

# TAVO

**Pendant**  
**BI-DIRECT**  
Light Distribution

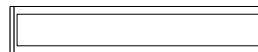


Tavo is a modern expression of lighting technology contained within a sleek and elegant form ideally suited for general illumination in office spaces. At Tavo's core is a 4mm edgelit lightguide that deliver exceptional low glare illumination for architectural interiors

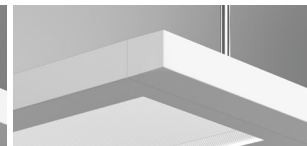
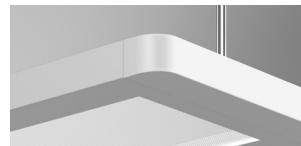
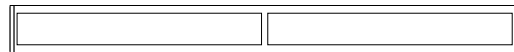
- *Extruded aluminum housing and die cast aluminum end caps*
- *May be configured into individual pendants or continuous runs*
- *Tool free installation with engineered spring latch design*
- *Available in 3 standard paint finishes*
- *5 available lumen packages from 800 to 1900 lumens per ft*

## Standard Individual Fixture Lengths\*

4' [1219 mm]



8' [2438 mm]

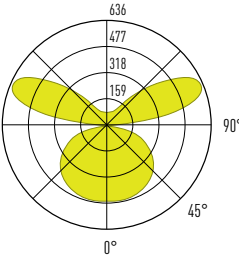
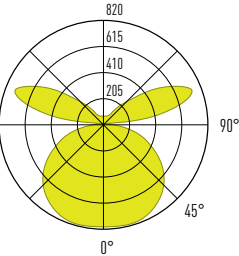
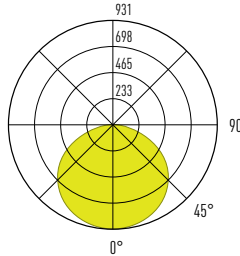


## ORDERING INFORMATION / Example: TVS-54-08-L35-UNV-D-11-WH-T1W048

SERIES	LIGHT DISTRIBUTION	LUMENS PACKAGE	CRI/ CCT	VOLTAGE	DRIVER	CIRCUITING / EMERGENCY OPTIONS		
<b>TVS</b> Pendant Linear LED Luminaire Square End Cap System.	<b>54</b> - 54% downlight, 46% uplight	<b>08</b> - 781 lm/ft <b>10</b> - 1008 lm/ft	<b>L30</b> - 80 CRI, 3000K <b>L35</b> - 80 CRI, 3500K	<b>UNV</b> - Universal 120 - 277V	<b>Dimming 0-10V</b> <b>D</b> - Dim to 1% (Standard)	<b>Qty of Power Circuits</b> <b>1</b> - 1 Circuit <b>2</b> - 2 Circuits	<b>Qty of Control Circuits</b> <b>1</b> - 1 Circuit <b>2</b> - 2 Circuits	<b>Options</b> <b>B10</b> - 10 Watt Battery Pack (CEC Compliant) <b>B15</b> - 15 Watt Battery Pack (CEC Compliant) <b>GTD</b> - Generator Transfer Device (120V or 277V) <b>EM</b> - Dedicated Emergency Circuit
<b>TVR</b> Pendant Linear LED Luminaire Round End Cap System.	<b>66</b> - 66% downlight, 34% uplight <b>TC</b> - 100% downlight	<b>13</b> - 1256 lm/ft <b>15</b> - 1437 lm/ft <b>19</b> - 1741 lm/ft <b>XX</b>	<b>L40</b> - 80 CRI, 4000K <b>H30</b> - 90 CRI, 3000K <b>H35</b> - 90 CRI, 3500K <b>H40</b> - 90 CRI, 4000K	<b>120V</b> - 120V <b>277V</b> - 277V <b>347V</b> - 347V	<b>D02</b> - Eldoled Solodrive, Dim to 0% <b>LUTRON</b> - See options on page 2 <b>DALI Dimming</b> <b>ELE</b> - Eldoled Ecodrive, Dim to 1% <b>ELS</b> - Eldoled Solodrive, Dim to 0%			

FIXTURE FINISH	MOUNTING	LINEAR ROWS	OPTIONS
<b>WH</b> - White Painted Finish <b>BK</b> - Black Painted Finish <b>SV</b> - Silver Painted Finish <b>AG</b> - Two Tone Ash Gray Wood Grain <b>BG</b> - Light Black Gunstock Wood Grain <b>EW</b> - Ebony Walnut Wood Grain <b>ST</b> - Delicate Straight Wood Grain	<b>Ceiling Type (Remote Driver Power Supply)</b> <b>T1</b> -1" Ceiling Grid, Aircraft Cable Suspension (Remote "Grid" Driver Enclosure) <b>T9</b> - 9/16" Ceiling Grid, Aircraft Cable Suspension (Remote "Grid" Driver Enclosure) <b>TS</b> -Slot Ceiling Grid, Aircraft Cable Suspension (Remote "Grid" Driver Enclosure) <b>SR</b> -Structure Mount, Aircraft Cable Suspension <b>GP</b> -5 5/8" Canopy Integrated Power Supply, for Inaccessible Ceilings or Grid ceilings (with the assistance of bar hangers), Aircraft Cable Suspension <b>*/DC</b> - Dual Cable individual Mount (add to suffix to SR i.e. " <b>SR-DC</b> ")	<b>Mounting Hardware Finish</b> <b>W</b> -White Canopies and Cord <b>B</b> - Black Canopies and Cord <b>Suspension Length</b> <b>048</b> - 48" Adjustable Aircraft Cable <b>120</b> - 120" Adjustable Aircraft Cable <b>240</b> - 240" Adjustable Aircraft Cable	<b>4</b> - 48" <b>8</b> - 96" <b>XX</b> - Specify continuous run lengths in 4' increments <b>WLX</b> - Wavelinx (Cooper Lighting Solutions) integral sensor <b>NX</b> - NX (Hubbel) integral sensor <b>NLT</b> - nLight (Acuity Brands) integral sensor <b>LV</b> -Vive (Lutron) integral sensor <b>ENL</b> -Enlighted Integral Sensor

## PHOTOMETRICS

<div>Report #: ITL90063 3500K / 80 CRI 500 lumens per ft 80° optic / White Baffle</div> <div></div>				<div>Report #: ITL94685 3500K / 80 CRI 500 lumens per ft 50° optic / White Baffle</div> <div></div>				<div>Report #: ITL94684 3500K / 80 CRI 500 lumens per ft 35° optic / White Baffle</div> <div></div>			
Light Level	Lumens per ft	Watts per ft	Lumens per watt	Lumens per ft	Watts per ft	Lumens per watt	Lumens per ft	Watts per ft	Lumens per watt		
08	742	5.7	130	742	5.7	130	742	5.7	130		
11	1042	8	128	1024	8	128	1024	8	128		
13	1213	9.5	128	1213	9.5	128	1023	8	128		
15	1426	14.8	127	1425	11.2	127	1426	9.5	150		
19	1850	14.8	125	1849	14.8	125	1850	14.8	125		
Max luminance* 3569 cd/m <sup>2</sup>			Max luminance 2149 cd/m <sup>2</sup>			Max luminance 14874 cd/m <sup>2</sup>					
Max UGR*: 21.9			Max UGR: 23			Max UGR: 28.8					

\*UGR and luminance values are from light level (08) 800 lumens per ft

## DRIVER INFORMATION

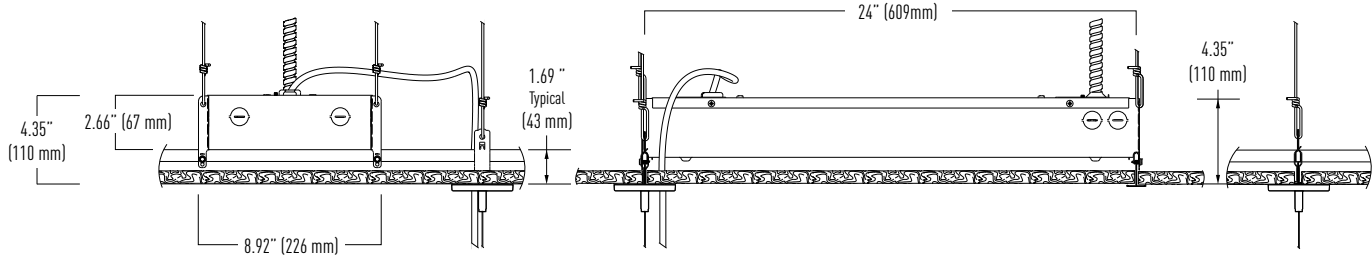
NULITE CAT#	DRIVER MANUFACTURER / SERIES	DIMMING / CONTROL PROTOCOL	DIM RANGE	NOTES/ DESCRIPTION
D	Signify Xitanium, Osram OTI	0-10v	100% - 1%	Standard Nulite driver, base fixture price
D0	Signify Xitanium, Osram OTI	0-10v	100%- 1% (Steps from 1% to 0% or OFF)	Standard Nulite driver, base fixture price
D02	Eldoled Solodrive	0-10v	100% - 0%	Logarithmic Dimming Curve
L11	Lutron Hi-Lume Premier (PEQ0E) Max lumen package 03	0-10v	100% - 0.1%	Hi-Lume Premier 0.1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology
L15	Lutron Hi-Lume Series (LDE1)	0-10v	100% - 1%	Hi-Lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology
ELE	Eldoled Ecodrive	DALI	100% - 1%	Logarithmic Dimming Curve
ELS	Eldoled Solodrive	DALI	100% - 0%	Logarithmic Dimming Curve

## Recessed Grid Ceiling Remote Driver Enclosure

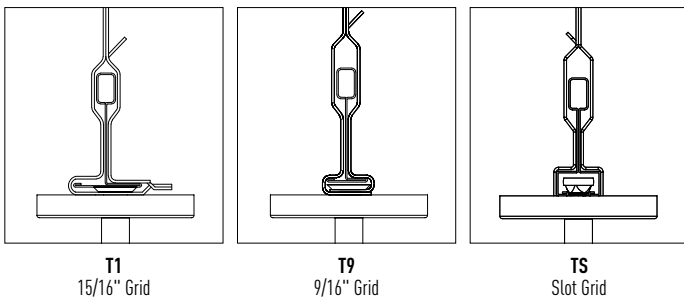
Ceiling Options T1, T9, and TS

T1, T9, TS (End View)

T1, T9, TS (Side View)



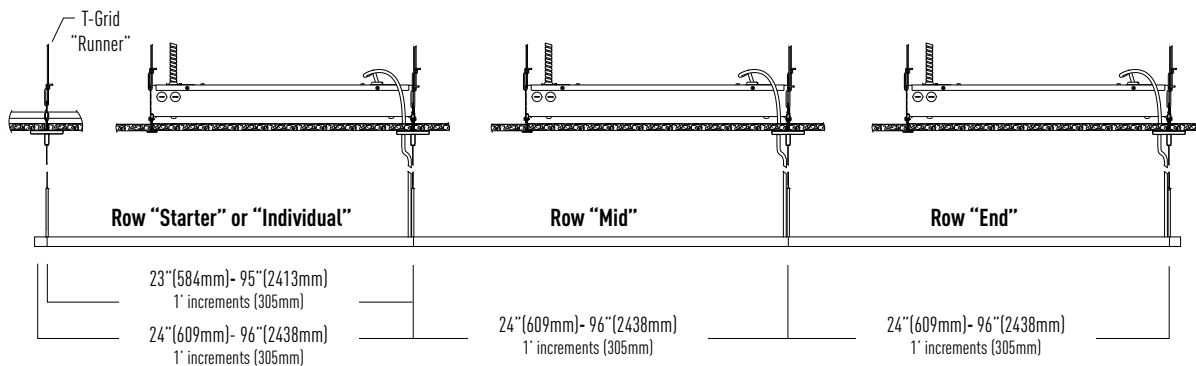
### Ceiling Grid Details



### Row Layout

Ceiling Options T1, T9, and TS

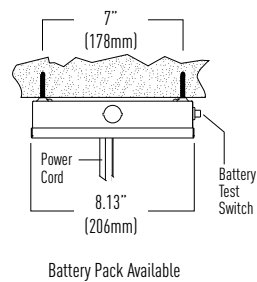
#### DIMENSIONS FOR AIRCRAFT CABLE SUSPENSION MOUNT LOCATIONS



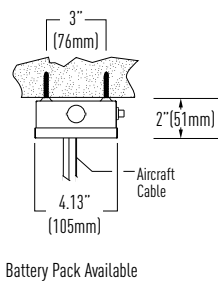
## Surface Mount Driver Enclosures

Ceiling Options SR

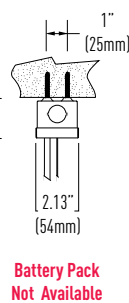
SR (End View)



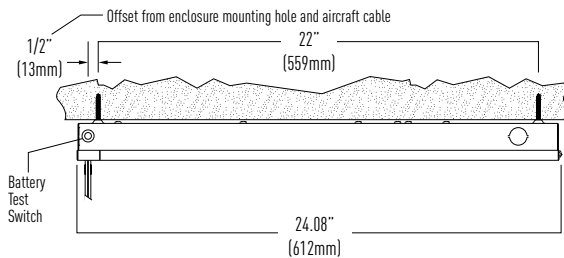
SR (End View)



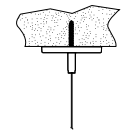
SR (End View)



SR (Side View)



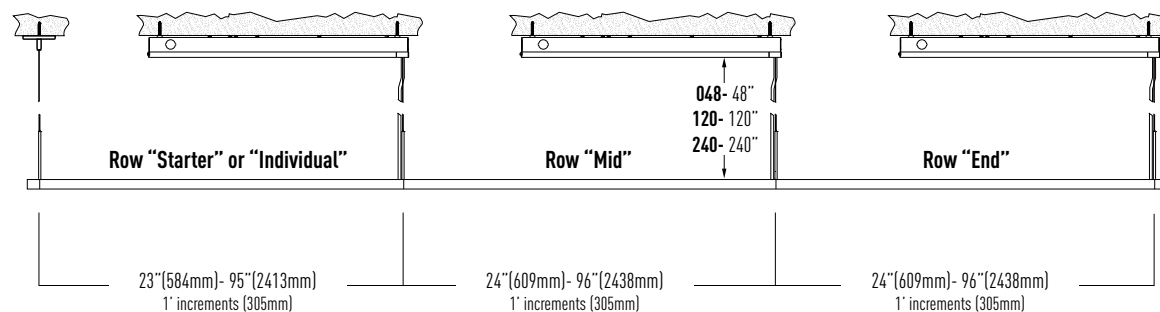
Non-Power canopy



## Row Layout Guidelines

Ceiling Options SR

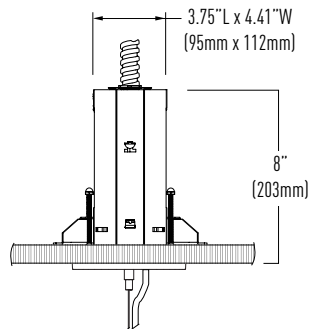
### DIMENSIONS FOR AIRCRAFT CABLE SUSPENSION MOUNT LOCATIONS



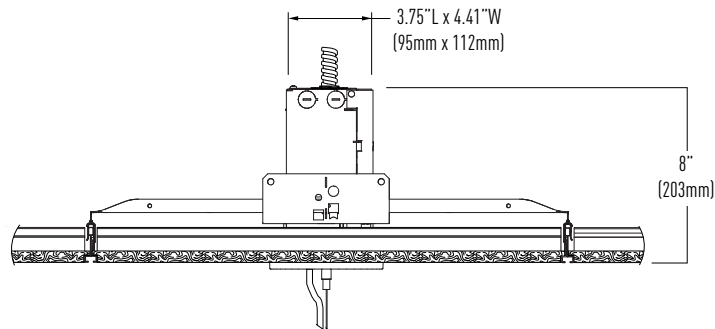
## Recessed Canopy Integrated Driver Enclosure for Inaccessible and Grid Ceilings

Ceiling Option GP

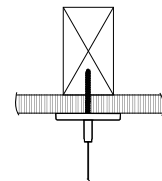
GP (End View)



GP (Side View)

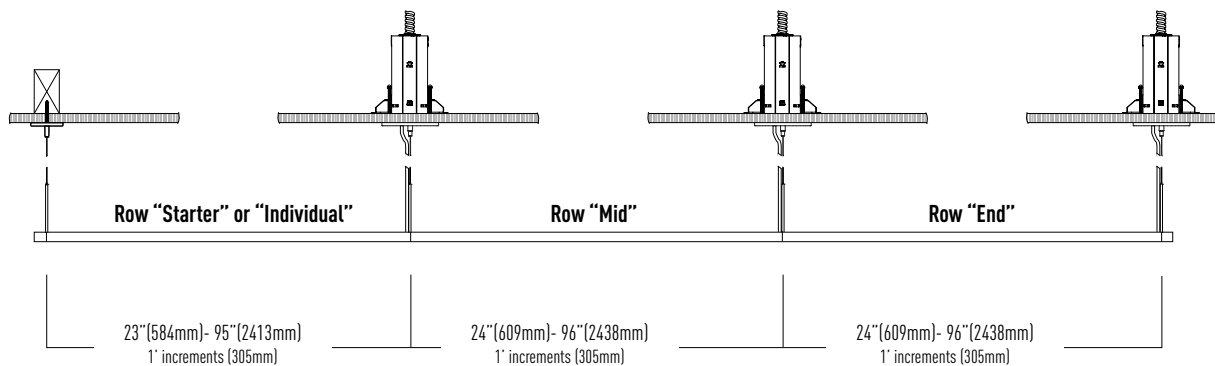


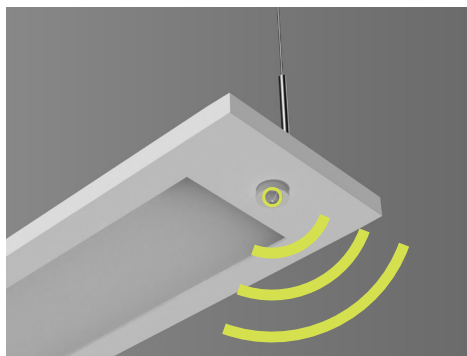
Non-Power  
canopy



## Row Layout Guidelines

Ceiling Option GP





## OEM Connected Lighting Partners

Nulite has formed strategic partnerships with premier OEM suppliers of smart lighting control platforms. Nulite's focus is primarily on embedded fixture level smart sensors and power supplies ensuring system operability and code compliance.

### Benefits of an OEM Supplier

- Factory trained and certified to assemble and test product operability prior to shipment
- Authorized to purchase components, inventory on hand for shorter lead times compared to non-partners
- UL listed as an entire fixture assembly

## Wavelinx (WLX)

Cooper Lighting Solutions

[LEARN MORE](#)

### Integral Fixture Sensors

Item Description	OEM Part #	Integral Sensor Options																			
		0-10v Dimming Control	DAI Dimming Control	IP rated (Outdoor)	Wireless Control	Daylight Harvesting	Occupancy Sensing	LA Series	Regolo 1	Regolo 2	Regolo 3	Regolo 4	RZ4	RXT	Pixie	Sottile	Tavo	Sero	Qub	Bounce	INT
Wavelinx Ambient Integrated Sensor, 8-15ft (2.4-4.6m)	OEM-WAA	●			●	●	●	●	●	●	●						●	●	●		
Wavelinx Industrial Mount Sensor, White, up to 40ft (4.5 - 12.2m)	OEM-SWPD3-WH	●		●	●	●	●														●
Wavelinx Outdoor Fixture	OEM-SWPD5-WH/ BK/BZ	●	●	●	●	●	●							●							

### Additional Notes:

- Nulite is OEM certified and authorized to purchase and install Wavelinx components into their luminaires. All products are fully tested at the Nulite factory and each product ships with UL compliance.
- **Ordering Example:** Nulite Catalog #: TVS-54-08L35-1C-U-D-W-W-T1/48-4. This catalog designation merely identifies luminaires that require Wavelinx compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often required to operate sensors and offer compatibility to the overall control system. Nulite will coordinate with Wavelinx on these items and build into the price accordingly.
- Nulite's standard 0-10v LED drivers are Signify Xitanium Series, and Osram Optotronic Series.

## nLight (NL)

Acuity Brands

[LEARN MORE](#)

### Integral Fixture Sensors

Item Description	OEM Part #	0-10v Dimming Control	DAI Dimming Control	0-10v LEDcode*	DAI LEDcode*	IP rated (Outdoor)	Wireless Control	Daylight Harvesting	Occupancy Sensing	LA Series	Regolo 1	Regolo 2	Regolo 4	Regolo 6	RZ4	RXT	Pixie	Sottile	Tavo	Sero	Qub	Bounce	INT
Indoor Embedded 360° Motion Sensor	MSD PDT 7**	●						●	●	●	●	●	●	●					●	●	●		
Fixture embedded smartsensor	RES7	●		●			●	●	●	●	●	●	●	●					●	●	●		
Passive infrared occupancy sensor	nES7	●						●	●	●	●	●	●	●					●	●	●		
Dimming Photocell	nES ADCX	●						●		●	●	●	●	●					●	●	●		
nLight AIR Outdoor 360° Embedded Motion Sensor	rMSOD	●		●			●	●	●							●							
Fixture embedded smartsensor for challenging environments	rSBG	●		●		●	●	●	●							●							
nLight AIR Fixture Mount Sensor	rLSXR	●				●	●	●	●														

### Additional Notes:

- Nulite is authorized to purchase and install nLight components into their luminaires. All products are fully tested at the Nulite factory and each product ships with UL compliance.
- **Ordering Example:** Nulite Catalog #: TVS-54-08L35-1C-U-D-W-W-T1/48-4. This catalog designation merely identifies luminaires that require NX compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often required to operate sensors and offer compatibility to the overall control system. Nulite will coordinate with nLight on these items and build into the price accordingly.
- \*Proprietary Acuity Brands LEDcode drivers are required for nLight system programming and operation.

## OEM Connected Lighting Partners

### NX (NX)

Distributed Intelligence  
Hubbell

[LEARN MORE](#)

#### Integral Fixture Sensors

Item Description	OEM Part #	0-10v	DALI	IP rated	Wireless	Daylight	Occupancy	LA Series	Regolo 1	Regolo 2	Regolo 4	Regolo 6	RZ4	RXT	Pixie	Sottile	Tavo	Sero	Qub	Bounce	INT
HubbNET Radio Module	NXRM-H	●			●			●	●	●	●	●					●	●	●		
Low Mount Indoor Sensor Module	NXSM-P-LMI	●			●	●	●	●	●	●	●	●					●	●	●		
OMNI Indoor/Outdoor Sensor Module	NXSM-P-OMNI-0	●		●	●	●	●							●							
Slide Mount Indoor Sensor Module	NXSM-P-SMI	●			●	●	●	●	●	●	●	●					●	●	●		
Low Mount Indoor/Outdoor Sensor Module	NXSM-P-LM0	●		●	●	●	●							●							●
Low Mount Indoor/Outdoor Sensor Module, Aisle Lens	NXSM-P-LM0-4	●		●	●	●	●							●							●
High Mount Indoor/Outdoor Sensor Module	NXSM-P-HM0	●		●	●	●	●														●
High Mount Indoor/Outdoor Sensor Module, Aisle Lens	NXSM-P-HM0-4	●		●	●	●	●														●

#### Additional Notes:

- Nulite is an OEM certified nX partner and authorized to purchase and install NX components into their luminaires. All products are fully tested at the Nulite factory and each product ships with UL compliance.
- Ordering Example:** Nulite Catalog #: TVS-54-08L35-1C-U-D-W-T1/48-4. This catalog designation merely identifies luminaires that require NX compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often required to operate sensors and offer compatibility to the overall control system. Nulite will coordinate with the Hubbell on these items and build into the price accordingly.
- Nulite's standard 0-10v LED drivers are Signify Xitanium Series, and Osram Optotronic Series.

### Enlighted (Enl)

A Siemens Company

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#### Integral Fixture Sensors

Item Description	OEM Part #	0-10v	DALI D	IP rated	Wireless	Daylight	Occupancy	LA Ser	Regolo	Regolo	Regolo	Regolo	RZ4	RXT	Pixie	Sottile	Tavo	Sero	Qub	Bounce	INT
MicroSensor, 2-wire Adaptor	KIT-SU-5E-D-*		●		●	●	●	●	●	●	●	●					●	●	●		
High Bay Sensor, 2-wire	SU-5S-2W-H-*		●		●	●	●														●
Ruggedized High Bay, 2-wire, White	SU-5S-2W-HRW-*		●	●	●	●	●														●
Ruggedized Low Bay, 2-wire, White	SU-5S-2W-LRW-*		●	●	●	●	●							●							

#### Additional Notes:

- Nulite is OEM certified and authorized to purchase and install Enlighted components into their luminaires. All products are fully tested at the factory and each product ships with UL compliance.
- Ordering Example:** Nulite Catalog #: TVS-54-08L35-1C-U-D-W-T1/48-4. This catalog designation merely identifies luminaires that require Enlighted compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often required to operate sensors and offer compatibility to the overall control system. Nulite will coordinate with the Enlighted on these items and build into the price accordingly.
- Standard eldoLED Solodrive DALI drivers with integral power supply will be supplied with Enlighted enabled luminaires.

### Vive (LV)

Lutron

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#### Integral Fixture Sensors

Item Description	OEM Part #	Integral Sensor Options																			
		0-10v	DALI Dimming Control	IP rated (Outdoor)	Wireless Control	Daylight Harvesting	Occupancy Sensing	LA Series	Regolo 1	Regolo 2	Regolo 4	Regolo 6	RZ4	RXT	Pixie	Sottile	Tavo	Sero	Qub	Bounce	INT
Vive Integral Fixture Control with Sensor	DFCSJ-OEM-OCC		●		●	●	●	●	●	●	●	●					●	●	●		
Vive Integral Fixture Control (RF only)	DFCSJ-OEM-RF		●		●			●	●	●	●	●					●	●	●		

#### Additional Notes:

- Nulite is OEM certified and authorized to purchase and install Lutron components into their luminaires. All products are fully tested at the Nulite factory and each product ships with UL compliance.
- Ordering Example:** Nulite Catalog #: TVS-54-08L35-1C-U-D-W-T1/48-4. This catalog designation merely identifies luminaires that require Lutron compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often required to operate sensors and offer compatibility to the overall control system. Nulite will coordinate with the Lutron on these items and build into the price accordingly.
- Standard eldoLED Solodrive DALI drivers with integral power supply will be supplied with Enlighted enabled luminaires.
- Recommended drivers for DFCSJ-OEM-OCC: Lutron Ecosystem, Osram Dexas DALI drivers, or Signify Xitanium DALI drivers.

## PRODUCT SPECIFICATIONS AND INFORMATION

### HOUSING CONSTRUCTION

Fixture body is constructed out of powder coat painted extruded aluminum with die cast aluminum powder coat painted end caps. Captive joining mechanism is a combination die formed sheet metal and zinc plated spring steel. All hardware is stainless steel. **SR** remote driver enclosures are constructed out of 22 Ga die-formed cold rolled steel (Covers are post painted and bodies are pre-painted). Grid mounted driver enclosures (**T1/TS/T9**) are formed out of galvanized 24 Ga steel, and **GP** sheet rock enclosures are formed out of 22Ga galvanized steel.

### LEDS AND OPTICAL SYSTEM

Optical system consists of two rows of mid-power constant current LEDs coupled to a 4mm acrylic optical light guide. LEDs are mounted to a removable sheet metal assembly. Lightguide delivers a direct-indirect light pattern with a low glare smooth uniform light distribution.

### STANDARD DIMMING LED DRIVERS

Standard constant current integral electronic 0-10v dimming input. Two standard driver options are available. Option **D** dims to 1% and option **DO** dims to 0% or OFF (the final 1 percent is a "step"). Both options are the same price and representative of the base fixture price. Options **D** and **DO** ship with 5 wires (Line Voltage- Black and White wires, Low Voltage- Purple and Pink wires, Ground- Green wire)

### DALI DRIVERS

Standard constant current DALI drivers available in either a dim to 1% (**ELE**) or dim to 0% (**ELS**). DALI fixtures ship with 5 wires (Line Voltage- Black and White wires, Low Voltage- Purple and Pink wires, Ground- Green wire)

### LIGHT OUTPUT

Standard factory set light outputs are programmed to within +/- 5% of the nominal light level at 3500K 80 CRI LEDs. Light output, wattage, and efficacy will vary across different CRI's CCT's. Refer to ies files on the website for actual detailed lighting performance data.

### CIRCUITING

Each luminaire may have up to 2 line voltage (Power) circuits and 2 low voltage (control) circuits. Two power circuits are required for independent control of uplight and downlight in bi-direct luminaires, and low voltage control circuits are for independent dimming of each circuit.

#### Examples:

- **"1-1"**- 1 power circuit (Line Voltage) and 1 control circuit (Low Voltage) > 5 wires total (1 Black Wire "Hot", 1 White Wire "Neutral", 1 Green Wire "Ground", and 2 low voltage control wires, 1 Pink wire and 1 purple wire)
- **"2-2"**- 2 power circuits (Line Voltage) and 1 control circuit (Low Voltage) > 9 wires total (2 Black Wires "Hot", 2 White Wires "Neutral", 1 Green Wire "Ground", and 4 low voltage control wires, 2 Pink wires and 2 purple wires)

### BATTERY PACKS

Recyclable Ni-Cad battery pack, battery run time is 90 minutes. Recharge time of 24 hours. 6W or 10W battery packs are available. To calculate Battery Lumen Output, multiply luminaire efficacy by battery wattage. (example: 120 lms/watt (**120**) x **B10** Battery Wattage (**10**) = **1200** lumens of egress illumination for 90 minutes.) Battery option not available in fixtures less than 4', and other limitations apply, consult factory. Entire "direct" fixture housing is energized by battery for lengths up to 5'. Half of direct fixture is energized by battery for 6' - 8' housing lengths. Emergency or night light circuit available (requires additional power circuit). Battery fixtures ship with an additional orange "constant hot" wire.

### LUMEN MAINTENANCE

90% of initial light output (L90) at 100,000+ hours, 70% of initial light output (L70) at 200,000+ hours.

### GENERATOR TRANSFER DEVICES

The GTD emergency lighting control device senses the loss of normal power and switches the AC driver input power connection to an unswitched, generator (or central inverter) supplied lighting circuit. GTD fixtures ship with 3 additional wires (orange wire "constant hot", black-red wire "generator hot", white-red wire "generator neutral").

### FIXTURE FINISHES

Standard finish is powder coat painted white (**W**), black (**B**) or silver (**S**). Consult factory for hydro-dipped finishes and custom colors as these options carry extended lead times and price adders to cover set-up and material costs.

### INSTALLATION AND MOUNTING

Pendant luminaires mount to Acoustical Grid Ceilings (**T1,T9,TS**), Sheet Rock Ceilings (**GP**), and Various Structural Ceilings (**SR**). Luminaire power supplies are remote mounted above the ceiling or onto the ceiling surface. Each luminaire requires an dedicated remote power supply. The product is suspended with adjustable aircraft cable up to 240" from ceiling surface. Luminaires may be individually mounted or continuously mounted in linear configurations or complex geometric patterns. Refer to data sheets and installation instructions for details on fixture dimensions, mounting location dimensions and available luminaire configurations.

### WARRANTY

5-year limited warranty on LED and driver from date of shipment. Refer to the full warranty details on [nulite.lighting](https://www.nulite.lighting).

### WEIGHT

Fixtures are 3.25 lbs/ft, Driver box weights vary per enclosure type and electrical configuration, consult factory.

### APPROVALS

ETL listed, conforms to UL Standard 1598 / 8750 and CSA Standard C22.2, indoor dry/damp locations.

### TESTING AND CERTIFICATION

All of Nulite's LED components have been tested under **LM-80** guidelines insuring 6000 hours of luminous flux data. Additionally Nulite can supply **LM-79** data on all luminaires. This data includes luminous flux, electrical power, efficiency, chromaticity as well as the diffusion of luminous intensity.