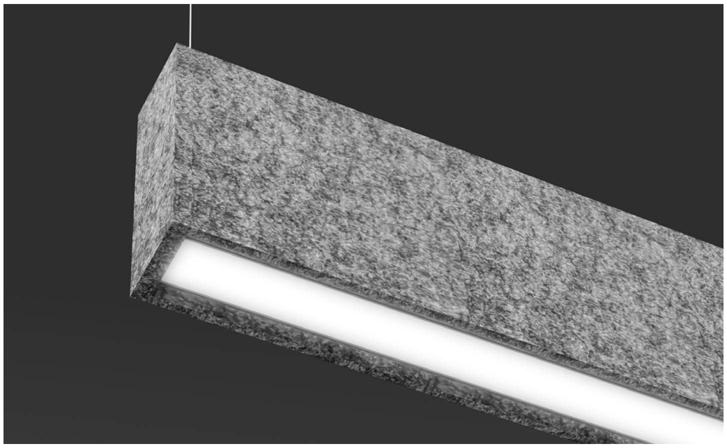
NULITE

DATE: PROJECT:

CATALOG #: TYPE: QTY:



AP1 Series

Acoustic Luminaire

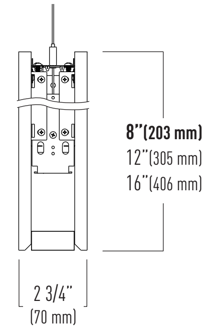
Frosted Lens

Pendant

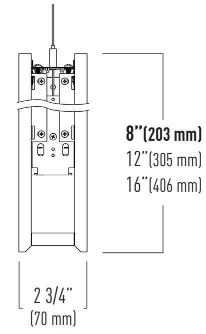
DIRECT
Light Distribution

Nulite's AP1 Regolo acoustic system combines high performance LED lighting with sound absorbing PET felt to dampen noise within a space while also introducing color and texture to the ceiling plane.

- ***Hybrid PET felt and extruded aluminum fixture construction***
- ***28 PET felt color and pattern options***
- ***Tool free installation with engineered spring latch design***
- ***Individual or continuous row mounting***

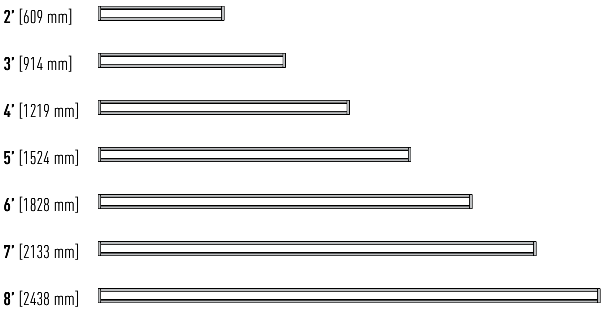


R1 Acoustic Frosted Drop Lens



R1 Acoustic Frosted Flush Lens

Standard Individual Fixture Lengths*



* Dimensions represent fixture body length, add 1" for overall fixture dimension that includes both end caps

ORDERING INFORMATION / Example: AP1-8H-D-FF-O-05-05-L30-UNV-D-11-PW-T1W048.

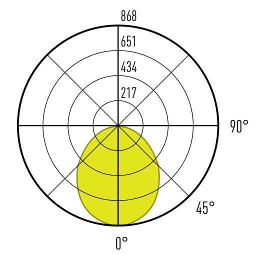
AP1						
SERIES	FIXTURE HEIGHT	DISTRIBUTION	DIRECT SHIELDING	LUMENS DOWN	CRI & CCT	
AP1 - Regolo Acoustic Pendant	**8H** - 8"(203mm) **12H** - 12"(305mm) **16H** - 16"(406mm)	**D** - Direct	**FF** - Frosted Flush Lens **FRL** - Frosted Dropped Lens (Luminous Ends)	**03** - 300 lm/ft **05** - 500 lm/ft **08** - 800 lm/ft **10** - 1000 lm/ft	**L** - 80 CRI **H** - 90 CRI	**30** - 3000K **35** - 3500K **40** - 4000K

VOLTAGE	DRIVER	CIRCUITING			FELT OPTION
UNV - Universal 120 - 277V 50/60Hz **120V** - 120V **277V** - 277V	**Dimming 0-10V** **D** - Dim to 1% (Standard) **DO** - Dim to 1%, Fade to Off **D02** - Eldoled Solodrive, Dim to 0% **LUTRON** - See options on page 2	**Qty of Power Circuits** **1** - 1 Power **2** - 2 Power	**Qty of Control Circuits** **1** - 1 Control **2** - 2 Control	**Options** **B10** - 10 Watt Battery Pack (CEC Compliant) **B15** - 15 Watt Battery Pack (CEC Compliant) **GTD** - Generator Transfer Device (120V or 277V) **EM** - Dedicated Emergency Circuit	**PW** - Pewter **SL** - Slate *See page 4 to review 26 additional colors and patterns

MOUNTING			OPTIONS	LINEAR ROWS
Ceiling Type **T1** - Aircraft Cable to 1" Grid **T9** - Aircraft Cable to 9/16" Grid **TS** - Aircraft Cable to Slotted Grid **SR** - Aircraft Cable to Structure	**Mounting Hardware Finish** **W** - White Canopies and Cord **B** - Black Canopies and Cord	**Suspension Length** **048** - 48" Adjustable Aircraft Cable **120** - 120" Adjustable Aircraft Cable **240** - 240" Adjustable Aircraft Cable	**WLX** - Wavelinx (Cooper Lighting Solutions) Integral Sensor **NX** - NX (Hubbel) Integral Sensor **NLT** - nLight (Acuity Brands) Integral Sensor **LV** - Vive (Lutron) Integral Sensor **ENL** - Enlighted Integral Sensor	**2** - 24" **3** - 36" **4** - 48" **5** - 60" **6** - 72" **7** - 84" **8** - 96" **XX** - Specify continuous run lengths in 1' increments

PHOTOMETRICS

Report #: ITL91006
3500K / 80 CRI
500 lumens per ft



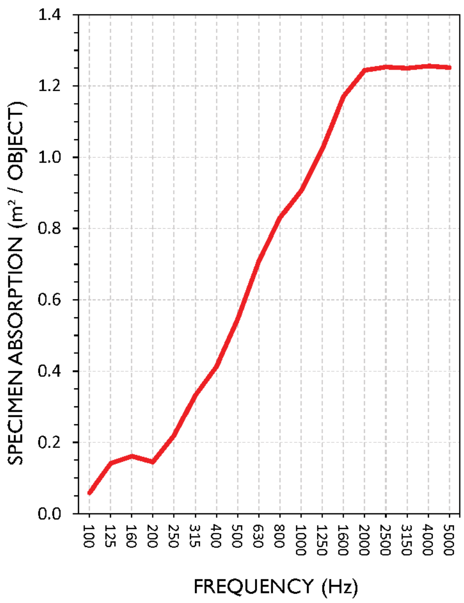
Light Level	Lumens per ft	Watts per ft	Lumens per watt
03	300	2.6	106
05	500	4.77	110
08	800	7.1	106

Max luminance **20997 cd/m^2**

Max UGR: **28.1**

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

ACOUSTIC PERFORMANCE



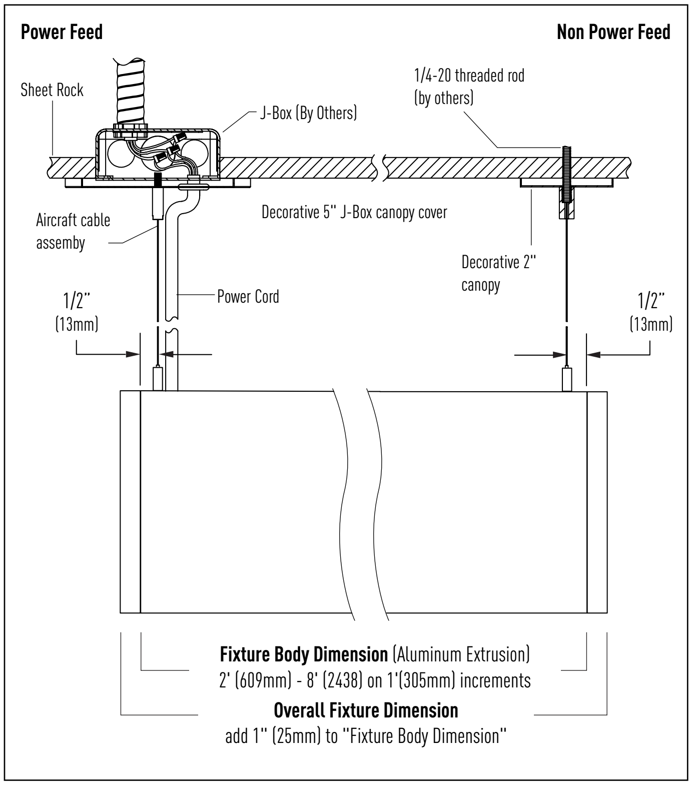
*Values vary depending on test frequency and fixture configuration. Please refer to specification sheets for actual values.

DRIVER INFORMATION

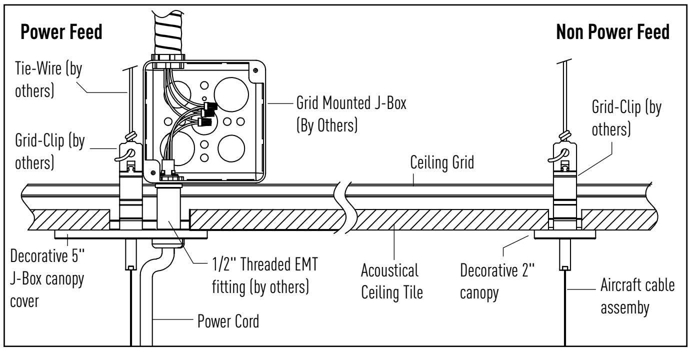
NULITE CAT#	DRIVER MANUFACTURER / SERIES	DIMMING / CONTROL PROTOCOL	DIM RANGE	NOTES/ DESCRIPTION
D	Signify Xitanium, Osram OTI	0-10v	100% -1%	Standard Nulite driver, base fixture price
DO	Signify Xitanium, Osram OTI	0-10v	100%- 1% (Steps from 1% to 0% or OFF)	Standard Nulite driver, base fixture price
D02	Eldoled Solodrive	0-10v	100% - 0%	Logarithmic Dimmng Curve
L11	Lutron Hi-Lume Premier (PEQOE) Max lumen package 03	0-10v	100% - 0.1%	Hi-lume Premier 0.1% EcoSyetem 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

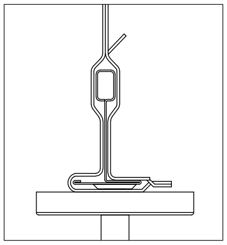
CEILING MOUNTING DETAILS

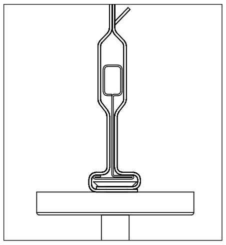
Inaccessible Ceilings (Sheet Rock Typical)

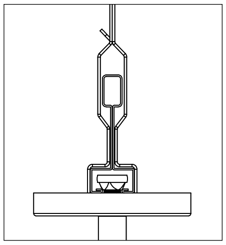

Power Feed
Non Power Feed
Sheet Rock
J-Box (By Others)
1/4-20 threaded rod (by others)
Aircraft cable assemby
Decorative 5" J-Box canopy cover
Decorative 2" canopy
Power Cord
1/2" (13mm)
1/2" (13mm)
Fixture Body Dimension (Aluminum Extrusion)
2' (609mm) - 8' (2438) on 1'(305mm) increments
Overall Fixture Dimension
add 1" (25mm) to "Fixture Body Dimension"

Acoustical Tile Grid Ceilings


Power Feed
Non Power Feed
Tie-Wire (by others)
Grid-Clip (by others)
Grid Mounted J-Box (By Others)
Ceiling Grid
Grid-Clip (by others)
Decorative 5" J-Box canopy cover
1/2" Threaded EMT fitting (by others)
Acoustical Ceiling Tile
Decorative 2" canopy
Aircraft cable assemby
Power Cord

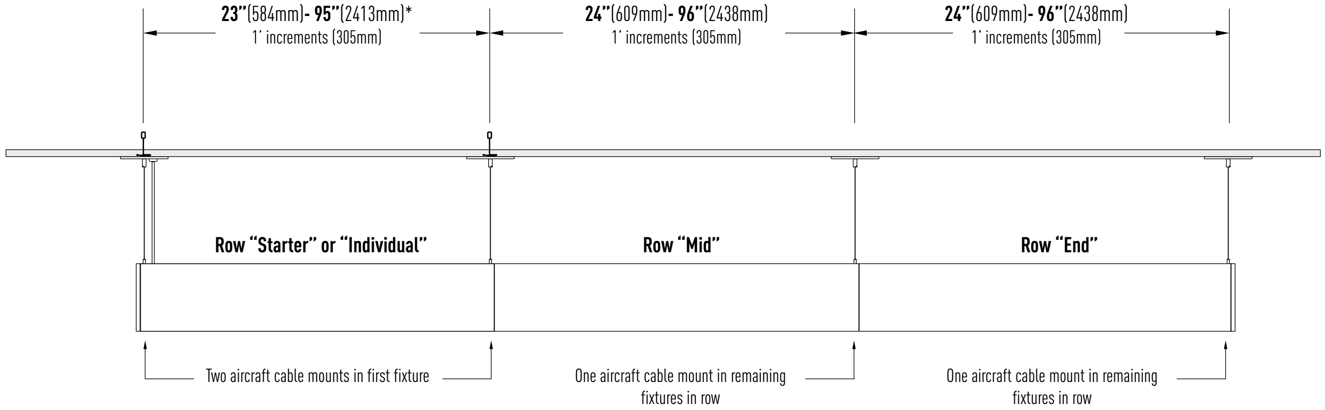

T1
15/16" Grid


T9
9/16" Grid


TS
Slot Grid

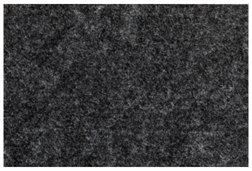
ROW LAYOUT DETAILS

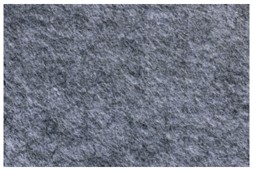
REFERENCE DIMENSIONS FOR AIRCRAFT CABLE FIXTURE SUSPENSION MOUNTS


23"(584mm)- 95"(2413mm)*
1' increments (305mm)
24"(609mm)- 96"(2438mm)
1' increments (305mm)
24"(609mm)- 96"(2438mm)
1' increments (305mm)
Row "Starter" or "Individual"
Row "Mid"
Row "End"
Two aircraft cable mounts in first fixture
One aircraft cable mount in remaining fixtures in row
One aircraft cable mount in remaining fixtures in row

ACOUSTIC MATERIAL COLORS

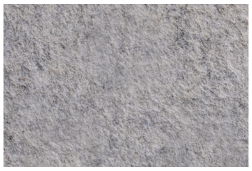
STANDARD COLORS AND PATTERNS


PW - Pewter

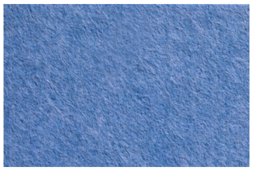

SL - Slate

PREMIUM COLORS AND PATTERNS

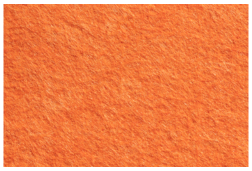
TA - Tar

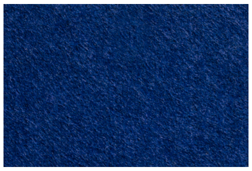

PB - Pebble

CH - Chambray

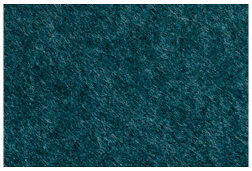

SK - Sky

FL - Fossil


MN - Mandarin


CB - Cobalt

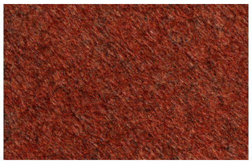
GG - Greige

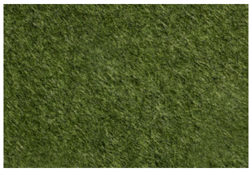

MA - Malachite

GR - Grass

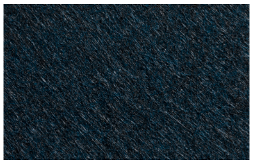
SN - Sunshine

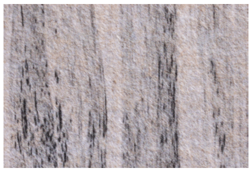
CD - Cadet

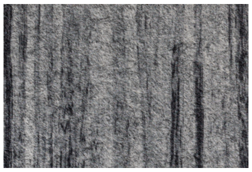

BR - Brick

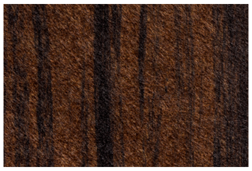

OL - Olive

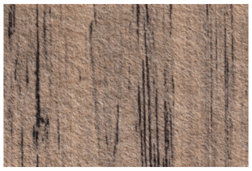
OC - Ochre

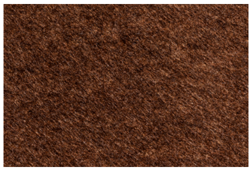

MD - Midnight


EU - Eucalyptus


IB - Ironbark

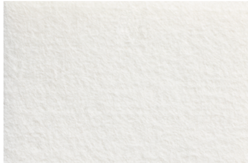

MR - Merbau

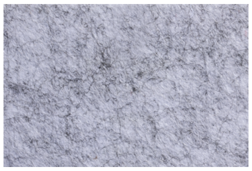

SG - Spotted Gum

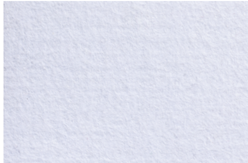

BA - Bark

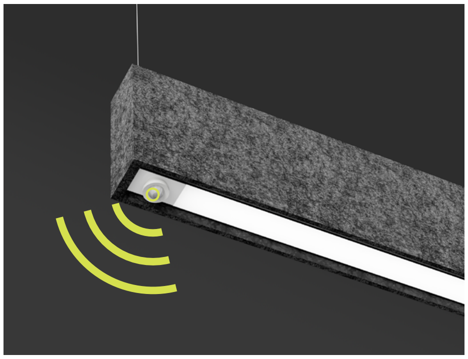
EC - Ecru

LN - Linen


IV - Ivory


SM - Smoke


FR - Frost



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

		Integral Sensor Options						Nulite Compatible Product Lines													
Item Description	**OEM Part #**	0-10v Dimming Control	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**
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 #: AP1-8H-D-FF-0-05-05-L30-UNV-D-11-PW-T1W048**.** 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

		Integral Sensor Options								Nulite Compatible Product Lines													
Item Description	**OEM Part #**	0-10v Dimming Control	DALI Dimming Control	0-10v LEDcode*	DALI 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 #: AP1-8H-D-FF-0-05-05-L30-UNV-D-11-PW-T1W048**.** 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.
- ****The MSD PDT 7 is Nulite's standard wired integral fixture sensor**

OEM Connected Lighting Partners

NX (NX)

Distributed Intelligence

Hubbell

LEARN MORE

Integral Fixture Sensors

		Integral Sensor Options						Nulite Compatible Product Lines													
Item Description	**OEM Part #**	0-10v Dimming Control	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**
HubbNET Radio Module	**NXRM-H**	●			●			●	●	●	●	●									
Low Mount Indoor Sensor Module	**NXSM-P-LMI**	●			●	●	●	●	●	●	●	●									
OMNI Indoor/Outdoor Sensor Module	**NXSM-P-OMNI-O**	●		●	●	●	●							●							
Slide Mount Indoor Sensor Module	**NSXM-P-SMI**	●			●	●	●	●	●	●	●	●									
Low Mount Indoor/Outdoor Sensor Module	**NXSM-P-LMO**	●		●	●	●	●							●							
Low Mount Indoor/Outdoor Sensor Module, Aisle Lens	**NXSM-P-LMO-4**	●		●	●	●	●							●							
High Mount Indoor/Outdoor Sensor Module	**NXSM-P-HMO**	●		●	●	●	●														
High Mount Indoor/Outdoor Sensor Module, Aisle Lens	**NXSM-P-HMO-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 #: AP1-8H-D-FF-0-05-05-L30-UNV-D-11-PW-T1W048**.** 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
- ****The MSD PDT 7 is Nulite's standard wired integral fixture sensor**

Enlighted (Enl)

A Siemens Company

LEARN MORE

Integral Fixture Sensors

		Integral Sensor Options						Nulite Compatible Product Lines													
Item Description	**OEM Part #**	0-10v Dimming Control	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**
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 #: AP1-8H-D-FF-0-05-05-L30-UNV-D-11-PW-T1W048**.** This catalog designation merely identifies luminaires that require Enlighted compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often 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

LEARN MORE

Integral Fixture Sensors

		Integral Sensor Options						Nulite Compatible Product Lines													
Item Description	**OEM Part #**	0-10v Dimming Control	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 #: AP1-8H-D-FF-0-05-05-L30-UNV-D-11-PW-T1W048**.** This catalog designation merely identifies luminaires that require Lutron compatible integral fixture sensors. Additional hardware such as power packs and wiring harnesses are often 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 Dexal DALI drivers, or Signify Xitanium DALI drivers
- ****The MSD PDT 7 is Nulite's standard wired integral fixture sensor**

PRODUCT SPECIFICATIONS AND INFORMATION

HOUSING CONSTRUCTION

Fixture body is constructed of powder coat painted extruded aluminum, formed sheet metal internal bracketing and sound absorbing recycled polyester (PET) felt. Captive joining mechanism is a combination die formed sheet metal and zinc plated spring steel. All hardware is stainless steel.

LED LENS ASSEMBLY

Optical systems consist of a single row of mid power constant current LEDs mounted to a removable co-extruded acrylic and PVC lens assembly. Frosted lens diffuses LED light source while delivering high efficacy general illumination.

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 **D0** 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 **D0** 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

For bi-direct luminaires you must specify "direct" light output and "indirect" light output and the factory will tune or program each lighting channel. Available nominal direct and direct-indirect light outputs are **(03)** 300 lms/ft, **(05)** 500 lms/ft, and **(08)** 800 lms/ft. . Each circuit or channel may be independently controlled and this can be specified in "circuiting" within the ordering information. Specifying a "2-2" enables independent dimming control of each channel.

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 addtional power circuit). Battery fixtures ship with an additional orange "constant hot" wire.

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

Fixture Internal Body

The R1A internal fixture body will be painted white with the exception R1A fixtures having black baffle optics, these fixture bodies will be painted black.

Mounting Hardware Canopies

Mounting hardware canopies are available in black or white consult factory for custom colors.

Acoustical Felt Material

Felt fixture material is available in two standard colors Pewter **(PW)**, or Slate **(SL)**. There are an additional 26 color options on page 4, consult factory for lead time and availability.

INSTALLATION AND MOUNTING

The R1A is designed to be pendant mounted by aircraft suspension cable in individual, continuous rows. The R1A may be specified to mount to acoustical grid ceilings, sheet rock, and structural ceiling surfaces. Refer to installation instructions at www.nulite-lighting.com for details.

FIXTURE LENGTHS - LINEAR ROWS

Standard fixture lengths for individual or continuous row mounting are available in exact 1'(305mm) increments from 2' (610mm) to 8' (2438mm). Consult factory for custom lengths, limitations apply.

WARRANTY

5-year limited warranty on LED and driver from date of shipment. Refer to the full warranty details on www.nulite-lighting.com/products/184.

WEIGHT

Fixtures are 2.7 lbs/ft, Driver box weights vary, consult factory.

APPROVALS

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

TESTING PROTOCOLS AND DATA

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.

LUMEN MAINTENANCE

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