# BoltPro Square | Pendant, Surface & Wall

1⅝″
3¼″
2″
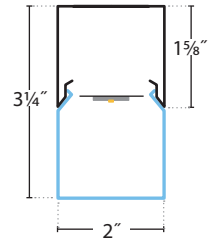
**NEW** ACOUSTIC OPTIONS

## Design + Function. BoltPro shapes + sound absorbing panels.

Bolt Triangle, Square, Pentagon and Hexagon now available with acoustic panels. We are in an era of open ceilings, concrete floors where noise reduction is imperative. Add fixtures with abundant light, vertical illumination and a multitude of shapes and colors for a "two birds (maybe three), one stone" solution.

**BSQ-PRO-22-LED35-LO**

| | |
|---|---|
| 3953 | Delivered Lumens |
| 30 | Watts |
| 132 | lm/w |

### UP TO 131 LPW

| | | LO | MO | SO | HO |
|---|---|---|---|---|---|
| **11** | lm | 1875 | 3300 | 4700 | 6300 |
| | w | 13 | 23 | 33 | 44 |
| **22** | lm | 3900 | 6500 | 8900 | 11400 |
| | w | 30 | 52 | 75 | 100 |
| **33** | lm | 5900 | 9800 | 13400 | 17000 |
| | w | 45 | 78 | 112 | 150 |
| **44** | lm | 7950 | 13300 | 18000 | 23400 |
| | w | 60 | 104 | 150 | 200 |

Lumen output may vary +/- 5%
3500K used for lm/ft estimates above
4000K +2% llf, 3000K –2%, 2700K –4%
-10% LLF for 90 CRI (4K, 3500K and 3K)
**See LED Details PDF for more info**

SOCIAL MEDIA KIT    Declare.    LED WARRANTY 5 YEAR    LED Details    Made in the US★

| SERIES | NOMINAL LENGTH | LED COLOR | OUTPUT | SHIELD-ING | ACOUSTIC COLORS (OPTIONAL) | | COLOR/ FINISH | VOLT-AGE | MOUNTING | CEILING SYSTEMS | DRIVERS | OPTIONS & SEN-SORS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BSQ-PRO | | | | SAL | | | | | | | | |
| BoltPro Square | **NEW** 11 1´ x 1´<br>22 2´ x 2´<br>33 3´ x 3´<br>44 4´ x 4´ | LED27 2700K (90CRI)<br>LED3 3000K<br>LED35 3500K<br>LED4 4000K<br>LED3-90 90CRI<br>LED35-90 90CRI<br>LED4-90 90CRI<br>LED5-90 90CRI | LO Low<br>MO Medium<br>SO Standard<br>HO High<br>PROG Program-mable Light Output (Specify desired lm/ft or w/ft) | SAL Satin Acrylic Lens | **STANDARD:**<br>DB05 White<br>DB03 Marble<br>DB33 Grey<br><br>**PREMIUM:** (LONGER LEAD TIMES)<br><br>DB02 Oat<br>DB27 Teal<br>DB24 Sky Blue<br>DB26 Midnight Blue<br>DB09 Yellow<br>DB16 Orange<br>DB10 Red<br>DB28 Hickory<br>DB12 Pink<br>DB01 Sand Dollar<br>DB06 Periwinkle<br>DB36 Black<br>DB20 Lime<br>DB23 Honey Dew<br>DB18 Maroon<br>DB14 Violet | DB29 Brown<br>DB30 Earth Brown<br>DB32 Stone<br>DB34 Charcoal<br>DB35 Pepper<br>DB31 Blue Jean<br>DB25 Navy<br>DB11 Berry<br>DB17 Pumpkin<br>DB08 Lemon<br>DB19 Pear<br>DB21 Green<br>DB22 Heather Green<br>DB13 Lilac<br>DB15 Purple<br>DB07 Salmon | TMW Tex-tured Matte White<br>YGW Gloss White (Standard)<br>Y__ Pre-mium Color<br>CC Custom Color | UNV (120-277)<br>347 (Emer-gency battery requires a Step Down trans-former, NA - 11) | CA48″, 96″ or 144″ Aircraft Cable (Adjustable, NA-11)<br><br>4SPM48″, 96″ or 144″ Square Cast Aluminum Canopy (Min from fixture to ceiling 2´: 14″, 3´: 22″, 4´: 30″)<br><br>4RPM48″, 96″ or 144″ Round Cast Aluminum Canopy (Min from fixture to ceiling 2´: 14″, 3´: 22″, 4´: 30″)<br><br>SUR Surface or Wall Mount (Hard ceiling only) | X1 T-Bar ¹⁵⁄₁₆″ or ⁹⁄₁₆″ Exposed (Standard) Consult factory for ⁹⁄₁₆″ Tegular<br><br>X3 Hard Ceiling<br><br>X6 Slot Grid or Interlude | ND Non-Dim-ming<br>DM01 0-10v, 1% Dimming (Standard)<br>LDE1 Hi-lume 1% EcoSystem LED (Soft fade on, fade-to-black dim-ming)<br>ECO 1% 0-10v, EldoLED (Logarith-mic dimming std)<br>ECDA 1% DALI, EldoLED (Logarith-mic dimming std)<br>nLight-Air includes rIO (ECDA driver ONLY)<br>nLight-Wired Acuity nLight Drivers (ECO driver ONLY)<br>SOLO‡ 0.1% 0-10v, EldoLED (Dim-to-dark, Loga-rithmic dimming std)<br>SODA‡ 0.1% DALI, EldoLED (Dim-to-dark, Loga-rithmic dimming std)<br>STEP Signify Advance Step Dimming<br>2WIRE ELV/For-ward/Reverse Phase Driver ‡ NA-11 | EMHE* CA T20 Emergency Bat-tery (1350 Delivered lumens, CA Title 20 compliant)<br>ETS-DR* Iota ETS-DR Emergency Transfer Switch<br>* NA - 11<br><br>**SENSORS:** (See Page 8)<br>**SENSORS NA - 11**<br>205 WattStopper PIR Occupancy<br>**205-ON/OFF**<br>**205-STEP:** Dim to 50%<br>**205-DM:** Dim to 1%<br>ATHENA Lutron RF<br>ENL Enlighted SU-5E-IOT<br>LVOC‡‡ Lutron Vive (Occ & RF)<br>LVRF‡‡ Lutron Vive (RF Only)<br>‡‡ Requires Lutron driver<br>NXSMP Hubbell (Occ)<br>nLT-AIR-ADCX Daylight+(PIR Acoustic) Occ<br>nLT-WIRED-ADCX Daylight+(PIR Acoustic) Occ |

Pendant    1

06-26-2023

## PHOTOMETRICS

**Low Output:**

BSQ-PRO-22-LED35-LO

| | |
|---|---|
| 3953 | Delivered Lumens |
| 30 | Watts |
| 132 | lm/w |
| 3500 | CCT |
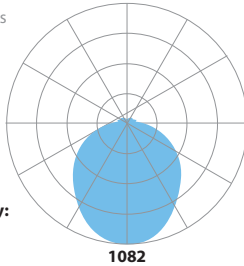
**Zonal Lumen Summary:**
0-90 (Down) = 89%
90-180 (Up) = 11%

1082

| Vertical Angle | 0° | 45° | 90° | 135° | 180° |
|---|---|---|---|---|---|
| 0° | 1082 | 1082 | 1082 | 1082 | 1082 |
| 5° | 1069 | 1074 | 1069 | 1076 | 1069 |
| 15° | 1031 | 1041 | 1028 | 1043 | 1023 |
| 25° | 942 | 959 | 938 | 956 | 934 |
| 35° | 828 | 851 | 826 | 848 | 831 |
| 45° | 707 | 733 | 715 | 731 | 709 |
| 55° | 586 | 614 | 597 | 615 | 592 |
| 65° | 462 | 490 | 472 | 492 | 469 |
| 75° | 327 | 359 | 336 | 362 | 333 |
| 85° | 200 | 220 | 206 | 219 | 203 |
| 90° | 99 | 119 | 100 | 117 | 94 |
| 95° | 86 | 112 | 94 | 113 | 95 |
| 105° | 79 | 100 | 81 | 104 | 81 |
| 115° | 63 | 83 | 63 | 84 | 61 |
| 125° | 49 | 71 | 47 | 72 | 42 |
| 135° | 43 | 56 | 39 | 55 | 35 |
| 145° | 35 | 43 | 30 | 43 | 28 |
| 155° | 30 | 31 | 30 | 31 | 28 |
| 165° | 18 | 18 | 18 | 18 | 17 |
| 175° | 10 | 8 | 8 | 7 | 8 |
| 180° | 0 | 0 | 0 | 0 | 0 |

## LUMEN MAINTENANCE

**L70 —** 200,000+ Hours
**L90 —** 100,000+ Hours (LO, MO & SO)
**L90 —** 60,000+ Hours (HO)

**LED SYSTEM**   LED modules and drivers are field replaceable.

**PROG**
(OPTIONAL)   Programmable light output. Specify desired lumens or watts per linear foot. Min: 3.75 w/ft, Max 12.5 w/ft.

**BINNING**   Standard binning (all Prudential LED boards) includes testing at the chip level and board integration to provide consistent color temperature within a 3-step MacAdam ellipse, with +/- 5% lumen output range and +/- .004 Duv.

**LABELS**   CSA and ETL damp labeled and I.B.E.W. manufactured.

**ELECTRICAL**   Must specify LED dimming controls. LED fixtures have constant current driver(s) with less than 20% THD when loaded to a minimum of 60%. Drivers sink a maximum of 6mA per driver. DM01 LED drivers are 0-10V dimmable and are compatible with most 0-10V wall slide dimmers and direct 0-10V analog signal dimmers. Max driver size 1.65˝ w x 1.25˝ h. 32v Forward Voltage (+/– 1 volt based on drive current)
*Drive Currents:*
**LO:** 100mA, **MO:** 100mA, **SO:** 250mA, **HO:** 325mA

## CONSTRUCTION

Housing   Extruded aluminum, 25% PC recycled, 100% recyclable.

Lens   Extruded acrylic, 100% recyclable.

Weight   **11:** 6 lbs
**22:** 16 lbs
**33:** 24 lbs
**44:** 32 lbs

**MOUNTING**   Fixture is to be suspended with aircraft cables or surface mounted.

**WARRANTY**   Single-source, 5 year limited warranty covers standard components and construction.

## Premium Colors

| | |
|---|---|
| YSW – Seashell White (Matte) | YCH – Champagne (Metallic) |
| YSL – Silver (Metallic) | YPE – Pewter (Matte) |
| YRG – Rain Grey (Gloss) | YSTM – Storm Grey (Matte) |
| YBK – Black (Matte) | YBB – Black (Semi Gloss) |
| YSKM – Sky (Matte) | YMB – Military Blue (Matte) |
| YIB – Interstate Blue (Matte) | YSAM – Sapphire (Matte) |
| YFGM – Forest Green (Matte) | YBR – Bronze (Matte) |
| YBY – Boysenberry (Matte) | YSRM – Sunset Red (Matte) |
| YOR – Orange (Matte) | YDAM – Daffodil (Matte) |

Choose from one of our Premium Colors with no set-up fee.

For paint chip samples, please email:
**info@prulite.com**

## MOUNTING



**CA48˝, 96˝ & 144˝:** 5˝ Canopies
(NA - 11)

### SENSOR BOX



**205**
WattStopper PIR Occupancy

NA - 11.



**ENL**
Enlighted 2-Wire PIR Daylight, Motion & Environmental Sensor
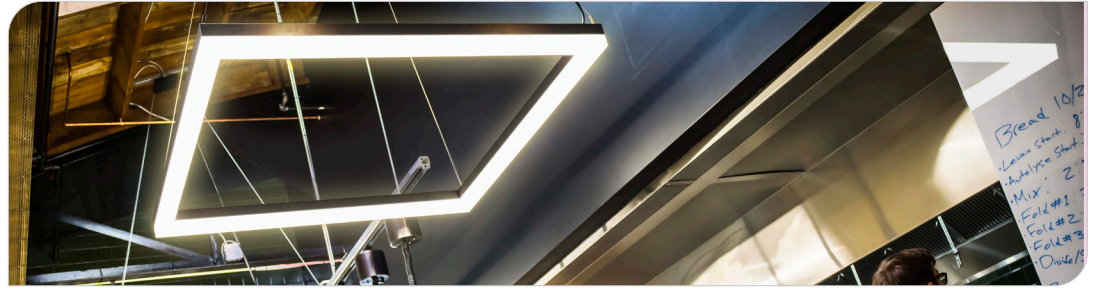
**NOTE:**

### SENSOR MOUNTING LOCATION
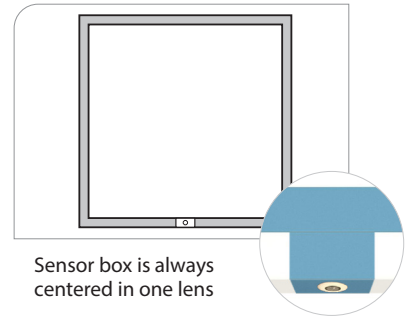


Sensor box is always centered in one lens

**4RPM48˝, 96˝ or 144˝:** Round Cast Aluminum Canopy
*4SPM: 1´, 2´, 3´, 4´ (4 Cables)*
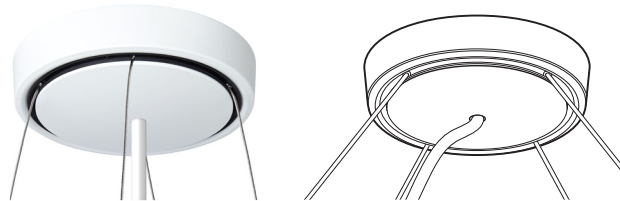


**4RPM48˝, 96˝ or 144˝:** Square Cast Aluminum Canopy
*4SPM: 1´, 2´, 3´, 4´ (4 Cables)*
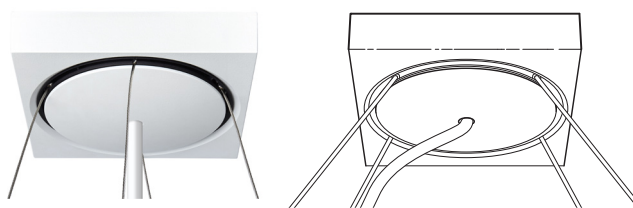


**NOTE:** Canopies cannot mount directly to t-bar grids

1⅝˝
6½˝

## MOUNTING DIMENSIONS



**1´** NEW
8˝  4˝  1˝
10˝
12˝
• Cable & Surface Mounting

**2´**
12¹⁄₁₆˝
2´
24⅛˝
26⅛˝

**3´**
18¹⁄₁₆˝
3´
36⅛˝
38⅛˝

**4´**
34¹⁄₁₆˝
4´
48⅛˝
50⅛˝

## ACOUSTIC COLORS

### STANDARD
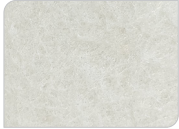
**DB05** White          **DB03** Marble          **DB33** Grey
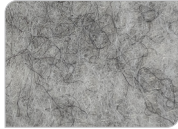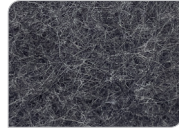
### PREMIUM (LONGER LEAD TIMES)
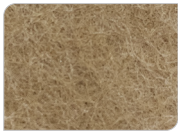
| | | | | | | |
|---|---|---|---|---|---|---|
| **DB01** Sand Dollar | **DB02** Oat | **DB18** Maroon | **DB28** Hickory | **DB29** Brown | **DB30** Earth Brown | **DB32** Stone |
| **DB34** Charcoal | **DB35** Pepper | **DB06** Periwinkle | **DB31** Blue Jean | **DB26** Midnight Blue | **DB27** Teal | **DB24** Sky Blue |
| **DB25** Navy | **DB11** Berry | **DB10** Red | **DB16** Orange | **DB17** Pumpkin | **DB09** Yellow | **DB08** Lemon |
| **DB20** Lime | **DB19** Pear | **DB21** Green | **DB22** Heather Green | **DB23** Honey Dew | **DB12** Pink | **DB07** Salmon |
| **DB13** Lilac | **DB14** Violet | **DB15** Purple | **DB36** Black | | | |
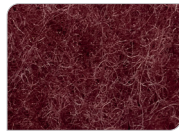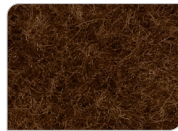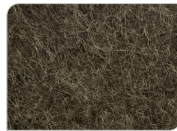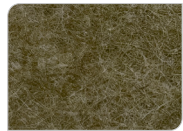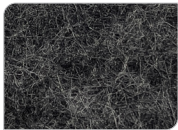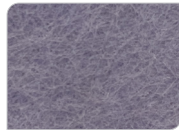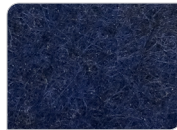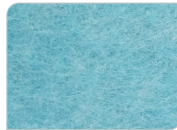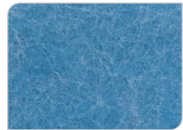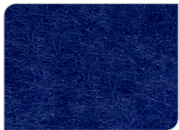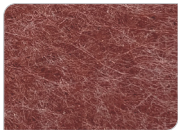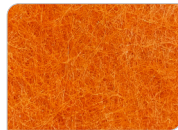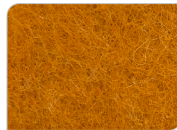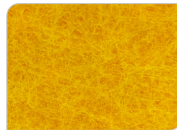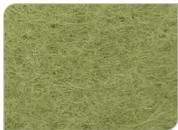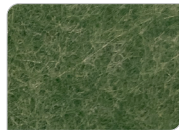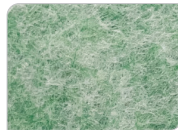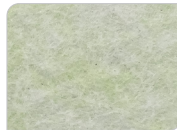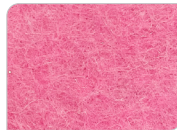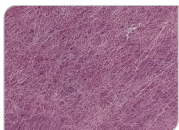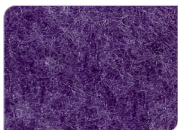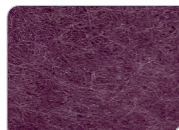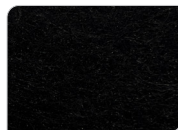
*Consult factory for Premium Color acoustic lead times.*

### CROSS SECTION

½″

1⅝″

3¼″

2″
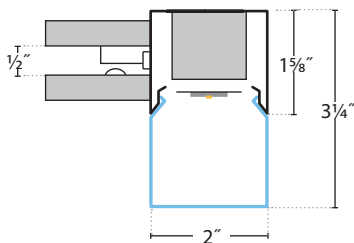
*Two layers of acoustic with ½″ air gap for better sound absorbtion*

1⅝″

3¼″

2″

*One layer acoustic for Surface Mounted*

## SOUND ABSORPTION

### Why acoustical fixtures?

Open office, open ceilings, hard floors have replaced sound absorbing cubicles, acoustic ceilings and carpet, thus acoustics have declined, enter Acoustics.

**ACOUSTIC**
**1˝ Air Gap**   2¼˝
**ACOUSTIC**

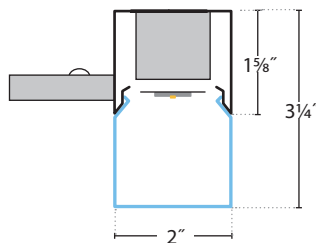Two layers of acoustic trapping 1˝ of air for superior sound absorption

### The benefits of Acoustics?

— Reduced echoes, background noise
— Improved sound quality
— A more peaceful space
— Enhanced aesthetics

### How can I calculate Acoustic sound absorption?

Sabins per object is the standard measurement. One Sabins is approximately 1ft$^2$ of sound absorption. Sound absorption varies at different frequencies.

*For precise acoustic performance of a space, please consult an acoustician.*



### What is an NRC rating?

Noise Reduction Coefficient (NRC) is a rating for how much sound a surface absorbs according to the test method ASTM C423. Acoustic performance is measured using this rating. NRC is the average Sabins per square foot of surface covered. Apparent NRC (A-NRC) Ratings are calculated from the total Sabins measured for an object array over an area of projected continuous ceiling This is equivalent to ceiling tile of the same NRC rating over the same installed area.

NRC ratings range from 0 to 1+
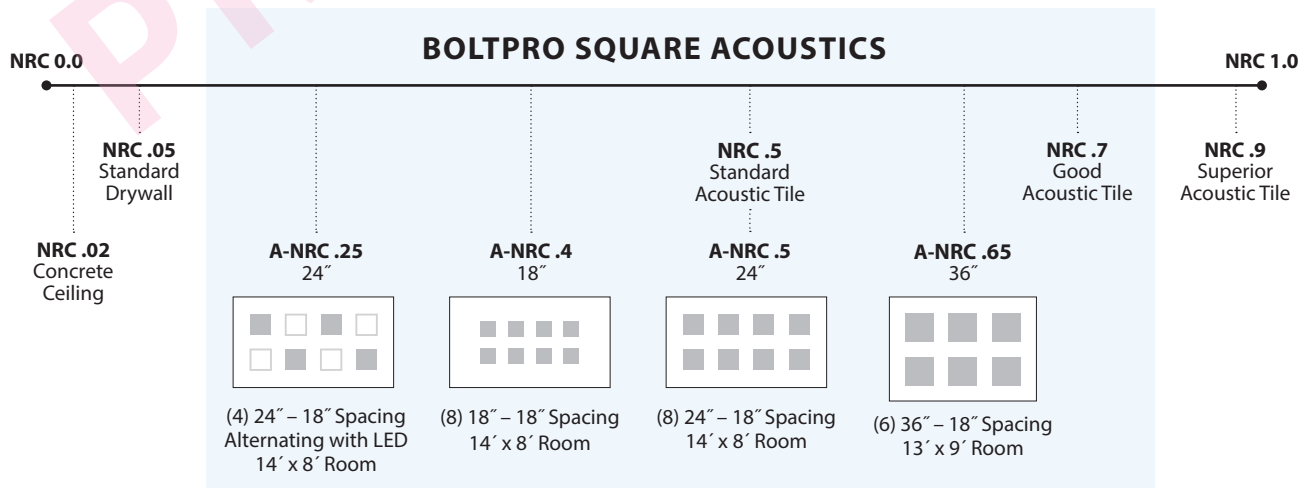
**PRULITE ACOUSTIC CALCULATOR**

How many Acoustic fixtures should you choose for your space? There are multiple factors when calculating acoustics, we have done our best to provide a simple guide for those who prefer not to calculate using Sabins per Object or NRC ratings.

**1)**  Calculate the square feet of your space (L x W).

**2)**  Choose the amount of acoustical improvement you want (sound absorption for reduced reverberation) and find the Acoustic VALUE based on room dimensions.

| Estimated % of reduced reverberation time | | | SIZE | Room dimensions under 300 sq ft | | | Room dimensions over 300 sq ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | GOOD | BETTER | BEST | GOOD | BETTER | BEST |
| ✓ | GOOD | 25% | 36″ Triangle Acoustic | 20 | 15 | 10 | 30 | 20 | 15 |
| ✓✓ | BETTER | 37.5% | 24″ Square Acoustic | 30 | 20 | 15 | 40 | 30 | 20 |
| ✓✓✓ | BEST | 50% | 36″ Square Acoustic | 40 | 30 | 25 | 60 | 40 | 30 |

Calculations based on a 9′ ceiling height.
Prudential Lighting Acoustic Calculator is a guide.
For precise acoustic performance, please consult an acoustician.

**3)**  Use this Acoustic VALUE Formula to determine the number of luminaires recommended:

### Square feet / Acoustic VALUE = # of luminaires recommended

*Example:*
20′ x 30′ = **600** square feet
36″ BoltPro Square Acoustics seeking Better (~37.5% reduced reverb), Acoustic VALUE = **40**
**600 / 40** = **15** BoltPro Square Acoustics recommended for the space

**NOTE**: We are testing BoltPro Acoustical fixtures. this data is from our Gaze Square Acoustical fixtures which should be comparable.

## LM79 & TM30 DATA:

| | MEASURED CCT | MEASURED LUMENS | CRI | R9 | DuV | SPD | TM30 — COLOR VECTOR | TM30 — COLOR DISTORTION |
|---|---|---|---|---|---|---|---|---|
| **LED27** | 2680 | 80% | 93 | 58 | 0.001 |  | 89 Rf | 97 Rg |
| **LED3** | 3042 | 95% | 82 | 6 | 0.001 |  | 81 Rf | 92 Rg |
| **LED3-90** | 3016 | 85% | 93 | 61 | 0.000 |  | 88 Rf | 96 Rg |
| **LED35** | 3482 | 100% | 82 | 3 | 0.002 |  | 81 Rf | 92 Rg |
| **LED35-90** | 3417 | 85% | 93 | 67 | 0.000 |  | 88 Rf | 96 Rg |
| **LED4** | 3952 | 102% | 82 | 4 | 0.003 |  | 81 Rf | 92 Rg |
| **LED4-90** | 3882 | 85% | 92 | 67 | 0.003 |  | 87 Rf | 96 Rg |
| **LED5-90** | 4889 | 85% | 94 | 84 | 0.002 |  | 86 Rf | 95 Rg |

| **205:** Wattstopper | **ENL:** Enlighted Occupancy / Daylight | **LVOC:** Lutron Occupancy /Daylight Sensor | **LVRF:** Lutron Vive Control Node | **NXSMP:** Hubbell Occupancy /Daylight Sensor |
|---|---|---|---|---|
| Low voltage PIR fixture integrated occupancy sensor. | Enlighted Network Integrated/embedded networked lighting control, luminaire-level lighting control, LLLC.

When configured as an IoT Node, the sensor streams comprehensive live data for use with Enlighted's real-time location and analytics software applications. This option is available directly from the factory or as a remote upgrade.

Wireless Internet. | Measures light in the space (daylighting) while detecting people moving within an area using passive infrared to determine occupancy.

Controls the lights to balance the light level in the space, combining convenience, exceptional energy savings, and ease of installation. | Provides wireless control of the fixture when neither occupancy nor daylight sensing is needed. | Hubbell Integrated/embedded networked lighting control, luminaire-level lighting control, LLLC.

PIR motion sensor for automatic On/Off control.

Integrated daylight sensor for daylight harvesting and/or lumen maintenance.

Bluetooth radio provides wireless control of luminaire.

Simple plug-in connection to NX Fixture Modules.

Wireless Internet. |

| **ATHENA** | **NLT-AIR-rIO:** Daylight+Occ | **NLT-AIR-ADCX:** Daylight+(PIR Acoustic) Occ | **NLT-WIRED-nIO:** Daylight+Occ | **NLT-WIRED-ADCX:** Daylight+(PIR Acoustic) Occ |
|---|---|---|---|---|
| The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system.

The small size and compatibility with a wide variety of drivers allow for seamless integration with common commercial lighting fixtures from any manufacturer.

Requires drivers with auxiliary power, consult factory for lead times | The rIO is a fixture embedded low voltage wireless nLight AIR device capable of individual fixture control and analog or digital dimming. This smart device results in the luminaire being "nLight AIR-enabled" —making it an addressable nLight AIR device. It uses a 900MHz radio to communicate with other nLight AIR devices, such as occupancy sensors, photocells, wall switches, powerpacks and other nLight AIR-enabled lumnaires. This allows for advanced operation and design flexibility ranging from stand-alone rooms to building and campus-wide networks. | The nLight® AIR rES7 sensor is an in-fixture, low voltage, digital sensor providing embedded wireless lighting control, analog or digital dimming, occupancy detection and daylight harvesting capabilities.

The rES7 is designed for mounting heights up to 20 ft in indoor luminaries. The rES7 sensor provides Passive Infrared (PIR) occupancy detection over a 15-20 ft (4.57 - 6.10 m) radial coverage pattern and photocell light level detection in one compact low profile design with optional Dual Technology, which adds Microphonics™ to PIR detection. The rES7 sensor is ideal for occupancy and daylighting control in suspended or recessed luminaries. | nLight digital nIO modules are low voltage control devices that enable digital control of LEDcode enabled eldoLED LED drivers. Through eldoLED's bi-directional 2-wire interface, these modules deliver natural, flicker-free high performance dimming while eliminating common issues related to 0-10 VDC alternatives. The modules also enable the eldoLED LED Drivers to be addressable, as well as capable of digitally communicating with other nLight controls such as occupancy sensors, photocells, and WallPods. This allows for advanced operation and design flexibility ranging from stand-alone rooms to building and campus-wide networks. | The nES 7 is a small passive infrared occupancy sensor designed to be easily embedded into luminaries. This sensor provides excellent line of sight 360° PIR detection of small motion and walking motion. The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion (e.g. corridors, library stacks). Additionally, an optional integrated photocell enables daylight harvesting control as well. Typically one or more nES 7 sensors are paired with an nLight controller within an nLight enabled luminaire.

For rooms like classrooms and private offices or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. |