

# LINEAR<sup>SERIES</sup>



DATE

PROJECT

COMMENTS

CERTIFICATIONS



## 5SID SUSPENDED INDIRECT / DIRECT

AN EXTENSION OF OUR 5-INCH LINEAR FAMILY SERIES

FEATURES

### HOUSING

- 1. ARCHITECTURAL DETAILS**  
Provide a clean architectural appearance with the semi-recessed connection point between cable and fixture reduces the visibility of hardware.
- 2. SURE-FIT ALIGNMENT**  
4-Point alignment system adjoining each luminaire section to ensure straighter rows while minimizing the appearance of seams.

### OPTICAL SYSTEM

- 3. EVENLY ILLUMINATED DIRECT LENS**  
High efficiency diffuser designed to minimize glare and provide uniform light distribution.

### 4. INDIRECT DISTRIBUTION

Select from three indirect illumination options. Standard Lambertian can be upgraded to Batwing Up (BW) or Asymmetric Up (AU)

### 5. VERSATILE LIGHT ENGINE

Multiple lumen intensities provide the correct level of illumination within each space.

### ELECTRICAL

#### OPTIONAL INTEGRAL EMERGENCY BATTERY PACK

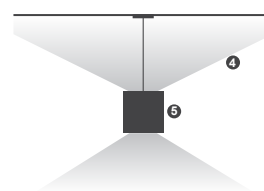
Engineered to exceed UL minimum safety standards and is CEC Listed.

#### 0-10 VOLT DIMMING STANDARD

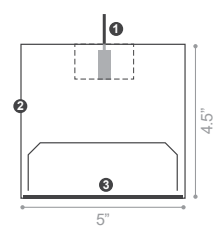
120/277VAC 0-10V dimming to 1% standard.

UP TO 159.0 LUMENS PER WATT AT 90 CRI

LIGHT DISTRIBUTION



CROSS-SECTION



SAMPLEPARTNUMBER:5SID-24-MU-MD-30-UNV-T1-WH-C90

ORDERING

SERIES	LENGTH	UPPER OUTPUT		DIRECT OUTPUT		CCT	VOLTAGE	MOUNTING	FINISH
5SID									
	XXX FT	VHU 1250 LM/FT	LU 500 LM/FT	VHD 1250 LM/FT	LD 500 LM/FT	30 3000K	UNV 120-277V	T1 1" T-Grid	WH White
	1' Increments Ex: 20' = 20	HU 1000 LM/FT	VLU <sup>4</sup> 250 LM/FT	HD 1000 LM/FT	VLD 250 LM/FT	35 3500K	347' 347V	T9 9/16" T-Grid	BLK Black
		MU 750 LM/FT	CU Custom	MD 750 LM/FT	CD Custom	40 4000K		SC Screw Slot Grid	

#### ORDERING NOTES

1 EM not available with 347V.

2 EM and sensors are not available with 2' and 3' fixtures.

3 For individual fixtures, sensor located at power feed end. For runs, a sensor is installed into each fixture in run, ex. 2 sensors are installed in a 16' run (1 sensor in each 8' fixture)

4 VLU is not available on 2' lengths.

OPTIONS

	CRI	SUSPENSION		OPTICAL		INTEGRATED CONTROLS <sup>2, 3, 4</sup>		CIRCUITING	
	C90								
C90	90 CRI	BLANK = 48" CABLE	CB144 144" Cables	BLANK = LAMBERTIAN	DOS	Daylight Occupancy Sensor DALI DRIVER STANDARD	SS-U/D	Separate Switching UPWARDS/DOWNWARDS	
		CB96 96" Cables	BC Black Canopy & Cord	BW Batwing Up					
				AU Asymmetric Up					

#### OPTIONS NOTES

4 Consult factory for component or system not listed.

5 EM and EC quantity is not to exceed number of discrete fixture sections in a row.

6 EM and EC position refers to which fixture in the run that will be powered by the EM/EC circuit.  
Position options: S=Starter, J=Joiner, E=Enders, Ex: 5SID-24-HU-HD-35-UNV-T1-WH-EM2SJ



#### FOR INDIVIDUALS

EM<sup>2</sup> Emergency Battery CEC LISTED EC Emergency Circuit

#### FOR LINEAR RUNS<sup>5, 6</sup>

EM			EC		
EMERGENCY BATTERY PACK	QUANTITY PER RUN <sup>5</sup>	POSITION IN RUN <sup>6</sup>	EMERGENCY CIRCUIT	QUANTITY PER RUN <sup>5</sup>	POSITION IN RUN <sup>6</sup>

# 5SID SUSPENDED

## INDIRECT / DIRECT



### PHOTOMETRICS & ENERGY CHARTS

#### 5SID-04-HU-HD-35-UNV-XX-C90

Total Lumens: 8,125

Ratio: 50% Up & 50% Down

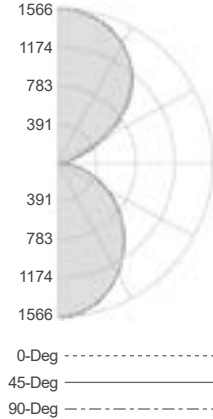
Wattage: 52.5

Efficacy: 155.0 LM/W

Fixture Length: Four Feet

##### Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1173.3	14.4
0 - 40	1888.0	23.2
0 - 60	3240.3	39.9
0 - 90	4091.6	50.4
90 - 180	4033.4	49.6
0 - 180	8124.9	100.0



#### Indirect (Lambertian) / Direct (Lambertian) Light at 90 CRI, 3500K

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	16.8	14.9	13.2	11.5	9.8
Lumens/ft	2556	2311	2041	1793	1552
LPW	152.1	155.1	154.6	155.9	159.0

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	12.1	10.2	8.5	6.8	5.1
Lumens/ft	1779	1534	1263	1016	775
LPW	147.0	150.3	148.6	149.3	153.1

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	15.0	13.1	11.4	9.7	8.0
Lumens/ft	2276	2031	1761	1513	1272
LPW	151.4	154.7	154.0	155.5	159.2

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	10.7	8.8	7.1	5.4	3.6
Lumens/ft	1530	1285	1014	767	526
LPW	143.6	146.8	143.9	143.3	145.6

	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	13.5	11.6	9.9	8.2	6.4
Lumens/ft	2010	1765	1494	1247	1006
LPW	149.1	152.4	151.2	152.4	156.1

#### 5SID-04-HU-HD-35-UNV-XX-C90-BW

Total Lumens: 7,965

Ratio: 50% Up & 50% Down

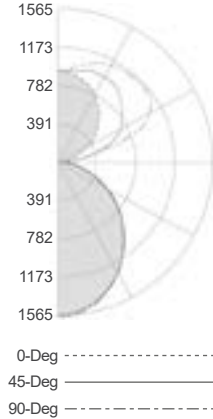
Wattage: 52.5

Efficacy: 152.0 LM/W

Fixture Length: Four Feet

##### Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1173.3	14.7
0 - 40	1888.0	23.7
0 - 60	3240.3	40.7
0 - 90	4091.6	51.4
90 - 180	3873.8	48.6
0 - 180	7965.3	100.0



#### Indirect (Batwing) / Direct (Lambertian) Light at 90 CRI, 3500K

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	16.8	14.9	13.1	11.5	9.7
Lumens/ft	2505	2260	1990	1742	1501
LPW	149.1	151.7	151.9	151.5	154.7

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	12.1	10.2	8.4	6.8	5.0
Lumens/ft	1758	1513	1243	995	754
LPW	145.3	148.4	148.0	146.4	150.9

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	15.0	13.1	11.3	9.7	7.9
Lumens/ft	2236	1991	1721	1473	1232
LPW	148.8	151.7	151.9	151.4	155.4

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	10.7	8.8	7.0	5.4	3.6
Lumens/ft	1519	1274	1004	756	515
LPW	142.7	145.6	144.5	141.4	145.2

	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	13.5	11.6	9.8	8.2	6.4
Lumens/ft	1980	1735	1465	1217	976
LPW	146.9	149.8	149.8	148.8	153.0

#### 5SID-04-HU-HD-35-UNV-XX-C90-AU

Total Lumens: 7,976

Ratio: 50% Up & 50% Down

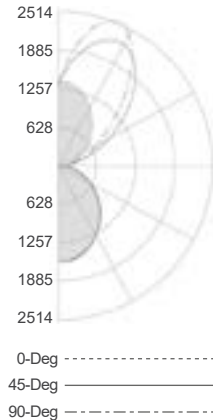
Wattage: 52.5

Efficacy: 152.0 LM/W

Fixture Length: Four Feet

##### Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1173.3	14.7
0 - 40	1888.0	23.7
0 - 60	3240.3	40.6
0 - 90	4091.6	51.3
90 - 180	3884.4	48.7
0 - 180	7975.9	100.0



#### Indirect (Asymmetric) / Direct (Lambertian) Light at 90 CRI, 3500K

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	16.8	14.9	13.1	11.5	9.7
Lumens/ft	2508	2263	1993	1745	1504
LPW	149.3	151.9	152.1	151.8	155.1

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	12.1	10.2	8.4	6.8	5.0
Lumens/ft	1760	1515	1244	997	756
LPW	145.4	148.5	148.1	146.6	151.1

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	15.0	13.1	11.3	9.7	7.9
Lumens/ft	2239	1994	1724	1476	1235
LPW	149.0	151.9	152.1	151.7	155.7

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	10.7	8.8	7.0	5.4	3.6
Lumens/ft	1520	1275	1005	757	516
LPW	142.7	145.7	144.6	141.5	145.4

	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	13.5	11.6	9.8	8.2	6.4
Lumens/ft	1982	1737	1467	1219	978
LPW	147.0	150.0	150.0	149.0	153.3

#### Lumen Adjustment Calculations

LUMEN MULTIPLIERS	
3000K	0.995
3500K	1.000
4000K	1.023

##### Example: HU-MD Output, 3000K at 90CRI

Total Light Output: 7044 x 0.995 = 7009 lm

Total Light Output Per Foot: 1761 x 0.995 = 1752 lm/ft

Efficacy = 1752 / 11.4 = 153.6 lm/W

# 5SID SUSPENDED

## INDIRECT / DIRECT



### SPECIFICATIONS

## MECHANICAL

### Housing Construction:

Extruded Aluminum 6063-T5 alloy outer housing and LED tray with die-formed steel internal components for strength, alignment and mounting attachment. Our high-quality die-cast end caps are engineered to conceal all fasteners and to retain the sealing gaskets on the inside of the fixture while completing the clean and minimalistic look of this luminaire.

### Alignment/Assembly:

The alignment system employs a four-point alignment and attachment method, designed to create straighter rows and minimize seams between sections (field assembled). Four alignment pins ensure the outer extruded aluminum rails are aligned, while a draw-screw secures housing-to-housing attachment. Additional alignment biscuits double as the light shields.

### Lengths:

The 5SID is available in a minimum 2-foot (nominal) length with additional 1-foot increments available ( $\pm 0.030$ "). Longer fixture rows are available and will be configured with 4-foot, 5-foot, 6-foot, 7-foot, and 8-foot fixtures. Maximum run length on one power feed is 72'. Continuous runs over 72' will require a second feed.

### Mounting Method/Hardware:

The Hidden-Connect design recesses all attachment hardware (hanging cable and power cord) below the top plane of the housing to enable a sleek, clean finished look. Standard hanging hardware includes 1/16" diameter, galvanized steel aircraft cable with adjustable and lockable nickel-plated cable grippers and a white 18/5 S.J.T. power cord. The standard hardware includes a 60" power cord and 54" aircraft cables to accommodate a 48" mounting distance from the ceiling. Longer hanging cables and power cords are available as an option. Ceiling type options are "T1" = T-Grid, "T9" = T-Grid, "SC" = Screw Slot Grid, "HC" = Hard Ceiling or "JB" = J-Box mount. Ceiling canopy provided. All Lumato suspension hardware is tested and listed to UL1598 requirements for loading/fixture support.

### Exterior Finish:

The 5SID is available in White and Black polyester powder coat finish to ensure durability.

### Suspension Components:

Fixtures are suspended by 1/16" galvanized aircraft cable. Cables are attached to the ceiling suspension point with a 1/4-20 threaded ceiling cable barrel that incorporates a threaded ring to support the feed/hanger canopy allowing access to the J-box/hanger without removal of the suspension cable allowing conductor inspection/service without having to support the fixture(s). Feed canopies are 5" O.D. and hanger canopies are 2" O.D. (JB = 5" O.D.). Cable lengths can be specified for 48", 96" and 144" suspension lengths.

### Integrated Controls:

The 5SID is available with optional integrated controls. Sensors are conveniently designed to mount in aperture and are located at the power feed end of each fixture. For runs, each fixture section will be supplied with a discrete sensor that will control that specific section. Philips EasySense is standard daylight/occupancy sensor. DALI driver required. If your project requires a component or system not listed, please contact your Lumato lighting representative.

MANUFACTURER	ORDERING CODE	SENSOR	CONNECTION	DRIVER
Philips EasySense	DOS	Daylight/PIR Occupancy	Wireless	DALI (Advanced Xitanium SR, 1% Dimming)

## OPERATION

### Light Engine:

The 5SID is available in 3000K, 3500K and 4000K CCT all within a 3-Step MacAdam Ellipse and has a standard CRI of 90+.

### Optics:

The back-lit extruded acrylic lens ensures high efficiency light output, in a minimal form factor for a clean, evenly illuminated surface with minimal glare.

### Indirect Optics:

Standard Lambertian can be upgraded to indirect batwing (BW) or Asymmetric (AU). The extruded acrylic batwing lens (BW) provides an ultra-wide distribution with even illumination across the ceiling while allowing for maximum spacing between fixtures. The Asymmetric (AU) diffused forward-throw optics properly illuminates the wall. All 3 indirect acrylic optics protect LED's from dust and debris.

### Electrical:

Class 2 programmable (factory pre-set) premium power supply, 120-277VAC input. Power factor >0.9. THD <15%. Integral Surge Protection to 2KV.

### Dimming:

The 5SID comes standard with 0-10V dimming to 1%. For DOS (Daylight/ Occupancy Sensor) ordering code, DALI driver required. Advance Xitanium SR, 1% dimming to be utilized.

### Emergency Battery Pack:

Emergency Battery Pack has been engineered to exceed UL minimum safety standards. Standard battery is CEC Listed. For most fixtures, the entire direct portion of the fixture will be illuminated by the EM Battery Pack. For 8' VHD, 10' HD and VHD, and 12' MD, HD, and VHD, only the first portion of the fixture will be illuminated by the EM battery pack. "Quantity per Run" refers to the number of fixtures in the run that will be supplied with an emergency battery pack. "Position in Run" refers to which fixture in the run that will contain the battery. Position options are Starter (S), Joiner (J), or Ender (E). For example, a 24' run needing two emergency battery packs, one in the starter and one in the joiner, would be ordered as EM2SJ. When a joiner is selected, battery packs are always supplied in 8' fixtures before 6' fixtures in that run.

### Emergency Circuit:

Emergency Circuit fixtures are engineered so that the entire fixture is wired to the emergency circuit. "Quantity per Run" refers to the number of fixtures in the run that are wired to the emergency circuit. "Position in Run" refers to which fixture in the run that will be powered by the Emergency Circuit. Position options are Starter (S), Joiner (J), or Ender (E). For example, a 24' run needing two emergency sections, one in the starter and one in the joiner, would be ordered as EC2SJ. When a joiner is selected, Emergency Circuits are always supplied in 8' fixtures before 6' fixtures in that run.

## GENERAL

### Warranty:

Ten (10) year limited warranty from date of shipment, covers LED's, driver and luminaire. Optional accessories are covered by their individual Manufacturers' warranties.

### Lumen Maintenance:

Rated for 85% initial lumen output at 90,000 Hours of operation, operated at 25°C ambient temperature; per TM-21 Guidelines published by the Illuminating Engineering Society (IES).

### Certifications:

All Luminaires are UL/cUL Listed to UL 1598 Standards and approved for Indoor use in Dry/Damp Locations.

### Manufactured in the USA:

All Lumato Luminaires and Components (with the exception of our LED boards and drivers) are proudly manufactured and assembled in the USA.

### Shipping:

4 week lead-time for orders up to 1000 linear feet.

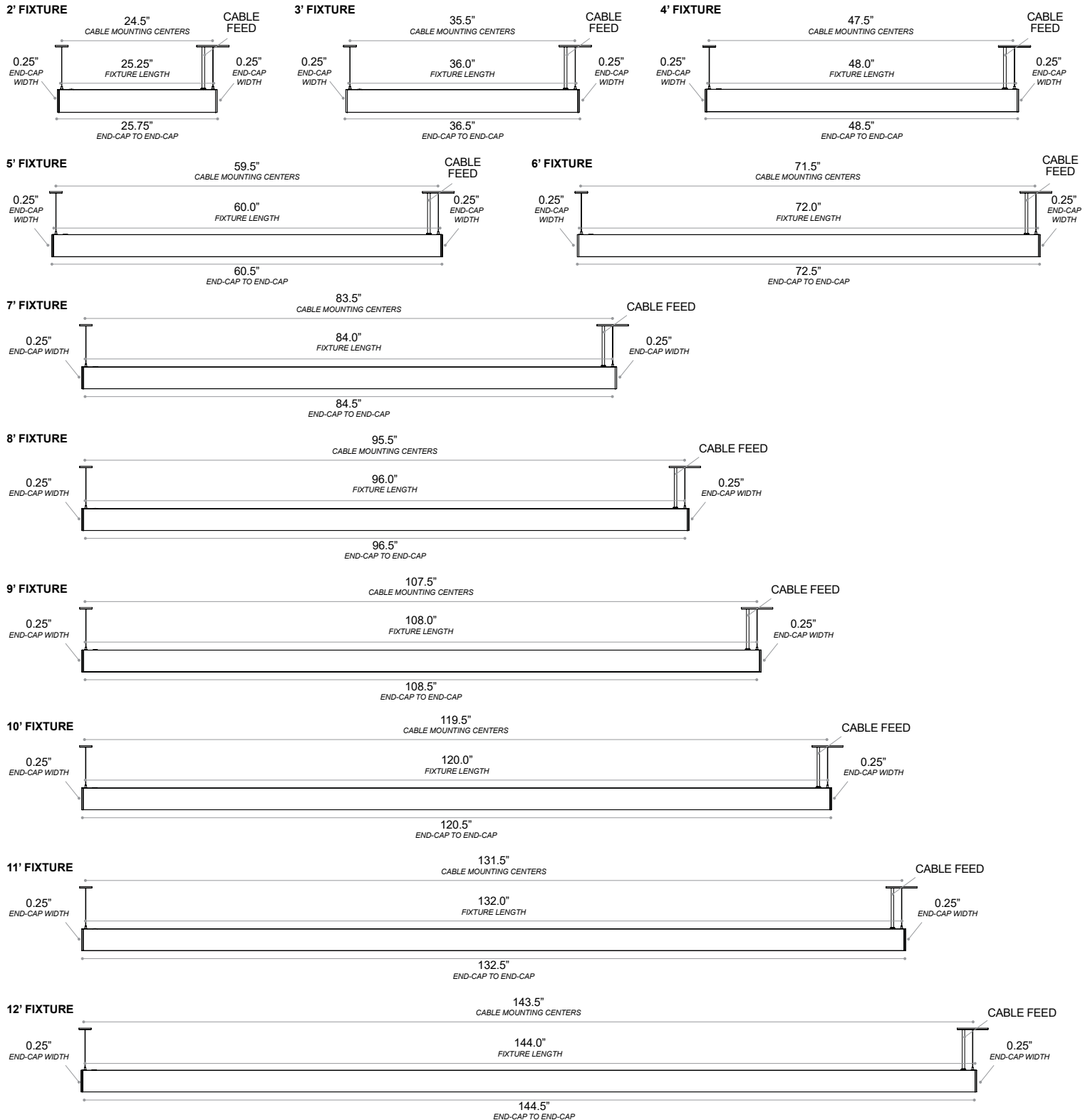
Lead-time for orders greater than 1000 linear feet will be determined at time of order.

# 5SID SUSPENDED

## INDIRECT / DIRECT



### Fixture Row Layout: Single Unit 2' - 3' - 4' - 5' - 6' - 7' - 8' - 9' - 10' - 11' - 12'



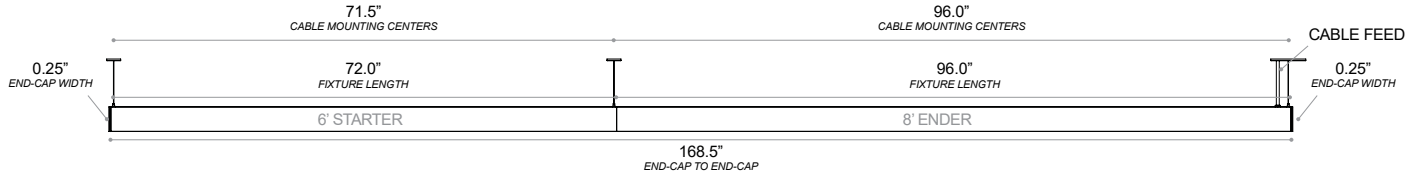
# 5SID SUSPENDED

INDIRECT / DIRECT

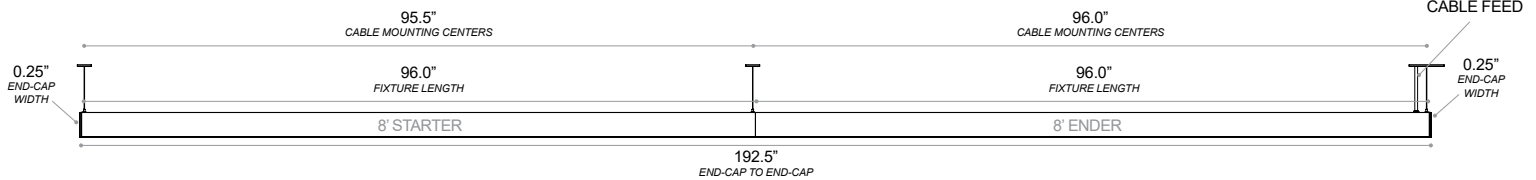


## Fixture Row Layout: Two Units 14' - 16'

### 14' FIXTURE

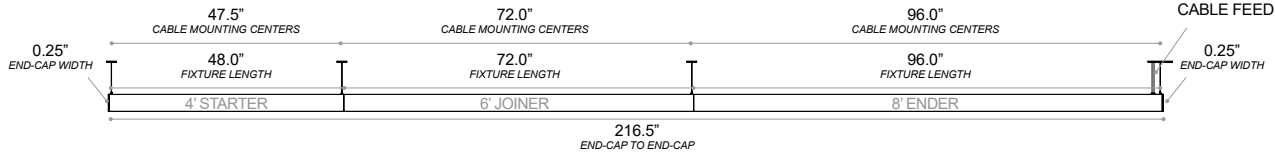


### 16' FIXTURE

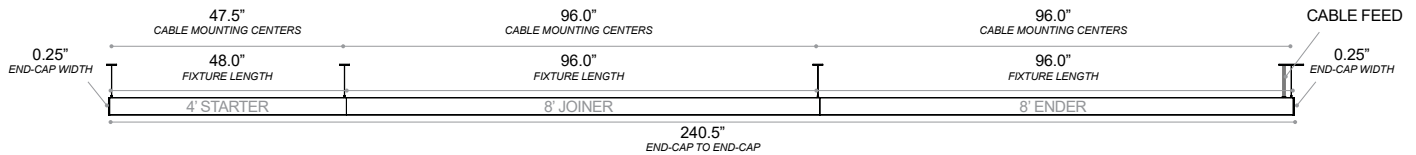


## Fixture Row Layout: Three Units 18' - 20' - 22' - 24'

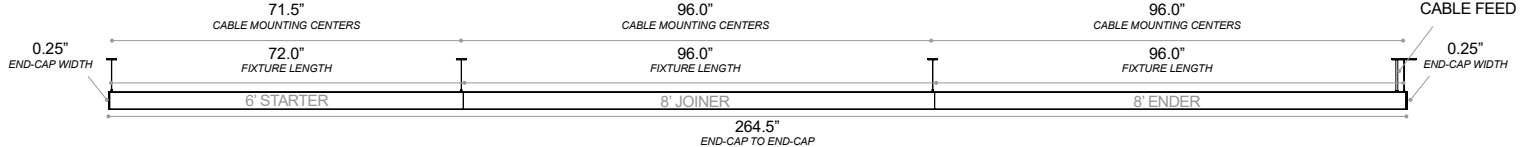
### 18' FIXTURE



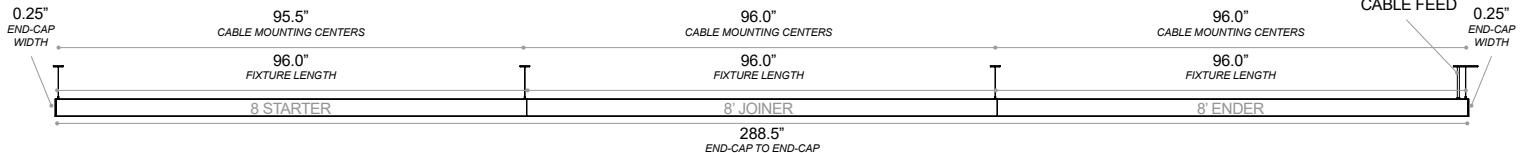
### 20' FIXTURE



### 22' FIXTURE



### 24' FIXTURE



5SID SUSPENDED  
INDIRECT / DIRECT



Fixture Row Components

RUN LENGTH	STARTER	FIXTURE LENGTHS								JOINER	FEED KITS	HANGER KITS	END-CAP TO END-CAP
		1	2	3	4	5	6	7	8				
13'	5'	-	-	-	-	-	-	-	-	8'	1	1	156.5"
14'	6'	-	-	-	-	-	-	-	-	8'	1	1	168.5"
15'	7'	-	-	-	-	-	-	-	-	8'	1	1	180.5"
16'	8'	-	-	-	-	-	-	-	-	8'	1	1	192.5"
17'	3'	6'	-	-	-	-	-	-	-	8'	2	1	204.5"
18'	4'	6'	-	-	-	-	-	-	-	8'	2	1	216.5"
19'	5'	6'	-	-	-	-	-	-	-	8'	2	1	228.5"
20'	4'	8'	-	-	-	-	-	-	-	8'	2	1	240.5"
21'	5'	8'	-	-	-	-	-	-	-	8'	2	1	252.5"
22'	6'	8'	-	-	-	-	-	-	-	8'	2	1	264.5"
23'	7'	8'	-	-	-	-	-	-	-	8'	2	1	276.5"
24'	8'	8'	-	-	-	-	-	-	-	8'	2	1	288.5"
25'	5'	6'	6'	-	-	-	-	-	-	8'	3	1	300.5"
26'	4'	6'	8'	-	-	-	-	-	-	8'	3	1	312.5"
27'	5'	6'	8'	-	-	-	-	-	-	8'	3	1	324.5"
28'	4'	8'	8'	-	-	-	-	-	-	8'	3	1	336.5"
29'	5'	8'	8'	-	-	-	-	-	-	8'	3	1	348.5"
30'	6'	8'	8'	-	-	-	-	-	-	8'	3	1	360.5"
31'	7'	8'	8'	-	-	-	-	-	-	8'	3	1	372.5"
32'	8'	8'	8'	-	-	-	-	-	-	8'	3	1	384.5"
33'	5'	6'	6'	8'	-	-	-	-	-	8'	4	1	396.5"
34'	4'	6'	8'	8'	-	-	-	-	-	8'	4	1	408.5"
35'	5'	6'	8'	8'	-	-	-	-	-	8'	4	1	420.5"
36'	4'	8'	8'	8'	-	-	-	-	-	8'	4	1	432.5"
37'	5'	8'	8'	8'	-	-	-	-	-	8'	4	1	444.5"
38'	6'	8'	8'	8'	-	-	-	-	-	8'	4	1	456.5"
39'	7'	8'	8'	8'	-	-	-	-	-	8'	4	1	468.5"
40'	8'	8'	8'	8'	-	-	-	-	-	8'	4	1	480.5"
41'	5'	6'	6'	8'	8'	-	-	-	-	8'	5	1	492.5"
42'	4'	6'	8'	8'	8'	-	-	-	-	8'	5	1	504.5"
43'	5'	6'	8'	8'	8'	-	-	-	-	8'	5	1	516.5"
44'	4'	8'	8'	8'	8'	-	-	-	-	8'	5	1	528.5"
45'	5'	8'	8'	8'	8'	-	-	-	-	8'	5	1	540.5"
46'	6'	8'	8'	8'	8'	-	-	-	-	8'	5	1	552.5"
47'	7'	8'	8'	8'	8'	-	-	-	-	8'	5	1	564.5"
48'	8'	8'	8'	8'	8'	-	-	-	-	8'	5	1	576.5"
49'	5'	6'	6'	8'	8'	8'	-	-	-	8'	6	1	588.5"
50'	4'	6'	8'	8'	8'	8'	-	-	-	8'	6	1	600.5"
51'	5'	6'	8'	8'	8'	8'	-	-	-	8'	6	1	612.5"
52'	4'	8'	8'	8'	8'	8'	-	-	-	8'	6	1	624.5"
53'	5'	8'	8'	8'	8'	8'	-	-	-	8'	6	1	636.5"
54'	6'	8'	8'	8'	8'	8'	-	-	-	8'	6	1	648.5"
55'	7'	8'	8'	8'	8'	8'	-	-	-	8'	6	1	660.5"
56'	8'	8'	8'	8'	8'	8'	-	-	-	8'	6	1	672.5"
57'	5'	6'	6'	8'	8'	8'	8'	-	-	8'	7	1	684.5"
58'	4'	6'	8'	8'	8'	8'	8'	-	-	8'	7	1	696.5"
59'	5'	6'	8'	8'	8'	8'	8'	8'	-	8'	7	1	708.5"
60'	4'	8'	8'	8'	8'	8'	8'	8'	-	8'	7	1	720.5"

	FIXTURE LENGTH	MOUNTING CENTERS	
	STARTER	STARTER	JOINER/ENDER
3'	36.0"	35.5"	-
4'	48.0"	47.5"	-
5'	60.0"	59.5"	-
6'	72.0"	71.5"	72.0"
7'	84.0"	83.5"	-
8'	96.0"	95.5"	96.0"

