iW Reach Compact Powercore

Premium long-throw compact exterior floodlight with intelligent white light

PHILIPS

COLOR KINETICS

iW Reach Compact Powercore

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

iW Reach Compact Powercore combines all the benefits of LED-based lighting and control in a compact fixture specifically designed for large-scale installations, such as skyscrapers, casinos, bridges, piers, public monuments, and themed attractions. iW Reach Compact Powercore combines channels of warm, neutral, and cool LED sources to offer high-quality variable white light in color temperatures ranging from 2700 K – 6500 K. iW Reach Compact Powercore delivers intense, energy-efficient output at a reasonable price, opening up new possibilities for 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.
- High-performance illumination in a wide range of color temperatures — Channels of warm, neutral, and cool white LEDs produce temperatures ranging from 2700 K to 6500 K, offering the greatest possible light intensity at all temperatures. Fixture brightness can be varied while maintaining constant temperature.
- Superior color consistency — Optibin, a proprietary binning optimization process developed by Philips Color Kinetics, guarantees consistency of hue across LEDs, fixtures, and manufacturing runs.
- 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.
- High-performance, cost-effective light — Significantly less cost to install, operate, and maintain 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 – 240 VAC, allowing consistent installation in any location around the world.

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

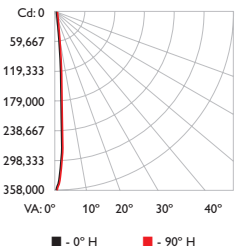
Photometrics

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

iW Reach Compact Powercore 5° native (no spread lens)

LED	Lumens	Efficacy
RGB	6129	49.6

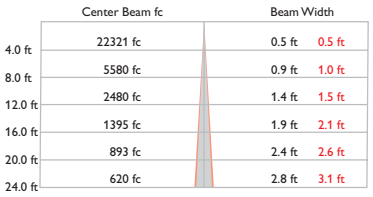
Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	35713	35713	35713	35713	35713
5	6586	7052	8163	8959	9129
15	47	49	50	49	45
25	24	22	21	20	18
35	15	11	13	12	10
45	8	7	7	7	7
55	2	2	3	3	0
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

MULTIPLY CANDELA VALUES BY 10

Illuminance at Distance



598 ft (182.3 m)
1 fc maximum distance

Vert. Spread: 6.8°
Horiz. Spread: 7.3°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	5981	97.6
0- 40	6061	98.9
0- 60	6129	100.0
0- 90	6129	100.0
90-180	0	0.0
0-180	6129	100.0

Coefficients Of Utilization - Zonal Cavity Method

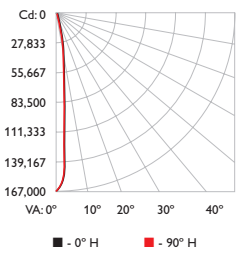
Effective Floor Cavity Reflectance: 20%

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	116	115	114	112	114	113	112	111	109	108	107	105	105	104	102	102	101	100
2	114	112	110	108	112	110	108	107	107	106	104	104	103	102	102	101	100	99
3	112	109	107	105	111	108	106	104	106	104	103	104	102	101	102	100	100	99
4	111	107	105	103	109	106	104	102	104	103	101	103	101	100	101	100	99	98
5	109	106	103	101	108	105	103	101	103	102	100	102	101	99	101	100	99	98
6	108	104	102	100	107	104	101	100	103	101	99	102	100	99	101	99	98	97
7	107	103	101	99	106	103	101	99	102	100	99	101	99	98	100	99	98	97
8	106	102	100	99	105	102	100	98	101	99	98	101	99	98	100	98	97	97
9	105	102	99	98	105	101	99	98	101	99	98	100	99	97	100	98	97	97
10	105	101	99	98	104	101	99	97	100	98	97	100	98	97	99	98	97	96

iW Reach Compact Powercore 8° spread lens

LED	Lumens	Efficacy
RGB	5325	43.0

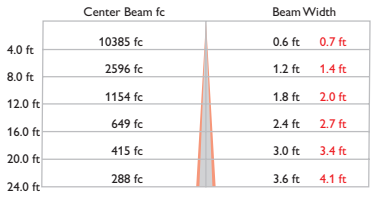
Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	16616	16616	16616	16616	16616
5	6498	6706	7219	7735	7947
15	88	89	96	102	106
25	30	28	28	27	28
35	15	12	13	13	14
45	6	6	6	6	7
55	2	1	2	2	2
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

MULTIPLY CANDELA VALUES BY 10

Illuminance at Distance



408 ft (124.4 m)
1 fc maximum distance

Vert. Spread: 8.7°
Horiz. Spread: 9.7°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	5179	97.3
0- 40	5264	98.9
0- 60	5324	100.0
0- 90	5325	100.0
90-180	0	0.0
0-180	5325	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

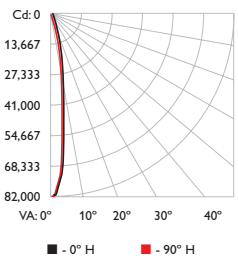
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	116	115	113	112	114	113	111	110	109	108	107	105	104	104	102	101	101	99
2	114	111	109	107	112	110	108	106	107	105	104	104	103	102	101	100	101	98
3	112	109	106	104	110	107	105	103	105	103	102	103	101	100	101	100	99	98
4	110	106	104	102	109	105	103	101	104	102	100	102	100	99	100	99	98	97
5	109	105	102	100	107	104	101	100	102	100	99	101	99	98	100	98	97	96
6	107	103	100	99	106	103	100	98	101	99	98	100	99	97	99	98	97	96
7	106	102	99	97	105	101	99	97	100	98	97	100	98	96	99	97	96	95
8	105	101	98	97	104	100	98	96	100	98	96	99	97	96	98	97	95	95
9	104	100	97	96	103	100	97	96	99	97	95	98	97	95	98	96	95	94
10	103	99	97	95	102	99	97	95	98	96	95	98	96	95	97	96	95	94

For lux multiply fc by 10.7

iW Reach Compact Powercore 13° spread lens

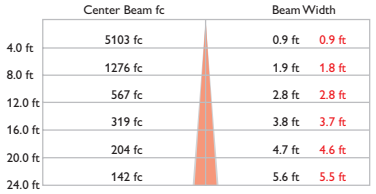
LED	Lumens	Efficacy
RGB	5317	43.0

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
90°					
0	81640	81640	81640	81640	81640
80°					
5	55433	55323	55213	54885	54665
15	3190	3053	2789	2559	2476
25	298	279	254	252	245
35	171	152	152	154	147
70°					
45	59	51	49	49	44
55	10	12	7	10	0
60°					
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
50°					
90	0	0	0	0	0

Illuminance at Distance



286 ft (87.2 m)
1 fc maximum distance

Vert. Spread: 13.4°
Horiz. Spread: 13.2°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	5175	97.3
0- 40	5269	99.1
0- 60	5317	100.0
0- 90	5317	100.0
90-180	0	0.0
0-180	5317	100.0

Coefficients Of Utilization - Zonal Cavity Method

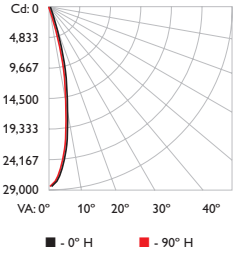
Effective Floor Cavity Reflectance: 20%

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	116	114	113	111	114	112	111	110	108	107	106	105	104	103	101	101	100	99
2	113	111	108	106	111	109	107	105	106	104	103	103	102	101	101	100	99	97
3	111	108	105	103	109	106	104	102	104	102	100	102	100	99	100	98	97	96
4	109	105	102	100	108	104	101	99	102	100	98	100	99	97	99	97	96	95
5	107	103	100	98	106	102	99	97	101	98	96	99	97	96	98	96	95	94
6	105	101	98	96	104	100	98	96	99	97	95	98	96	94	97	95	94	93
7	104	99	96	94	103	99	96	94	98	95	94	97	95	93	96	94	93	92
8	102	98	95	93	102	97	95	93	97	94	93	96	94	92	95	93	92	91
9	101	97	94	92	100	96	94	92	96	93	92	95	93	91	94	93	91	91
10	100	95	93	91	99	95	93	91	95	92	91	94	92	91	94	92	90	90

iW Reach Compact Powercore 23° spread lens

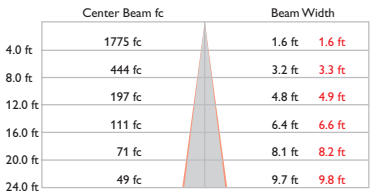
LED	Lumens	Efficacy
RGB	5296	42.8

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
90°					
0	28404	28404	28404	28404	28404
80°					
5	25018	25017	25114	25089	24991
15	8407	8439	8561	8694	8729
25	1045	1040	1056	1101	1129
35	155	147	141	148	147
70°					
45	76	69	64	68	70
55	40	36	35	39	36
60°					
65	21	17	18	21	19
75	6	6	6	7	6
85	0	0	0	0	0
50°					
90	0	0	0	0	0

Illuminance at Distance



168.5 ft (51.4 m)
1 fc maximum distance

Vert. Spread: 22.8°
Horiz. Spread: 23.1°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	5078	95.9
0- 40	5182	97.8
0- 60	5270	99.5
0- 90	5296	100.0
90-180	0	0.0
0-180	5296	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

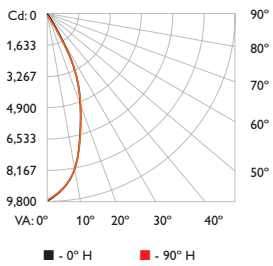
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91
4	105	100	96	93	103	99	95	93	97	94	92	95	93	91	93	91	90	88
5	102	96	93	90	101	96	92	89	94	91	89	93	90	88	91	89	87	86
6	99	93	89	87	98	93	89	86	91	88	86	90	87	85	89	87	85	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	85	83	82
8	94	88	84	82	94	88	84	81	87	84	81	86	83	81	85	83	81	80
9	92	86	82	79	91	86	82	79	85	81	79	84	81	79	83	81	79	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76

For lux multiply fc by 10.7

iW Reach Compact Powercore 40° spread lens

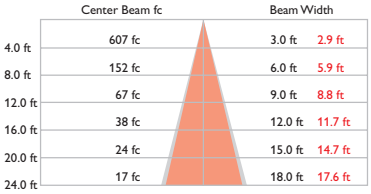
LED	Lumens	Efficacy
RGB	5168	41.8

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	9710	9710	9710	9710	9710
5	9294	9286	9299	9263	9220
15	6706	6697	6693	6653	6620
25	3418	3390	3325	3267	3237
35	1082	1060	1013	984	976
45	215	208	197	196	197
55	67	65	62	65	65
65	34	34	34	35	35
75	11	12	11	14	15
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



98.5 ft (30.0 m)
1 fc maximum distance

Vert. Spread: 41.0°
Horiz. Spread: 40.2°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	4212	81.5
0- 40	4882	94.5
0- 60	5119	99.1
0- 90	5168	100.0
90-180	0	0.0
0-180	5168	100.0

Coefficients Of Utilization - Zonal Cavity Method

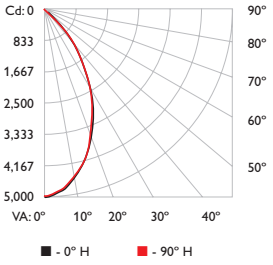
Effective Floor Cavity Reflectance: 20%

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	114	111	109	107	112	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	104	101	98	107	103	99	96	99	97	94	97	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	86	90	87	85	84
4	99	93	88	84	98	91	87	83	89	85	82	87	84	81	86	83	80	79
5	95	88	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76	75
6	91	83	78	74	90	82	77	73	81	76	73	79	75	72	78	75	72	71
7	87	79	73	70	86	78	73	69	77	72	69	76	72	69	75	71	68	67
8	84	75	70	66	82	74	69	66	73	69	66	72	68	65	72	68	65	64
9	80	72	66	63	79	71	66	63	70	66	62	69	65	62	69	65	62	61
10	77	68	63	60	76	68	63	60	67	63	59	66	62	59	66	62	59	58

iW Reach Compact Powercore 63° spread lens

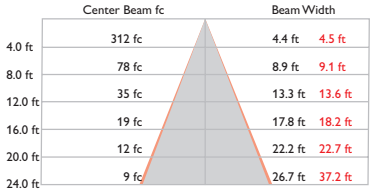
LED	Lumens	Efficacy
RGB	5155	41.7

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	4985	4985	4985	4985	4985
5	4890	4886	4891	4877	4858
15	4142	4145	4167	4170	4163
25	3011	3021	3047	3060	3057
35	1755	1770	1807	1833	1835
45	769	780	810	840	849
55	258	261	273	287	295
65	81	84	90	95	97
75	24	26	28	33	34
85	1	1	2	3	5
90	0	0	0	0	0

Illuminance at Distance



70.5 ft (21.5 m)
1 fc maximum distance

Vert. Spread: 58.2°
Horiz. Spread: 59.1°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	3005	58.3
0- 40	4130	80.1
0- 60	5025	97.5
0- 90	5155	100.0
90-180	0	0.0
0-180	5155	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

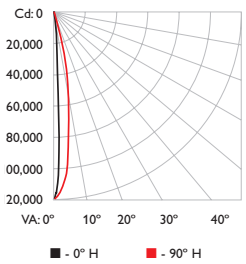
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64
6	84	74	67	62	82	73	67	62	71	66	62	70	65	61	68	64	61	59
7	79	69	62	57	78	68	62	57	67	61	57	65	60	56	64	60	56	55
8	75	64	58	53	73	64	57	53	62	57	53	61	56	52	60	56	52	51
9	71	60	54	49	70	60	53	49	59	53	49	58	53	49	57	52	49	47
10	67	57	50	46	66	56	50	46	55	50	46	54	49	46	54	49	46	44

For lux multiply fc by 10.7

iW Reach Compact Powercore 5° x 17° asymmetric spread lens

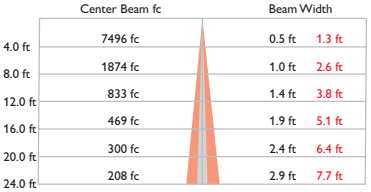
LED	Lumens	Efficacy
RGB	5369	43.4

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
90°	0	11994	11994	11994	11994	11994
	5	2352	2975	5070	8122	9740
80°	15	46	49	71	313	1729
	25	21	20	19	25	71
70°	35	9	10	10	12	18
	45	5	5	4	6	9
	55	2	2	2	3	5
60°	65	1	0	1	1	1
	75	0	0	0	0	0
	85	0	0	0	0	0
	90	0	0	0	0	0
50°	MULTIPLY CANDELA VALUES BY 10					

Illuminance at Distance



346 ft (105.5 m)
1 fc maximum distance

Vert. Spread: 6.8°
Horiz. Spread: 18.1°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	5225	97.3
0- 40	5297	98.7
0- 60	5360	99.8
0- 90	5369	100.0
90-180	0	0.0
0-180	5369	100.0

Coefficients Of Utilization - Zonal Cavity Method

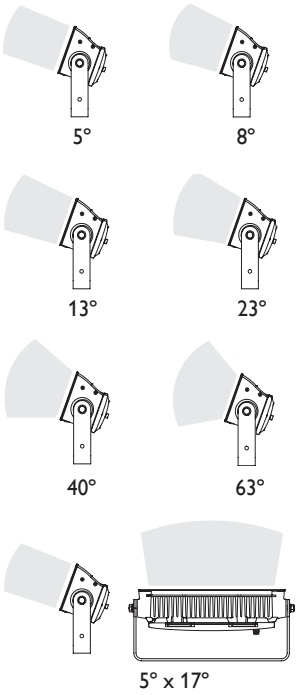
Effective Floor Cavity Reflectance: 20%

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	116	114	113	111	114	112	111	110	108	107	106	105	104	103	101	101	100	99
2	113	110	108	106	111	109	107	105	106	104	103	103	102	101	100	99	99	97
3	111	107	105	102	109	106	104	102	104	102	100	102	100	99	100	98	97	96
4	109	105	102	100	107	104	101	99	102	100	98	100	98	97	99	97	96	95
5	107	103	100	97	106	102	99	97	100	98	96	99	97	95	98	96	95	94
6	105	101	98	96	104	100	97	95	99	97	95	98	96	94	97	95	94	93
7	104	99	96	94	103	99	96	94	98	95	93	97	95	93	96	94	93	92
8	102	98	95	93	101	97	95	93	96	94	92	96	94	92	95	93	92	91
9	101	96	94	92	100	96	93	92	95	93	91	95	93	91	94	92	91	90
10	100	95	93	91	99	95	92	91	94	92	90	94	92	90	93	91	90	89

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	5° native 8°, 13°, 23°, 40°, 63°, and 5° x 17° (asymmetric) spread lenses
	Color Temperature*	2700 K – 6500 K
	Lumens†	6129 (5° native) 5325 (8°) 5317 (13°) 5296 (23°) 5168 (40°) 5155 (63°) 5369 (5° x 17°)
	Efficacy (lm / W)	49.6 (5° native) 43.0 (8°) 43.0 (13°) 42.8 (23°) 41.8 (40°) 41.7 (63°) 43.4 (5° x 17°)
	CRI	82 (no spread lens, all channels full on)
	Lumen Maintenance‡	60,000 hours L_{70} @ 25° C 50,000 hours L_{70} @ 50° C 100,000 hours L_{50} @ 25° C 80,000 hours L_{50} @ 50° C
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz via Data Enabler Pro
	Power Consumption	125 W
	Power Factor	.963 (no spread lens, all channels full on) @ 120 VAC
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 Leader 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

* Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.

† Lumen measurement complies with IES LM-79-08 testing procedures.

‡ 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/lm-80-08.pdf for more information.

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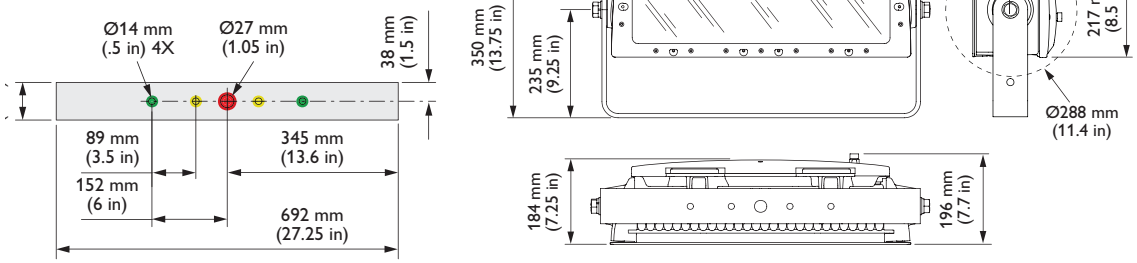


Fixture and Accessories

iW Reach 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 6 ft (1.8 m) leader cable to connect each iW Reach Compact Powercore fixture to a junction box or Data Enabler Pro.
- 4-conductor copper wire to connect iW Reach Compact Powercore fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended.

Item	Type	Item Number	Philips 12NC
iW Reach Compact Powercore *Includes 6 ft (1.8 m) leader cable*	UL / cUL	523-000083-00	910503703280
	CE / PSE	523-000083-01	910503704181
Replacement Leader Cable 6 ft (1.8 m)	UL / cUL	108-000043-02	910503700453
	CE / PSE	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.

Installation

iW Reach Compact Powercore, a high-performance exterior architectural floodlight with extended light projection, is designed to brilliantly and dynamically illuminate prominent, signature façades. Because each iW Reach 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 over the fixture's primary lens.

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

Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate iW Reach 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.

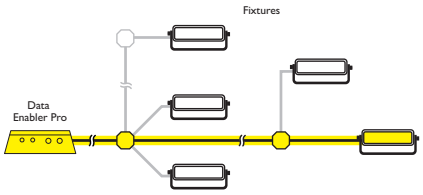
Prepare for the Installation

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.

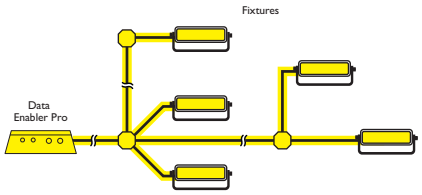
   iW Reach Compact Powercore fixtures can be installed in series or in parallel (wired to a common junction box). The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture spacing, circuit size, line voltage, and method of connection (in 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).

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

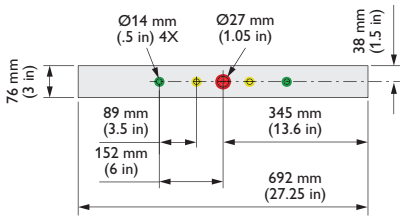


Data Integrity – maximum individual length 175 ft (53.3 m)



Data Integrity – total length 400 ft (122 m)

Mounting bracket dimensions for pre-drilling



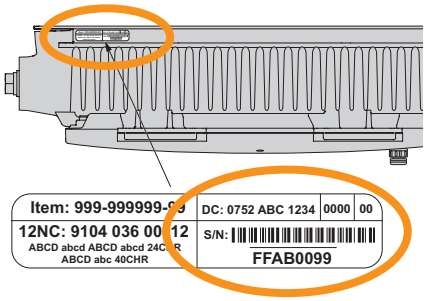
2. Ensure that the fixture mounting locations and substrates are sufficiently sturdy to bear the weight of each iW Reach Compact Powercore fixture. Pre-drill holes in the mounting substrate if necessary, making reference to the mounting bracket dimensions. Use at least two screws to secure each fixture,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

If mounting iW Reach 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.

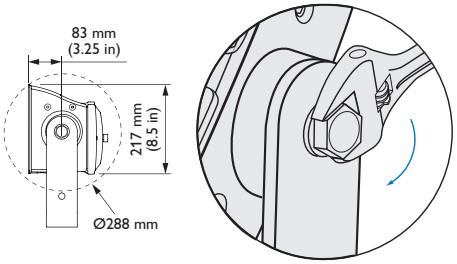
3. Install all Data Enabler Pro devices, including any interfaces with controllers. Data Enabler Pro and external controllers send power and control signals to fixtures over the single leader cable.
4. Verify that all additional supporting equipment (switches, controllers) is in place.
5. Ensure that 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.

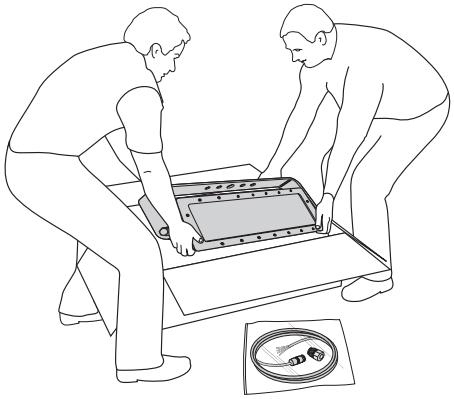
Position and Mount Fixtures

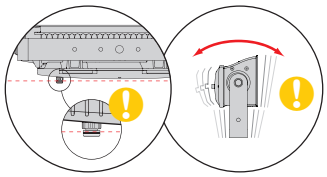
1. Unpack iW Reach Compact Powercore fixtures. Because each iW Reach Compact Powercore fixture weighs 51 lb (23 kg), you may need two people to lift the fixture out of the box and position it in the mounting location.
2. Each iW Reach Compact Powercore fixture comes pre-programmed with a unique serial 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.
5. 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.

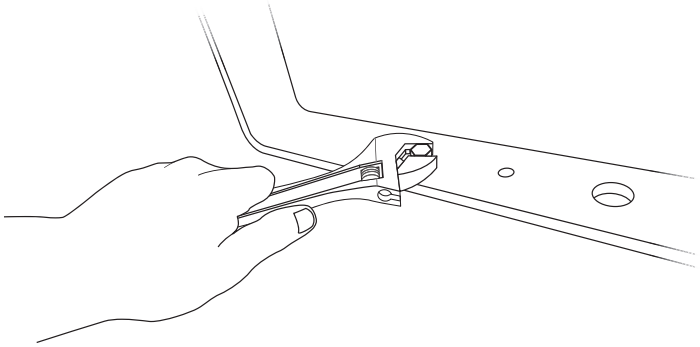






Do not rest iW Reach Compact Powercore on its back, as doing so may damage the connector port. Be careful not to tip the fixture over during positioning.

6. 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.



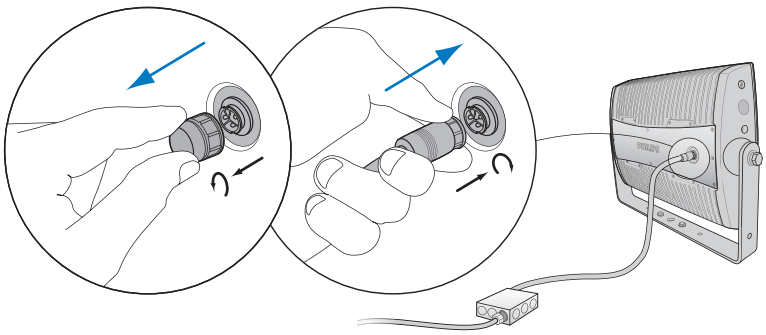
Connect the Fixtures

Make sure the power is OFF before connecting iW Reach 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.

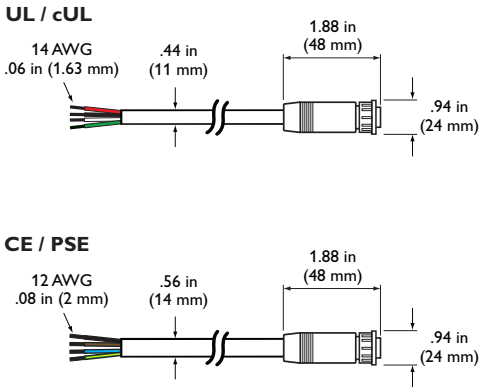
   The maximum cable run from a Data Enabler Pro to any individual iW Reach Compact Powercore fixture is 175 feet (53 m). When installing in parallel, the total cable length cannot exceed 400 feet (122 m).
3. If necessary, remove the connector cap from the port on the back of the iW Reach Compact Powercore housing. Insert the leader cable into the port. Turn the leader cable's lock nut to the right until it locks into place.

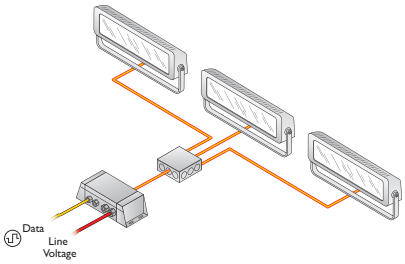


4. Use wire nuts to connect line, neutral, ground, and data. If installing in series, connect the leader cable from each fixture to the fixture's junction box.

   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.

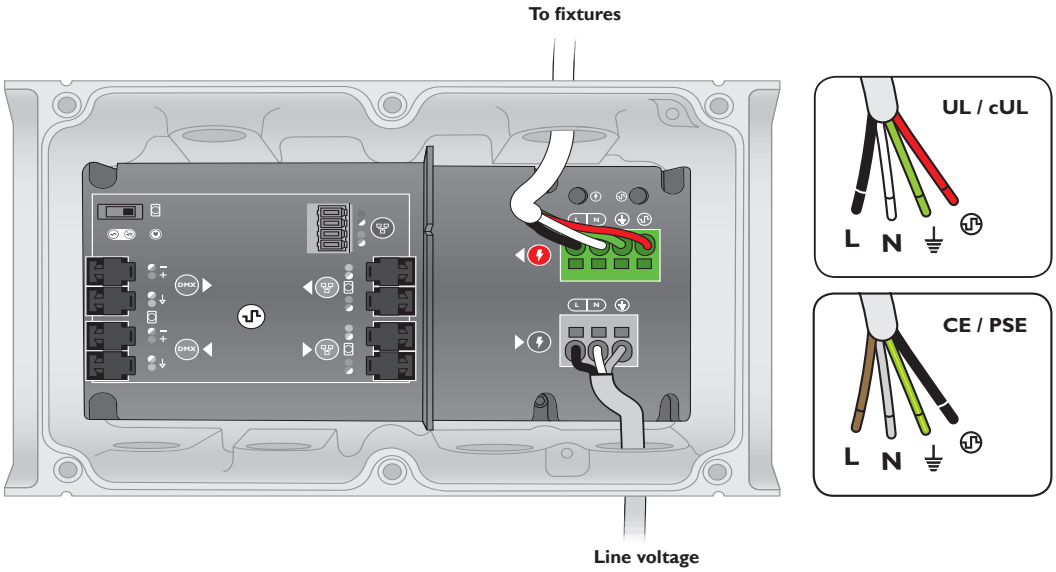
Leader Cable connector dimensions





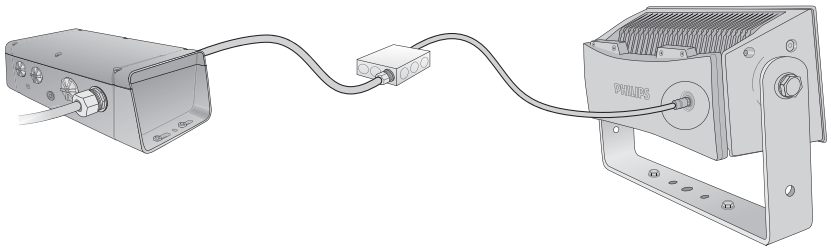
iW Reach Compact Powercore fixtures installed in parallel

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.
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.

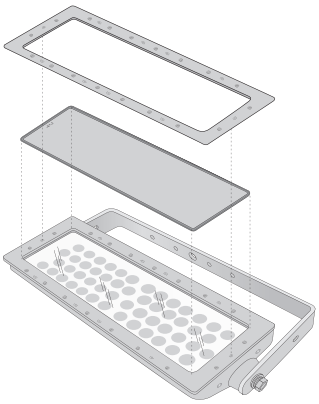
Refer to the Data Enabler Pro Product Guide for complete installation and operation details.



Attach Spread Lenses (Optional)

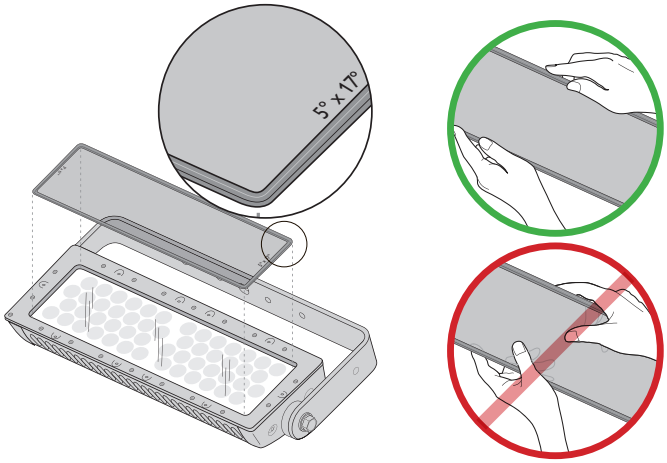
Exchangeable iW Reach Compact Powercore spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 17° x 5° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing.

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 iW Reach Compact Powercore 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.

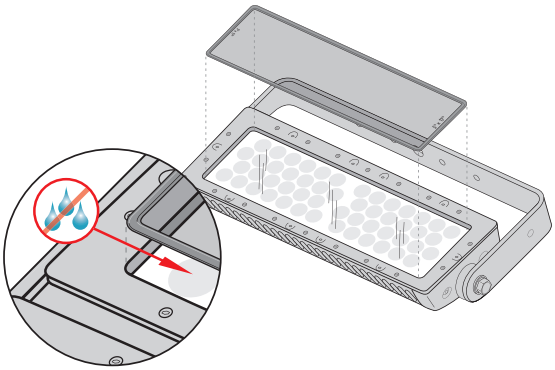


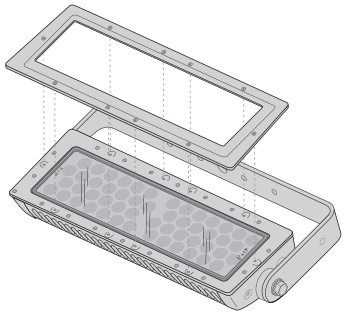
For installation in extreme environments, refer to the Reach Spread Lens Kit Installation Instructions for details on sealing the spread lens and bezel to prohibit water ingress.

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.

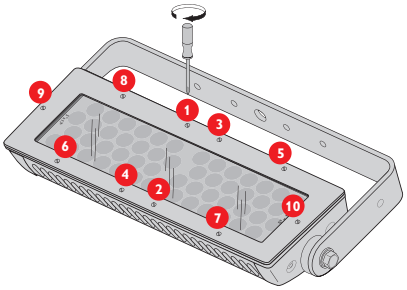


4. Place the spread lens on top of the iW Reach Compact Powercore housing. Make sure that the spread lens and gasket are seated properly within the fixture housing. Also make sure that there is no moisture between the spread lens and the glass, as any moisture will compromise the effectiveness of the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





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



Controlling iW Reach Compact Powercore Fixtures

Philips Color Kinetics offers a number of control options for iW Reach Compact Powercore fixtures, from simple to complex.

Displaying Fixed Light Output

For installations in which you want to manually adjust the brightness and color temperature of all fixtures in unison, use ColorDial Pro or iColor Keypad. With these controllers, no fixture node addressing or configuration is necessary.

ColorDial Pro and iColor Keypad are a Power-Over-Ethernet (PoE) devices that require a PoE switch, or a conventional Ethernet switch with a PoE injector. Refer to the ColorDial Pro or iColor Keypad documentation for details on how to install and use these controllers with iW Reach Compact Powercore fixtures.

ColorDial Pro is an 8-bit controller. You must use a 16-bit compatible controller to operate fixtures in 16-bit mode.

iW Reach Compact Powercore has three LED channels, warm, neutral, and cool. You can easily control all fixtures in unison using the Fixed Color effect in iColor Player or iColor Keypad, or the Fixed Color or Variable Color effect in ColorDial Pro.

Displaying Dynamic Light Output

For dynamic installations in which you want to display different light output on each iW Reach Compact Powercore fixture simultaneously, you must use an RGB-based DMX or Ethernet controller such as iPlayer 3 or Light System Manager. To support dynamic effects that automatically modify brightness and color temperature on individual fixtures, you must address and configure iW Reach Compact Powercore fixtures as you would any color-changing (RGB) fixture.

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

Addressing iW Reach Compact Powercore Fixtures

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

You address and configure iW Reach Compact Powercore fixtures using QuickPlay Pro addressing and configuration 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.

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

- In Ethernet installations, you can address and configure 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 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.

iW Reach Compact Powercore 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. In 8-bit mode, fixtures use one DMX address per LED channel. 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.

LED Channels

RGB	iW Reach Compact Powercore
Red	Warm
Green	Neutral
Blue	Cool

You can address and configure iW Reach Compact Powercore fixtures in much the same way as you would address any RGB fixture. The red channel corresponds to the warm LEDs, the green channel corresponds to the neutral LEDs, and the blue channel corresponds to the cool LEDs.

iW Reach Compact 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 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 light output 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 iW Reach Compact Powercore configurations, assuming a starting DMX address of 1.

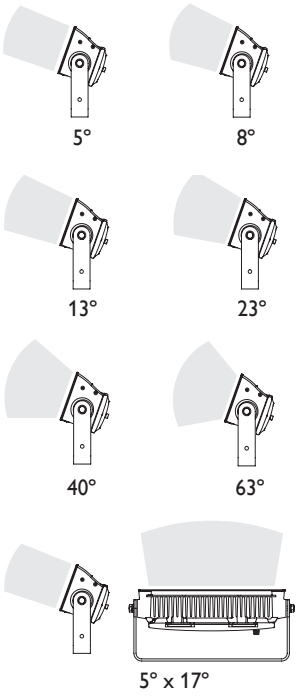
DMX Channel Assignments Per Fixture

8-bit Mode	1		2		3	
	Warm		Neutral		Cool	
16-Bit Mode	1	2	3	4	5	6
	Warm	Warm	Neutral	Neutral	Cool	Cool

Aim and Lock the Fixtures

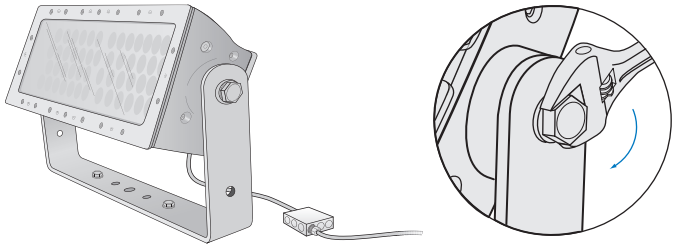
Do not look directly into the fixture when aiming and locking.

For exterior applications with direct exposure to water, iW Reach 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.



Make sure the power is ON before addressing and configuring 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.



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