in parallel, pull 4-conductor copper wire from a common junction box to each fixture's junction box.

   The maximum cable run from a Data Enabler Pro to any individual ColorBlast Powercore fixture is 175 feet (53 m). When installing in parallel, the total cable length cannot exceed 400 feet (122 m).

3. Trim the cable from the fixture to fit in the junction box, leaving enough cable to make wiring connections.

4. Insert the fixture cable and the canopy ground wire through the provided junction box gasket before making wire connections. When attaching the fixture to the junction box, ensure that the gasket is compressed evenly.

5. Use wire nuts to connect line, neutral, ground, and data. If installing in series, connect the leader cable from each fixture to the fixture's junction box. If installing in parallel, connect the leader cable from each fixture to the lead wire from the Data Enabler Pro in the common junction box.

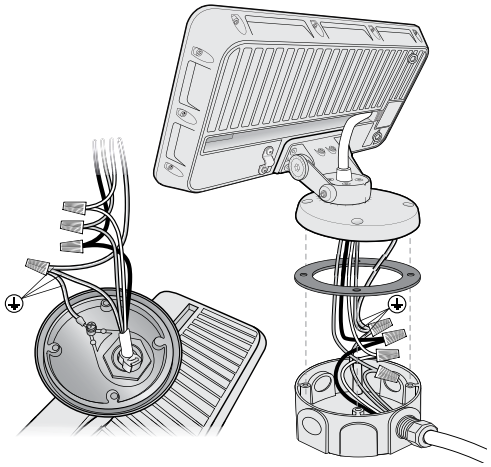
   Attach the canopy ground wire to a grounding point in the junction box, or combine it with the fixture cable ground with a wire nut.

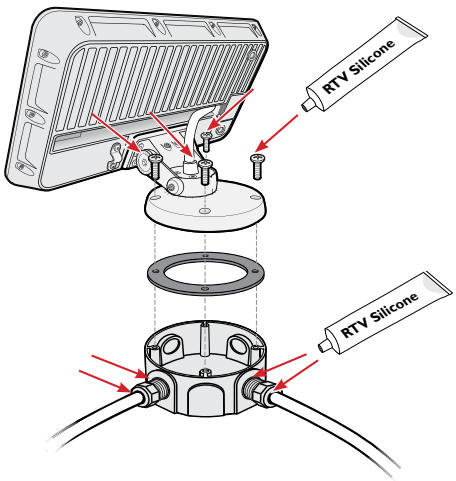
6. Tuck wire connections into the junction box, and use the provided screws to attach the fixture to the junction box.

7. If installing in a damp or wet location, seal all junction boxes with electronics-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.

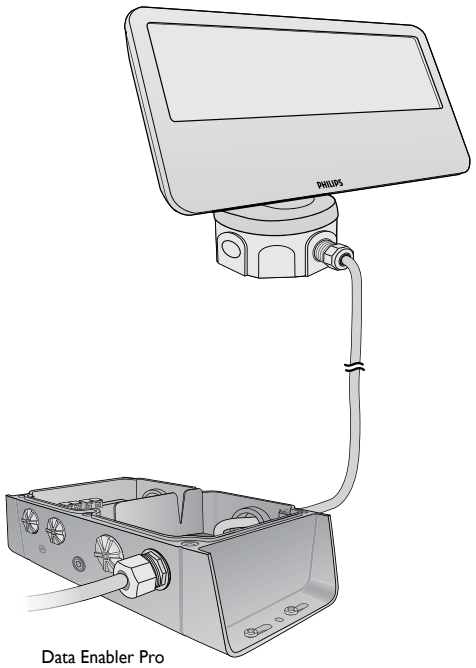
In locations where US junction boxes are not available, you can mount fixtures directly to a wall or other mounting surface. For help with your specific installation, consult your local support organization, or contact Application Engineering Services at support@colorkinetics.com.

Wiring between junction boxes must comply with local codes.



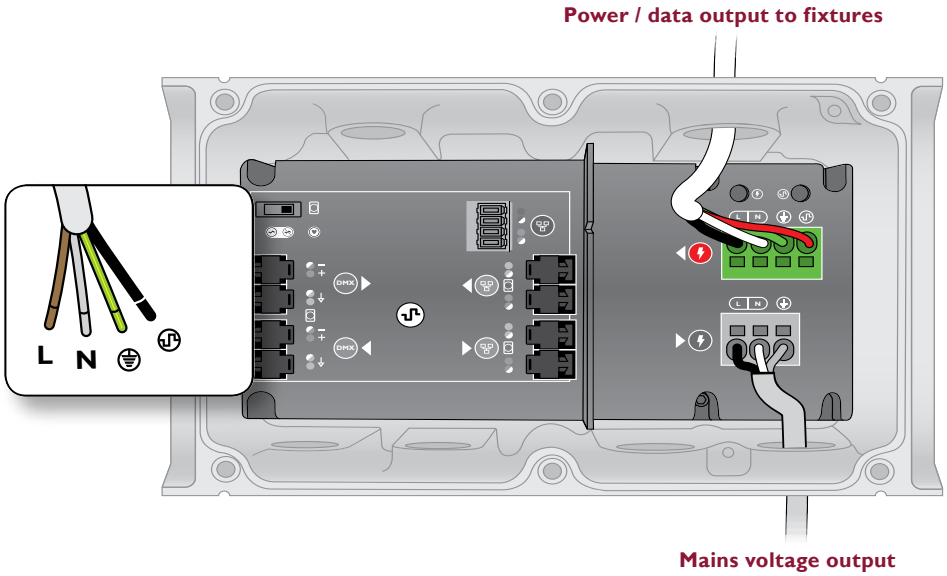


8. Run the wiring from the first junction box in the series to the Data Enabler Pro, or, if installing in parallel, run the wiring from the common junction box to the Data Enabler Pro. Secure connections within the Data Enabler Pro housing.



Data Enabler Pro

9. Secure the Data Enabler Pro cover. If installing in a wet or damp location, seal the Data Enabler Pro with electronics-grade RTV silicone sealant.



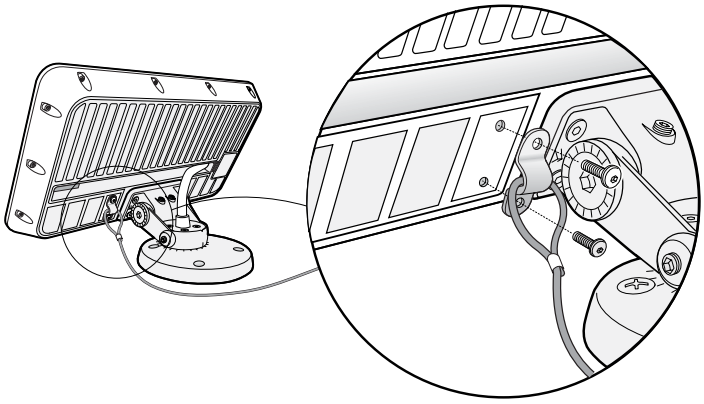
Refer to the Data Enabler Pro Product Guide for comprehensive installation and configuration instructions. You can view or download the guide from www.philipscolorkinetics.com/ls/pds/dataenablerpro

Attach Safety Cable (Optional)

Each ColorBlast Powercore fixture is designed for use with a safety cable to tether it to a secure anchor point. When dictated by local or state code or advised by a structural engineer, attach a safety cable to the bracket on the back of the fixture. Remove the two screws that attach the cable bracket, loop the safety cable over the cable bracket, and reattach to the fixture. Attach the safety cable to the mounting surface using a method that follows the code or engineer's requirements.

Safety cable minimum requirements

Material	316 Stainless Steel
Size	5/64 to 3/16 in (2 to 5 mm) nominal diameter. Minimum break load must be greater than 400 lb (181 kg)
Construction	7 x 7 (49 wires) preformed stranded



Address and Configure the Fixtures

Make sure the power is ON before addressing and configuring fixtures.

You address and configure ColorBlast Powercore fixtures using QuickPlay Pro addressing and configuration software, which you can download for free from www.philipscolorkinetics.com/support/addressing/

You will need the layout grid that you created when you recorded the serial numbers of the light fixtures in your installation.

- In Ethernet installations, you can address and configure your fixtures using QuickPlay Pro with a computer connected to your lighting installation's network. QuickPlay Pro can automatically discover all of your fixtures, controllers, and Data Enabler Pro devices for quick configuration.
- In DMX installations, you can address and configure your fixtures using QuickPlay Pro with iPlayer 3 or SmartJack Pro. You can manually enter fixture serial numbers, or you can import a spreadsheet listing each fixture's serial number and starting DMX address.

Addressing ColorBlast Powercore Fixtures

ColorBlast Powercore fixtures operate in 8-bit mode by default. You can configure ColorBlast Powercore to operate in 16-bit mode, which increases fixture resolution for smoother dimming.

In 8-bit mode, fixtures use one DMX address per LED channel (red, green, and blue). In 16-bit mode, fixtures use two DMX addresses per LED channel. The first DMX address corresponds to the "coarse" data for that channel, and the second corresponds to the "fine" data. By using double the number of DMX addresses, 16-bit mode increases fixture resolution from 256 dimming steps to 65,536 (256 x 256) dimming steps.

DMX Channel Assignments						
8-Bit Mode	1		2		3	
	Red		Green		Blue	
16-Bit Mode	1	2	3	4	5	6
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine

ColorBlast Powercore fixtures come factory-addressed with a starting DMX address of 1. For lighting designs where fixtures work in unison, all fixtures can be assigned the same starting DMX address. Changes to the default starting DMX address is not necessary, but if lights were previously readdressed for use in other installations, you must reset them. For light show designs that show different colors on different fixtures, you must assign unique DMX addresses to your fixtures and sort them in a useful order.

Setting Fixture Dimming Curve

Dimming curves describe how slowly or quickly a fixture dims at different levels of input. For finer control, ColorBlast Powercore offers three different dimming curves for use in different situations and applications:

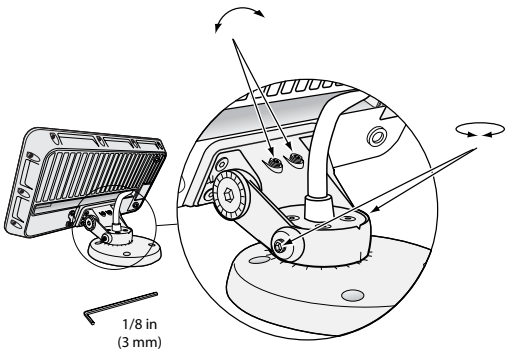
- **Normal**
  The non-linear (gamma) dimming curve used in most Philips Color Kinetics LED lighting fixtures. ColorBlast Powercore fixtures use the normal dimming curve by default.
- **Linear**
  A dimming curve with a linear relationship between power input and DMX output.
- **Tungsten**
  A non-linear dimming curve that emulates the dimming curve of incandescent lamps on a DMX dimmer. This curve offers the most control at low intensities.

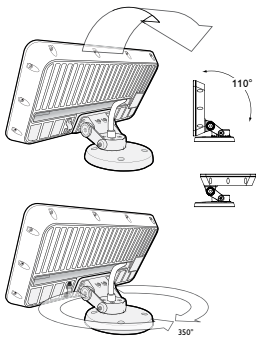
Setting LED Transition Speed

Normally, LEDs react to DMX or other control data instantaneously. In some cases, you may want to slow down the reaction speed to achieve smoother transitions when the intensity of different LED channels changes. ColorBlast Powercore offers five levels of decreasing LED transition speed, from Fast (instant snap changes) to Delay-4 (slowest transition speed).

Aim and Lock the Fixtures

Using the provided 1/8 in hex key wrench, loosen the rotation and tilting set screws. Aim the fixtures by rotating the base and tilting the beam as desired. Tighten the two pairs of set screws to lock the fixture in place.





Do not look directly into the fixture when aiming and locking.

For exterior applications with direct exposure to water, ColorBlast Powercore fixtures should not be aimed directly upwards, as water may pool on the lens and affect beam quality. Instead, the fixture should be angled to allow for proper water drainage.

Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com
@ColorKinetics

Cover Photo: Courtesy of Los Angeles World Airports

DAS-000008-00 R09 08-14

Date: _____ Type: _____

Firm Name: _____

Project: _____

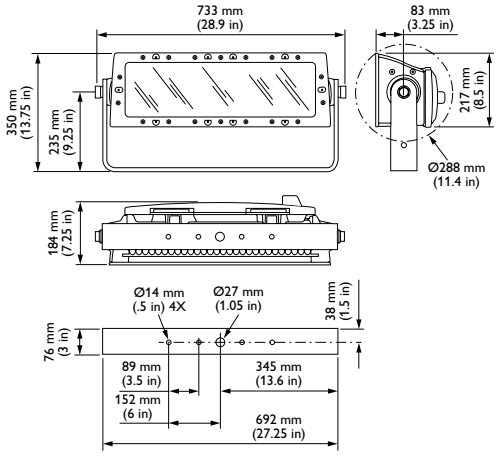
ColorReach Compact Powercore

5° native (no spread lens), UL / CE

Premium long-throw compact exterior LED floodlight with intelligent color light

ColorReach Compact Powercore combines all the benefits of LED-based lighting and control in a compact fixture specifically designed for large-scale installations, such as commercial skyscrapers, casinos, bridges, piers, public monuments, and themed attractions. With levels of light output and projection never before achieved in a compact LED lighting fixture, ColorReach Compact Powercore delivers intense, energy-efficient output at a reasonable price, opening up new possibilities for exterior illumination. Custom configurations with custom channels of white or color LED sources are also available to support special applications.

- Intense light output — ColorReach Compact Powercore outputs thousands of lumens and throws light hundreds of feet, delivering legitimate LED-based illumination of large-scale structures and objects in a compact, fully-sealed housing.
- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. Philips Data Enabler Pro merges line voltage and control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Versatile optics — Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Bezel and gasket are included with spread lenses for easy user installation.
- Saturated, cost-effective color — High-performance LEDs offer rich, saturated color at significantly less cost for installation, operation, and maintenance than traditional light sources.
- Simple fixture positioning — Rugged, slim-profile mounting bracket allows simple positioning and fixture rotation through a full 360°. Side locking bolts reliably secure fixture with a standard wrench.
- Universal power input range — Accepts a universal power input range of 100 – 277 VAC, allowing consistent installation in any location around the world.



- Industry-leading controls — Works seamlessly with the complete Philips Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.

For detailed product information, please refer to the ColorReach Compact Powercore Product Guide at www.philipscolorkinetics.com/ls/rgb/colorreachcompact/

PHILIPS

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	5° native (no spread lens)
	Lumens*	4505
	LED Channels	Red / Green / Blue
	Lumen Maintenance†	100,000 hours L70 @ 25° C 100,000 hours L70 @ 50° C
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	135 W
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	8.5 x 28.9 x 7.7 in (217 x 733 x 196 mm)
	Weight	51 lb (23 kg)
	Effective Projected Area (EPA)	0.186 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

* Lumen measurement complies with IES LM-79-08 testing procedures

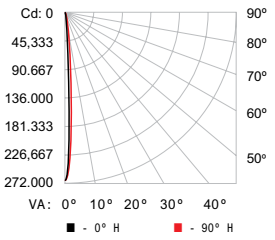
† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

CHROMACORE® CK TECHNOLOGY | OPTIBIN® CK TECHNOLOGY | POWERCORE® CK TECHNOLOGY

Photometrics

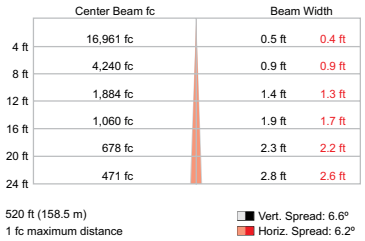
5° native (no spread lens)

Polar Candela Distribution



0	0	25	45	70	90
0	271369	271369	271369	271369	271369
5	49083	54543	55596	55014	56479
15	465	469	485	503	528
25	141	143	150	158	177
35	79	76	80	79	107
45	49	47	47	48	48
55	39	43	36	40	39
65	36	32	31	33	32
75	29	25	25	25	25
85	23	23	23	23	23
90	23	22	0	0	0

Illuminance at Distance



LED	Lumens	Efficacy
RGB	4505	36.8

For lux multiply fc by 10.7

Fixtures

Item	Type	Item Number	Philips 12NC
ColorReach Compact Powercore *Includes 3.0 m (10 ft) leader cable*	UL	123-000154-00	912400130183
	CE	123-000154-01	912400130195

Use Item Number when ordering in North America.

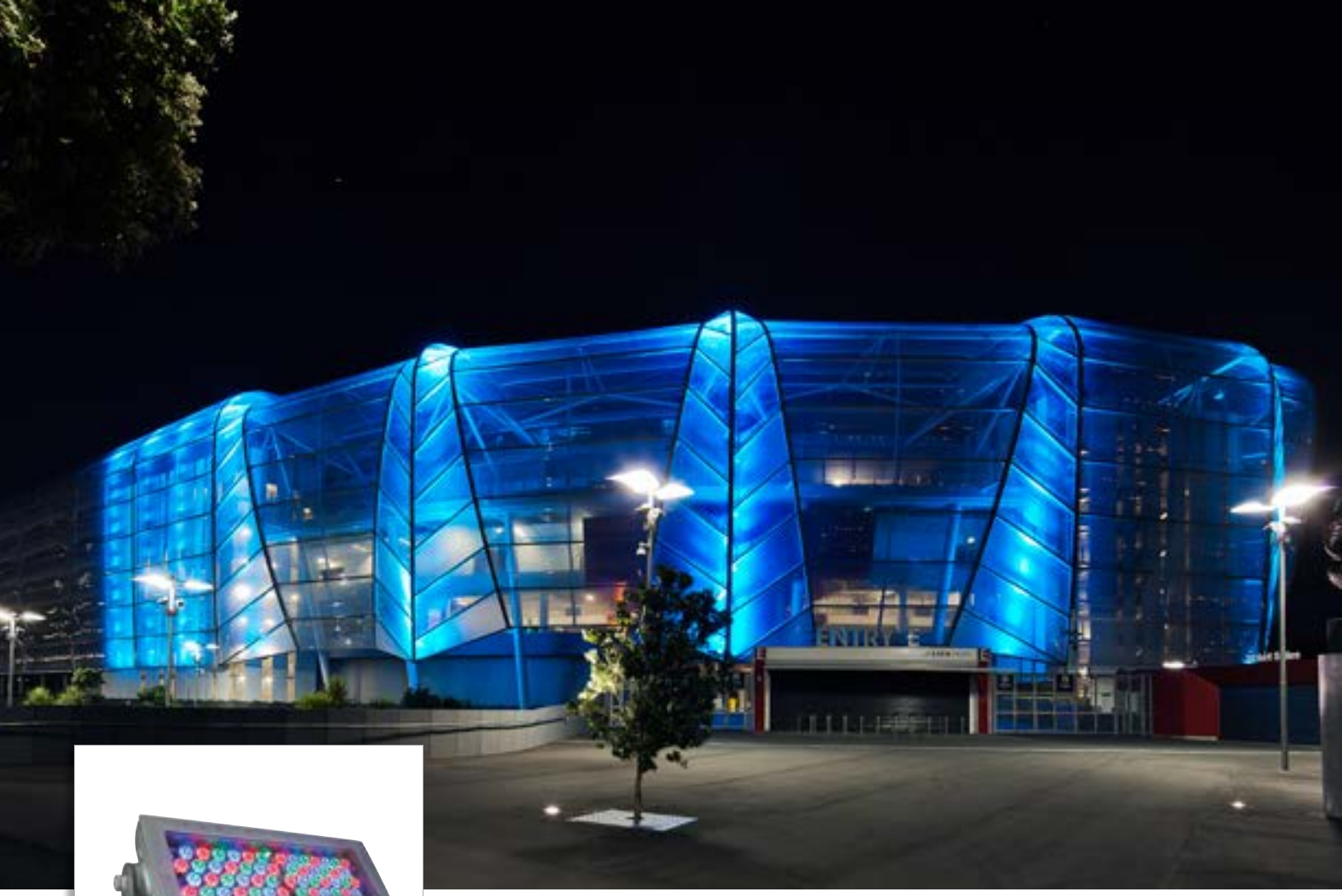
Accessories

Item	Type		Item Number	Philips 12NC
Replacement Leader Cable	UL	3.0 m (10 ft)	108-000055-03	910503704066
		15.2 m (50 ft)	108-000055-00	910503703137
	CE	3.0 m (10 ft)	108-000055-04	910503704067
		15.2 m (50 ft)	108-000055-01	910503704064
Spread Lens with bezel	13°		120-000068-00	910503700506
	23°		120-000068-01	910503700507
	40°		120-000068-02	910503700508
	63°		120-000068-03	910503700509
	Asymmetric (5° x 17°)		120-000068-04	910503700510
	8°		120-000068-05	910503700511
Data Enabler Pro	3/4 in / 1/2 in NPT (U.S. trade size conduit)		106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)		106-000004-01	910503701211

Use Item Number when ordering in North America.

Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com

DAS-000138-01 R00 8-14



ColorReach Compact Powercore

Premium long-throw compact exterior LED floodlight with intelligent color light

PHILIPS

COLOR KINETICS

ColorReach Compact Powercore

Premium long-throw compact exterior LED floodlight with intelligent color light

ColorReach Compact Powercore combines all the benefits of LED-based lighting and control in a compact fixture specifically designed for large-scale installations, such as commercial skyscrapers, casinos, bridges, piers, public monuments, and themed attractions. With levels of light output and projection never before achieved in a compact LED lighting fixture, ColorReach Compact Powercore delivers intense, energy-efficient output at a reasonable price, opening up new possibilities for exterior illumination. Custom configurations with custom channels of white or color LED sources are also available to support special applications.

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- Industry-leading controls — Works seamlessly with the complete Philips Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.

Intense light output
ColorReach Compact Powercore outputs thousands of lumens and throws light hundreds of feet, delivering legitimate LED-based illumination of large-scale structures and objects in a compact, fully-sealed housing.

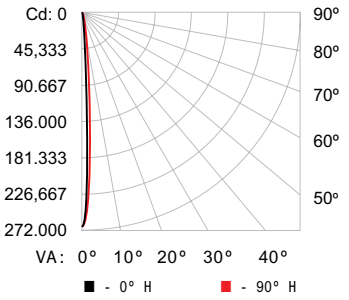
Photometrics / ColorReach Compact Powercore

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.philipscolorkinetics.com/support/ies.

5° (no spread lens)

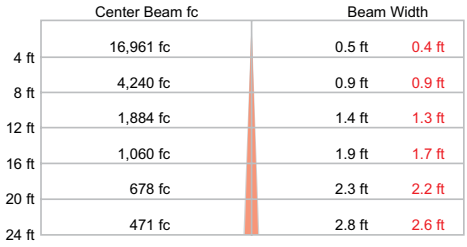
LED	Lumens	Efficacy
RGB	4505	36.8

Polar Candela Distribution



	0	25	45	70	90
0	271369	271369	271369	271369	271369
5	49083	54543	55596	55014	56479
15	465	469	485	503	528
25	141	143	150	158	177
35	79	76	80	79	107
45	49	47	47	48	48
55	39	43	36	40	39
65	36	32	31	33	32
75	29	25	25	25	25
85	23	23	23	23	23
90	23	22	0	0	0

Illuminance at Distance



520 ft (158.5 m)
1 fc maximum distance

Vert. Spread: 6.6°
Horiz. Spread: 6.2°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20		50	30	20		50	30	20		0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111		106	106	106		102	102	102		100
1	116	114	113	111	114	112	111	99	108	107	106		104	104	103		101	101	100		98
2	113	110	108	106	111	109	107	98	106	104	103		103	102	101		100	100	99		97
3	111	108	105	103	110	106	104	97	104	102	101		102	100	99		100	99	98		96
4	109	105	103	101	108	105	102	96	103	101	99		101	99	98		99	98	97		96
5	108	104	101	99	107	103	100	96	102	99	98		100	98	97		99	97	96		95
6	106	102	100	98	105	102	99	95	101	98	97		99	98	96		98	97	96		95
7	105	101	98	97	104	101	98	95	100	98	96		99	97	96		98	96	95		94
8	104	100	98	96	104	100	97	95	99	97	95		98	96	95		98	96	95		94
9	103	99	97	95	103	99	97	94	98	96	95		98	96	95		97	96	94		94
10	103	99	96	95	102	98	96	94	98	96	94		97	96	94		97	95	94		93

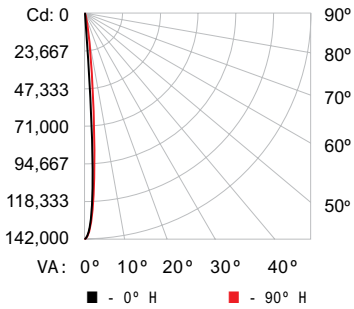
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	4419.9	98.1 %
60 - 90	84.9	1.9 %
0 - 90	4504.8	100.0 %

8° spread lens

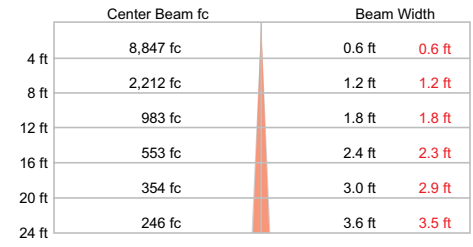
LED	Lumens	Efficacy
RGB	4111	32.3

Polar Candela Distribution



	0	25	45	70	90
0	141546	141546	141546	141546	141546
5	51073	54259	54274	56276	58731
15	634	643	668	690	714
25	169	169	173	173	185
35	96	95	91	90	109
45	54	51	49	51	52
55	40	41	35	37	37
65	31	30	27	27	27
75	24	23	22	22	22
85	21	20	20	20	20
90	20	20	0	0	0

Illuminance at Distance



376 ft (114.6 m)
1 fc maximum distance

Vert. Spread: 8.5°
Horiz. Spread: 8.4°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20		50	30	20		50	30	20		0
RCR: 0	119	119	119	119	116	116	116	100	116	100	97		111	111	111		106	106	106		100
1	116	114	112	111	113	112	111	98	113	99	96		108	107	106		104	104	103		98
2	113	110	108	106	111	109	107	97	111	97	94		106	104	102		103	102	100		97
3	111	107	105	102	109	106	104	96	109	96	93		104	102	100		102	100	99		96
4	109	105	102	100	108	104	101	96	108	96	93		102	100	98		100	99	97		95
5	107	103	100	98	106	102	100	95	106	95	92		101	99	97		100	98	96		94
6	106	102	99	97	105	101	98	94	105	94	91		100	98	96		99	97	95		94
7	105	100	98	96	104	100	97	94	104	93	91		99	97	95		98	96	95		93
8	104	99	97	95	103	99	96	93	103	93	90		98	96	94		97	95	94		93
9	103	98	96	94	102	98	96	93	102	92	90		97	95	94		97	95	93		93
10	102	97	95	93	101	97	95	93	101	92	89		97	95	93		96	94	93		92

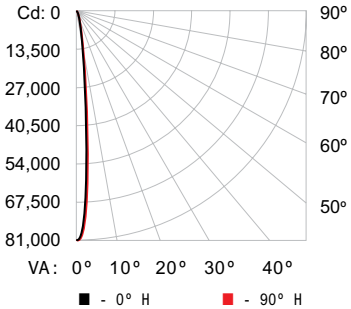
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	4035.4	98.2 %
60 - 90	75.1	1.8 %
0 - 90	4110.6	100.0 %

13° spread lens

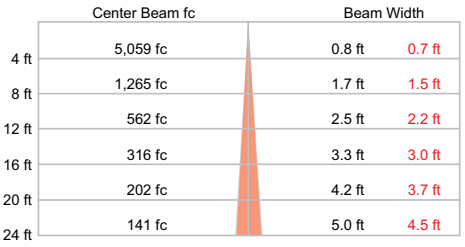
LED	Lumens	Efficacy
RGB	4053	31.8

Polar Candela Distribution



	0	25	45	70	90
0	80949	80949	80949	80949	80949
5	46190	46041	45544	45473	46699
15	1520	1484	1350	1197	1167
25	182	182	181	178	183
35	103	101	96	94	105
45	57	54	51	51	53
55	40	38	36	36	36
65	30	30	28	28	27
75	24	23	22	22	22
85	20	20	20	20	20
90	20	0	0	0	0

Illuminance at Distance



285 ft (86.8 m)
1 fc maximum distance

Vert. Spread: 11.9°
Horiz. Spread: 10.7°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20		50	30	20		50	30	20		0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111		106	106	106		102	102	102		100
1	116	114	112	111	113	112	110	98	108	107	106		104	103	102		101	100	100		98
2	113	110	107	105	111	108	106	97	105	103	102		102	101	100		100	99	98		96
3	110	107	104	101	109	105	103	96	103	101	99		101	99	98		99	97	96		95
4	108	104	101	99	107	103	100	94	101	99	97		99	98	96		98	96	95		94
5	106	102	99	97	105	101	98	94	100	97	95		98	96	95		97	95	94		93
6	105	100	97	95	104	100	97	93	98	96	94		97	95	93		96	94	93		92
7	103	99	96	94	102	98	95	92	97	95	93		96	94	92		95	93	92		91
8	102	97	94	92	101	97	94	91	96	94	92		95	93	92		95	93	91		91
9	101	96	93	91	100	96	93	91	95	93	91		95	92	91		94	92	91		90
10	100	95	92	91	99	95	92	90	94	92	90		94	92	90		93	91	90		89

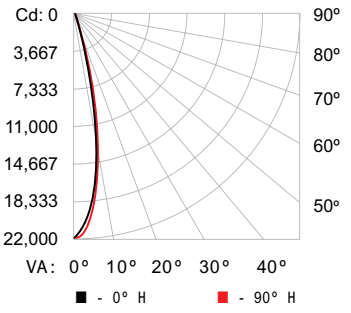
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3979.5	98.2 %
60 - 90	73.9	1.8 %
0 - 90	4053.4	100.0 %

23° spread lens

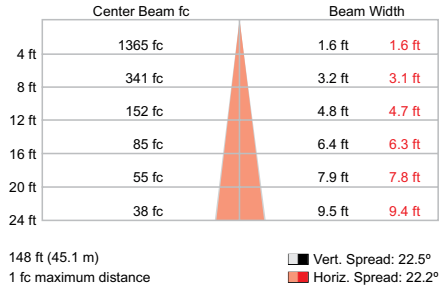
LED	Lumens	Efficacy
RGB	4063	32.0

Polar Candela Distribution



	0	25	45	70	90
0	21836	21836	21836	21836	21836
5	18700	19044	19314	19604	19751
15	6286	6627	6843	7046	7140
25	850	900	916	939	955
35	131	132	130	131	133
45	69	69	67	67	68
55	48	47	46	45	45
65	35	35	34	33	33
75	26	26	25	24	24
85	20	20	20	20	20
90	19	9	7	3	0

Illuminance at Distance



148 ft (45.1 m)
1 fc maximum distance

Vert. Spread: 22.5°
Horiz. Spread: 22.2°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	115	112	110	109	112	110	109	96	106	105	104	103	102	101	99	98	98	96
2	111	107	104	101	109	105	103	93	102	100	98	99	98	96	97	95	94	93
3	107	102	99	96	105	101	98	90	99	96	94	96	94	92	94	92	91	89
4	104	99	95	91	102	97	94	87	96	92	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	85	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	83	90	87	84	89	86	83	88	85	83	82
7	96	89	85	82	95	89	85	81	88	84	82	87	83	81	86	83	81	80
8	93	87	83	80	92	86	82	79	85	82	79	84	81	79	84	81	79	78
9	91	84	80	78	90	84	80	77	83	80	77	82	79	77	82	79	77	76
10	89	82	78	76	88	82	78	75	81	78	75	81	77	75	80	77	75	74

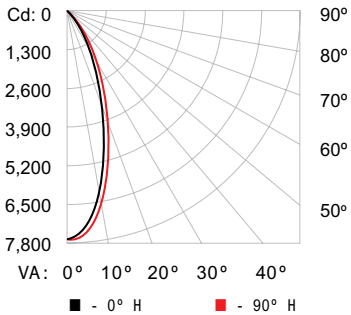
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3981.5	98.0 %
60 - 90	81.6	2.0 %
0 - 90	4063.1	100.0 %

40° spread lens

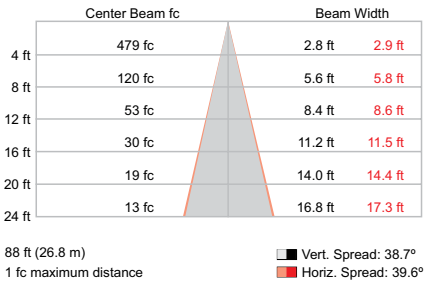
LED	Lumens	Efficacy
RGB	4028	31.6

Polar Candela Distribution



	0	25	45	70	90
0	7659	7659	7659	7659	7659
5	7135	7226	7287	7380	7432
15	4812	4985	5142	5340	5442
25	2266	2399	2536	2720	2812
35	719	778	840	930	981
45	177	193	202	220	235
55	70	72	72	71	72
65	45	45	43	42	42
75	29	29	27	27	27
85	19	19	18	18	18
90	18	18	18	18	18

Illuminance at Distance



88 ft (26.8 m)
1 fc maximum distance

Vert. Spread: 38.7°
Horiz. Spread: 39.6°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	106	94	105	103	101	101	100	98	97	96	95	94
2	108	104	100	96	106	102	98	88	99	96	93	96	93	91	93	91	89	88
3	103	97	92	89	101	96	91	83	93	90	87	91	88	85	89	86	84	82
4	99	92	86	82	97	90	86	79	88	84	81	86	83	80	84	82	79	78
5	94	86	81	77	93	86	80	74	84	79	76	82	78	75	81	77	75	73
6	90	82	76	72	89	81	76	70	80	75	72	78	74	71	77	73	71	69
7	86	78	72	68	85	77	72	67	76	71	68	75	70	67	74	70	67	66
8	83	74	68	65	82	73	68	64	72	68	64	71	67	64	70	67	64	62
9	79	70	65	61	78	70	65	61	69	64	61	68	64	61	67	64	61	59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	65	61	58	57

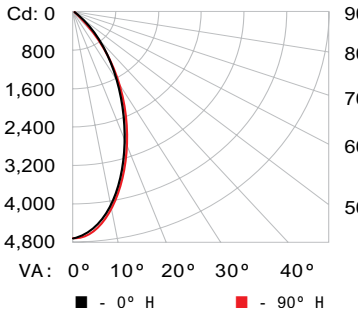
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3934.8	97.7 %
60 - 90	93.2	2.3 %
0 - 90	4028.1	100.0 %

63° spread lens

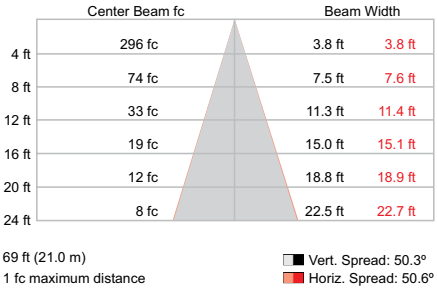
LED	Lumens	Efficacy
RGB	4009	31.5

Polar Candela Distribution



	0	25	45	70	90
0	4733	4733	4733	4733	4733
5	4524	4533	4551	4586	4611
15	3543	3568	3595	3658	3722
25	2269	2219	2204	2231	2285
35	1149	1062	1016	1000	1025
45	473	405	367	350	358
55	172	140	124	116	119
65	70	61	56	51	50
75	35	31	28	25	24
85	18	17	17	16	16
90	16	0	0	0	0

Illuminance at Distance



69 ft (21.0 m)
1 fc maximum distance

Vert. Spread: 50.3°
Horiz. Spread: 50.6°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	108	105	92	103	101	100	100	98	97	96	95	94	92
2	106	101	97	93	104	99	95	85	96	93	90	93	90	88	90	88	86	84
3	101	93	88	84	98	92	87	78	89	85	82	87	83	80	85	82	79	77
4	95	87	81	76	93	86	80	73	83	79	75	81	77	74	79	76	73	71
5	90	81	74	70	88	80	74	67	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	75	68	63	73	68	64	72	67	63	70	66	63	61
7	81	71	64	60	79	70	64	58	69	63	59	67	62	59	66	62	58	57
8	76	66	60	56	75	66	60	55	65	59	55	64	59	55	63	58	55	53
9	73	62	56	52	72	62	56	51	61	56	52	60	55	52	59	55	51	50
10	69	59	53	49	68	59	53	48	58	52	49	57	52	48	56	52	48	47

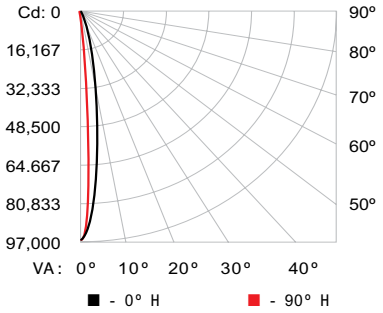
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3877.6	96.7 %
60 - 90	131.0	3.3 %
0 - 90	4008.6	100.0 %

5x17° spread lens

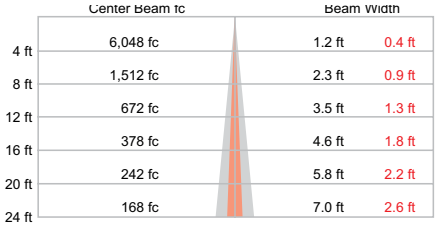
LED	Lumens	Efficacy
RGB	4084	32.1

Polar Candela Distribution



	0	25	45	70	90
0	96765	96765	96765	96765	96765
5	69434	57305	38831	23251	20218
15	9262	1558	619	428	416
25	572	191	161	150	153
35	166	99	91	79	82
45	98	56	49	46	46
55	66	39	34	35	35
65	46	31	27	26	25
75	30	24	22	21	21
85	20	19	20	20	20
90	19	0	0	0	0

Illuminance at Distance



311 ft (94.7 m)
1 fc maximum distance

Vert. Spread: 16.5°
Horiz. Spread: 6.3°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	110	113	112	110	98	108	106	105	104	103	102	101	100	99	98
2	113	109	107	105	111	108	105	96	105	103	101	102	100	99	99	98	97	96
3	110	106	103	101	108	105	102	95	102	100	98	100	98	97	98	97	95	94
4	108	103	100	98	106	102	99	94	100	98	96	99	97	95	97	95	94	93
5	106	101	98	95	104	100	97	92	99	96	94	97	95	93	96	94	93	92
6	104	99	96	94	103	98	95	91	97	95	93	96	94	92	95	93	92	91
7	102	97	94	92	101	97	94	90	96	93	91	95	93	91	94	92	91	90
8	101	96	93	91	100	96	93	90	95	92	90	94	92	90	93	91	90	89
9	99	95	92	90	99	94	91	89	94	91	89	93	91	89	92	90	89	88
10	98	93	91	89	98	93	90	88	93	90	88	92	90	88	91	89	88	87

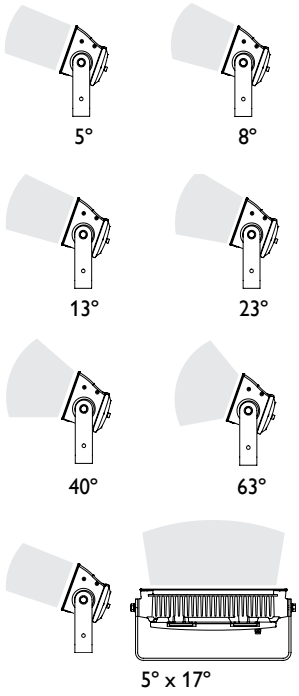
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	4008.1	98.1 %
60 - 90	75.8	1.9 %
0 - 90	4083.9	100.0 %

Specifications, UL / CE

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Output	Beam Angle	5° native 8°, 13°, 23°, 40°, 63°, and 5° x 17° (asymmetric) spread lenses
	Lumens*	4,505 (full unit, no spread lens)
	LED Channels	Red / Green / Blue
	Lumen Maintenance†	100,000 hours L_{70} @ 25° C 100,000 hours L_{70} @ 50° C
Electrical	Input Voltage	100 – 277 VAC, auto-ranging, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	135 W
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *Height x Width x Depth*	8.5 x 28.9 x 7.7 in (217 x 733 x 196 mm)
	Weight	51 lb (23 kg)
	Effective Projected Area (EPA)	0.186 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66



* Lumen measurement complies with IES LM-79-08 testing procedures

† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

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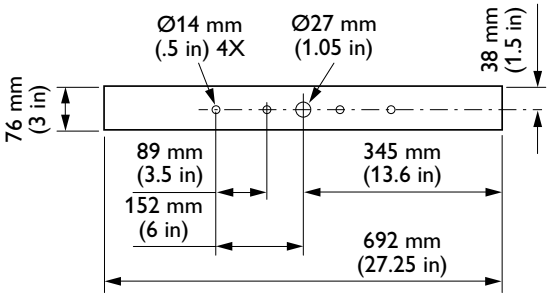
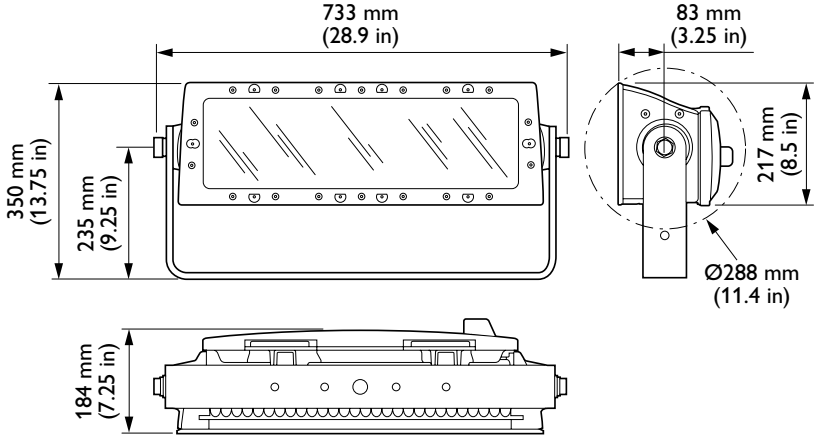
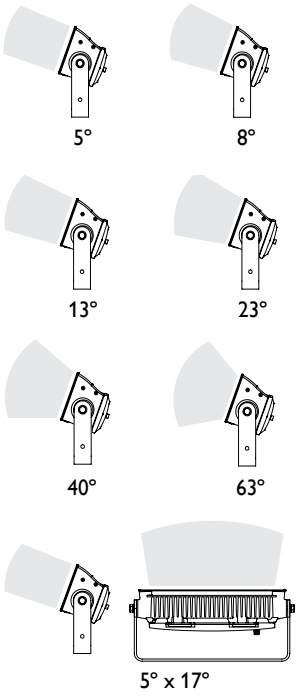




Specifications, CQC

Due to continuous improvements and innovations, specifications may change without notice.



Item	Specification	Details
Output	Beam Angle	5° native 8°, 13°, 23°, 40°, 63°, and 5° x 17° (asymmetric) spread lenses
	Lumens*	4,505 (full unit, no spread lens)
	LED Channels	Red / Green / Blue
	Lumen Maintenance†	100,000 hours L_{70} @ 25° C 100,000 hours L_{70} @ 50° C
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	130 W
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *Height x Width x Depth*	8.5 x 28.9 x 7.7 in (217 x 733 x 196 mm)
	Weight	51 lb (23 kg)
	Effective Projected Area (EPA)	0.186 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	CE, CQC, FCC Class A, PSE
	Environment	Dry / Damp / Wet Location, IP66

* Lumen measurement complies with IES LM-79-08 testing procedures

† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

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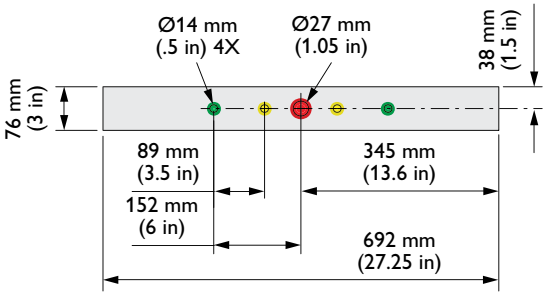
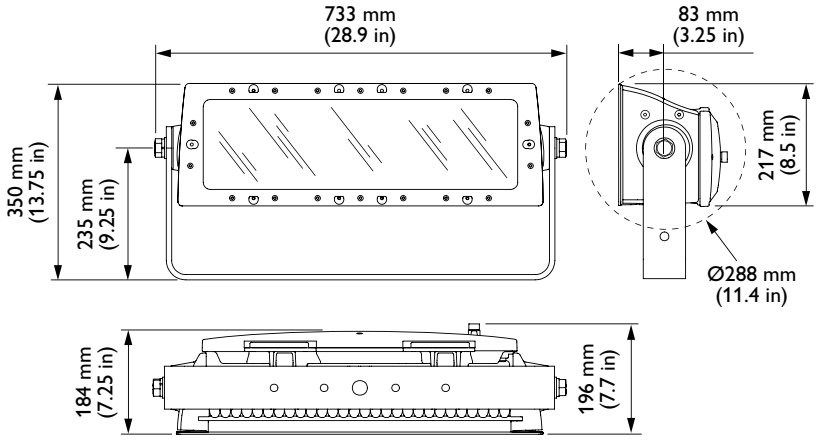




Fixture and Accessories

ColorReach Compact Powercore fixtures are part of a complete line-voltage system which includes fixtures and:

- One or more Data Enabler Pro devices.
- Any Philips Color Kinetics controller, including Light System Manager, iPlayer 3, and ColorDial Pro, or a third-party controller.
- One 1.8 m (6 ft) leader cable to connect each ColorReach Compact Powercore fixture to a junction box or Data Enabler Pro.
- 4-conductor copper wire to connect ColorReach Compact Powercore fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended.

Item	Type		Item Number	Philips 12NC
ColorReach Compact Powercore *Includes 10 ft (3 m) leader cable*	UL / cUL		123-000154-00	912400130183
	CE / PSE		123-000154-01	912400130195
ColorReach Compact Powercore *Includes 6 ft (1.8 m) leader cable*	CQC		123-000078-02	912400130193
Leader Cable, 100–277 V,AC UL / CE	UL	3 m (10 ft)	108-000055-03	910503704066
		15.2 m (50 ft)	108-000055-00	910503703137
	CE / PSE	3 m (10 ft)	108-000055-04	910503704067
		15.2 m (50 ft)	108-000055-01	910503704064
Leader Cable, 100–240 VAC, CQC	CQC / CE	1.8 m (6 ft)	108-000043-03	910503700454
Spread Lens with bezel	13°		120-000068-00	910503700506
	23°		120-000068-01	910503700507
	40°		120-000068-02	910503700508
	63°		120-000068-03	910503700509
	Asymmetric (5° x 17°)		120-000068-04	910503700510
	8°		120-000068-05	910503700511
Data Enabler Pro	3/4 in / 1/2 in NPT (U.S. trade size conduit)		106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)		106-000004-01	910503701211

Use Item Number when ordering in North America.

Custom Configurations

In addition to the standard configurations listed here, custom configurations are also available with a non-standard color and color temperature. See the ColorReach Compact Powercore Ordering Information sheet at www.philipscolorkinetics.com/ls/rgb/colorreachcompact/ for complete details.

Component	Available Non-Standard Options
Color Temperature	2700K, 3000 K, 3500 K, 4000 K, 5000 K, 5500 K, 6000 K, 6500 K
Color	Royal Blue, Blue, Green, Amber, Red

Installation

ColorReach Compact Powercore, a high-performance exterior architectural floodlight with light projection of up to 448 ft (136.6 m), is designed to brilliantly and dynamically illuminate prominent, signature façades. Because each ColorReach Compact Powercore fixture weighs 51 lb (23 kg), you may need two people to lift the fixture out of the box and position it in the mounting location. Optional accessory optics require the installation of both a spread lens and a bezel on each half of the fixture.

Owner / User Responsibilities

Refer to the ColorReach Compact Powercore Installation Instructions for specific warning and caution statements.

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate ColorReach Compact Powercore fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

Installing in Damp or Wet Locations

When installing in damp or wet locations, you must seal all junction boxes and Data Enabler Pro devices with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, fixtures, or other electrical parts. You must use suitable outdoor-rated junction boxes when installing in wet or damp locations. Additionally, you must use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes.

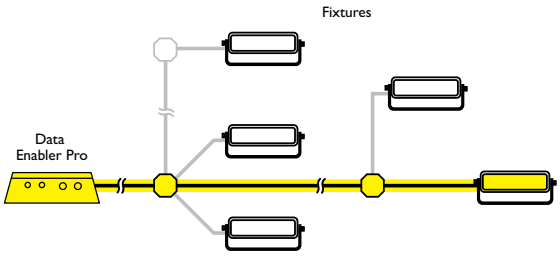
Prepare for the Installation

To streamline the configuration of complex installations, record the serial number (DMX) or IP address (Ethernet) and location of each Data Enabler Pro..

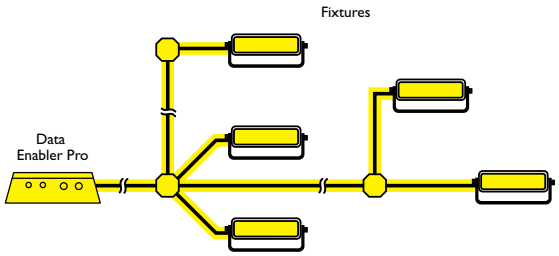
1. Refer to the lighting design plan, architectural diagram, or other diagram that shows the physical layout of the installation to identify the locations of all switches, controllers, Data Enabler Pro devices, fixtures, and cables.

   ColorReach Compact Powercore fixtures can be installed in series or in parallel (wired to a common junction box). The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture spacing, circuit size, line voltage, and method of connection (in series or in parallel). For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.

   In addition to maximum fixture run lengths determined by the electrical configuration, each Data Enabler Pro imposes maximum run lengths based on data integrity. To ensure data integrity, maximum individual run length should not exceed 175 feet (53.3 m), and the total cable length per Data Enabler Pro should not exceed 400 feet (122 m).



Data Integrity – maximum individual length 175 ft (53.3 m)



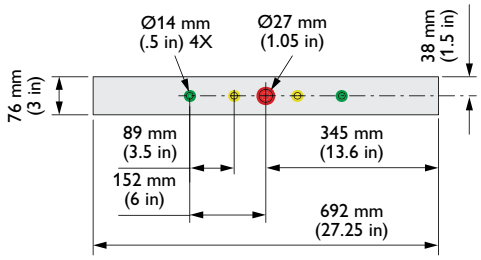
Data Integrity – total length 400 ft (122 m)

2. Ensure that the fixture mounting locations and substrates are sufficiently sturdy to bear the weight of each ColorReach Compact Powercore fixture. Pre-drill holes in the mounting substrate if necessary, making reference to the mounting bracket dimensions. Use at least two screws to secure each fixture, one on either side of the mounting bracket's central screw hole.

   If mounting ColorReach Compact Powercore on a lighting pole, make sure the pole can both support the total weight of the fixtures and withstand the maximum velocity winds to which it will be subjected. Each fixture weighs 51 lb (23 kg), and has an effective projected area (EPA) of 0.186 m^2.

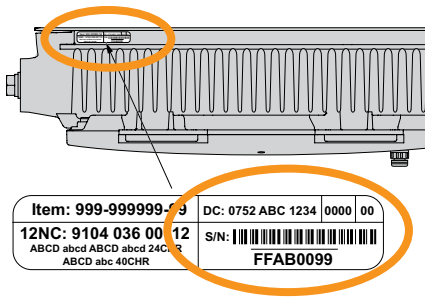
3. Install all Data Enabler Pro devices, including any interfaces with controllers. Data Enabler Pro and external controllers send power and control signals to fixtures over the single leader cable.
4. Verify that all additional supporting equipment (switches, controllers) is in place.
5. Ensure that all additional parts and tools are available, including:
   - A 28 mm hex or adjustable wrench for adjusting the locking bolts on the fixture bracket.
   - One electrical junction box per fixture, rated for your application. (Refer to the junction box manufacturer's literature for additional items required for mounting or sealing.)
   - A sufficient length of 4-conductor copper wire. We recommend 12 AWG (2.05 mm) stranded wire.
   - Conduit as required.
   - Electronics-grade room temperature vulcanizing (RTV) silicone sealant.

Mounting bracket dimensions for pre-drilling

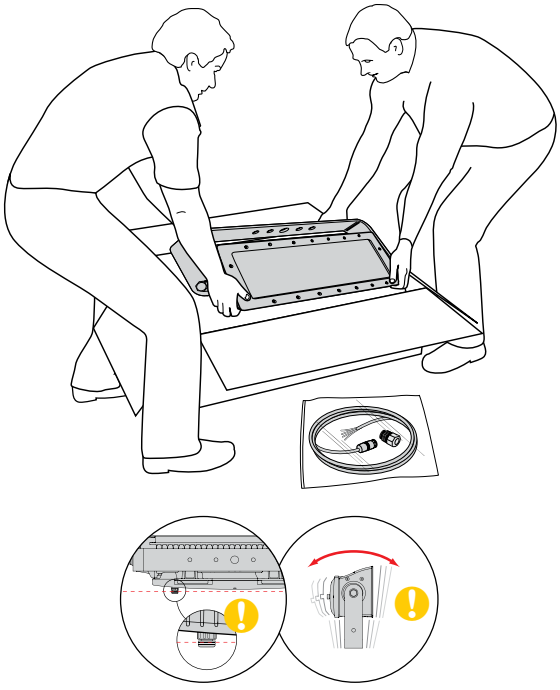


Unpack the Fixtures

1. Unpack ColorReach Compact Powercore fixtures. Because each ColorReach Compact Powercore fixture weighs 51 lb (23 kg), you may need two people to lift the fixture out of the box and position it in the mounting location.
2. Each ColorReach Compact Powercore fixture comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.
3. Assign each fixture to a position in the lighting design plan.



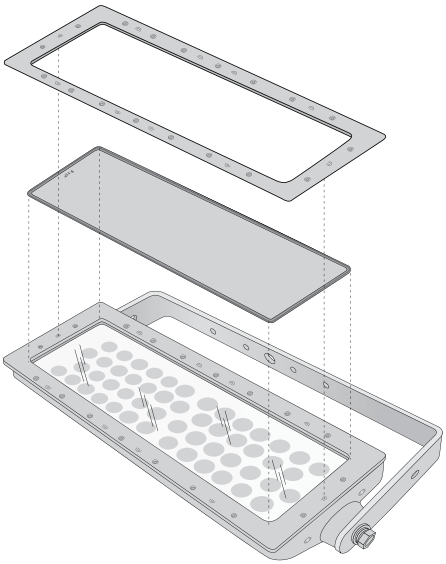
4. To streamline installation and aid in light show programming, you can affix a weatherproof label identifying the order or placement in the installation to an inconspicuous location on each light fixture's housing.



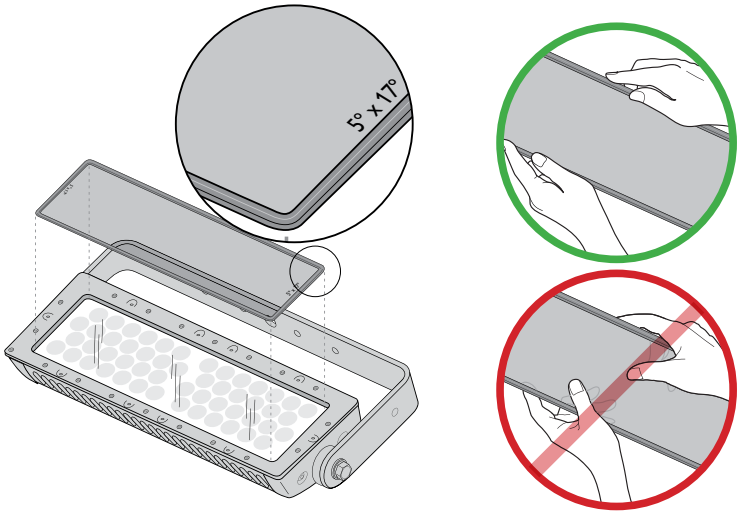
Do not rest ColorReach Compact Powercore on its back, as doing so may damage the connector port. Be careful not to tip the fixture over during positioning.

Attach Spread Lenses (Optional)

Exchangeable ColorReach Powercore gen2 spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 17° x 5° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Each half of ColorReach Powercore gen2 can be individually addressed and controlled, and you can install different spread lenses on each half of the fixture's housing for precise control of light diffusion.

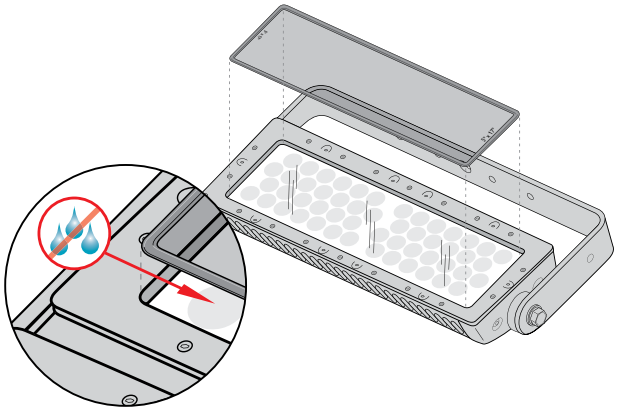


1. Unpack and confirm the contents of the box. Each box contains one lens kit, consisting of a spread lens with attached rubber gasket, and a bezel with 10 captured mounting screws.
2. Clean both sides of the spread lens and the face of the ColorReach Powercore gen2 housing, including glass surfaces, using a mild, non-abrasive cleaner. Ensure that all surfaces are dry, and that the gasket is properly fitted to the lens.
3. Position the spread lens so that the beam-angle designation on the side of the lens is face up. Handle the spread lens by the gasket, making sure not to touch or soil either surface of the spread lens.

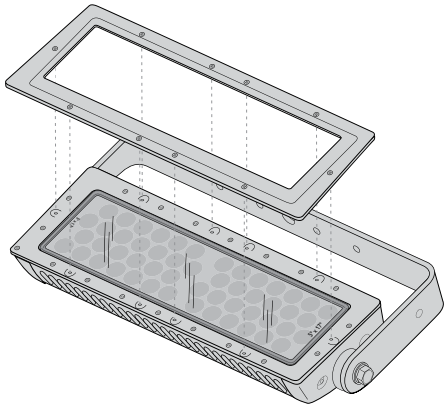


4 Place the spread lens on top of the ColorReach Powercore gen2 housing. Make sure that the spread lens and gasket are seated properly within the fixture housing. Also make sure that there is no moisture between the spread lens and the glass, as any moisture will compromise the effectiveness of the spread lens.

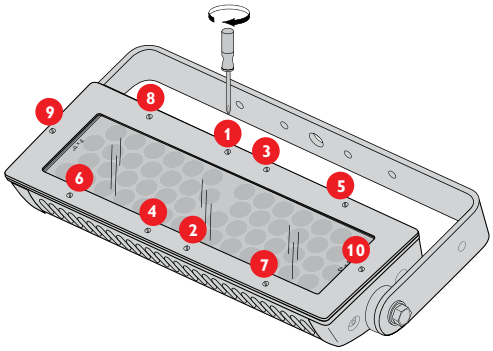
For installation in extreme environments, refer to the Reach Spread Lens Kit Installation Instructions for details on sealing the spread lens and bezel to prohibit water ingress.



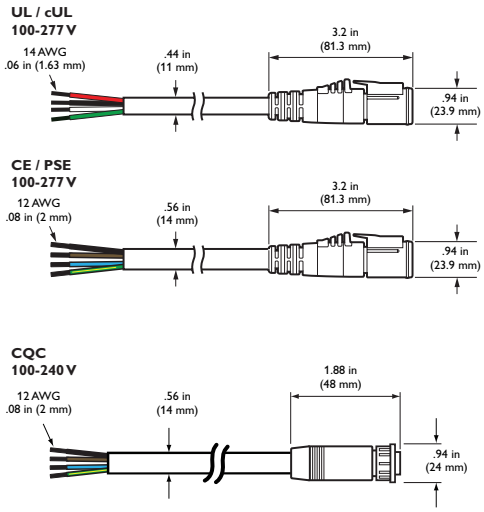
5. Position the bezel over the spread lens.



6. With a standard #2 Phillips screwdriver, attach the bezel to the fixture housing using the screws provided. To ensure a watertight seal, tighten the screws to approximately 20 – 30 in-lbs (2.2 – 3.4 Nm) in the sequence shown below.

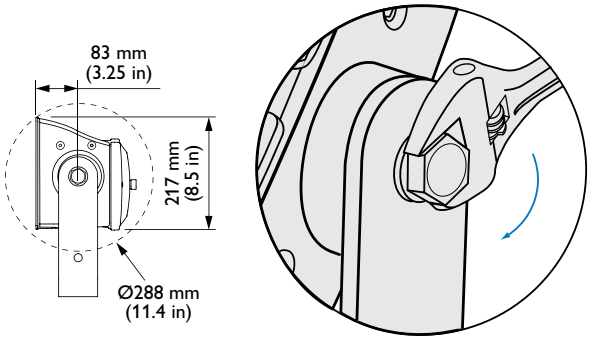


Leader Cable connector dimensions

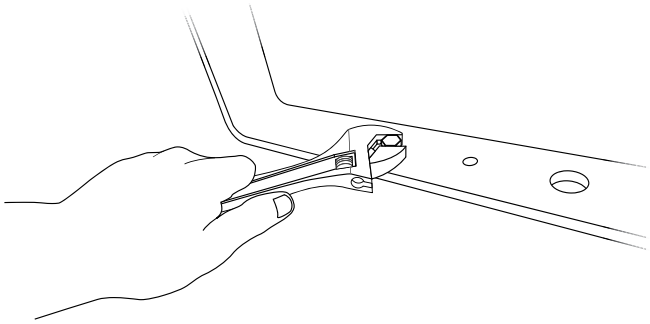


Position and Mount Fixtures

1. Position each ColorReach Compact Powercore fixture in its designated mounting location. Make sure the mounting area is clear of debris and other obstructions.
2. Loosen the locking bolts, using a 28 mm hex or adjustable wrench, and rotate the fixture to access the mounting bracket. Tilting the fixture 90° affords 9.1 in (231 mm) clearance.



3. If mounting holes have been pre-drilled, align the mounting bracket's screw holes with the pre-drilled holes. Mount the fixture bracket using hardware appropriate for the mounting substrate. Use at least two screws to secure each fixture, one on either side of the mounting bracket's central screw hole.



Connect the Fixtures

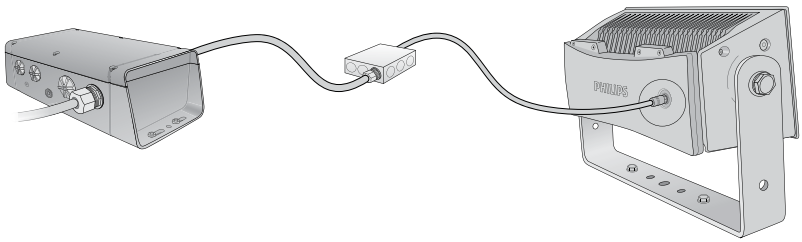
Make sure the power is OFF before connecting ColorReach Compact Powercore fixtures.

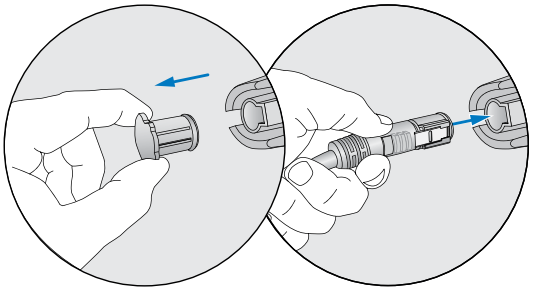
1. Mount junction boxes in accordance with the lighting design plan.
2. If installing fixtures in a series, pull 4-conductor copper wire between each junction box in the series.

   If installing fixtures in parallel, pull 4-conductor copper wire from a common junction box to each fixture's junction box.

   The maximum cable run from a Data Enabler Pro to any individual ColorReach Compact Powercore fixture is 175 feet (53 m). When installing in parallel, the total cable length cannot exceed 400 feet (122 m).

3. If necessary, remove the connector cap from the port on the back of the ColorReach Compact Powercore housing. Insert the leader cable into the port. Turn the leader cable's lock nut to the right until it locks into place.





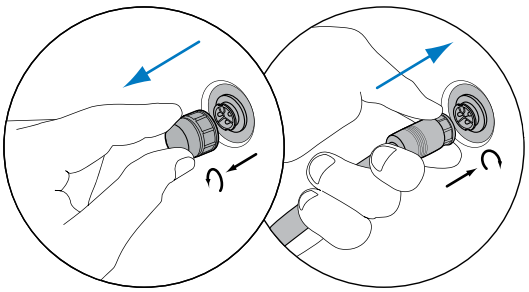
UL / CE (100–277 VAC)

4. Use wire nuts to connect line, neutral, ground, and data. If installing in series, connect the leader cable from each fixture to the fixture's junction box.

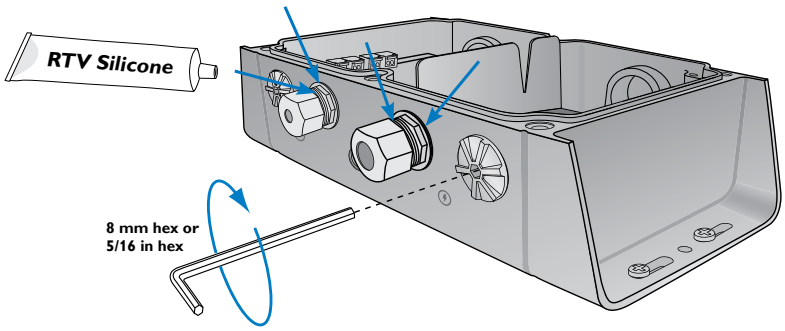
   If installing in parallel, connect the leader cable from each fixture to the lead wire from the Data Enabler Pro in the common junction box.

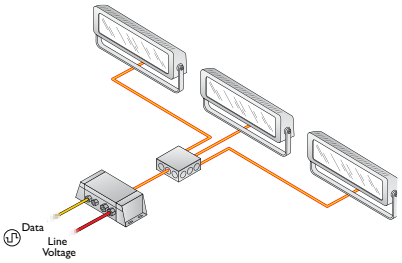
5. Tuck wire connections into the junction box.

6. Seal all junction boxes with electronics-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.



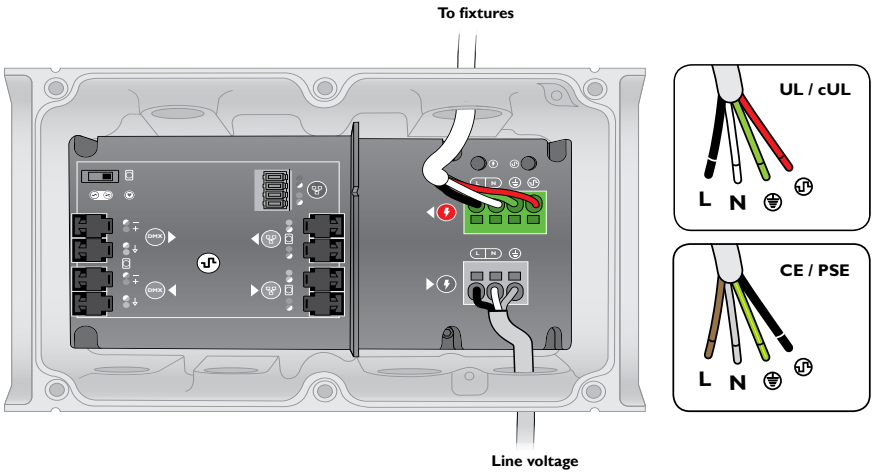
CQC (100–240 VAC)





ColorReach Compact Powercore fixtures installed in parallel

7. Run the wiring from the first junction box in the series to the Data Enabler Pro, or, if installing in parallel, run the wiring from the common junction box to the Data Enabler Pro. Secure connections within the Data Enabler Pro housing.



8. Secure the Data Enabler Pro cover. Seal the Data Enabler Pro with electronics-grade RTV silicone sealant.

Address the Fixtures

Make sure the power is ON before addressing and configuring fixtures.

ColorReach Compact Powercore fixtures operate in 8-bit mode by default. You can configure ColorReach Compact Powercore to operate in 16-bit mode, which increases fixture resolution for smoother dimming.

In 8-bit mode, fixtures use one DMX address per LED channel (red, green, and blue). In 16-bit mode, fixtures use two DMX addresses per LED channel. The first DMX address corresponds to the "coarse" data for that channel, and the second corresponds to the "fine" data. By using double the number of DMX addresses, 16-bit mode increases fixture resolution from 256 dimming steps to 65,536 (256 x 256) dimming steps.

DMX Channel Assignments						
8-Bit Mode	1		2		3	
	Red		Green		Blue	
16-Bit Mode	1	2	3	4	5	6
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine

You can address fixtures and switch between 8-bit mode and 16-bit mode using QuickPlay Pro.You can download QuickPlay Pro from www.philipscolorkinetics.com/support/addressing/

Each 1 ft (305 mm) ColorReach Compact Powercore node comes factory-addressed with a starting DMX address of 1. For lighting designs where fixture nodes work in unison, all nodes can be assigned the same DMX addresses. Changes to the default addresses are not necessary, but if nodes were previously readdressed for use in other installations, you must reset them. For light show designs that show different colors on different nodes, you must assign unique DMX addresses to your nodes and sort them in a useful order.

You will need the layout grid that you created when you recorded the serial numbers of the light fixtures in your installation.

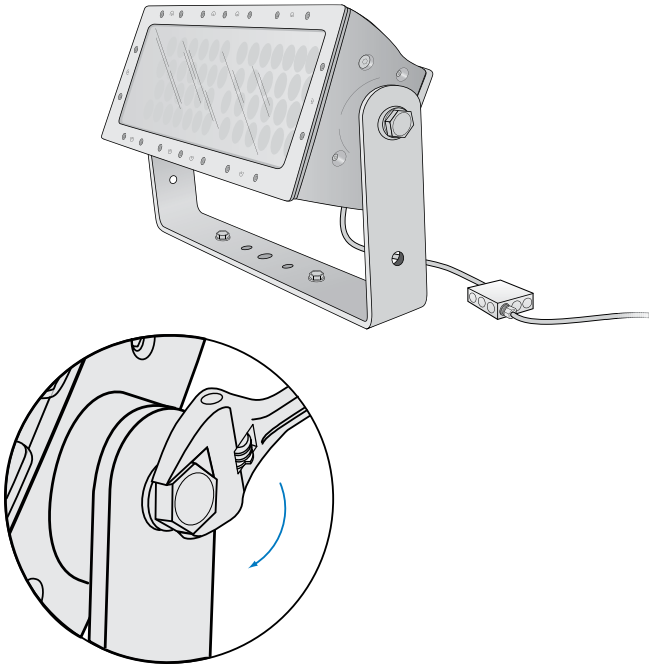
- In Ethernet installations, you can address and configure fixture nodes using QuickPlay Pro with a computer connected to your lighting installation's network. QuickPlay Pro can automatically discover all fixture nodes, controllers, and Data Enabler Pro devices for quick configuration.
- In DMX installations, you can address and configure fixture nodes using QuickPlay Pro with iPlayer 3 or SmartJack Pro. You can manually enter fixture node serial numbers, or you can import a spreadsheet listing each fixture node's serial number and starting DMX address.

For details on addressing and configuring fixtures, controllers, and power / data supplies with QuickPlay Pro, refer to the *Addressing and Configuration Guide*, which you can view or download at www.philipscolorkinetics.com/support/addressing.

Aim and Lock the Fixtures

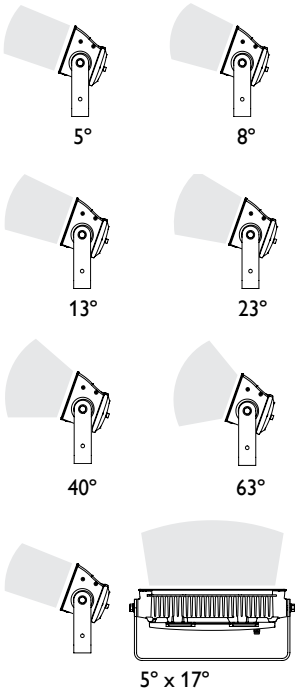
Make sure power is ON before aiming fixtures.

1. Aim the fixtures by rotating each fixture to the correct angle.
2. Lock the fixtures by tightening the locking bolts using a 28 mm hex or adjustable wrench.



Do not look directly into the fixture when aiming and locking.

For exterior applications with direct exposure to water, ColorReach Compact Powercore fixtures should not be aimed directly upwards, as water may pool on the lens and affect beam quality. Instead, the fixture should be angled to allow for proper water drainage.



Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com

DAS-000109-00 R01 5-14

Date: _____ Type: _____

Firm Name: _____

Project: _____

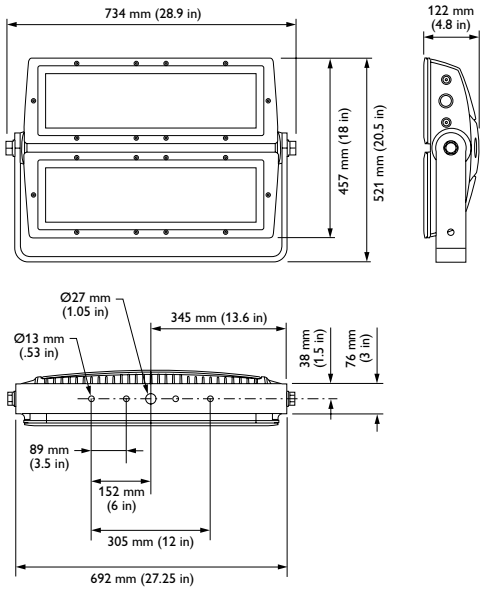
ColorReach Powercore gen2

5° native (no spread lens), UL / CE

Premium long-throw exterior LED floodlight with intelligent color light

ColorReach Powercore gen2 combines all the benefits of LED-based lighting and control in an elegant fixture specifically designed for large-scale installations, such as skyscrapers, casinos, bridges, piers, public monuments, and themed attractions. With levels of light output and projection never before achieved in an LED lighting fixture, ColorReach Powercore gen2 affords entirely new possibilities in exterior illumination.

- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. Philips Data Enabler Pro merges line voltage and control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Versatile optics — A native 5° beam angle and exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Bezel and gasket are included with spread lenses for easy user installation.
- Unique split design supports diffuser combinations — Each half of the fixture is individually addressable and controllable. For instance, you could use one spread lens on the fixture's lower half to bathe a large façade with color at street level, and a different spread lens to project a contrasting or complementary color hundreds of feet up the building's walls.
- Saturated, cost-effective color — High-performance LEDs offer rich, saturated color at significantly less cost for installation, operation, and maintenance than traditional light sources.
- Simple fixture positioning — Rugged, slim-profile mounting bracket allows simple positioning and fixture rotation through a full 360°. Side locking bolts reliably secure fixture with a standard wrench.
- Universal power input range — Fixtures accept a universal power input range of 100 – 277 VAC, allowing consistent installation in any location around the world.



- Industry-leading controls — Fixtures work seamlessly with the complete Philips Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.

For detailed product information, please refer to the ColorReach Powercore gen2 Product Guide at www.philipscolorkinetics.com/ls/rgb/colorreach/

PHILIPS

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Output	Lumens*	8,937 (full unit)
	LED Channels	Red / Green / Blue
	Mixing Distance	50 ft (15.2 m) to uniform light
	Lumen Maintenance†	100,000 hours L70 @ 25° C 100,000 hours L70 @ 50° C
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	270 W maximum at full output, steady state
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	20.5 x 28.9 x 4.8 in (521 x 734 x 122 mm)
	Weight	75 lb (34 kg)
	Effective Projected Area (EPA)	0.42 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

* Lumen measurement complies with IES LM-79-08 testing procedures

† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

Fixtures and Accessories

Item	Type	Item Number	Philips 12NC
ColorReach Powercore *Includes 3.0 m (10 ft) leader cable*	UL / CE	123-000153-00	912400130182

Item	Type		Item Number	Philips 12NC
Replacement Leader Cable	UL	3.0 m (10 ft)	108-000055-03	910503704066
		15.2 m (50 ft)	108-000055-00	910503703137
	CE	3.0 m (10 ft)	108-000055-04	910503704067
		15.2 m (50 ft)	108-000055-01	910503704064
Spread Lens with bezel	13°		120-000068-00	910503700506
	23°		120-000068-01	910503700507
	40°		120-000068-02	910503700508
	63°		120-000068-03	910503700509
	Asymmetric (5° x 17°)		120-000068-04	910503700510
	8°		120-000068-05	910503700511

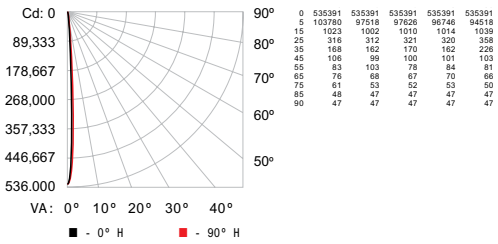
Use Item Number when ordering in North America.

Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com

Photometrics

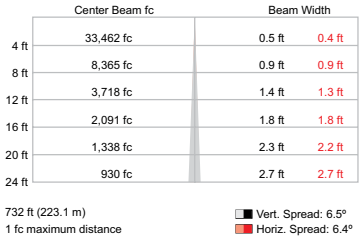
5° native (no spread lens), full unit

Polar Candela Distribution



0	535391	535391	535391	535391	535391
5	103780	97518	97626	96746	94518
15	1023	1002	1010	1014	1038
25	316	312	321	320	358
35	168	162	170	162	226
45	106	99	100	101	103
55	83	103	78	84	81
65	76	68	67	70	66
75	61	53	52	53	50
85	48	47	47	47	47
90	47	47	47	47	47

Illuminance at Distance



732 ft (223.1 m)
1 fc maximum distance

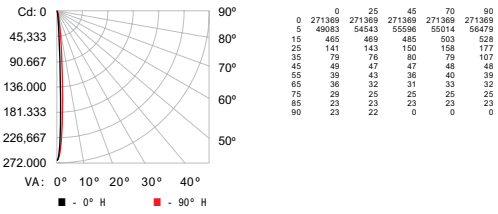
Vert. Spread: 6.5°
Horiz. Spread: 6.4°

LED	Lumens	Efficacy
RGB	8937	35.8

For lux multiply fc by 10.7

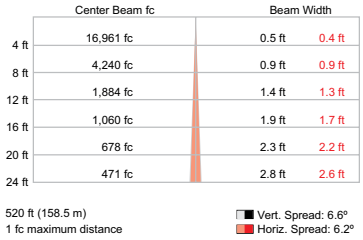
5° native (no spread lens), half unit

Polar Candela Distribution



0	0	25	45	70	90
0	271369	271369	271369	271369	271369
5	49083	54543	55596	55014	56479
15	465	469	485	503	528
25	141	143	150	158	177
35	79	76	80	79	107
45	49	47	47	48	48
55	39	43	36	40	39
65	36	32	31	33	32
75	29	25	25	25	25
85	23	23	23	23	23
90	23	22	0	0	0

Illuminance at Distance



520 ft (158.5 m)
1 fc maximum distance

Vert. Spread: 6.6°
Horiz. Spread: 6.2°

LED	Lumens	Efficacy
RGB	4561	36.3

DAS-000133-01 R01 8-14

ColorReach Powercore gen2

Premium long-throw exterior LED floodlight with intelligent color light

PHILIPS

COLOR KINETICS

ColorReach Powercore gen2

Premium long-throw exterior LED floodlight with intelligent color light

ColorReach Powercore gen2 combines all the benefits of LED-based lighting and control in an elegant fixture specifically designed for large-scale installations, such as skyscrapers, casinos, bridges, piers, public monuments, and themed attractions. With levels of light output and projection never before achieved in an LED lighting fixture, ColorReach Powercore gen2 affords entirely new possibilities in exterior illumination. Custom configurations with custom channels of white or color LED sources are available to support special applications.

- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. Philips Data Enabler Pro merges line voltage and control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Unparalleled light output — With light output of thousands of lumens, light projection of hundreds of feet, and a 5° native beam angle, ColorReach Powercore gen2 offers unprecedented LED-based illumination of large-scale structures and objects.
- Versatile optics — Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Bezel and gasket are included with spread lenses for easy user installation.
- Saturated, cost-effective color — High-performance LEDs offer rich, saturated color at significantly less cost for installation, operation, and maintenance than traditional light sources.
- Simple fixture positioning — Rugged, slim-profile mounting bracket allows simple positioning and fixture rotation through a full 360°. Side locking bolts reliably secure fixture with a standard wrench.
- Universal power input range — Fixtures accept a universal power input range, allowing consistent installation in any location around the world.
- Industry-leading controls — Fixtures work seamlessly with the complete Philips Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.
- Superior color consistency and accuracy — Optibin, an advanced binning algorithm, sets a new standard for the color consistency and uniformity of LED sources used in manufacturing.

Unique split design supports diffuser combinations

Each half of the fixture is individually addressable and controllable. For instance, you could use one spread lens on the fixture's lower half to bathe a large façade with color at street level, and a different spread lens to project a contrasting or complementary color hundreds of feet up the building's walls.

A Brilliant Look for Super Bowl XLIII

In 2009, Raymond James Stadium in Tampa, Florida, the host venue for Super Bowl XLIII, was brilliantly and dramatically illuminated with multiple ColorReach Powercore fixtures as part of a city-wide beautification effort for the National Football League's forty-third championship game.

The firm responsible for designing and branding the overall look of the city of Tampa for the Super Bowl chose to accentuate the stadium's exterior. The stadium was illuminated from January 27 through game day on February 1 to create a colorful and dynamic focal point for Tampa residents and visiting fans.

Seventy ColorReach Powercore fixtures lit up the stadium from dusk until dawn. Mounted on a concrete cross beam from within the stadium, the fixtures illuminated the underside of the stadium's upper 30 rows. Using 40° spread lenses, only two fixtures were required to evenly wash each 40 ft (12.2 m) by 80 ft (24.4 m) bay with color. ColorReach Powercore made the stadium visible from the air and from multiple viewpoints across the city.

Photography: Stephen Kovich

Photography: Stephen Kovich

Photography: Stephen Kovich

Photography: Stephen Kovich

Controlled by the iPlayer 3 digital playback controller from Philips Color Kinetics, the fixtures displayed the colors of the opposing teams and other dazzling, color-changing lighting effects.

Not only did they generate dynamic effects on a scale and intensity that no other available LED floodlight can match, ColorReach Powercore also supported the NFL's recent efforts to make the Super Bowl more green. Although ColorReach Powercore fixtures require minimal energy — just 290 watts per fixture — each is capable of projecting intense color over 500 ft (152 m) with an output of 5,000+ lumens. Even when operating at full intensity, each fixture consumes less than half the energy of a typical coffee maker. In fact, energy consumption for the Super Bowl installation totalled under 22,000 watts. By comparison, traditional metal halide fixtures typically used in such exterior projects consume 1,000 watts each, for a total of well over 70,000 watts. Not only do metal halide fixtures consume 70% more electricity, but they can't match the brilliance and light projection of ColorReach Powercore, nor can they project dynamic color-changing effects.

ColorReach Powercore helped create a visually striking look for the city of Tampa, while matching the excitement of one of the most important sporting events of the year.

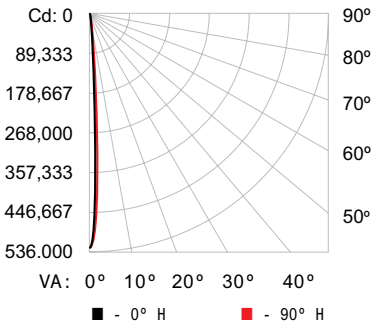
Photometrics / ColorReach Powercore

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.philipscolorkinetics.com/support/ies.

5° (no spread lens)

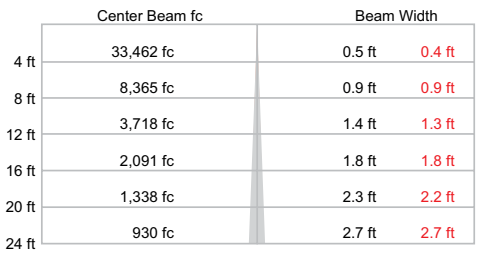
LED	Lumens	Efficacy
RGB	8937	35.8

Polar Candela Distribution



0	535391	535391	53
5	103780	97518	9
15	1023	1002	
25	316	312	
35	168	162	
45	106	99	

Illuminance at Distance



732 ft (223.1 m)
1 fc maximum distance

Vert. Spread: 6.5°
Horiz. Spread: 6.4°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	114	112	111	99	108	107	106	104	104	103	101	100	100	98
2	113	110	108	106	111	109	107	98	106	104	103	103	102	101	100	99	98	97
3	111	108	105	103	109	106	104	97	104	102	100	102	100	99	100	98	97	96
4	109	105	102	100	108	104	102	96	102	100	99	101	99	98	99	98	97	96
5	108	104	101	99	106	103	100	95	101	99	97	100	98	97	99	97	96	95
6	106	102	99	97	105	101	99	95	100	98	96	99	97	96	98	97	95	95
7	105	101	98	96	104	100	98	95	99	97	96	99	97	95	98	96	95	94
8	104	100	97	96	103	100	97	94	99	97	95	98	96	95	97	96	94	94
9	103	99	97	95	103	99	96	94	98	96	95	97	96	94	97	95	94	93
10	102	98	96	94	102	98	96	94	98	95	94	97	95	94	97	95	94	93

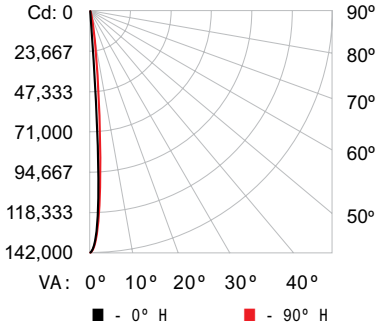
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	8759.4	98.0 %
60 - 90	177.6	2.0 %
0 - 90	8937.0	100.0 %

8° spread lens, half unit

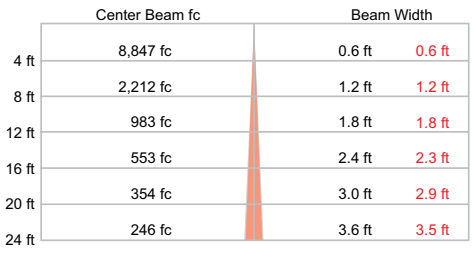
LED	Lumens	Efficacy
RGB	3796	27.7

Polar Candela Distribution



	0	25	45	70	90
0	141546	141546	141546	141546	141546
5	51073	54259	54274	56276	58731
15	634	643	668	690	714
25	169	169	173	173	185
35	96	95	91	90	109
45	54	51	49	51	52
55	40	41	35	37	37
65	31	30	27	27	27
75	24	23	22	22	22
85	21	20	20	20	20
90	20	20	0	0	0

Illuminance at Distance



376 ft (114.6 m)
1 fc maximum distance

Vert. Spread: 8.5°
Horiz. Spread: 8.4°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	111	98	108	107	106	104	104	103	101	100	100	98
2	113	110	108	106	111	109	107	97	106	104	102	103	102	100	100	99	98	97
3	111	107	105	102	109	106	104	96	104	102	100	102	100	99	100	98	97	96
4	109	105	102	100	108	104	101	96	102	100	98	100	99	97	99	97	96	95
5	107	103	100	98	106	102	100	95	101	99	97	100	98	96	98	97	95	94
6	106	102	99	97	105	101	98	94	100	98	96	99	97	95	98	96	95	94
7	105	100	98	96	104	100	97	94	99	97	95	98	96	95	97	95	94	93
8	104	99	97	95	103	99	96	93	98	96	94	97	95	94	97	95	94	93
9	103	98	96	94	102	98	96	93	97	95	94	97	95	93	96	94	93	93
10	102	97	95	93	101	97	95	93	97	95	93	96	94	93	96	94	93	92

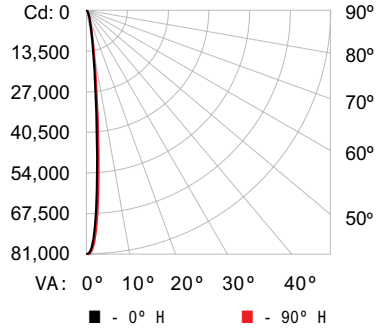
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	4419.9	98.1 %
60 - 90	84.9	1.9 %
0 - 90	4504.8	100.0 %

13° spread lens, half unit

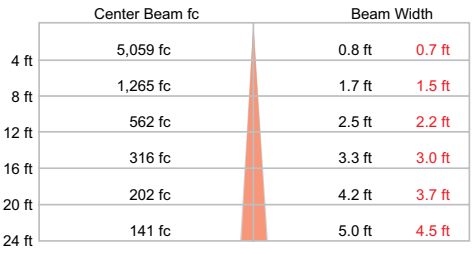
LED	Lumens	Efficacy
RGB	3756	27.4

Polar Candela Distribution



	0	25	45	70	90
0	80949	80949	80949	80949	80949
5	46190	46041	45544	45473	46699
15	1520	1484	1350	1197	1167
25	182	182	181	178	183
35	103	101	96	94	105
45	57	54	51	51	53
55	40	38	36	36	36
65	30	30	28	28	27
75	24	23	22	22	22
85	20	20	20	20	20
90	20	0	0	0	0

Illuminance at Distance



285 ft (86.8 m)
1 fc maximum distance

Vert. Spread: 11.9°
Horiz. Spread: 10.7°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	110	98	108	107	106	104	103	102	101	100	100	98
2	113	110	107	105	111	108	106	97	105	103	102	102	101	100	100	99	98	96
3	110	107	104	101	109	105	103	96	103	101	99	101	99	98	99	97	96	95
4	108	104	101	99	107	103	100	94	101	99	97	99	98	96	98	96	95	94
5	106	102	99	97	105	101	98	94	100	97	95	98	96	95	97	95	94	93
6	105	100	97	95	104	100	97	93	98	96	94	97	95	93	96	94	93	92
7	103	99	96	94	102	98	95	92	97	95	93	96	94	92	95	93	92	91
8	102	97	94	92	101	97	94	91	96	94	92	95	93	92	95	93	91	91
9	101	96	93	91	100	96	93	91	95	93	91	95	92	91	94	92	91	90
10	100	95	92	91	99	95	92	90	94	92	90	94	92	90	93	91	90	89

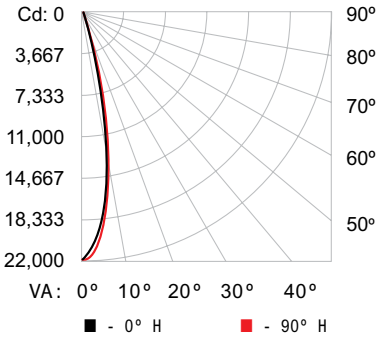
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3979.5	98.2 %
60 - 90	73.9	1.8 %
0 - 90	4053.4	100.0 %

23° spread lens, half unit

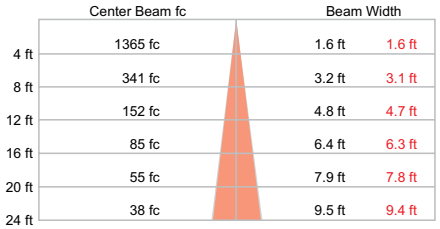
LED	Lumens	Efficacy
RGB	3812	27.8

Polar Candela Distribution



	0	25	45	70	90
0	21836	21836	21836	21836	21836
5	18700	19044	19314	19604	19751
15	6286	6627	6843	7046	7140
25	850	900	916	939	955
35	131	132	130	131	133
45	69	69	67	67	68
55	48	47	46	45	45
65	35	35	34	33	33
75	26	26	25	24	24
85	20	20	20	20	20
90	19	9	7	3	0

Illuminance at Distance



148 ft (45.1 m)
1 fc maximum distance

Vert. Spread: 22.5°
Horiz. Spread: 22.2°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	115	112	110	109	112	110	109	96	106	105	104	103	102	101	99	98	98	96
2	111	107	104	101	109	105	103	93	102	100	98	99	98	96	97	95	94	93
3	107	102	99	96	105	101	98	90	99	96	94	96	94	92	94	92	91	89
4	104	99	95	91	102	97	94	87	96	92	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	85	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	83	90	87	84	89	86	83	88	85	83	82
7	96	89	85	82	95	89	85	81	88	84	82	87	83	81	86	83	81	80
8	93	87	83	80	92	86	82	79	85	82	79	84	81	79	84	81	79	78
9	91	84	80	78	90	84	80	77	83	80	77	82	79	77	82	79	77	76
10	89	82	78	76	88	82	78	75	81	78	75	81	77	75	80	77	75	74

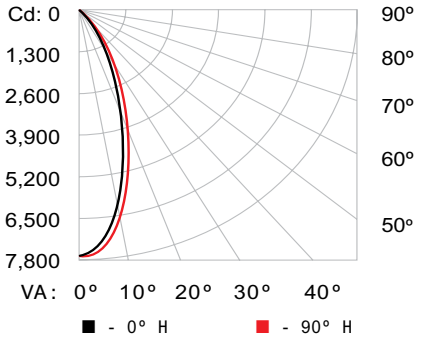
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3981.5	98.0 %
60 - 90	81.6	2.0 %
0 - 90	4063.1	100.0 %

40° spread lens, half unit

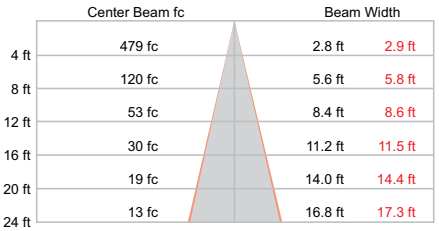
LED	Lumens	Efficacy
RGB	3751	27.4

Polar Candela Distribution



	0	25	45	70	90
0	7659	7659	7659	7659	7659
5	7135	7226	7287	7380	7432
15	4812	4985	5142	5340	5442
25	2266	2399	2536	2720	2812
35	719	778	840	930	981
45	177	193	202	220	235
55	70	72	72	71	72
65	45	45	43	42	42
75	29	29	27	27	27
85	19	19	18	18	18
90	18	18	18	18	18

Illuminance at Distance



88 ft (26.8 m)
1 fc maximum distance

Vert. Spread: 38.7°
Horiz. Spread: 39.6°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	106	94	105	103	101	101	100	98	97	96	95	94
2	108	104	100	96	106	102	98	88	99	96	93	96	93	91	93	91	89	88
3	103	97	92	89	101	96	91	83	93	90	87	91	88	85	89	86	84	82
4	99	92	86	82	97	90	86	79	88	84	81	86	83	80	84	82	79	78
5	94	86	81	77	93	86	80	74	84	79	76	82	78	75	81	77	75	73
6	90	82	76	72	89	81	76	70	80	75	72	78	74	71	77	73	71	69
7	86	78	72	68	85	77	72	67	76	71	68	75	70	67	74	70	67	66
8	83	74	68	65	82	73	68	64	72	68	64	71	67	64	70	67	64	62
9	79	70	65	61	78	70	65	61	69	64	61	68	64	61	67	64	61	59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	65	61	58	57

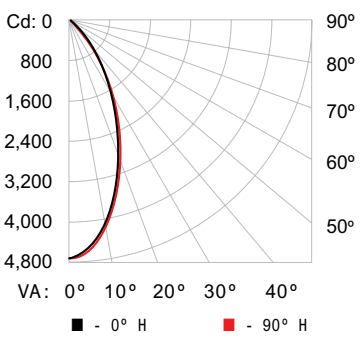
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	3981.5	98.0 %
60 - 90	81.6	2.0 %
0 - 90	4063.1	100.0 %

63° spread lens, half unit

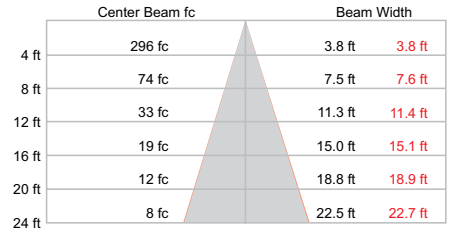
LED	Lumens	Efficacy
RGB	3709	27.1

Polar Candela Distribution



	0	25	45	70	90
0	4733	4733	4733	4733	4733
5	4524	4533	4551	4586	4611
15	3543	3568	3595	3658	3722
25	2269	2219	2204	2231	2285
35	1149	1062	1016	1000	1025
45	473	405	367	350	358
55	172	140	124	116	119
65	70	61	56	51	50
75	35	31	28	25	24
85	18	17	17	16	16
90	16	0	0	0	0

Illuminance at Distance



69 ft (21.0 m)
1 fc maximum distance

Vert. Spread: 50.3°
Horiz. Spread: 50.6°

Coefficients Of Utilization - Zonal Cavity Method

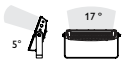
Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	108	105	92	103	101	100	100	98	97	96	95	94	92
2	106	101	97	93	104	99	95	85	96	93	90	93	90	88	90	88	86	84
3	101	93	88	84	98	92	87	78	89	85	82	87	83	80	85	82	79	77
4	95	87	81	76	93	86	80	73	83	79	75	81	77	74	79	76	73	71
5	90	81	74	70	88	80	74	67	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	75	68	63	73	68	64	72	67	63	70	66	63	61
7	81	71	64	60	79	70	64	58	69	63	59	67	62	59	66	62	58	57
8	76	66	60	56	75	66	60	55	65	59	55	64	59	55	63	58	55	53
9	73	62	56	52	72	62	56	51	61	56	52	60	55	52	59	55	51	50
10	69	59	53	49	68	59	53	48	58	52	49	57	52	48	56	52	48	47

Zonal Lumen

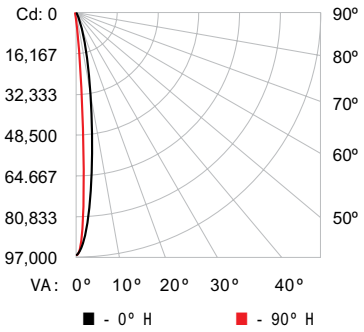
Zone	Lumens	% Fixture
0 - 60	3877.6	96.7 %
60 - 90	131.0	3.3 %
0 - 90	4008.6	100.0 %

5° x 17° spread lens, half unit



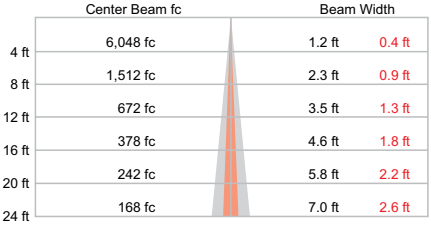
LED	Lumens	Efficacy
RGB	3814	27.9

Polar Candela Distribution



	0	25	45	70	90
0	96765	96765	96765	96765	96765
5	69434	57305	38831	23251	20218
15	9262	1558	619	428	416
25	572	191	161	150	153
35	166	99	91	79	82
45	98	56	49	46	46
55	66	39	34	35	35
65	46	31	27	26	25
75	30	24	22	21	21
85	20	19	20	20	20
90	19	0	0	0	0

Illuminance at Distance



311 ft (94.7 m)
1 fc maximum distance

Vert. Spread: 16.5°
Horiz. Spread: 6.3°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

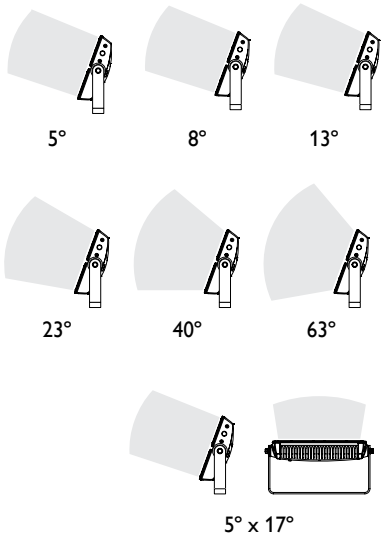
RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	110	113	112	110	98	108	106	105	104	103	102	101	100	99	98
2	113	109	107	105	111	108	105	96	105	103	101	102	100	99	99	98	97	96
3	110	106	103	101	108	105	102	95	102	100	98	100	98	97	98	97	95	94
4	108	103	100	98	106	102	99	94	100	98	96	99	97	95	97	95	94	93
5	106	101	98	95	104	100	97	92	99	96	94	97	95	93	96	94	93	92
6	104	99	96	94	103	98	95	91	97	95	93	96	94	92	95	93	92	91
7	102	97	94	92	101	97	94	90	96	93	91	95	93	91	94	92	91	90
8	101	96	93	91	100	96	93	90	95	92	90	94	92	90	93	91	90	89
9	99	95	92	90	99	94	91	89	94	91	89	93	91	89	92	90	89	88
10	98	93	91	89	98	93	90	88	93	90	88	92	90	88	91	89	88	87

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	4008.1	98.1 %
60 - 90	75.8	1.9 %
0 - 90	4083.9	100.0 %

Specifications, UL / CE

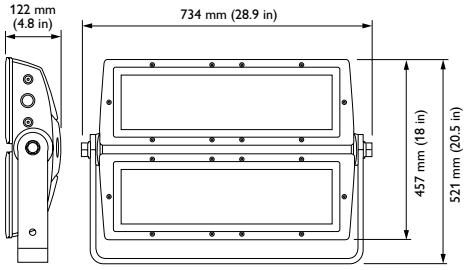
Due to continuous improvements and innovations, specifications may change without notice.

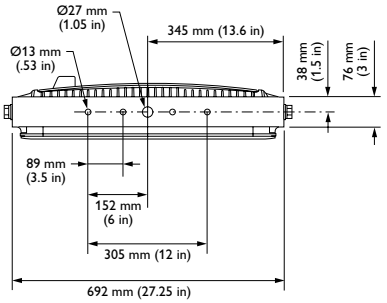


Item	Specification	Details
Output	Beam Angle	5° primary optic (no spread lens) 8° / 13° / 23° / 40° / 63° / 5° x 17° (asymmetric) spread lenses
	Lumens*	8,937 (full unit, no spread lens)
	LED Channels	Red / Green / Blue
	Mixing Distance	50 ft (15.2 m) to uniform light
	Lumen Maintenance†	100,000 hours L_{70} @ 25° C 100,000 hours L_{70} @ 50° C
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	270 W maximum at full output, steady state
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	20.5 x 28.9 x 4.8 in (521 x 734 x 122 mm)
	Weight	75 lb (34 kg)
	Effective Projected Area (EPA)	0.42 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

* Lumen measurement complies with IES LM-79-08 testing procedures

† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.





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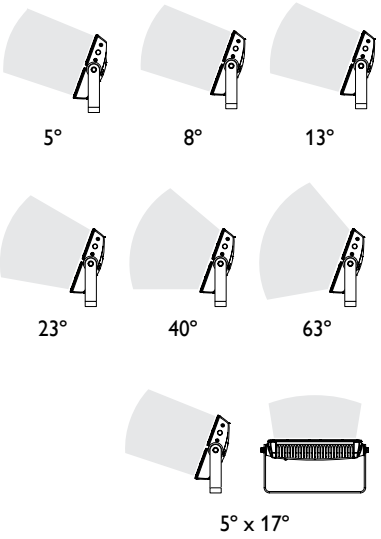
Specifications, CQC

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Output	Beam Angle	5° primary optic (no spread lens) 8° / 13° / 23° / 40° / 63° / 5° x 17° (asymmetric) spread lenses
	Lumens*	8,937 (full unit, no spread lens)
	LED Channels	Red / Green / Blue
	Mixing Distance	50 ft (15.2 m) to uniform light
	Lumen Maintenance†	100,000 hours L_{70} @ 25° C 100,000 hours L_{70} @ 50° C
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	290 W maximum at full output, steady state
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions *(Height x Width x Depth)*	20.5 x 28.9 x 4.8 in (521 x 734 x 122 mm)
	Weight	75 lb (34 kg)
	Effective Projected Area (EPA)	0.42 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Integral male / female waterproof connector, 6 ft (1.8 m) unified power / data cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE, C-Tick
	Environment	Dry / Damp / Wet Location, IP66



* Lumen measurement complies with IES LM-79-08 testing procedures

† L_{70} = 70% lumen maintenance (when light output drops below 70% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

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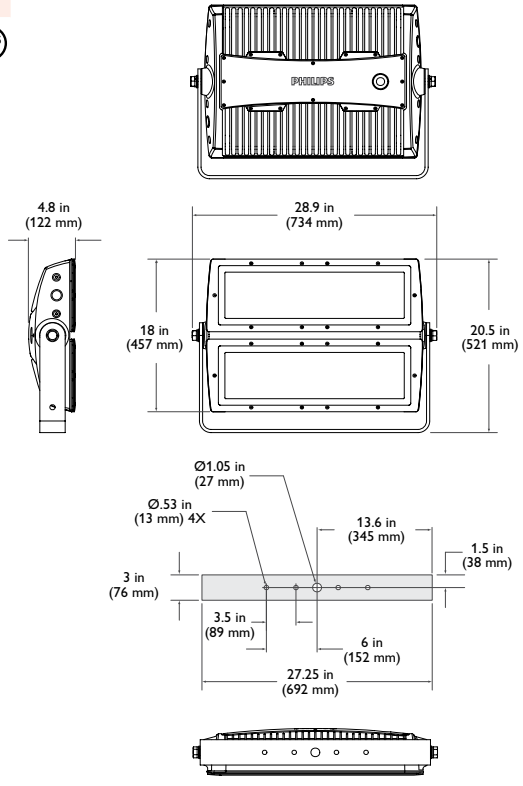


Custom Configurations

In addition to the standard configurations listed here, custom configurations are also available with non-standard colors or color temperatures. See the ColorReach Powercore gen2 Ordering Information sheet at www.philipscolorkinetics.com/ls/rgb/colorreach/ for complete details.

Component	Available Non-Standard Options
Color Temperature	2700K, 3000 K, 3500 K, 4000 K, 5500 K, 6000 K, 6500 K
Color	Royal Blue, Blue, Green, Amber, Red

Fixture and Accessories

ColorReach Powercore gen2 fixtures are part of a complete line-voltage system which includes fixtures and:

- One or more Data Enabler Pro devices.
- Any Philips controller, including Light System Manager, iPlayer 3, and ColorDial Pro, or a third-party controller.
- One 1.8 m (6 ft) leader cable to connect each ColorReach Powercore gen2 fixture to a junction box or Data Enabler Pro.
- 4-conductor copper wire to connect ColorReach Powercore gen2 fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended

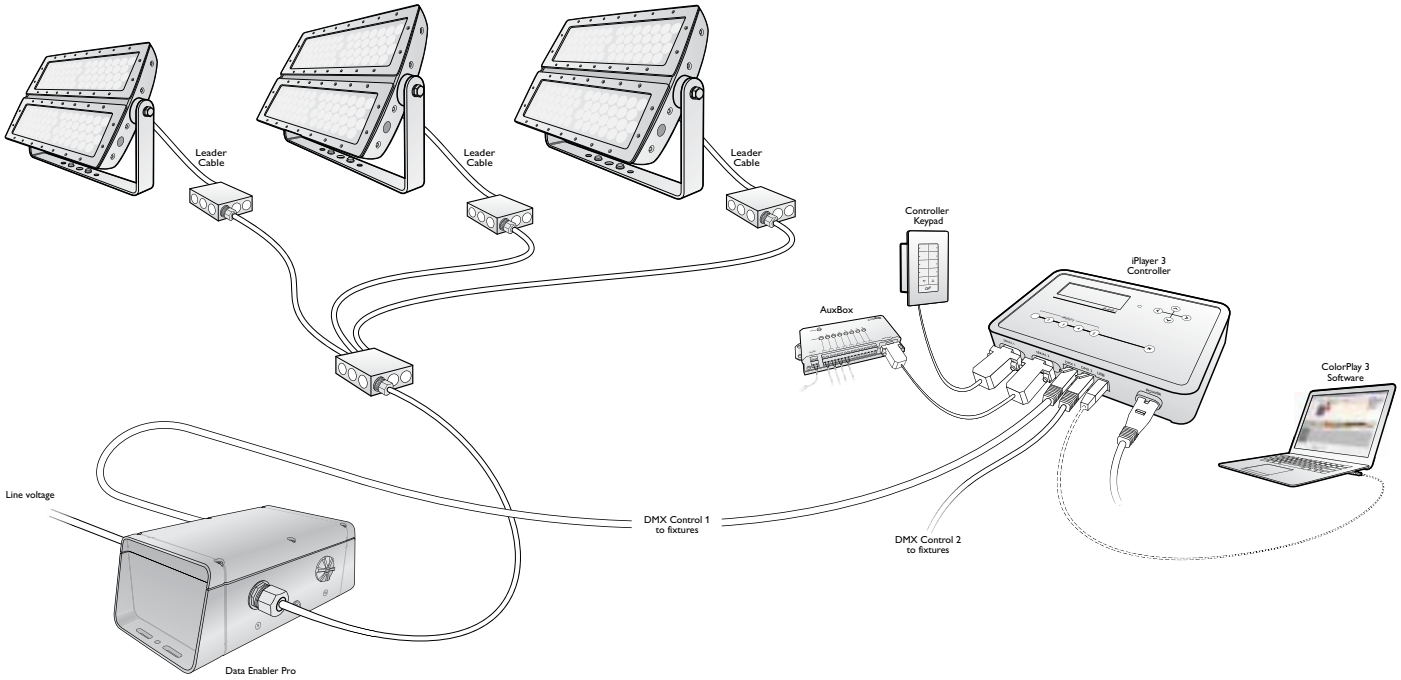
Fixtures and Accessories

Item	Type		Item Number	Philips 12NC
ColorReach Powercore gen2 *Includes 1.8 m (6 ft) leader cable*	CE / CQC / PSE		123-000013-51	912400130192
ColorReach Powercore gen2 *Includes 3 m (10 ft) leader cable*	UL / CE		123-000153-00	912400130182
Leader Cable, 100–277 V,AC UL / CE	UL	3 m (10 ft)	108-000055-03	910503704066
		15.2 m (50 ft)	108-000055-00	910503703137
	CE / PSE	3 m (10 ft)	108-000055-04	910503704067
		15.2 m (50 ft)	108-000055-01	910503704064
Leader Cable, 100–240 VAC, CQC	CE / PSE	1.8 m (6 ft)	108-000043-03	910503700454
ColorReach Powercore Spread Lens with bezel	8°		120-000068-05	910503700511
	13°		120-000068-00	910503700506
	23°		120-000068-01	910503700507
	40°		120-000068-02	910503700508
	63°		120-000068-03	910503700509
	Asymmetric (5° x 17°)		120-000068-04	910503700510
Data Enabler Pro	3/4 in / 1/2 in NPT (U.S. trade size conduit)		106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)		106-000004-01	910503701211

Use Item Number when ordering in North America.

Typical ColorReach
Powercore gen2 installation

For detailed wiring diagrams visit
www.philipscolorkinetics.com/support/wiring/ls_prod.html



Installation

ColorReach Powercore gen2, a high-performance exterior architectural floodlight with extended light projection, is designed to brilliantly and dynamically illuminate prominent, signature façades. Because each ColorReach Powercore gen2 fixture weighs 34 kg (75 lb), you may need two people to lift the fixture out of the box and position it in the mounting location. Optional accessory optics require the installation of both a spread lens and a bezel on each half of the fixture.

Owner / User Responsibilities

Refer to the ColorReach Powercore Installation Instructions for specific warning and caution statements.

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate ColorReach Powercore gen2 fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

Installing in Damp or Wet Locations

When installing in damp or wet locations, you must seal all junction boxes and Data Enabler Pro devices with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, fixtures, or other electrical parts. You must use suitable outdoor-rated junction boxes when installing in wet or damp locations. Additionally, you must use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes.

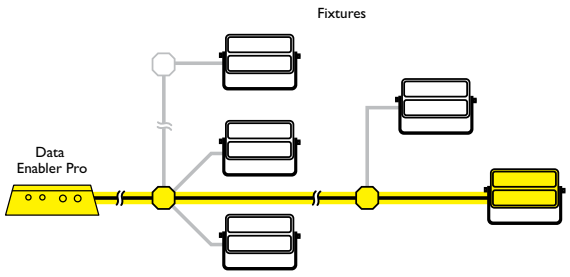
Prepare for the Installation

1. Refer to the lighting design plan, architectural diagram, or other diagram that shows the physical layout of the installation to identify the locations of all switches, controllers, Data Enabler Pro devices, fixtures, and cables.

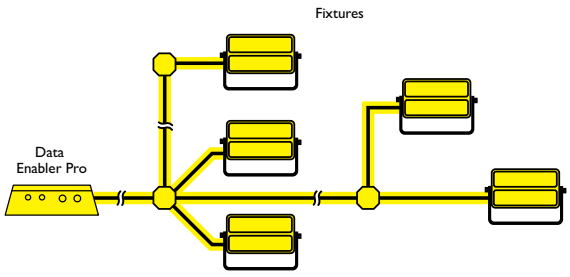
   To streamline the configuration of complex installations, record the serial number (DMX) or IP address (Ethernet) and location of each Data Enabler Pro..

   ColorReach Powercore gen2 fixtures can be installed in series or in parallel (wired to a common junction box). The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture spacing, circuit size, line voltage, and method of connection (in series or in parallel). For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.

   In addition to maximum fixture run lengths determined by the electrical configuration, each Data Enabler Pro imposes maximum run lengths based on data integrity. To ensure data integrity, maximum individual run length should not exceed 53.3 m (175 ft), and the total cable length per Data Enabler Pro should not exceed 122 m (400 ft).



Data Integrity – maximum individual length 53.3 m (175 ft)



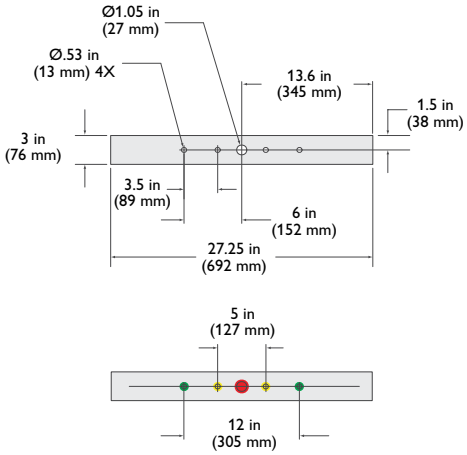
Data Integrity – total length 122 m (400 ft)

2. Ensure that the fixture mounting locations and substrates are sufficiently sturdy to bear the weight of each ColorReach Powercore gen2 fixture. Pre-drill holes in the mounting substrate if necessary, making reference to the mounting bracket dimensions. Use at least two screws to secure each fixture, one on either side of the mounting bracket's central screw hole.

   If mounting ColorReach Powercore gen2 on a lighting pole, make sure the pole can both support the total weight of the fixtures and withstand the maximum velocity winds to which it will be subjected. Each fixture weighs 75 lb (34 kg), and has an effective projected area (EPA) of 0.42 m^2.

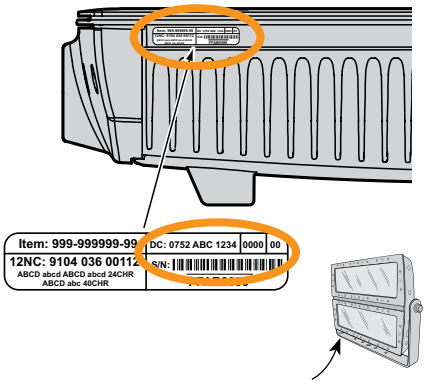
3. Install all Data Enabler Pro devices, including any interfaces with controllers. Data Enabler Pro and external controllers send power and control signals to fixtures over the single leader cable.
4. Verify that all additional supporting equipment (switches, controllers) is in place.
5. Ensure that all additional parts and tools are available, including:
   - A 28 mm hex or adjustable wrench for adjusting the locking bolts on the fixture bracket.
   - One electrical junction box per fixture, rated for your application. (Refer to the junction box manufacturer's literature for additional items required for mounting or sealing.)
   - A sufficient length of 4-conductor copper wire. We recommend 12 AWG (2.05 mm) stranded wire.
   - Conduit as required.
   - Electronics-grade room temperature vulcanizing (RTV) silicone sealant.

Mounting bracket dimensions for pre-drilling

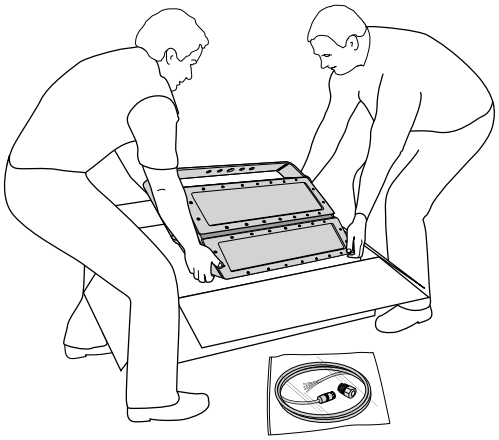


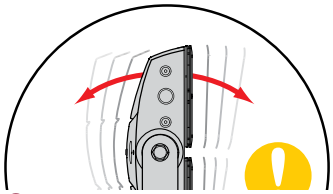
Unpack the Fixtures

1. Unpack ColorReach Powercore gen2 fixtures. Because each ColorReach Powercore gen2 fixture weighs 34 kg (75 lb), you may need two people to lift the fixture out of the box and position it in the mounting location.
2. Each ColorReach Powercore gen2 fixture comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.
3. Assign each fixture to a position in the lighting design plan.



4. To streamline installation and aid in light show programming, you can affix a weatherproof label identifying the order or placement in the installation to an inconspicuous location on each light fixture's housing.

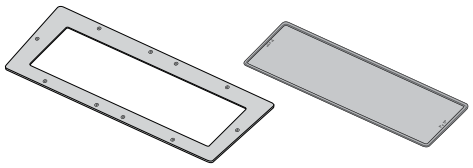


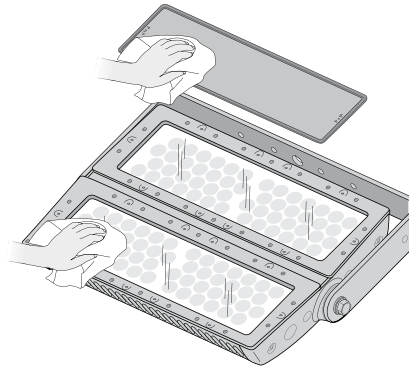


Do not rest ColorReach Powercore gen2 on its back, as doing so may damage the connector port. Be careful not to tip the fixture over during positioning.

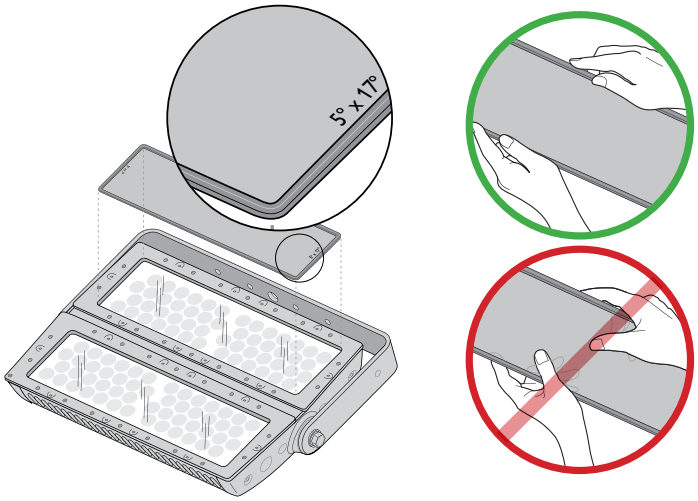
Attach Spread Lenses (Optional)

Exchangeable ColorReach Powercore gen2 spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 17° x 5° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Each half of ColorReach Powercore gen2 can be individually addressed and controlled, and you can install different spread lenses on each half of the fixture's housing for precise control of light diffusion.

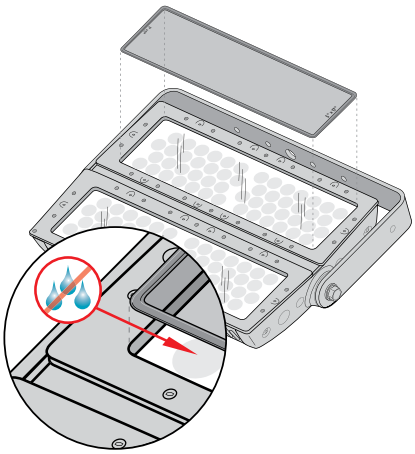




1. Unpack and confirm the contents of the box. Each box contains one lens kit, consisting of a spread lens with attached rubber gasket, and a bezel with 10 captured mounting screws.
2. Clean both sides of the spread lens and the face of the ColorReach Powercore gen2 housing, including glass surfaces, using a mild, non-abrasive cleaner. Ensure that all surfaces are dry, and that the gasket is properly fitted to the lens.
3. Position the spread lens so that the beam-angle designation on the side of the lens is face up. Handle the spread lens by the gasket, making sure not to touch or soil either surface of the spread lens.

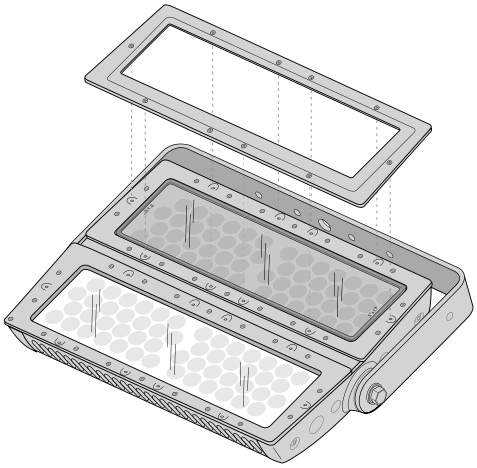


4 Place the spread lens on top of the ColorReach Powercore gen2 housing. Make sure that the spread lens and gasket are seated properly within the fixture housing. Also make sure that there is no moisture between the spread lens and the glass, as any moisture will compromise the effectiveness of the spread lens.

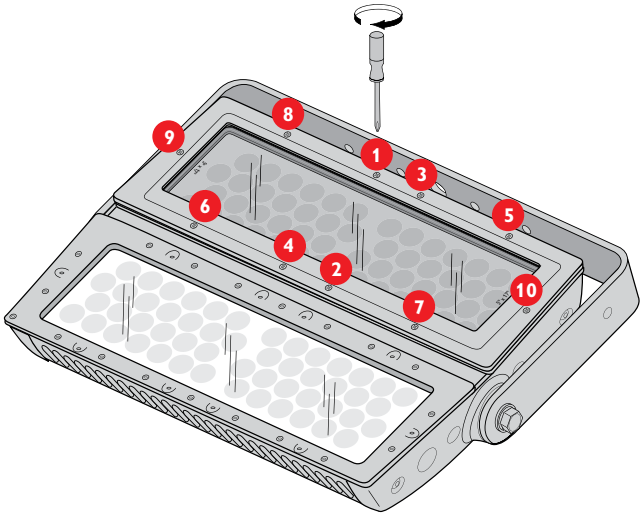


For installation in extreme environments, refer to the Reach Spread Lens Kit Installation Instructions for details on sealing the spread lens and bezel to prohibit water ingress.

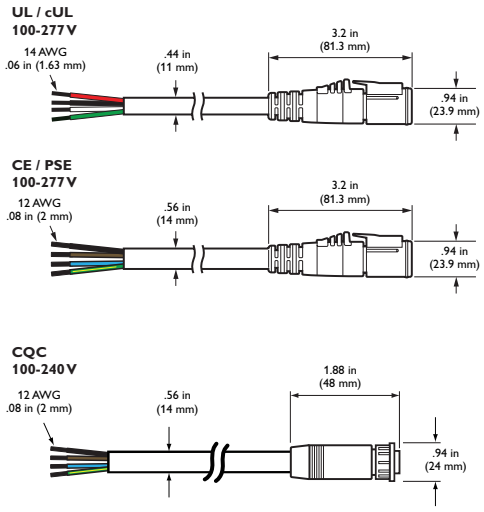
5. Position the bezel over the spread lens.

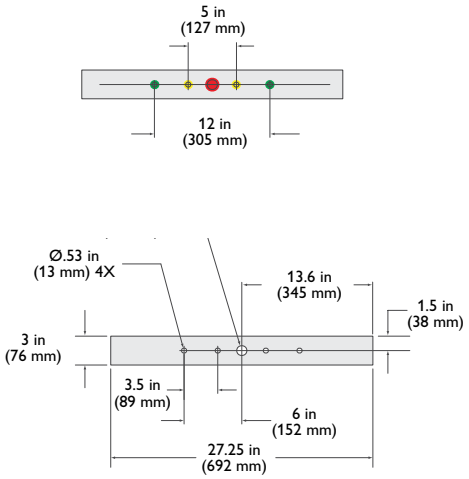


6. With a standard #2 Phillips screwdriver, attach the bezel to the fixture housing using the screws provided. To ensure a watertight seal, tighten the screws to approximately 20 – 30 in-lbs (2.2 – 3.4 Nm) in the sequence shown below.



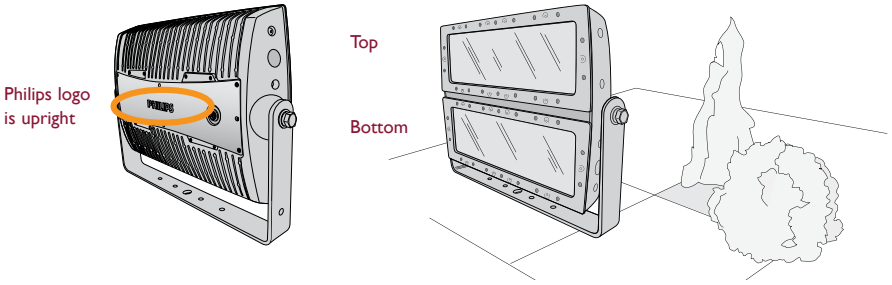
Leader Cable connector dimensions



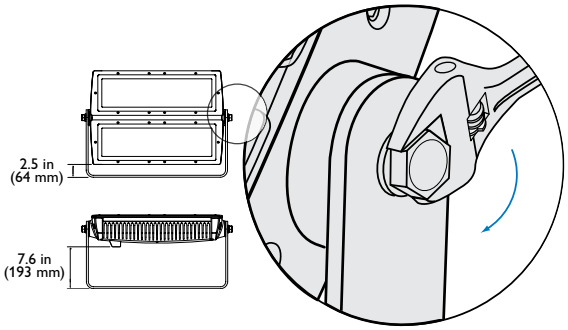


Position and Mount Fixtures

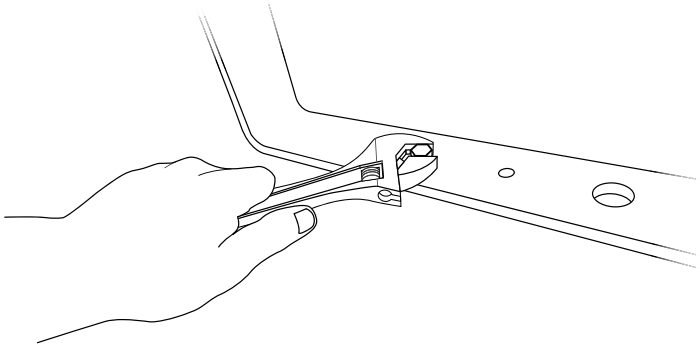
1. Position each ColorReach Powercore gen2 fixture in its designated mounting location. Make sure the mounting area is clear of debris and other obstructions.



2. Loosen the locking bolts, using a 28 mm hex or adjustable wrench, and rotate the fixture to access the mounting bracket. Tilting the fixture 90° affords 231 mm (9.1 in) clearance.



3. If mounting holes have been pre-drilled, align the mounting bracket's screw holes with the pre-drilled holes. Mount the fixture bracket using hardware appropriate for the mounting substrate. Use at least two screws to secure each fixture, one on either side of the mounting bracket's central screw hole.



Connect the Fixtures

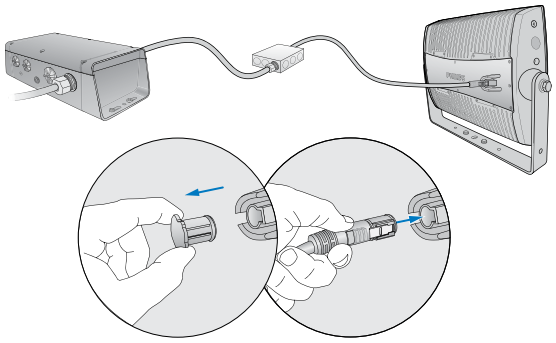
Make sure the power is OFF before connecting ColorReach Powercore gen2 fixtures.

1. Mount junction boxes in accordance with the lighting design plan.
2. If installing fixtures in a series, pull 4-conductor copper wire between each junction box in the series.

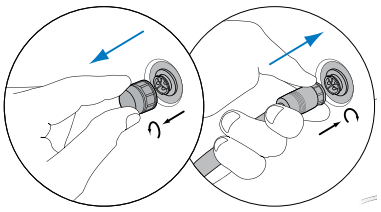
   If installing fixtures in parallel, pull 4-conductor copper wire from a common junction box to each fixture's junction box.

The maximum cable run from a Data Enabler Pro to any individual ColorReach Powercore gen2 fixture is 53 m (175 ft). When installing in parallel, the total cable length cannot exceed 122 m (400 ft).

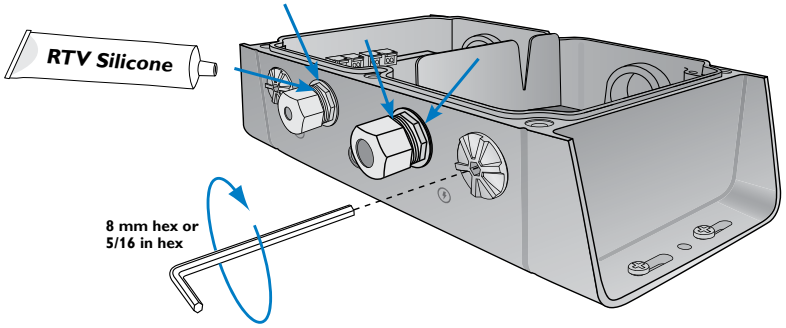
3. If necessary, remove the connector cap from the port on the back of the ColorReach Powercore gen2 housing, and insert the leader cable into the port. For UL / CE fixtures, push the cable until the connector clicks and locks in place. For CQC fixtures, turn the leader cable's lock nut to the right until it locks into place.
4. Use wire nuts to connect line, neutral, ground, and data. If installing in series, connect the leader cable from each fixture to the fixture's junction box. If installing in parallel, connect the leader cable from each fixture to the lead wire from the Data Enabler Pro in the common junction box.
5. Tuck wire connections into the junction box.
6. Seal all junction boxes with electronics-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.



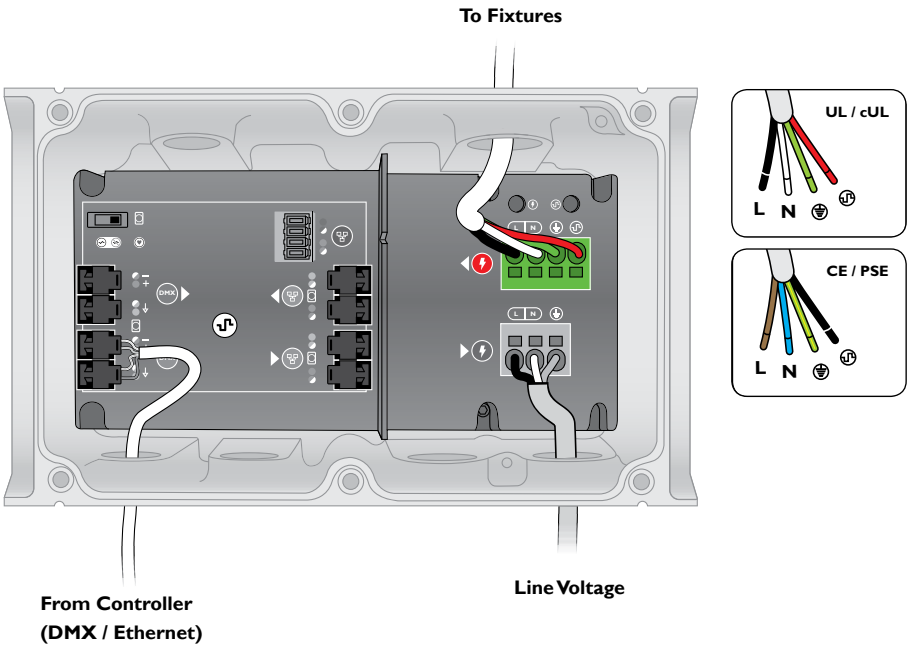
UL / CE (100–277 VAC)



CQC (100–240 VAC)



7. Run the wiring from the first junction box in the series to the Data Enabler Pro, or, if installing in parallel, run the wiring from the common junction box to the Data Enabler Pro. Secure connections within the Data Enabler Pro housing.



8. Secure the Data Enabler Pro cover. Seal the Data Enabler Pro with electronics-grade RTV silicone sealant.

Address and Configure the Fixtures

Make sure the power is ON before addressing and configuring fixtures.

ColorReach Powercore gen2 fixtures use DMX addresses to communicate with controllers. The number of DMX addresses each ColorReach Powercore gen2 fixture requires depends on the fixture's configuration.

ColorReach Powercore gen2 fixtures operate in 8-bit mode by default. You can configure fixtures to operate in 16-bit mode, which increases resolution for smoother dimming and more precise control. You can also configure fixtures to operate in full-fixture mode or half-fixture mode. In full-fixture mode, the top and bottom halves of the fixture work in unison (show the same light output simultaneously). In half-fixture mode, the two halves work independently (can show different light output simultaneously).

In 8-bit mode, fixtures use one DMX address per LED channel (one for red, one for green, and one for blue). In 16-bit mode, fixtures use two DMX addresses per LED channel. The first DMX address corresponds to the "coarse" data for that channel, and the second corresponds to the "fine" data. By using double the number of DMX addresses, 16-bit mode increases fixture resolution from 256 dimming steps to 65,536 (256 x 256) dimming steps.

ColorReach Powercore gen2 fixtures come factory-addressed with a starting DMX address of 1. For lighting designs where fixtures work in unison, all fixtures can be assigned the same starting DMX address. Changes to the default starting DMX addresses are not necessary, but if lights were previously readdressed for use in other installations, you must reset them. For light show designs that show different colors on different fixtures, you must assign unique DMX addresses to your fixtures and sort them in a useful order.

The following table shows the DMX channel assignments for the different possible ColorReach Powercore gen2 configurations, assuming a starting DMX address of 1.

DMX Channel Assignments

8-Bit Mode

Full-Fixture Mode	Top Half / Bottom Half					
	1		2		3	
	Red		Green		Blue	
Half-Fixture Mode	Top Half			Bottom Half		
	1	2	3	4	5	6
	Red	Green	Blue	Red	Green	Blue

16-Bit Mode

Full-Fixture Mode	Top Half / Bottom Half											
	1		2		3		4		5		6	
	Red		Red		Green		Green		Blue		Blue	
Half-Fixture Mode	Top Half						Bottom Half					
	1	2	3	4	5	6	7	8	9	10	11	12
	Red	Red	Green	Green	Blue	Blue	Red	Red	Green	Green	Blue	Blue

You can download QuickPlay Pro from www.philipscolorkinetics.com/support/addressing/

You can switch between full-fixture mode and half-fixture mode, assign unique DMX addresses to fixtures, or set all fixtures to the same starting DMX address using QuickPlay Pro software. Fixtures are identified within QuickPlay Pro by serial number, so you will need the layout grid that you created when you recorded the serial numbers of your fixtures during installation planning.

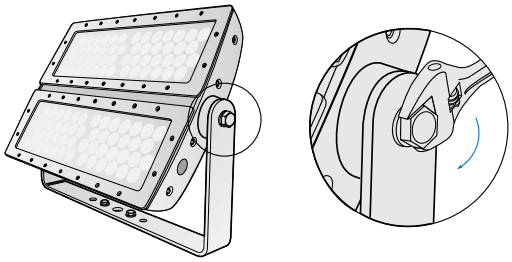
- In Ethernet installations, you can you use QuickPlay Pro with a computer connected directly to a switch within the light system's network. QuickPlay Pro can automatically discover all fixtures, controllers, and Data Enabler Pro devices for quick configuration.
- In DMX installations, you can address and configure fixtures using QuickPlay Pro with iPlayer 3 or SmartJack Pro. You can manually enter fixture serial numbers, or you can import a spreadsheet listing each fixture's serial number and starting DMX address.

For complete details on addressing and configuration, refer to *Addressing and Configuration using QuickPlay Pro* at www.philipscolorkinetics.com/support/addressing.

Aim and Lock the Fixtures

Do not look directly into the fixture when aiming and locking.

1. Aim the fixtures by rotating each fixture to the correct angle.
2. Lock the fixtures by tightening the locking bolts using a 28 mm hex or adjustable wrench.



For exterior applications with direct exposure to water, ColorReach Powercore gen2 fixtures should not be aimed directly upwards, as water may pool on the lens and affect beam quality. Instead, the fixture should be angled to allow for proper water drainage.

Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.philipscolorkinetics.com

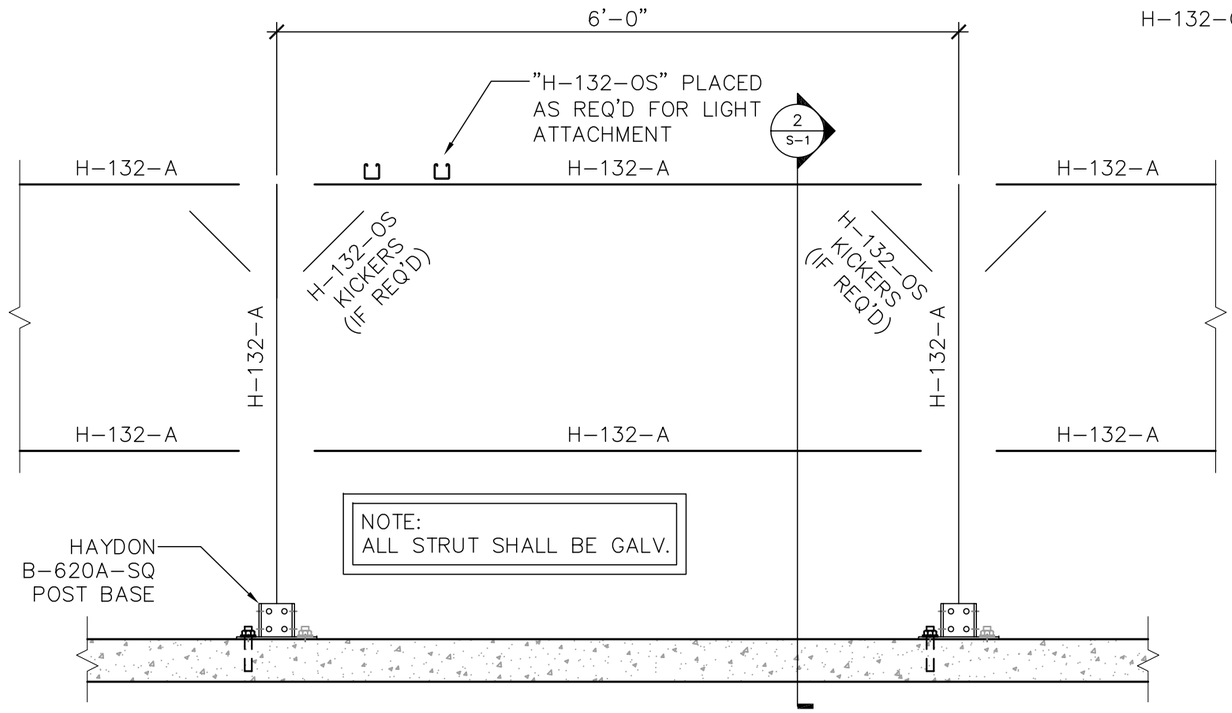
DAS-000022-00 R11 5-14

STRUT LEGEND

H-132-A –

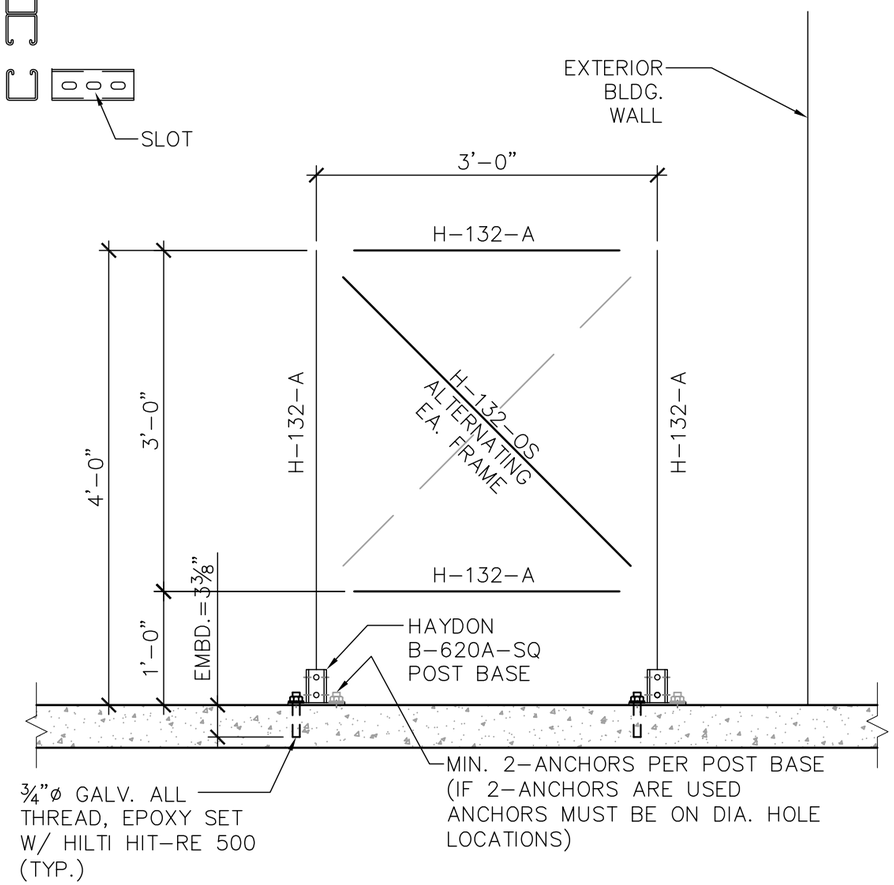
H-132-OS –

SLOT



NOTE:
ALL STRUT SHALL BE GALV.

1 / S-1 LIGHT STAND FRAME ELEV.
3/4"=1'-0"



2 / S-1 LIGHT STAND FRAME SECTION
3/4"=1'-0"

NOTE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND PRICING UNDER THE AUTHORITY OF CHASE HODGES, P.E., 115735 ON JUNE 3, 2015 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING AND PERMITTING PURPOSES.

PRIMERO ENGINEERING
F-2864

NOTE:
DIFFERENT STRUT MANUFACTURES USE DIFFERENT NAMES FOR STRUT SHAPES. THE CURRENT CALLED OUT SHAPES ARE MADE BY "HAYDON". THERE IS INFORMATION TO CORRELATE "HAYDON" SHAPES TO THE CORRECT SHAPES FROM OTHER SUPPLIERS.

primero ENGINEERING

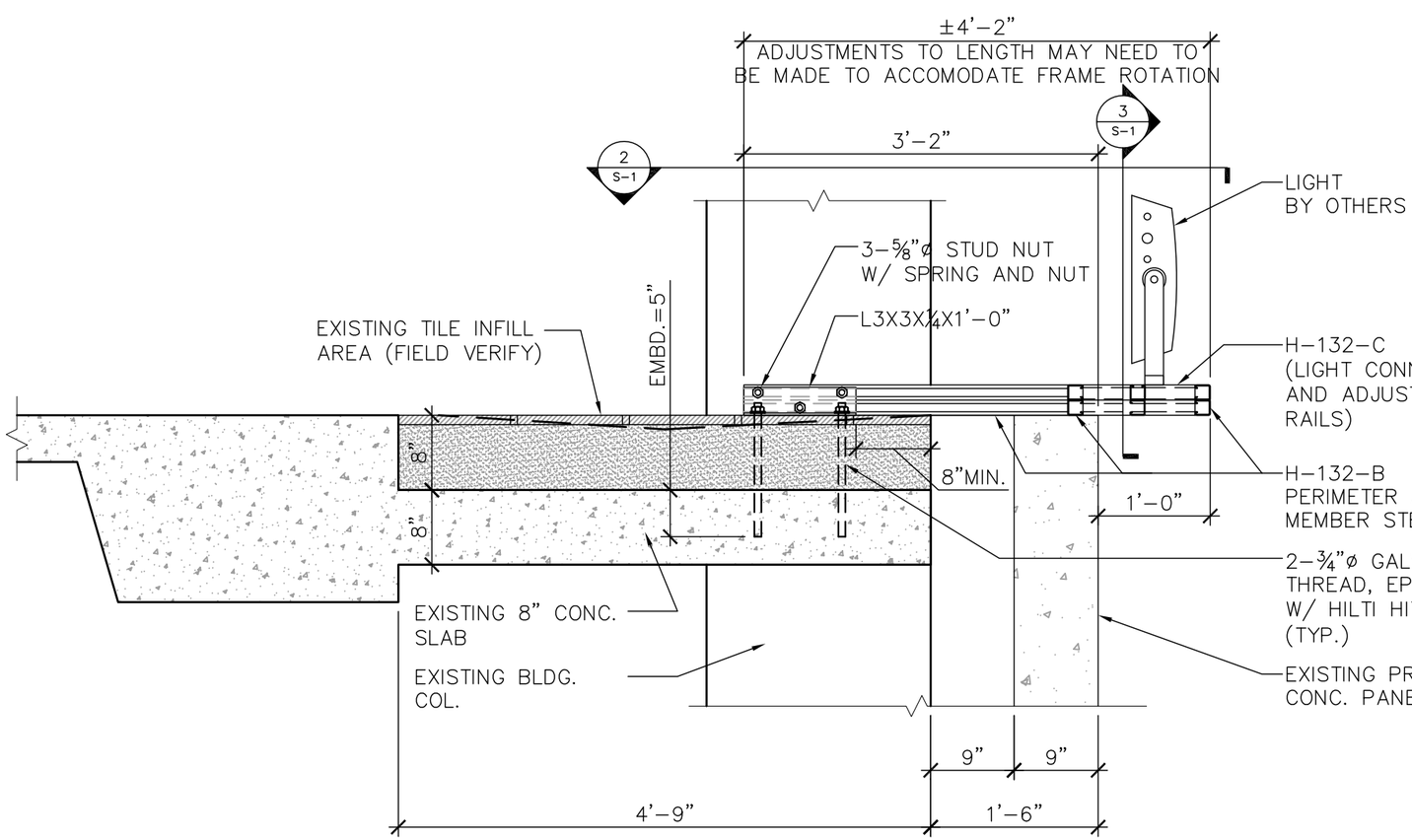
BANK OF AMERICA

EXTERIOR ROOF MOUNTED LIGHT FRAMES & DETAILS

JUNE 3,2014

S-1

SHEET 1 OF 1

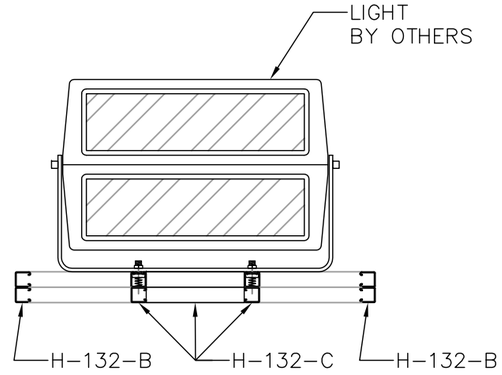


1 S-1 **LIGHT FRAME SECTION**
3/4"=1'-0"

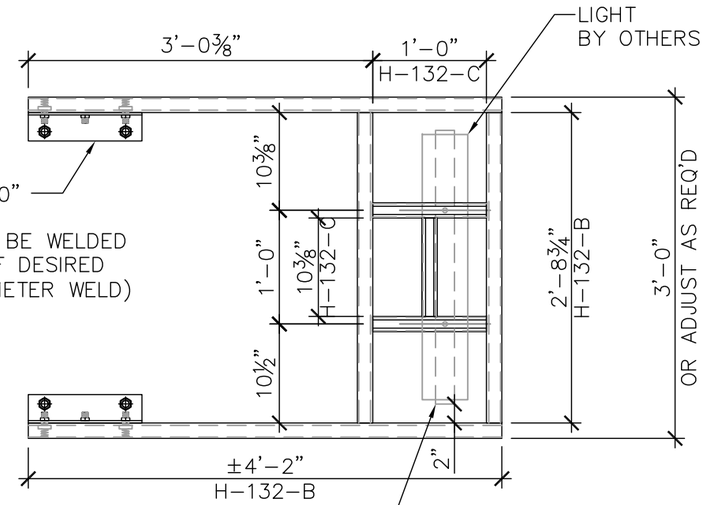
STRUT LEGEND

H-132-B –

H-132-C –



3 S-1 **DETAIL**
3/4"=1'-0"



2 S-1 **LIGHT FRAME FRAMING PLAN**
3/4"=1'-0"

NOTE:
DIFFERENT STRUT MANUFACTURES USED DIFFERENT NAMES FOR STRUT SHAPES. THE CURRENT CALLED OUT SHAPES ARE MADE BY "HAYDON". THERE IS INFORMATION TO CORRELATE "HAYDON" SHAPES TO THE CORRECT SHAPES FROM OTHER SUPPLIERS.

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EXTERIOR LIGHTING FRAMES DETAILS

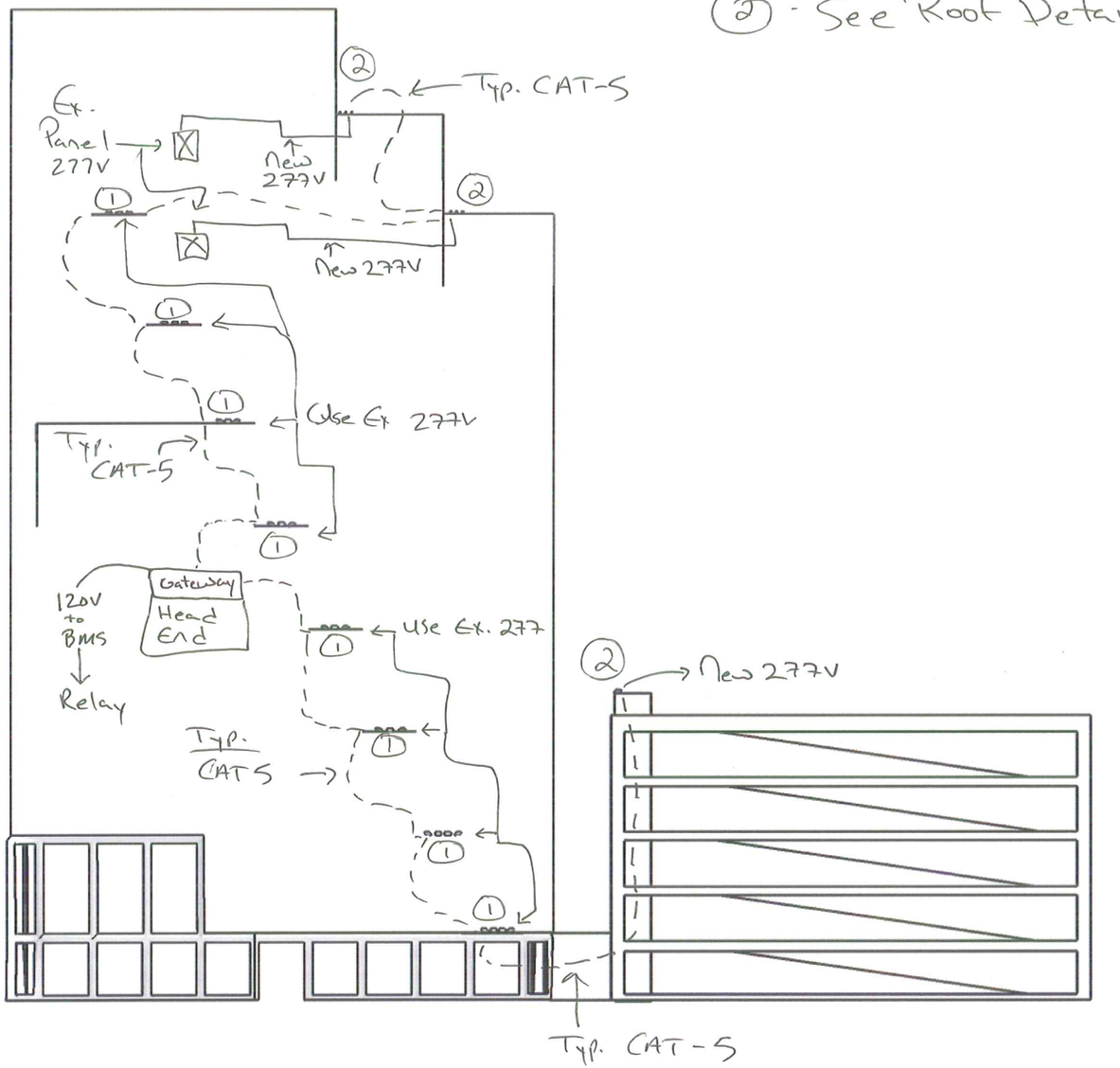
JUNE 3,2014

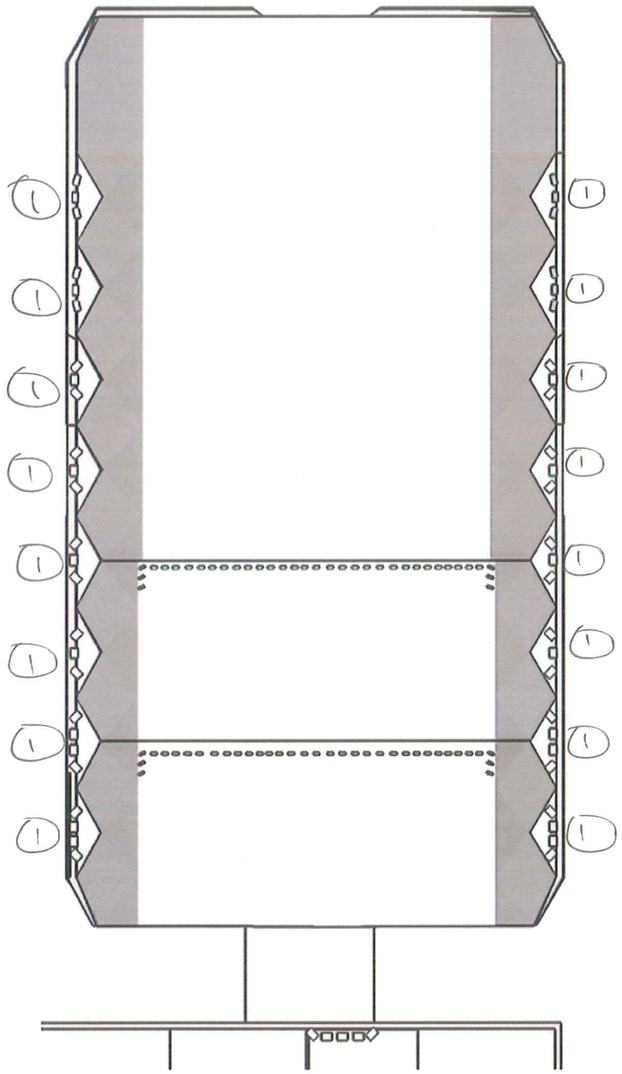
S-1

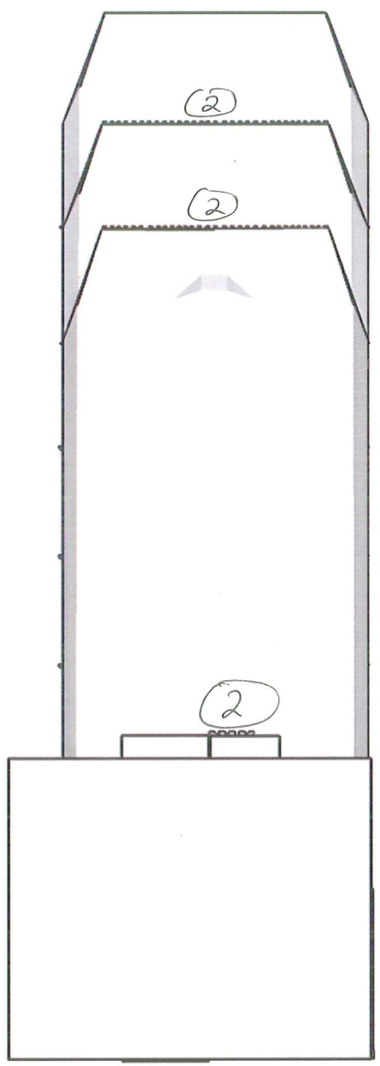
SHEET 1 OF 1

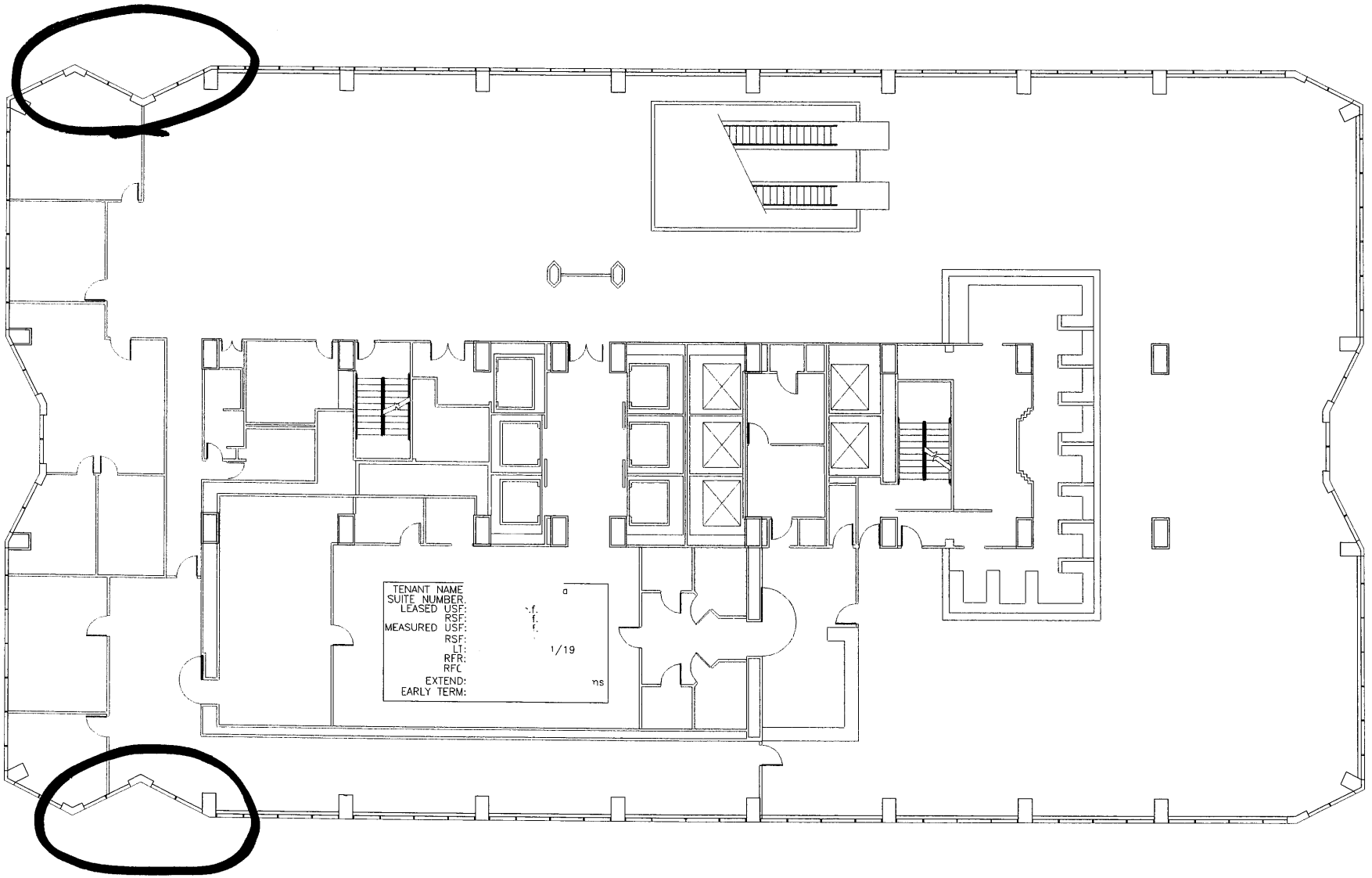
① - See Overhang Detail

② - See Roof Detail









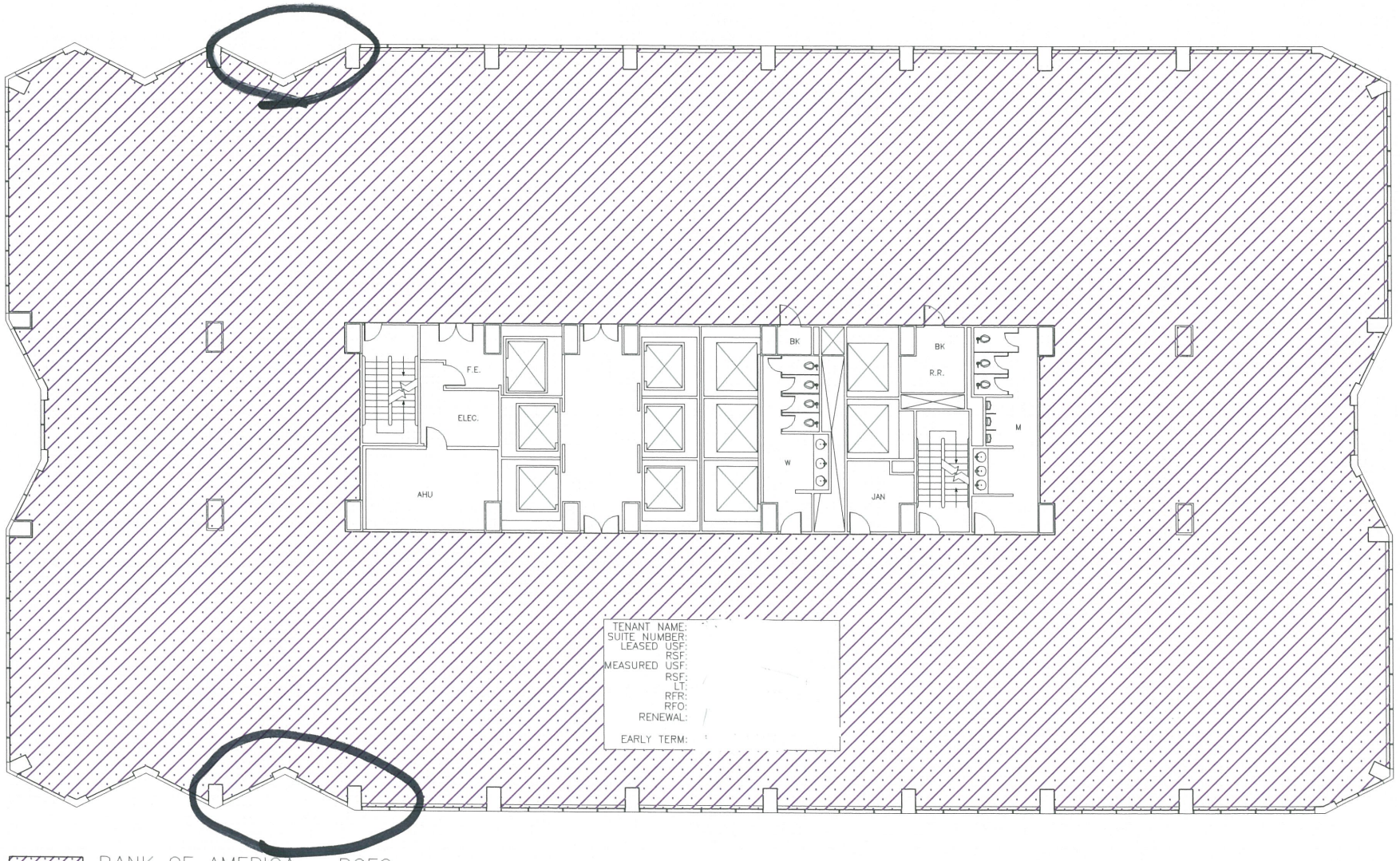
NORTH

BANK OF AMERICA PLAZA

LEVEL 2
04.06.15

SCALE: NTS

INSITE Architects Inc.
210 226 4195
311 THIRD
SUITE 100
SAN ANTONIO
TEXAS
78205



BANK OF AMERICA – ROFO

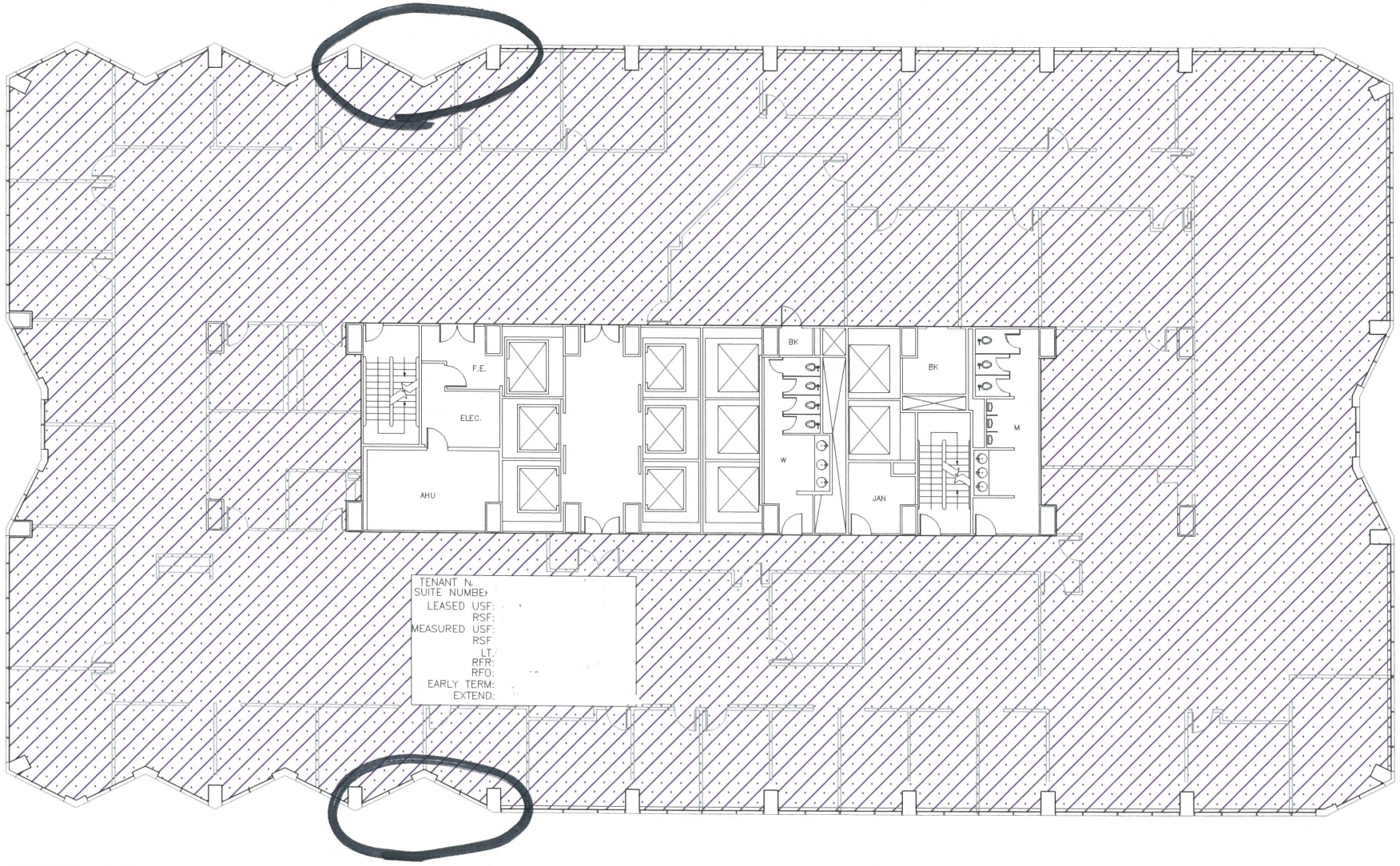
NORTH

BANK OF AMERICA PLAZA

LEVEL 5
04.06.15

SCALE: NTS

INSITE Architects Inc.
1633 BROADWAY
SAN ANTONIO TEXAS 78215
210 226 4195



RFO: BANK OF AMERICA

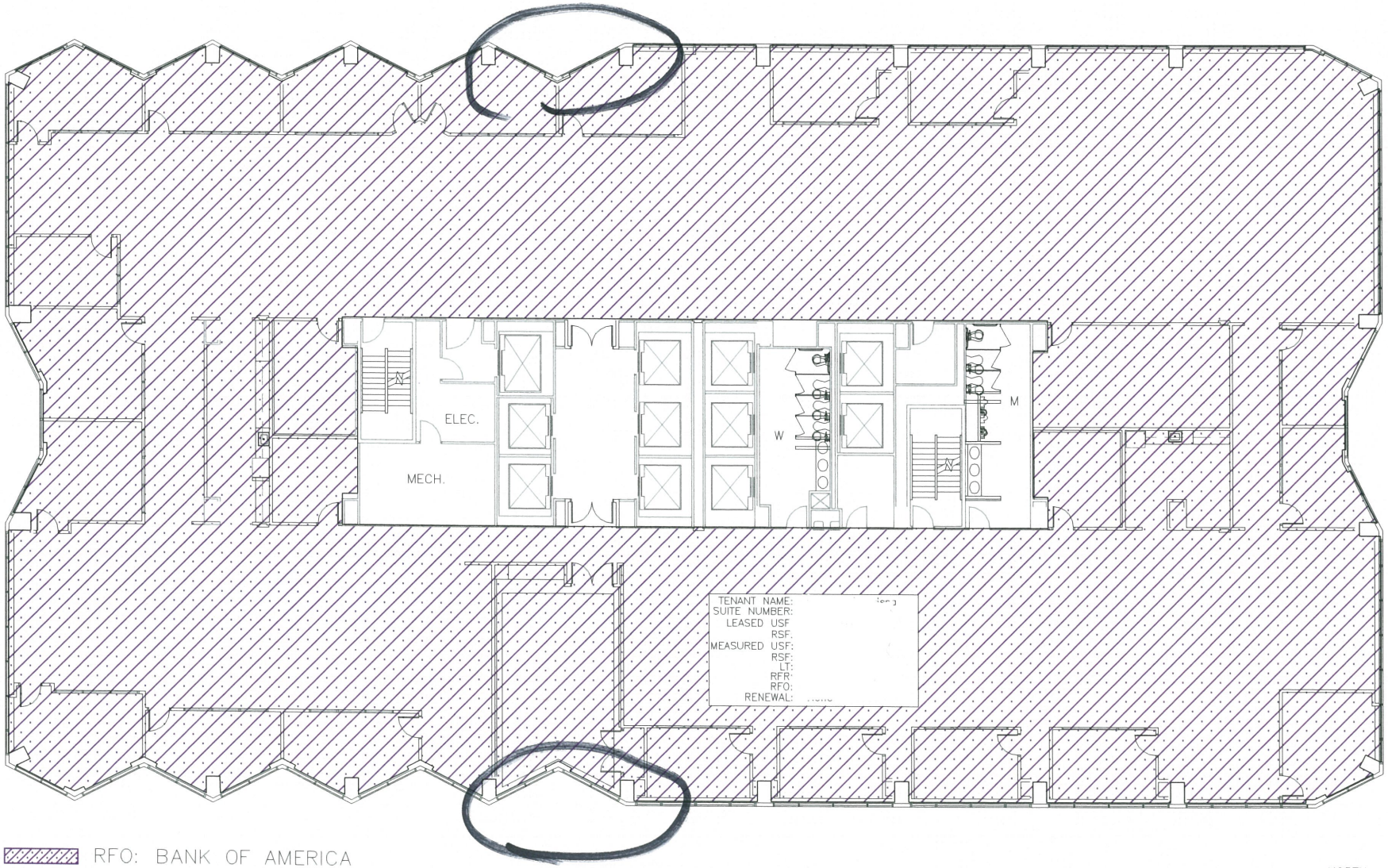
NORTH

BANK OF AMERICA PLAZA

LEVEL 8
04.06.15

SCALE: NTS

INSITE Architects Inc.
210 226 4195
1633 BROADWAY
SAN ANTONIO
TEXAS
78215



RFO: BANK OF AMERICA

NORTH

BANK OF AMERICA PLAZA

LEVEL 11
04.06.15

SCALE: NTS

INSITE Architects Inc.
1633 BROADWAY
SAN ANTONIO TEXAS 78215
210 226 4195

RFR: AKIN GUMP
RFO: FISHER & PHILLIPS, LLP

RFO: FIVE STONES RESEARCH

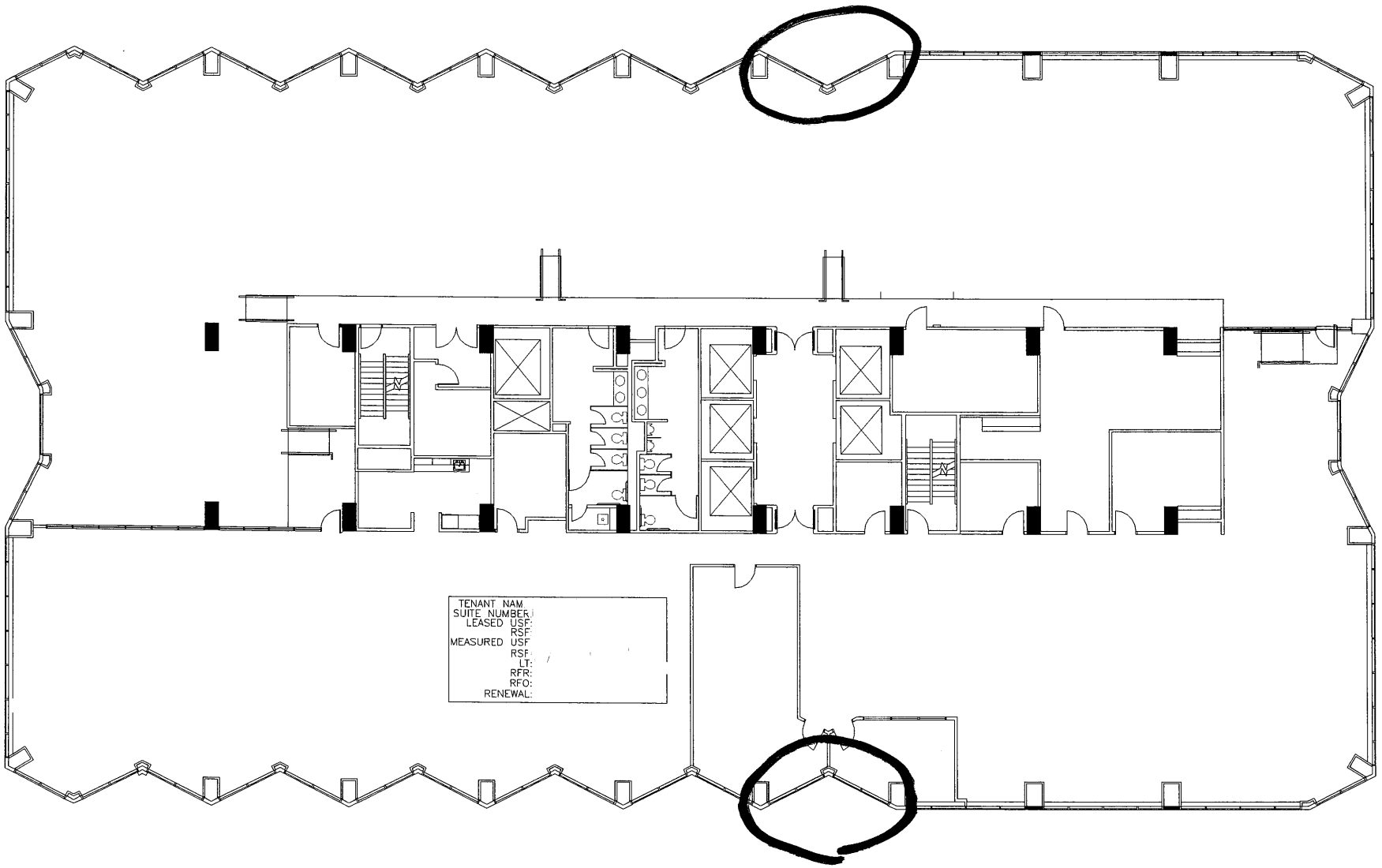
NORTH

BANK OF AMERICA PLAZA

LEVEL 14
04.06.15

SCALE: NTS

INSITE Architects Inc.
1633 BROADWAY
SAN ANTONIO TEXAS 78215
210 226 4195



NORTH

BANK OF AMERICA PLAZA

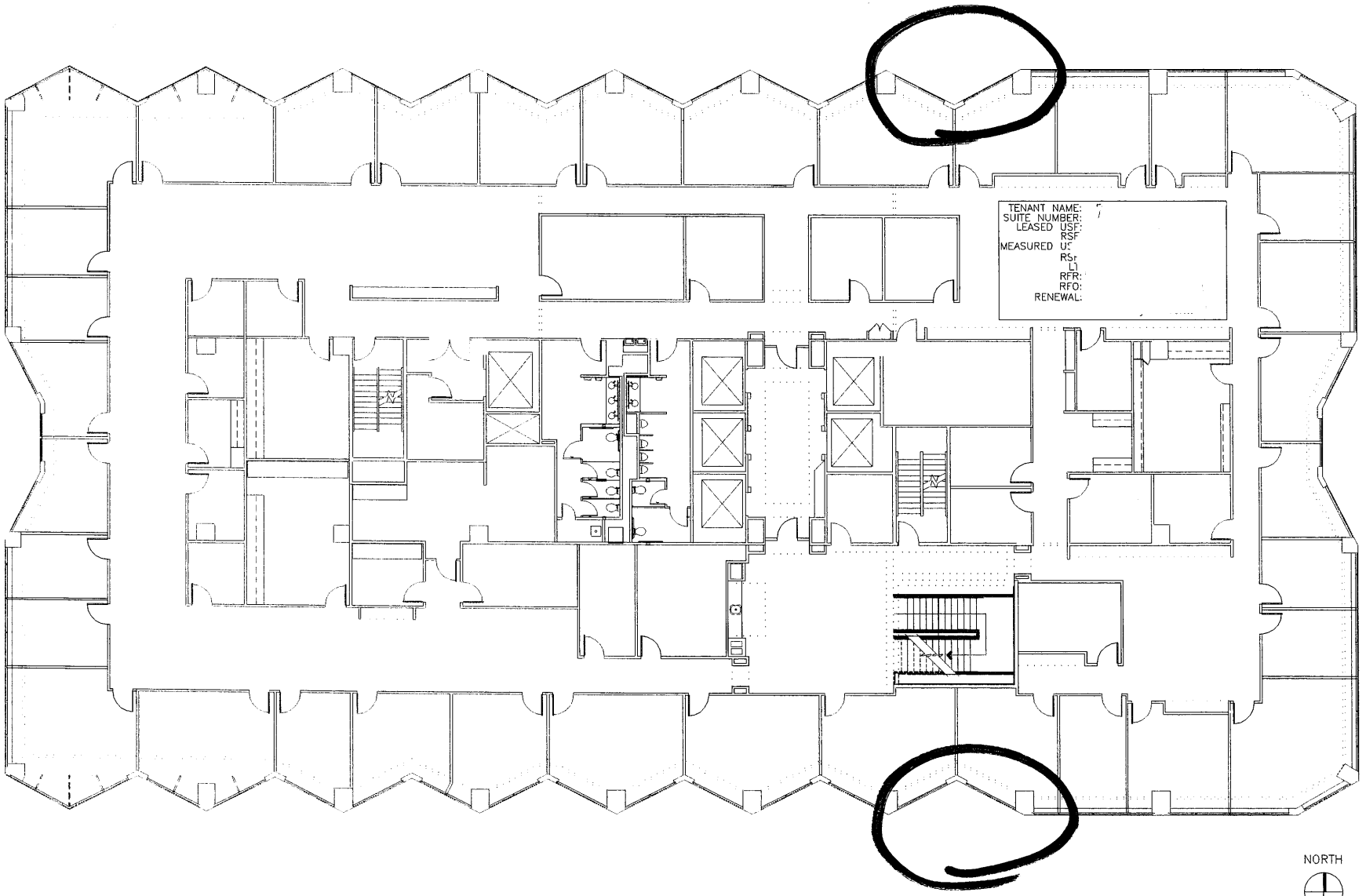
LEVEL 17
04.06.15

SCALE: NTS

I N S I T E
A r c h i t e c t s
I n c .

210 226 4195

1633
BROADWAY
SAN ANTONIO
TEXAS
78215

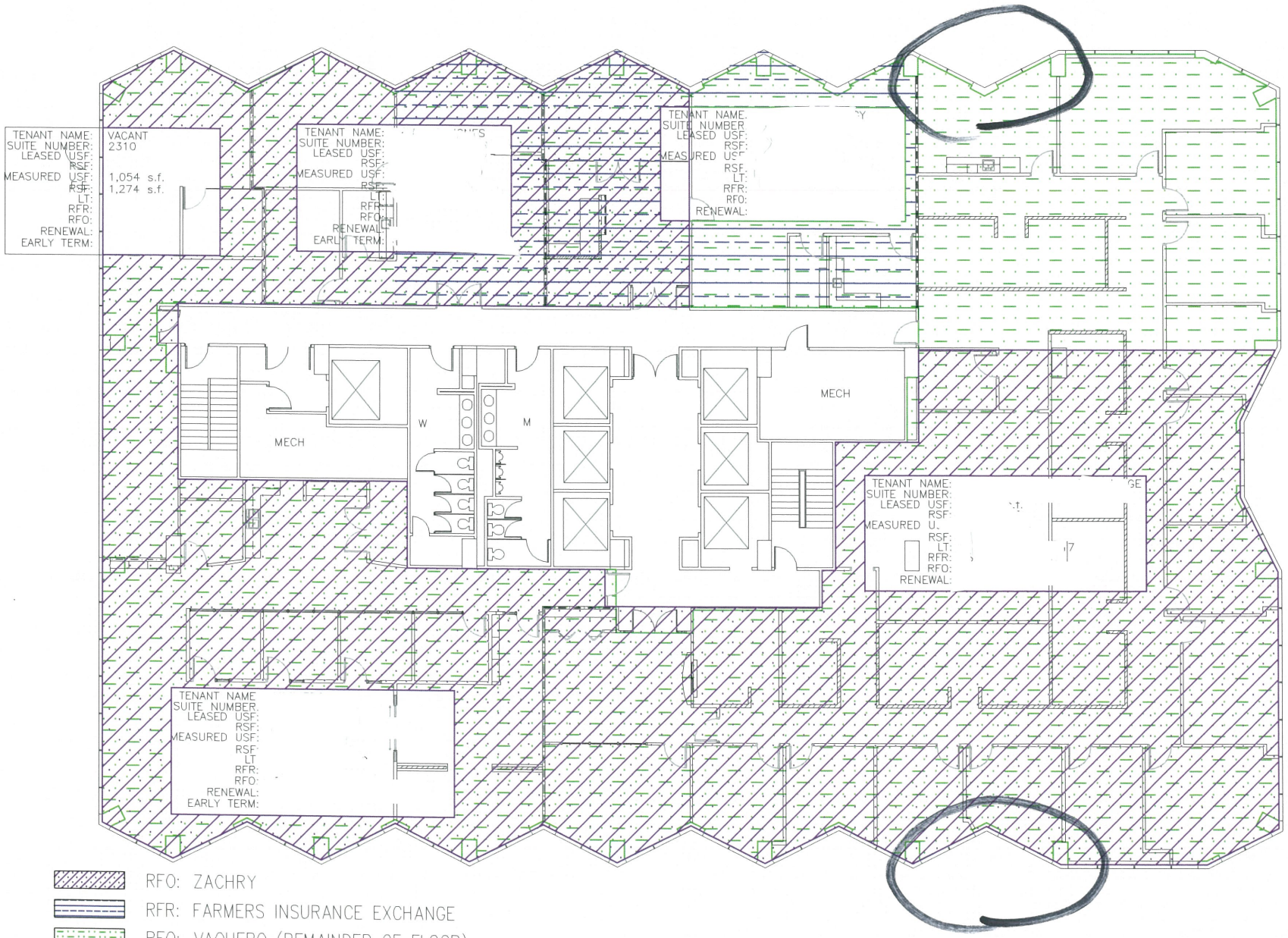


BANK OF AMERICA PLAZA

LEVEL 20
04.06.15

SCALE: NTS

INSITE Architects Inc.
210 226 4195
1633 BROADWAY
SAN ANTONIO
TEXAS
78215



RFO: ZACHRY

RFR: FARMERS INSURANCE EXCHANGE

RFO: VAQUERO (REMAINDER OF FLOOR)

BANK OF AMERICA

LEVEL 23

04.06.15

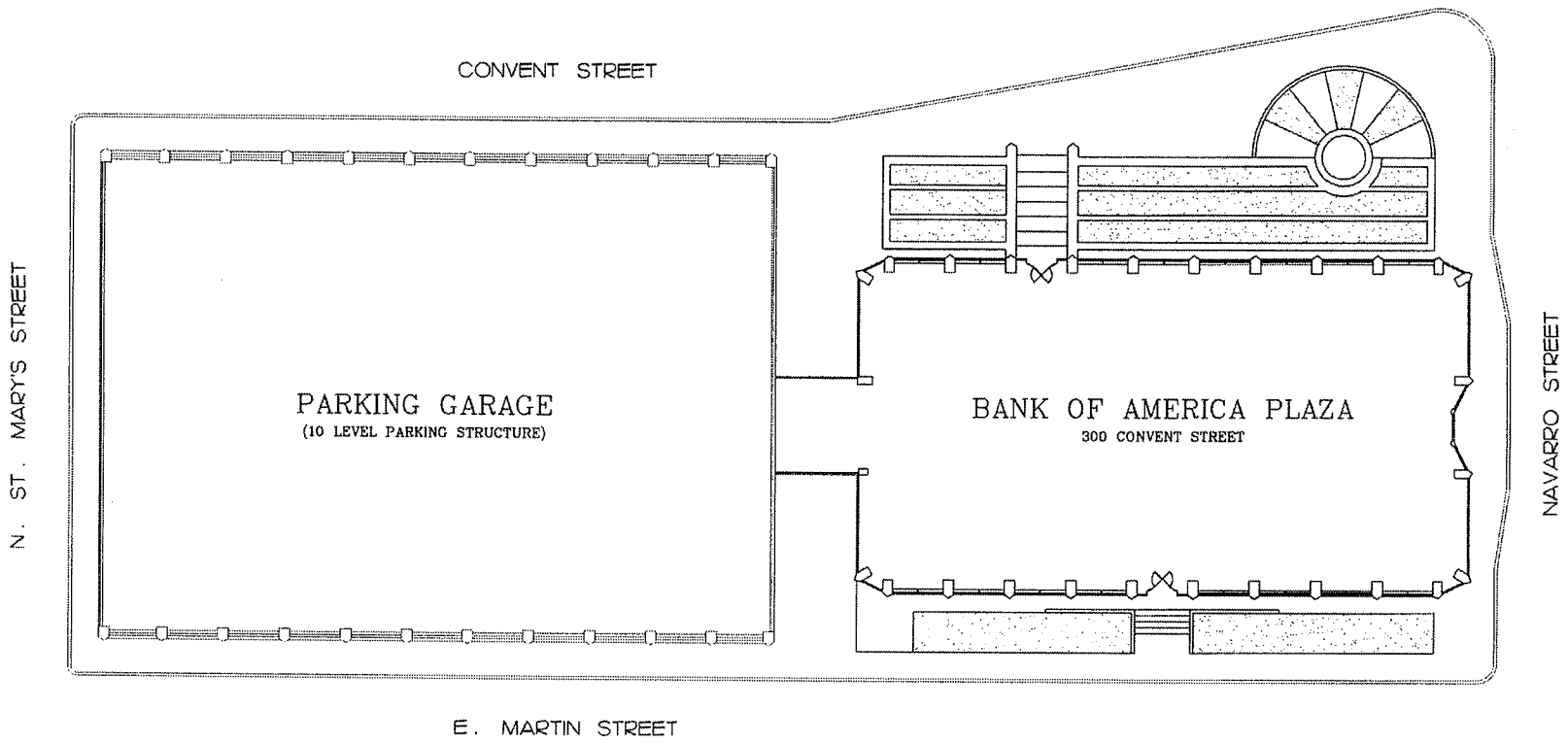
SCALE: NTS

INSITE Architects Inc.

1633 BROADWAY
SAN ANTONIO
TEXAS
78215

210 226 4195

LAND AND BUILDING PLAN



BANK OF AMERICA PLAZA

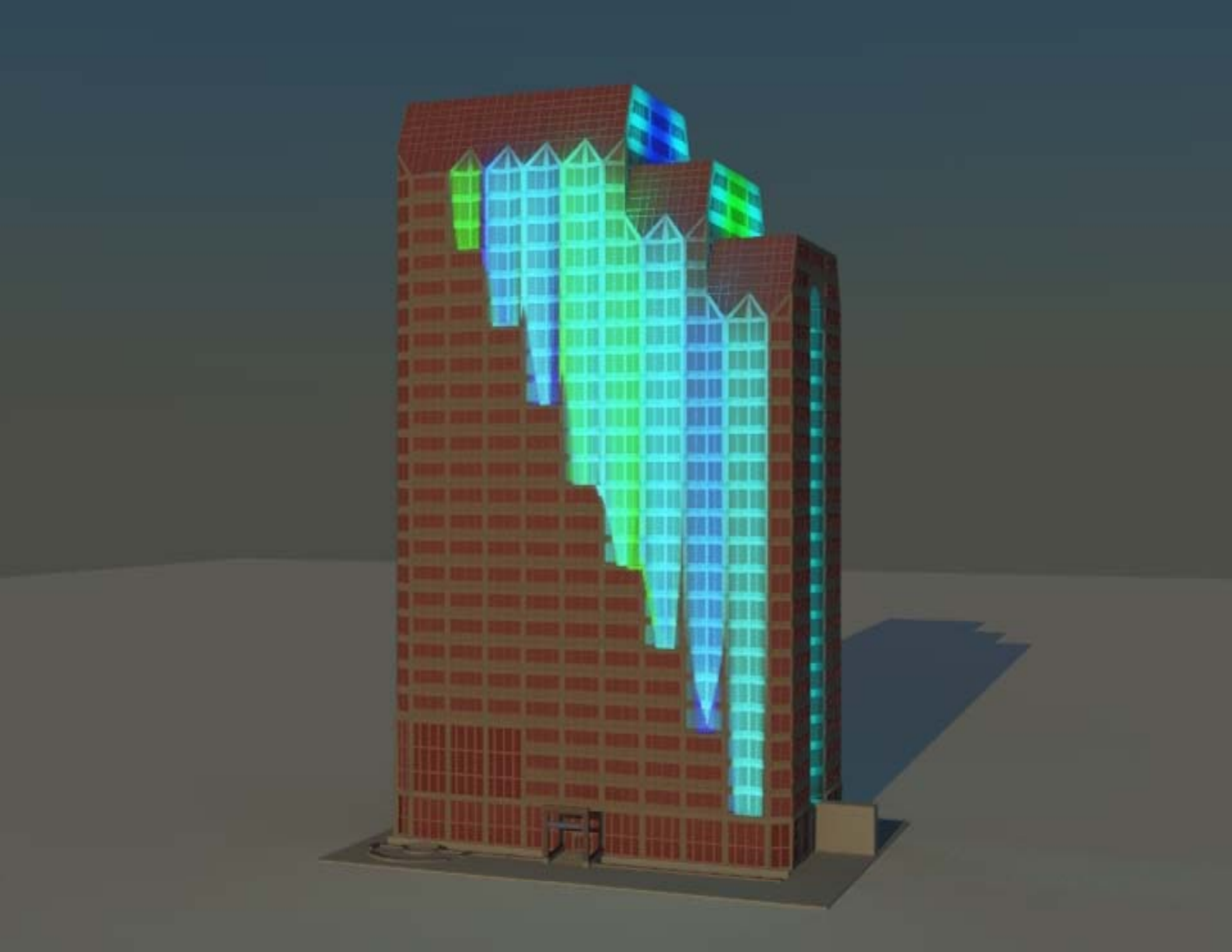
SITE PLAN
11.8.02

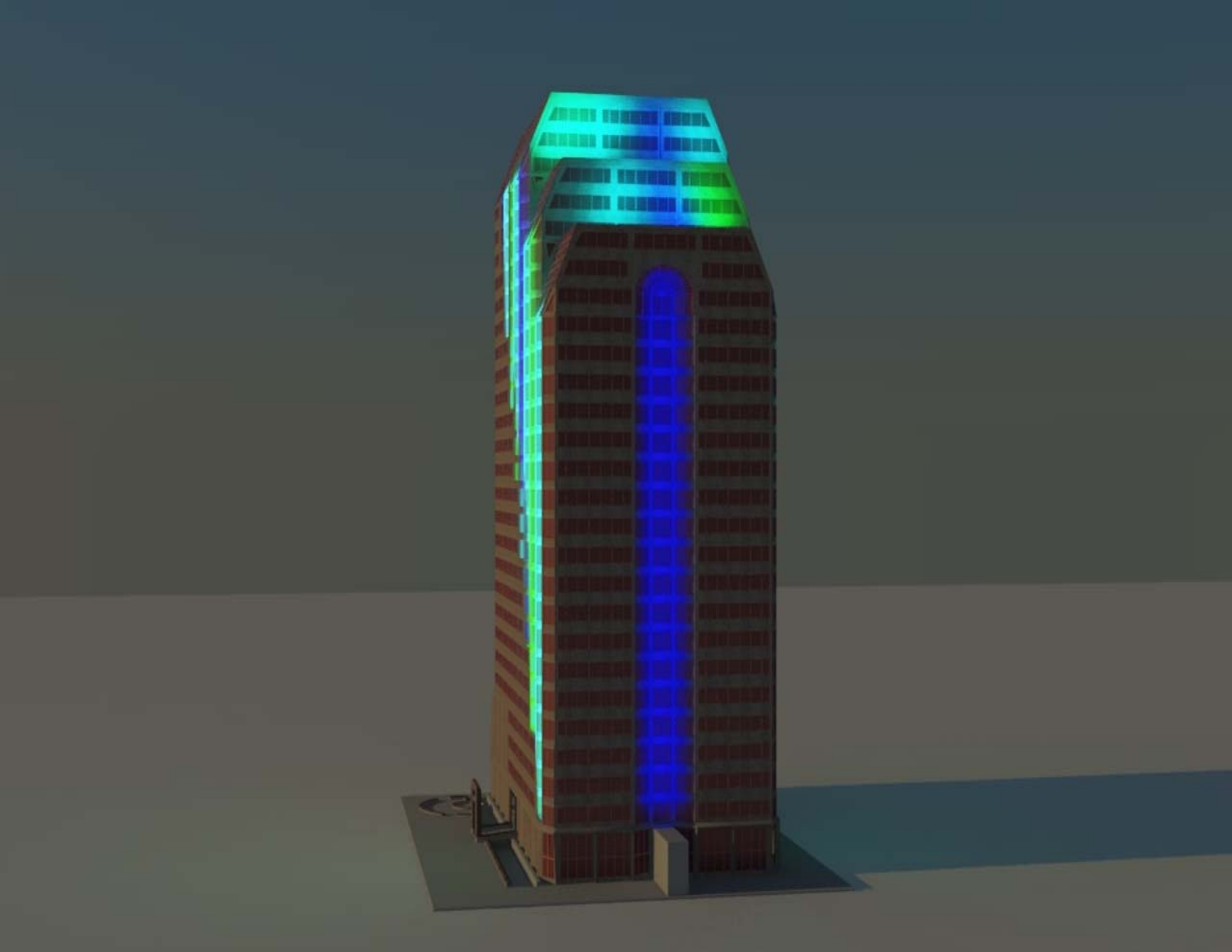
SCALE: NTS

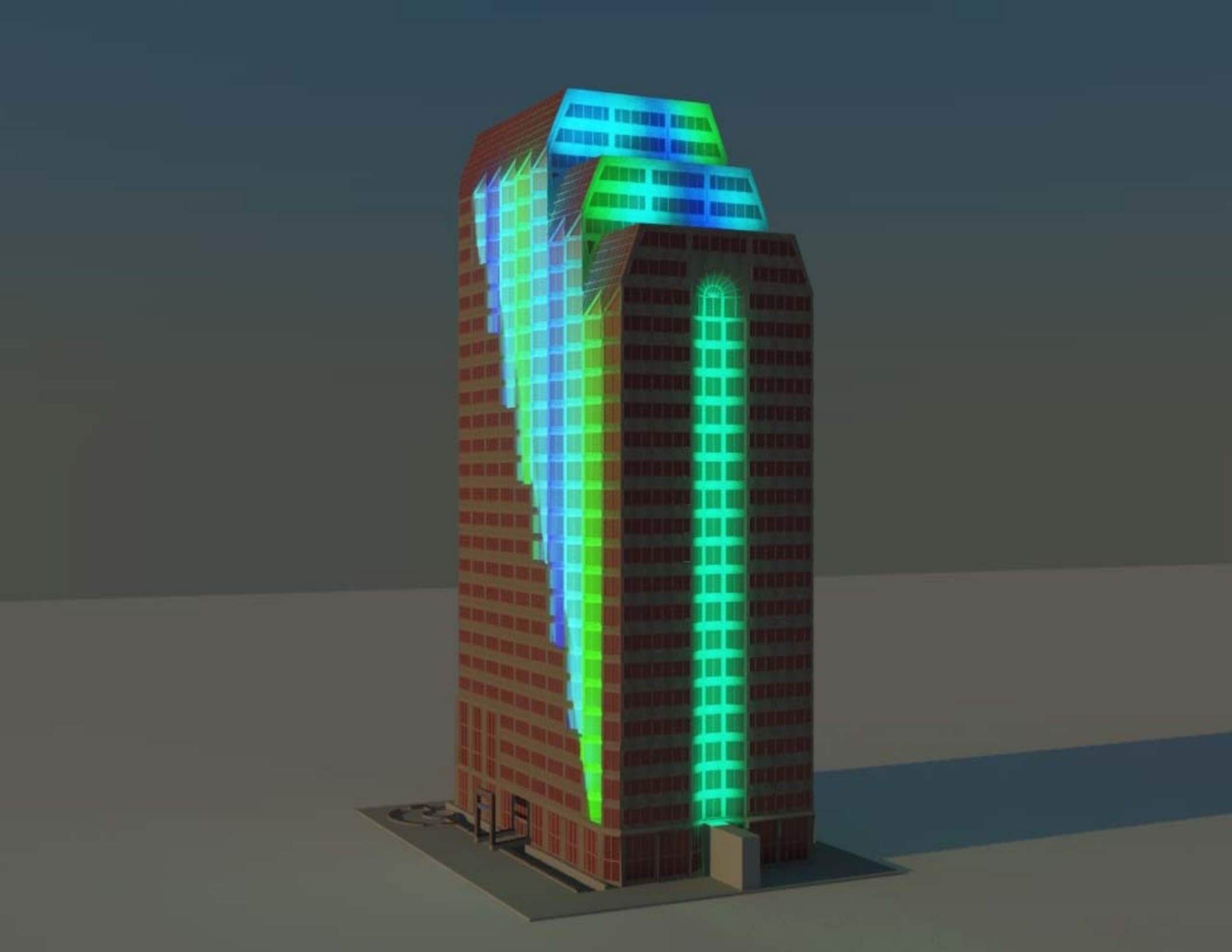
INSITE
Architects
Inc

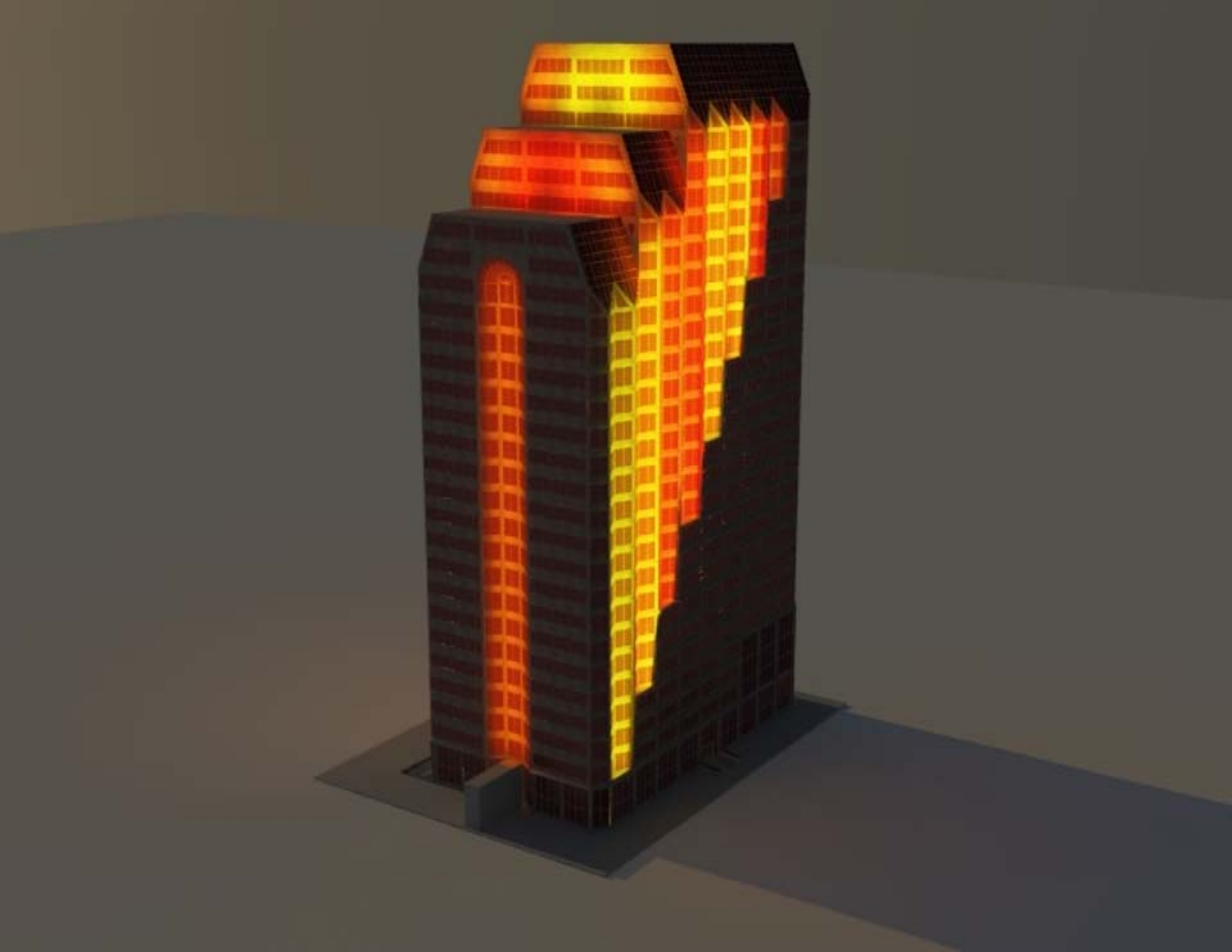
210 226 4195

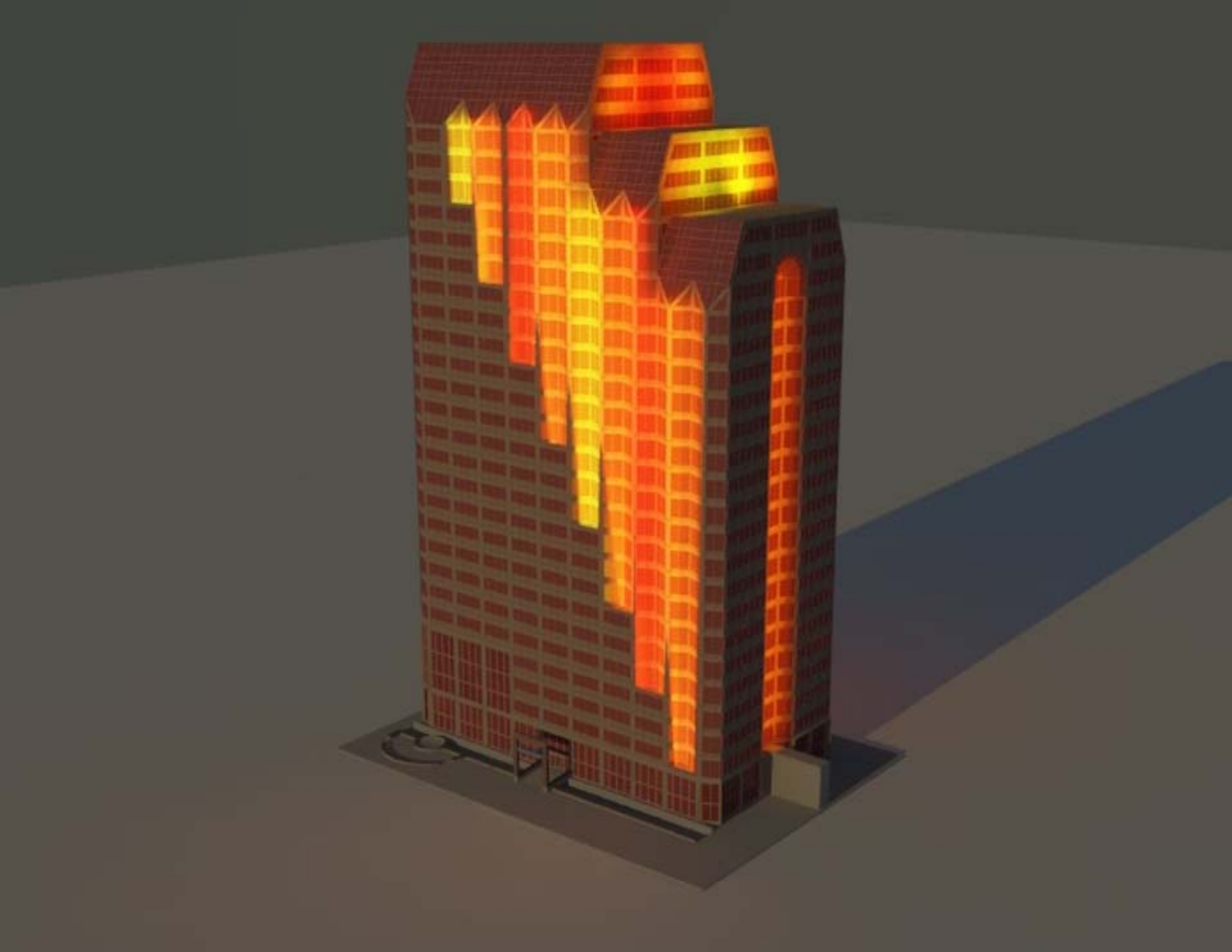
311 THIRD
SUITE 100
SAN ANTONIO
TEXAS
78205

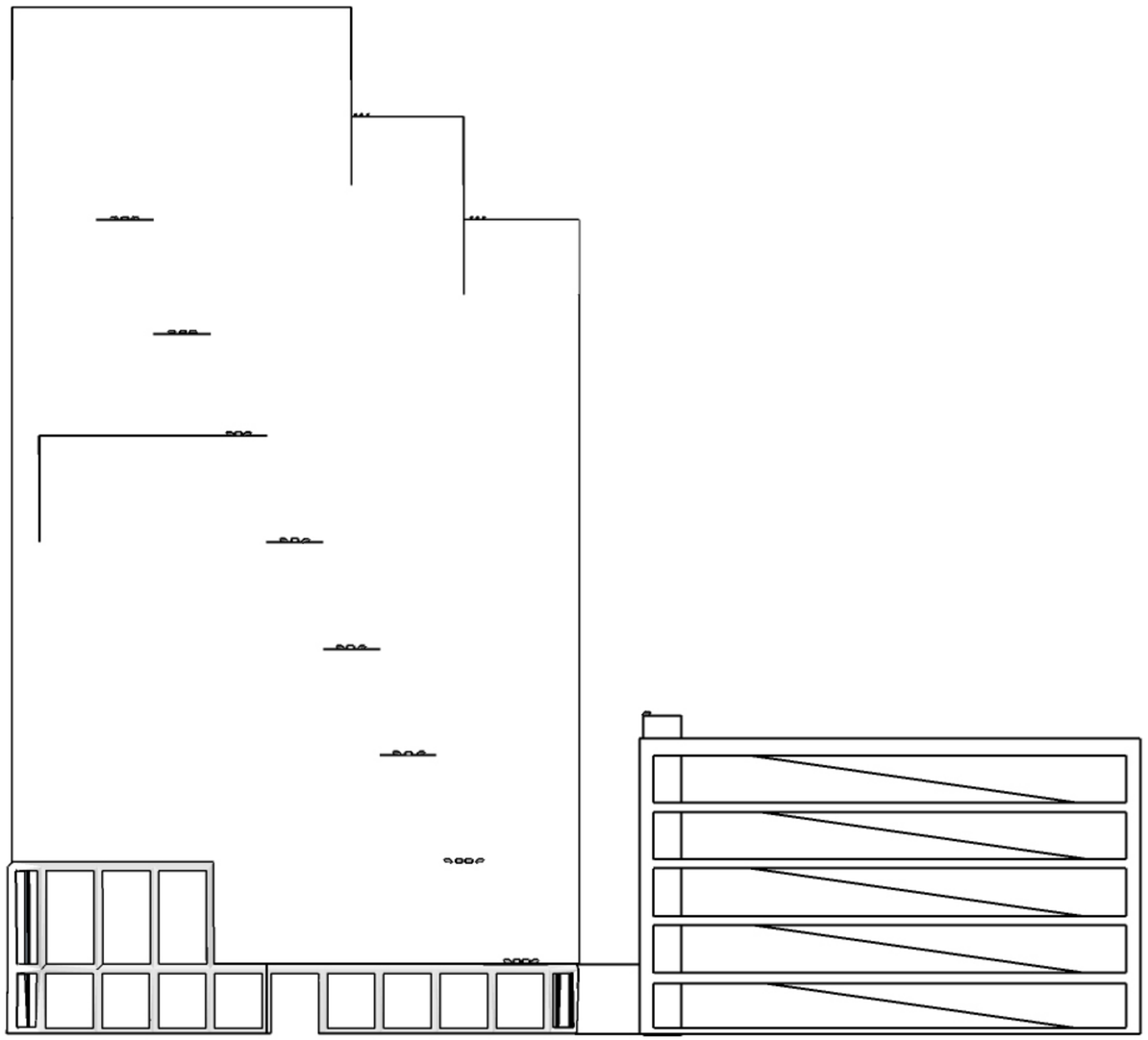


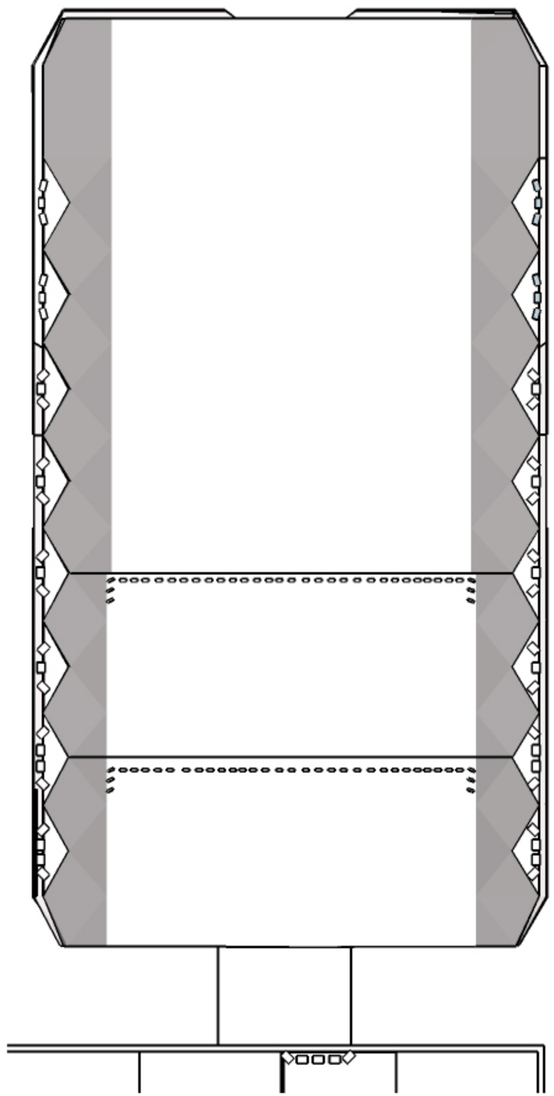


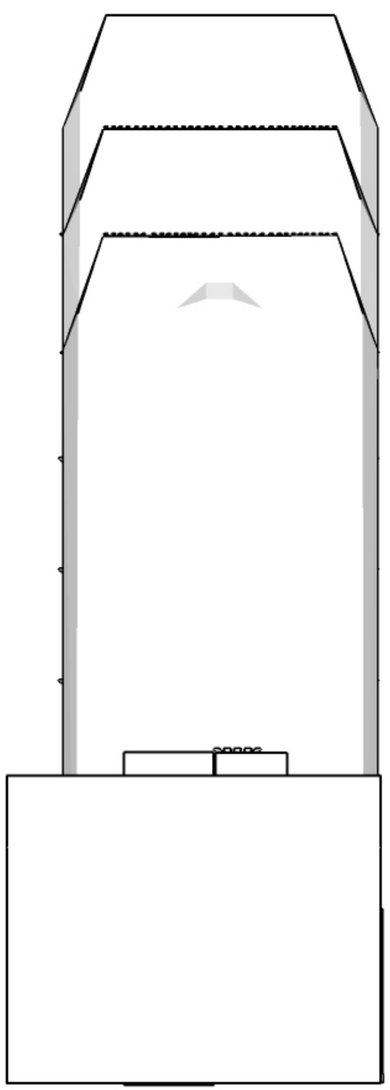












Fixture Scope for the Computerized LED Light Sculpture for 300 Convent Plaza

LED Light Fixtures:

1. **North and South Elevations- each side has 8 bays. Breakdown of all bays:**
   a. **Four most westerly bays with 4 ColorReach fixtures each is**
      16 ColorReach fixtures
   b. **Eight bays w/ 3 ColorReach fixtures is 24**
   c. **Four most easterly bays with 3 ColorReach Compact fixtures**
      each is 12 ColorReach Compact fixtures
2. **West Alcove, 5 ColorReach fixtures located on parking garage**
   5 ColorReach fixtures
5. **Second and Lower tier illuminating West facing elevations**
   70 ColorBlast fixtures

Other Components:

1. **Light System Manager**
2. **Astronomical Clock**
3. **Data Enablers (18)**
4. **Connectors/other hardware**
5. **IT support from ColorKinetics**

Artist's Services:

Artist's services include design and specification of all LED light fixtures, ordering all LED fixtures and components as specified in budget, overseeing electrical contractor and programing up to five unique LED programs


Bank of America Plaza

BIO/C.V.

Biography

Bill FitzGibbons received his BFA in Sculpture and Art History from the University of Tennessee, and his MFA in Sculpture and Multi-Media from Washington University in St. Louis. Bill has received over thirty public art commissions in five countries. In 1979 he became the first curator at Laumeier Sculpture Park in St. Louis, Missouri. From 1985 until 1988 he was appointed as the Director of Sculpture at the Visual Art Center in Anchorage, Alaska. In 1988 he became the Department Head of Sculpture at the San Antonio Art Institute. In 1991 he was selected as a Fulbright Scholar for the Hungarian Art Academy in Budapest, Hungary. Bill has also been on the adjunct faculty at Trinity University in San Antonio. FitzGibbons is the former Executive Director of Blue Star Contemporary Art Museum 2002-2013 and in 2012, was selected by the Texas State Legislature as The Texas State Artist (sculpture).

C.V.

Public Art Commissions

- **2014** Culebra Plaza, environmental plaza with LED light sculpture, San Antonio, Texas. This artwork is collaboration with the neighborhood association and school.
- **2013** LightRails, Downtown, Birmingham, Alabama
- **2013** San Antonio Colorline, a permanent site-specific LED light sculpture for the Robert B. Green University Health System Clinic, Downtown San Antonio, Texas
- **2012** Chinook Lights, Site-specific LED light installation for the King County Office, Seattle, Washington.
- **2010** Knoxville Colorline, a light sculpture installation for the Knoxville Museum of

Art, Knoxville, Tennessee.

- **2010** Öndvegissúlur, Poem of Light, a light sculpture installation on the City Hall of Reykjavik, Iceland as part of the Museum Night celebration.
- **2005-2008** Woodlawn Ave. Bus Stop Design Team with Pape-Dawson Engineers, streets and drainage project for the city of San Antonio.
- **2006** Light Channels, Site-specific public art project consisting of aluminum sculptures and hundreds of LED lights installed at the I37 underpasses at Houston and Commerce Streets, San Antonio, Texas.
- **2003-2005** Skywall, 60' long sculpture with LED lights located at the Bush Intercontinental Airport, Houston, Texas.
- **2001** Duck Pond Plaza Design Team with Groves and Associates, redesign of a neighborhood park with public art for the city of San Antonio.
- **2000** Millennium Plaza, a site-specific sculpture for the University of Houston at Victoria, Texas.
- **1999** Day Star Archway, a 40' tall archway and walkway at the San Antonio International Airport, San Antonio, Texas.
- **1996-1997** Design Team Participant, San Antonio Airport Expansion Project—Parking Garage.
- **1996** Rhode Island Lights, exterior neon sculpture for the Rhode Island Convention Center, Providence, Rhode Island.
- **1995** The Epiphany of Five Rivers, commissioned by the River Pierce Foundation, located on the banks of the Rio Grande, San Ygnacio, Texas.
- **1994** Olaf, commissioned by the Hampshire Sculpture Trust to commemorate the millennium of the Viking visits, Hampshire County, England.
- **1992** Homage to Balder, commissioned by the Millesgarden Museum and Sculpture Garden to celebrate Swedish mythology, Stockholm, Sweden.
- **1991** Literary Garden, chosen for the Main Library in Gainesville, Florida (funding was not realized).
- **1990** Lemon Creek Plaza, Lemon Creek Correctional Facility, Juneau, Alaska, 1% commission-State of Alaska.
- **1988** Fifth Ave. Reflections, an interior and exterior neon sculpture for the 5th Ave. parking facility, Anchorage, Alaska.
- **1988** North Star Plaza, an environmental sculpture for the Fairbanks Youth Facility, Fairbanks, Alaska.
- **1987** Solar Path, an environmental sculpture for Spring Hill Elementary School, 1% commission, Anchorage, Alaska.

Awards/Appointments

- **2012** Texas State Artist (sculpture) for 2012, selected by the Texas State

Legislature.

- **2011** Board Member, Texas Sculpture Group, Chapter of the ISC
- **2010** Outstanding Alumni Award, University of Tennessee, Knoxville, Tennessee.
- **2006-2012** International Sculpture Center, Member of Board of Trustees
- **1993** Fulbright Scholar, Hungarian Academy of Art and Design, Budapest, Hungary
- **1999-2000** Blue Star Contemporary Art Center, President, Board of Directors
- **1996-2000** Adjunct Faculty, Trinity University, San Antonio, Texas
- **1991** USIA, Artist Fellowship, Helsinki, Finland
- **1988-1991** Associate Professor, Head of Sculpture Department, San Antonio Art Institute, San Antonio, Texas.
- **1985** Director of Sculpture, Visual Arts Center of Alaska, Anchorage, Alaska

Exhibitions (selected) Bill FitzGibbons has had sixteen solo exhibitions and has been in over sixty-five group exhibitions over the past twenty-five years.

- **2014** Texas Exhibition, Lalit Kala Akademi (National Academy of Art), New Delhi, India
- **2014** Bill FitzGibbons, International Museum of Art and Science, McAllen, Texas
- **2012-13** Western Sequel, Art from the Lone Star, Athens School of Fine Arts, Athens Greece/ Mimar Sinan Fine Arts University, Istanbul, Turkey.
- **2011** The New Old San Antonio, Spencer Museum, Lawrence, Kansas
- **2010** Fire Drawings, G Gallery, Houston, Texas
- **2010** Filament, the work of Bill FitzGibbons and Creighton Michael, Ewing Gallery, University of Tennessee, Knoxville, Tennessee
- **2006** Eellight, The Lab Gallery, a collaboration with Creighton Michael, New York City, New York
- **2000** Earth and Fire, San Antonio Museum of Art, an exhibition of ceramic sculpture, San Antonio, Texas
- **1996** Northern Lights, Fruitmarket Gallery, Edinburgh, Scotland
- **1993** Out of the Fire, Laredo Arts Center, Laredo, Texas
- **1993** Jansen-Perez Gallery, San Antonio, Texas
- **1993** Carrington-Gallagher Gallery, San Antonio, Texas
- **1992** Millesgarden Museum, Stockholm, Sweden
- **1991** Otso Gallery, Helsinki, Finland
- **1991** Hochsule fur Bildende Kunste, Brunschweig, Germany
- **1991** Blue Star Art Space, San Antonio, Texas
- **1988** Searching for the Balance, Anchorage Museum of History and Art, Anchorage, Alaska
- **1983** Light Motifs, St. Louis Art Museum, St. Louis, Missouri
- **1982** Pratt Manhattan Gallery, New York City, New York

- **1981** City Museum, Stoke-on-Trent, England
- **1980** Electrosculpture, Midland Art Centre, Birmingham, England

Visiting Artist

- **2013** Washington University in St. Louis, St. Louis, Missouri
- **2010** The University of Tennessee, Knoxville, Tennessee.
- **1995** Rhode Island School of Art, Providence, Rhode Island.
- **1994** Winchester School of Art, Winchester, England.
- **1991** Hochschule für Bildende Künste, Braunschweig, Germany.
- **1991** Kuvataideakatemia, Helsinki, Finland.
- **1990** Virginia Commonwealth University, Richmond, Virginia.
- **1986** Center for Advanced Visual Studies, M.I.T., Cambridge, Massachusetts.
- **1981** University of Sunderland, Sunderland, England.
- **1981** Bath Academy of Art, Bath, England.

on January 18 • by admin

Contact Info

Bill FitzGibbons
107 Lone Star Blvd.
San Antonio, Texas 768204
phone: (210)723-3048
email: bill@billfitzgibbons.com

Social

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