

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

FEATURES

- Low profile, full distribution back-lit troffer, ideal for crowded ceilings
- Expansive lumen output range
- ISO4 standard; suitable for ISO Class 4-9 positive and negative pressure clean rooms
- Integrated control options to meet code compliance and drive energy efficiency
- Optional IP65 rating for dust-tight and wet location applications
- Optional IK10 impact resistance rating for demanding environments
- Multiple lens options including Pattern A12, A19 and Frosted Polycarbonate



CONTROLS TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Aluminum lens frame has a matte white finish standard, matte black, antimicrobial white and silver finish options available
- Luminaire housing is die formed code-gauge steel
- Low profile design is ideal for shallow plenum applications

OPTICS

- Acrylic micro-optics over each LED provide edge to edge illumination without pixelation or bright spots
- Frosted textured lens provides smooth surface brightness

INSTALLATION

- An access plate is furnished with each luminaire for fast wiring
- Luminaire fits recessed exposed grid ceilings (G); four integral T-bar clips with holes for seismic wires are standard
- Available with Slot Grid (SG) frame for flush mounting in Slot Grid applications
- For surface mount applications use surface mount kit accessories
- For plaster or sheet rock installations, use flange kit accessories
- For cable mount applications use surface mount kit accessory and cable kit accessory

ELECTRICAL

- 60,000 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

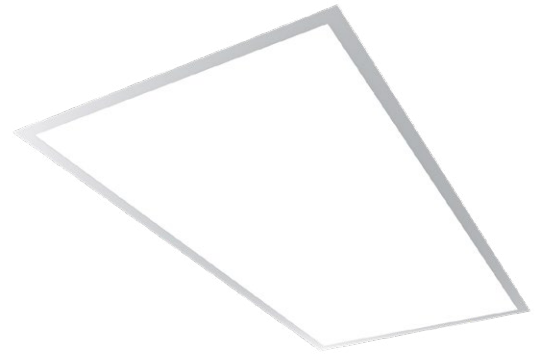
- All luminaires are built to UL 1598 standards and bear appropriate cULus labels
- Damp location label standard, optional IP65 rating available
- Adheres to LM79, LM80, and TM21 industry standards for photometrics and lifetime calculations
- IC label is standard for recessed products

CERTIFICATIONS (CONTINUED)

- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options
- UL Sanitation Certified to NSF 2 Food Equipment standard for non-food zones
- Tested in accordance with ISO 14644-1; suitable for ISO Class 4-9 positive and negative pressure clean rooms
- DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Emergency battery options are California Energy Commission (CEC) Title 20 Compliant
- Suitable for ambient temperatures from -25°C to 25°C, 0°C to 25°C when integrated batteries are selected
- BAA Option: This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9). See Buy America(n) Solutions
- FCC Part 15b (FCC Communications Interference) Compliant
- CCEA approved option (CP) available

WARRANTY

- 5 year warranty

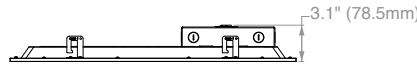


SERVICE PROGRAMS



Typical Dimensions and Weights	
Width	23.74" / 603 mm
Length	47.75" / 1213 mm
Height	3.1" / 78.5 mm
Weight*	11.72lbs / 5.32kg

*Base configurations; weight varies by option



ORDERING GUIDE

Example: NBT24-40L048G-A12F-ED1U

CATALOG #

NBT		CRI		Color Temp		Nominal Lumens ¹		Ceiling		Shielding		Driver		Voltage			
Model	Size	Blank	>80	30	3000 K	L032	3200 Lumens	G	Standard or Silhouette Grid ²	SF	Smooth Frosted	ED1	0–10V 1% Dimming	U	120V–277V		
NBT Back-lit Troffer	24 2x4	9	>90	35	3500 K	L036	3600 Lumens	SG	Slot Grid	A12F	Pattern 12 Acrylic Lens	EDD	0–10V Dim-to-Dark	347	347V		
				40	4000 K	L042	4200 Lumens			A12125F	Pattern 12 Acrylic Lens, 0.125" Nominal	ESD	Step Dimming ³				
				50	5000 K	L048	4800 Lumens			A19F	Pattern 19 Frosted Acrylic, 0.156" Nominal	LUTH	Hi-Lume 1% EcoSystem LED driver ^{3,4}				
						L058	5800 Lumens			FP	Frosted Polycarbonate	DALIP	Powered by DALI ³				
						L070	7000 Lumens										
						L085	8500 Lumens										
						L097	9700 Lumens										

Options	
ELL14	Emergency Battery Pack Installed, 1400 Lumens ^{3,5,6,7,8}
ELL14H2	1400 Lumen Emer Pack, 2 Hour Run Time ^{3,5,6,7,8,9}
ELL14ST	Emergency Battery Pack, 1400 Lumens, Self Test ^{3,5,7,8}
DTS	Dimming Bypass Module ^{3,6,7,8,10,11}
CP	Chicago Plenum ¹²
C388	3-wire flex
C488	4-wire flex
C588	5-wire flex
GLR	Fast Blow Fuse ^{3,13}
BAA	Buy American Act (FAR 52.225-9)
IK10	IK10 rated ^{14,15,16}
IP65	IP65 Certified ^{14,16,17}
Color Options (standard white w/ no selection)	
AM	White Antimicrobial
MB	Black
SLV	Silver

Controls Options ¹⁸	
NX Lighting Controls	
<u>NX Wired</u>	
NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor ¹⁹
NXESM	NX Wired Dual RJ45 SmartPORTS and Integral NX SMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ¹⁹
<u>NX Wireless</u>	
NXWSM	NX Networked Wireless Enabled Integral NX SMP2-SMI/ LMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ¹⁹
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ¹⁹
<u>NX Connect</u>	
NXCS	NX Connect NX C-WIZ20 Wireless Indoor Occupancy and Photocell Sensor ^{3,20,21,22}
Other Lighting Controls	
<u>Networked Wireless</u>	
LVR	Lutron Vive Integrated Fixture Control DFCSJ-OEM-RF ^{3,22,23}
LVS	Lutron Vive Integrated Fixture Control DFCSJ-OEM-OCC ^{3,22,23}
AWNS	Lutron Athena Sensor ^{3,22}
AWN R	Lutron Athena Radio ^{3,22}

Accessories	
<input type="checkbox"/>	FK24 Flange Kit
<input type="checkbox"/>	DSMK24 Surface Mount Kit
<input type="checkbox"/>	CFPCM36YSC5F-KIT 36" Cable Mount Kit for 1' or 2' wide Cable Mount fixtures, 5-wire ^{3,24}

- Notes:**
- Refer to performance tables for exact values and available lumen outputs for fixture size
 - For drywall, order G with flange kit accessory
 - Not available with 347V
 - Not available with L097 lumen package
 - To determine lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW)
 - Not available with L085 and L097 lumen packages
 - For compatibility with Dual-Lite Litegear Inverters, contact lighting representative
 - L070 and higher lumen packages are not available with thru-wiring.
 - Not available for use in Canada
 - Not available with ESD or LUTH driver options
 - For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0-10V drivers. See wiring diagram.
 - Not available with NXE, NXESM and NXW control options
 - Not available with ESD driver option
 - Control Options limited to NXW, NXE or AWRN only
 - Only available with G ceiling type and FP lens option
 - Not available with Emergency Battery Pack (ELL14 or ELL14H2) or DTS options
 - Only available with SF and FP lens choices

- All Controls**
- Minimum ambient temperature: 0°C (32°F)
- NX Lighting Controls**
- Available with ED1 driver option only
 - NX Connect devices can be configured using the NX Connect Mobile App, available in the Apple App Store
 - NX Connect devices are not compatible with NX Networked Wireless or Wired Options
- Other**
- Only available with DALIP driver option
 - Vive is a trademark of Lutron Electronics Co., Inc.
 - Use of DSMK24 is required for cable mounting applications

DELIVERED LUMENS

CRI	Model	CCT	Lumens	Input Watts	LPW
80 CRI	NBT24-L032	3000K	3214	23	141
		3500K	3240	23	142
		4000K	3370	23	148
		5000K	3370	23	148
80 CRI	NBT24-L036	3000K	3494	26	134
		3500K	3617	26	141
		4000K	3747	26	144
		5000K	3747	26	144
80 CRI	NBT24-L042	3000K	4062	30	135
		3500K	4205	30	140
		4000K	4356	30	145
		5000K	4356	30	145
80 CRI	NBT24-L048	3000K	4697	35	134
		3500K	4862	35	141
		4000K	5037	35	144
		5000K	5037	35	144
80 CRI	NBT24-L058	3000K	5680	43	132
		3500K	5880	43	138
		4000K	6092	43	142
		5000K	6092	43	142
80 CRI	NBT24-L070	3000K	6853	52	132
		3500K	7094	52	136
		4000K	7349	52	141
		5000K	7349	52	141
80 CRI	NBT24-L085	3000K	8197	64	128
		3500K	8485	64	133
		4000K	8790	64	137
		5000K	8790	64	137
80 CRI	NBT24-L097	3000K	9479	75	126
		3500K	9813	75	130
		4000K	10409	75	138
		5000K	10409	75	138

CRI	Model	CCT	Lumens	Input Watts	LPW
90 CRI	NBT24-L032	3000K	2750	23	121
		3500K	2918	23	129
		4000K	2962	23	130
		5000K	2962	23	130
90 CRI	NBT24-L036	3000K	3015	26	116
		3500K	3199	26	124
		4000K	3248	26	125
		5000K	3248	26	125
90 CRI	NBT24-L042	3000K	3506	30	117
		3500K	3719	30	124
		4000K	3775	30	126
		5000K	3775	30	126
90 CRI	NBT24-L048	3000K	4053	35	116
		3500K	4300	35	124
		4000K	4365	35	125
		5000K	4365	35	125
90 CRI	NBT24-L058	3000K	4902	43	114
		3500K	5201	43	122
		4000K	5279	43	123
		5000K	5279	43	123
90 CRI	NBT24-L070	3000K	5914	52	114
		3500K	6275	52	120
		4000K	6369	52	122
		5000K	6369	52	122
90 CRI	NBT24-L085	3000K	7074	64	111
		3500K	7505	64	117
		4000K	7618	64	119
		5000K	7618	64	119
90 CRI	NBT24-L097	3000K	8504	75	114
		3500K	9023	75	121
		4000K	9159	75	123
		5000K	9159	75	123

PROJECTED LUMEN MAINTENANCE

Calculation Method	Ambient Temp	25,000 hrs	50,000 hrs	60,000 hrs *
TM-21-11	25C/77F	0.92	0.85	0.84
TM-21-22	25C/77F	0.92	0.84	0.82

* 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.



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	Enabled
	Factory Passcode: Curr3nt!	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

NBT

2X4 TRANSITION™ BACK-LIT TROFFER

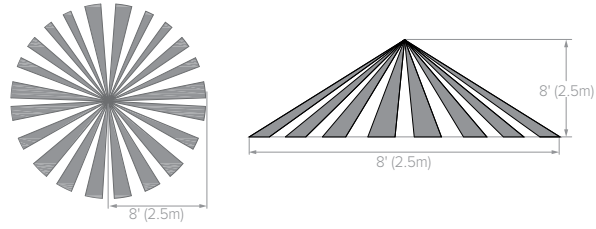
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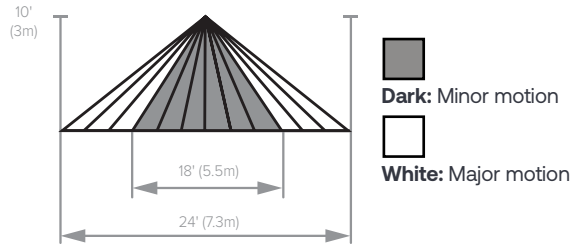
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COVERAGE PATTERNS

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 Functionality							Control Option Components		
			Networkable	Grouping	Scheduling	Occupancy/Motion	Daylight Harvesting	0-10V Dimming	On/Off Control			Bluetooth App Programming
Other	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. ¹	✓	✓	✓	-	-	-	✓	-		DFCSJ-OEM-RF
	LVS		✓	✓	✓	✓	✓	-	✓	-		DFCSJ-OEM-OCC
	AWN-R	The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. ²	✓	✓	-	-	-	✓	✓	-		A-WN-D01-RF-WH
	AWN-S		✓	✓	✓	✓	✓	✓	✓	-		A-WN-D01-OCC-WH

1 Lutron Vive Hub required to enable Networking, Grouping and Scheduling.
2 Lutron Athena Hub required to enable Networking, Grouping and Scheduling.

DIMENSIONS

