CATALOG #:

DATE:

TYPE:

2L-WS-D

making light work™

FEATURES

- · Variable Intensity technology provides a range of specifiable outputs and resulting fixture wattages
- 2 SDCM color consistency
- · Perimeter mount with 4 regression depths





CONTROLS





MODIX



RELATED PRODUCTS

8 3L-WS-D 8 4L-WS-D 8 6L-WS-D

SPECIFICATIONS

CONSTRUCTION

- · Housing contructed from die-formed and welded steel with wiring knockouts in top
- · End caps constructed from die-formed steel. Installs from below via magnetic interface
- · End caps overlap diffuser at each fixture end to elimate gaps and LED visibility

OPTICAL PERFORMANCE

- · 2 SDCM color consistency, 80 or 90 CRI
- · SOF: Soft diffuse acrylic lens
- · NRW: Highly transmissive diffuse acrylic lens with linear prisms
- · BWO: White blade baffle with softglo lens overlay. Output multiplier (.70)
- · ASYM: Asymmetric Highly transmissive diffuse acrylic lens with linear prisms

INSTALLATION

- · Finish of wall should extend 7" above ceiling. Continuous Fixture Support Rail is provided for ease of installation. Ceiling construction must be supported independently of the lighting. Installations with straight extensions must be specified with wall-to-wall lengths. For optimal spacing from the wall, the amount of light provided will be rounded down to the nearest foot, unless this results in the fixture being < 2" away from the wall
- Ex. A 20'-4" through 21'-3" wall-to-wall length will result in 20' of light. A wall-to-wall length of 20'-3" will produce 19' of light. For recommended wall uniformity, fixture should be between 2-4" from wall. For more precise lighting, 3" increment fixtures are available.
- · LG/NG/SS Mounting: Plenum cover to rest on t-bar
- DW Mounting: Trimless appearance with fixture resting on back of drywall. For non-SE rows, drywall must be "finished" to close off fixture

INSTALLATION (CONTINUED)

- · Patterns: End of row straight extensions allow for adjustability of fixture to be 0.5"-8.5" away from wall. For NRW diffuser option, fixture is recommended to be no less than 2" away from wall. Field cut corner pieces allow for 85-160° inside corners and 70-160° outside corners. See image for further clarification
- · Fixture weight: 3lbs/ft

ELECTRICAL

- · 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
- · Entire LED module can be removed and replaced
- 1C (1 Circuit) Fixture wired for a single circuit

CONTROLS

- · Sensors install between diffusers
- 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

CONTROLS (CONTINUED)

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

CERTIFICATIONS

- · DLC® (DesignLights Consortium) Qualified see www.designlights.org
- · CSA listed for damp location

- 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 Buy American Solutions Contact factory for configurations including SpectraSync, NX, or sensors.

WARRANTY

- · LED boards 5 years
- · LED drivers (standard) 5 years
- · LED drivers (Lutron) 3 years
- · See www.litecontrol.com for details

KEY DATA			
Lumen Range Per Foot	D: 300-850		
Wattage Range Per Foot	2.9-8.6		
Efficacy Range (LPW)	99–102		
Rated Life (Hours)	L70: >61,000 L90: >61,000		





MOD™ 2 LED WALL/SLOT DIRECT

DATE:	LOCATION:
TYPE:	PROJECT:

ORDERING GUIDE Example: 2L-WS0-DW-D-8-.3-08-SOF-C1-27K-D030-D01-1C-UNV-EC CATALOG # 21 Fixture Distribution Series Regressed Depth Ceiling Type 1 Row Length (feet) Row Length Adder (inches) Max Length in Row 2L MOD Wall/Slot perimeter mounted, DW Drvwall Direct Enter in Row length +3' 02 2'. 609 mm flush (trimless finish) ΔD foot 6 Row length +6" **03** 3', 914 mm Asymmetric increments WS2 Wall/Slot perimeter mounted, 15/16 Grid LG Direct Row length +9" **04** 4', 1219 mm 2" regressed depth NG 9/16 Grid Wall/Slot perimeter mounted, 05 5', 1524 mm 9/16 Screw Slot SS 3" regressed depth 06 6'. 1829 mm WS4 Wall/Slot perimeter mounted. 80 8', 2438 mm 4" regressed depth **Direct Optical Distribution** Finish/Color⁴ **Color Temperature** Direct Output/ft⁷ Driver Circuiting D01 Matte White 27K 1% Dimming, 0-10V SOF Soft Diffuse Lens C1 2700K 5 D030 300 (min) 1C 1 Circuit (Default) 30K 3000K D00 1% Dim-to-Off, 0-10V NRW Narrow Beam Textured D05 SpectraSync 5% C2 3500K Grazer Lens (WS2, 35K D085 850 (max) Dimming, 0-10V⁸ Matte White WS3, WS4 only) 40K 4000K DS₁ 1% Dimming w/ C3 Light Silver Blade Baffle with 50K RWO 5000K 5 Soft Start, 0-10V Overlay² C4 Machined 27K9 2700K, 90 CRI5 DS0 1% Dim-to-Off w/ Aluminum ASYM Asymmetric Diffuse 30K9 3000K, 90 CRI Soft Start, 0-10V Lens 2,3 C5 Carbon Black 3500K 90 CRI 35K9 LEC Hi-lume 1% C6 Textured 40K9 4000K, 90 CRI Ecosystem Camera Black 50K9 5000K, 90 CRI 5 LED Driver **CC** Custom Color 2230TD 2200K-3000K SpectraSync™ Dim-to-Warm 6 DALI DALI5 2750T 2700K-5000K SpectraSync™ Tunable White 6 DALIP Powered by DALI (2.0)5 2765T 2700K-6500K SpectraSync™ Tunable White ⁶ NDM Non-Dimmina OPTIONAL

CATALOG #:

Straight Run Termination Chicago Enviromental Air Modification Patterns ^{5, 12} Voltage Universal WSC Wall/Slot End Cap **NL** Nightlight **EF** 10W W1 No Thru Wire CCEA Chicago Enviromental Air Modification Enter quantity. Circuit Emergency Corner, Voltage W2 Provide Normal 2EC = 2 End Caps (120V-277V) 0.5"-8.5" Required. Battery Pack. and Emergency/ Enter Enter quantity. Straight Extension, Nightlight Thru Wiring ¹¹ 347 Volt 5, 9 2EF = 2 quantity. 0.5"-8.5" 2NL = 2 emergency Enter quantity. W3 Provide Normal niahtliaht batteries/ 2SE = 2 Straight row. 10 Thru Wiring Only circuits/row Extensions

NX Standalone

NX, PIR BT Occupancy/Daylight Sensor, Slide Mount 13, 14, 15 NXS

NX Networked - Wired

NXE NX, Dual SmartPorts 13,14

NXES NX, PIR BT Occupancy/Daylight Sensor, Slide Mount, Dual SmartPORTs 13, 14

NX Networked - Wireless

NX Wireless, PIR BT Occupancy/Daylight Sensor 13,14,15 NXSW

NXWE NX Wireless Wireless Enabled 13, 14

NX Networked - Wired/Wireless

NXSWD NX Wireless, PIR BT Occupancy/Daylight Sensor, Dual SmartPORTs 13, 14, 15

NX Wireless, Dual Smart Ports 13,14 **NXWD**

Sensors

Daylight Sensor Required. Enter quantity. 2SD1 = 2 daylight sensors/row SD1

SO1 Occupancy Sensor Required. Enter quantity. 2SO1 = 2 occupancy sensors/row Zigbee Radio Module Required. Enter quantity. 2SZ1=2 radio modules/row. Radio SZ1 controls up to 10 drivers. Must be ordered with D00. Only available in 4'+, WSO option

- Ceiling Type cannot be retrofitted in the field
- Not Available with Patterns.
- Only available with WS0 & AD
- Visit www.litecontrol.com/finishes for details.
- Additional lead time may be applicable. Contact factory.
- 6 Must be ordered with D05 Driver option; excludes 2' lengths and patterns.
- Specifiable in 50 lumen increments. Reference the Performance Data Table for full performance offering
- Must be ordered with 2230TD, 2750T or 2765T Option
- Excludes Emergency Battery Pack 'EF' Option. Excludes DALI, DALIP and Lutron (LEC) Dimming Drivers
- EF 10W battery powered driver. Provides a minimum of 90 minutes of emergency lighting. Inverter-Compatible. Provided by others
- Only applicable when specified with Emergency/Nightlight.
- Contact Factory for pattern configurations. Approval drawings required.

NX In-Fixture Control Options:

- Not available for row mounting. Only available with 0-10V Driver options. Contact factory for Length
- Refer to NX Integrated Controls Reference Table for Functionality of Options.
- NX Sensors with Bluetooth, BLE, provides remote commission only.





CONTROLS

MOD™ 2 LED WALL/SLOT DIRECT

NX Distributed Intelligence™ Lighting Controls:

DISTRIBUTED

Supports both indoor and outdoor applications in a variety of deployment options- wired, wireless, hybrid. Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.

_	NX INTEGRATED CONTROLS REFERENCE							
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Standalone	<u> </u>							
NXS	NXSMP-SMI	No	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked	I – Wired							
NXE	N/A	Yes	Yes	No	No	Yes	Yes	Requires <u>NXBTC/R</u> 1
NXES	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked	I – Wireless							
NXSW	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NXWE ²	N/A	Yes	Yes	No	No	Yes	Yes	No ³
NX Networked	NX Networked – Wired/Wireless							
NXSWD	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NXWD	N/A	Yes	Yes	No	No	Yes	Yes	Requires <u>NXBTC/R</u> ^{1,3}

- NXBTC/R needs to be plugged into an available NX SmartPort™ on the fixture network
- Programming via App requires factory assistance
- To program NXWE option, need to consult factory. If connected to an area controller, programming can be done from that

SpectraSync™ Color Tuning Technology:

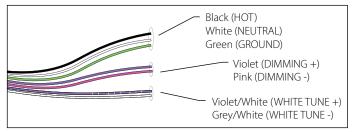
Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with distinct SpectraSync™ Color Tuning Technologies.



SPECTRASYNC COLOR TUNING TECHNOLOGY				
Mode	Kelvin Range	Description		
Dim to Warm	2200K-3000K	Mimics the familiar warming effect that occurs with traditional incandescent sources as they are dimmed		
Tunable White	2700K-5000K 2700K-6500K	Offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space		
Scheduled White	2700K-5000K 2700K-6500K	Mimics the rhythm of natural light or follows an alternative user-defined schedule throughout the day, enhancing an occupant's mood and well-being		

SpectraSync Tunable White

Available in two options: 2750T (2700K–5000K) or 2765T (2700K–6500K). Requires two 0-10V controllers, one for intensity and one for CCT. Minimum 5% dimming.

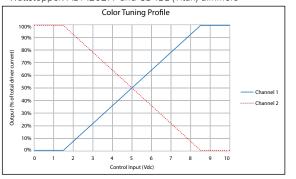


SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and pink circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

Controller Manufacturer Data

SpectraSync Tunable White was designed to be used with sinking style dimmers (provided by others) and is compatible with:

- Hubbell Control Solutions (HCS): NX Distributed Intelligence™ Room Controllers (NXRC) and In-fixture Controllers (NXFM)
- · Lutron: DVTV, DVSTV, and NFTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers







MOD™ 2 LED WALL/SLOT DIRECT

PERFORMANCE DATA TABLE

The table below shows the delivered lumens for the various lumen outputs. Use this chart in connection with the output multiplier capability to deliver any output required.

Nomenclature	Lumens/Ft	W/Ft	Efficacy
	Down	light	
D030 (min)	300	2.9	102
D050	500	5.2	96
D085	850	8.6	99
D100	1000	12.1	91

(wattage may vary up to 5% from published)

Output Restrictions

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

Restrictions - Direct		Output LPA					
Restriction	iis - Direct	300	350	400	450	500	
+ - (5 +)	2	LEC, DALI, 347V	LEC, DALI, 347V	DALI, 347V	DALI, 347V	DALI, 347V	
Length (feet)	3	DALI, 347V	DALI, 347V				

Output Multiplier Table

Photometrics for the 4L are published here at a nominal 3500K temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

Option	2700K	3000K	3500K	4000K	5000K	2700K 90 CRI	3000K 90 CRI	3500K 90 CRI	4000K 90 CRI	5000K 90 CRI
SOF	0.95	0.98	1.00	1.03	1.05	0.83	0.85	0.88	0.90	0.93
REG	0.73	0.75	0.77	0.79	0.81	0.64	0.65	0.68	0.69	0.72
BWO	0.67	0.69	0.70	0.72	0.76	0.63	0.53	0.47	0.42	0.39
ASYM	0.95	0.98	1.00	1.03	1.05	0.83	0.85	0.88	0.90	0.93
BAT	0.95	0.98	1.00	1.03	1.05	0.83	0.85	0.88	0.90	0.93
DRP	0.95	0.98	1.00	1.03	1.05	0.83	0.85	0.88	0.90	0.93
LPAD	0.86	0.88	0.90	0.93	0.95	0.75	0.77	0.79	0.81	0.84

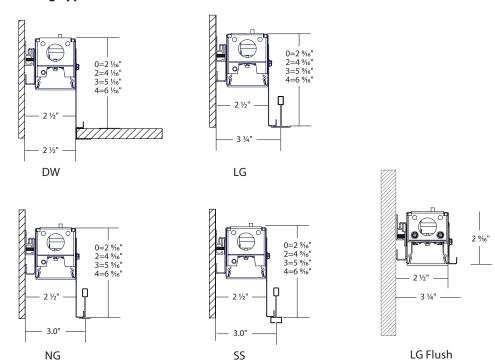




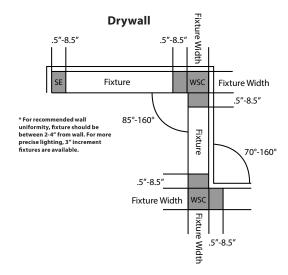
2L-WS-DMOD™ 2 LED WALL/SLOT DIRECT

DIMENSIONS

Ceiling Types:



INDIVIDUAL MOUNTING



PATTERNS





MOD™ 2 LED WALL/SLOT DIRECT

PHOTOMETRY

2L-R-D-XX-XX-SOF-CX-35K-D100

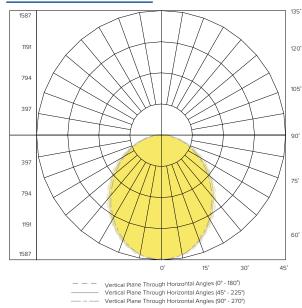
LUMINAIRE DATA

Description	2L Wall Indirect/Direct, Soft Diffuse Lens, 3500K
Delivered Lumens	4000
Watts	
Efficacy	95
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1905.97	47.70
0-60	3229.26	80.70
0-90	3999.61	100.0
0–180	3999.61	100.0

POLAR GRAPH



2L-R-AD-XX-XX-ASYM-CX-35K-D050

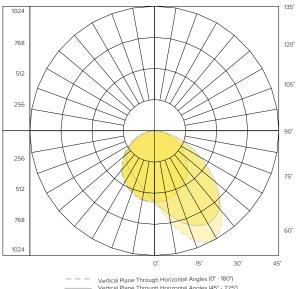
LUMINAIRE DATA

Description	2L Wall Indirect/Direct, Soft Diffuse Lens, 3500K
Delivered Lumens	2000
Watts	
Efficacy	82
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	896.16	44.80
0-60	1613.68	80.70
0-90	1999.5	100.0
0–180	1999.96	100.0

POLAR GRAPH



Vertical Plane Through Horizontal Angles (6 * 1867)

Vertical Plane Through Horizontal Angles (45° - 225')

Vertical Plane Through Horizontal Angles (90° - 270')



MOD™ 2 LED WALL/SLOT DIRECT

PHOTOMETRY

2L-X-D-04-NRW-CX-35K-D050

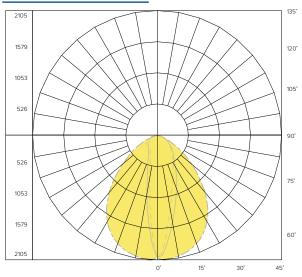
LUMINAIRE DATA

Description	2L Wall Slot, Narrow Lens, 3500K
Delivered Lumens	2000
Watts	
Efficacy	100
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1156.65	57.80
0-60	1711.23	85.60
0-90	2002.2	100.0
0-180	2000.2	100.0

POLAR GRAPH



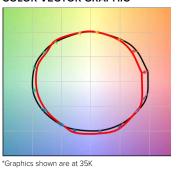
Vertical Plane Through Horizontal Angles (0° - 180°)
 Vertical Plane Through Horizontal Angles (45° - 225°)
 Vertical Plane Through Horizontal Angles (90° - 270°)



MOD™ 2 LED WALL/SLOT DIRECT

TM-30 DATA

COLOR VECTOR GRAPHIC





TEST RESULTS - 3500K						
Value	80+ CRI					
CCT (K)	3494					
CIE R _a	83					
D _{UV}	-0.0004					
R_f	82					
R _q	96					
Х	0.4052					
У	0.3898					

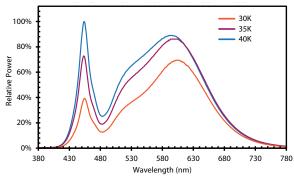
COLOR CHARACTERISTICS:

- Reference Illuminant -

.,,	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						

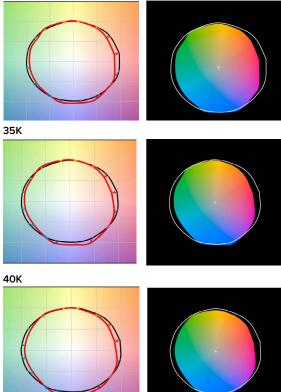
■ Test Source

SPECTRAL DISTRIBUTION:

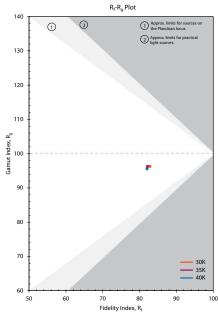


COLOR VECTOR GRAPHIC: 30K

301



COLOR GAMUT/FIDELITY PLOT:



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
40K	84	82	90	94	82	82	85	87	68	17	74	80	60	84	97



MOD™ 2 LED WALL/SLOT DIRECT

ADDITIONAL INFORMATION

Driver

D01	100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control.
D00	Dim-to-Off 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control.
D05	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.
DS1	Soft-Start 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control.
DS0	Soft-Start Dim-to-Off 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control.
LEC	Hi-Lume 1% EcoSystem LED Driver with Soft-On, Fade-to-Black dimming technology.
DALI	DALI compatible.
DALIP	Self-Powered DALI bus (e.g. DEXAL)
NDM	Non-dimming. Fixture will be wired for fixed light output.

Rated Life

Tested in accordance to LM79-2008 & derived from EPA TM-21 calculator

L70: 280,000 (calculated per TM-21 extrapolated curve)

L70: >61,000 (reported per TM-21/LM80 6x's limitation)

L90: 72,000 (calculated per TM-21 extrapolated curve)

L90: >61,000 (reported per TM-21/LM80 6x's limitation)

Rated Life (Driver)

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

