iW Reach Powercore gen2

Premium long-throw exterior floodlight with intelligent white light

PHILIPS

COLOR KINETICS

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Premium long-throw exterior floodlight with intelligent white light

iW Reach Powercore gen2, the intelligent white light version of our flagship, high-performance exterior architectural floodlight, outputs washes of white light in color temperatures ranging from a warm 2700 K to a cool 6500 K. iW Reach Powercore gen2 combines all the benefits of LED-based lighting in an elegant fixture specifically designed for skyscrapers, casinos, large retail exteriors, bridges, piers, public monuments, and themed attractions. With significantly more lumen output than any other competitive fixture and unprecedented light projection, this powerful fixture represents the next generation in exterior illumination.

- Unique split design — Spread lenses fit over each fixture half to support diffuser combinations. Use one spread lens on the lower half to bathe a large façade with light at street level, and a different lens to project light hundreds of feet up the building's walls.
- Integrates Powercore technology — Powercore technology 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 over a single standard wire, 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.
- Versatile optics — Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing.
- 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 standard wrench.
- Universal power input range — Accepts a universal power input range of 100 – 277 VAC, allowing long fixture runs and consistent installation in any location around the world. Each Data Enabler Pro can support multiple fixtures for illuminating even the largest exterior façades and structures.

Unparalleled light output
With light output of thousands of lumens and light projection of hundreds of feet, iW Reach Powercore gen2 offers legitimate LED-based, color-controllable white light illumination of large-scale structures and objects.

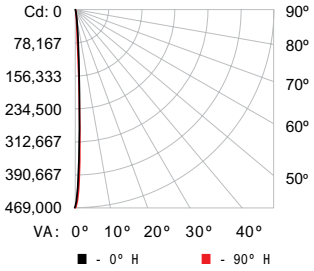
Photometrics / iW Reach Powercore

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), half unit

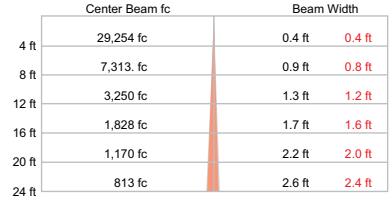
Lumens	Efficacy
6710	56.7 lm / W

Polar Candela Distribution



	0	25	45	70	90
0	468056	468056	468056	468056	468056
5	80134	80205	77031	66962	62241
15	802	793	805	811	840
25	237	235	251	257	284
35	131	126	132	125	174
45	81	76	77	78	80
55	62	79	59	64	61
65	56	50	49	52	48
75	45	38	38	38	36
85	34	33	33	33	34
90	33	33	33	33	33

Illuminance at Distance



685 ft (208.8 m)
1 fc maximum distance

Vert. Spread: 6.2°
Horiz. Spread: 5.7°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

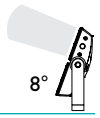
RCC %:	80				70				50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	110	113	111	110	98	108	106	105	104	103	102	101	100	99	98
2	113	109	107	105	111	108	105	96	105	103	101	102	100	99	99	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	93	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	93	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	95	93	89	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

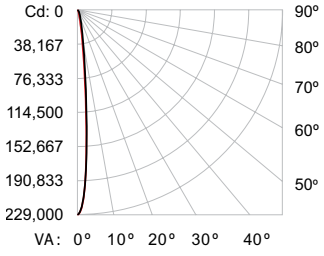
Zone	Lumens	% Fixture
0 - 60	6580.4	98.1 %
60 - 90	130.0	1.9 %
0 - 90	6710.4	100.0 %

8° spread lens, half unit

Lumens	Efficacy
6148	50.2 lm / W

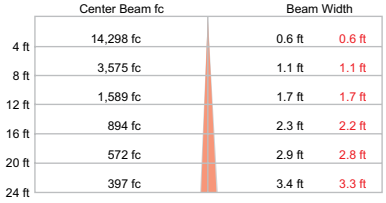


Polar Candela Distribution



	0	25	45	70	90
0	228773	228773	228773	228773	228773
5	83931	84335	84260	82628	81298
15	1053	1059	1072	1056	1058
25	269	268	270	266	291
35	155	152	144	141	178
45	84	80	76	79	84
55	61	60	54	56	58
65	47	45	41	42	43
75	37	35	33	33	33
85	30	30	30	30	30
90	30	29	29	30	30

Illuminance at Distance



478 ft (145.7 m)
1 fc maximum distance

Vert. Spread: 8.2°
Horiz. Spread: 8.0°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

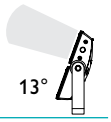
RCC %:	80				70				50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	111	98	108	107	106	104	104	103	101	100	100	98
2	113	110	108	106	111	109	106	97	106	104	102	103	101	100	100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

Zonal Lumen

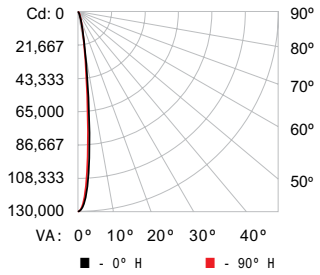
Zone	Lumens	% Fixture
0 - 60	6034.2	98.2 %
60 - 90	113.4	1.8 %
0 - 90	6147.6	100.0 %

13° spread lens, half unit

Lumens	Efficacy
6029	49.2 lm / W

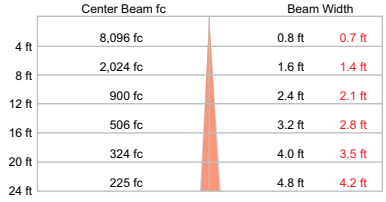


Polar Candela Distribution



	0	25	45	70	90
0	129543	129543	129543	129543	129543
5	77630	74496	71216	67970	67197
15	2233	1930	1706	1566	1590
25	300	292	286	278	292
35	168	163	153	149	170
45	90	85	80	81	85
55	62	59	55	56	56
65	47	45	41	42	42
75	36	35	33	33	33
85	30	29	29	29	29
90	29	29	29	29	29

Illuminance at Distance



360 ft (109.7 m)
1 fc maximum distance

Vert. Spread: 11.5°
Horiz. Spread: 10.1°

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	95	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	93	95	94	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	92	100	96	93	91	95	93	91	95	92	91	94	92	91	90
10	100	95	93	91	99	95	92	90	94	92	90	94	92	90	93	91	90	89

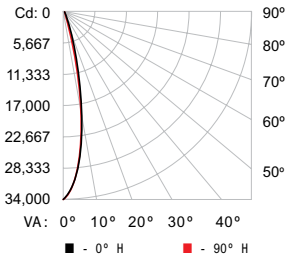
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	5917.0	98.1 %
60 - 90	112.4	1.9 %
0 - 90	6029.4	100.0 %

23° spread lens, half unit

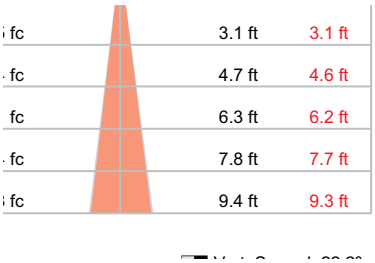
Lumens	Efficacy
6104	49.9 lm / W

Polar Candela Distribution



	0	25	45	70	90
0	33622	33622	33622	33622	33622
5	28924	28790	28926	28882	28802
15	9639	9594	9569	9500	9423
25	1339	1311	1269	1225	1196
35	215	210	201	194	193
45	109	107	103	102	104
55	74	71	68	68	68
65	54	52	50	49	49
75	40	39	38	36	35
85	30	30	29	29	29
90	29	29	29	29	29

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

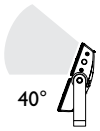
RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	115	112	110	109	112	110	109	96	106	105	104	103	102	101	99	98	98	96
2	111	107	104	101	109	105	103	93	102	100	98	99	98	96	97	95	94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

Zonal Lumen

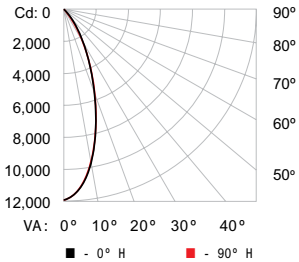
Zone	Lumens	% Fixture
0 - 60	5981.3	98.0 %
60 - 90	123.0	2.0 %
0 - 90	6104.3	100.0 %

40° spread lens, half unit

Lumens	Efficacy
6058	49.2 lm / W

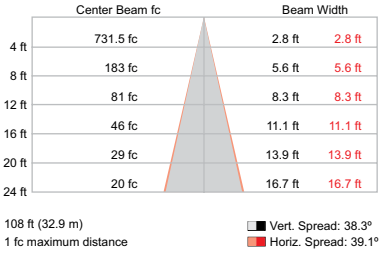


Polar Candela Distribution



	0	25	45	70	90
0	11705	11705	11705	11705	11705
5	11109	11053	11119	11111	11076
15	7643	7685	7796	7864	7837
25	3631	3684	3782	3895	3911
35	1169	1169	1192	1237	1252
45	295	277	264	267	271
55	112	107	103	101	101
65	70	68	66	65	64
75	46	45	43	40	39
85	29	28	27	27	27
90	27	27	27	27	26

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

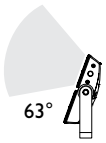
RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	106	94	105	103	101	101	100	98	98	96	95	94
2	108	104	100	96	106	102	98	89	99	96	93	96	93	91	93	91	89	88
3	103	97	93	89	101	96	92	83	93	90	87	91	88	85	89	86	84	83
4	99	92	86	82	97	91	86	79	88	84	81	86	83	80	85	82	79	78
5	94	87	81	77	93	86	81	75	84	80	76	82	78	75	81	77	75	73
6	90	82	77	73	89	81	76	71	80	75	72	78	74	71	77	74	71	70
7	86	78	72	68	85	77	72	67	76	71	68	75	71	68	74	70	67	66
8	83	74	69	65	82	74	68	64	73	68	64	72	67	64	71	67	64	63
9	80	71	65	62	78	70	65	61	69	65	61	68	64	61	68	64	61	60
10	76	68	62	59	75	67	62	58	66	62	58	66	61	58	65	61	58	57

Zonal Lumen

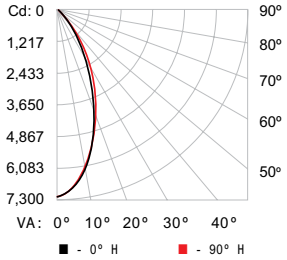
Zone	Lumens	% Fixture
0 - 60	5918.4	97.7 %
60 - 90	139.9	2.3 %
0 - 90	6058.4	100.0 %

63° spread lens, half unit

Lumens	Efficacy
6013	49.0 lm / W

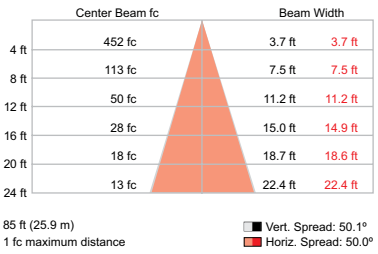


Polar Candela Distribution



	0	25	45	70	90
0	7226	7226	7226	7226	7226
5	6918	6880	6850	6868	6893
15	5406	5348	5365	5417	5454
25	3357	3377	3461	3588	3677
35	1606	1692	1797	1939	2037
45	631	694	758	849	920
55	231	258	284	321	356
65	101	109	114	123	133
75	51	52	53	54	56
85	26	26	26	25	25
90	0	0	0	0	24

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

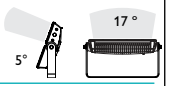
RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	110	108	105	93	103	101	100	100	98	97	96	95	94	92
2	107	101	97	93	104	99	95	85	96	93	90	93	90	88	90	88	86	84
3	101	94	88	84	99	92	87	79	90	85	82	87	83	80	85	82	79	78
4	95	87	81	76	93	86	80	73	83	79	75	81	77	74	80	76	73	72
5	90	81	75	70	88	80	74	67	78	73	69	76	72	68	75	71	68	66
6	85	76	69	65	84	75	69	63	73	68	64	72	67	63	70	66	63	61
7	81	71	64	60	79	70	64	59	69	63	59	68	63	59	66	62	59	57
8	77	67	60	56	75	66	60	55	65	59	55	64	59	55	63	58	55	54
9	73	63	56	52	72	62	56	51	61	56	52	60	55	52	59	55	52	50
10	69	59	53	49	68	59	53	48	58	53	49	57	52	49	56	52	49	47

Zonal Lumen

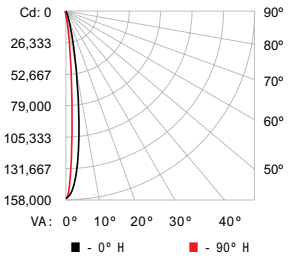
Zone	Lumens	% Fixture
0 - 60	5822.4	96.8 %
60 - 90	191.2	3.2 %
0 - 90	6013.3	100.0 %

5x17° spread lens, half unit

Lumens	Efficacy
6113	49.7 lm / W

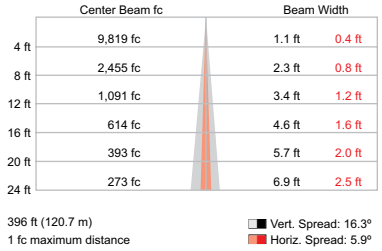


Polar Candela Distribution



	0	25	45	70	90
0	157101	157101	157101	157101	157101
5	120290	95143	56963	27476	21659
15	17194	2251	1037	701	665
25	1076	325	263	241	242
35	286	166	149	130	133
45	164	90	78	75	74
55	108	61	55	55	56
65	75	48	42	42	40
75	49	37	34	32	32
85	31	30	30	30	30
90	29	29	30	30	30

Illuminance at Distance



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	111	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	93	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	93	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	95	93	89	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	5996.5	98.1 %
60 - 90	116.5	1.9 %
0 - 90	6113.0	100.0 %

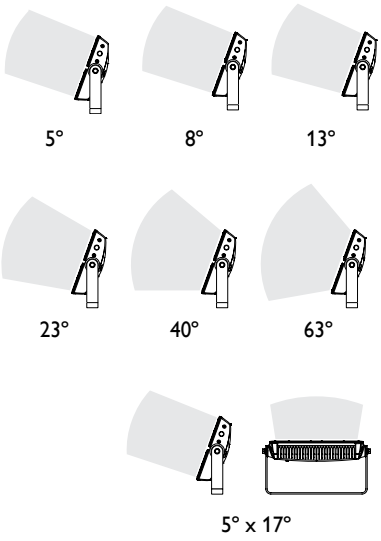
Specifications, UL / CE

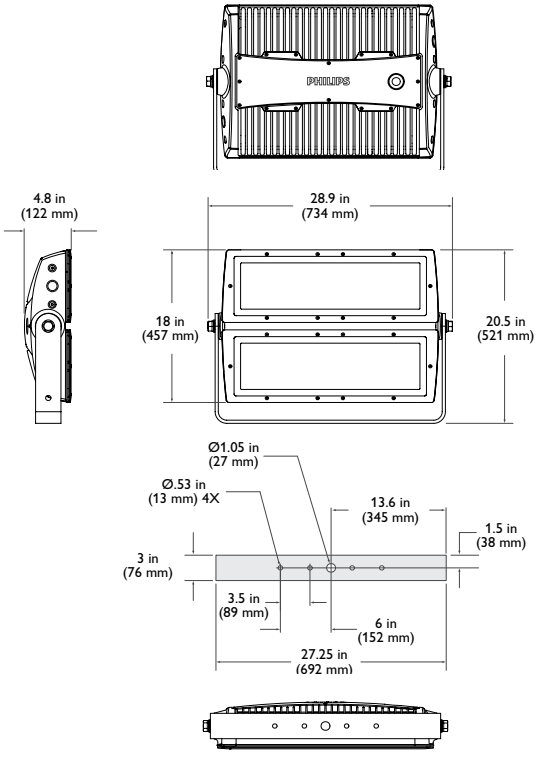
Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Output	Beam Angle	5° primary optic (no spread lens) 8° / 13° / 23° / 40° / 63° / 5° x 17° (asymmetric) spread lenses
	Color Temperature*	2700 K – 6500 K
	Lumens†	12,106 (no spread lens, full unit, all channels full on)
	Efficacy (lm / W)	50.4 (no spread lens, full unit, all channels full on)
	CRI	79 (no spread lens, full unit, all channels full on)
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	250 W maximum at full output, steady state
	Power Factor	.99 (no spread lens, full unit, 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)*	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

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

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





Lumen Maintenance

Threshold*	Ambient Temperature	Reported†	Calculated†
L_{90}	@ 25°C	42,000 hrs	84,000 hrs
	@ 50°C	42,000 hrs	48,000 hrs
L_{80}	@ 25°C	42,000 hrs	>100,000 hrs
	@ 50°C	42,000 hrs	>100,000 hrs
L_{70}	@ 25°C	42,000 hrs	>100,000 hrs
	@ 50°C	42,000 hrs	>100,000 hrs

* L_{xx} = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B_{50}, or the median value where 50% of the LED population is better than the reported or calculated lumen maintenance measurement.

† Lumen maintenance figures are based on lifetime prediction graphs supplied by LED source manufacturers. Whenever possible, figures use measurements that comply with IES LM-80-08 testing procedures.

In accordance with TM-21-11, Reported values represent the interpolated value based on six times the LM-80-08 total test duration (in hours). Calculated values represent time durations that exceed six times the total test duration.

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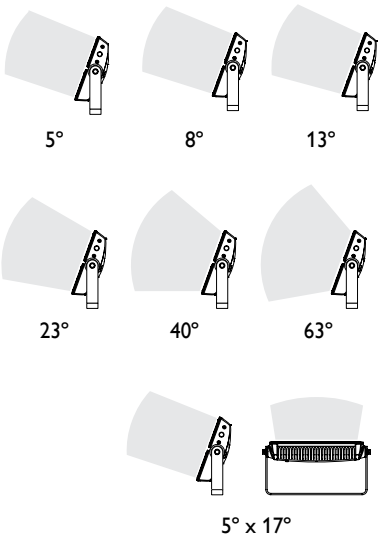
Specifications, CQC

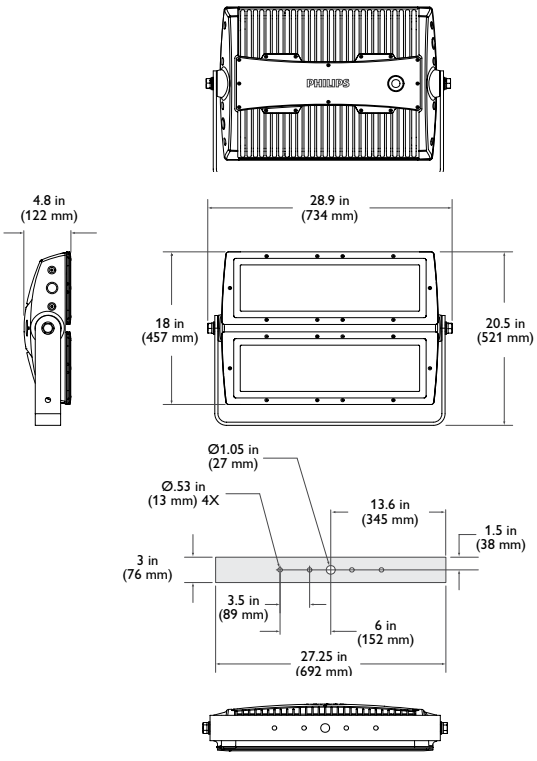
Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Output	Beam Angle	5° primary optic (no spread lens) 8° / 13° / 23° / 40° / 63° / 5° x 17° (asymmetric) spread lenses
	Color Temperature*	2700 K – 6500 K
	Lumens†	13,483 (no spread lens, full unit, all channels full on)
	Efficacy (lm / W)	57.0 (no spread lens, full unit, all channels full on)
	CRI	79 (no spread lens, full unit, all channels full on)
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	250 W maximum at full output, steady state
	Power Factor	.99 (no spread lens, full unit, 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)*	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	CQC, CE, FCC Class A, PSE
	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.





Lumen Maintenance

Threshold*	Ambient Temperature	Reported†	Calculated†
L_{90}	@ 25°C	42,000 hrs	84,000 hrs
	@ 50°C	42,000 hrs	48,000 hrs
L_{80}	@ 25°C	42,000 hrs	>100,000 hrs
	@ 50°C	42,000 hrs	>100,000 hrs
L_{70}	@ 25°C	42,000 hrs	>100,000 hrs
	@ 50°C	42,000 hrs	>100,000 hrs

* L_{xx} = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B_{50}, or the median value where 50% of the LED population is better than the reported or calculated lumen maintenance measurement.

† Lumen maintenance figures are based on lifetime prediction graphs supplied by LED source manufacturers. Whenever possible, figures use measurements that comply with IES LM-80-08 testing procedures.

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Fixture and Accessories

iW Reach Powercore gen2 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 Powercore gen2 fixture to a junction box or Data Enabler Pro.
- 4-conductor copper wire to connect iW Reach Powercore gen2 fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended.

Item	Type		Item Number	Philips 12NC
iW Reach Powercore gen2 *Includes 3 m (10 ft) leader cable*	UL cUL		523-000096-00	912400130189
	CE / PSE		523-000096-01	912400130234
iW Reach Powercore gen2 *Includes 1.8 m (6 ft) leader cable*	CE / CQC / PSE		523-000045-51	912400130285
Replacement Leader Cable 100–277 V AC	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
Replacement Leader Cable 220–240 V AC	CQC	1.8 m (6 ft)	523-000045-51	912400130285
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.

Included in the box

iW Reach Powercore gen2 fixture
6 ft (1.8 m) Leader Cable
Cable Strain Relief
Installation Instructions

Installation

iW Reach Powercore gen2, a high-performance exterior architectural floodlight with extended light projection, is designed to brilliantly illuminate signature façades with washes of cool and warm white light. Because each iW Reach Powercore gen2 fixture weighs 75 lb (34 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

Refer to the iW Reach Powercore gen2 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 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

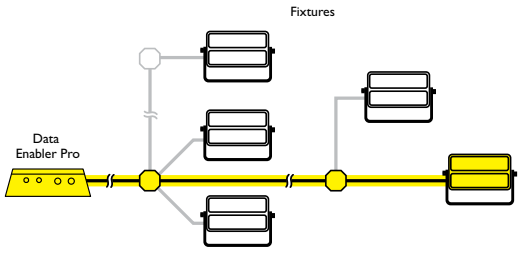
When installing in damp or wet locations, you must seal all junction boxes and iW Data Enablers with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, fixtures, or other electrical parts. You must use suitable outdoor-rated junction boxes when installing in 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.

Prepare for the Installation

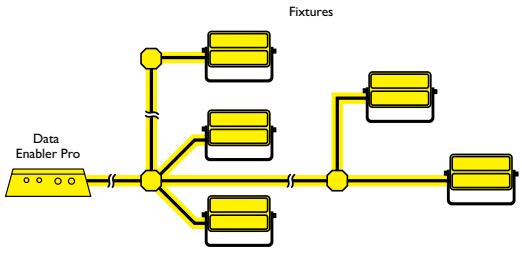
1. Refer to the lighting design plan, architectural diagram, or other diagram that shows the physical layout of the installation to identify the locations of all switches, controllers, Data Enabler Pro devices, fixtures, and cables.

   iW Reach 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 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 53.3 m (175 ft)



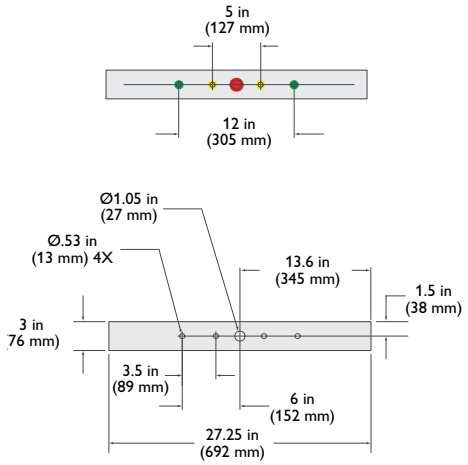
Data Integrity – total length 122 m (400 ft)

2. Ensure that the fixture mounting locations and substrates are sufficiently sturdy to bear the weight of each iW Reach 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 iW Reach 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

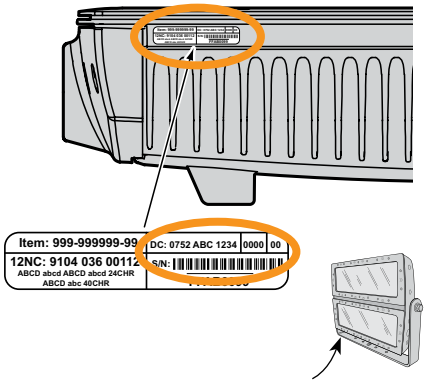
Mounting bracket dimensions for pre-drilling

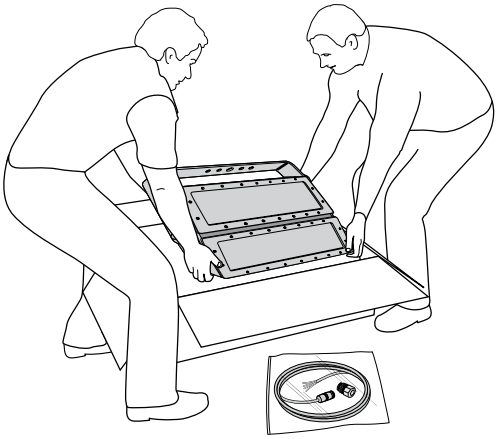


To streamline the configuration of complex installations, record the serial number (DMX) or IP address (Ethernet) and location of each Data Enabler Pro.

Unpack the Fixtures

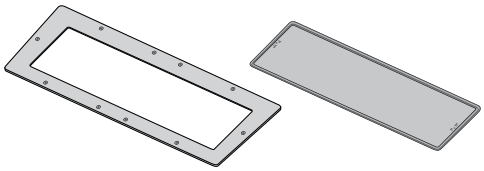
1. Unpack iW Reach Powercore gen2 fixtures. Because each iW Reach Powercore gen2 fixture weighs 75 lb (34 kg), you may need two people to lift the fixture out of the box and position it in the mounting location.
2. Each iW Reach Powercore gen2 fixture comes pre-programmed with a unique serial number.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

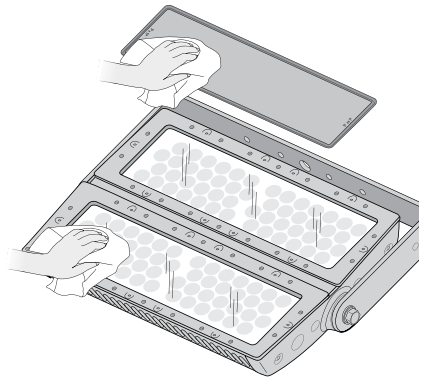




Do not rest iW Reach Powercore gen2 its back, as doing so may damage the connector port. Be careful not to tip the fixture over during positioning.

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.



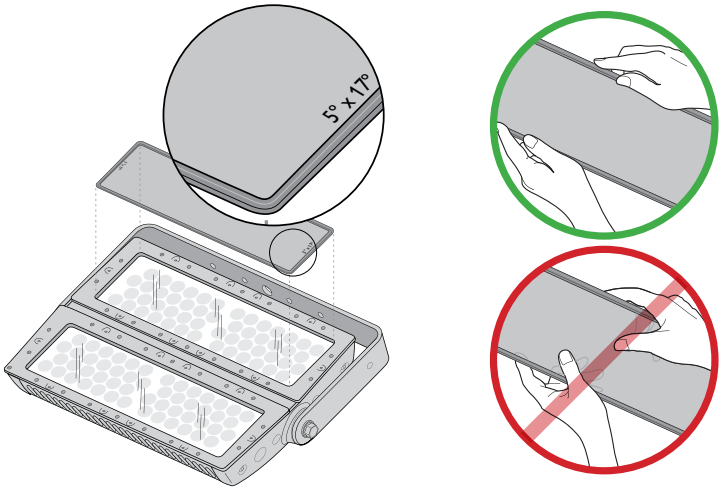


Attach Spread Lenses (Optional)

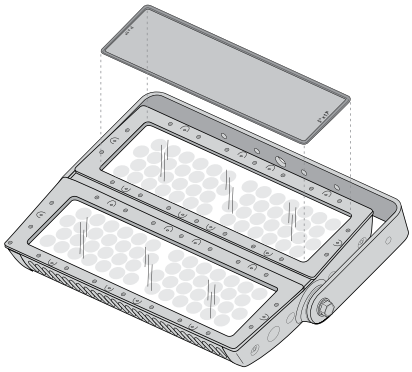
Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Each half of iW Reach Powercore gen2 can be individually addressed and controlled, 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 iW Reach 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.

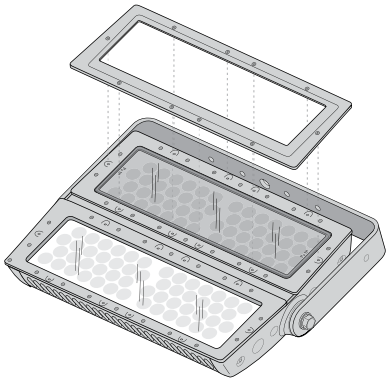
For installations in extreme environments, refer to the Reach Spread Lens Kit Installation Instructions for details on sealing the spread lens and bezel to prohibit water ingress.



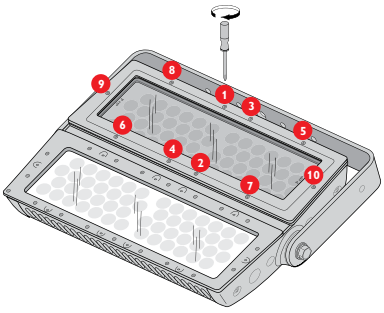
4 Place the spread lens on top of the iW Reach Powercore gen2 housing. Make sure that the spread lens and gasket are seated properly within the fixture housing. Also make sure that there is no moisture between the spread lens and the glass lens, as any moisture will compromise the effectiveness of the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



5. Position the bezel over the spread lens.

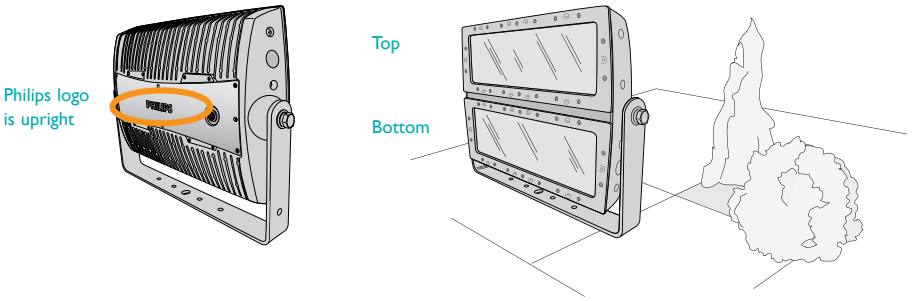


6. With a standard #2 Phillips screwdriver, attach the bezel to the fixture housing using the provided screws. To ensure a watertight seal, tighten the screws to approximately 20 – 30 in-lbs (2.2 – 3.4 Nm) in the sequence shown below.

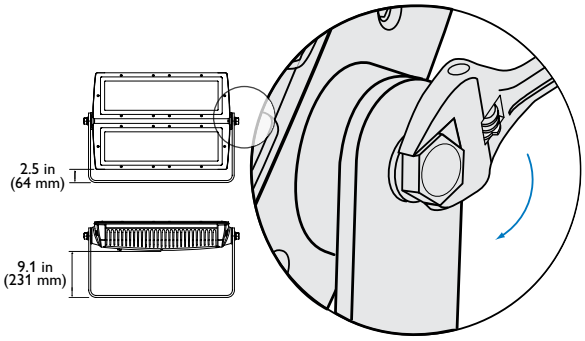


Position and Mount Fixtures Fixtures

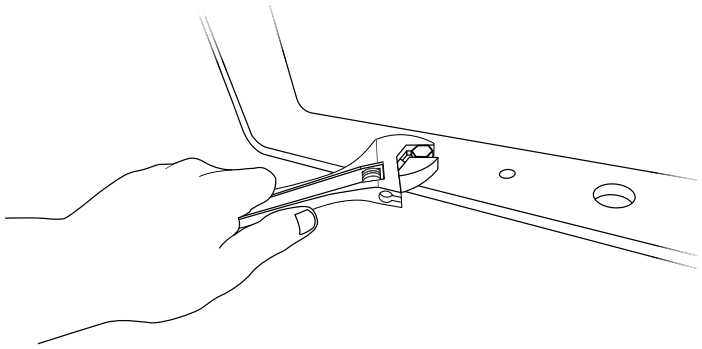
1. Position each iW Reach Powercore gen2 fixture in its designated mounting location. Make sure the mounting area is clear of debris and other obstructions.



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 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.



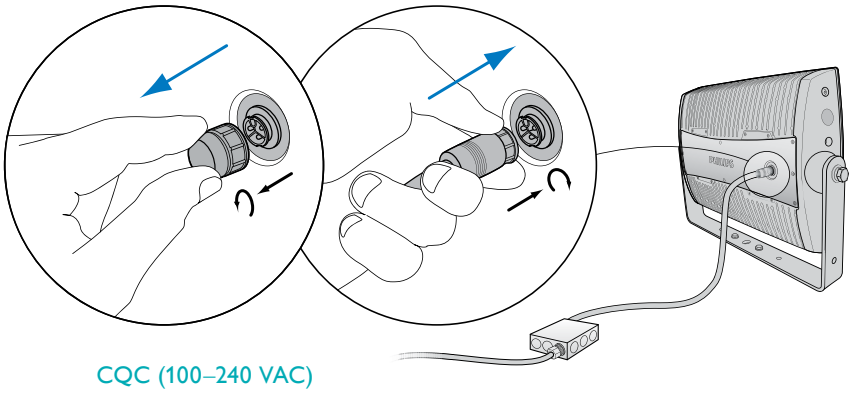
Connect the Fixtures

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

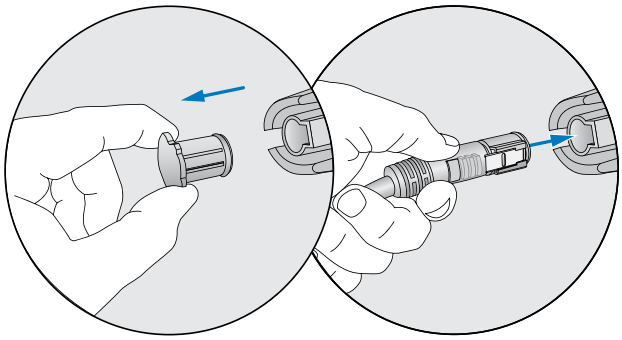
1. Mount junction boxes in accordance with the lighting design plan.
2. If installing fixtures in a series, pull 4-conductor copper wire between each junction box in the series.

   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 iW Reach Powercore gen2 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 Powercore gen2 housing. Insert the leader cable into the port. Turn the leader cable's lock nut to the right until it locks into place.



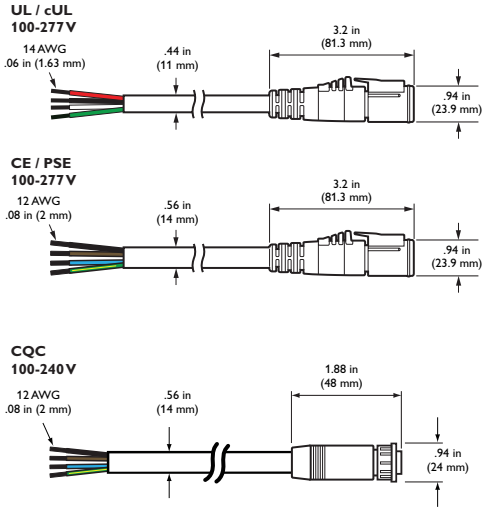
CQC (100–240 VAC)



UL / CE (100–277 VAC)

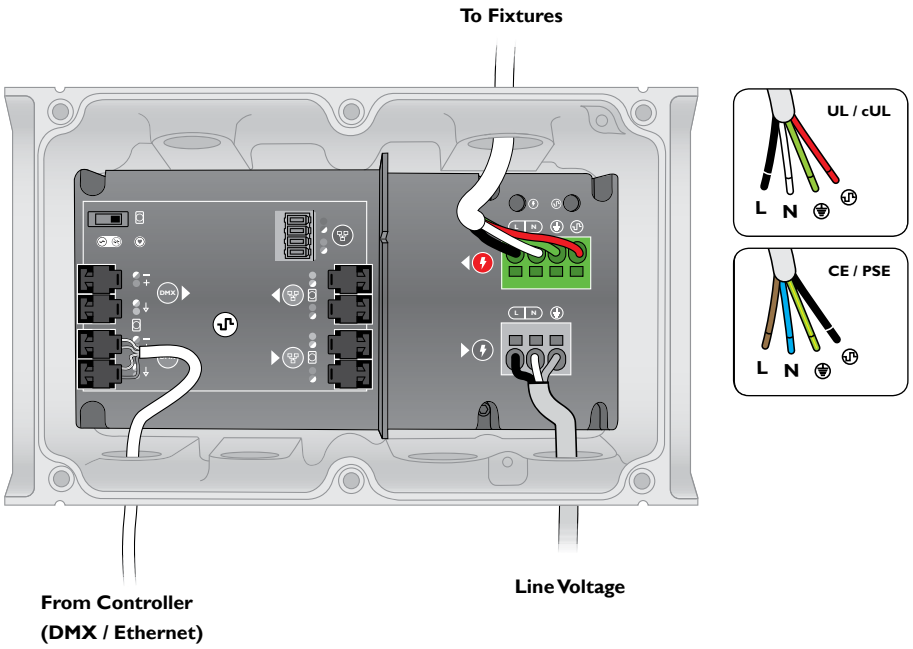
4. Use wire nuts to connect line, neutral, ground, and data. If installing in series, connect the leader cable from each fixture to the fixture's junction box. If installing in parallel, connect the leader cable from each fixture to the lead wire from the Data Enabler Pro in the common junction box.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

Leader Cable connector dimensions

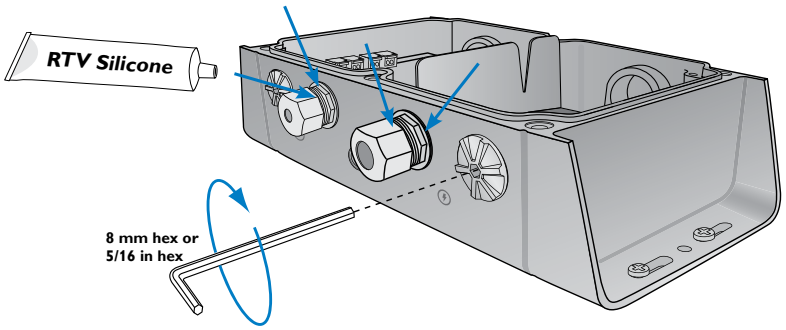


7. Run the wiring from the first junction box in the series to the Data Enabler Pro, or, if installing in parallel, run the wiring from the common junction box to the Data Enabler Pro. Secure connections within the Data Enabler Pro housing.

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



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



Controlling iW Reach Powercore gen2 Fixtures

Philips Color Kinetics offers a number of control options for iW Reach Powercore gen2 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 Powercore gen2 fixtures.

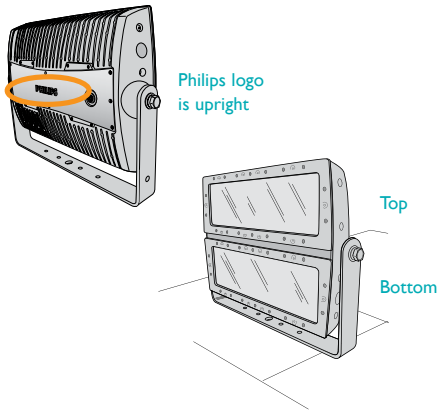
iW Reach Powercore gen2 has three LED channels, warm, neutral, and cool. You can easily control all fixtures in unison using the Fixed Color effect in iColor Player or iColor Keypad, or the Fixed Color or Variable Color effect in ColorDial Pro.

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

Displaying Dynamic Light Output

For dynamic installations in which you want to display different light output on each iW Reach Powercore gen2 fixture, or each fixture half, 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 or each half of a fixture, you must address and configure iW Reach Powercore gen2 fixtures as you would any color-changing (RGB) fixture.

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



Addressing iW Reach Powercore gen2 Fixtures

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

You address and configure iW Reach Powercore gen2 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 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 half-fixture mode or full-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. 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.

You can address and configure iW Reach Powercore gen2 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 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 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 Powercore gen2 configurations, assuming a starting DMX address of 1.

LED Channels

RGB	iW Reach Powercore gen2
Red	Warm
Green	Neutral
Blue	Cool

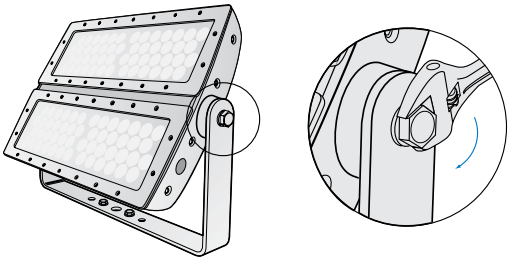
DMX Channel Assignments

8-Bit Mode												
Full-Fixture Mode	Top Half / Bottom Half											
	1			2			3					
	Warm			Neutral			Cool					
Half-Fixture Mode	Top Half						Bottom Half					
	1		2		3		4		5		6	
	Warm		Neutral		Cool		Warm		Neutral		Cool	

16-Bit Mode												
Full-Fixture Mode	Top Half / Bottom Half											
	1		2		3		4		5		6	
	Warm		Warm		Neutral		Neutral		Cool		Cool	
Half-Fixture Mode	Top Half						Bottom Half					
	1	2	3	4	5	6	7	8	9	10	11	12
	Warm	Warm	Neutral	Neutral	Cool	Cool	Warm	Warm	Neutral	Neutral	Cool	Cool

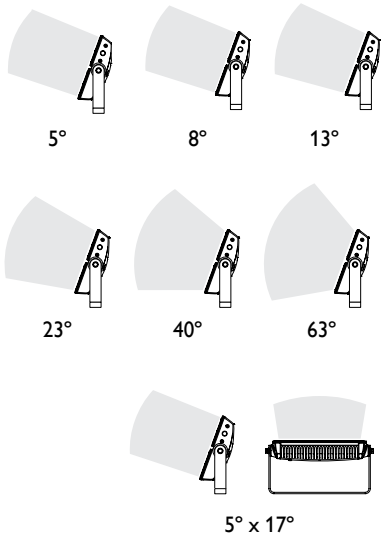
Aim and Lock the Fixtures

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, 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.



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