

VORA 50L

EDGE-LIT ARCHITECTURAL RECESSED TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

VORA™ 50L

FEATURES

- Edge-Lit light guides for perfectly uniform appearance
- 5 size options, 4 visual options, 3 finish options
- 2.2" fixture depth, reducing plenum space
- Up to 8000 lumens and up to 120 lm/W in select configurations
- UL 924 with 10W emergency pack option



RELATED PRODUCTS

8 [50L VORA](#)
[PowerHUBB™](#)

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Housing - Extruded aluminum side rails joined together with die cast aluminum end caps
- Light Guide Panels - Laser etched acrylic sheet
- Lens - Optional extruded acrylic center diffuse

OPTICAL PERFORMANCE

- 2 SDCM color consistency, 80 or 90 CRI

INSTALLATION

- Intended for installation in exposed, inverted T-bar grid ceiling and drywall
- Drywall option ships with frame kit to be installed in ceiling prior to fixture install
- Holes in housing provided for wire-on-chain mounting support to building structure
- Row mounting of fixtures is not available

ELECTRICAL

- Fixture is wired for a single circuit

CONTROLS

- Optional SpectraSync™ offers two modes of Tunable White solutions and integrates seamlessly into a variety of control systems
- NX Distributed Intelligence™ provides options for standalone and networked integrated sensor with wired or wireless connectivity for NX system deployments
- NX is available in U.S., Canada and Mexico. For other locations consult factory

CERTIFICATIONS

- CSA listed for damp locations
- UL 924
- IBEW
- AF of L
- IC rated on select outputs (See Performance Data Table)
- 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 Act Solutions](#).

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	1,000 - 8,000
Wattage Range	8 - 79
Efficacy Range (LPW)	72 - 120
Rated Life (Hours)	L70: >61,000 L90: 49,000

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ORDERING GUIDE

Example: 50L-G-D-22-SOF-C1-35K-D450-D01-UNV

CATALOG #

50L						
Series		Ceiling Type	Distribution	Size	Center Visual Design	Finish/Color ⁸
50L	Edge-Lit Troffer	G 15/16" Grid Ceiling NG 9/16" Narrow Face Grid Ceiling SS 9/16" Screw Slot Grid Ceiling DW Drywall Ceiling	D Direct	11 1' x 1' Fixture 12 1' x 2' Fixture 14 1' x 4' Fixture 22 2' x 2' Fixture 24 2' x 4' Fixture	OPN Open Cavity - No Diffuser SOF Soft Diffuse Lens DEC1 Nature Decorative Graphic ¹ DEC2 Sky Decorative Graphic ¹ DEC3 Marble Decorative Graphic ¹ DEC4 Wood Decorative Graphic ¹ CDEC Custom Decorative Graphic ¹	C1 Matte White C4 Machined Aluminum C5 Carbon Black CC Custom Color

Color temperature	Output ⁴	Driver	Voltage
27K 2700K	D100 (min) 1000	D01 1% Dimming, 0-10V	UNV Universal Voltage (120V through 277V)
30K 3000K	<i>to</i>	D00 1% Dim-to-Off, 0-10V	
35K 3500K	D800 (max) 8000	D05 5% Dimming, 0-10V ⁵	347 347 Volt ^{2, 6}
40K 4000K		DS1 1% Dimming w/ Soft Start, 0-10V	
50K 5000K ²		DS0 1% Dim-to-Off w/ Soft Start, 0-10V	
27K9 2700K, 90 CRI ²		LEC Hi-Lume 1% EcoSystem LED driver	
30K9 3000K, 90 CRI ²		DALI DALI ²	
35K9 3500K, 90 CRI		DALIP Powered DALI (2.0) ²	
40K9 4000K, 90 CRI ²		NDM Non-Dimming	
50K9 5000K, 90 CRI ²			
2230TD 2200K - 3000K SpectraSync™ Dim-to-Warm ^{2, 3}			
2750T 2700K - 5000K SpectraSync™ Tunable White ^{2, 3}			
2765T 2700K - 6500K SpectraSync™ Tunable White ^{2, 3}			

OPTIONAL

Emergency	Chicago Environmental Air Modification	Flex Whip	Control Options ²
EF 10W Emergency Battery Pack ⁷	CCEA Chicago Environmental Air Modification	FW Flex Whip FWPR Flex Whip, Plenum Rated (for CCEA only)	<u>NX Standalone</u> NXS NX, PIR BT Occupancy/Daylight Sensor, Slide Mount ^{9, 10, 11} <u>NX Networked – Wired</u> NXE NX, Dual SmartPorts ^{9, 10} NXES NX, PIR BT Occupancy/Daylight Sensor, Slide Mount, Dual SmartPORTs ^{9, 10} <u>NX Networked – Wireless</u> NXSW NX Wireless, PIR BT Occupancy/Daylight Sensor ^{9, 10, 11} NXWE NX Wireless Wireless Enabled ^{9, 10} <u>NX Networked – Wired/Wireless</u> NXSWD NX Wireless, PIR BT Occupancy/Daylight Sensor, Dual SmartPORTs ^{9, 10, 11} NXWD NX Wireless, Dual Smart Ports ^{9, 10} <u>Lutron Vive</u> LV 0-10V Wireless RF Fixture Module ¹² LVS Lutron Vive, DALIP, PIR Occupancy Sensor, Dimming Daylight Harvesting ¹³ LVR Lutron Vive Enabled, DALIP ¹³ <u>Sensors</u> SD1 Daylight Sensor Required SO1 Occupancy Sensor Required SZ1 Zigbee Radio Module Required

Notes:

- See separate [Decorative Center Visual Ordering Guide](#) for additional details.
 - Additional lead time may be applicable. Contact factory.
 - Must be ordered with D05 Driver option. Not available with 1x1.
 - Specifiable in 100 lumen/ft increments. Reference the Performance Data Table for full performance offering and exceptions.
 - Must be ordered with 2230TD, 2750T or 2765T option.
 - Excludes Emergency Battery Pack Option and D05, DALI, DALIP and Lutron (LEC) Dimming Drivers.
 - Excludes 1x1 option; 10W battery-powered driver. Provides a minimum of 90 minutes of emergency lighting.
 - Visit www.litecontrol.com/finishes for details.
- NX In-Fixture Control Options:**
- Only available with 0-10V Driver options.
 - Refer to NX Integrated Controls Reference Table on page 3 for Functionality of Options.
 - NX Sensors with Bluetooth, BLE, provides remote commission only.
- Third-Party Control Options:**
- Excludes Ceiling type 'DW' option.
 - Must be ordered with DALIP driver option; Registered trademark of Daintree Networks, used by permission.

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PRODUCT EXCEPTIONS & DETAILS

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

Output Restrictions		OUTPUT STD					
		1000-2900	5200-5400	5500	5600-5800	5900-6000	6100-8000
Size	2x2				LEC	LEC	
	2x4		LEC	LEC	LEC	LEC	LEC
	1x4		LEC	LEC			
	1x1	LEC					

Sensor Restrictions		Center Visual Design			
		OPN	SOF	BWO	DEC
Size	1x1	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR	SO1	SO1	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR
	1x2	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR	SO1	SO1	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR
	1x4	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR	SO1	SO1	NXES, NXS, NXSW, NXSWD, SZ1, SO1, LVS, LVR

CONTROLS



NX Distributed Intelligence™ Lighting Controls:

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								
NXS	NXSMP-SMI	No	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked – Wired								
NXE	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ¹
NXES	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NX Networked – 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 – Wired/Wireless								
NXSWD	NXSMP-SMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NXWD	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ^{1,3}

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

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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 with distinct SpectraSync™ Color Tuning Technologies.



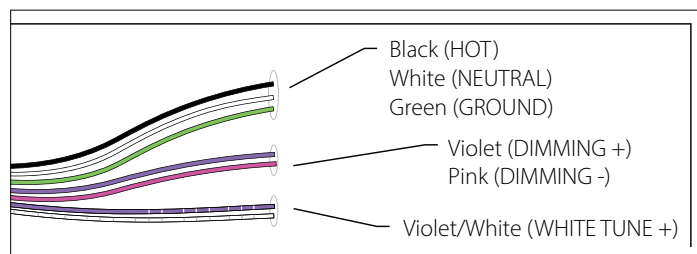
SPECTRASYNC COLOR TUNING TECHNOLOGY		
Mode	Kelvin Range	Description
Dim to Warm	2200K-3000K	Mimics the familiar warming effect that occurs with traditional incandescent sources as they are dimmed
Tunable White	2700K-5000K 2700K-6500K	Offers users the ability to tailor CCT to their personal preference, 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.

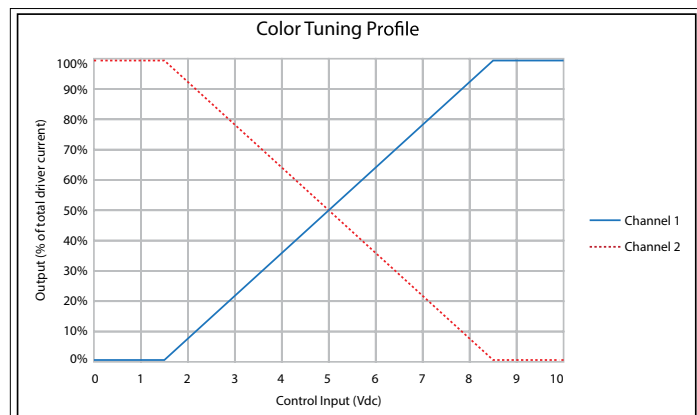


SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and pink circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

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: DDTV, DVSTV, and NDTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers



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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. Note: See "Center Visual Design" section for output multipliers.

Nomenclature	Lumens/Fix	2x2		2x4		1x1		1x2		1x4	
		W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy
D100(min)	1000	8	120	-	-	13	80	11	90	-	-
D110	1100	9	120	-	-	14	80	12	90	-	-
D120	1200	10	120	-	-	15	80	13	89	-	-
D130	1300	11	120	-	-	16	80	15	89	-	-
D140	1400	12	120	-	-	18	79	16	89	-	-
D150	1500	13	120	-	-	19	79	17	89	-	-
D160	1600	13	120	-	-	20	78	18	89	15	106
D170	1700	14	120	17	102	22	78	19	89	16	106
D180	1800	15	120	18	102	23	78	20	89	17	106
D190	1900	16	120	19	102	25	77	21	89	18	106
D200	2000	18	120	20	102	26	77	22	89	19	106
D210	2100	18	120	21	102	27	77	24	89	20	106
D220	2200	18	120	22	102	29	76	25	89	21	106
D230	2300	19	120	23	102	30	76	26	89	22	106
D240	2400	20	120	23	102	32*	75*	27	89	23	106
D250	2500	21	120	24	102	34*	74*	28	89	24	106
D260	2600	22	120	25	102	35*	74*	29	88	25	106
D270	2700	23	120	26	102	37*	73*	31	88	25	106
D280	2800	23	120	27	102	38*	73*	32	88	26	106
D290	2900	24	120	28	102	40*	72*	33	87	27	106
D300	3000	25	120	29	102	-	-	34	87	28	106
D310	3100	26	120	30	102	-	-	36	87	29	106
D320	3200	27	120	31	102	-	-	37	87	30	105
D330	3300	28	119	32	102	-	-	38	86	31	105
D340	3400	29	119	33	102	-	-	39	86	32	105
D350	3500	30	118	34	102	-	-	41	86	33	105
D360	3600	31	118	35	102	-	-	42	85	34	105
D370	3700	31	118	36	102	-	-	44*	85*	35	105
D380	3800	32	117	37	102	-	-	45*	84*	36	105
D390	3900	33	117	38	102	-	-	46*	84*	37	104
D400	4000	34	117	39	102	-	-	48*	84*	38	104
D410	4100	35	116	40	102	-	-	49*	83*	39	104
D420	4200	36	116	41	102	-	-	51*	83*	41	104
D430	4300	37	116	42	102	-	-	-	-	42	103
D440	4400	38	116	43	102	-	-	-	-	43	103
D450	4500	39	115	44	102	-	-	-	-	44	103
D460	4600	40	115	45	102	-	-	-	-	45	103
D470	4700	41	115	46	102	-	-	-	-	46	102
D480	4800	42	114	47	102	-	-	-	-	47	102
D490	4900	43	114	48	102	-	-	-	-	48	102

*Only available with Non-IC applications

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PERFORMANCE DATA TABLE CONTINUED

Nomenclature	Lumens/Fix	2x2		2x4		1x1		1x2		1x4	
		W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy	W/unit	Efficacy
D500	5000	44	113	49	102	-	-	-	-	49	102
D510	5100	45	113	50	102	-	-	-	-	50	101
D520	5200	46	113	51	102	-	-	-	-	51	101
D530	5300	47	112	52	102	-	-	-	-	52	101
D540	5400	48	112	53	102	-	-	-	-	54	101
D550	5500	49	111	54	102	-	-	-	-	55	101
D560	5600	51	111	55	102	-	-	-	-	-	-
D570	5700	52	110	56	102	-	-	-	-	-	-
D580	5800	53	110	57	102	-	-	-	-	-	-
D590	5900	54	109	58	102	-	-	-	-	-	-
D600	6000	55	109	59	102	-	-	-	-	-	-
D610	6100	-	-	60	102	-	-	-	-	-	-
D620	6200	-	-	61	102	-	-	-	-	-	-
D630	6300	-	-	62	102	-	-	-	-	-	-
D640	6400	-	-	63	102	-	-	-	-	-	-
D650	6500	-	-	64	102	-	-	-	-	-	-
D660	6600	-	-	65	102	-	-	-	-	-	-
D670	6700	-	-	66	102	-	-	-	-	-	-
D680	6800	-	-	67	102	-	-	-	-	-	-
D690	6900	-	-	68	101	-	-	-	-	-	-
D700	7000	-	-	69	101	-	-	-	-	-	-
D710	7100	-	-	70	101	-	-	-	-	-	-
D720	7200	-	-	71	101	-	-	-	-	-	-
D730	7300	-	-	72	101	-	-	-	-	-	-
D740	7400	-	-	73	101	-	-	-	-	-	-
D750	7500	-	-	74	101	-	-	-	-	-	-
D760	7600	-	-	75	101	-	-	-	-	-	-
D770	7700	-	-	76	101	-	-	-	-	-	-
D780	7800	-	-	77	101	-	-	-	-	-	-
D790	7900	-	-	78	101	-	-	-	-	-	-
D800 (max)	800	-	-	79	101	-	-	-	-	-	-

*Only available with Non-IC applications

Output Multiplier Table

Photometrics for the 50L 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.

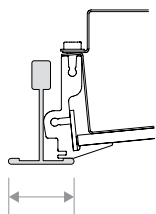
Option	2700K	3000K	3500K	4000K	5000K	2700K 90 CRI	3000K 90 CRI	3500K 90 CRI	4000K 90 CRI	5000K 90 CRI
OPN	0.90	0.93	0.95	0.98	1.00	0.79	0.81	0.84	0.86	0.88
SOF	0.95	0.98	1.00	1.03	1.05	0.83	0.85	0.88	0.90	0.93
BWO	0.91	0.94	0.96	0.99	1.01	0.80	0.82	0.84	0.86	0.89
DEC	0.90	0.93	0.95	0.98	1.00	0.79	0.81	0.84	0.86	0.88

VORA 50L

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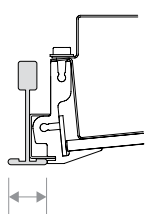
DIMENSIONS

Mounting Options



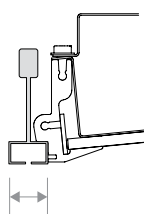
15/16"
(23.8mm)

(G) Grid



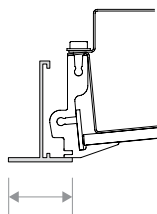
9/16"
(14.3mm)

**(NG) Narrow
Face Grid**



9/16"
(14.3mm)

(SS) Screw Slot



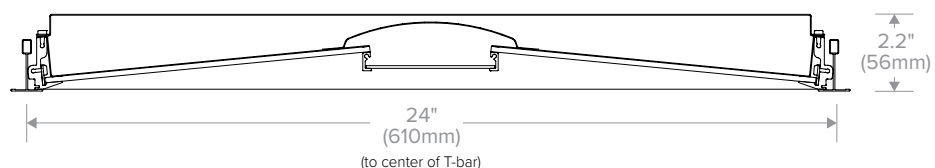
15/16"
(23.8mm)

**(DW) Drywall
Ceiling**

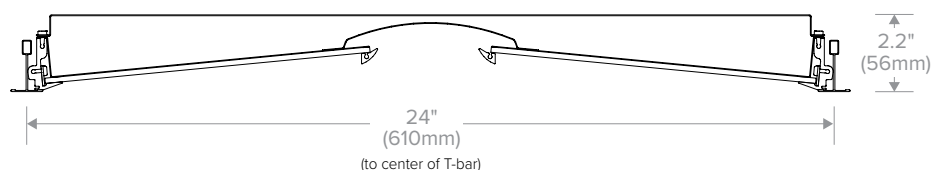
NG mounting option includes
pre-installed steel rail with
finish to match fixture

Shown installed with flange kit

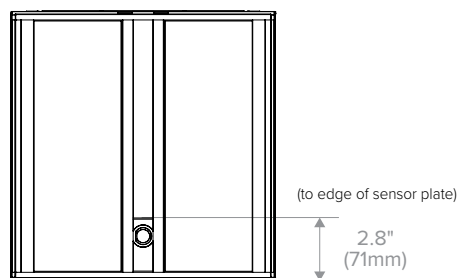
Center Visual Design



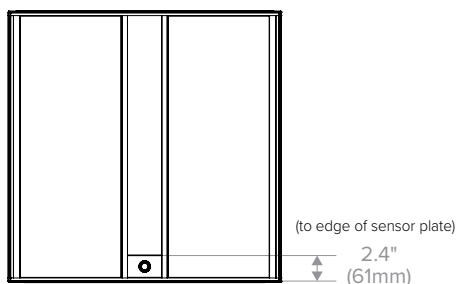
(SOF) Soft Diffuse



(OPN) Open Cavity



1x1, 1x2, 1x4 Sensor Location



2x2, 2x4 Sensor Location

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PHOTOMETRY

50L-G-D-11-SOF-C1-35K-DXXX-D01-UNV

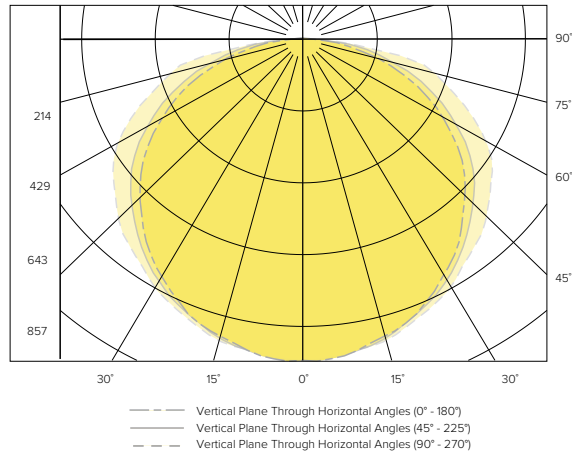
LUMINAIRE DATA

Test No.	18.01049
Description	1'x1' Architectural Recessed Edge Lit Troffer w/ Diffuser
Delivered Lumens	2894
Watts	40W
Efficacy	72.5
Mounting	Recessed

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1127	38.9
0-60	2115	73.1
0-90	2894	100.0
0-180	2894	100.0

POLAR GRAPH



50L-G-D-22-OPN-C1-35K-DXXX-D01-UNV

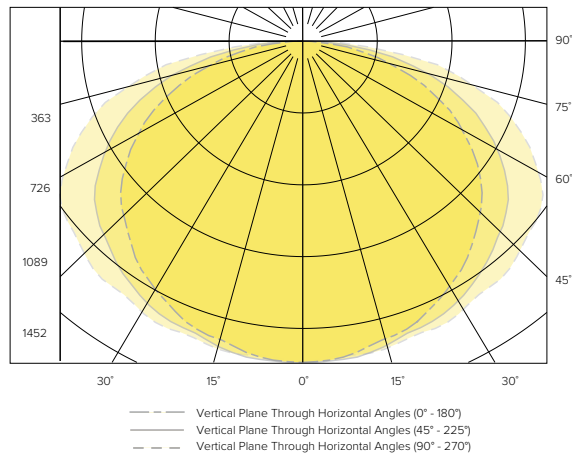
LUMINAIRE DATA

Test No.	18.01160
Description	2' x 2' Architectural Recessed Open-Center Edge-Lit Troffer
Delivered Lumens	5819
Watts	56W
Efficacy	103.5
Mounting	Recessed

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2026	34.8
0-60	4018	69.0
0-90	5819	100.0
0-180	5819	100.0

POLAR GRAPH



50L-G-D-24-SOF-C1-35K-DXXX-D01-UNV

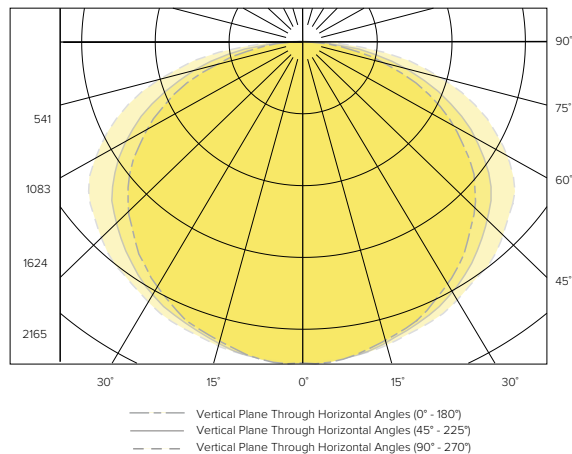
LUMINAIRE DATA

Test No.	18.01156
Description	2'x4' Architectural Recessed Edge Lit Troffer w/ Diffuse Center
Delivered Lumens	7991
Watts	79W
Efficacy	100.9
Mounting	Recessed

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2939	36.8
0-60	5684	71.1
0-90	7991	100.0
0-180	7991	100.0

POLAR GRAPH



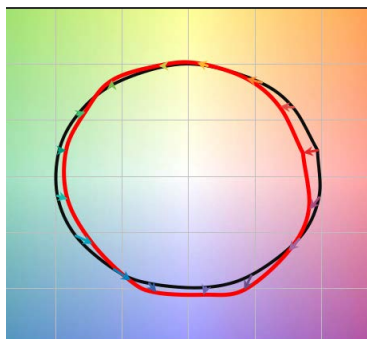
VORA 50L

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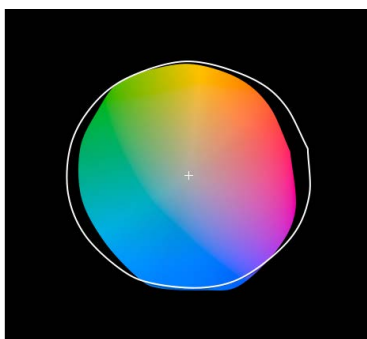
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

TM-30 DATA

COLOR VECTOR GRAPHIC



COLOR DISTORTION GRAPHIC



*Graphics shown are at 35K

— Reference Illuminant — Test Source

TEST RESULTS	
Value	35K
CCT (K)	3494
CIE R _a	83
D _{uv}	-0.0004
R _f	82
R _g	96
x	0.4052
y	0.3898

ADDITIONAL INFORMATION

Center Visual Design:

OPN	Open cavity - no diffuser. Output multiplier (0.95)
SOF	Soft diffuse acrylic lens
DEC	Open cavity with pre-selected or custom graphic - Contact factory for more details. Output multiplier (0.95)

Output (VI Technology):

Variable Intensity (VI) technology allows precise specification of fixture output/wattage. Fixture will be programmed and labeled to specification. See Performance Data Table section for available increments.

Sensor

SD1	Daylight sensor (Wattstopper part #FD-301). Installs between light guide panels.
SO1	Occupancy sensor (Wattstopper 305RC with FS-L6 lens). Installs between light guide panels.
SZ1	Zigbee radio module (Osram Sylvania part #ZBHA-CLM-DIM). Installs in knockout.
NX	NX sensors installs between light guide panels.
LV	Lutron Vive 0-10V Wireless RF Fixture Module for 1A 0-10V
LVS	Lutron Vive DFCSJ-OEM OCC Sensor
LVR	Lutron Vive DFCSJ-OEM RF Radio

See separate [LC-Controls](#) spec sheet for additional details.

VORA 50L

EDGE-LIT ARCHITECTURAL RECESSED TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION CONTINUED

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. SR, DEXAL)
NDM	Non-dimming. Fixture will be wired for fixed light output.

Fixture Weight:

	FIXTURE WEIGHT
1x1	6.5 lbs
1x2	10.5 lbs
1x4	20 lbs
2x2	16 lbs
2x4	36 lbs

Rated Life:

Test in accordance to the LM79-2008 and derived from EPA TM-21 calculator.