iW Fuse Powercore

Linear interior LED wall grazing fixture with intelligent white light

PHILIPS

COLOR KINETICS

iW Fuse Powercore

Linear interior LED wall grazing fixture with intelligent white light

With narrow and medium beams of high-quality intelligent white light, iW Fuse Powercore is an excellent choice for a full range of surface grazing, wall-washing, and accent lighting applications. Its ultra-compact form factor permits installation in tight spaces too small to accommodate conventional grazing fixtures that offer similar level and distribution of light. With three channels of warm, neutral, and cool LED sources, this compact, versatile fixture offers a color temperature range of 2700 K to 6500 K. iW Fuse Powercore combines high-intensity, professional-grade light output with the efficiency and cost-effectiveness provided by Powercore technology.

- High-performance illumination — Available in 1 ft (305 mm) and 4 ft (1.2 m) die-cast aluminum housings with a narrow 10° x 60° or medium 30° x 60° beam angle. Superior beam quality delivers striation-free light. Interlocking connectors accommodate end-to-end installation without visible light scalloping between fixtures.
- Superior color consistency — Optibin, a proprietary binning optimization process developed by Philips Color Kinetics, guarantees consistency of hue across LEDs, fixtures, and manufacturing runs.
- High-performance illumination in a wide range of color temperatures — Channels of warm, neutral, and cool white LEDs produce color temperatures ranging from 2700 K to 6500 K, offering the greatest possible light intensity at all color temperatures. Fixture brightness can be varied while maintaining constant color temperature.
- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. The Philips Data Enabler Pro merges line voltage with control and delivers them to the fixture over a single standard cable, dramatically simplifying installation and lowering total system cost.
- 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.
- Universal power input range — Accepts power input of 100 – 240 VAC for consistent installation anywhere in the world.
- Easy installation — By delivering line voltage directly to the fixtures, Powercore reduces the number of external power supplies, allowing long product runs and eliminating the need for special wiring. Easy-to-install 4 ft (1.2 m) mounting tracks allow quick project setup in linear applications.
- Flexible mounting and positioning — With end-to-end locking power connectors that can make 180° turns, these compact fixtures are easy to position in even the most challenging mounting circumstances. 1 ft (305 mm) and 5 ft (1.5 m) jumper cables can add extra space between fixtures. Optional mounting tracks support vertical and overhead positioning.

Intense Light Output
iW Fuse Powercore high-performance grazing fixtures deliver professional-grade illuminance with total light output of up to 636 lumens per foot.

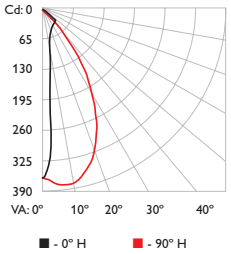
Photometrics

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

iW Fuse Powercore 1 ft, 10° x 60° (narrow beam angle) 2700 K channel only

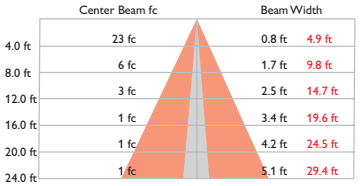
Lumens	185
Efficacy	21.8

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	363	363	363	363	363
5	220	238	289	350	376
15	60	61	75	176	358
25	47	46	46	73	274
35	37	34	33	40	150
45	39	31	23	16	28
55	24	21	13	8	11
65	13	11	7	5	7
75	8	7	4	3	3
85	4	3	2	1	1
90	3	3	2	1	0

Illuminance at Distance



19.1 ft (5.8 m)
1 fc maximum distance

■ Vert. Spread: 12.0°
■ Horiz. Spread: 63.0°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	100	54.1
0- 40	131	70.7
0- 60	165	89.0
0- 90	181	97.8
90-120	3	1.8
90-130	4	2.1
90-150	4	2.2
90-180	4	2.2
0-180	185	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

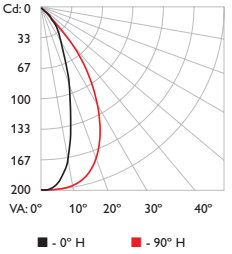
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	92	91	90	88
2	104	98	93	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	90	83	78	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	62	60
6	81	71	64	59	80	70	64	59	68	63	58	67	61	58	65	61	57	55
7	77	66	60	55	75	66	59	54	64	58	54	63	57	54	61	57	53	51
8	73	62	56	51	72	62	55	51	60	55	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	48	57	51	47	56	51	47	55	50	47	45
10	66	56	49	45	65	55	49	45	54	48	45	53	48	44	52	47	44	43

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

iW Fuse Powercore 1 ft, 30° x 60° (medium beam angle) 2700 K channel only

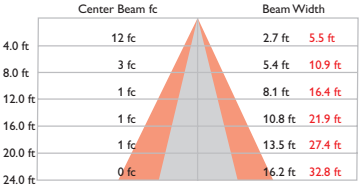
Lumens	186
Efficacy	22.1

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	200	200	200	200	200
5	194	195	197	198	198
15	126	135	161	183	190
25	62	69	93	137	152
35	32	33	44	73	96
45	19	19	21	22	25
55	13	12	11	9	10
65	9	8	6	6	7
75	6	5	3	3	3
85	3	2	2	1	1
90	2	2	1	1	0

Illuminance at Distance



14.1 ft (4.3 m)
1 fc maximum distance

■ Vert. Spread: 37.4°
■ Horiz. Spread: 68.7°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	110	58.8
0- 40	144	77.0
0- 60	171	91.5
0- 90	183	98.4
90-120	2	1.3
90-130	3	1.5
90-150	3	1.6
90-180	3	1.6
0-180	186	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	110	110	110	105	105	105	101	101	101	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	82	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	49	45	44

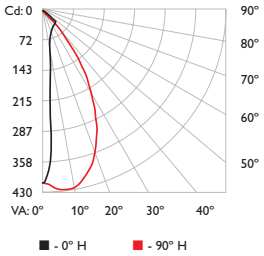
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

iW Fuse Powercore
1 ft, 10° x 60° (narrow beam angle)
4000 K channel only

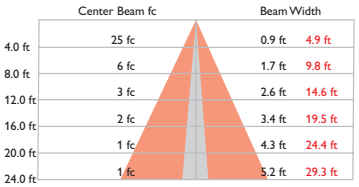
Lumens	212
Efficacy	25.6

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	406	406	406	406	406
5	253	271	326	393	421
15	69	71	88	204	401
25	54	53	54	85	302
35	43	39	38	47	167
45	46	36	27	18	32
55	27	24	15	10	13
65	15	13	8	6	8
75	9	8	5	3	3
85	4	4	2	1	1
90	3	3	2	1	0

Illuminance at Distance



20.2 ft (6.2 m)
1 fc maximum distance

Vert. Spread: 12.3°
Horiz. Spread: 62.8°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	115	53.9
0- 40	150	70.6
0- 60	189	89.0
0- 90	207	97.6
90-120	4	1.8
90-130	5	2.2
90-150	5	2.4
90-180	5	2.4
0-180	212	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

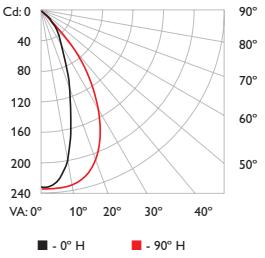
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	92	91	90	87
2	104	98	93	88	101	96	91	87	92	88	85	89	85	83	85	83	81	79
3	97	90	83	79	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	78	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	61	60
6	81	71	64	59	80	70	64	59	68	62	58	66	61	58	65	60	57	55
7	77	66	59	55	75	66	59	54	64	58	54	62	57	53	61	57	53	51
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	47	44	43

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

iW Fuse Powercore
1 ft, 30° x 60° (medium beam angle)
4000 K channel only

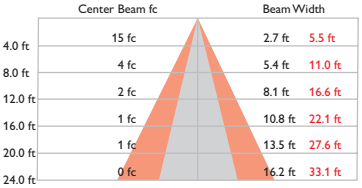
Lumens	220
Efficacy	26.1

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	234	234	234	234	234
5	226	227	229	232	233
15	148	158	189	215	222
25	73	81	109	160	179
35	38	39	52	87	114
45	23	23	25	27	30
55	15	14	13	10	12
65	11	10	7	7	8
75	7	6	4	3	3
85	3	3	2	1	1
90	3	2	2	1	0

Illuminance at Distance



15.3 ft (4.7 m)
1 fc maximum distance

Vert. Spread: 37.3°
Horiz. Spread: 69.2°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	128	58.3
0- 40	169	76.7
0- 60	201	91.3
0- 90	217	98.4
90-120	3	1.3
90-130	3	1.5
90-150	3	1.6
90-180	3	1.6
0-180	220	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	110	110	110	105	105	105	101	101	101	98
1	112	108	105	102	109	106	103	100	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	92	89	93	90	86	90	87	84	87	85	82	80
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	73
4	93	84	77	72	91	83	77	72	80	75	71	78	73	70	76	72	69	67
5	87	78	71	66	85	77	70	66	75	69	65	73	68	64	71	67	63	62
6	82	72	66	61	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	68	61	56	76	67	60	56	65	60	55	64	59	55	63	58	55	53
8	74	63	57	52	73	63	56	52	61	56	52	60	55	51	59	54	51	49
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	51	48	46
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	48	45	43

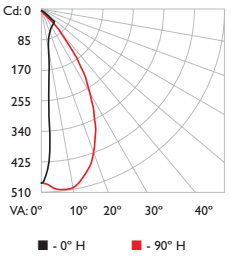
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

iW Fuse Powercore
1 ft, 10° x 60° (narrow beam angle)
6500 K channel only

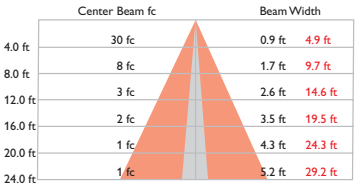
Lumens	254
Efficacy	30.6

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	481	481	481	481	481
5	301	323	388	465	497
15	84	87	105	241	470
25	65	63	64	102	357
35	52	47	46	57	194
45	54	45	32	22	39
55	32	28	18	12	16
65	18	15	10	8	10
75	11	9	6	4	4
85	5	5	3	2	1
90	4	4	2	1	0

Illuminance at Distance



21.9 ft (6.7 m)
1 fc maximum distance

Vert. Spread: 12.3°
Horiz. Spread: 62.6°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	136	53.6
0- 40	178	70.2
0- 60	226	88.7
0- 90	248	97.6
90-120	5	1.8
90-130	5	2.1
90-150	6	2.4
90-180	6	2.4
0-180	254	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

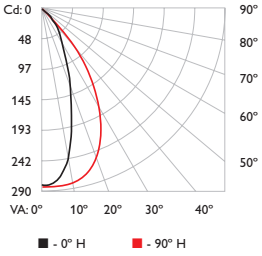
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	111	107	104	101	108	105	102	99	100	98	96	96	94	92	92	91	89	87
2	104	98	92	88	101	96	91	87	92	88	85	88	85	82	85	83	80	78
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	79	76	73	71
4	91	82	76	70	89	81	75	70	78	73	69	76	71	68	74	70	67	65
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	69	65	61	59
6	81	71	64	59	79	70	63	58	68	62	58	66	61	57	65	60	57	55
7	77	66	59	54	75	65	59	54	64	58	54	62	57	53	61	56	53	51
8	73	62	55	51	71	61	55	50	60	54	50	59	53	50	57	53	49	48
9	69	58	52	47	68	58	52	47	57	51	47	56	50	47	54	50	46	45
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	42

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

iW Fuse Powercore
1 ft, 30° x 60° (medium beam angle)
6500 K channel only

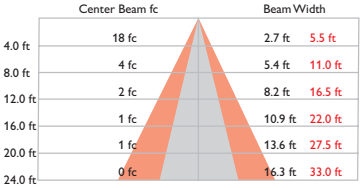
Lumens	266
Efficacy	31.1

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	281	281	281	281	281
5	273	274	276	279	280
15	178	191	228	259	269
25	88	98	133	194	215
35	46	47	63	105	136
45	27	28	30	32	37
55	18	17	15	13	14
65	14	11	9	8	10
75	9	7	5	4	4
85	4	4	3	2	1
90	3	3	2	1	0

Illuminance at Distance



16.8 ft (5.1 m)
1 fc maximum distance

Vert. Spread: 37.6°
Horiz. Spread: 69.0°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	155	58.3
0- 40	204	76.6
0- 60	243	91.3
0- 90	262	98.4
90-120	3	1.3
90-130	4	1.5
90-150	4	1.6
90-180	4	1.6
0-180	266	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	110	110	110	105	105	105	101	101	101	98
1	112	108	105	102	109	106	103	100	101	99	97	97	95	94	94	92	91	89
2	105	99	94	90	102	97	92	89	93	90	86	90	87	84	87	84	82	80
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	73
4	93	84	77	72	91	82	76	72	80	75	71	78	73	70	76	72	69	67
5	87	78	71	66	85	77	70	66	75	69	65	73	68	64	71	67	63	62
6	82	72	66	61	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	68	61	56	76	67	60	56	65	60	55	64	59	55	63	58	55	53
8	74	63	57	52	73	63	56	52	61	56	52	60	55	51	59	54	51	49
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	51	48	46
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	48	45	43

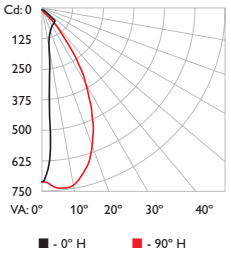
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

iW Fuse Powercore
1 ft, 10° x 60° (narrow beam angle)
All channels (full on)

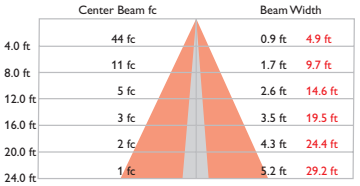
Lumens	613
Efficacy	38.3

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1168	1168	1168	1168	1168
5	742	794	949	1131	1211
15	200	206	253	591	1155
25	156	152	153	245	881
35	123	113	110	135	487
45	130	104	77	53	94
55	78	68	43	28	38
65	44	37	23	18	25
75	27	22	13	10	11
85	13	11	7	4	3
90	10	9	5	3	1

Illuminance at Distance



26.6 ft (8.1 m)
1 fc maximum distance

Vert. Spread: 12.3°
Horiz. Spread: 62.7°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	331	54.0
0- 40	433	70.7
0- 60	547	89.2
0- 90	600	97.9
90-120	10	1.6
90-130	12	1.9
90-150	13	2.1
90-180	13	2.1
0-180	613	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

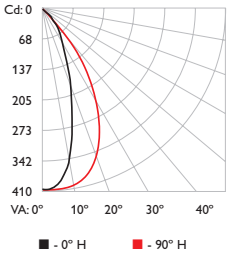
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	111	107	104	101	108	105	102	100	101	98	96	96	95	93	93	91	90	88
2	104	98	93	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	90	83	79	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	62	60
6	81	71	64	59	80	70	64	59	68	62	58	67	61	58	65	61	57	55
7	77	66	60	55	75	66	59	54	64	58	54	63	57	54	61	57	53	51
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	48	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	47	44	43

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

iW Fuse Powercore
1 ft, 30° x 60° (medium beam angle)
All channels (full on)

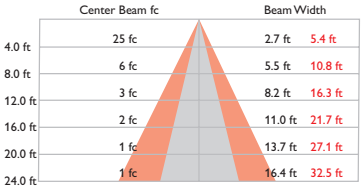
Lumens	636
Efficacy	38.8

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	679	679	679	679	679
5	660	662	668	675	677
15	429	460	551	624	649
25	210	235	319	467	521
35	109	112	151	252	330
45	65	66	72	76	86
55	43	39	36	30	33
65	32	27	20	19	22
75	20	16	11	10	9
85	9	8	6	4	2
90	7	6	4	2	1

Illuminance at Distance



20.2 ft (6.2 m)
1 fc maximum distance

Vert. Spread: 37.8°
Horiz. Spread: 68.3°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	374	58.8
0- 40	490	77.1
0- 60	582	91.6
0- 90	625	98.4
90-120	8	1.3
90-130	9	1.5
90-150	10	1.6
90-180	10	1.6
0-180	636	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	110	110	110	105	105	105	101	101	101	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	83	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	88	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	49	45	44

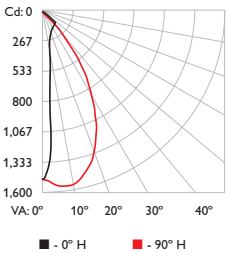
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

iW Fuse Powercore
4 ft, 10° x 60° (narrow beam angle)
2700 K channel only

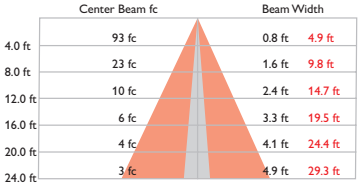
Lumens	729
Efficacy	35.4

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1492	1492	1492	1492	1492
5	897	958	1160	1411	1529
15	225	230	281	698	1437
25	195	188	175	285	1082
35	158	146	139	159	594
45	151	123	99	65	133
55	87	78	57	33	44
65	50	43	28	21	26
75	33	27	16	11	11
85	13	12	8	5	2
90	10	10	6	3	0

Illuminance at Distance



38.6 ft (11.8 m)
1 fc maximum distance

Vert. Spread: 11.6°
Horiz. Spread: 62.8°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	391	53.6
0- 40	515	70.5
0- 60	650	89.1
0- 90	712	97.6
90-120	13	1.8
90-130	15	2.1
90-150	17	2.4
90-180	18	2.4
0-180	729	100.0

Coefficients Of Utilization - Zonal Cavity Method

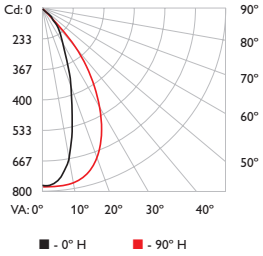
Effective Floor Cavity Reflectance: 20%

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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	111	107	104	101	108	105	102	100	100	98	96	96	94	93	92	91	90	88
2	104	98	93	88	101	96	91	87	92	88	85	89	86	83	85	83	81	79
3	97	90	83	79	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	62	60
6	81	71	64	59	80	70	64	59	68	63	58	67	61	58	65	60	57	55
7	77	66	60	55	75	66	59	55	64	58	54	63	57	54	61	57	53	51
8	73	62	56	51	72	62	55	51	60	55	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	48	57	51	47	56	51	47	55	50	47	45
10	66	56	49	45	65	55	49	45	54	48	45	53	48	44	52	47	44	43

iW Fuse Powercore
4 ft, 30° x 60° (medium beam angle)
2700 K channel only

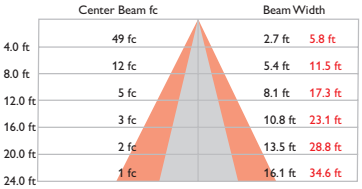
Lumens	727
Efficacy	35.5

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	790	790	790	790	790
5	765	765	773	782	789
15	496	528	626	720	752
25	224	248	354	547	623
35	128	124	158	292	419
45	76	81	83	87	115
55	49	43	44	33	39
65	37	32	23	20	23
75	21	18	12	10	10
85	9	9	6	4	2
90	8	7	4	2	0

Illuminance at Distance



28.1 ft (8.6 m)
1 fc maximum distance

Vert. Spread: 37.2°
Horiz. Spread: 71.6°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	426	58.5
0- 40	558	76.8
0- 60	666	91.6
0- 90	714	98.2
90-120	10	1.3
90-130	11	1.6
90-150	13	1.8
90-180	13	1.8
0-180	727	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

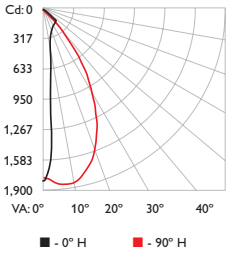
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	83	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	88	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	49	45	44

For lux multiply fc by 10.7

iW Fuse Powercore
4 ft, 10° x 60° (narrow beam angle)
4000 K channel only

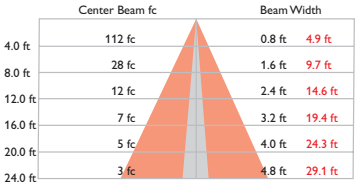
Lumens	880
Efficacy	42.7

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1798	1798	1798	1798	1798
5	1047	1125	1374	1697	1846
15	274	280	336	827	1721
25	237	227	213	345	1295
35	189	178	169	194	715
45	184	156	122	79	152
55	105	93	70	40	53
65	60	52	35	26	33
75	40	32	20	14	14
85	16	15	10	6	2
90	13	12	7	3	0

Illuminance at Distance



42.5 ft (13 m)
1 fc maximum distance

Vert. Spread: 11.4°
Horiz. Spread: 62.5°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	469	53.3
0- 40	618	70.2
0- 60	782	88.9
0- 90	858	97.5
90-120	16	1.8
90-130	19	2.2
90-150	22	2.5
90-180	22	2.5
0-180	880	100.0

Coefficients Of Utilization - Zonal Cavity Method

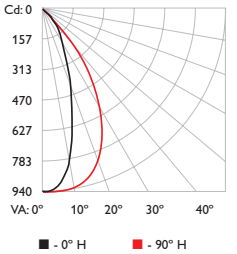
Effective Floor Cavity Reflectance: 20%

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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	92	91	89	87
2	104	98	93	88	101	96	91	87	92	88	85	89	85	83	85	83	80	79
3	97	89	83	78	95	88	82	78	85	80	76	82	78	74	79	76	73	71
4	91	82	76	71	89	81	75	70	78	73	69	76	71	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	61	60
6	81	71	64	59	79	70	63	59	68	62	58	66	61	57	65	60	57	55
7	77	66	59	55	75	65	59	54	64	58	54	62	57	53	61	56	53	51
8	73	62	55	51	71	61	55	51	60	54	50	59	54	50	58	53	49	48
9	69	59	52	47	68	58	52	47	57	51	47	56	50	47	55	50	46	45
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	47	44	42

iW Fuse Powercore
4 ft, 30° x 60° (medium beam angle)
4000 K channel only

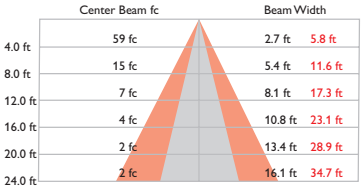
Lumens	861
Efficacy	42.0

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	938	938	938	938	938
5	907	908	917	929	936
15	588	624	737	847	886
25	265	294	418	642	732
35	151	147	188	349	498
45	90	96	98	105	137
55	58	52	53	39	46
65	43	38	27	24	28
75	25	22	15	13	12
85	11	10	7	5	2
90	9	8	5	2	0

Illuminance at Distance



30.7 ft (9.4 m)
1 fc maximum distance

Vert. Spread: 37.2°
Horiz. Spread: 71.7°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	502	58.4
0- 40	660	76.7
0- 60	788	91.6
0- 90	845	98.2
90-120	11	1.3
90-130	13	1.6
90-150	15	1.8
90-180	15	1.8
0-180	861	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

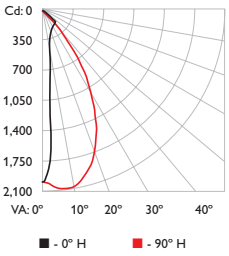
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	82	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	59	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	52	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	48	45	44

For lux multiply fc by 10.7

iW Fuse Powercore
4 ft, 10° x 60° (narrow beam angle)
6500 K channel only

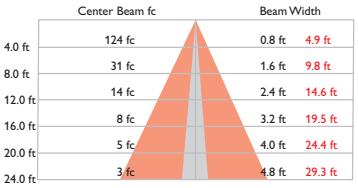
Lumens	983
Efficacy	47.7

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1990	1990	1990	1990	1990
5	1162	1249	1527	1884	2046
15	312	318	381	923	1939
25	266	257	244	386	1453
35	214	200	190	218	798
45	205	168	136	88	176
55	120	107	78	45	60
65	68	59	39	29	37
75	45	36	22	16	16
85	17	16	10	6	2
90	13	12	7	3	0

Illuminance at Distance



44.5 ft (13.6 m)
1 fc maximum distance

Vert. Spread: 11.4°
Horiz. Spread: 62.8°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	526	53.5
0- 40	693	70.5
0- 60	878	89.3
0- 90	962	97.9
90-120	16	1.6
90-130	19	1.9
90-150	21	2.1
90-180	21	2.1
0-180	983	100.0

Coefficients Of Utilization - Zonal Cavity Method

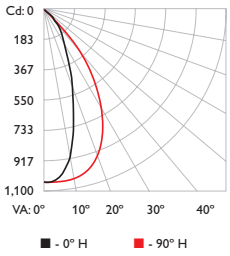
Effective Floor Cavity Reflectance: 20%

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	110	110	110	105	105	105	100	100	100	98
1	111	108	104	101	108	105	102	100	101	98	96	96	95	93	93	91	90	88
2	104	98	93	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	90	83	79	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	62	60
6	81	71	64	59	80	70	63	59	68	62	58	66	61	58	65	60	57	55
7	77	66	59	55	75	66	59	54	64	58	54	62	57	53	61	57	53	51
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	47	44	42

iW Fuse Powercore
4 ft, 30° x 60° (medium beam angle)
6500 K channel only

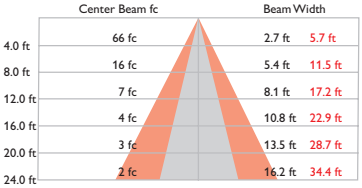
Lumens	967
Efficacy	47.2

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1050	1050	1050	1050	1050
5	1018	1018	1030	1040	1050
15	661	701	831	956	998
25	298	330	472	725	824
35	171	166	211	388	550
45	102	108	110	117	153
55	65	58	59	44	52
65	49	43	30	27	32
75	29	25	17	14	14
85	13	12	8	5	2
90	10	10	6	3	0

Illuminance at Distance



32.4 ft (9.9 m)
1 fc maximum distance

Vert. Spread: 37.3°
Horiz. Spread: 71.3°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	565	58.5
0- 40	742	76.7
0- 60	885	91.5
0- 90	950	98.2
90-120	13	1.3
90-130	15	1.6
90-150	17	1.8
90-180	17	1.8
0-180	967	100.0

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

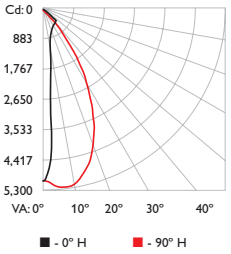
RC	80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	82	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	52	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	48	45	44

For lux multiply fc by 10.7

iW Fuse Powercore
4 ft, 10° x 60° (narrow beam angle)
All channels full on

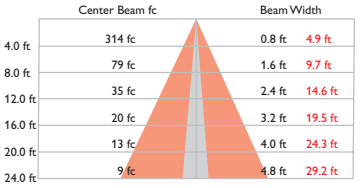
Lumens	2455
Efficacy	48.6

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	5027	5027	5027	5027	5027
5	2916	3142	3842	4749	5175
15	763	780	939	2315	4873
25	659	635	596	957	3658
35	528	495	469	538	2007
45	511	424	336	216	431
55	294	262	191	111	148
65	167	144	96	71	90
75	111	90	54	39	36
85	45	42	27	16	6
90	35	33	20	10	1

Illuminance at Distance



71 ft (21.6 m)
1 fc maximum distance

Vert. Spread: 11.4°
Horiz. Spread: 62.6°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	1314	53.5
0- 40	1729	70.4
0- 60	2185	89.0
0- 90	2394	97.5
90-120	45	1.8
90-130	54	2.2
90-150	61	2.5
90-180	61	2.5
0-180	2455	100.0

Coefficients Of Utilization - Zonal Cavity Method

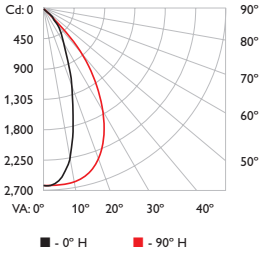
Effective Floor Cavity Reflectance: 20%

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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	92	91	89	87
2	104	98	93	88	101	96	91	87	92	88	85	89	85	83	85	83	81	79
3	97	90	83	79	95	88	82	78	85	80	76	82	78	75	79	76	73	71
4	92	82	76	71	89	81	75	70	78	73	69	76	72	68	74	70	67	65
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	69	65	61	60
6	81	71	64	59	80	70	63	59	68	62	58	66	61	57	65	60	57	55
7	77	66	59	55	75	66	59	54	64	58	54	62	57	53	61	56	53	51
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	47	44	42

iW Fuse Powercore
4 ft, 30° x 60° (medium beam angle)
All channels full on

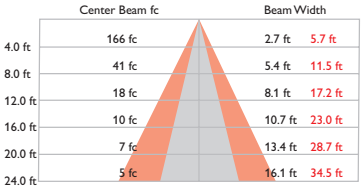
Lumens	2427
Efficacy	48.2

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	2650	2650	2650	2650	2650
5	2560	2565	2591	2619	2645
15	1659	1760	2091	2400	2510
25	747	825	1183	1821	2072
35	426	413	527	976	1390
45	252	270	275	292	386
55	162	145	147	111	130
65	123	108	76	67	79
75	71	61	41	35	34
85	31	29	19	13	5
90	25	23	14	7	0

Illuminance at Distance



51.5 ft (15.7 m)
1 fc maximum distance

Vert. Spread: 37.1°
Horiz. Spread: 71.4°

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	1420	58.5
0- 40	1863	76.7
0- 60	2222	91.6
0- 90	2383	98.2
90-120	32	1.3
90-130	39	1.6
90-150	44	1.8
90-180	45	1.8
0-180	2427	100.0

Coefficients Of Utilization - Zonal Cavity Method

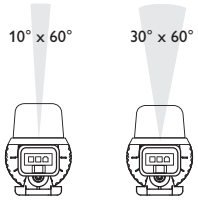
Effective Floor Cavity Reflectance: 20%

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	110	110	110	105	105	105	100	100	100	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	87	85	82	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	81	78	75	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	88	78	71	66	86	77	71	66	75	69	65	73	68	64	71	67	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	67	62	59	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	58	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	52	59	55	51	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	51	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	49	45	44

For lux multiply fc by 10.7

iW Fuse Powercore Specifications: 1 ft (305 mm)

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



Item	Beam Angle	2700 K*	4000 K*	6500 K*	All Channels
Lumens†	10° x 60°	185	212	254	613
	30° x 60°	186	220	266	636
Efficacy (lm / W)	10° x 60°	21.8	25.6	30.6	38.3
	30° x 60°	22.1	26.1	31.1	38.8
CRI	10° x 60°	82	81	73	81
	30° x 60°	82	82	73	81

Item	Specification	Details
Output	Beam Angle	10° x 60° (narrow) / 30° x 60° (medium)
	Color Temperature*	2700 K – 6500 K
	LED Channels	2700 K / 4000 K / 6500 K
	Lumen Maintenance‡	50,000 hours L_{70} @ 25° C 50,000 hours L_{70} @ 50° C 50,000 hours L_{50} @ 25° C 50,000 hours L_{50} @ 50° C
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	12.5 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)*	2.1 x 12 x 1.5 in (53 x 305 x 39 mm)
	Weight	0.98 lbs (.45 kg)
	Housing	Die-cast aluminium, white powder-coated finish
	Lens	Polycarbonate
	Fixture Connections	Integral male / female connectors
	Temperature Ranges	-4° – 122° F (-20° – 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 B, CE, PSE, CCC, SAA, C-Tick
	Environment	Dry / Damp Location, IP20

* Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A.

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

‡ L_{70} = 70% maintenance of lumen output (when light output drops below 70% of initial output). L_{50} = 50% maintenance of lumen output (when light output drops below 50% of initial output). Ambient temperatures specified. 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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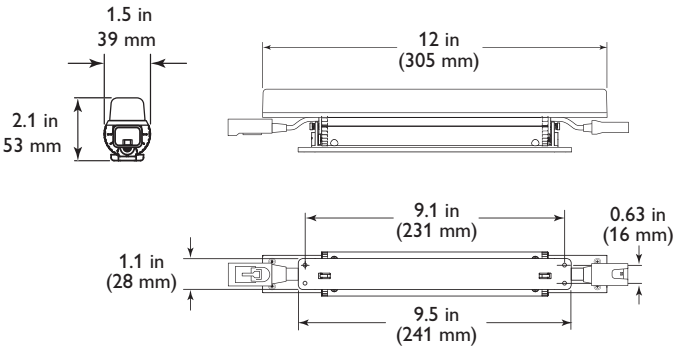
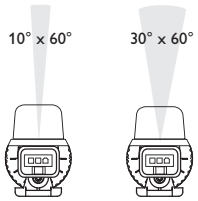


iW Fuse Powercore Specifications: 4 ft (1.2 m)

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

Item	Beam Angle	2700 K*	4000 K*	6500 K*	All Channels
Lumens†	10° x 60°	729	880	983	2455
	30° x 60°	727	861	967	2427
Efficacy (lm / W)	10° x 60°	35.4	42.7	47.7	48.6
	30° x 60°	35.5	42.0	47.2	48.2
CRI	10° x 60°	82	81	74	82
	30° x 60°	82	81	74	82



Item	Specification	Details
Output	Beam Angle	10° x 60° (narrow) / 30° x 60° (medium)
	Color Temperature*	2700 K – 6500 K
	LED Channels	2700 K / 4000 K / 6500 K
	Lumen Maintenance‡	50,000 hours L_{70} @ 25° C 50,000 hours L_{70} @ 50° C 50,000 hours L_{50} @ 25° C 50,000 hours L_{50} @ 50° C
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	50 W maximum at full output, steady state
Control	Interface	Data Enabler Pro (DMX / Ethernet)
	Control System	Philips Coloir 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)*	2.1 x 48 x 1.5 in (53 x 1219 x 39 mm)
	Weight	4.37 lbs (1.98 kg)
	Housing	Die-cast aluminium, white powder-coated finish
	Lens	Polycarbonate
	Fixture Connections	Integral male / female connectors
	Temperature Ranges	-4° – 122° F (-20° – 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 B, CE, PSE, CCC, SAA, C-Tick
	Environment	Dry / Damp Location, IP20

* Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A.

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

‡ L_{70} = 70% maintenance of lumen output (when light output drops below 70% of initial output). L_{50} = 50% maintenance of lumen output (when light output drops below 50% of initial output). Ambient temperatures specified. 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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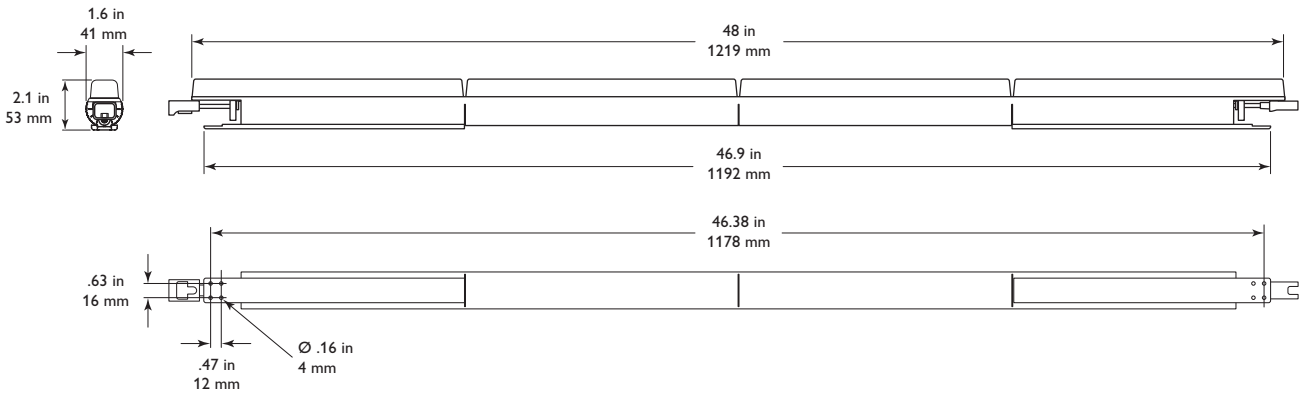


Fixtures and Accessories

iW Fuse Powercore fixtures are part of a complete system which includes fixtures and:

- One or more Data Enabler Pro devices.
- One Leader Cable to connect each Data Enabler Pro output to a series of fixtures, or one Wiring Compartment with a sufficient length of 4-conductor copper wire. Standard 12 AWG stranded wire is recommended..
- Any Philips controller, including Light System Manager, iPlayer 3, and ColorDial Pro, or a third-party controller.

Included in the box

- iW Fuse Powercore fixture
- Installation Instructions

Item	Type		Item Number	Philips 12NC
iW Fuse Powercore 1 ft (305 mm)	10° x 60°	UL / cUL / CE	523-000066-00	910503701785
		CCC	523-000066-02	910503701995
	30° x 60°	UL / cUL / CE	523-000066-01	910503701786
		CCC	523-000066-03	910503701996
iW Fuse Powercore 4 ft (1.2 m)	10° x 60°	UL / cUL / CE	523-000066-04	910503702515
		CCC	523-000066-06	910503703187
	30° x 60°	UL / cUL / CE	523-000066-05	910503702516
		CCC	523-000066-07	910503703188

Optional mounting track ensures straight runs of fixtures.

Mounting Track, White	1 @ 4 ft (1219 mm)		120-000124-00	910503701787
Leader Cable with Terminator	10 ft (3.1 m)	UL / cUL	108-000050-00	910503701686
		CE / CCC	108-000050-01	910503701687

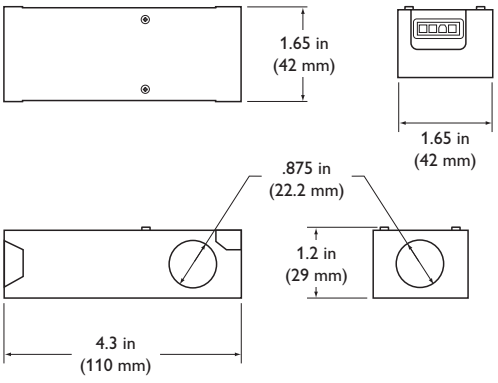
Depending on the installation's design, you may need jumper cables to add space between fixtures.

Jumper Cable	1 ft (305 mm)	UL / cUL	108-000049-01	910503701683
		CE / CCC	108-000049-03	910503701685
	5 ft (1.5 m)	UL / cUL	108-000049-00	910503701682
		CE / CCC	108-000049-02	910503701684
Wiring Compartment with Terminator		UL / cUL	120-000077-02	910503701740
Terminator, Quantity 10			120-000058-00	910503700146

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.

Wiring Compartment dimensions



Installation

iW Fuse Powercore offers high-intensity surface grazing and wall washing 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

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

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

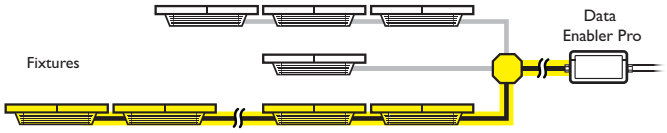
Prepare for the Installation

Determine the appropriate location of each Data Enabler Pro in relation to the fixtures, and of the fixtures in relation to each other. The Data Enabler Pro and first fixture must be separated by no more than the 10 ft (3.1 m) length of the Leader Cable.

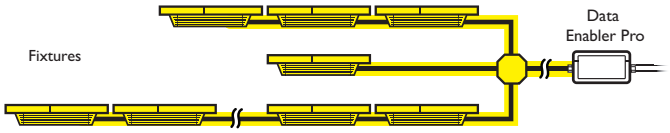
iW Fuse Powercore fixtures are installed in series. The in-line connectors allow end-to-end fixture connections for the best visual effects. Joined directly together, the connectors on the 1 ft (305 mm) fixtures allow for spacing of .4 in (10 mm) to .9 in (23 mm) without a jumper cable, while the connectors on the 4 ft (1.2 m) fixtures allow for spacing of .9 in (23 mm) to 2 in (51 mm) without a jumper cable. When you need to separate fixtures by more than these minimums, use the 1 ft (305 mm) or 5 ft (1.5 m) jumper cables.

The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture length, fixture spacing, circuit size, line voltage, and Leader Cable length. 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 lengths should not exceed 175 ft (53.3 m), and the total cable length per Data Enabler Pro should not exceed 400 ft (122 m).



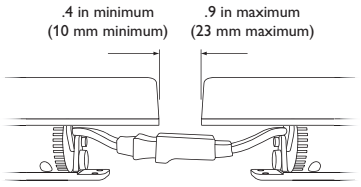
Data Integrity — maximum individual length 175 ft (53.3 m)



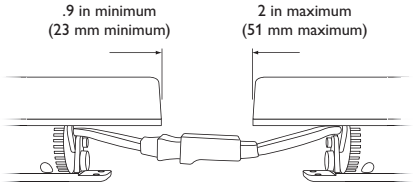
Data Integrity — total length 400 ft (122 m)

Refer to the Data Enabler Pro Installation Instructions or Product Guide for guidelines on configuring and positioning the Data Enabler Pro in relation to the controller.

Distance between fixtures joined end-to-end



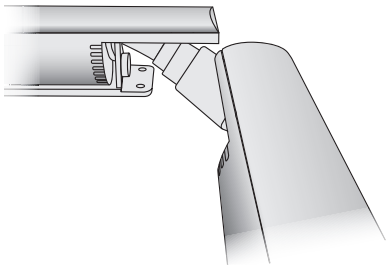
1 ft (305 mm) fixtures



4 ft (1.2 m) fixtures

Easy turns

End-to-end locking power connectors can make turns of up to 180° without jumper cables.



Start the Installation

1. Install all Data Enabler Pro devices, including any interfaces with controllers. One Leader Cable is required to connect each run or series of fixtures to a Data Enabler Pro. The Data Enabler Pro sends power and control signals to the fixtures over the Leader Cable.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. If your installation calls for Jumper Cables to add space between fixtures, make sure they are available.
4. Ensure that all additional parts (optional mounting tracks, mounting hardware, terminators) and tools are available.

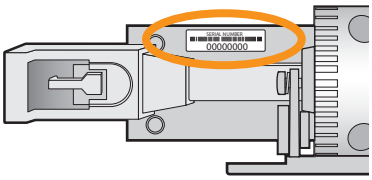
Unpack and Prepare Fixtures

Included in the box

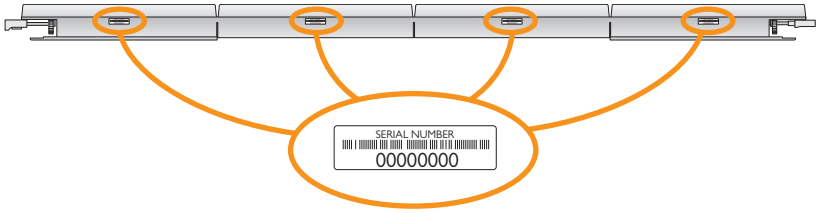
iW Fuse Powercore fixture
Installation Instructions

1. Carefully inspect the box containing iW Fuse Powercore and the contents for any damage that may have occurred in transit.
2. On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all switches, controllers, power supplies, fixtures, and Leader and Jumper Cables.
3. iW Fuse Powercore fixtures are addressable in 1 ft (305 mm) segments. This feature allows playback controllers to send unique light output data to each segment of each fixture within your installation.

   Each fixture segment (node) comes pre-programmed with a unique serial number. Fixtures have one or four serial numbers depending on fixture length. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.



Location of serial number on 1 ft (305 mm) iW Fuse Powercore fixtures

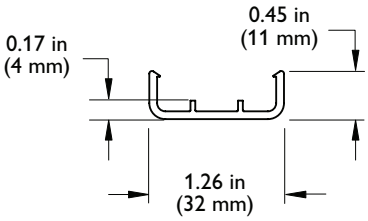


Location of serial numbers on 4 ft (1.2 m) iW Fuse Powercore fixtures

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 fixture's housing.

Install the Fixtures

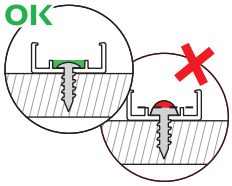
You can mount iW Fuse Powercore fixtures directly to a wall, ceiling, cabinet, or other secure surface. For linear applications, you can install several iW Fuse Powercore fixtures in optional 4 ft (1.2 m) lengths of mounting track to ensure straight runs.



(Optional) Install Mounting Tracks

1. Field-cut the mounting tracks to the desired length with hacksaws or tin snips.
2. Install the mounting tracks using hardware suitable for the mounting surface.

   To ensure proper fixture fit, hardware must not extend above the track standoffs after installation. The recommended maximum spacing between screws is 12 in (305 mm).



You can use the fixture base as a template when pre-drilled holes are required. Hold the fixture in place and mark the four screw holes.

Mount and Connect the Fixtures

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

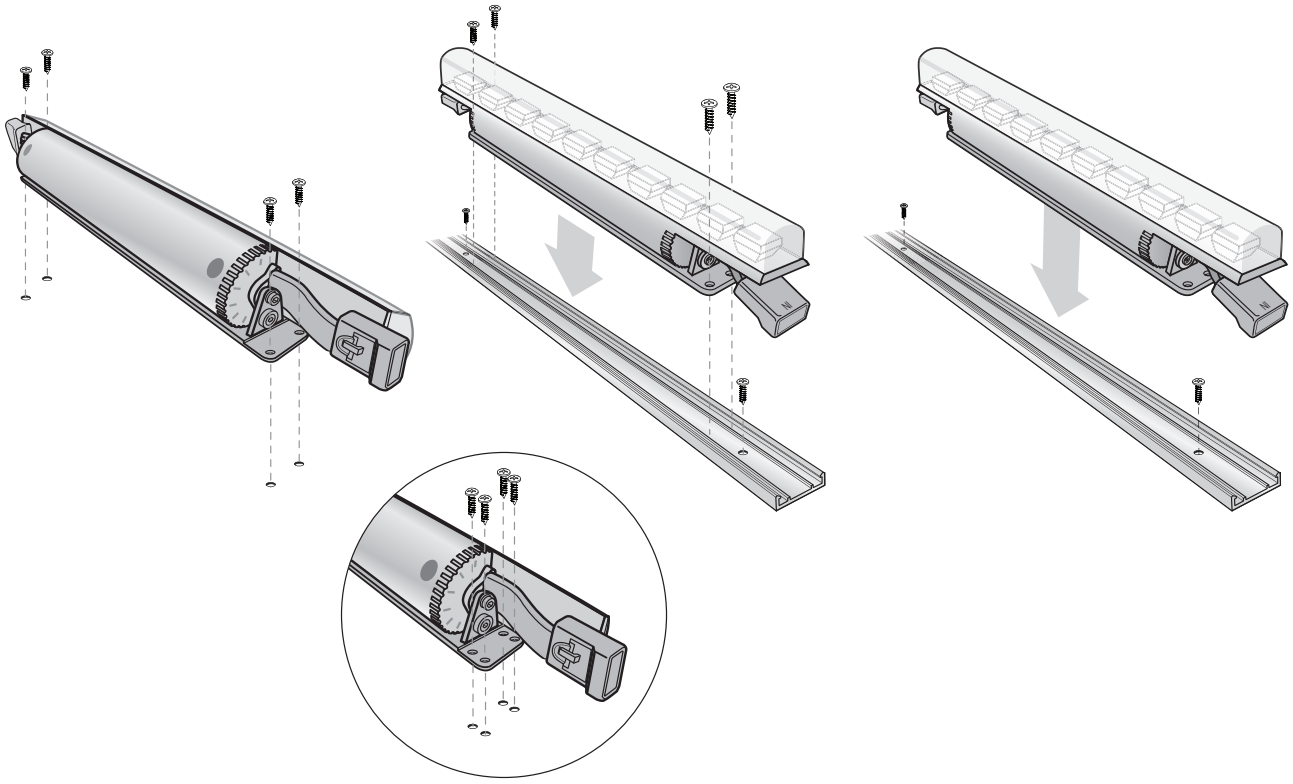
1. Rotate an iW Fuse Powercore fixture as necessary to provide unobstructed access to the mounting holes.
2. Position the first fixture in a series.

   If using mounting tracks on a horizontal surface, snap the fixture into the track.

   If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach 1 ft (305 mm) fixtures with four #6 (3.5 mm) mounting screws each (not included) suitable for the mounting surface. Attach 4 ft (1.2 m) fixtures with eight #6 (3.5 mm) mounting screws suitable for the mounting surface, four at each end of the fixture,

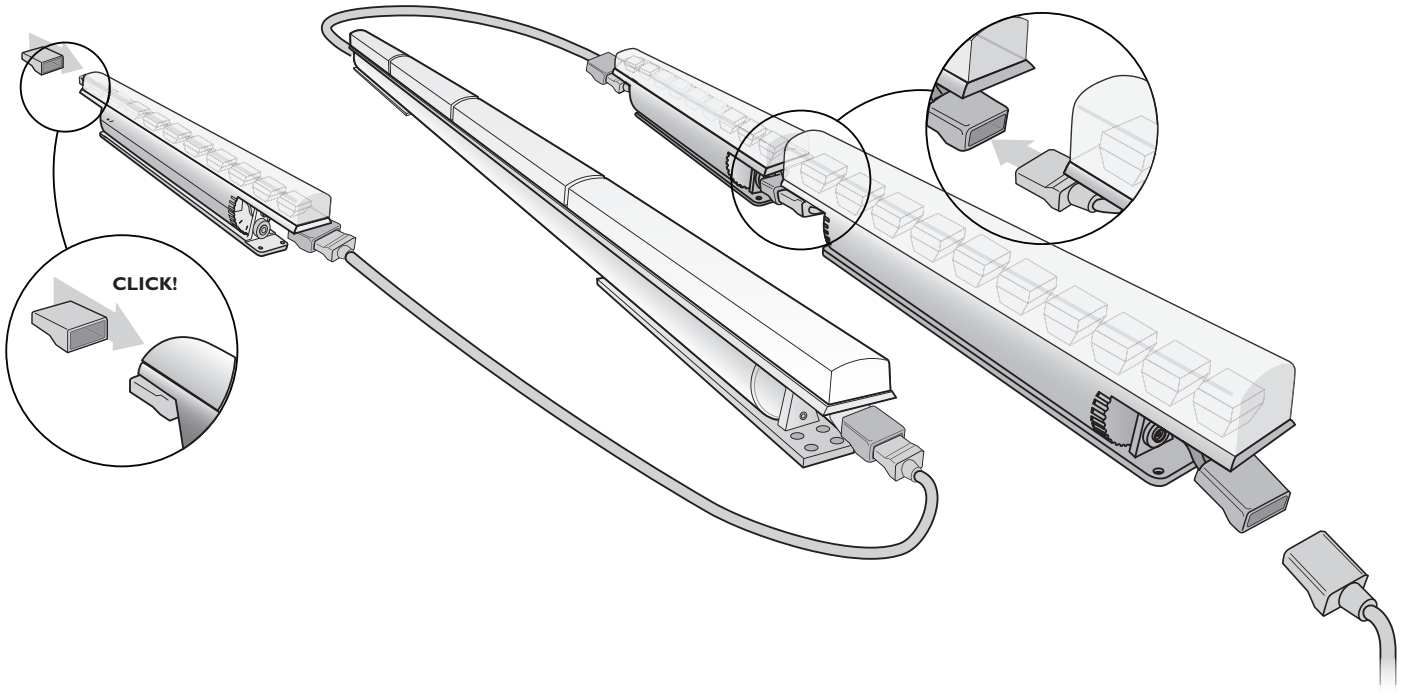
   Ensure that the male connector is in position to receive data and power from the leader cable's female connector.

If using the Wiring Compartment to run conduit from Data Enabler Pro to the first fixture in a run, make sure you leave enough space at the end of the run to accommodate the Wiring Compartment.



Mounting 4 ft (1.2 m) fixtures

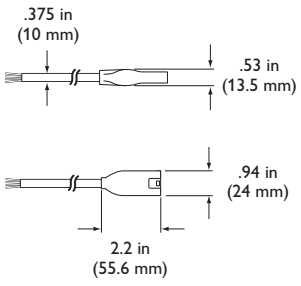
3. Position the next fixture in the series, matching the male connector end to the female connector of the previously mounted fixture. Attach the fixture to the surface or snap it into the track.
4. Continue mounting the fixtures, making power / data connections as you go, until all lights in the series are mounted.
5. Insert the provided terminator into the last fixture in the series.

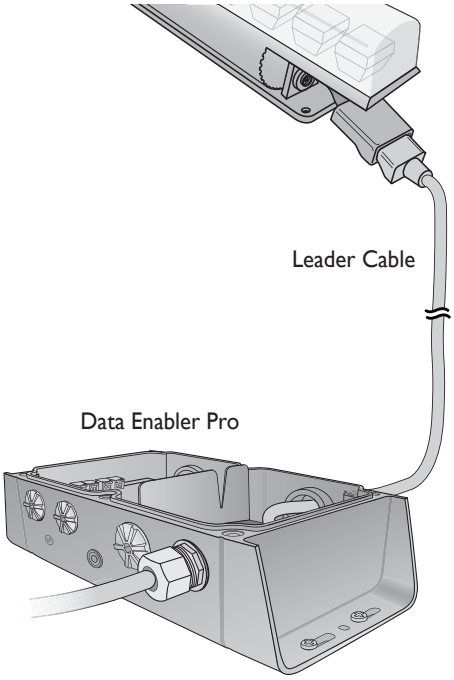


Make Power Connections

1. If using a Leader Cable, connect the Leader Cable to the first fixture in the series. Run the Leader Cable to the Data Enabler Pro.

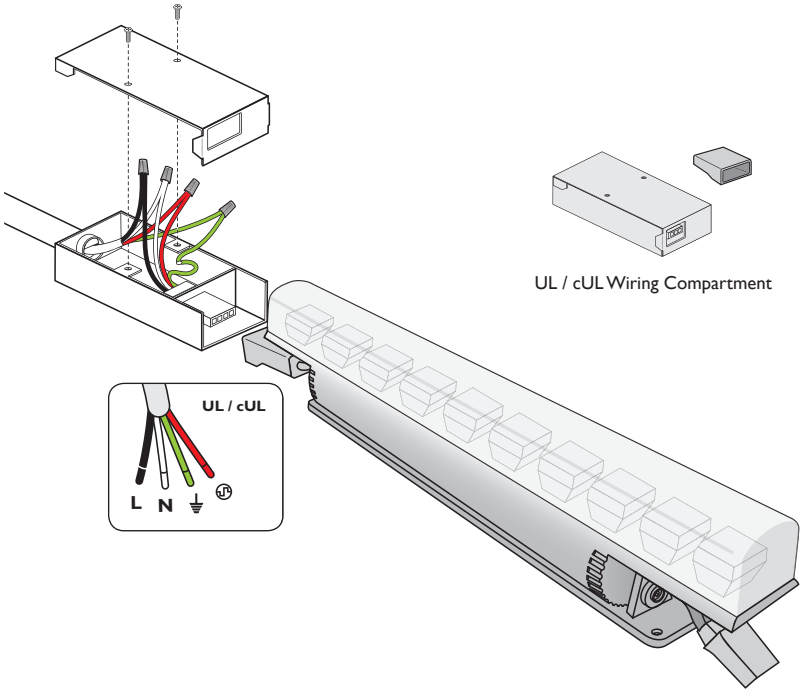
Leader Cable connector dimensions





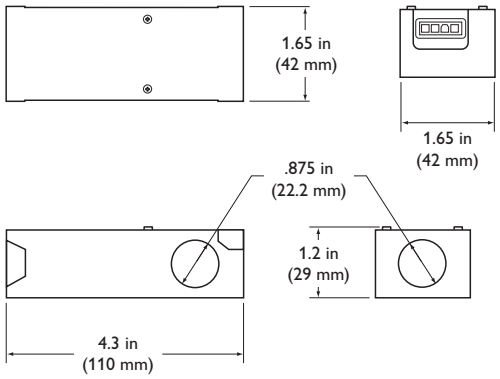
2. If using the iW Fuse Powercore Wiring Compartment to run conduit from the Data Enabler Pro to the first fixture in a series, pull cable through conduit. (We recommend standard 4-conductor 12 AWG copper wire.)

   Remove the cover from the Wiring Compartment. Using wire nuts, make wire connections inside the Wiring Compartment housing, then replace the cover. Connect the Wiring Compartment to the first fixture in the series.

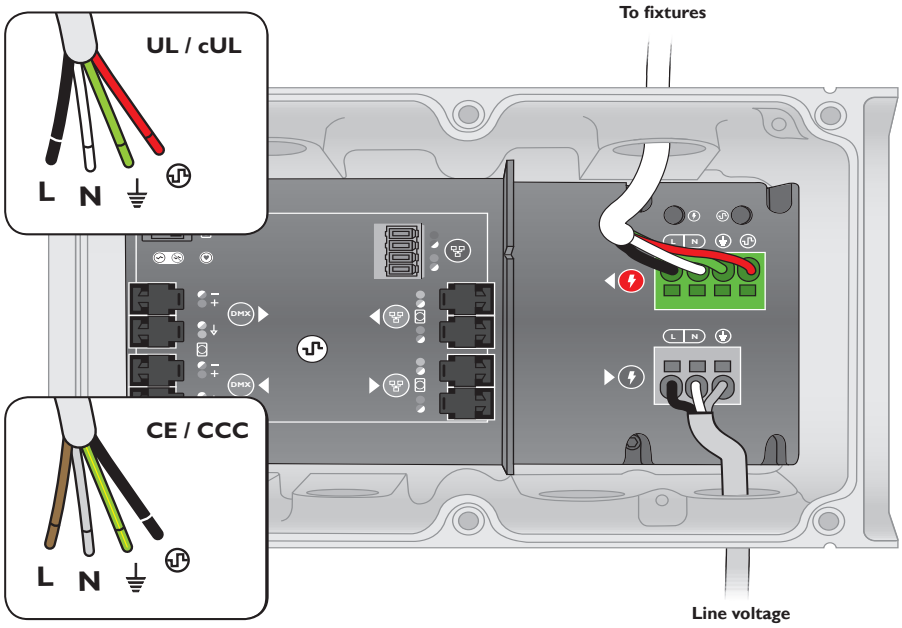


UL / cUL Wiring Compartment

Wiring Compartment dimensions



3. Secure connections within the Data Enabler Pro housing.



4. Repeat steps 1 – 7 for each Data Enabler Pro in the installation.

Controlling iW Fuse Powercore Fixtures

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

iW Fuse Powercore fixtures are addressable in 1 ft (305 mm) segments, or nodes. iW Fuse Powercore fixtures have one or four nodes, depending on fixture length. Each node is identified by a unique serial number.

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 Fuse Powercore fixtures.

iW Fuse Powercore has three LED channels, warm, neutral, and cool. By default, iW Fuse Powercore is set to two-channel mode. In two-channel mode, fixtures automatically map two channels of data input to the three LED channels. Using QuickPlay Pro addressing and configuration software, you can also set iW Fuse Powercore to operate in three-channel mode.

You set iW Fuse Powercore fixtures to two-channel or three-channel mode using QuickPlay Pro addressing and configuration software. You can download QuickPlay Pro from www.philipscolorkinetics.com/support/addressing.

- In three-channel mode, use the Fixed Color effect in iColor Player or iColor Keypad, or the Fixed Color or Variable Color effect in ColorDial Pro.
- In two-channel mode, use the Fixed White effect in iColor Player, iColor Keypad, or ColorDial Pro.

Displaying Dynamic Light Output

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

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

Addressing iW Fuse Powercore Fixtures

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

You address and configure iW Fuse Powercore fixture nodes using QuickPlay Pro addressing and configuration software. Fixture nodes 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 fixture nodes during installation planning.

- 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 of your 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.

iW Fuse 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, fixture nodes use one DMX address per LED channel.

In 16-bit mode, fixture nodes 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 resolution from 256 dimming steps to 65,536 (256 x 256) dimming steps.

You can address and configure iW Fuse Powercore fixture nodes in much the same way as you would address any RGB fixture. Addressing differs depending on whether fixtures are in two-channel mode or three-channel mode:

- In three-channel mode, 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.
- In two-channel mode, the red channel corresponds to the warm LEDs, the green channel corresponds to the cool LEDs, and the blue channel is not used.

  Note that although the blue DMX channel is not used, it is *assigned*, so that each iW Fuse Powercore fixture node uses three DMX sequential addresses (or a multiple of three addresses), as in three-channel mode.

iW Fuse Powercore fixture nodes come factory-addressed with a starting DMX address of 1. For lighting designs where fixtures work in unison, all fixture nodes can be assigned the same starting DMX address. Changes to the default starting DMX 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 light output on different fixture nodes simultaneously, you must assign unique DMX addresses to your nodes and sort them in a useful order.

The following table shows the DMX channel assignments per node for 8-bit and 16-bit iW Fuse Powercore configurations, assuming a starting DMX address of 1.

DMX Channel Assignments Per Node: Two-Channel Mode

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

DMX Channel Assignments Per Node: Three-Channel Mode

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

LED Channels

Channel Mode	RGB	iW Fuse Powercore
Three-Channel Mode	Red	Warm
	Green	Neutral
	Blue	Cool
Two-Channel Mode	Red	Warm
	Green	Cool
	Blue	Unused

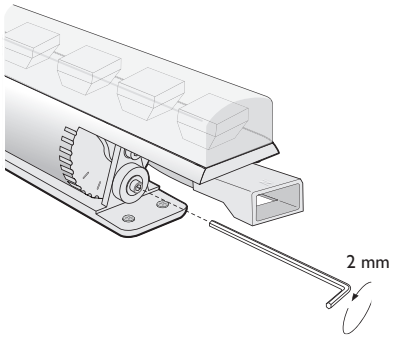
Do not look directly into the fixture when aiming and locking.

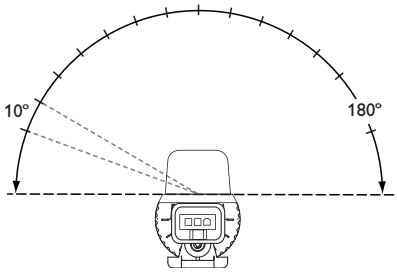
Aim and Lock the Fixtures

Make sure the power is ON before aiming and locking fixtures.

Aim the fixtures by rotating each fixture to the correct angle. There are detents every 10° in the bracket that hold it in position.

(Optional) Using a 2 mm hex key wrench, tighten the set screw located on each end of the fixture to lock the fixture in place.





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