

LCATD24-S

2' x 4' SHALLOW, DATA CENTER, LED CONTEMPORARY ARCHITECTURAL TROFFER

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

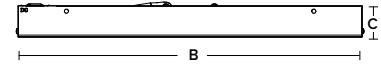
FEATURES

- Compatible with multiple data center structural grids systems including Gordon, Tate and Polargy
- Light weight, low profile construction for crowded ceilings and shallow plenums
- High lumen outputs for expanded mounting height options
- High efficiency, low glare center lens delivers comfortable illumination
- Discreetly integrated control options drive energy efficiency and code compliance
- Appropriate for offices, data centers, schools, medical, and public spaces
- LED modules accessible from below, electrical accessible from the plenum



Typical Dimensions and Weights				
Sizes	(A) Length Inches (mm)	(B) Width Inches (mm)	(C) Height Inches (mm)	Weight lbs (kg)
2x4	47.126 (1197)	23.209 (589.5)	2.25 (57)	14 (6.4)

CONTROLS TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Luminaire housing, reflectors and end caps are die-formed code-gauge cold-rolled steel
- 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
- High transmission extruded acrylic enclosed lens features linear prisms with custom frost for high efficacy without pixelation

INSTALLATION

- An access plate is furnished with each luminaire for fast wiring access without the necessity to open the fixture or wireway
- Designed for structural grid ceiling systems: Tate 3/8" bottom slot grid and Gordon Imperial DG 1.5 grid
- Compatible with Polargy Integrated Ceiling System (PICS) Standard structural ceiling grid, fixture will regress 3/4" above ceiling plane
- Four integral T-bar clips with holes for seismic wires are standard

ELECTRICAL

- 66,000 hour LEDs at L80 for reduced maintenance
- 80 CRI standard or optional 90 CRI for color sensitive applications

CONTROLS

- 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 applications using wireless enabled and battery operated devices.

CERTIFICATIONS

- 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
- All luminaires are built to UL1598 standards, and bear appropriate cCSAus labels
- 0° to 25°C when integrated batteries are selected
- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options
- Emergency battery pack options are California Energy Commission (CEC) Title 20 Compliant
- Damp Location label standard, Wet Location option available
- UL Sanitation certified to NSF standards
- Adheres to LM79, LM80, and TM21 industry standards

CERTIFICATIONS (CONTINUED)

- DLC® (DesignLights Consortium) Qualified, Please refer to the DLC website for specific product qualifications at www.designlights.org
- For -BAA Option: This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9). [See Buy America\(n\) Solutions](#)
- 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](#)
- The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924.

WARRANTY


- 5 year warranty

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ORDERING GUIDE

Example: LCATD24-S-840L042G-C-ED1U

LCATD24	S						
Model	Plenum	CRI	Color Temp	Nominal Lumens ¹	Ceiling Type	Shielding	Driver
LCATD24 2' x 4' LED Contemporary Architectural Troffer, Data Center	S Shallow	8 >80	30 3000K	L032 3200 Lumens	G Grid Lay-in	C Curve 	ED 0-10V Dimming
		9 >90	35 3500K	L036 3600 Lumens			ED1 0-10V 1% Dimming
			40 4000K	L042 4200 Lumens			EDD 0-10V Dim to Off
			50 5000K	L048 4800 Lumens			ESD Step Dimming ²
				L058 5800 Lumens			DALIP Powered by DALI ²
				L070 7000 Lumens			
				L085 8500 Lumens			
				L097 9700 Lumens			
				L120 12000 Lumens			
				L130 13000 Lumens			
		L140 14000 Lumens					

Options	Control Options ⁸
ELL14 10W Emergency Battery Pack (CEC Title 20 Compliant) Installed ^{2,3,4,5} ELL14ST 10W Emergency Battery Pack (CEC Title 20 Compliant), Installed Self Test ^{2,3,4,5} ELL14H2 9W Emergency Battery Pack (CEC Title 20 Compliant), Installed 2-Hour Run Time ^{2,3,4,5,6} DTS Dimming Bypass Module ^{2,4,5,7} C388 3-wire Flex C488 4-wire Flex C588 5-wire Flex GLR Fast Blow Fuse BAA Buy American Act (FAR 52.225-9) Compliant	NX Lighting Controls <u>Networked Wireless</u> NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ⁹ NXWSM NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ⁹ <u>Networked Wired</u> NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ⁹ NXESM NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ⁹ <u>Independent Control</u> NXCS NX Connect NXC-WIZ20 Wireless Indoor Occupancy and Photocell Sensor ^{2,10,11,12} Other Lighting Controls <u>Networked Wireless</u> LVR Lutron Vive Integral Fixture Control DFCSJ-OEM-RF (RF only) ^{2,12,13} LVS Lutron Vive Integral Fixture Control DFCSJ-OEM-OCC (RF with daylight and occupancy sensing) ^{2,12,13} AWNR Lutron Athena Integral Fixture Control A-WN-D01-RF-WH (RF only) ^{2,9,14} <u>Independent Control</u> ODPG Occupancy and Daylight Sensors w/ Grouping, Philips SNS200 ^{2,12}

Notes:

- 1 Refer to performance tables for exact values and available lumen outputs for fixture size
- 2 Not available in 347V
- 3 To determine lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW)
- 4 Not available with L130 or L140 lumen packages
- 5 For compatibility with Dual-Lite Litegear inverters, contact lighting representative
- 6 Not available for use in Canada
- 7 For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0-10V drivers. See wiring diagram.

All Controls

- 8 Minimum ambient temperature: 0°C (32°F)

NX Lighting Controls

- 9 Available with ED, ED1 or EDD drivers only
 - 10 NX Connect devices can be configured using the NX Connect Mobile App, available in the Apple App Store
 - 11 NX Connect devices are not compatible with NX Networked Wireless or Wired Options
- Other Lighting Controls Options
- 12 Only available with DALIP driver option
 - 13 Vive is a trademark of Lutron Electronics Co., Inc.
 - 14 Not available with L140 lumen package

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DELIVERED LUMENS

Lumen Package	Color	Lumens	Input Watts	LPW
L032	3000K	3156	24.2	130
	3500K	3235		134
	4000K	3289		136
	5000K	3289		136
L036	3000K	3742	28.5	131
	3500K	3836		135
	4000K	3901		136
	5000K	3901		136
L042	3000K	4105	29.6	139
	3500K	4207		142
	4000K	4278		145
	5000K	4278		145
L048	3000K	4720	33	143
	3500K	4837		147
	4000K	4918		149
	5000K	4918		149
L058	3000K	5791	40	145
	3500K	5935		148
	4000K	6035		151
	5000K	6035		151
L070	3000K	6819	50.1	136
	3500K	6989		139
	4000K	7107		142
	5000K	7107		142

Lumen Package	Color	Lumens	Input Watts	LPW
L085	3000K	8368	64	131
	3500K	8569		134
	4000K	8717		136
	5000K	8717		136
L097	3000K	9924	75	132
	3500K	10172		136
	4000K	10341		138
	5000K	10341		138
L120	3000K	11910	94.4	126
	3500K	12208		129
	4000K	12410		131
	5000K	12410		131
L130	3000K	12910	101.8	127
	3500K	13233		130
	4000K	13452		132
	5000K	13452		132
L140	3000K	13873	111.5	124
	3500K	14220		128
	4000K	14456		130
	5000K	14456		130

PROJECTED LUMEN MAINTENANCE

Calculation Method	Ambient Temp	25,000 hrs	50,000 hrs	60,000 hrs *
TM-21-11	25C/77F	0.93	0.87	0.85
TM-21-22	25C/77F	0.93	0.86	0.83

* 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.

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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

Setting	Default
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	Enabled
Factory Passcode: HubbN3T!	Enabled

Setting	Default
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

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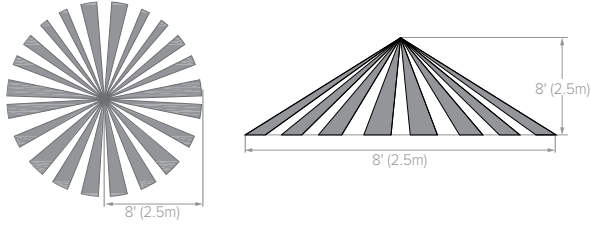
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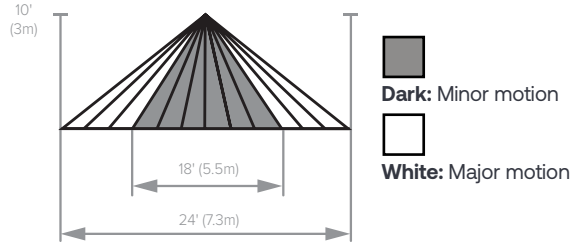
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COVERAGE PATTERNS

NXWSM/NXESM (NXSMP2-SMI SENSOR)



NXCS (NXC-WIZ20 SENSOR)



PIR sensor coverage tested as defined in NEMA WD7-2011

OTHER LIGHTING CONTROLS

Control Option Ordering Logic & Description		Control Option Components								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	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-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

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 QPL 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.

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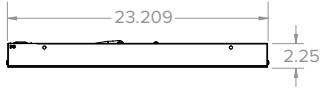
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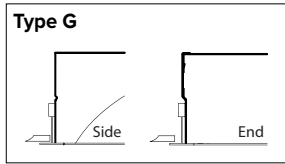
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DIMENSIONS

GRID

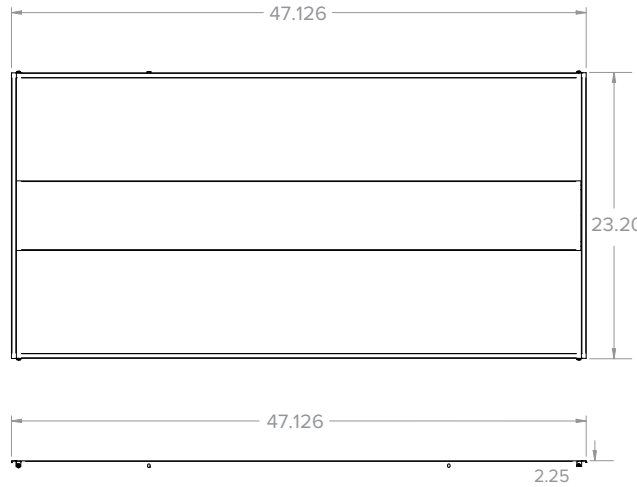


CEILING COMPATIBILITY

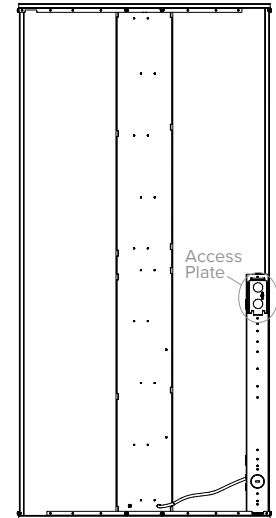


For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

Grid, recessed section

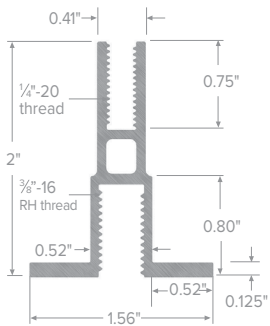


Grid, back of housing



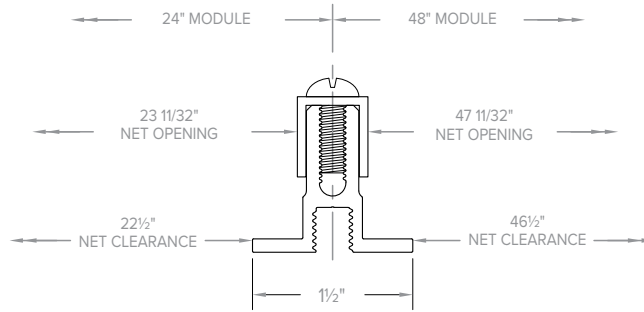
TATE GRID CROSS SECTION

3/8"-16 Bottom Slot - Field & Floating Perimeter



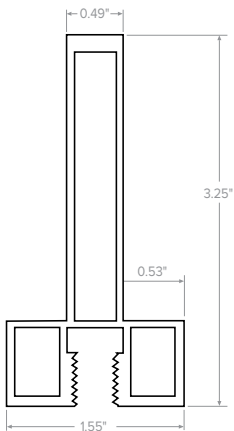
- Continuous threaded 1/4"-20 top slot
- Continuous threaded 3/8"-16 bottom slot
- Utilizes standard hardware connectors and features of Tate Grid

GORDON GRID CROSS SECTION



FIXTURES DIMENSIONS ARE TYPICALLY MODULE SIZE LESS 3/8" (MAXIMUM O.D.)

POLARGY GRID CROSS SECTION



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

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PHOTOMETRY

LCAT24-S-40L085G

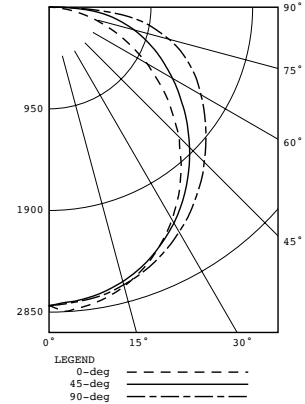
LUMINAIRE DATA

Test No.	P22.00373
Description	2' x 4' LED architectural troffer with frosted linear prisms lens
Delivered Lumens	8717
Watts	64
Efficacy	136.2
Mounting	Recessed/Ceiling
Spacing Criterion	0° = 1.22 90° = 1.30

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-30	2156	24.7
0-40	3528	40.5
0-60	6316	72.5
0-90	8711	99.9
0-180	8717	100

POLAR GRAPH



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

