



iW Fuse Powercore

Ultra-compact intelligent white light LED grazing fixture

PHILIPS

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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.

- Universal power input range — iW Fuse Powercore accepts power input of 100 – 240 VAC. Depending on input voltage, a single Data Enabler Pro can support up to 107 fixtures installed end-to-end in a single run.
- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to iW Fuse Powercore 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.
- 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. iW Fuse Powercore offers the greatest possible light intensity at all color temperatures. Fixture brightness can be varied while maintaining constant color temperature.
- Industry-leading controls — iW Fuse Powercore works seamlessly with the complete Philips line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.
- 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 12 in (305 mm) grazing 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 over 600 lumens per foot.

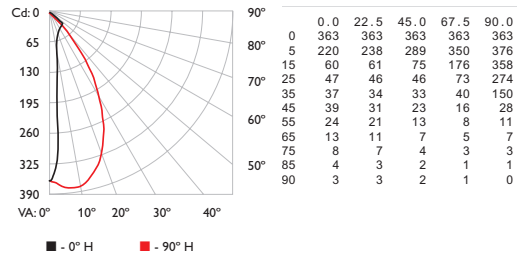
Photometrics

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

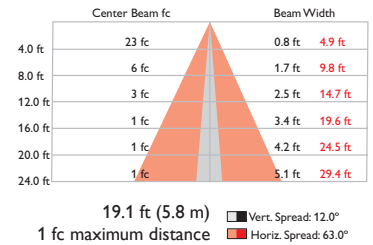
iW Fuse Powercore
10° x 60° (narrow) beam angle,
2700 K channel only

Lumens	185
Efficacy	21.8

Polar Candela Distribution



Illuminance at Distance



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

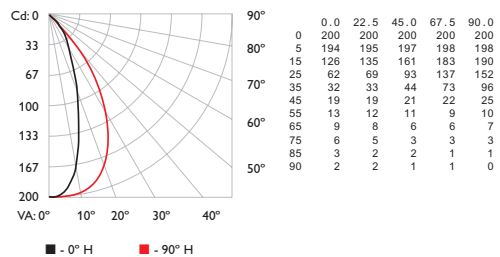
Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	50	30	10	0	50	30
RW	70	50	30	10	70	50	30	10	50	30	10	0
0	119119119119	116116116116	110110110	105105105	100100100	98						
1	111107104101	108105102	99	100	98	96	96	94	93	92	91	90
2	104	98	93	88	101	96	91	87	92	88	85	83
3	97	90	83	78	95	88	82	78	85	80	76	73
4	92	82	76	71	89	81	75	70	79	73	69	67
5	86	76	69	64	84	75	69	64	73	67	63	62
6	81	71	64	59	80	70	64	59	68	63	58	57
7	77	66	60	55	75	66	59	54	64	58	54	53
8	73	62	56	51	72	62	55	51	60	55	50	48
9	69	59	52	48	68	58	52	48	57	51	47	45
10	66	56	49	45	65	55	49	45	54	48	44	43

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

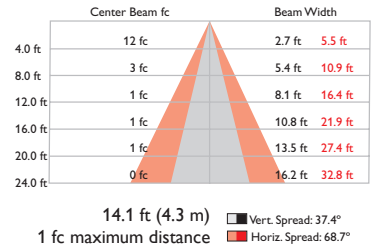
iW Fuse Powercore
30° x 60° (medium) beam angle,
2700 K channel only

Lumens	186
Efficacy	22.1

Polar Candela Distribution



Illuminance at Distance



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	50	30	10	0	50	30
RW	70	50	30	10	70	50	30	10	50	30	10	0
0	119119119119	116116116116	110110110	105105105	101101101	98						
1	112108105102	109106103101	101	99	97	96	96	94	94	92	91	89
2	105	99	94	90	102	97	93	89	93	90	87	85
3	99	91	85	80	96	89	84	80	86	82	78	75
4	93	84	78	73	91	83	77	72	80	75	71	69
5	87	78	71	66	86	77	71	66	75	69	65	62
6	83	73	66	61	81	72	65	61	70	64	60	57
7	78	68	61	56	77	67	61	56	66	60	56	53
8	74	64	57	52	73	63	57	52	62	56	52	50
9	70	60	53	49	69	59	53	49	58	53	49	47
10	67	56	50	46	66	56	50	46	55	49	45	44

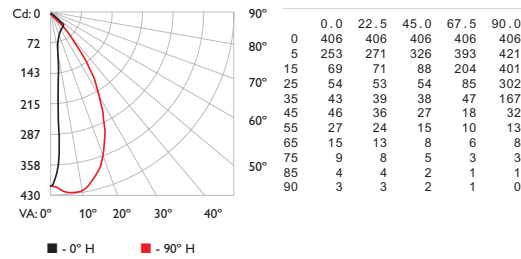
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

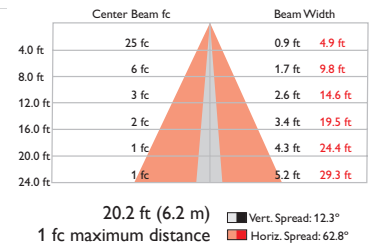
iW Fuse Powercore
10° x 60° (narrow) beam angle,
4000 K channel only

Lumens	212
Efficacy	25.6

Polar Candela Distribution



Illuminance at Distance



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

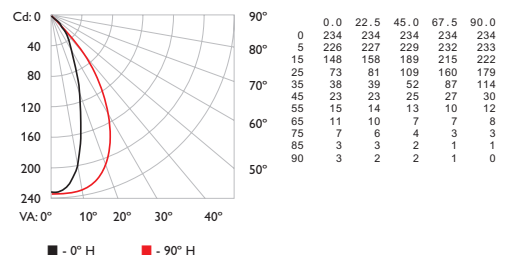
		Effective Floor Cavity Reflectance: 20%											
		80			70			50			30		
RC	RW	70	50	30	10	70	50	30	10	50	30	10	0
0	1	118	118	118	118	115	151	151	151	110	101	100	98
1	1	111	107	104	101	108	105	102	99	100	98	96	92
2	1	104	98	93	88	101	96	91	87	92	88	85	85
3	1	97	90	83	79	95	88	82	78	85	80	76	79
4	1	92	82	76	71	89	81	75	70	78	73	69	74
5	1	86	76	69	64	84	75	69	64	73	67	63	69
6	1	81	71	64	59	80	70	64	59	68	62	58	65
7	1	77	66	59	55	75	66	59	54	64	58	54	61
8	1	73	62	56	51	72	62	55	51	60	54	50	58
9	1	69	59	52	48	68	58	52	47	57	51	47	55
10	1	66	55	49	45	65	55	49	45	54	48	44	52

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

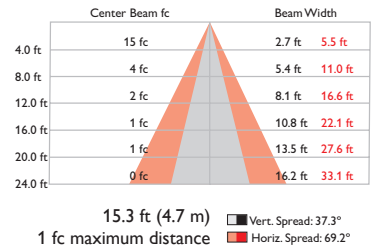
iW Fuse Powercore
30° x 60° (medium) beam angle,
4000 K channel only

Lumens	220
Efficacy	26.1

Polar Candela Distribution



Illuminance at Distance



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%											
		80			70			50			30		
RC	RW	70	50	30	10	70	50	30	10	50	30	10	0
0	1	119	119	119	119	116	161	161	161	110	101	101	98
1	1	112	108	105	102	109	106	103	100	101	99	97	94
2	1	105	99	94	90	102	97	92	89	93	90	86	87
3	1	98	91	85	80	96	89	84	79	86	82	78	81
4	1	93	84	77	72	91	83	77	72	80	75	71	78
5	1	87	78	71	66	85	77	70	66	75	69	65	71
6	1	82	72	66	61	81	71	65	60	70	64	60	68
7	1	78	68	61	56	76	67	60	56	65	60	55	63
8	1	74	63	57	52	73	63	56	52	61	56	51	59
9	1	70	60	53	49	69	59	53	49	58	52	48	56
10	1	67	56	50	46	66	56	50	46	55	49	45	53

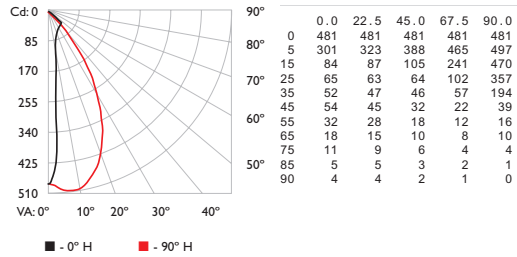
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

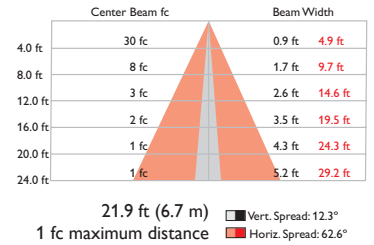
iW Fuse Powercore
10° x 60° (narrow) beam angle,
6500 K channel only

Lumens	254
Efficacy	30.6

Polar Candela Distribution



Illuminance at Distance



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	0			
0		118118118118				115115115115				110110110			105105105		100100100	98			
1		111107104101				108105102	99			100	98	96	96	94	92	92	91	89	87
2		104	98	92	88			101	96	91	87			92	88	85	83	80	78
3		97	89	83	78			95	88	82	77			85	80	76	72	71	71
4		91	82	76	70			89	81	75	70			78	73	69	76	70	67
5		86	76	69	64			84	75	68	64			73	67	63	69	65	61
6		81	71	64	59			79	70	63	58			68	62	58	65	60	57
7		77	66	59	54			75	65	59	54			64	58	54	61	56	53
8		73	62	55	51			71	61	55	50			60	54	50	57	53	49
9		69	58	52	47			68	58	52	47			57	51	47	54	50	46
10		66	55	49	45			65	55	49	44			54	48	44	52	47	42

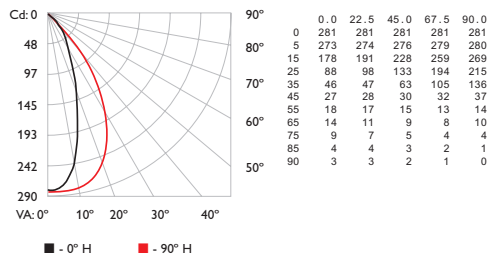
%: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

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

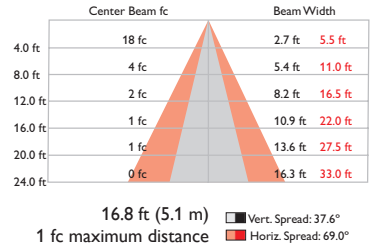
iW Fuse Powercore
30° x 60° (medium) beam angle,
6500 K channel only

Lumens	266
Efficacy	31.1

Polar Candela Distribution



Illuminance at Distance



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		119119119119				116116116116				110110110			105105105			101101101			98			
1		112108105102				109106103100				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			

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

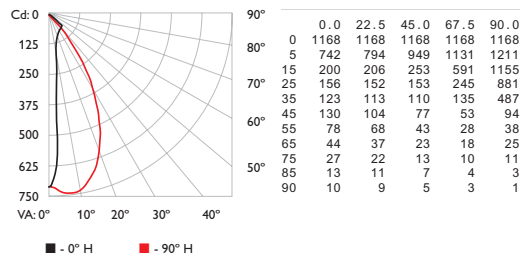
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

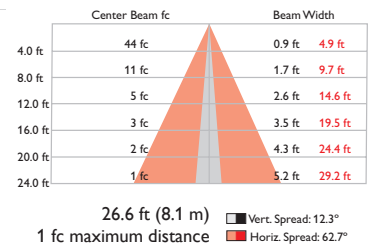
iW Fuse Powercore
10° x 60° (narrow) beam angle,
All channels (full on)

Lumens	613
Efficacy	38.3

Polar Candela Distribution



Illuminance at Distance



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

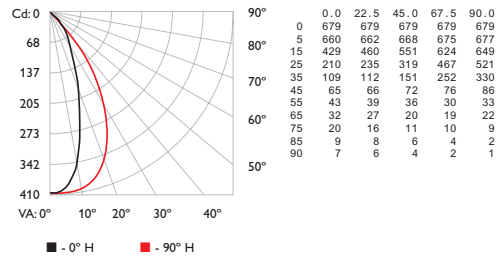
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

For lux multiply fc by 10.7

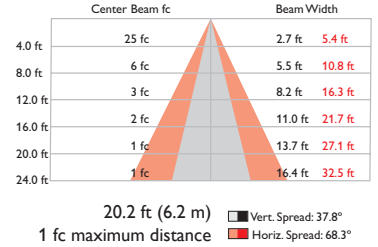
iW Fuse Powercore
30° x 60° (medium) beam angle,
All channels (full on)

Lumens	636
Efficacy	38.8

Polar Candela Distribution



Illuminance at Distance



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%													
		50				30				10					
RC	80	70	60	50	40	30	20	10	0	50	40	30	20	10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	101	101	105	105	101	98
1	112	108	105	102	109	106	103	101	101	99	97	97	96	94	89
2	105	99	94	90	102	97	93	89	93	90	87	90	87	85	81
3	99	91	85	80	96	89	84	80	86	82	78	84	80	77	73
4	93	84	78	73	91	83	77	72	80	75	71	78	74	70	67
5	88	78	71	66	86	77	71	66	75	69	65	73	68	64	62
6	83	73	66	61	81	72	65	61	70	64	60	68	63	60	57
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	53
8	74	64	57	52	73	63	57	52	62	56	52	60	55	51	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	47
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	44

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

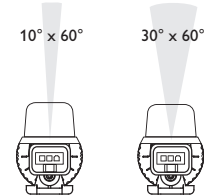
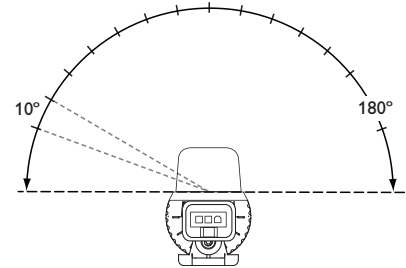
For lux multiply fc by 10.7

Specifications

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 L70 @ 25° C 50,000 hours L70 @ 50° C 50,000 hours L50 @ 25° C 50,000 hours L50 @ 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) Fixture firmware addressable 8- or 16-bit control
	Control System	Philips full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers
Physical	Dimensions (Height x Width x Depth)	1.1 x 12 x 2.1 in (28 x 305 x 53 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 Per Data Enabler Pro§	47 @ 100 VAC Example configuration: 58 @ 110 VAC Fixtures installed end-to-end, 102 @ 220 VAC 20 A circuit, standard 10 ft (3.1 m) 107 @ 240 VAC Leader Cable
Certification and Safety	Certification	UL / cUL, FCC, CE, CCC
	Environment	Dry / Damp Location, IP20



✳ To calculate the number of fixtures your specific installation can support, download the Configuration Calculator from www.colorkinetics.com/support/install_tool/

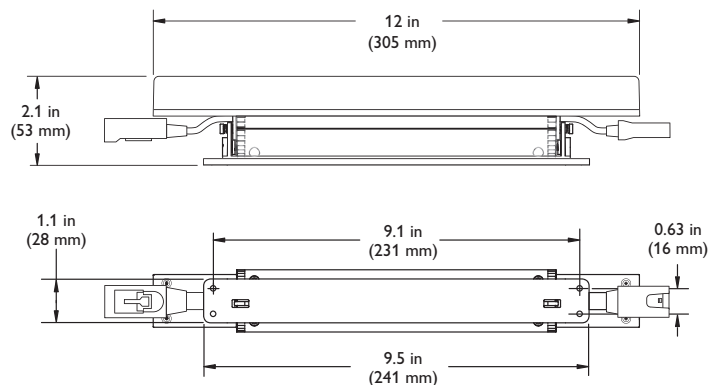
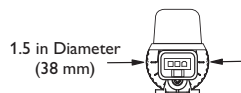
* Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A.

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

‡ L70 = 70% maintenance of lumen output (when light output drops below 70% of initial output).
L50 = 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.colorkinetics.com/support/appnotes/lm-80-08.pdf for more information.

§ These figures, provided as a guideline, are accurate for this configuration only. Changing the configuration can affect the fixture run lengths.

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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

Optional mounting track ensures straight runs of fixtures.

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

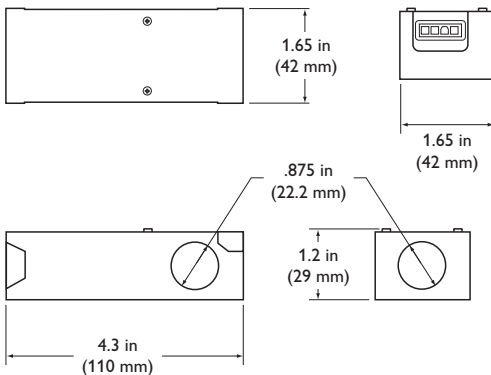
Item	Type		Item Number	Philips 12NC
iW Fuse Powercore	10° x 60°	UL / cUL / CE	523-000066-00	910503701785
		CCC	523-000066-02	910503701995
	30° x 60°	UL / cUL / CE	523-000066-01	910503701786
		CCC	523-000066-03	910503701996

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
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 (US trade size conduit)	106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)	106-000004-01	910503701211

Use Item Number when ordering in North America.

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.

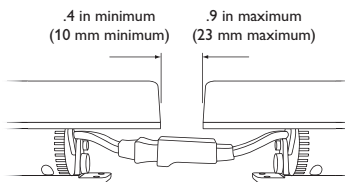
Create a Lighting Design Plan and Layout Grid

1. 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.

✱ 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.

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 allow for spacing of .4 in (10 mm) to .9 in (23 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.

Distance between fixtures joined directly together



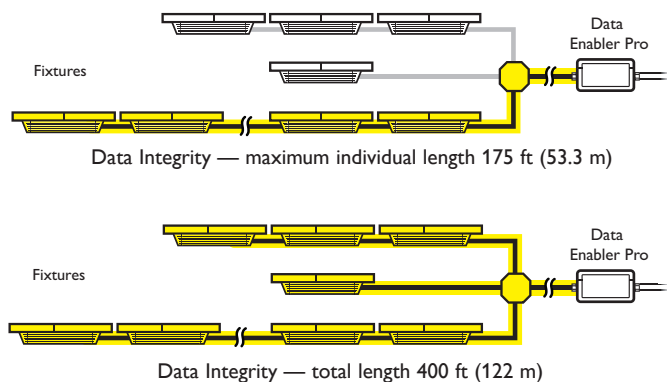
The maximum number of fixtures each Data Enabler Pro can support depends on specific configuration details such as fixture length, fixture spacing, circuit size, line voltage, and Leader Cable length. As an example, the table to the right lists the maximum number of fixtures in a single run at various voltages, assuming iW Fuse Powercore fixtures installed end-to-end on a 20 A circuit, using the standard 10 ft (3.1 m) Leader Cable. Keep in mind that these figures, provided as a guideline, are accurate for the specified configuration only. Changing the configuration can affect the fixture run lengths.

Fixture run lengths

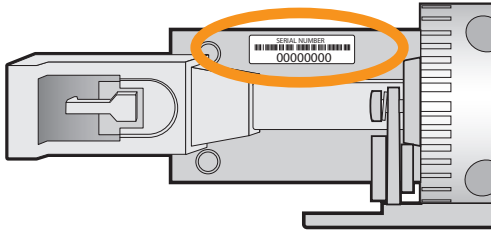
47 @ 100 VAC
58 @ 120 VAC
102 @ 220 VAC
107 @ 240 VAC

assuming fixtures installed end-to-end on a 20 A circuit, using a standard 10 ft (3.1 m) Leader Cable

✱ For help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.colorkinetics.com/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.



3. 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.
4. 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.
5. For installations in which you want to manually adjust the brightness and color temperature of all connected iW Fuse Powercore fixtures in unison, use ColorDial Pro. For installations in which you want to dynamically control the brightness and color temperature of individual fixtures, use a controller such as iPlayer 3 or Light System Manager. Refer to “Controlling iW Fuse Powercore Fixtures” below for details.



Each iW Fuse Powercore 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.

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

6. Assign each fixture to a position in the lighting design plan.
7. Verify that all additional supporting equipment (switches, controllers) is in place.
8. If your installation calls for Jumper Cables to add space between fixtures, make sure they are available. Also ensure that all additional parts (optional mounting tracks, mounting hardware, terminators) and tools are available.

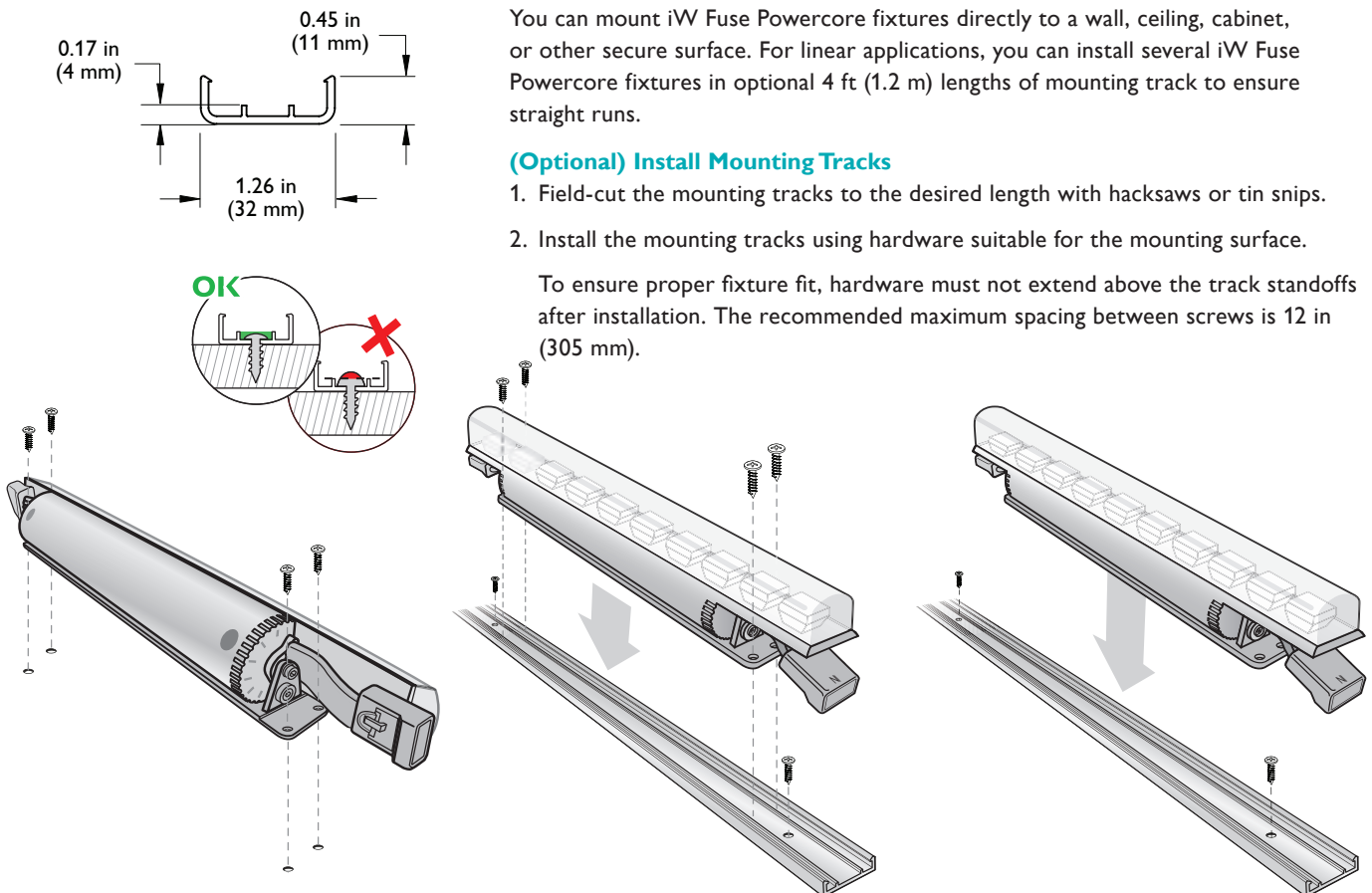
Install the Fixtures

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).



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.

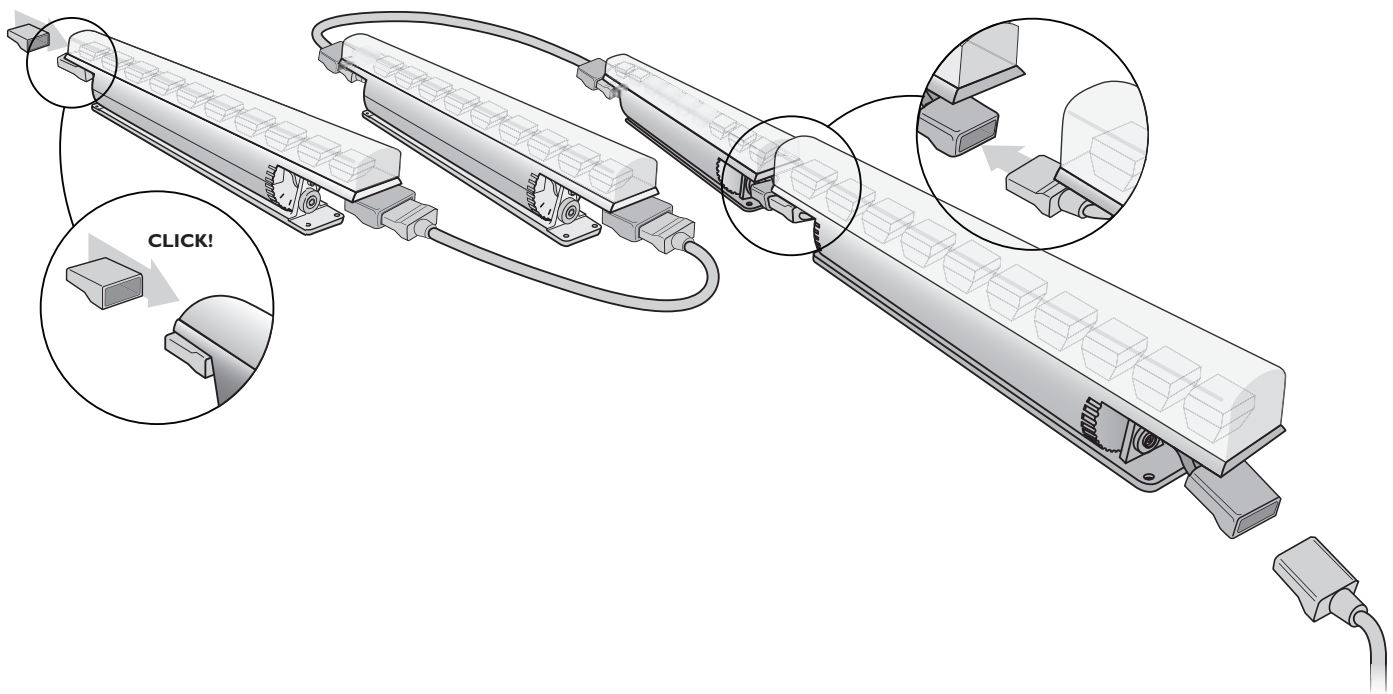
If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach the fixture with four #6 (3.5 mm) mounting screws (not included) suitable for the mounting surface.

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

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.

✳ 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.

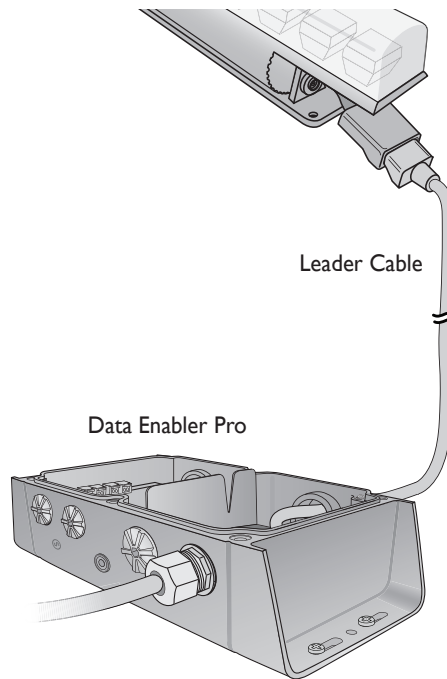
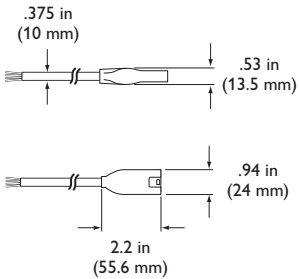
✳ You can use the fixture base as a template when pre-drilled holes are required. Hold the fixture in place and mark the four screw holes.



6. Make power connections:

- 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.

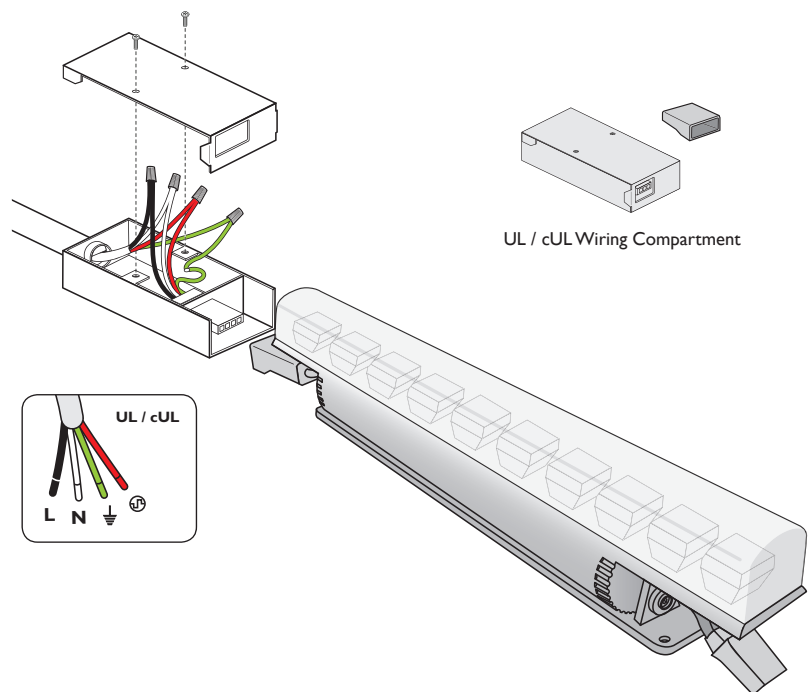
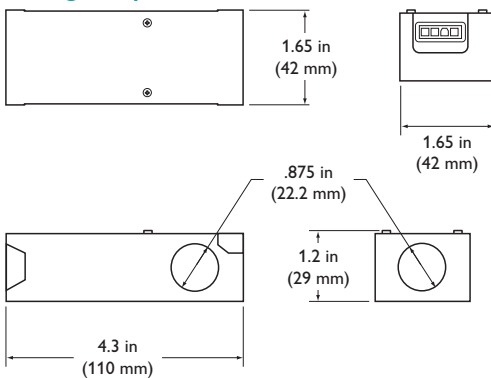
Leader Cable connector dimensions



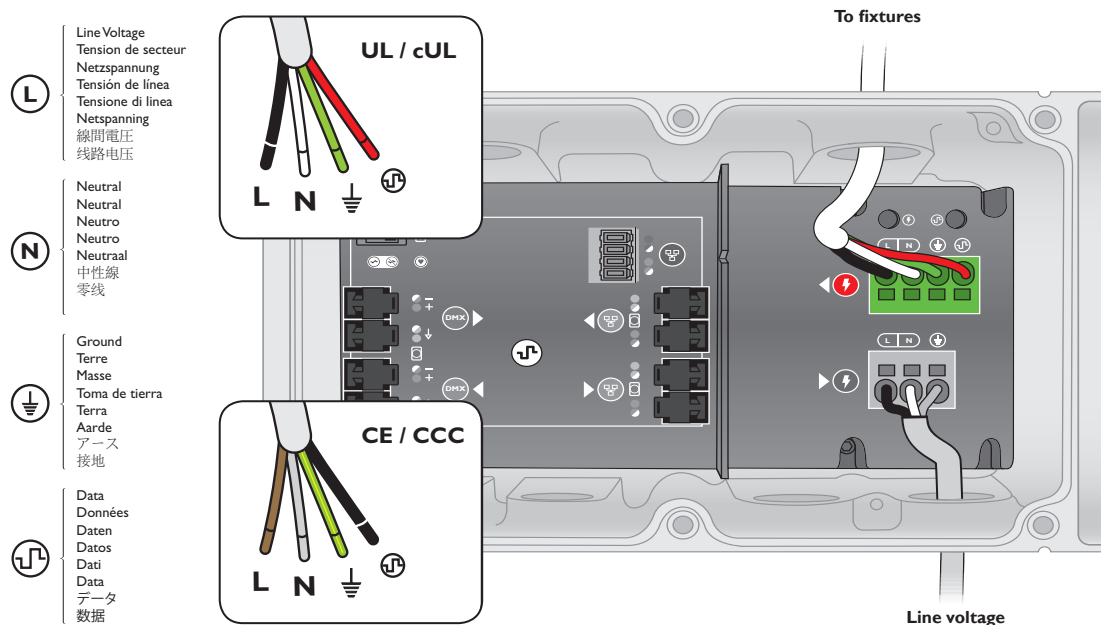
- If using the iW Fuse Powercore Wiring Compartment to run conduit from the Data Enabler Pro to the first fixture in a series, pull cable through conduit. (We recommend standard 4-conductor 12 AWG copper wire.)

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.

Wiring Compartment dimensions



7. Secure connections within the Data Enabler Pro housing.



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

Controlling iW Fuse Powercore

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

Displaying Fixed Light Output

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

ColorDial Pro is a Power-Over-Ethernet (PoE) device that requires a PoE switch, or a conventional Ethernet switch with a PoE injector. Refer to the *ColorDial Pro Installation Instructions* and the *ColorDial Pro User Guide* for details on how to install and use ColorDial Pro with iW Fuse Powercore fixtures.

iW Fuse Powercore has three LED channels, warm, neutral, and cool. You can operate iW Fuse Powercore in true three-channel mode, or you can set iW Fuse Powercore to two-channel mode. In two-channel mode, fixtures automatically map two channels of data input to the three LED channels.

- In three-channel mode, set ColorDial Pro to RGB Mode and use either the Fixed Color or Variable Color effect.
- In two-channel mode, set ColorDial Pro to iW Mode and use the Fixed White effect.

Displaying Dynamic Light Output

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

* 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.colorkinetics.com/support/addressing.

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, 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 Fuse Powercore fixtures 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 uses three DMX sequential addresses (or a multiple of three addresses), as in three-channel mode.

iW Fuse Powercore fixtures come factory-addressed with a starting DMX address of 1. For lighting designs where fixtures work in unison, all fixtures can be assigned the same starting DMX address. Changes to the default starting DMX addresses are not necessary, but if lights were previously readdressed for use in other installations, you must reset them. For light show designs that show different light output on different fixtures simultaneously, 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 8-bit and 16-bit iW Fuse Powercore configurations, assuming a starting DMX address of 1.

DMX Channel Assignments

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

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

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

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

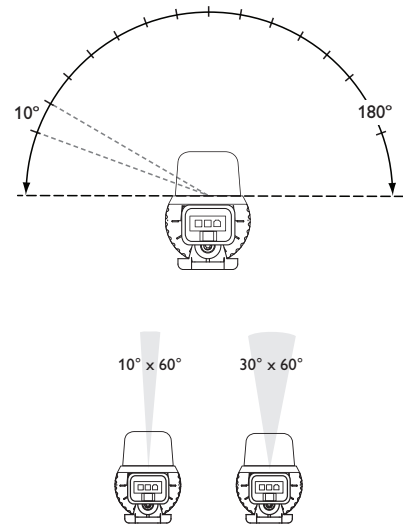
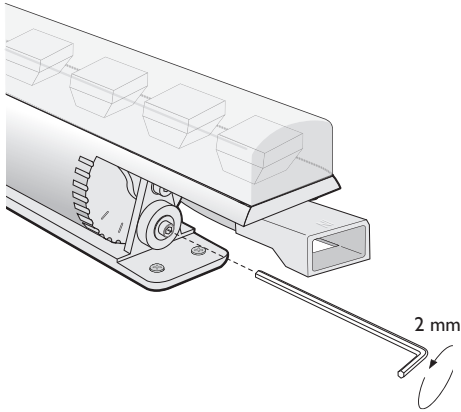
LED Channels

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

Aim and Lock the 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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