

# 2L-P-D

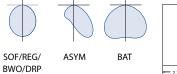
## MOD™ 2 LED Pendant Direct

Fixture Type: Project Name:

### Ordering Guide

Feature	Code	Options	Description
Series		2L	MOD
Mounting		Р	Pendant
Fixture distribution		D AD	Direct Asymmetric Direct
Row length (in feet)		'	Enter in foot increments. Note fixture lengths below.
Max length in row		02 03 04 05 06 08	2', 609mm 3', 914mm 4', 1219mm 5', 1524mm 6', 1829mm 8', 2438mm
Downlight diffuser		SOF REG BWO ASYM BAT DRP	Soft Diffuse Lens Regressed Diffuse Lens* Blade Baffle with Overlay* Asymmetric Diffuser Lens*/** Batwing Lens Drop Lens*+ *Not Available with Patterns **Must be ordered with AD
Finish/Color		C1 C2 C3 C4 C5 C6	Matte White (Default) Textured Matte White Light Silver Machined Aluminum Carbon Black Textured Camera Black Custom Color
Color temperature		27K 30K 35K 40K 50K 27K9 30K9 35K9 40K9 50K9 2230TD 2750T 2765T	2700K <sup>+</sup> 3000K 3500K 4000K 5000K <sup>+</sup> 2700K, 90 CRI <sup>+</sup> 3000K, 90 CRI 3500K, 90 CRI 4000K, 90 CRI 5000K, 90 CRI 2200K-3000K SpectraSync™ Dim-to-Warm* 2700K-5000K SpectraSync™ Tunable White* 2700K-6500K SpectraSync™ Tunable White* *Must be ordered with D05 Driver option; excludes 2' lengths and patterns
<b>Direct output/ft</b> (specifiable in 50 lumens/ft increments)		D030 D100	300 1000





## Key Features

- Variable Intensity technology provides specifiable lumen output/wattage
- End cap design eliminates visible diffuser seams/gaps
- 2 SDCM color variation

### Performance

Nomenclature	Lumens/ft	W/ft	Efficacy	
D030 (min)	300	2.9	102	
D050	500	5.2	96	
D085	850	8.6	99	
D100 (max)	1100	12.1	91	
(wattage may vary up to 5% from published)				

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<sup>&</sup>lt;sup>+</sup>Additional lead time may be applicable. Contact factory.



# 2L-P-D

## MOD™ 2 LED Pendant Direct

## Ordering Guide (continued)

		•	
Driver		NDM D05 D01 DS1 D00 DS0 LEC DALI DALIP	Non Dimming 5% Dimming, 0-10V* 1% Dimming, 0-10V Soft-Start 1% Dimming, 0-10V Dim-to-off (1%), 0-10V Soft-Start Dim-to-off (1%), 0-10V Hi-lume 1% EcoSystem LED driver DALI† Powered DALI (2.0)† *Must be ordered with 2230TD, 2750T or 2765T Option
Circuiting		1C	1 Circuit
Voltage		UNV 347	Universal Voltage (120V through 277V) 347 Volt** *Excludes Emergency Battery Pack 'EF' Option. Excludes DALI, DALIP and Lutron (LEC) Dimming Drivers
Suspension kit*		FA1 FA2 FA3 FA4	Suspension Kit, 51" Suspension Kit, 87" Suspension Kit, 219" Suspension Kit, 363" * Add suffix /V to replace all 2" non-feed canopy covers with 5" canopy covers. FA1/V = 51" suspension kit w/ 5" canopies; canopies and feed cord are supplied in white regardless of fixture color unless otherwise specified
Optional Features	Code	Options	Description
Nightlight		NL	Nightlight Circuit Required. Enter quantity. 2NL = 2 nightlight circuits/row
Emergency		EF	10W Emergency Battery Backup. Enter quantity. 2EF = 2 Emergency batteries/row. See Details for restrictions.
Thru-wiring		W1 W2 W3	No Thru Wire Provide Normal and Emergency/Nightlight Thru Wiring* Provide Normal Thru Wiring Only *Only applicable when specified with Emergency/Nightlight
Patterns**		C90L C120L C135L CNL TNL XNL VNL YNL	Illuminated 90° corner Illuminated 120° corner Illuminated 135° corner Non-Illuminated Square 90° Connector Non-Illuminated Square T Connector Non-Illuminated Square X Connector Non-Illuminated Triangle 120° Connector Non-Illuminated Triangle Y Connector *Contact factory for pattern configurations Approval drawings required. See page 5.
T-Bar Clips*		CB1 CB2 CB3	T-bar clip - 15/16" T-bar clip - 9/16" T-bar clip - 9/16" SS

 $<sup>^{\</sup>scriptscriptstyle +}\text{Additional}$  lead time may be applicable. Contact factory.



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## Ordering Guide (continued)

Control Options	Code	Options	Description
NX*+		NXE NXWE NXES NXS NXSW NXSW NXWD NXSWD	NX Enabled, Dual SmartPorts NX Wireless Enabled NX Enabled, Dual SmartPorts, PIR Occupancy Sensor, Dimming Daylight Harvesting NX, PIR Occupancy Sensor, Dimming Daylight Harvesting (standalone) NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting NX Wireless Enabled, Dual SmartPORTs NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, Dual SmartPORTs *Not available for row mounting; Only available with 0-10V Driver options; Contact factory for Length restrictions *Only available in 4'+
Sensors*+		SD1 SO1	Daylight Sensor Required. Enter quantity. 2SD1= 2 daylight sensors/row Occupancy Sensor Required. Enter quantity. 2SO1= 2 occupancy sensors/row *Only available in 4'+

 $<sup>^{\</sup>scriptscriptstyle +}\text{Additional}$  lead time may be applicable. Contact factory.

### **Output Restrictions**

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Driver options listed below are not available for the output and length as shown

	trictions-	Output									
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Direct	300	350	400	450	500	950	1000			
	2	LEC, DALI, 347V	LEC, DALI, 347V	DALI, 347V	DALI, 347V	DALI, 347V	LEC	LEC			
	3	DALI, 347V	DALI, 347V				LEC	LEC			
Length (feet)	4						LEC	LEC			
Length	5						LEC	LEC			
	6						LEC	LEC			
	8						LEC	LEC			





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### Details

### Construction:

Housing-extruded aluminum with extruded aluminum end headers/row ioining brackets.

End caps- Die cast aluminum with magnetic interface. Overlaps diffuser at each fixture end to eliminate gaps/ LED visibility

### **Downlight diffuser:**

SOF-Soft diffuse acrylic lens.

REG- 1/2" regressed softglo lens with painted steel inserts. Output multiplier (.77) BWO- White blade baffle with softglo lens overlay. Output multiplier (.70) ASYM- Highly transmissive diffuse acrylic lens with linear prisms. BAT- Highly transmissive diffuse acrylic lens with linear prisms.

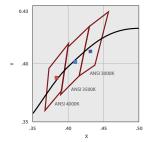
DRP- 1/2" protruding soft diffuse lens.

Please see the installation instruction sheets for more details.

#### Finish/Color:

Visit www.litecontrol.com/finishes for details.

27K-2700K output multiplier (0.95) 30K-3000K output multiplier (0.98) 35K-3500K output multiplier (1.00)\* 40K-4000K output multiplier (1.03) 50K-5000K output multiplier (1.05) 27K9-2700K 90 CRI output multiplier (0.83) 30K9-3000K 90 CRI output multiplier (0.85) 35K9-3500K 90 CRI output multiplier (0.88) 40K9-4000K 90 CRI output multiplier (0.90) 50K9-5000K 90 CRI output multiplier (0.93)



\*Scale all values from 35K

### **Color Variation:**

2 step MacAdam ellipse

### Driver:\*

NDM: Non-dimming. Fixture will be wired for fixed light output. D05: Osram 100%-5% dimming range. Fixture will be wired for low voltage 0-10V dimming control. Only applicable if either 2230TD,

2750T or 2765T is selected.

100%-1% dimming range. Fixture will be wired for low voltage D01:

0-10V dimming control.

Soft-Start 100%-1% dimming range. Fixture will be wired for low DS1:

voltage 0-10V dimming control.

D00: Dim-to-off 100%-1% Dimming range. Fixture will be wired for low

voltage 0-10V dimming.

DS0: Soft-Start Dim-to-off 100%-1% dimming range. Fixture will be

wired for low voltage 0-10V dimming control.

I FC: Hi-Lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black

dimming technology.

DALI compatible. DALI:

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Self-Powered DALI bus (e.g. DEXAL) \*See driver limitations in Output Restrictions above.

### Output (VI technology):

Variable Intensity (VI) technology allows precise specification of fixture output/wattage. Fixture will be programmed and labeled to specification. Indirect and direct hemispheres can be independently specified. Specify each in 50 lumen increments/ft within the below range

Lumens/ft Nomenclature

Direct

Min: D030 300 Max: 1000 D100

### **Field Accessibility:**

LED boards and drivers can be accessed and removed from fixture, while installed. Entire LED module can be removed and replaced.

#### Circuitina:

1C (1 Circuit) Fixture wired for a single circuit.

### **Suspension Kit:**

3/64" diameter field-adjustable aircraft cable. Ships separately. Suspension required at every row joint. Low profile cable gripper limits visibility while providing maximum horizontal balance adjustment.

#### Canopy covers:

Non-feed-2" diameter (unless 5" non-feed cover is specified).

#### Feed cord:

4-wire, 7 amps max; 5-wire, 5 amps max.

See separate LC-Nightlight spec sheet for additional details.

#### **Emergency:**

EF - 10W battery powered driver.

Provides a minimum of 90 minutes of emergency lighting. Inverter-Compatible. Provided by others.

Available in 4'+' fixtures.

## NX Distributed Intelligence: NX DISTRIBUTED INTELLIGENCE

Supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments and enabled emerging applications, such as Hubbell Lighting's SpectraSync™ Color Tuning Technology.

See separate NX Application Guide for additional details.

See Hubbell Controls Solution NX Brochure.

### Sensors:

SD1: Daylight sensor(Wattstopper part #FD301). Installs between

diffusers.

SO1: Occupancy sensor(Wattstopper FS-305 with FS-L6 lens). Installs

between diffusers.

NX: NX Sensors installs between diffusers.

See separate Control Options Guide for additional details.

## SpectraSync™ Color Tuning Technology: SpectraSync

Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with two distinct SpectraSync™ Color Tuning Technology.

Dim to Warm: Dim to Warm mimics the familiar warming effect that

occurs with traditional incandescent sources as they are

dimmed. (Available with 2200K-3000K).

Tunable White: Tunable White offers users the ability to tailor CCT to

their personal preference, enhancing task visibility, material and colors or the aesthetics of the space. (Available with 2700K-5000K or 2700K-6500K).

See separate <u>SpectraSync™ Tech Sheet</u> for additional details. See separate NX™ Solutions Guide for additional details.











### Details (continued)

### Thru wiring:

See separate LC-Thruwire spec sheet for additional details.

### **Luminaire Canopy Box:**

See separate <u>LC instructions</u> for additional details \*For use with Grid Ceilings only

### T-Bar Clips:

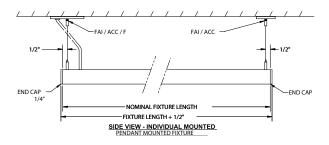
See separate <u>LC instructions</u> for additional details \*For use with Grid Ceilings only

### Planning for installation:

Suspension Mounting Locations

Pendant locations at ends of rows (or individual fixtures) are 1/2" from fixture ends. Pendant attachment allows for horizontal adjustment to "finetune" side-to-side leveling.

### **Fixture Mounting**



### **System Connectors:**

 $90^{\circ}$ ,  $120^{\circ}$ ,  $135^{\circ}$  illuminated corners available. One piece construction, ready to install, with diffusers that match adjoining fixtures. Corner system connectors must be used to form patterns. The length of each outside or inside lighted corner is 12".

Square and Triangle non-illuminated connectors match fixture width for continuous look.

### Rated Life (LED Board):

Tested in accordance to LM79-2008 & derived from EPA TM-21 calculator L70: >61,000 (reported per TM-21/LM80 6x's limitation)
L90: >61,000 (reported per TM-21/LM80 6x's limitation)
Driver: ≥50,000 hours (5 year Warranty)

### Rated Life (Driver):

Standard = 100,000 hours Lutron = 50,000 hours

### Fixture weight:

3 lbs/ft.

### Ratings:

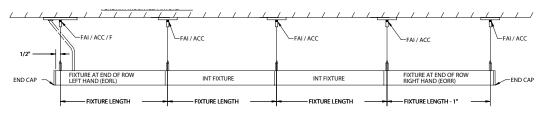
CSA listed for damp locations. IBEW. AF of L. UL924. This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction. Materials under Trade Agreements effective 8/14/2020.

See <u>Buy American Act Solutions</u>. Contact factory for configurations including SpectraSync, EM, NX, or sensors.

### Warranty:

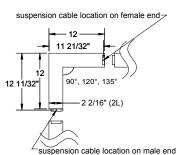
LED Boards- 5 years

LED Drivers (Standard) - 5 years, Lutron - 3 years

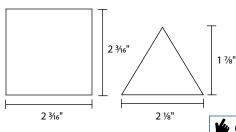


SIDE VIEW - ROW MOUNTED PENDANT MOUNTED FIXTURE

### Patterns:



### **Non-Illuminated Connectors**



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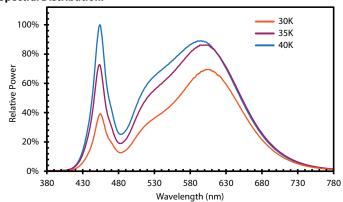


## Details (continued)

### **Color Characteristics:**

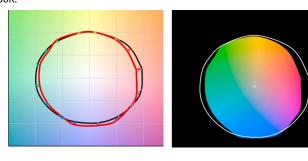
Value	Ordering Code					
value	30K	35K	40K			
Rf	83	82	82			
Rg	96	96	96			
CCT (K)	3009	3494	3975			
Duv	-0.0009	-0.0004	-0.0003			
х	0.435	0.4052	0.3814			
у	0.4012	0.3898	0.3768			
CIE Ra	83	83	84			

### Spectral Distribution:

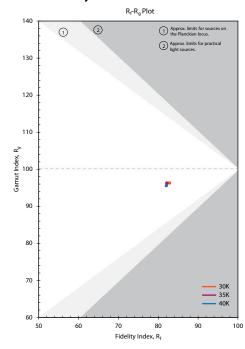


### **Color Vector Graphic:**

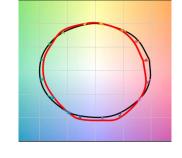
30K:



### **Color Gamut/Fidelity Plot**

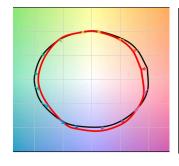








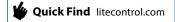
40K:





**CRI:** 80 minimum

	ССТ	CRI	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
	30K	83	82	91	97	81	82	89	84	62	13	79	79	69	84	99
	35K	83	81	89	95	81	81	85	86	65	13	73	79	62	83	97
4	40K	84	82	90	94	82	82	85	87	68	17	74	80	60	84	97





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## Photometry

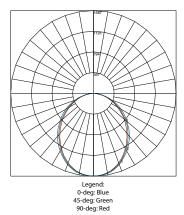
Fixture: 2L-P-D-XX-XX-SOF-CX-35K-D100

**CCT**: 3500K **Output**: D100

Nominal lumens: 1000 lumens/ft

Efficacy: 95 lm/W

Test report:2L-P-D-4-SOF-X-CX-35K-D100.IES



Zonal Lumens					
Zone	Lumens	Lamp %			
0-40	1905.97	47.70			
0-60	3229.26	80.70			
0-90	3999.61	100.0			
90-180	0.00	0.00			
0-180	3999.61	100.0			

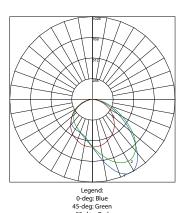
Fixture: 2L-P-AD-XX-XX-ASYM-CX-35K-D050

**CCT**: 3500K **Output**: D050

Nominal lumens: 500 lumens/ft

Efficacy: 82 lm/W

Test report: 2L-P-AD-4-ASYM-X-CX-35K-D050.IES



Zonal Lumens						
Zone	Lumens	Lamp %				
0-40	896.16	44.80				
0-60	1613.68	80.70				
0-90	1999.5	100.0				
90-180	0.46	0.00				
0-180	1999.96	100.0				

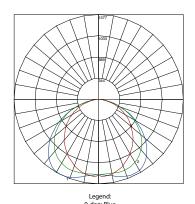
Fixture: 2L-X-D-04-BAT-CX-35K-D100

**CCT**: 3500K **Output**: D100

Nominal lumens: 1000 lumens/ft

Efficacy: 95 lm/W

Test report: 2L-X-D-04-BAT-CX-35K-D100.IES



Zonal Lumens					
Zone	Lumens	Lamp %			
0-40	1744.72	43.6			
0-60	3180.69	79.5			
0-90	3999.29	100.0			
90-180	0	0.0			
0-180	3999.29	100.0			

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## MOD™ 2 LED Pendant Direct

## Photometry (continued)

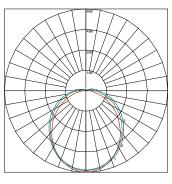
Fixture: 2L-X-D-04-DRP-CX-35K-D050

**CCT**: 3500K **Output**: D050

Nominal lumens: 500 lumens/ft

Efficacy: 95 lm/W

Test report: 2L-X-D-04-DRP-CX-35K-D050.IES



Legend: 0-deg: Blue 45-deg: Green 90-deg: Red

Zonal Lumens						
Zone	Lumens	Lamp %				
0-40	801.88	40.10				
0-60	1408.37	70.40				
0-90	1904.98	95.20				
90-180	94.99	4.70				
0-180	1999.98	100.00				



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