

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

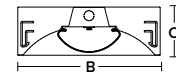
FEATURES

- High efficiency acrylic center lens features linear prisms for high performance without pixelation
- Appropriate for offices, schools, medical, and public spaces
- High performance reflector with matte white paint standard
- LED modules and electrical accessible from below
- Optional architecturally styled integration of daylight and occupancy sensor(s)
- QR code traceability
- Compatible with Dual-Lite inverters



Typical Dimensions and Weights				
Sizes	(A) Length Inches (mm)	(B) Width Inches (mm)	(C) Height Inches (mm)	Weight lbs (kg)
1x4	47.75 (1213)	11.75 (298)	3.98 (101)	11.25 (5.1)

CONTROLS TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Luminaire housing, reflectors and end caps are die-formed code-gauge cold-rolled steel
- High transmission extruded acrylic enclosed lens features linear prisms with custom frost for high efficacy without pixelation
- All reflective surfaces are finished after fabrication with unique formula high-reflectivity matte white paint for soft, uniform indirect illumination

OPTICS

- Removable lens for easy access to LED module and electrical components

INSTALLATION

- An access plate is furnished with each luminaire for fast wiring access without the necessity to open the fixture or wireway
- Luminaire fits recessed exposed Grid ceilings (G); four integral T-bar clips with holes for seismic wires are standard
- Can be placed in Slot Grid (SG) style ceiling with regress 3/8" above ceiling plane
- A Flange Kit (FK) accessory is available for recessed hard ceiling applications
- Surface Mount (SM) option allows placement below ceiling plane
- Cable Mount (CM) option allows suspension below ceiling plane

ELECTRICAL

- 60,000 hour LEDs at L80 for reduced maintenance
- 83 CRI standard or optional 90 CRI for color sensitive applications

CONTROLS

- Optional SpectraSync™ Tunable White solution integrates seamlessly into a variety of control systems
- NX Lighting Controls provides options for standalone and networked integrated sensor with wired or wireless connectivity for NX system deployments
- NX Connect is a standalone wireless deployment for room based application using wireless enabled and battery operated devices

CERTIFICATIONS

- Emergency battery pack options are California Energy Commission (CEC) Title 20 Compliant
- IC label is standard for recessed products. Note that IC label is void if product is installed on site with a combination of both battery pack plus through wiring or for air return fixtures
- All luminaires are built to UL1598 and bear appropriate cCSAus labels
- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options

CERTIFICATIONS (CONTINUED)

- Damp Location label standard
- Adheres to LM79, LM80, and TM21 industry standards
- The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924.
- Product configurations not including battery packs or controls meet federal procurement law requirements under the Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions
- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year warranty

LCAT14


1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: LCAT14-35MLG-ESDU

CATALOG #

LCAT14																		
Model					CRI	Color Temp	Nominal Lumens ²		Ceiling Type	Shielding	Air Function		Driver ⁵					
LCAT14 1' x 4' LED Contemporary Architectural Troffer					Blank	>80	30	3000K	XW	2484-2680	G	Grid Lay-in ³	E	Fixed Output				
					9	>90	35	3500K	VW	3073-3317	SM	Surface Mount ⁴	R		Blank	Static Air Return Side Slots	ED	0–10V Dimming ⁶
							40	4000K	MW	3444-3716	ED1	0–10V 1% Dimming						
							50	5000K	LW	4188-4520	CM	Cable Suspended Mount ⁴					EDD	0–10V Dim-to-Off ⁷
							2765T	2700K–6500K SpectraSync™ Tunable White ¹	ML	4555-4833	ESD	Step Dimming						
									HL	5322-5744	LUTH	Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology ^{7,8}						
		VL	7205-7776															
		XL	7799-8417									DALIP	Powered by DALI ^{7,8}					

Voltage	Options	Control Options ¹³
U 120-277V 347 347V	ELL14 Emergency Battery Pack Installed, 1400 Lumens ^{8,9,10} ELL14ST Emergency Battery Pack, 1400 Lumens, Self Test ^{8,9,10} ELL14H2 Emergency Battery Pack, 2-Hour Run Time ^{8,9,10,11} DTS Dimming Bypass Module ^{8,10,12} C388 3-wire Flex C488 4-wire Flex C588 5-wire Flex GLR Fast Blow Fuse EOR End of Row (SM and CM only. Provides end wiring access for continuous row mounting.) INT Intermediate (SM and CM only. Provides ends with wiring access for continuous row mounting.) CP Chicago Plenum	<u>NX Lighting Controls</u> <u>Networked Wireless</u> NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{14,15,16} NXWSM NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{14,16} <u>Networked Wired</u> NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ^{14,15,16} NXESM NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{14,15,16} <u>Independent Control</u> NXCS NX Connect NXC-WIZ20 Wireless Indoor Occupancy and Photocell Sensor ^{8,17,18,19,21} <u>Other Lighting Controls</u> <u>Networked Wireless</u> LVR Lutron Vive Integral Fixture Control DFCSJ-OEM-RF (RF only) ^{8,19,20,21} LVS Lutron Vive Integral Fixture Control DFCSJ-OEM-OCC with Daylight and Occupancy Sensing ^{8,19,20,21} AWN Lutron Athena Integral Fixture Control A-WN-DO1-RF-WH (RF only) ^{8,16,19,22} AWNS Lutron Athena Integral Fixture Control A-WN-DO1-OCC-WH with Daylight and Occupancy Sensing ^{8,16,19} <u>Independent Control</u> ODPG Occupancy and Daylight Sensors w/ Grouping, Philips SNS200 ^{8,19,21}

Accessories	
<input type="checkbox"/> FK14	1' x 4' Single Flange Kit (Shipped separately)
<input type="checkbox"/> CM48YSC3F-KIT	48" Cable Mount Kit for 1' wide Cable Mount fixtures, 3-wire
<input type="checkbox"/> SMK-LCAT 1x4	1x4 Surface Mount Kit, Field Install

- Notes:
1 Available with ED driver and 80 CRI only. Not available with VL or XL lumen package
2 Refer to performance tables for exact values and available lumen outputs for fixture size
3 For drywall, order G with flange kit accessory
4 Not available with Air Return (A) air function
5 Dimming curves may vary dependent upon lumen output and driver option chosen. Separate dimming circuits are recommended if multiple driver options are chosen.
6 1V minimum low-end trim recommended when paired with a 0-10V dimmer
7 Not available in all lumen packages, refer to Driver Availability table
8 Not available with 347V
9 To determine lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW)
10 For compatibility with Dual-Lite Litegear inverters, contact lighting representative
11 Not available for use in Canada
12 For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See wiring diagram.
- All Controls**
13 Minimum ambient temperature: 0°C (32°F)
NX Lighting Controls Options
14 NX combined with SpectraSync is not available in 347V
15 Not compatible with Surface Mount Kit
16 Available with ED, ED1 or EDD drivers only
17 NX Connect devices can be configured using the NX Connect Mobile App, available in the Apple App Store
18 NX Connect devices are not compatible with NX Networked Wireless or Wired Options
Other Lighting Controls Options
19 Not available with SpectraSync
20 Vive is a trademark of Lutron Electronics Co., Inc.
21 Only available with DALIP driver option
22 When installing in a hard ceiling application room side mounting is suggested, please consult factory

LCAT14

1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

DATE:	LOCATION:
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PRODUCT EXCEPTIONS & DETAILS

Driver options listed below are available for the outputs as shown.

DRIVER AVAILABILITY TABLE								
	XW	VW	MW	LW	ML	HL	VL	XL
E	X	X	X	X	X	X	X	X
ED	X	X	X	X	X	X	X	X
ED1	X	X	X	X	X	X	X	X
EDD	X	X	X	X	X	X	X	X
ESD	X	X	X	X	X	X	X	X
LUTH	X	X	X	X	X	X		
DALIP	X	X	X	X	X	X	X	X
347	X	X	X	X	X	X		

DELIVERED LUMENS (View 90 CRI data on supplemental document)

Product Availability 80 CRI					
Lumen Package	Shielding	Color	Lumens	Input Watts	LPW
XW		3000K	2591	17.2	150
		3500K	2636		153
		4000K	2680		156
		5000K	2680		156
	R	3000K	2484		144
		3500K	2526		147
		4000K	2569		149
		5000K	2569		149
VW		3000K	3206	21.7	148
		3500K	3262		150
		4000K	3317		153
		5000K	3317		153
	R	3000K	3073		142
		3500K	3126		144
		4000K	3179		147
		5000K	3179		147
MW		3000K	3592	24.4	147
		3500K	3654		150
		4000K	3716		152
		5000K	3716		152
	R	3000K	3444		141
		3500K	3503		144
		4000K	3562		146
		5000K	3562		146
LW		3000K	4369	30.1	145
		3500K	4445		148
		4000K	4520		150
		5000K	4520		150
	R	3000K	4188		139
		3500K	4261		142
		4000K	4333		144
		5000K	4333		144

Product Availability 80 CRI (continued)					
Lumen Package	Shielding	Color	Lumens	Input Watts	LPW
ML		3000K	4672	31.1	150
		3500K	4752		153
		4000K	4833		156
		5000K	4833		156
	R	3000K	4555		144
		3500K	4478		147
		4000K	4633		149
		5000K	4633		149
HL		3000K	5552	37.9	146
		3500K	5648		149
		4000K	5744		151
		5000K	5744		151
	R	3000K	5322		140
		3500K	5414		143
		4000K	5506		145
		5000K	5506		145
VL		3000K	7517	52.2	144
		3500K	7646		147
		4000K	7776		149
		5000K	7776		149
	R	3000K	7205		138
		3500K	7329		140
		4000K	7454		143
		5000K	7454		143
XL		3000K	8136	55.6	146
		3500K	8276		149
		4000K	8417		151
		5000K	8417		151
	R	3000K	7799		140
		3500K	7933		143
		4000K	8068		145
		5000K	8068		145

PROJECTED LUMEN MAINTENANCE

Calculation Method	Ambient Temp	25,000 hrs	50,000 hrs	60,000 hrs *
TM-21-11	25C/77F	0.94	0.89	0.87
TM-21-21	25C/77F	0.94	0.88	0.86






* Lumen maintenance values calculated per TM-21 using six times the LM-80 test time for the LED and in-situ thermal testing of the luminaire.

LCAT14

1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

NX LIGHTING CONTROLS



Control Option Ordering Logic & Description			Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	-	-	✓	✓	✓		NXRM2-H
	NXWSM	NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth® Programming	✓	✓	✓	✓	✓	✓	✓	✓		NXSMP2-SMI
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS , without Sensor	✓	✓	✓	-	-	✓	✓	✓ ¹		NXDSP
	NXESM	NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth® Programming	✓	✓	✓	✓	✓	✓	✓	✓		NXDSP NXSMP2-SMI
NX Independent	NXCS	NX Connect NXC-WIZ20 Wireless Indoor Occupancy and Photocell Sensor	-	✓	-	✓	✓	✓	✓	✓ ²		NXC-WIZ20

1 Requires NXBTC, order separately.

2 Requires use of NX Connect App available for download from Apple app store.

DEFAULT SETTINGS

NX Wireless & Wired	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7 Minutes
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0% (OFF)
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	Off
	Passcode	
	Factory Passcode: HubbN3T!	Enabled
NX Independent - NX Connect	Settling/Dwell Time	5 sec
	Hold Time	10 min
	Group Hold Time	10 min
	Grace Time	-
	Strategy	Auto ON/OFF
	Occupancy Sensitivity	5 (highest)
	Occupancy Indicator	ON
	Partial Off/Standby	0%
	Background Level	50%
	Task Level	100%
	Daylight Harvesting	-
	Low Ambient Output	250%
	High Ambient Output	OFF

CONTROLS TECHNICAL SUPPORT

1-800-888-8006 (7:00 am–7:00 pm est)

APP INFORMATION

NX Lighting Controls App



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.



Android



Apple iOS

NX Connect App



The NX Connect mobile App is a free to use mobile application for programming a NX Connect System. The mobile App allows you to discover, configure and share your NX Connect system.



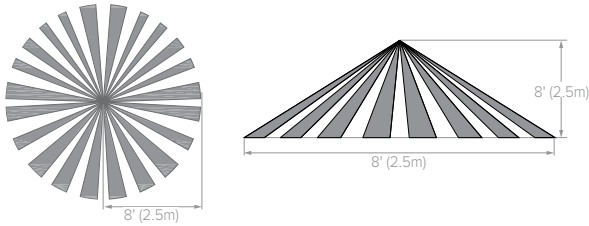
Apple iOS

LCAT14

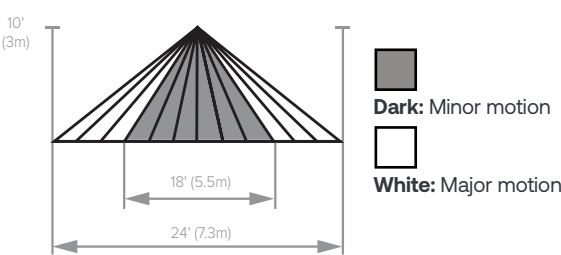
1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

COVERAGE PATTERNS

NXWSM/NXESM (NXSMP2-SMI SENSOR)



NXCS (NXC-WIZ20 SENSOR)




OTHER LIGHTING CONTROLS

Control Option Ordering Logic & Description			Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
Other	ODPG	Occupancy sensing, daylight harvesting and task tuning in one device. ¹	-	✓	-	✓	✓	✓	✓	✓ ³		SNS200
	LVR	The Vive integral fixture control is a radio frequency (RF) device that controls either Lutron EcoSystem or DALI drivers based on RF input from Pico remote controls, Radio Powr Savr wireless sensors, or Vive hubs. ²	✓	✓	✓	-	-	-	✓	-		DFCSJ-OEM-RF
	LVS		✓	✓	✓	✓	✓	-	✓	-		DFCSJ-OEM-OCC
	AWNDR	The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. ³	✓	✓	-	-	-	✓	✓	-		A-WN-D01-RF-WH
	AWNS		✓	✓	✓	✓	✓	✓	✓	-		A-WN-D01-OCC-WH

1 Philips MasterConnect App required for field configuration.
2 Lutron Vive Hub required to enable Networking, Grouping and Scheduling.
3 Lutron Athena Hub required to enable Networking, Grouping and Scheduling.

Philips EasySense Controls (ODPG option) & Accessories:

- 
- Occupancy sensing, daylight harvesting, task tuning and grouping in one device
 - Standalone control or grouping to wireless switches¹
 - Uses Philips field apps for on site commissioning²
 - Ability to create scenes for various room configurations
 - Cost-effective solution for energy-savings and code-compliance strategies
 - DLC® Qualified: Listed on the GPL for Networked Lighting Controls. Please refer to the DLC website for specific product qualifications at www.designlights.org

1 Wireless switches only compatible with ODPG Philips EasySense
2 Requires android device or IR dongle.

CONTROLS (CONTINUED)

SpectraSync™ Color Tuning Technology:

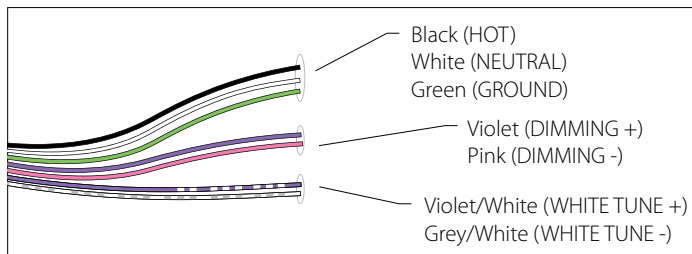
Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with distinct SpectraSync™ Color Tuning Technologies.



SPECTRASync COLOR TUNING TECHNOLOGY		
Mode	Kelvin Range	Description
Tunable White	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

SpectraSync Tunable White

Requires two 0–10V controllers, one for intensity and one for CCT.
Minimum 5% dimming.

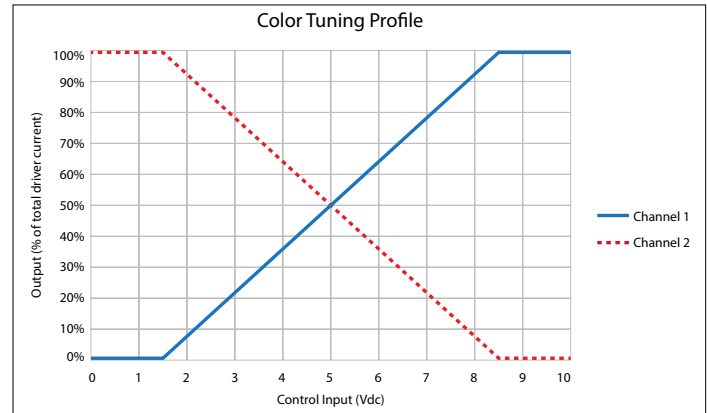


SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and pink circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

Controller Manufacturer Data

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

- NX Lighting Controls Room Controller (NXRC) and In-fixture Controllers (NXFM)
- Lutron: DDTV, DVSTV, and NFTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers



To enable scheduling and for use with NX wall control preset stations please refer to NX SpectraSync technical sheet.

DELIVERED LUMENS, SPECTRASync™

Shielding	Lumen Output	Watts	2700		3000		3500		4000		5000		6500	
			Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
Curve	XW	19	2200	113	2299	119	2340	121	2370	122	2448	126	2412	124
	VW	28	3012	110	3147	114	3204	116	3245	118	3352	122	3301	120
	MW	32	3499	108	3656	113	3722	115	3769	117	3894	121	3835	119
	LW	36	4188	116	4376	122	4455	124	4512	125	4660	129	4590	128
	ML	38	4487	117	4689	122	4773	125	4834	126	4994	130	4919	128
	HL	44	5173	118	5405	123	5502	125	5573	127	5756	131	5670	129
	VL	58	6501	113	6793	118	6915	120	7004	122	7235	126	7126	124
Rectangle	XW	21	2295	111	2398	116	2441	119	2472	120	2554	124	2516	122
	VW	28	2916	106	3047	111	3102	113	3141	114	3245	118	3196	116
	MW	32	3508	109	3666	113	3732	116	3780	117	3904	121	3846	119
	LW	36	4063	113	4246	118	4322	120	4378	122	4522	126	4454	124
	ML	38	4545	119	4749	124	4834	126	4896	128	5058	132	4982	130
	HL	44	5034	116	5260	121	5355	123	5423	125	5602	129	5518	127
	VL	58	6322	109	6606	114	6725	116	6811	118	7035	122	6930	120

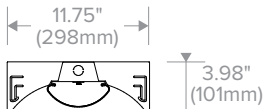
LCAT14

1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

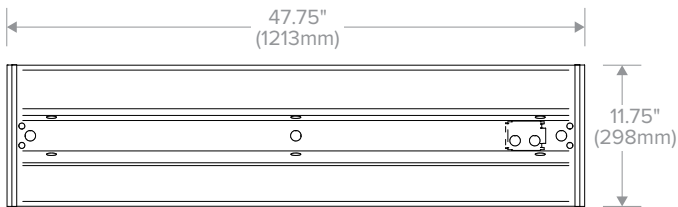
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DIMENSIONS

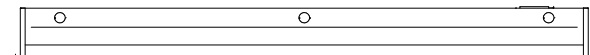
GRID



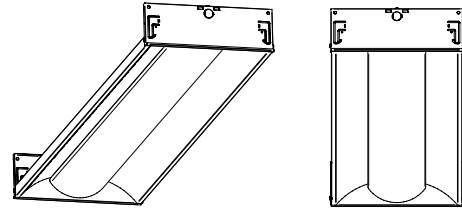
Grid, recessed section



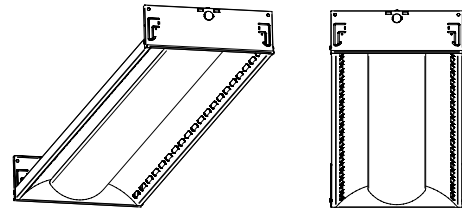
Grid, back of housing



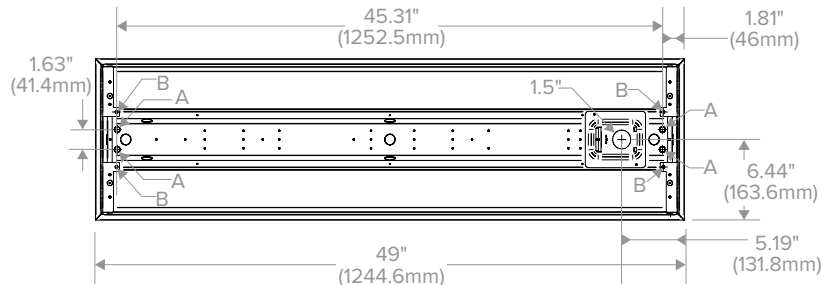
GRID, STATIC



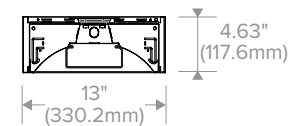
GRID, AIR RETURN



SURFACE MOUNT OR CABLE MOUNT, STATIC ONLY



Surface Mount (SM) and Cable Mount (CM), back of housing



Surface section (SM)

Surface Mount:

Order SM ceiling type. Mounting collar required for surface mounting.
(4) Mounting knock-outs, 3/8", provided in center channel as indicated at left, marked A.

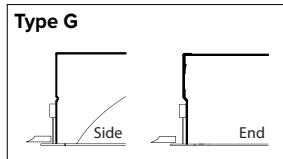
Cable Mount:

Order CM ceiling type. Use CM48Y1SC3F48 48" Cable Mount Kit for 1' wide CM trim fixtures. Mounting holes are provided in diagonal straps shown at left, marked B.

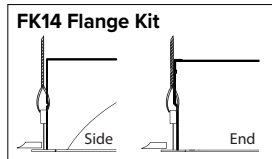
* For Cable Mount a 2" x 3" access plate with (4) 7/8" KOs provided in place of Mounting Collar shown.

NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

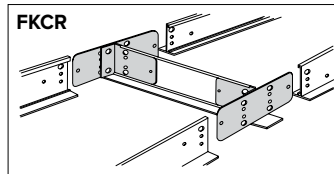
CEILING COMPATIBILITY



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.



For hard ceiling applications, order FK14 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK14 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK14 & (1) FKCR)

Row cut out dimensions using FK14s & FKCR adapters:
Width 12 3/8", Length [48" x (# in row)] + 3/8".
Example: (48" x 2) + 3/8" = 96 3/8"

Flange kit cut out dimension for single unit only: 12 3/8" x 48 3/8"

LCAT14

1' x 4' LED CONTEMPORARY ARCHITECTURAL TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PHOTOMETRY

LCAT14-35MLG-EU

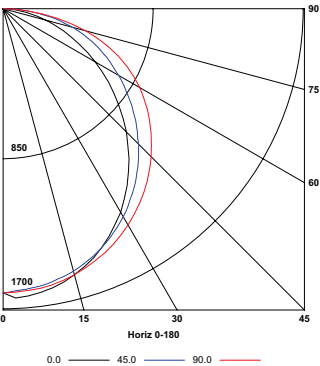
LUMINAIRE DATA

Test No.	16480
Description	1' x 4' LED architectural troffer with frosted linear prisms lens
Delivered Lumens	4830
Watts	38.30
Efficacy	126
Mounting	Recessed
Spacing Criterion	0° = 1.23 90° = 1.30

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-30	1253	25.9
0-40	2054	42.5
0-60	3663	75.8
0-90	4830	100
0-180	4830	100

POLAR GRAPH



ADDITIONAL INFORMATION

DTS WIRING DIAGRAM (0-10V DIMMING DRIVER SHOWN)

