Lumato
Light Without Boundaries

DATE

PROJECT

COMMENTS

CERTIFICATIONS

c UL us LISTED

Manufactured in the USA

BAA Compliant

BABA Compliant

10-Year Warranty

Standard 90+ CRI

2SID SUSPENDED

INDIRECT / DIRECT

AN EXTENSION OF OUR **2-INCH LINEAR FAMILY** SERIES

FEATURES

HOUSING

1. **ARCHITECTURAL DETAILS**
   Provide a clean architectural appearance with the hidden connect mounting system and seamlessly adjoin luminaires with the sure-fit alignment process.
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.

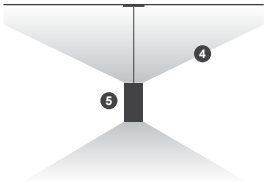
ELECTRICAL

OPTIONAL INTEGRAL EMERGENCY BATTERY PACK
Engineered to exceed UL minimum safety standards and is CEC Listed.

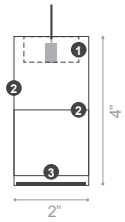
0-10 VOLT DIMMING STANDARD
120/277VAC 0-10V dimming to 1% standard.

UP TO 152.3 LUMENS PER WATT AT 90 CRI

LIGHT DISTRIBUTION



CROSS-SECTION



SAMPLEPARTNUMBER:2SID-24-MU-MD-30-UNV-T1-WH-C90

ORDERING

SERIES	LENGTH	UPPER OUTPUT	DIRECT OUTPUT	CCT	VOLTAGE	MOUNTING	FINISH
2SID							
	XXX FT 1' Increments EX: 20' = 20	**VHU** 1250 LM/FT **HU** 1000 LM/FT **MU** 750 LM/FT	**LU** 500 LM/FT **VLU**[3] 250 LM/FT **CU** Custom **VHD** 1250 LM/FT **HD** 1000 LM/FT **MD** 750 LM/FT	**LD** 500 LM/FT **VLD** 250 LM/FT **CD** Custom **30** 3000K **35** 3500K **40** 4000K	**UNV** 120-277V **347**[1] 347V	**T1** 1" T-Grid **T9** 9/16" T-Grid **SC** Screw Slot Grid **HC** Hard Ceiling **JB** Junction Box	**WH** White **BLK** Black

ORDERING NOTES

1 EM not available with 347V.

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

3 VLU is not available on 2' lengths.

OPTIONS

CRI	SUSPENSION	INTEGRATED CONTROLS[2, 4, 5]	OPTICAL
C90			
C90 90 CRI	**BLANK = 48" CABLE** **CB96** 96" Cables **CB144** 144" Cables **BC** Black Canopy & Cord	**DOS** Daylight Occupancy Sensor DALI DRIVER STANDARD	**BLANK = LAMBERTIAN** **BW** Batwing Up **AU** Asymmetric Up

CIRCUITING	FOR INDIVIDUALS	FOR LINEAR RUNS[6, 7]		
		EM		
		EMERGENCY BATTERY PACK	QUANTITY PER RUN[6]	POSITION IN RUN[7]
SS-U/D Separate Switching UPWARDS/DOWNWARDS	**EM**[2] Emergency Battery CEC LISTED **EC** Emergency Circuit	**EC**		
		EMERGENCY CIRCUIT	QUANTITY PER RUN[6]	POSITION IN RUN[7]

OPTIONS NOTES

4 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.

5 Consult factory for component or system not listed.

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

7 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**=Ender;
Ex: 2SID-24-HU-HD-35-UNV-T1-WH-EM2SJ

2SID SUSPENDED
INDIRECT / DIRECT

Manufactured in the USA | BAA Compliant | BABA Compliant | 10-Year Warranty | Standard 90+ CRI | Batwing Distribution | Sure-Fit Alignment | Hidden Connect

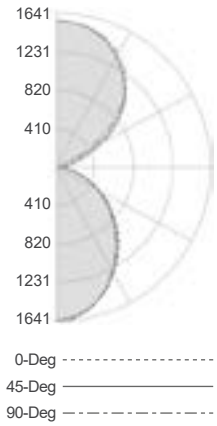
PHOTOMETRICS & ENERGY CHARTS

2SID-04-HU-HD-35-UNV-XX-C90

Total Lumens: 8,088
Ratio: 50% Up & 50% Down
Wattage: 61.52
Efficacy: 131.0 LM/W
Fixture Length: Four Feet

Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1206.8	14.9
0 - 40	1923.4	23.8
0 - 60	3247.4	40.2
0 - 90	4054.6	50.1
90 - 180	4033.0	49.9
0 - 180	8087.6	100.0



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

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	19.3	17.2	14.7	12.2	10.1
Lumens/ft	2550	2302	2067	1780	1538
LPW	132.1	134.2	140.4	145.9	152.3

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	14.6	12.5	10.0	7.5	5.4
Lumens/ft	1773	1524	1290	1003	761
LPW	121.4	122.4	128.6	133.7	140.8

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	17.5	15.4	13.0	10.4	8.3
Lumens/ft	2270	2022	1787	1500	1258
LPW	129.5	131.5	138.0	143.8	151.0

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	13.2	11.0	8.6	6.1	4.0
Lumens/ft	1524	1276	1041	754	512
LPW	115.9	116.0	121.4	124.6	129.6

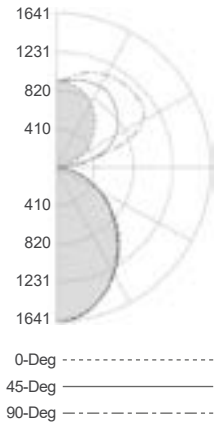
	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	16.0	13.8	11.4	8.9	6.8
Lumens/ft	2004	1755	1521	1234	992
LPW	125.4	126.9	133.3	138.9	146.2

2SID-04-HU-HD-35-UNV-XX-C90-BW

Total Lumens: 7,928
Ratio: 50% Up & 50% Down
Wattage: 61.52
Efficacy: 129.0 LM/W
Fixture Length: Four Feet

Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1206.8	15.2
0 - 40	1923.4	24.3
0 - 60	3247.4	41.0
0 - 90	4054.7	51.1
90 - 180	3873.5	48.9
0 - 180	7928.2	100.0



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

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	19.3	17.2	14.7	12.2	10.1
Lumens/ft	2499	2251	2016	1729	1487
LPW	129.5	131.2	136.9	141.7	147.2

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	14.6	12.5	10.0	7.5	5.4
Lumens/ft	1752	1504	1269	982	740
LPW	120.0	120.8	126.6	131.0	137.1

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	17.5	15.4	13.0	10.4	8.3
Lumens/ft	2230	1982	1747	1460	1218
LPW	127.2	128.9	134.9	140.0	146.2

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	13.2	11.0	8.6	6.1	4.0
Lumens/ft	1513	1265	1030	743	501
LPW	115.1	115.0	120.2	122.9	126.9

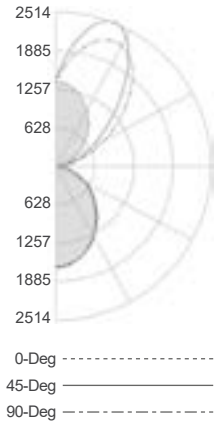
	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	16.0	13.8	11.4	8.9	6.8
Lumens/ft	1974	1726	1491	1204	962
LPW	123.5	124.8	130.7	135.6	141.9

2SID-04-HU-HD-35-UNV-XX-C90-AU

Total Lumens: 7,939
Ratio: 50% Up & 50% Down
Wattage: 61.52
Efficacy: 129.0 LM/W
Fixture Length: Four Feet

Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1206.8	15.2
0 - 40	1923.4	24.2
0 - 60	3247.4	40.9
0 - 90	4054.6	51.1
90 - 180	3884.0	48.9
0 - 180	7938.6	100.0



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

	VHU-VHD	VHU-HD	VHU-MD	VHU-LD	VHU-VLD
Watts/ft	19.3	17.2	14.7	12.2	10.1
Lumens/ft	2502	2254	2019	1732	1490
LPW	129.7	131.4	137.1	142.0	147.6

	LU-VHD	LU-HD	LU-MD	LU-LD	LU-VLD
Watts/ft	14.6	12.5	10.0	7.5	5.4
Lumens/ft	1754	1505	1271	984	742
LPW	120.1	120.9	126.7	131.2	137.3

	HU-VHD	HU-HD	HU-MD	HU-LD	HU-VLD
Watts/ft	17.5	15.4	13.0	10.4	8.3
Lumens/ft	2233	1985	1750	1463	1221
LPW	127.4	129.0	135.1	140.3	146.6

	VLU-VHD	VLU-HD	VLU-MD	VLU-LD	VLU-VLD
Watts/ft	13.2	11.0	8.6	6.1	4.0
Lumens/ft	1514	1266	1031	744	502
LPW	115.1	115.1	120.2	123.0	127.1

	MU-VHD	MU-HD	MU-MD	MU-LD	MU-VLD
Watts/ft	16.0	13.8	11.4	8.9	6.8
Lumens/ft	1976	1728	1493	1206	964
LPW	123.7	124.9	130.9	135.8	142.2

Lumen Adjustment Calculations

LUMEN MULTIPLIERS	
3000K	0.995
3500K	1.000
4000K	1.023

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

Total Light Output: 7148 x 0.995 = 7112 lm
Total Light Output Per Foot: 1787 x 0.995 = 1778 lm/ft
Efficacy = 1778 / 13.0 = 136.7 lm/W

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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 2SID is available in a minimum 2-foot (nominal) length with additional 1-foot increments available (±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 2SID 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 ¼-20 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 2SID 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 2SID 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 2SID 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 25ºC 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.

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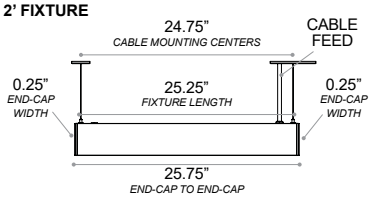
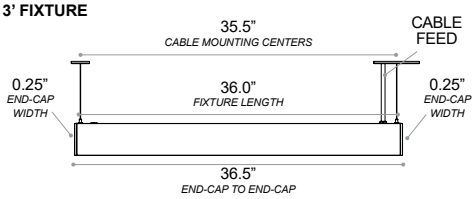
Manufactured in the USA | BAA Compliant | BABA Compliant | 10-Year Warranty | Standard 90+ CRI | Batwing Distribution | Sure-Fit Alignment | Hidden Connect

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

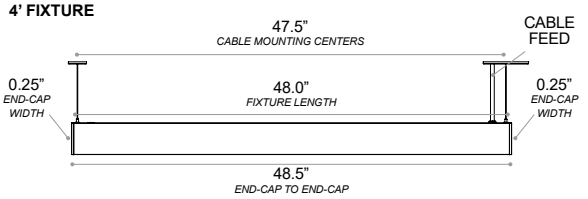
2' FIXTURE



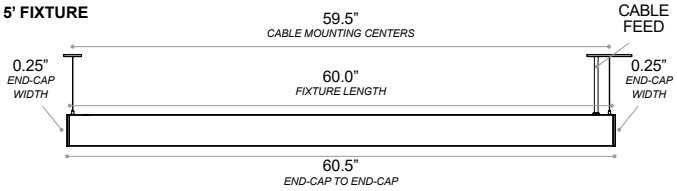
3' FIXTURE



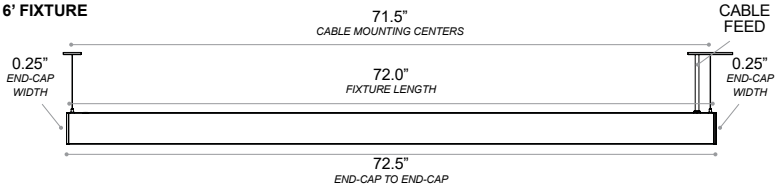
4' FIXTURE



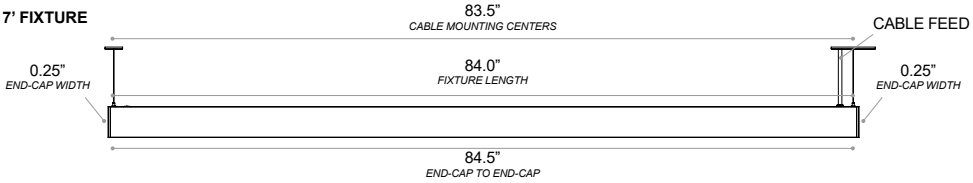
5' FIXTURE



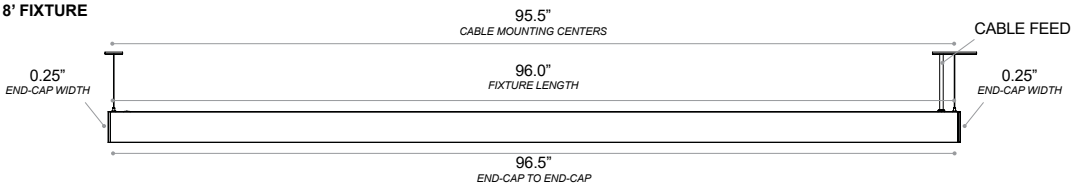
6' FIXTURE



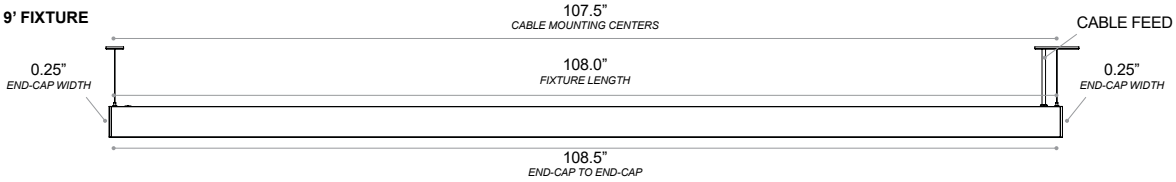
7' FIXTURE



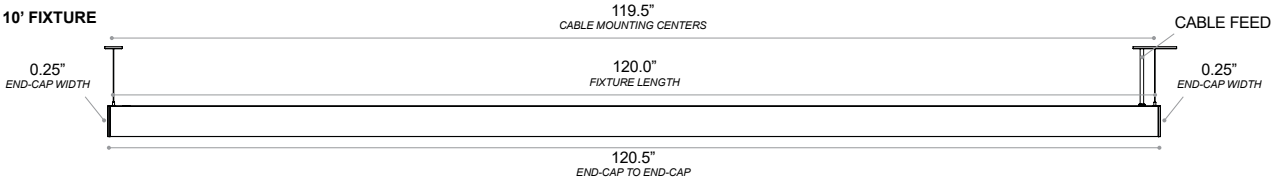
8' FIXTURE



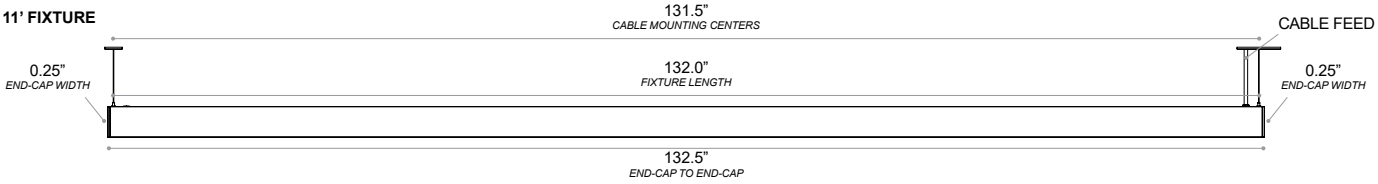
9' FIXTURE



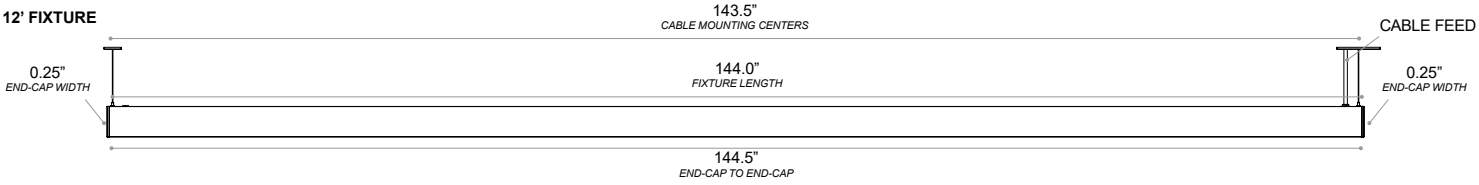
10' FIXTURE



11' FIXTURE



12' FIXTURE



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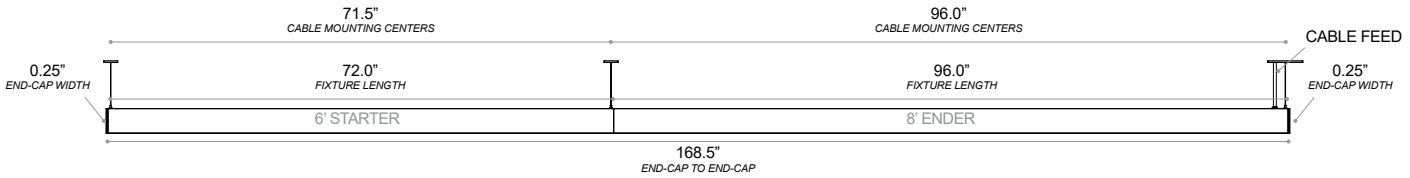
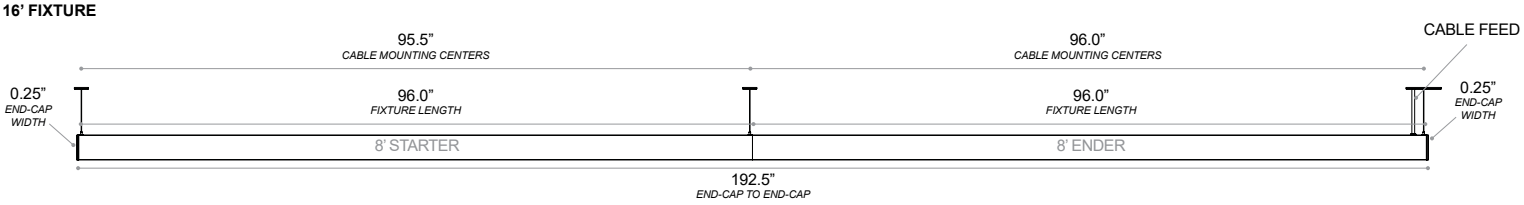
Fixture Row Layout: Two Units 14' - 16'

14' FIXTURE

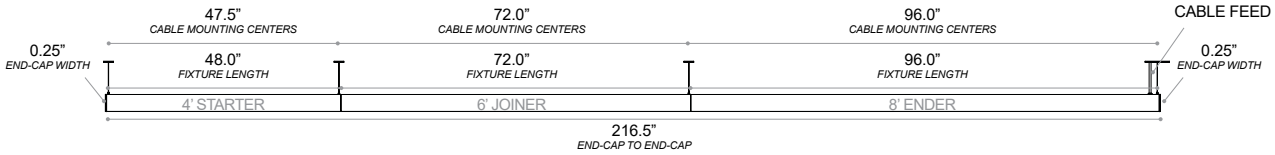


16' FIXTURE

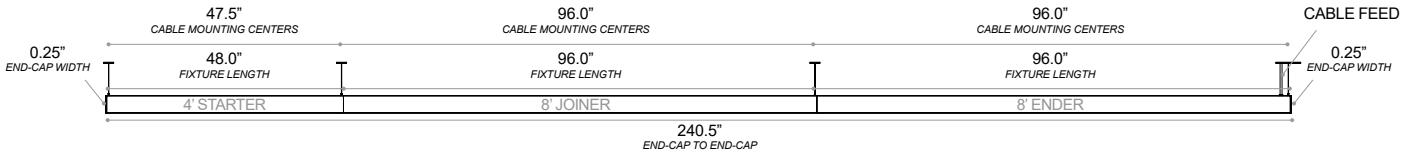


FIXTURE ROW LAYOUT: THREE UNITS 18' - 20' - 22' - 24'

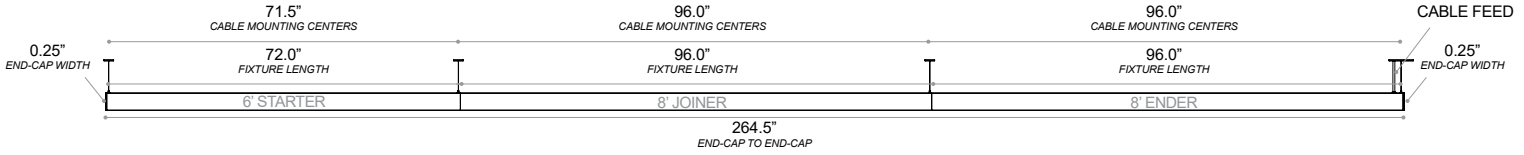
18' FIXTURE



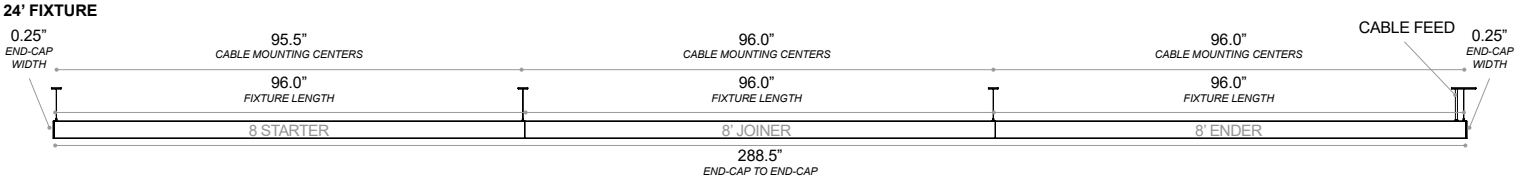
20' FIXTURE



22' FIXTURE



24' FIXTURE



2SID SUSPENDED
INDIRECT / DIRECT

Lumato
Light Without Boundaries

Manufactured in the USA | BAA Compliant | BABA Compliant | 10-Year Warranty | Standard 90+ CRI | Batwing Distribution | Sure-Fit Alignment | Hidden Connect

Fixture Row Components

RUN LENGTH	FIXTURE LENGTHS									JOINER	FEED KITS	HANGER KITS	END-CAP TO END-CAP
	STARTER	JOINER							ENDER				
	1	2	3	4	5	6	7	8	9				
13’	5’	-	-	-	-	-	-	-	8’	1	1	2	156.5”
14’	6’	-	-	-	-	-	-	-	8’	1	1	2	168.5”
15’	7’	-	-	-	-	-	-	-	8’	1	1	2	180.5”
16’	8’	-	-	-	-	-	-	-	8’	1	1	2	192.5”
17’	3’	6’	-	-	-	-	-	-	8’	2	1	3	204.5”
18’	4’	6’	-	-	-	-	-	-	8’	2	1	3	216.5”
19’	5’	6’	-	-	-	-	-	-	8’	2	1	3	228.5”
20’	4’	8’	-	-	-	-	-	-	8’	2	1	3	240.5”
21’	5’	8’	-	-	-	-	-	-	8’	2	1	3	252.5”
22’	6’	8’	-	-	-	-	-	-	8’	2	1	3	264.5”
23’	7’	8’	-	-	-	-	-	-	8’	2	1	3	276.5”
24’	8’	8’	-	-	-	-	-	-	8’	2	1	3	288.5”
25’	5’	6’	6’	-	-	-	-	-	8’	3	1	4	300.5”
26’	4’	6’	8’	-	-	-	-	-	8’	3	1	4	312.5”
27’	5’	6’	8’	-	-	-	-	-	8’	3	1	4	324.5”
28’	4’	8’	8’	-	-	-	-	-	8’	3	1	4	336.5”
29’	5’	8’	8’	-	-	-	-	-	8’	3	1	4	348.5”
30’	6’	8’	8’	-	-	-	-	-	8’	3	1	4	360.5”
31’	7’	8’	8’	-	-	-	-	-	8’	3	1	4	372.5”
32’	8’	8’	8’	-	-	-	-	-	8’	3	1	4	384.5”
33’	5’	6’	6’	8’	-	-	-	-	8’	4	1	5	396.5”
34’	4’	6’	8’	8’	-	-	-	-	8’	4	1	5	408.5”
35’	5’	6’	8’	8’	-	-	-	-	8’	4	1	5	420.5”
36’	4’	8’	8’	8’	-	-	-	-	8’	4	1	5	432.5”
37’	5’	8’	8’	8’	-	-	-	-	8’	4	1	5	444.5”
38’	6’	8’	8’	8’	-	-	-	-	8’	4	1	5	456.5”
39’	7’	8’	8’	8’	-	-	-	-	8’	4	1	5	468.5”
40’	8’	8’	8’	8’	-	-	-	-	8’	4	1	5	480.5”
41’	5’	6’	6’	8’	8’	-	-	-	8’	5	1	6	492.5”
42’	4’	6’	8’	8’	8’	-	-	-	8’	5	1	6	504.5”
43’	5’	6’	8’	8’	8’	-	-	-	8’	5	1	6	516.5”
44’	4’	8’	8’	8’	8’	-	-	-	8’	5	1	6	528.5”
45’	5’	8’	8’	8’	8’	-	-	-	8’	5	1	6	540.5”
46’	6’	8’	8’	8’	8’	-	-	-	8’	5	1	6	552.5”
47’	7’	8’	8’	8’	8’	-	-	-	8’	5	1	6	564.5”
48’	8’	8’	8’	8’	8’	-	-	-	8’	5	1	6	576.5”
49’	5’	6’	6’	8’	8’	8’	-	-	8’	6	1	7	588.5”
50’	4’	6’	8’	8’	8’	8’	-	-	8’	6	1	7	600.5”
51’	5’	6’	8’	8’	8’	8’	-	-	8’	6	1	7	612.5”
52’	4’	8’	8’	8’	8’	8’	-	-	8’	6	1	7	624.5”
53’	5’	8’	8’	8’	8’	8’	-	-	8’	6	1	7	636.5”
54’	6’	8’	8’	8’	8’	8’	-	-	8’	6	1	7	648.5”
55’	7’	8’	8’	8’	8’	8’	-	-	8’	6	1	7	660.5”
56’	8’	8’	8’	8’	8’	8’	-	-	8’	6	1	7	672.5”
57’	5’	6’	6’	8’	8’	8’	8’	-	8’	7	1	8	684.5”
58’	4’	6’	8’	8’	8’	8’	8’	-	8’	7	1	8	696.5”
59’	5’	6’	8’	8’	8’	8’	8’	-	8’	7	1	8	708.5”
60’	4’	8’	8’	8’	8’	8’	8’	-	8’	7	1	8	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”