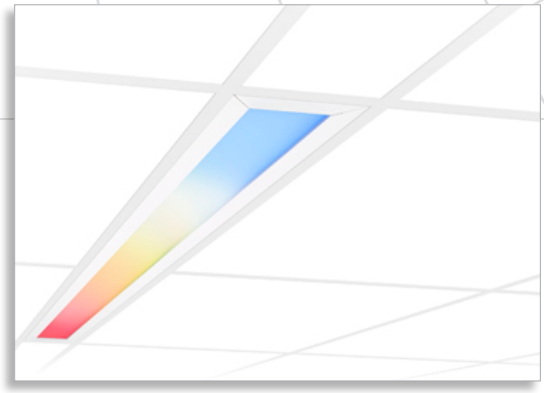


SkyRibbon

IntelliHue Linear Direct Powercore

Recessed linear interior LED fixture for direct-view and general illumination applications

PHILIPS

COLOR KINETICS

SkyRibbon

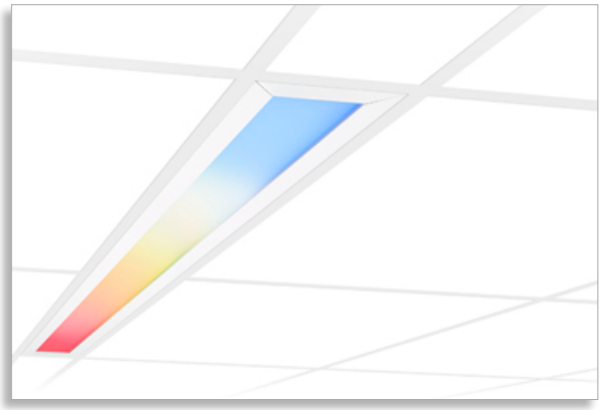
IntelliHue Linear Direct Powercore

Recessed linear interior LED fixture for direct-view and general illumination applications

Introducing SkyRibbon IntelliHue Linear Direct Powercore, a recessed linear interior LED fixture offering high-quality intelligent color and white light from the same fixture. IntelliHue is an advanced approach to color mixing that gives users the ability to precisely target a full spectrum of saturated color and high-quality white light, granting an unprecedented level of design freedom. Brilliant light output and industry-leading controls make fixtures ideal for a variety of interior applications. Multiple housing options accommodate a number of installation methods.

- Color-changing and high-quality white light from the same fixture—Multiple channels of LED light sources combine to produce a full spectrum of precisely controllable light, including millions of saturated colors, pastels, and uniform white light.
- Tunable white light—Select color temperatures ranging from 2000 K – 10,000 K with CRI greater than 85 in the 2700 K – 4000 K range.
- Purposefully move off the Black Body Curve—Create pastels and shades of white to match hues of other technologies, such as halogen or fluorescent.
- High lumen output—Fixture produces white light output equivalent to a single T5 linear recessed fixture for white Correlated Color Temperatures.
- 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 and connector options to accommodate nearly any layout.
- Seamless illumination—Fixtures eliminate lamp images, frequently perceived as dark spots between illumination sources, creating long lines of seamless illumination.
- Integrates patented Powercore technology—Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage. Philips Data Enabler Pro merges line voltage and control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Superior color consistency and accuracy—Optibin, an advanced binning algorithm, sets a new standard for the color consistency and uniformity of LED sources used in manufacturing. Chromasync technology achieves unprecedented consistency of light performance and color precision while maximizing intensity and color range. With Chromasync enabled, SkyRibbon IntelliHue Powercore offers color variation of less than 2 MacAdam ellipses (2 SDCM) across multiple fixtures in an installation—imperceptible to the human eye.
- Industry-leading controls—Fixtures work 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.
- 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 the SkyRibbon IntelliHue Linear Direct Powercore Product Guide at www.philips.com/colorkinetics/ls/intellihue/skyribbon-linear-direct/



Introducing IntelliHue
High-quality tunable white light and intensely saturated full-color light from the same fixture.

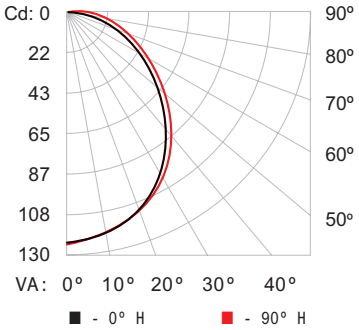
Photometrics / SkyRibbon Linear Direct

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

RGB channels only, full on, 305mm (1 ft)

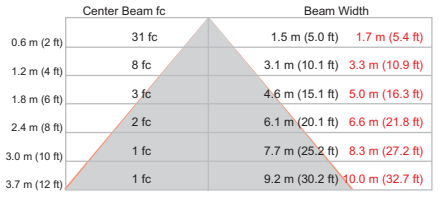
Lumens	Efficacy
336	26.4 lm / W

Polar Candela Distribution



	0	25	45	70	90
0	123	123	123	123	123
5	123	123	123	123	123
15	117	118	118	119	119
25	106	108	108	109	109
35	92	93	94	96	96
45	75	76	78	79	79
55	57	58	60	62	62
65	39	41	42	44	44
75	22	24	25	26	26
85	6	7	9	10	10
90	0	0	1	2	2

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	99	111	111	111	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	83	97	93	90	93	90	87	89	87	85	82
2	98	90	83	77	96	88	82	70	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	60	74	68	63	71	66	61	69	64	60	58
4	82	70	61	55	80	69	61	51	66	59	53	64	58	53	62	56	52	49
5	76	63	54	47	73	62	53	45	59	52	46	57	51	46	55	50	45	43
6	70	57	48	41	68	56	47	39	54	46	41	52	45	40	50	44	40	38
7	65	51	43	36	63	51	42	35	49	41	36	47	41	36	46	40	35	33
8	60	47	38	33	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

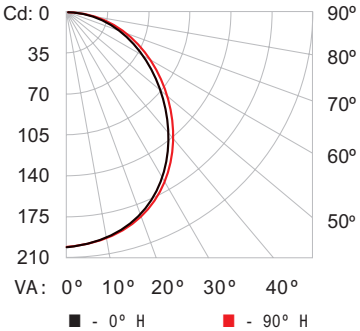
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	260.8	77.6 %
60 - 90	72.0	21.4 %
0 - 90	332.8	99.0 %

2700 K, 305 mm (1 ft)

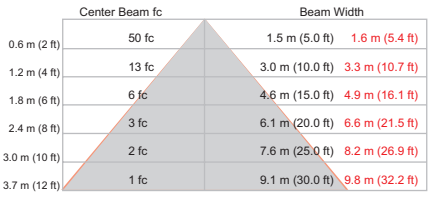
Lumens	Efficacy
544	42.3 lm / W

Polar Candela Distribution



	0	25	45	70	90
0	201	201	201	201	201
5	200	200	201	201	200
15	191	192	193	193	193
25	173	175	176	177	177
35	148	151	153	155	155
45	120	123	126	128	128
55	91	94	97	99	99
65	63	65	68	70	70
75	36	38	40	42	42
85	9	11	14	15	16
90	0	1	1	3	3

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	99	111	111	111	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	83	97	93	90	93	90	87	89	87	85	83
2	99	90	83	78	96	88	82	70	84	79	75	81	77	73	78	74	71	69
3	90	79	71	65	87	78	70	60	74	68	63	72	66	61	69	64	60	58
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6	70	57	48	41	68	56	47	40	54	46	41	52	45	40	50	44	40	38
7	65	51	43	37	63	51	42	35	49	41	36	47	41	36	46	40	35	33
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9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

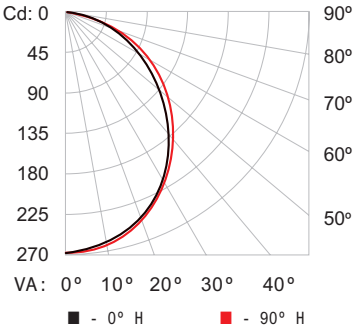
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	422.3	77.7 %
60 - 90	115.8	21.3 %
0 - 90	538.1	99.0 %

4000 K, 305 mm (1 ft)

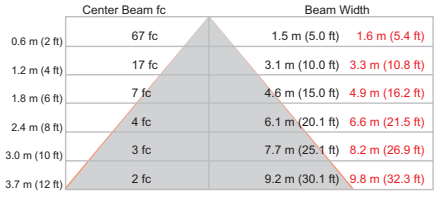
Lumens	Efficacy
722	39.8 lm / W

Polar Candela Distribution



	0	25	45	70	90
0	266	266	266	266	266
5	265	266	266	266	266
15	253	254	255	256	256
25	229	232	234	235	235
35	197	200	203	206	205
45	160	163	167	170	170
55	122	125	129	132	132
65	83	87	90	93	93
75	47	50	53	56	56
85	13	15	18	21	21

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	119	119	119	119	116	116	116	99	111	111	111	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	83	97	93	90	93	90	87	89	87	85	82
2	98	90	83	78	96	88	82	70	84	79	75	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	60	74	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	51	66	59	53	64	58	53	62	56	52	50
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6	70	57	48	41	68	56	47	40	54	46	41	52	45	40	50	44	40	38
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9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	560.4	77.7 %
60 - 90	153.9	21.3 %
0 - 90	714.3	99.0 %

For lux multiply fc by 10.7

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

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

Item	Specification	RGB channels only, full on	2700 K*	4000 K*
Output	Beam Angle	100° x 100°		
	Lumens†	336	544	722
	Efficacy (lm / W)	26.4	42.3	39.8
	CRI	—	87	88
	Power Factor	0.99 @ 120 VAC	0.99 @ 120 VAC	0.99 @ 120 VAC
	LED Channels	Red/Green/Blue/Mint White/4000 K		
	Lumen Maintenance‡	100,000 hours L_{70} @ 25° C 100,000 hours L_{70} @ 40°C 100,000 hours L_{50} @ 25° C 100,000 hours L_{50} @ 40°C		
Electrical	Input Voltage	120 VAC, 220 — 240 VAC, 277 VAC, 50/60 Hz		
	Power Consumption	25 W (0.3 m/1 ft 120/277 VAC) 100 W (1.2 m/4 ft 120/277 VAC) 23 W (0.3 m/1 ft 220 — 240 VAC) 90 W (1.2 m/4 ft 220 — 240 VAC)		
Control	Interface	Data Enabler Pro (DMX/Ethernet)		
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager and iPlayer 3, or third-party controllers		
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	-20° – 40° C (-4° – 104° F) Operating -20° – 40° C (-4° – 104° F) Startup -40° – 80° C (-40° – 176° F) Storage		
	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 and Safety	Certification	UL/cUL, FCC Class A, CE		
	Environment	Dry/Damp Location, IP20		

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

† 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.

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

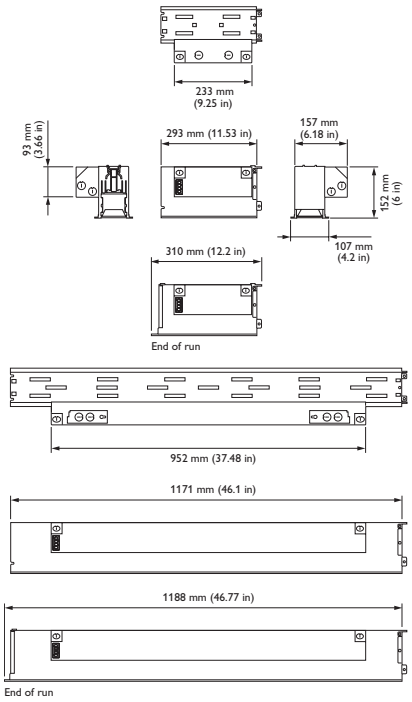
Dimensions and Weight

Fixture	Physical Characteristics	T-Bar	Slotted-T	Flanged	Flangeless
0.3 m (1 ft)	Housing Dimensions *Height x Width x Depth*	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 *Height x Width x Depth*	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 46.1 x 6.3 in)	152 x 1172 x 158 mm (6.0 x 46.1 x 6.3 in)
	Assembled Weight†	9.5 kg (21 lb)	9.5 kg (21 lb)	9.5 kg (21 lb)	9.5 kg (21 lb)

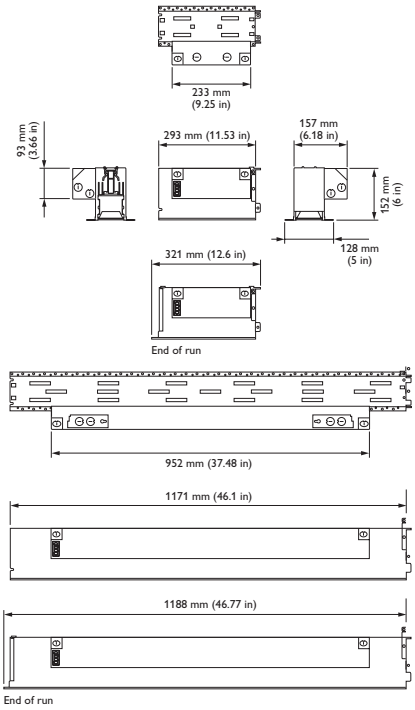
† Assembled weight includes fixture housing and LED module.

CE Dimensional Diagrams, 220–240 VAC

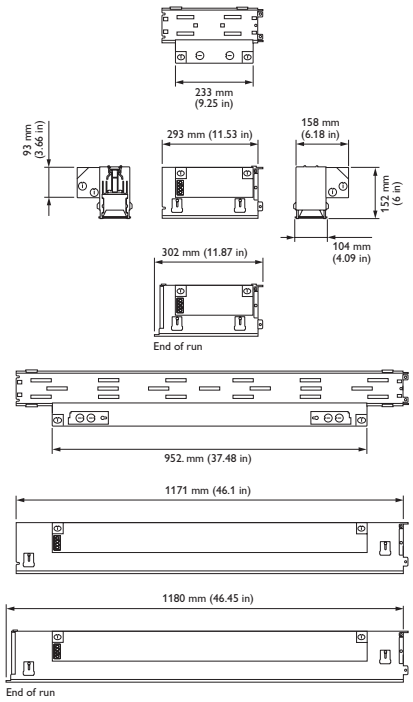
SkyRibbon Linear Direct Powercore Flanged Housing



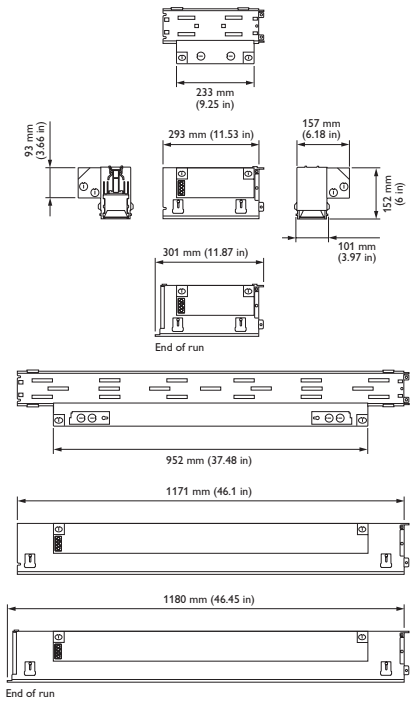
SkyRibbon Linear Direct Powercore Flangeless Housing



SkyRibbon Linear Direct Powercore T-Bar Housing

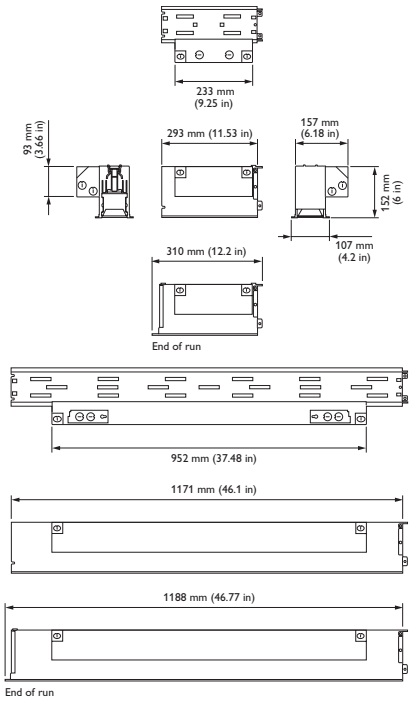


SkyRibbon Linear Direct Powercore Slotted-T Housing

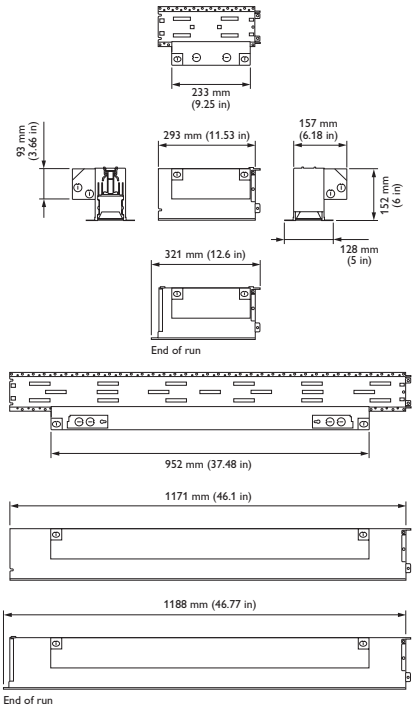


UL Dimensional Diagrams, 120 VAC/277 VAC

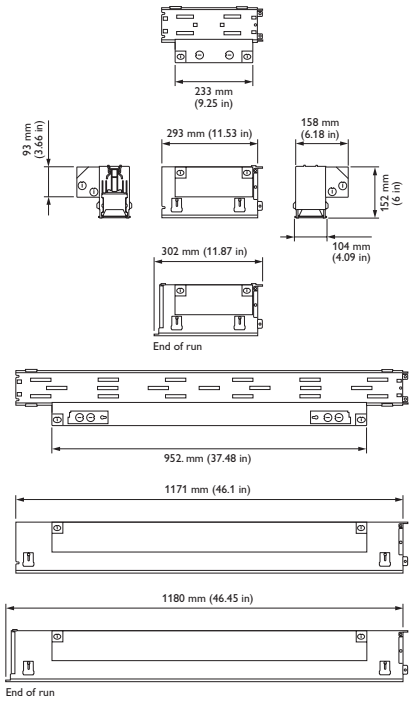
SkyRibbon Linear Direct Powercore Flanged Housing



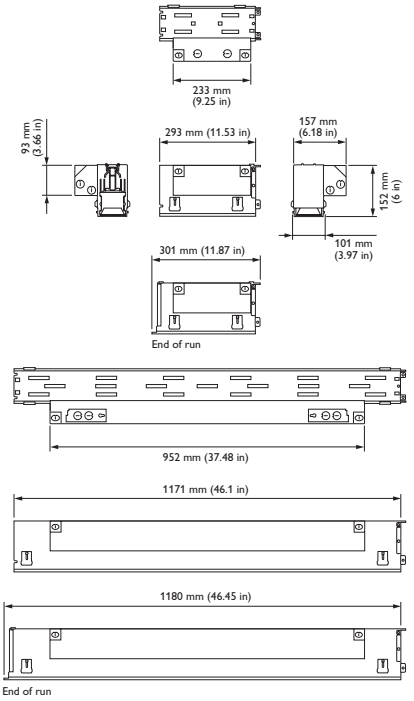
SkyRibbon Linear Direct Powercore Flangeless Housing



SkyRibbon Linear Direct Powercore T-Bar Housing



SkyRibbon Linear Direct Powercore Slotted-T Housing

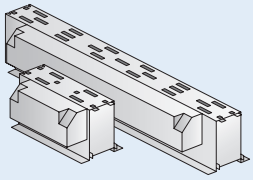


Product Selection

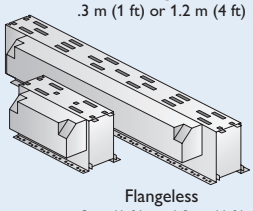
To order a complete SkyRibbon IntelliHue Linear Direct Powercore fixture, choose a housing (voltage, length, and type), an optional spread lens, an optional accessories.

1 Choose housing type

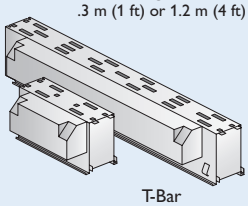
120 VAC or 277 VAC



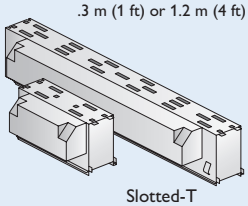
Flanged
.3 m (1 ft) or 1.2 m (4 ft)



Flangeless
.3 m (1 ft) or 1.2 m (4 ft)

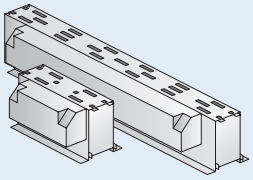


T-Bar
.3 m (1 ft) or 1.2 m (4 ft)

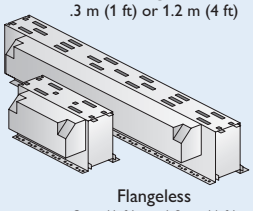


Slotted-T
.3 m (1 ft) or 1.2 m (4 ft)

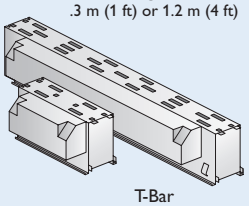
220 – 240 VAC



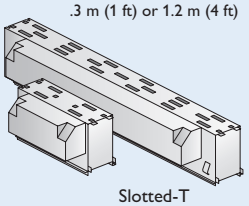
Flanged
.3 m (1 ft) or 1.2 m (4 ft)



Flangeless
.3 m (1 ft) or 1.2 m (4 ft)

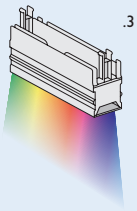


T-Bar
.3 m (1 ft) or 1.2 m (4 ft)

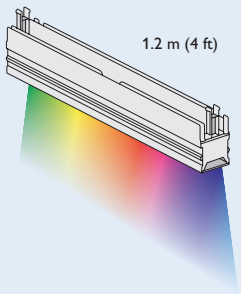


Slotted-T
.3 m (1 ft) or 1.2 m (4 ft)

2 Choose LED module

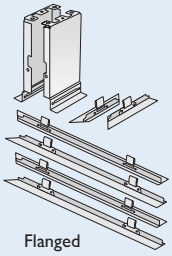


.3 m (1 ft)

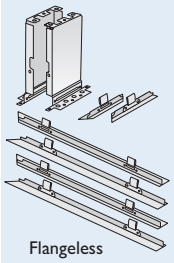


1.2 m (4 ft)

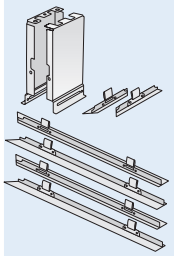
3 Choose end-of-run kit



Flanged



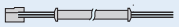
Flangeless



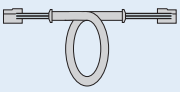
T-Bar / Slotted-T

4 Choose accessories

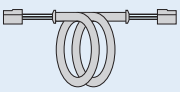
120 VAC/277 VAC



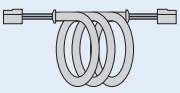
Leader Cable (10 ft)



Jumper Cable (1 ft)

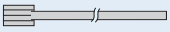


Jumper Cable (4 ft)

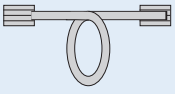


Jumper Cable (8 ft)

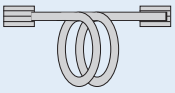
220 – 240 VAC



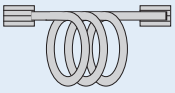
Leader Cable (3 m)



Jumper Cable (0.9 m)



Jumper Cable (1.4 m)



Jumper Cable (1.7 m)

Housing

Item	Style	Length	Voltage	Item Number	Philips 12NC
Housing	Flanged	0.3 m	220–240 VAC	172-000074-39	910503705036
		1.2 m	220–240 VAC	172-000074-38	910503705035
		1 ft	120 VAC	172-000074-45	910503705042
			277 VAC	172-000074-47	910503705044
		4 ft	120 VAC	172-000074-44	910503705041
			277 VAC	172-000074-46	910503705043
	Flangeless	0.3 m	220–240 VAC	172-000074-35	910503705032
		1.2 m	220 VAC	172-000074-34	910503705031
		1 ft	120 VAC	172-000074-10	910503704307
			277 VAC	172-000074-22	910503704319
		4 ft	120 VAC	172-000074-07	910503704304
			277 VAC	172-000074-19	910503704316
	T-Bar	0.3 m	220–240 VAC	172-000074-30	910503704354
		1.2 m	220–240 VAC	172-000074-28	910503704352
		1 ft	120 VAC	172-000074-09	910503704306
			277 VAC	172-000074-21	910503704318
		4 ft	120 VAC	172-000074-06	910503704303
			277 VAC	172-000074-18	910503704315
	Slotted-T	0.3 m	220–240 VAC	172-000074-31	910503704355
		1.2 m	220–240 VAC	172-000074-29	910503704353
		1 ft	120 VAC	172-000074-11	910503704308
			277 VAC	172-000074-23	910503704320
		4 ft	120 VAC	172-000074-08	910503704305
			277 VAC	172-000074-20	910503704317
End of Run Kit	Flanged	0.3 m/1 ft		120-000174-01	910503705022
		1.2 m/4 ft		120-000174-05	910503705026
	Flangeless	0.3 m/1 ft		120-000174-00	910503705021
		1.2 m/4 ft		120-000174-04	910503705025
	T-Bar / Slotted-T	0.3 m/1 ft		120-000174-02	910503705023
		1.2 m/4 ft		120-000174-06	910503705027

Use Item Number when ordering in North America.

LED Modules

Item	Length	Details	Item Number	Philips 12NC
LED Modules	0.3 m/1 ft	IntelliHue	123-000074-00	910503702671
	1.2 m/4 ft	IntelliHue	123-000074-01	910503702672

Use Item Number when ordering in North America.

Leader and Jumper Cables

Item	Length	Voltage	Item Number	Philips 12NC
Leader Cable	3 m	220–240 VAC	108-000072-14	910503705048
	10 ft	120/277 VAC	108-000072-04	910503703985
Jumper Cable	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
	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

Use Item Number when ordering in North America.

Refer to the SkyRibbon IntelliHue Linear Direct Housing Installation Instructions and the SkyRibbon IntelliHue Linear Direct Powercore LED Module Installation Instructions for specific warning and caution statements.

Installation

SkyRibbon IntelliHue Linear Direct Powercore lighting fixtures enable lighting designers to transform environments by offering the freedom to create flexible lighting spaces that were previously unachievable. These recessed linear interior LED fixtures offer high-quality intelligent color and white light from the same lighting source. A variety of housing types are offered to support different installation methods. Refer to the SkyRibbon IntelliHue Linear Direct Powercore web page at www.philips.com/colorkinetics/ls/IntelliHue/skyribbon-linear-direct/ for detailed installation instructions.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate SkyRibbon IntelliHue Linear Direct 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.

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. For complex installations displaying light shows with dynamic effects, such a lighting design plan is essential.

To create a lighting design plan, determine the appropriate location of each SkyRibbon Linear Direct Powercore fixture in relation to power sources and controllers. On an architectural 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 the peel-off address label from the outside of the box to your architectural drawings or lighting schedule to identify fixture order.

Keep the following considerations in mind when planning your installation:

- Confirm voltage rating of the fixture matches the voltage requirement for the geographic region in which you are installing the fixture.
- You can connect SkyRibbon IntelliHue Linear Direct fixtures in series using either flexible conduit jumpers or hard wiring power directly to the fixtures.
- SkyRibbon IntelliHue Linear Direct Powercore fixtures can work as a single segment, or you can set fixtures to have multiple segments that display different colors simultaneously for dynamic effects. Segment lengths differ depending on fixture length and configuration. When installing fixtures end-to-end, you can create virtual segments that span multiple fixtures.
- You can mix 0.3 m (1 ft) and 1.2 m (4 ft) SkyRibbon IntelliHue Linear Direct fixtures in a single run. A mixture of fixture lengths can offer flexibility in architectural applications.
- You can mount SkyRibbon IntelliHue Linear Direct Powercore fixtures end-to-end, and space them however you wish, so long as the maximum distance from a controller to the last fixture in a series does not exceed 300 m (1000 ft) without a DMX repeater.
- Each DMX universe can use up to 512 unique DMX addresses. Since each fixture segment requires a minimum of three addresses, you can have up to 170 uniquely-addressed segments within a single universe. For example, you could create a series of ten 305 mm (1 ft) SkyRibbon Linear Direct fixtures, each with four segments (10 fixtures x 4 segments x 3 channels per segment = 120 addresses), or a series of 25 SkyRibbon Linear Direct, 1.2 m (4 ft) fixtures, each with 2 segments (25 fixtures x 2 segments x 10 addresses per segment = 500 addresses).

Prepare for the Installation

1. Refer to the lighting design plan, architectural diagram, or other diagram that shows the physical layout of the installation to identify the locations of all switches, controllers, Data Enabler Pro devices, fixtures, and cables.
2. SkyRibbon IntelliHue Linear Direct Powercore can be installed in series or in parallel (wired to a common junction box). Installations are limited by specific configuration details including line voltage, leader cable length, fixture spacing, wiring layout, and circuit size. In addition, the maximum number of fixtures each Data Enabler Pro can support depends on run length limitations for data integrity. To ensure data integrity, maximum individual run lengths should not exceed 53.3 m (175 ft), and the total cable length per Data Enabler Pro should not exceed 122 m (400 ft). 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.
3. Make sure the ceiling provides sufficient access to install the fixtures. Prepare the openings, which vary depending on the type of housing required. Refer to the SkyRibbon IntelliHue Linear Direct Powercore web page at www.philips.com/colorkinetics/ls/IntelliHue/skyribbon-linear-direct/ for detailed installation instructions.

Start the Installation

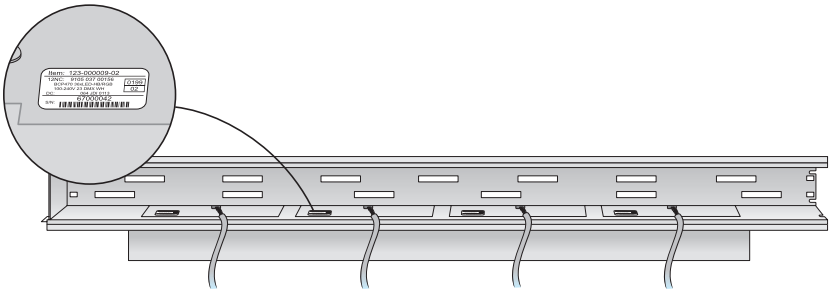
1. Install all Data Enabler Pro devices, including any interfaces with controllers. Data Enabler Pro devices and external controllers send power and control signals to fixtures over leader cables. Jumper cables can be used to connect fixtures together in series or the fixture can be hard wired together, the back of the fixture acts as a wiring compartment.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. Ensure that all additional parts and tools are available, including:
   - The included mounting hardware
   - Screws for surface mounting flanged and flangeless fixtures
   - 3+ 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.)

Unpack and Prepare Fixtures

1. Carefully inspect the box containing SkyRibbon Linear Direct Powercore and the contents for any damage that may have occurred in transit.
2. SkyRibbon Linear Direct Powercore fixtures are addressable in 0.3 m (1 ft) segments. This feature allows playback controllers to send unique light output data to each segment of each fixture within your installation.

You will need the layout grid that you created when you recorded the serial numbers of the light fixtures in your installation.

Each fixture segment, or LED node, comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing. There are peel-off labels on the outside of the box that can be applied directly to an architectural drawing or fixture schedule.

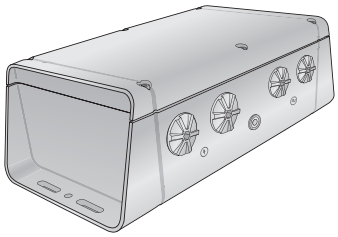


3. Assign each fixture to a position in the lighting design plan.
4. To streamline installation and aid in light address programming, you can affix a label identifying the fixture's order or placement in the installation to an inconspicuous location on each housing.

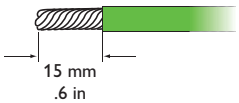
Mount and Connect Fixtures

1. Make sure the power is OFF before mounting and connecting SkyRibbon Linear Direct Powercore fixtures.
2. SkyRibbon Linear Direct Powercore fixtures offer connectors that accept the SkyRibbon 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 can also be hard wired, with the back of the fixture acting as the junction box.
4. Refer to the SkyRibbon IntelliHue Linear Direct Powercore web page at www.philips.com/colorkinetics/ls/IntelliHue/skyribbon-linear-direct/ for detailed installation instructions.

Connect Data Enabler Pro



1. Run a leader cable from a run of fixtures, or a lead wire from a junction box, through a cable connector installed on the output side of the Data Enabler Pro housing (the side with two openings). Drag at least 152 mm (6 in) of wire into the housing.
2. Strip 15 mm (.6 in) of insulation from the wires. If using stranded wire, twist each wire tight to secure the wire threads.



3. Locate the fixture cable 4-wire PC terminal block connector inside the Data Enabler Pro housing.

8 – 18 AWG
(8,37 – 0,823 mm²) toronné/massif

Litzendraht/Volldraht –
8,37–0,823 mm² (8–18 AWG)

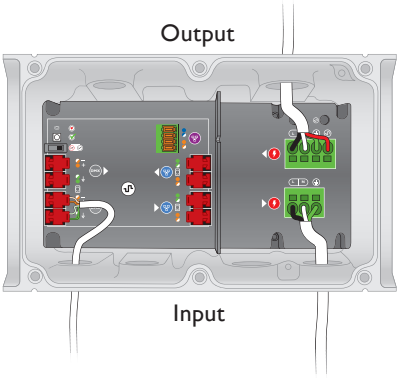
8 – 18 AWG
(8,37 – 0,823 mm²) Multifilar/Monofilar

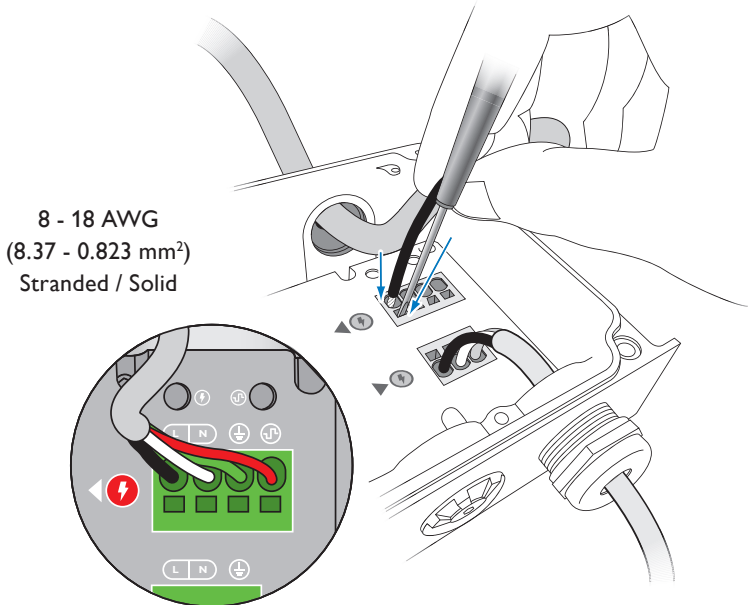
8 – 18 AWG
(8.37 – 0.823 mm²) cavi Stranded / Solid

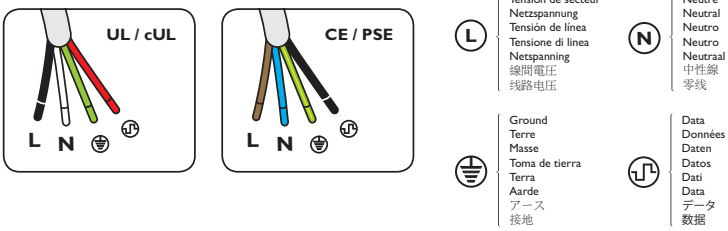
8 – 18 AWG
(8,37 – 0,823 mm²) uit draden bestaand/massief

8 – 18 AWG
(8.37 – 0.823 mm²) より線 / 固体

8 – 18 AWG
（8.37 – 0.823 平方毫米）绞股/固态







4. Securely install line, neutral, ground, and data in the terminal block:
   - Insert a small flathead screwdriver in the slot above a wire entry hole.
   - Firmly insert the correct wire in the wire entry hole.
   - Remove the screwdriver.

Address and Configure the Fixtures

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

DMX Installations

A DMX universe consists of 512 channels or addresses. The number of uniquely-addressed fixtures in a DMX universe is determined by how the lighting fixtures are configured. For example, a DMX universe can support 170 uniquely-addressed three-channel fixtures (512 divided by 3, with 2 channels remaining). A DMX universe can also support 102 five-channel fixtures (512 divided by 5). A lighting installation can consist of one or more DMX universes.

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.

Ethernet Installations

You can address fixtures and switch between 8-bit mode and 16-bit mode using QuickPlay Pro. You can download QuickPlay Pro from www.philips.com/colorkinetics/support/addressing/

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 fixture nodes, controllers, and Data Enabler Pro devices for quick configuration.

You can download QuickPlay Pro from www.philips.com/colorkinetics/support/addressing.

For details on addressing and configuring fixtures, controllers, and power/data supplies with QuickPlay Pro, refer to the Addressing and Configuration Guide, which you can view or download at www.philips.com/colorkinetics/support/addressing.

Firmware Settings

Maximizing Fixture-to-Fixture Consistency with Chromasync Technology

Optibin, our advanced binning algorithm, sets an industry-leading standard for the color consistency and uniformity of LED sources used in manufacturing. Chromasync technology enhances the performance of Optibin by maximizing fixture-to-fixture color consistency within an installation. Chromasync achieves a common gamut for all SkyRibbon IntelliHue fixtures, regardless of date of manufacture.

Chromasync is especially valuable in lighting designs that feature combinations of two or more saturated colors (RGB white, yellow, and cyan, and so on). In the case of RGB white, for example, Chromasync can reduce color variations across SkyRibbon IntelliHue Linear Direct Powercore fixtures from 10 or more MacAdam ellipse steps to as little as 2 MacAdam ellipses.

While Chromasync does not calibrate colors with an external reference or standard, it accelerates commissioning of systems by eliminating the need for tedious fine tuning of individual fixtures. Chromasync works with the full range of Philips Color Kinetics controllers, and various other third-party controllers.

Channel Mode

When operating SkyRibbon IntelliHue Linear Direct Powercore fixtures, select the appropriate channel mode for the lighting effects in your application:

3-3 Configuration: The 3-3 configuration allows legacy RGB light shows to be carried over to five-channel lighting fixtures; however, the fourth and fifth channels (White or Mint White) remain off. This option does not enable Chromasync.

3-3 with Chromasync Configuration: The 3-3 configuration allows legacy RGB light shows to be carried over to five-channel lighting fixtures; however, the fourth and fifth channels (White or Mint White) remain off. This configuration leverages Chromasync technology, achieving unprecedented consistency of light performance and color precision across multiple fixtures in an installation, while maximizing intensity and color range.

3-5 with Chromasync Configuration: The 3-5 configuration works with controllers that deliver three channels of control data to five-channel LED fixtures. This is the default setting for the fixture. This option turns Chromasync on. This mode allows for any 3-channel controller to activate all five channels of the fixture, enabling the use of numerous third-party 3-channel controllers. You cannot control each channel individually, but this increases the overall system flexibility by allowing a wide range of controllers to be utilized with the system. This configuration leverages Chromasync technology, achieving unprecedented consistency of light performance and color precision across multiple fixtures in an installation, while maximizing intensity and color range.

5-5 with Chromasync Configuration: The 5-5 with Chromosync configuration works with controllers that deliver five channels of control data to five-channel LED fixtures. This option turns Chromasync on. This mode allows for any 5-channel controller to activate all five channels of the fixture. This configuration leverages Chromasync technology, achieving unprecedented consistency of light performance and color precision across multiple fixtures in an installation, while maximizing intensity and color range.

5-5 Configuration: The 5-5 configuration works with controllers that employ five output data channels. This option does not enable Chromasync.

Dimming Curves

Dimming curves describe how slowly or quickly a fixture dims at different levels of input. For finer control, SkyRibbon IntelliHue Linear Direct Powercore offers three different dimming curves for use in different situations and applications:

Normal: The non-linear (gamma) dimming curve used in most Philips Color Kinetics LED lighting fixtures. SkyRibbon IntelliHue Linear Direct Powercore fixtures use the normal dimming curve by default.

Linear: A dimming curve with a linear relationship between power input and light output.

Tungsten: A non-linear dimming curve that emulates the dimming curve of incandescent lamps on a DMX dimmer. This curve offers the most control at low intensities.

LED Transition Speed

Normally, LEDs react to DMX or other control data instantaneously. In some cases, you may want to slow down the reaction speed to achieve smoother transitions when the intensity of different LED channels changes. SkyRibbon IntelliHue Linear Direct Powercore offers five levels of decreasing LED transition speed, from Fast (instant snap changes with no delay) to Delay-4 (the slowest transition speed). The default setting is Fast.

16-Bit Mode

You can configure SkyRibbon Linear Direct IntelliHue Powercore fixtures to operate in 16-bit mode, which increases fixture resolution for smoother dimming. In 8-bit mode, each fixture segment uses one DMX address per channel. In 16-bit mode, each fixture segment uses two DMX addresses per channel, one for coarse control and one for fine control. The coarse channel offers 256 values, while the fine channel adds 256 additional values to each coarse channel value, resulting in a total of 65,536 individual steps or settings (256 x 256).

Total Channels per Segment

The total number of channels required for your installation will depend on the Channel Configuration, 8-bit or 16-bit mode, and total number of segments. Use the table below to plan for the total number of addresses required, and number of DMX universes needed. This information can help to determine the appropriate controller for your lighting effects and installation size.

Configuration	DMX Addresses Per Segment
3-3 Channel Configuration, 8-bit	3
3-3 Channel Configuration, 16-bit	6
3-5 Channel Configuration, 8-bit	3
3-5 Channel Configuration, 16-bit	6
5-5 Channel Configuration, 8-bit	5
5-5 Channel Configuration, 16-bit	10

Fixture Segments

SkyRibbon Linear Direct IntelliHue Powercore fixtures are addressable in 0.3 m (1 ft) nodes. With the back of the fixture housing toward you, fixture nodes extend in sequence from the left of the fixture to the right. Each node is identified by a unique serial number; there are four nodes in a 1.2 m (4 ft) fixture.

Each node can be set as an individual segment, or multiple nodes can be combined into a single virtual segment for programming. Combining multiple nodes into a single virtual segment can speed programming installations and minimize the total number DMX universes needed for the installation. This method is often utilized when all nodes in a segment operate in unison at all times.

Each SkyRibbon Linear Direct fixture is factory-addressed to a starting DMX address of 1. The number of DMX addresses per segment, added to the starting DMX address, determines the next unique address in a sequence. The following table lists the number of DMX addresses you should add to your starting DMX address in order to determine the next unique address in a DMX universe. When determining unique DMX addresses for your lighting system, refer to the following tables:

For example, if you configure SkyRibbon Linear Direct fixtures for 5-5 channel configuration in 16-bit mode, then the configuration must include 10 DMX addresses per segment. This configuration allows for up to 51 uniquely-addressed segments (512 divided by 10, with two channels remaining). As shown in the following table, if the starting DMX address for the first segments is 1, the second segment would be 11, the third segment 21, etc.

3-3 or 3-5 Channel Configuration

8-Bit Mode	1		2		3	
	Red		Green		Blue	
16-Bit Mode	1	2	3	4	5	6
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine

5-5 Channel Configuration

8-Bit Mode	1		2		3		4		5	
	Red		Green		Blue		Mint/White		4000 K	
16-Bit Mode	1	2	3	4	5	6	7	8	9	10
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	Mint Coarse	Mint Fine	4000 K Coarse	4000 K Fine

Make sure the DMX start channel allows enough DMX addresses for all of the fixture's segments, or the fixture will not function properly. For example, a fixture in 8-bit mode, with 3-3 channel configuration and four segments requires 12 DMX addresses. Therefore, the DMX start channel should be 500 or lower.

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