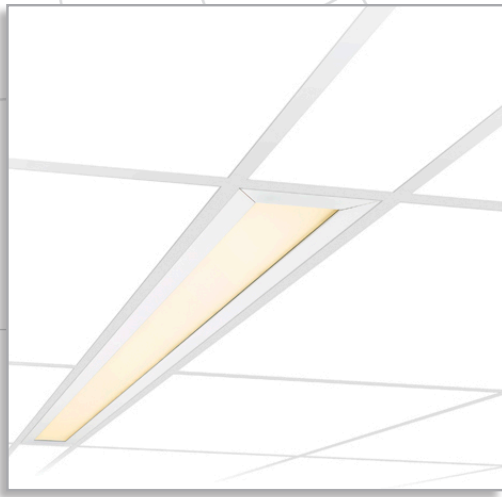




SkyRibbon Essential White Linear Direct Powercore

Recessed linear interior LED fixture for direct-view and general illumination applications with solid white light



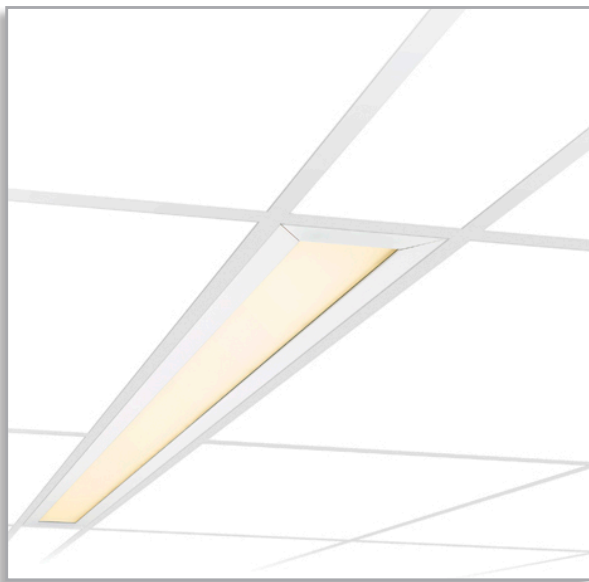
SkyRibbon Essential White Linear Direct Powercore

Recessed linear interior LED fixture for direct-view and general illumination applications with solid white light

SkyRibbon Essential White Linear Direct Powercore is a recessed linear interior LED fixture offering high-quality, dimmable solid white light in four color temperatures, ranging from warm 2700 K to cool 4000 K. Brilliant light output and industry-leading color consistency make fixtures ideal for a variety of general illumination applications. Multiple housing options accommodate a number of installation methods.

- Four color temperatures—Solid white light LED modules are available in 2700 K, 3000 K, 3500 K, and 4000 K, supporting a broad selection of design objectives.
- High lumen output—Fixture produces white light output equivalent to a single T5 linear recessed fixture.
- Multiple housing options for installation and mounting flexibility—T-Bar, Slotted-T, Flanged, and Flangeless housings support numerous installation methods and appearances.
- Flexible configuration—Available in 305 mm (1 ft) and 1219 mm (4 ft) fixture lengths with multiple jumper cable, corner terminal, and connector options to accommodate nearly any layout.
- Integrates patented Powercore technology—Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage, eliminating the need for an external power supply.
- Dimming capability—Patented DIMand technology offers smooth dimming capability with selected commercially available reverse-phase ELV-type dimmers.
- Optibin, advanced binning algorithm—Exceeds the recognized standards for color quality to guarantee uniformity and color consistency across LED sources, fixtures, and manufacturing runs.
- Three voltage options—Available 120 VAC, 220–240 VAC, and 277 VAC fixtures ensure consistent operation around the world.

For detailed product information, please refer to SkyRibbon Essential White Linear Direct Powercore product page at www.philips.com/colorkinetics/l/ew/skyribbon-linear-direct/



Seamless Illumination

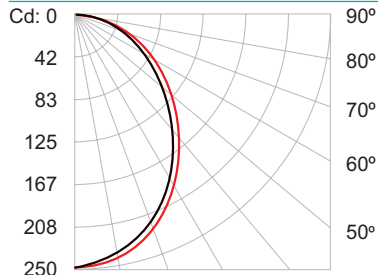
SkyRibbon Essential White Linear Direct Powercore LED lighting fixtures create seamless, uniform illumination, with high visual impact and color consistency across fixtures. With clean lines that accentuate architectural design, these fixtures are appropriate for a variety of downlighting applications in hospitals, hotels, office buildings, and retail.

Photometrics / SkyRibbon eW Linear Direct Powercore, 100° x 100° spread lens, continued

3500 K, 305 mm (1 ft)

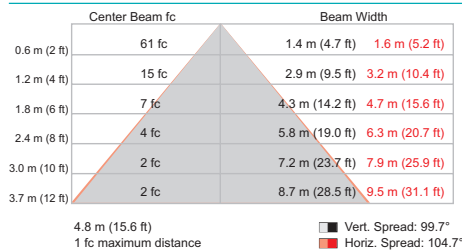
Lumens	Efficacy
656	49.1 lm / W

Polar Candela Distribution



VA: 0°	10°	20°	30°	40°
0	244	244	244	244
5	242	242	242	242
15	228	229	230	231
25	204	205	207	210
35	172	174	177	181
45	137	140	143	147
55	102	104	108	111
65	69	70	73	77
75	38	39	41	44
85	4	6	9	13
90	0	0	1	2

Illuminance at Distance



Coefficients of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RCC %:	70	50	30	10	0	0
1	109	104	100	96	92	88
2	99	91	84	78	72	67
3	90	80	72	65	58	52
4	83	71	62	55	48	42
5	76	63	54	46	39	33
6	70	57	48	40	33	27
7	65	52	43	37	30	24
8	61	47	39	33	27	21
9	57	44	35	30	24	19
10	53	40	32	27	21	16

Zonal Lumen

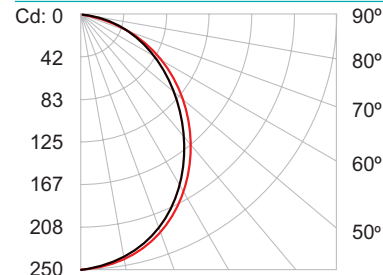
Zone	Lumens	% Fixture
0 - 60	501.3	78.8 %
60 - 90	131.9	20.7 %
0 - 90	633.2	99.5 %

For lux multiply fc by 10.7

4000 K, 305 mm (1 ft)

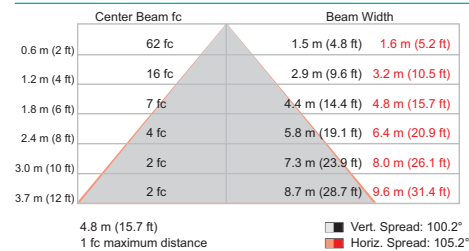
Lumens	Efficacy
663	49.7 lm / W

Polar Candela Distribution



VA: 0°	10°	20°	30°	40°
0	248	248	248	248
5	247	247	247	247
15	233	234	235	236
25	209	210	213	215
35	177	179	183	186
45	142	144	148	152
55	106	108	112	116
65	72	74	77	80
75	39	41	44	47
85	6	8	11	15
90	0	1	1	2

Illuminance at Distance



Coefficients of Utilization - Zonal Cavity Method

RCC %:		Effective Floor Cavity Rectification: 20%										
		80		70		50		30		10		0
RW %:	RCC %:	10	19	10	19	10	18	11	11	11	11	11
1	108	104	98	95	106	100	97	84	85	79	72	67
2	99	90	84	78	86	88	82	70	87	75	73	63
3	90	81	71	65	87	78	70	60	68	63	55	48
4	83	71	62	55	80	69	61	52	67	59	54	46
5	76	63	54	48	74	62	54	46	58	51	46	43
6	70	57	48	40	68	56	48	40	54	47	41	36
7	65	52	43	37	63	51	43	36	48	41	36	34
8	61	47	39	33	59	47	39	32	44	37	32	30
9	57	44	35	30	55	43	35	29	40	34	29	27
10	53	40	32	27	51	40	32	26	36	31	27	24

Zonal Lumen

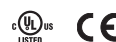
Zone	Lumens	% Fixture
0 - 60	512.7	78.2 %
60 - 90	136.9	20.9 %
0 - 90	649.6	99.1 %

Specifications / SkyRibbon Linear Direct Powercore, 305 mm (1 ft)

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

Item	Specification	2700 K	3000 K	3500 K	4000 K
Output	Lumens*	572	631	656	663
	Efficacy (lm / W)	43.6	47.4	49.1	49.7
	CRI	85	87	87	88
	Power Factor	0.99 @ 120 VAC			
	Lumen Maintenance†	100,000 hours L70 @ 25° C 100,000 hours L70 @ 40° C 100,000 hours L50 @ 25° C 100,000 hours L50 @ 40° C			
Electrical	Input Voltage	120 VAC, 220 — 240 VAC, 277 VAC, 50/60 Hz			
	Power Consumption	14 W (0.3 m/1ft) 48 W (1.2 m/4ft)			
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers‡			
Physical	Housing Material	Steel, white powder-coated finish			
	Lens	Polycarbonate			
	Fixture Connections	178 mm (7 in) flying leads, integral male/female connectors (120/277 VAC)			
		Wieland integral male/female connectors (220—240 VAC)			
	Temperature Ranges	120 / 220 — 240 VAC -20° — 40° C (-4° — 104° F) Operating -20° — 40° C (-4° — 104° F) Startup -40° — 80° C (-40° — 176° F) Storage			
		277 VAC -20° — 35° C (-4° — 95° F) Operating -20° — 35° C (-4° — 95° F) Startup -40° — 80° C (-40° — 176° F) Storage			
Certification and Safety	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philips.com/colorkinetics/support/install_tool/			
	Humidity	0 — 95%, non-condensing			
	Certification	UL/cUL, FCC Class A, CE			
Environment	Environment	Dry/Damp Location, IP20			

* 305 mm (1 ft) lumen output measurements comply with IES LM-79-08 testing procedures. 1219 mm (4 ft) measurements are estimated based on the 1 ft (305 mm) measurements.



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

‡ L70 = 70% lumen maintenance (when light output drops below 70% of initial output).

L50 = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philips.com/colorkinetics/support/appnotes/lm-80-08.pdf for more information.

§ Refer to www.philips.com/colorkinetics/support/appnotes/ for specific details.

Dimensions and Weight

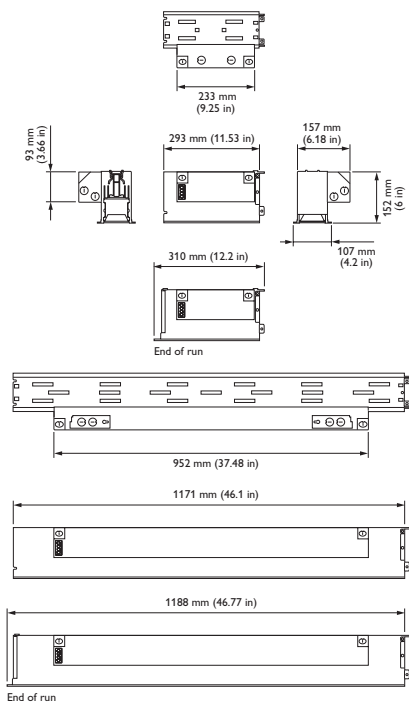
Fixture	Physical Characteristics	T-Bar	Slotted-T	Flanged	Flangeless
0.3 m (1 ft)	Housing Dimensions <i>Height x Width x Depth</i>	152 x 294 x 158 mm (6.0 x 11.6 x 6.3 in)	152 x 294 x 158 mm (6.0 x 11.6 x 6.3 in)	152 x 294 x 158 mm (6.0 x 11.6 x 6.3 in)	152 x 294 x 158 mm (6.0 x 11.6 x 6.3 in)
	Assembled Weight†	2.5 kg (5.5 lb)	2.5 kg (5.5 lb)	2.5 kg (5.5 lb)	2.5 kg (5.5 lb)
1.2 m (4 ft)	Housing Dimensions <i>Height x Width x Depth</i>	152 x 1172 x 158 mm (6.0 x 46.1 x 6.3 in)	152 x 1172 x 158 mm (6.0 x 46.1 x 6.3 in)	152 x 1172 x 158 mm (6.0 x 11.6 x 6.3 in)	152 x 1172 x 158 mm (6.0 x 46.1 x 6.3 in)
	Assembled Weight†	9.1 kg (20 lb)	9.1 kg (20 lb)	9.1 kg (20 lb)	9.1 kg (20 lb)

† Assembled weight includes fixture housing and LED module.

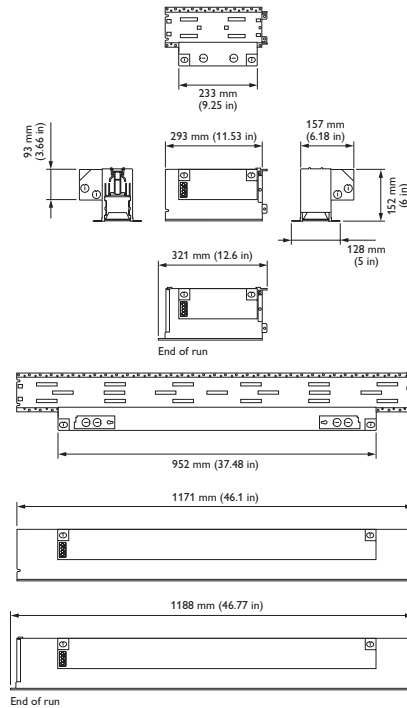
OPTIBIN[®] | POWERCORE[®] | DIMAND[®]
CK TECHNOLOGY | CK TECHNOLOGY | CK TECHNOLOGY

CE Dimensional Diagrams, 220–240 VAC

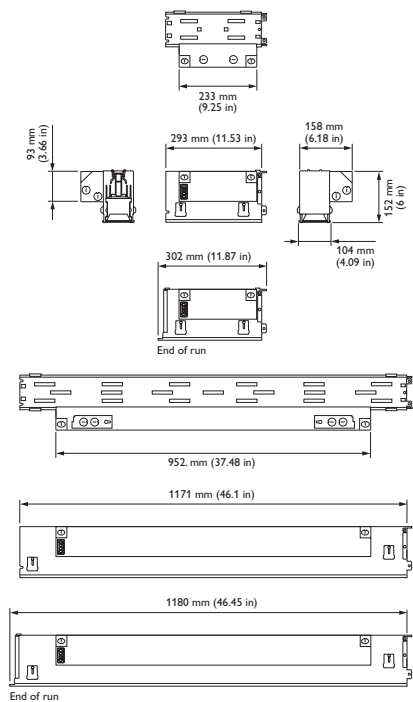
SkyRibbon Linear Direct Powercore Flanged Housing



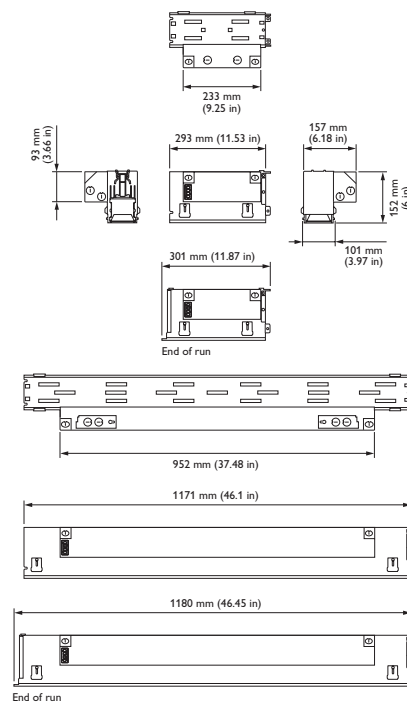
SkyRibbon Linear Direct Powercore Flangeless Housing



SkyRibbon Linear Direct Powercore T-Bar Housing

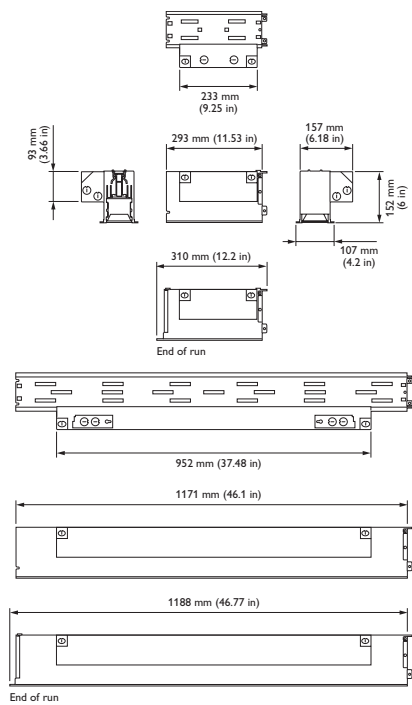


SkyRibbon Linear Direct Powercore Slotted-T Housing

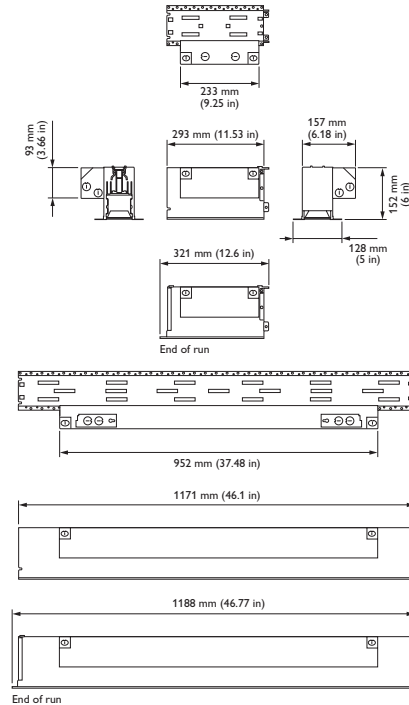


UL Dimensional Diagrams, 120 VAC/277 VAC

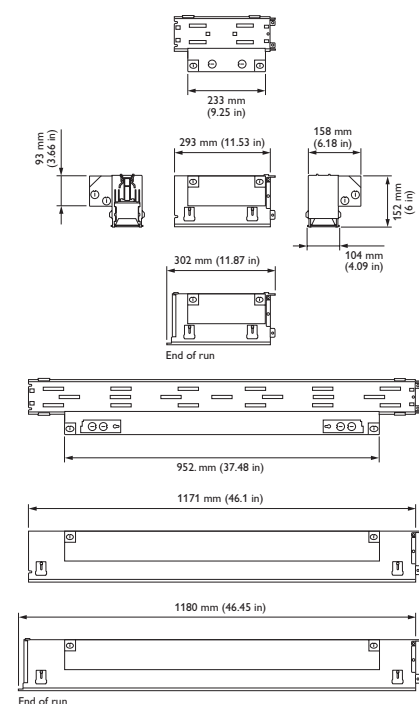
SkyRibbon Linear Direct Powercore Flanged Housing



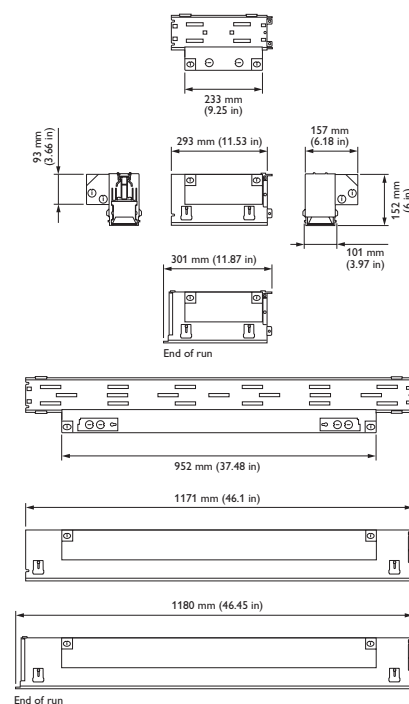
SkyRibbon Linear Direct Powercore Flangeless Housing



SkyRibbon Linear Direct Powercore T-Bar Housing



SkyRibbon Linear Direct Powercore Slotted-T Housing



Product Selection

To order a complete SkyRibbon Essential White Wall Grazing Powercore fixture, choose a housing (voltage, length, and type), an LED module, a spread lens, a leader cable, and optional jumper cables and louvers.

1

Choose housing type

2

Choose LED module

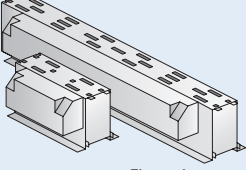
3

Choose end-of-run kit

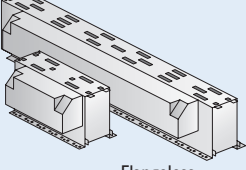
4

Choose optional accessories

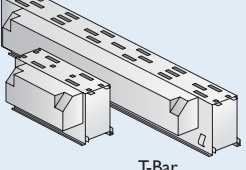
120 VAC or 277 VAC



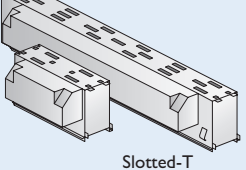
Flanged
0.3 m (1 ft) or 1.2 m (4 ft)



Flangeless
0.3 m (1 ft) or 1.2 m (4 ft)

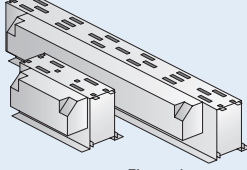


T-Bar
0.3 m (1 ft) or 1.2 m (4 ft)

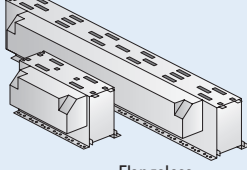


Slotted-T
0.3 m (1 ft) or 1.2 m (4 ft)

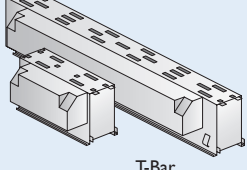
220 – 240 VAC



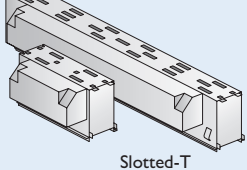
Flanged
0.3 m (1 ft) or 1.2 m (4 ft)



Flangeless
0.3 m (1 ft) or 1.2 m (4 ft)

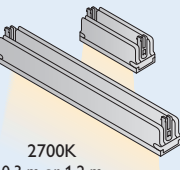
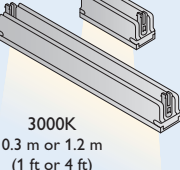
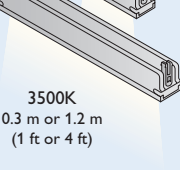
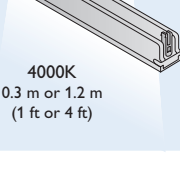


T-Bar
0.3 m (1 ft) or 1.2 m (4 ft)

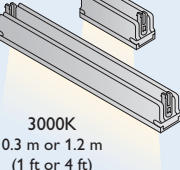
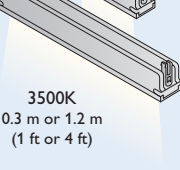
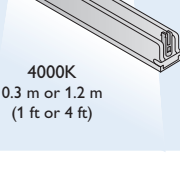


Slotted-T
0.3 m (1 ft) or 1.2 m (4 ft)

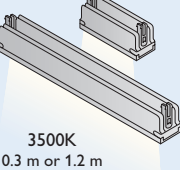
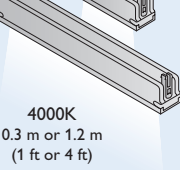
2700K
0.3 m or 1.2 m
(1 ft or 4 ft)

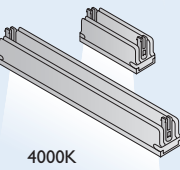
3000K
0.3 m or 1.2 m
(1 ft or 4 ft)

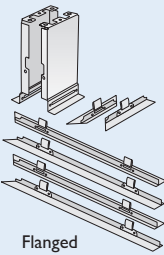
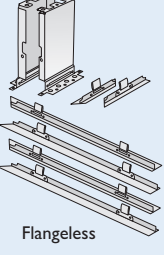
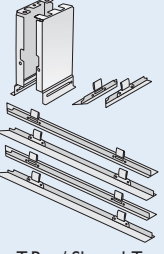
3500K
0.3 m or 1.2 m
(1 ft or 4 ft)

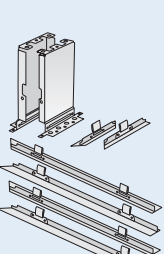
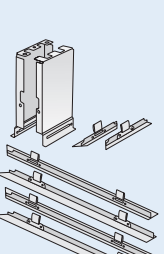
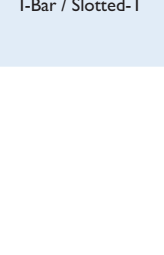
4000K
0.3 m or 1.2 m
(1 ft or 4 ft)



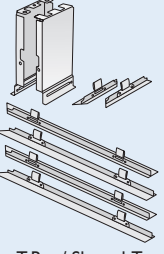

Flanged

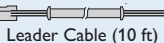
Flangeless

T-Bar / Slotted-T



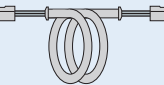

120 VAC / 277 VAC



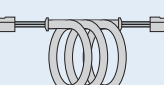
Leader Cable (10 ft)



Jumper Cable (1 ft)

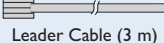


Jumper Cable (4 ft)



Jumper Cable (8 ft)

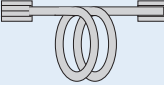
220 – 240 VAC



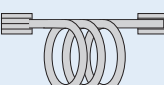
Leader Cable (3 m)



Jumper Cable (0.9 m)



Jumper Cable (1.4 m)



Jumper Cable (1.7 m)

8 SkyRibbon Essential White Linear Direct Powercore Product Guide

Housing

Item	Style	Length	Voltage	Item Number	Philips 12NC
Housing	Flanged	300 mm	220–240 VAC	172-000074-37	910503705034
		1200 mm	220–240 VAC	172-000074-36	910503705033
		1 ft	120/277 VAC	172-000074-40	910503705037
		4 ft	120/277 VAC	172-000074-41	910503705038
	Flangeless	300 mm	220–240 VAC	172-000074-33	910503705030
		1200 mm	220–240 VAC	172-000074-32	91050370502
		1 ft	120/277 VAC	172-000074-04	910503704301
		4 ft	120/277 VAC	172-000074-01	910503704297
	T-Bar	300 mm	220–240 VAC	172-000074-26	910503704350
		1200 mm	220–240 VAC	172-000074-24	910503704348
		1 ft	120/277 VAC	172-000074-03	910503704299
		4 ft	120/277 VAC	172-000074-00	910503704296
	Slotted-T	300 mm	220–240 VAC	172-000074-27	910503704351
		1200 mm	220–240 VAC	172-000074-25	910503704349
		1 ft	120/277 VAC	172-000074-05	910503704302
		4 ft	120/277 VAC	172-000074-02	910503704298
End of Run Kit	Flanged			120-000174-05	910503705026
	Flangeless			120-000174-04	910503705025
	T-Bar/Slotted-T			120-000174-06	910503705027
Stand-Alone Kit	Flanged			120-000174-09	912400130311
	Flangeless			120-000174-08	912400130310
	T-Bar/Slotted-T			120-000174-10	912400130312

Use Item Number when ordering in North America.

LED Modules, Spread Lenses, and Louvers

Item	Length	Color Temperature	Item Number	Philips 12NC
LED Modules	0.3 m / 1 ft	2700 K	523-000074-00	910503702660
	0.3 m / 1 ft	3000 K	523-000074-02	910503702662
	0.3 m / 1 ft	3500 K	523-000074-04	910503702664
	0.3 m / 1 ft	4000 K	523-000074-06	910503702666
	1.2 m / 4 ft	2700 K	523-000074-01	910503702661
	1.2 m / 4 ft	3000 K	523-000074-03	910503702663
	1.2 m / 4 ft	3500 K	523-000074-05	910503702665
	1.2 m / 4 ft	4000 K	523-000074-07	910503702667

Use Item Number when ordering in North America.

Leader and Jumper Cables

Item	Length	Voltage	Item Number	Philips 12NC
Leader Cable	10 ft	120/277 VAC	108-000072-03	910503703135
	3 m	220–240 VAC	108-000072-13	910503705047
Jumper Cable	1 ft	120/277 VAC	108-000072-00	910503702835
	4 ft	120/277 VAC	108-000072-01	910503702836
	8 ft	120/277 VAC	108-000072-02	910503702837
	0.9 m	220–240 VAC	108-000072-15	910503705049
	1.4 m	220–240 VAC	108-000072-16	910503705050
	1.7 m	220–240 VAC	108-000072-17	910503705051

Use Item Number when ordering in North America.

Installation

SkyRibbon Essential White Linear Direct Powercore is a recessed linear interior LED lighting fixture offering high-quality, dimmable solid white light in four color temperatures, ranging from warm 2700 K to cool 4000 K. Brilliant light output and industry-leading color consistency make fixtures ideal for a variety of general illumination applications. Multiple housing options accommodate a number of installation methods. Powercore eases installation by eliminating the need for external power supplies or special wiring.

 Refer to the *SkyRibbon Essential White Linear Direct Powercore Installation Instructions* at <http://www.philips.com/colorkinetics/lis/essentialwhite/skyribbon-linear-direct/> for specific warning and caution statements.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate SkyRibbon Essential White Linear Direct Powercore fixtures in compliance with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

Create a Lighting Design Plan

Regardless of the details of your installation, it's good practice to create a lighting design plan that identifies your fixtures, records the DMX addresses assigned to them, and identifies their locations in relation to other required hardware.

To create a lighting design plan, determine the appropriate location of each SkyRibbon Essential White Linear Direct Powercore fixture in relation to power sources and controllers. On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all controllers, fixtures, power sources, and cables. To streamline installation and aid in light show programming, you can affix a label identifying the order or placement in the installation to an inconspicuous location on each fixture's housing.

Keep the following considerations in mind when planning your installation:

- Confirm voltage rating of the fixture matches the voltage requirement your installation.
- You can connect SkyRibbon Essential White Linear Direct fixtures in series or parallel using either flexible conduit jumpers or hard wiring power directly to the fixtures.
- You can mix 305 mm (1 ft) and 1219 mm (4 ft) SkyRibbon Essential White Linear Direct fixtures in a single run. A mixture of fixture lengths can offer flexibility in architectural applications where you need to install fixtures around corners or in confined areas.
- You can mount SkyRibbon Essential White Linear Direct Powercore fixtures end to end, or you can space them however you wish, so long as the distance from the power source to the last fixture does not exceed or falls within the recommendations for voltage drop shown in the configuration calculator. For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.philips.com/colorkinetics/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.

✱ Refer to the installation instructions included with the wall or dimmer switch for installation and wiring information.

Install Wall Dimmers and Switches

SkyRibbon Essential White Linear Direct Powercore fixtures can be controlled either with a standard wall switch (on/off) or a compatible, commercially available reverse-phase ELV-type dimmers. SkyRibbon Essential White Linear Direct Powercore fixtures work with selected trailing edge reverse-phase (ELV) dimmers.

For a list of compatible dimmers, and for details on selecting the appropriate dimmer for your lighting installation, visit www.philips.com/colorkinetics/support/appnotes, or consult Application Engineering services at support@colorkinetics.com.

Start the Installation

1. SkyRibbon Essential White Linear Direct Powercore can be installed in series or in parallel wired to a common junction box. The maximum number of fixtures per circuit depends on specific configuration details such as fixture length, fixture spacing, circuit size, line voltage, and leader cable length. For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/, or consult Application Engineering Services at support@colorkinetics.com.
2. Verify that all supporting equipment (switches, line power sources, controllers, etc.) is in place.
3. If your installation calls for leader or jumper cables, make sure they are readily available.
4. Ensure that all additional parts and tools are available, including:
 - The included mounting hardware
 - 2+ ground copper wire, as needed. (Standard 12 AWG [2.05 mm] stranded wire is recommended.)
 - Junction boxes, as needed, rated for your application. (Refer to the manufacturer's literature for additional items required for mounting or sealing.)

Mount and Connect Fixtures

1. Make sure the power is OFF before mounting and connecting SkyRibbon Linear Direct Powercore fixtures.
2. SkyRibbon Linear Direct Powercore fixtures offer bulkhead connectors that accept the SkyRibbon Linear Direct Powercore pre-configured Leader and Jumper Cables. Because they have a male connector on one end of the fixture and a female connector on the other end, SkyRibbon Linear Direct Powercore fixtures are directional, and must all be oriented in the same direction.
3. SkyRibbon Linear Direct Powercore fixtures can also be hardwired, with the back of the housing acting as a junction box.

Refer to the SkyRibbon eW Linear Direct Powercore web page at www.philips.com/colorkinetics/lis/essentialwhite/skyribbon-linear-direct/ for detailed installation instructions.

