

# LINEAR<sup>SERIES</sup>



DATE

PROJECT

COMMENTS

CERTIFICATIONS



## SQ2 SUSPENDED DIRECT

FEATURES

### OPTICAL SYSTEM

#### 1. VERSATILE LIGHT ENGINE

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

#### 2. SEAMLESS, HIGH EFFICIENCY LIGHT DIFFUSER

Seamless, roll-in lens eliminates light leaks, minimizes glare, and provides uniform light distribution.

### HOUSING

#### 3. HIDDEN CONNECT

Recessed connection point between cable and fixture eliminates the visibility of hardware.

#### 4. SURE-FIT ALIGNMENT

Full-body alignment system adjoins each luminaire section to ensure straighter rows while minimizing the appearance of seams.

### ELECTRICAL

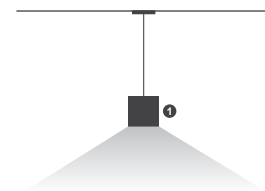
#### 5. EFFICACY

Luminaire efficacy up to 111 lumens per watt helps achieve Best in Class power density performance.

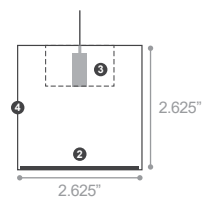
### DIMMING

#### 6. VOLT DIMMING TO 1% STANDARD

LIGHT DISTRIBUTION



CROSS-SECTION



SAMPLE PART NUMBER: SQ2-D-24-MD-30-UNV-T1-WH

ORDERING

SERIES	LENGTH <sup>1</sup>	OUTPUT	CCT	VOLTAGE	MOUNTING	FINISH	ORDERING NOTES
SQ2-D	XX FT	VHD 1250 LM/FT	30 3000K	UNV 120-277V	T1 1" T-Grid	WH White	1 Nominal length
	2' Increments EX: 20' FT = 20	HD 1000 LM/FT	35 3500K	347 <sup>2</sup> 347V	T9 9/16" T-Grid	BLK Black	2 EM not available with 347V
		MD 750 LM/FT	40 4000K		SC Screw Slot Grid	S Silver	3 For cable lengths longer than 144", consult factory
		LD 500 LM/FT			HC Hard Ceiling	GR CHARCOAL Gray	4 EM and sensors are not available with 2' and 3' fixtures.
		VLD 250 LM/FT			JB Junction Box		
		CD Custom					

OPTIONS

CRI	SUSPENSION <sup>3</sup>	INTEGRATED CONTROLS <sup>4, 5, 6</sup>	FOR INDIVIDUALS	FOR LINEAR RUNS <sup>7, 8</sup>
BLANK = 80 CRI	BLANK = 48" CABLE	DOS Daylight Occupancy Sensor DALI DRIVER STANDARD	EM <sup>2, 4</sup> Emergency Battery CEC LISTED	EM EMERGENCY BATTERY PACK
C90 90 CRI	CB96 96" Cable		EC Emergency Circuit	EC EMERGENCY CIRCUIT
	CB144 144" Cables			QUANTITY PER RUN <sup>7</sup>
	BC Black Canopy & Cord			POSITION IN RUN <sup>8</sup>

### OPTIONS NOTES

5 Consult factory for component or system not listed.

6 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).

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

8 EM and EC position refers to which fixture in the run that will be powered by the EM/EC circuit.

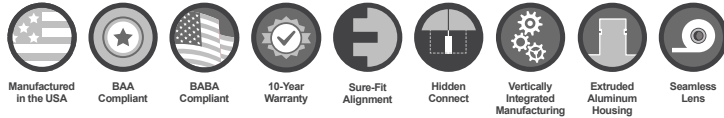
Position Options: S = Starter; J = Joiner; E = Ender

Ex: SQ2-D-24-MD-30-UNV-T1-WH-EM2SJ



# SQ2 SUSPENDED

## DIRECT



### PHOTOMETRICS & ENERGY CHARTS

#### SQ2-D-04-HD-35

Total Lumens: 3957

Ratio: 0% Up and 100% Down

Wattage: 37.2

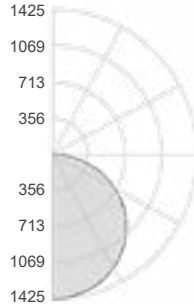
Efficacy: 106 LM/W

Fixture Length: Four Feet

#### Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	1084.3	27.4
0 - 40	1765.9	44.6
0 - 60	3099.0	78.3
0 - 90	3956.3	100.0
90 - 180	0.3	0.0
0 - 180	3956.6	100.0

0-Deg	-----	713
45-Deg	-----	1069
90-Deg	-----	1425



#### Direct (Lambertian) Light, 3500K

	VHD:1250	HD:1000	MD:750	LD:500	VLD:250
Watts/ft	11.9	9.3	6.9	4.6	2.4
Lumens/ft	1237	989.25	742	498	261
LPW	103.9	106.4	107.5	108.3	111.1

#### Lumen Adjustment Calculations

LUMEN MULTIPLIERS	
3000K	0.989
4000K	1.042

#### Example: MD, 3000K at 90CRI

Light Output:  $2968 \times 0.989 = 2935 \text{ lm}$   
 Light Output/ft:  $742 \times 0.989 = 734 \text{ lm/ft}$   
 Efficacy =  $734 / 6.9 = 106.3 \text{ lm/w}$

### SPECIFICATIONS

## MECHANICAL

### Housing Construction:

Extruded aluminum 6063-T5 alloy outer housing with die-formed steel internal components for strength, alignment, and mounting attachment.

### Alignment/Assembly:

The Sure-Fit alignment system employs a full height joining biscuit, designed to create straighter rows and eliminate light leak at fixture seams. Two nuts are used to draw fixtures together to secure housing-to-housing attachment.

### Lengths:

The SQ2 is available in individual 2-foot (25.25"), 4-foot (48"), 6-foot (72"), 8-foot (96"), 10-foot (120"), and 12-foot (144") lengths ( $\pm 0.030"$ ). Longer fixture rows are available and will be configured per Lumato factory specifications; typical rows are configured with 8-foot fixtures. 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. Each end cap adds 5/16" to the length of each fixture run.

### 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 canopy provided. All Lumato suspension hardware is tested and listed to UL1598 requirements for loading/fixture support.

### 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. Ceiling type options are "T1" = T-Grid, "T9" = T-Grid, "SC" = Screw Slot Grid, "HC" = Hard Ceiling or "JB" = J-Box mount.

### Fixture Finish:

The SQ2 fixture finish is available in White, Black, Silver or Charcoal Gray polyester powder coat finish to ensure durability. Luminaires are available in any RAL color as an option.

### Integrated Controls:

The SQ2 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 SQ2 is available in 3000K, 3500K, and 4000K CCT all within a 3-Step MacAdam Ellipse and has a standard CRI of 80+ with a 90+ CRI option available. Longer lead-times may apply for 90 CRI. Consult factory.

### Optics:

Our frosted acrylic roll in lens is designed to maximize efficiency while minimizing glare and eliminating light leaks at fixture joints. Individual fixtures come with lens factory installed while continuous runs will have a separate lens kit installed in the field once the run is hung. This will allow for a continuous/seamless lens up to 100'.

### Electrical:

Class 2 programmable (factory pre-set) premium power supply, 120-277VAC input or 347V. Power factor  $>0.9$  THD $<15\%$ . Integral Surge Protection to 2KV.

### Dimming:

The SQ2 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, 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 (L85) at 50,000 hours of operation, operated at 25°C ambient temperatures; per TM-21 Guidelines published by the Illuminated Engineering Society (IES).

### Certification:

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

### Manufactured in the USA:

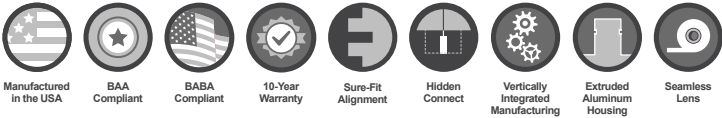
All Lumato luminaires and components (with the exception of our LED boards and drivers) are proudly manufactured and assembled in the USA.

### Shipping:

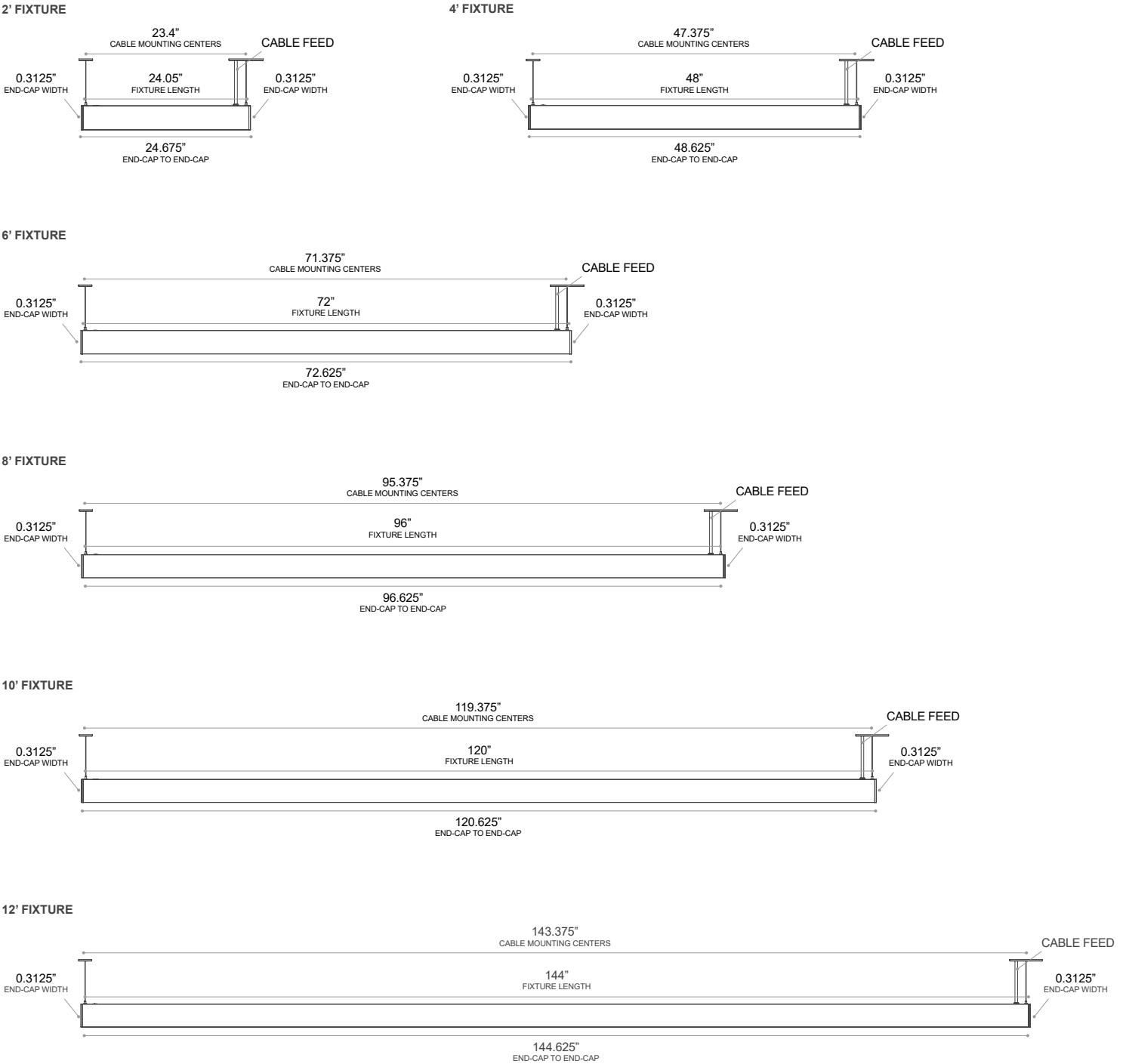
4 week lead-time for orders up to 1000 linear feet.

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

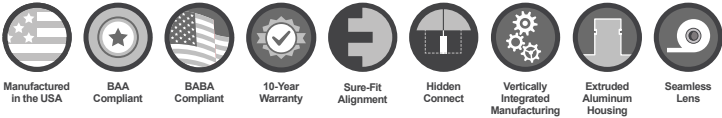
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FIXTURE ROW LAYOUT: SINGLE UNIT 2' - 4' - 6' - 8' - 10' - 12'



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FIXTURE ROW COMPONENTS

RUN LENGTH (FT)	FIXTURE LENGTHS									JOINER KITS	FEED KITS	HANGER KITS	END-CAP TO END-CAP	
	STARTER	JOINER												ENDER
	1	2	3	4	5	6	7	8	9					
14	6'	-	-	-	-	-	-	-	8'	1	1	2	168.625"	
16	8'	-	-	-	-	-	-	-	8'	1	1	2	192.625"	
18	4'	6'	-	-	-	-	-	-	8'	2	1	3	216.625"	
20	4'	8'	-	-	-	-	-	-	8'	2	1	3	240.625"	
22	6'	8'	-	-	-	-	-	-	8'	2	1	3	264.625"	
24	8'	8'	-	-	-	-	-	-	8'	2	1	3	288.625"	
26	4'	6'	8'	-	-	-	-	-	8'	3	1	4	312.625"	
28	4'	8'	8'	-	-	-	-	-	8'	3	1	4	336.625"	
30	6'	8'	8'	-	-	-	-	-	8'	3	1	4	360.625"	
32	8'	8'	8'	-	-	-	-	-	8'	3	1	4	384.625"	
34	4'	6'	8'	8'	-	-	-	-	8'	4	1	5	408.625"	
36	4'	8'	8'	8'	-	-	-	-	8'	4	1	5	432.625"	
38	6'	8'	8'	8'	-	-	-	-	8'	4	1	5	456.625"	
40	8'	8'	8'	8'	-	-	-	-	8'	4	1	5	480.625"	
42	4'	6'	8'	8'	8'	-	-	-	8'	5	1	6	504.625"	
44	4'	8'	8'	8'	8'	-	-	-	8'	5	1	6	528.625"	
46	6'	8'	8'	8'	8'	-	-	-	8'	5	1	6	552.625"	
48	8'	8'	8'	8'	8'	-	-	-	8'	5	1	6	576.625"	
50	4'	6'	8'	8'	8'	8'	-	-	8'	6	1	7	600.625"	
52	4'	8'	8'	8'	8'	8'	-	-	8'	6	1	7	624.625"	
54	6'	8'	8'	8'	8'	8'	-	-	8'	6	1	7	648.625"	
56	8'	8'	8'	8'	8'	8'	-	-	8'	6	1	7	672.625"	
58	4'	6'	8'	8'	8'	8'	8'	-	8'	7	1	8	696.625"	
60	4'	8'	8'	8'	8'	8'	8'	-	8'	7	1	8	720.625"	
62	6'	8'	8'	8'	8'	8'	8'	-	8'	7	1	8	744.625"	
64	8'	8'	8'	8'	8'	8'	8'	-	8'	7	1	8	768.625"	
66	4'	6'	8'	8'	8'	8'	8'	8'	8'	8	1	9	792.625"	
68	4'	8'	8'	8'	8'	8'	8'	8'	8'	8	1	9	816.625"	
70	6'	8'	8'	8'	8'	8'	8'	8'	8'	8	1	9	840.625"	
72	8'	8'	8'	8'	8'	8'	8'	8'	8'	8	1	9	864.625"	

	FIXTURE LENGTH	MOUNTING CENTERS	
	STARTER	STARTER	JOINER / ENDER
4'	48.0"	47.375"	-
6'	72.0"	71.375"	72.0"
8'	96.0"	95.375"	96.0"

