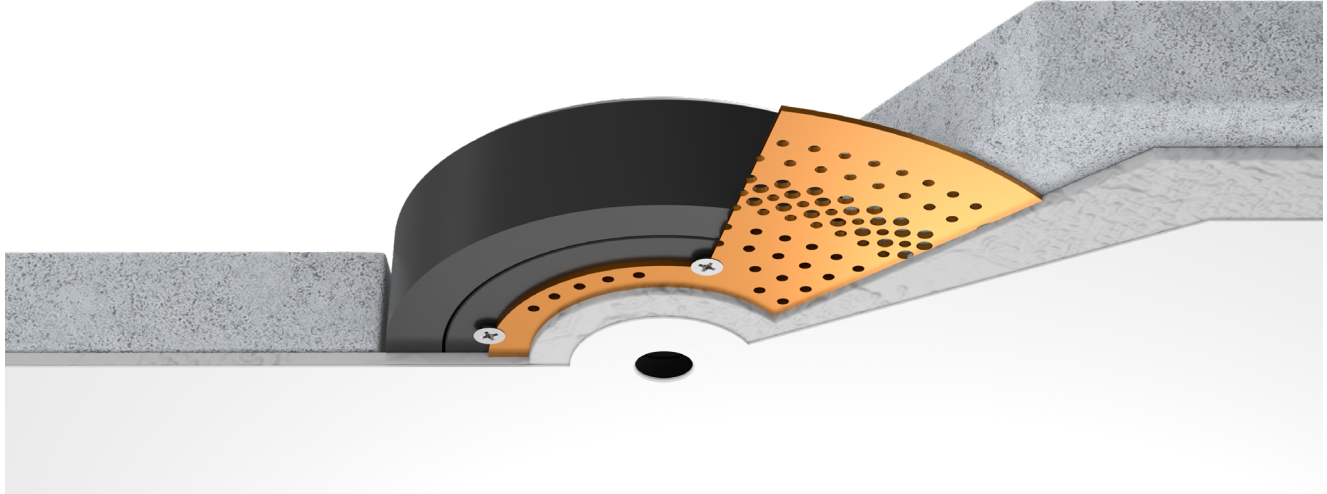


Project: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Note: \_\_\_\_\_

## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC



| LED LIGHT ENGINE        |  |
|-------------------------|--|
| <b>RATED WATTAGE</b>    | Static White = 17.8W, Warm Dim = 16.2W |
| <b>DELIVERED LUMENS</b> | Up to 1264 lm @ 4000K - 50° Optic      |
| <b>EFFICACY</b>         | Up to 66.5 LPW @ 4000K - 50° Optic     |
| <b>CCT @ 90CRI</b>      | 2700K, 3000K, 3500K, 4000K, Warm Dim   |
| <b>COLOR QUALITY</b>    | 90+ CRI, 2-Step SDCM                   |
| <b>LED LIFETIME</b>     | 55,000 hours @ L90                     |
| <b>MAX AMBIENT</b>      | 40°C (104°F)                           |

| DELIVERED LUMENS MATRIX |           |           |
|-------------------------|-----------|-----------|
| CCT & CRI               | 30° OPTIC | 50° OPTIC |
| 2700K (90CRI)           | 674 lm    | 1098 lm   |
| 3000K (90CRI)           | 714 lm    | 1163 lm   |
| 3500K (90CRI)           | 754 lm    | 1229 lm   |
| 4000K (90CRI)           | 776 lm    | 1264 lm   |
| Warm Dim (98CRI)        | 428 lm    | 660 lm    |

| SILENT VU™ OPTICS TECHNOLOGY |                                |
|------------------------------|--------------------------------|
| <b>OPTICS</b>                | 50° Installed and 30° included |

| POWER SUPPLY         |  |
|----------------------|--|
| <b>INPUT VOLTAGE</b> | 120/277V, 50/60Hz  |
| <b>DIMMING</b>       | *TRIAC, ELV and 0-10VDC and Lutron EcoSystem options available |

\*TRIAC/ELV dimming only @ 120V

### FEATURES

- 1/2" aperture, trimless downlight minimizes fixture and light noise at the ceiling
- Delivers up to 1264 lumens of general or accent light using SilentVu™ optical control at 50° or 30°

### HOUSING INSTALLATION

- Mud-in only
- 3" drywall toggle bolts included
- 1/2" - 2" ceiling thickness
- 5 1/2" diameter ceiling cutout
- 2 1/2" minimum plenum height above the ceiling required
- Above ceiling access required for integral driver option as well as for servicing the COB.

### LISTING/WARRANTY

- cULus Listed
- UL Listed for Wet Location
- ASTM E283 Certified Airtight
- IC Rated
- CA Title 24-JA8 Compliant with 50° optic, 90+CRI Static White
- Five (5) years limited warranty



Project: \_\_\_\_\_

Type: \_\_\_\_\_

Note: \_\_\_\_\_

## WHISPER ½" STANDARD LED DOWNLIGHT - WS-IC

### ORDER MATRIX

WHISPER FIXED IC, MUD-IN (Example: WS-IC-R-3090-15S1 = Whisper Fixed IC, Round, 3000K 90CRI, 15W, Standard Integral Driver)

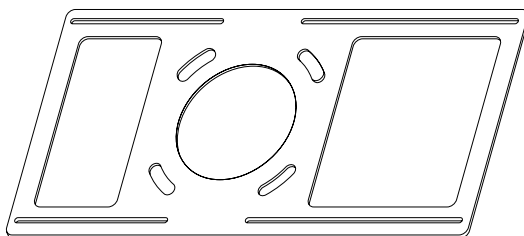
| PRODUCT FAMILY   | SHAPE           | CCT & CRI                                 | POWER PER WHISPER | INTEGRAL DRIVER OPTIONS – INCLUDES WHISPER WITH INTEGRAL DRIVER   |
|--|-----------------|---|-------------------|---|
| <b>WS-IC-</b> Whisper Downlight IC Rated New Construction or Remodel | <b>R</b> Round  | <b>2790</b> 2700K 90CRI                   | <b>-15</b> 15W    | <b>S1</b> (1) Whisper with Universal Dim Driver: 1%-100% 0-10V, *TRIAC, ELV, 120V/277V<br><b>EL1</b> (1) Whisper with EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V<br><br>Integral drivers must be accessible from above the ceiling to validate warranty.<br>*TRIAC/ELV dimming only @ 120V  |
|  | <b>S</b> Square | <b>3090</b> 3000K 90CRI                   |                   |   |
|  |                 | <b>3590</b> 3500K 90CRI                   |                   |   |
|  |                 | <b>4090</b> 4000K 90CRI                   |                   |   |
|  |                 | <b>WD98</b> Warm Dim 98CRI 1800K - 3000K  |                   |   |
|  |                 | Note: WD98 is not Title 24 JA-8 compliant |                   | <b>REMOTE DRIVER OPTIONS – INCLUDES WHISPER(S) + REMOTE DRIVER</b><br><br><b>SR1</b> (1) Whisper + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V<br><b>SR2</b> (2) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V<br><b>SR3</b> (3) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V<br><b>ER1</b> (1) Whisper + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V<br><b>ER2</b> (2) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V<br><b>ER3</b> (3) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V<br><b>LRE1</b> (1) Whisper + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V<br><b>LRE2</b> (2) Whispers + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V<br><b>LRE3</b> (3) Whispers + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V<br><br>Remote Driver Options listed above are specifically tuned to power the corresponding number of Whispers indicated and must be installed in the configuration as ordered: (1) Whisper + (1) Remote Driver, (2) Whispers + (1) Remote Driver, or (3) Whispers + (1) Remote Driver as defined above. For Remote Driver options, specific installation provisions should meet local code and jurisdiction requirements as determined by your licensed electrical contractor. DC wiring will run between the provided CSL Whisper junction box and the remote mounted driver. Generally, #12AWG, #14AWG, and #18AWG stranded or solid UL certified power wiring can accommodate run lengths of up to 50ft between the installed CSL Whisper. |

Emergency Options only applicable for integral driver options.

| EMERGENCY OPTIONS   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> <b>EM-1000</b> (25W Remote Inverter)                  | <input checked="" type="checkbox"/> <b>EM-1003-CA</b> (35W Remote Inverter) Title 20 | <input type="checkbox"/> <b>EM-1006</b> (25W Remote Inverter) Title 20 |
| <input checked="" type="checkbox"/> <b>EM-1002</b> (10W Remote Emergency Driver) Title 20 | <input checked="" type="checkbox"/> <b>EM-1004</b> (50W Remote Inverter)             |  |

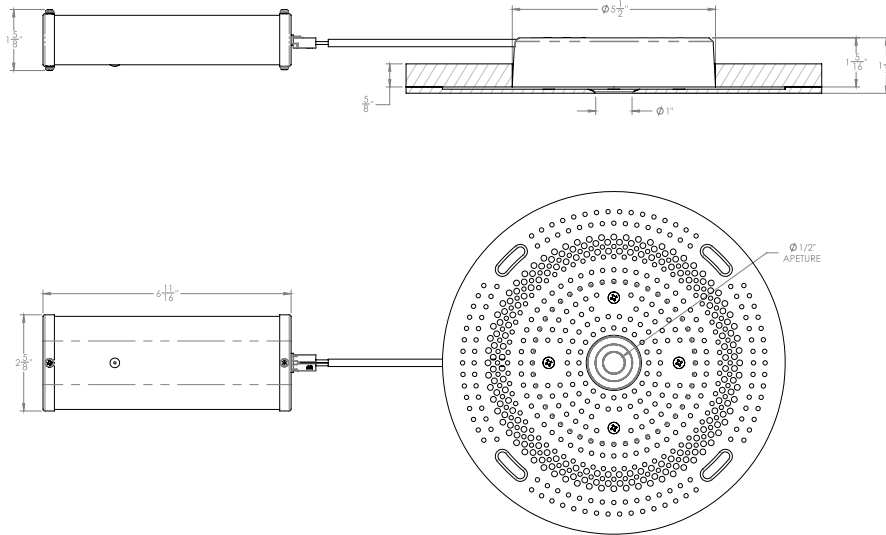
### ADDITIONAL ACCESSORIES

|               |  |
|---------------|--|
| <b>WS-PAN</b> | Whisper New Construction Rough-in Pan<br>Optional, for new construction applications |
|---------------|--|

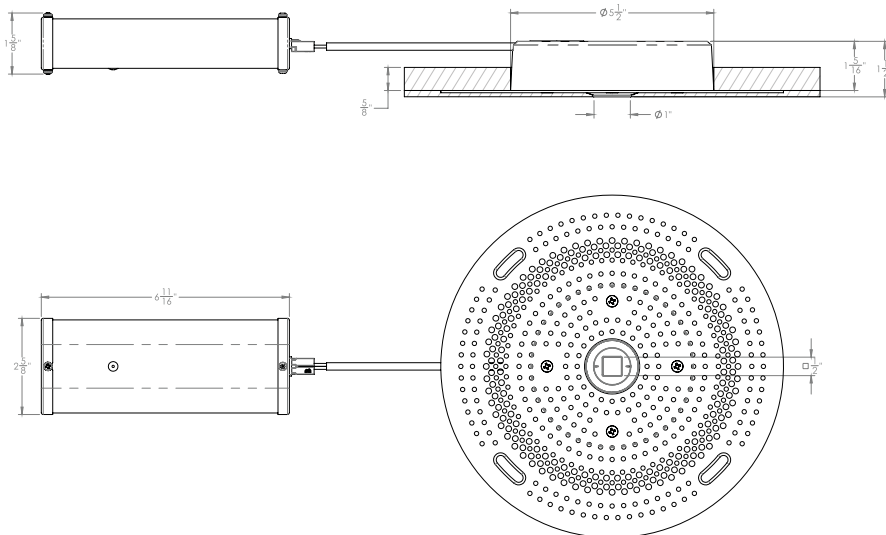


**WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC**

**WS-IC STANDARD INTEGRAL DRIVER (ROUND MUD IN)**



**WS-IC STANDARD INTEGRAL DRIVER (SQUARE MUD IN)**



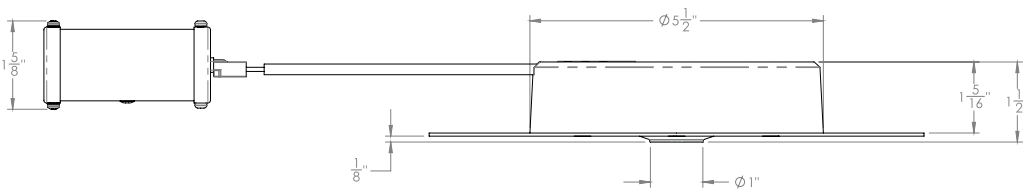
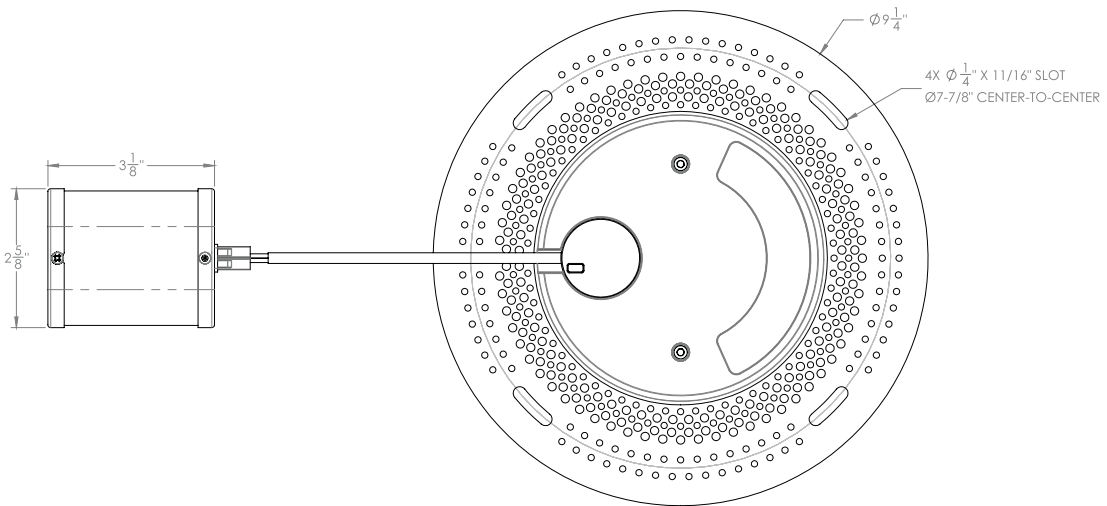
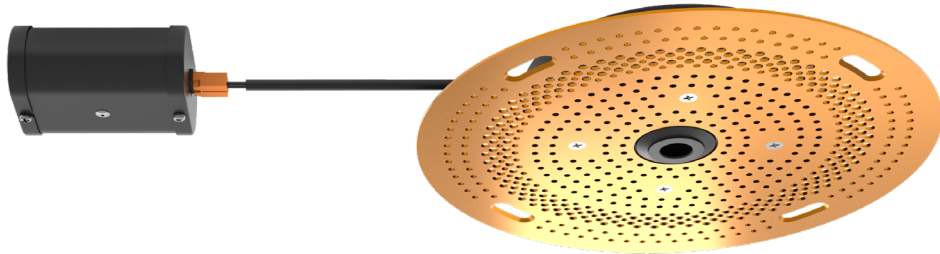
Project: \_\_\_\_\_

Type: \_\_\_\_\_

Note: \_\_\_\_\_

## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

### WS-IC REMOTE DRIVER



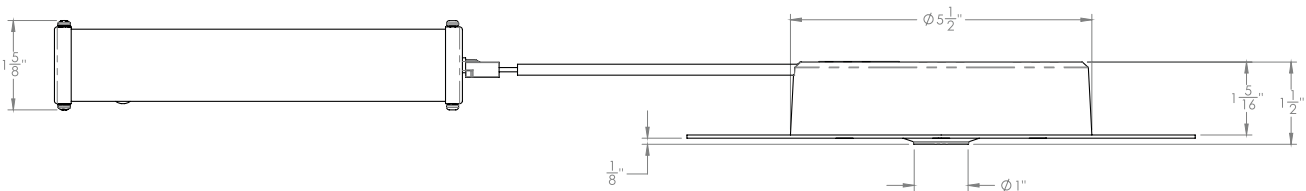
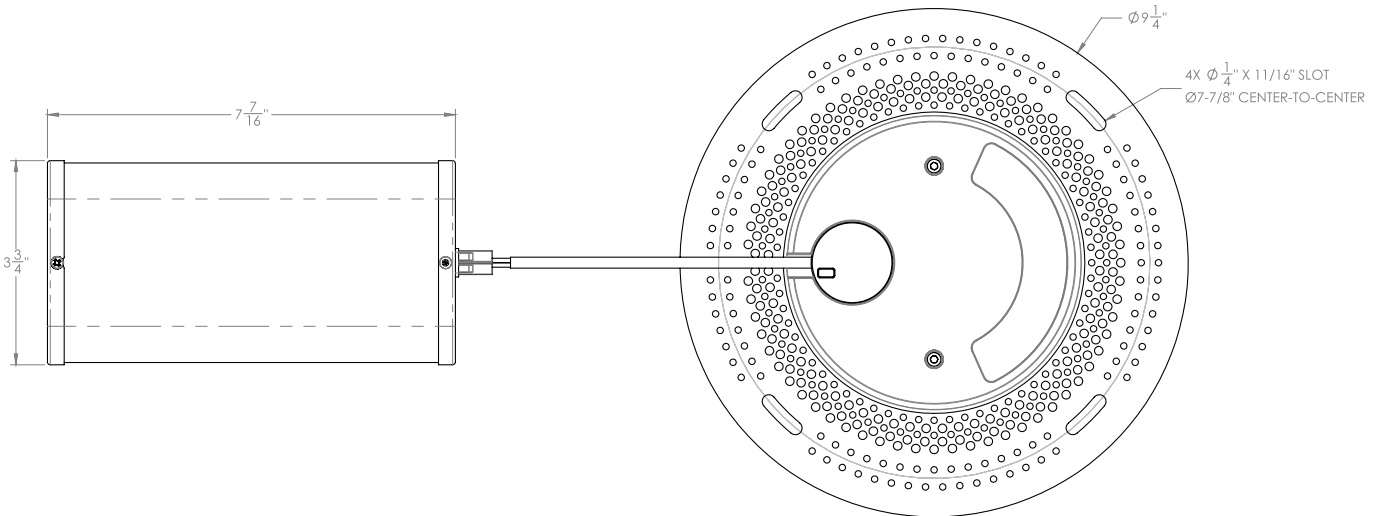
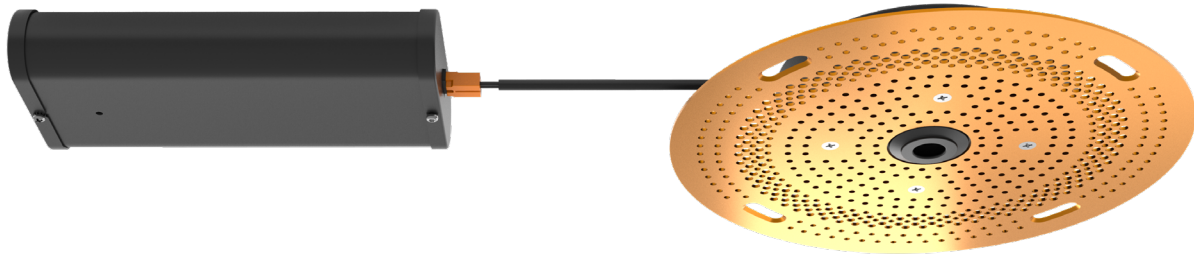
Project: \_\_\_\_\_

Type: \_\_\_\_\_

Note: \_\_\_\_\_

## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

WS-IC, ELDO LED 0.1% DIMMING DRIVER

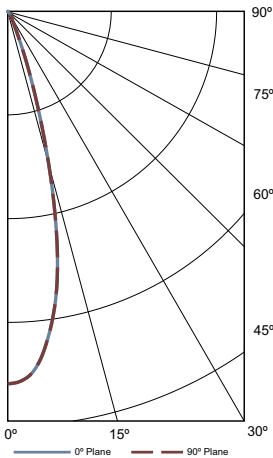


## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

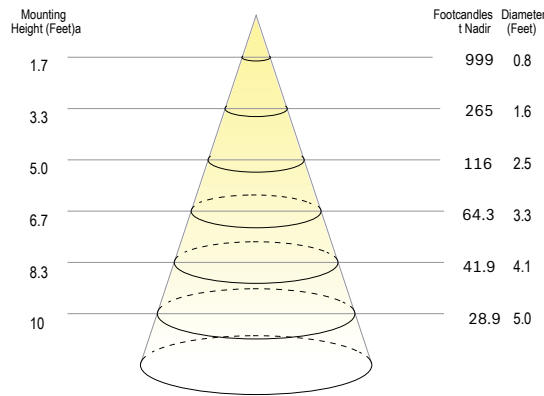
### PHOTOMETRICS

#### Whisper Downlight 1/2" (2700K, 90CRI, 30° Optic, 17.8W) Trimless

Polar Plot



Cone of Light Tabulation



| VOLTAGE | CURRENT | POWER  |
|---------|---------|--------|
| 120 VAC | 0.15 A  | 17.77W |

| POWER FACTOR | FREQUENCY | CURRENT THD |
|--------------|-----------|-------------|
| 0.992        | 60 Hz     | 8.86%       |

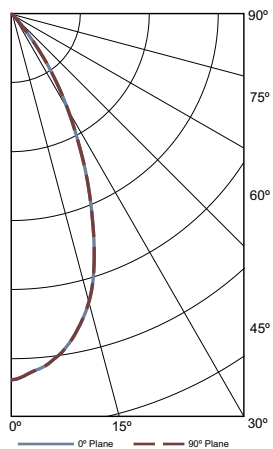
#### Summary of Results

| Spacing Criteria | Total Lumen Output: | 673.85 Lumens |
|------------------|---------------------|---------------|
| 0-180: 0.48      | Luminaire Efficacy: | 38 lm/w       |
| 90-270: 0.48     | Maximum Candela:    | 2888 Candela  |

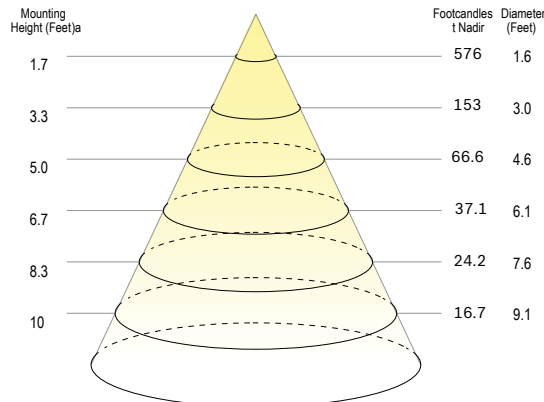
| ZONE | LUMENS | % OF LUMINAIRE |
|------|--------|----------------|
| 0-40 | 664.6  | 95.6%          |
| 0-60 | 671.98 | 99.70%         |
| 0-90 | 673.85 | 100.0%         |

#### Whisper Downlight 1/2" (2700K, 90CRI, 50° Optic, 17.8W) Trimless

Polar Plot



Cone of Light Tabulation



| VOLTAGE | CURRENT | POWER  |
|---------|---------|--------|
| 120 VAC | 0.15 A  | 17.81W |

| POWER FACTOR | FREQUENCY | CURRENT THD |
|--------------|-----------|-------------|
| 0.993        | 60 Hz     | 8.74%       |

#### Summary of Results

| Spacing Criteria | Total Lumen Output: | 1097.9 Lumens |
|------------------|---------------------|---------------|
| 0-180: 0.78      | Luminaire Efficacy: | 62 lm/w       |
| 90-270: 0.78     | Maximum Candela:    | 1592 Candela  |

| ZONE | LUMENS  | % OF LUMINAIRE |
|------|---------|----------------|
| 0-40 | 1074.78 | 97.9%          |
| 0-60 | 1095.2  | 99.8%          |
| 0-90 | 1097.9  | 100.0%         |

Project: \_\_\_\_\_

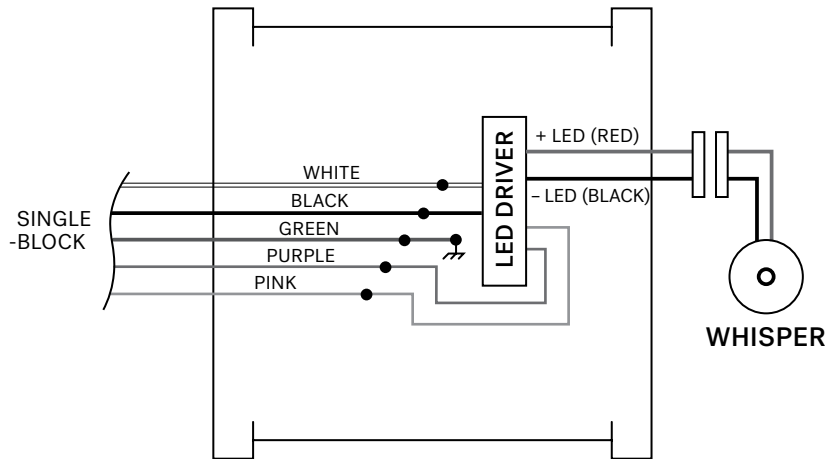
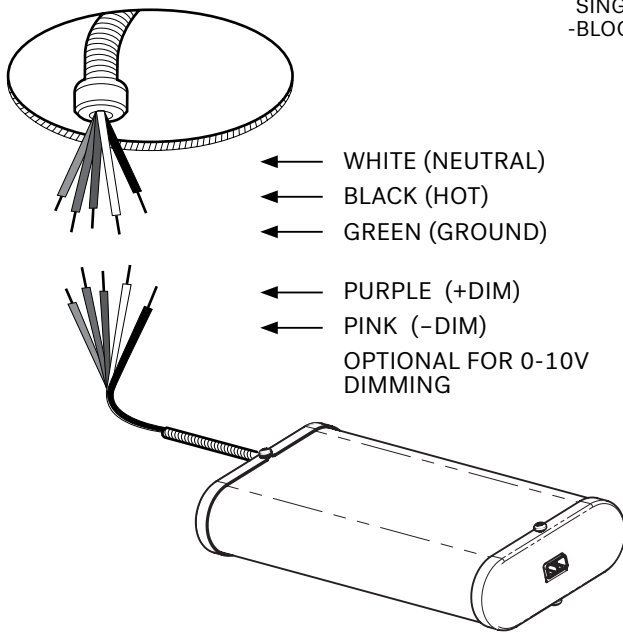
Type: \_\_\_\_\_

Note: \_\_\_\_\_

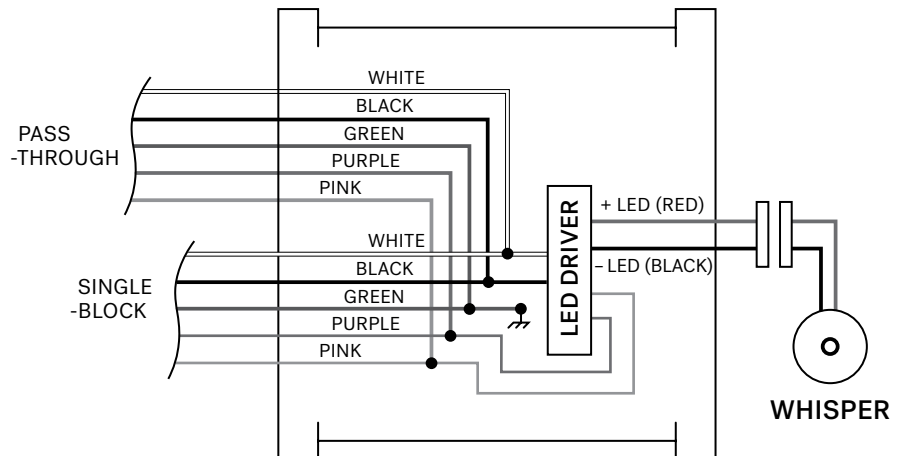
## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

### WIRING DIAGRAM - INTEGRAL DRIVER OPTIONS

#### FOR SINGLE-BLOCK CONNECTION (LED DRIVER INSIDE)



#### FOR PASS-THROUGH CONNECTION (LED DRIVER INSIDE)



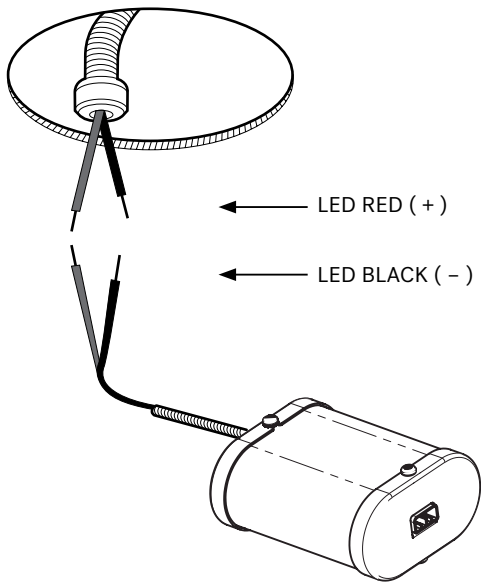
Project: \_\_\_\_\_

Type: \_\_\_\_\_

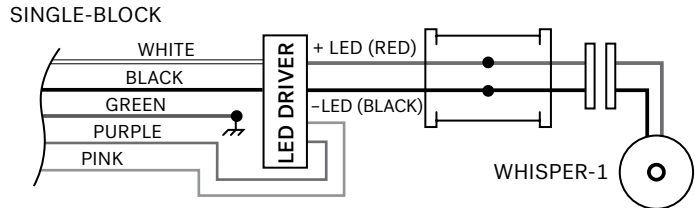
Note: \_\_\_\_\_

## WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

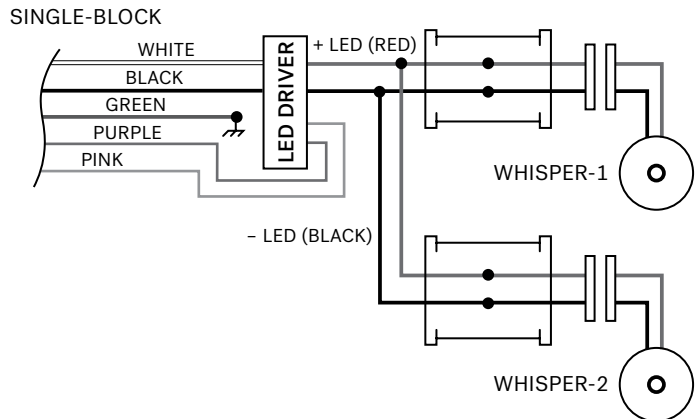
### WIRING DIAGRAM - REMOTE DRIVER OPTIONS



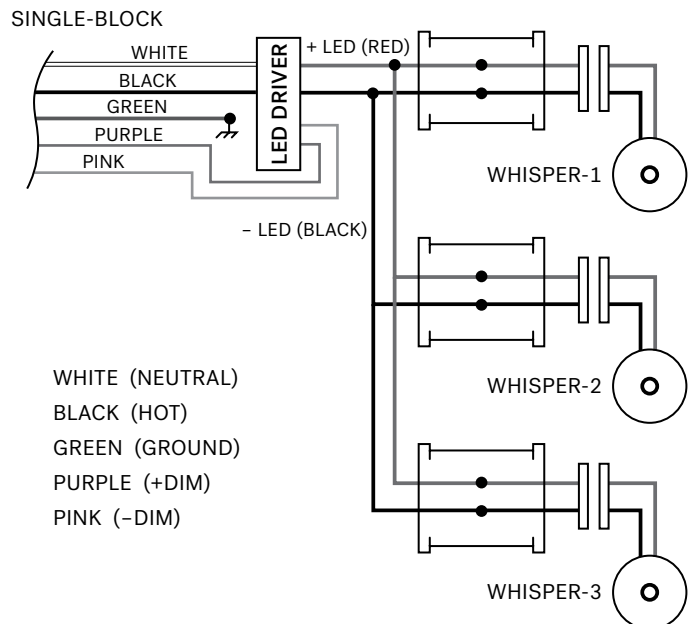
#### ① WHISPER + ① REMOTE DRIVER (LED Driver Outside)



#### ② WHISPERS + ① REMOTE DRIVER (LED Driver Outside)



#### ③ WHISPERS + ① REMOTE DRIVER (LED DRIVER OUTSIDE)



WHITE (NEUTRAL)  
BLACK (HOT)  
GREEN (GROUND)  
PURPLE (+DIM)  
PINK (-DIM)

**⚠ WARNING**  
A SINGLE LUMINAIRE SHALL NOT HAVE MORE THAN 15.2W (400MA @ 38VDC) SUPPLIED

**⚠ WARNING**  
MAKE SURE THAT THERE ARE NO EXPOSED STRANDS OF WIRE THAT COULD CAUSE A DANGEROUS SHORT CIRCUIT!

**⚠ WARNING**  
NEVER FASTEN THE GROUND WIRE (GREEN) TO THE HOT (BLACK) WIRE!  
FAILURE TO FOLLOW THIS INSTRUCTION COULD RESULT IN SERIOUS INJURY OR DEATH!

Project: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Note: \_\_\_\_\_

## WHISPER ½" STANDARD LED DOWNLIGHT - WS-IC

### DIMMING GUIDE

#### S1

- 120/277V input power
- 0-10V dimming, 1%-100%
- TRIAC (forward-phase or leading-edge) dimming, 1%, 120V only
- ELV (reverse-phase or trailing-edge) dimming, 1%, 120V only

#### SR1

- 120/277V input power
- Non-linear 0-10V dimming, 1%-100%
- TRIAC (forward-phase or leading-edge) dimming, 1%, 120V only
- ELV (reverse-phase or trailing-edge) dimming, 1%, 120V only

#### 120VAC DIMMERS

| MFG.    | MODEL     | MFG.    | MODEL      | MFG.       | MODEL     |
|---------|-----------|---------|------------|------------|-----------|
| Lutron  | S-603PG   | Lutron  | DVELV-303P | Lutron     | CT-103P   |
| Leviton | IPI06-1LZ | Lutron  | SELV-300P  | Cooper     | SLC03P    |
| Leviton | 6631-2    | Leviton | 6683-IW    | Leviton    | IPE04     |
| Lutron  | DVCL-153P | Leviton | 6161       | Lutron     | MAELV-600 |
| Lutron  | DV-600P   | Leviton | 6633-P     | Lutron     | FAELV-500 |
| Lutron  | TGCL-153P | Lutron  | TG-600P    | Lightolier | ZP260QEW  |
| Lutron  | S-600P    | Cooper  | DLC03P     | Cooper     | DAL06P    |
| Leviton | VPE06     | Lutron  | LG-600P    |            |           |

#### EL1 ( ELDO LED)

- 0-10V dimming, 1% dim-to-off
- 120/277V

#### ER1 (ELDO LED)

- 0-10V dimming, 1% dim-to-off

#### COMPATIBLE 0-10V DIMMERS AND SWITCHES

| DIMMER MANUFACTURER       | WEBSITE                         | TYPE                                       | RECOMMENDED DIMMING CURVE |
|---------------------------|---------------------------------|--|---------------------------|
| Busch-Jaeger              | www.busch-jaeger.de             | 2112U-101                                  | Logarithmic               |
| Jung                      | www.jung.de                     | 240-10                                     | Logarithmic               |
| Leviton Lighting Controls | www.leviton.com                 | IllumaTech - IP710-DLX                     | Logarithmic               |
| Lightolier Controls       | www.lightolier.com              | ZP600FAM120                                | Logarithmic               |
| Lutron Electronics        | www.lutron.com/LEDtool          | Nova T - NTFTV<br>Diva - DVTV, Diva - NFTV | Linear<br>Linear          |
| Merten                    | www.merten.de                   | 5729                                       | Logarithmic               |
| Pass & Seymour            | www.legrand.us                  | CD4FB-W                                    | Logarithmic               |
| The Watt Stopper          | www.wattstopper.com             | DCLV1                                      | Logarithmic               |
| Sensor Switch             | www.sensorswitch.com            | nIO EZ                                     | Linear                    |
| Synergy                   | www.synergylightingcontrols.com | ISD BC                                     | Logarithmic               |

#### COMPATIBLE DIMMING CONTROL SYSTEMS

| CONTROL MANUFACTURER | WEBSITE                | TYPE   | RECOMMENDED DIMMING CURVE |
|----------------------|------------------------|--|---------------------------|
| Lutron Electronics   | www.lutron.com/LEDtool | GraphicEye - GRX-TVI w GRX3503,<br>Energy Savr Node - QSN-4T16-S,<br>TVM2 Module   | Linear                    |
| Crestron             | www.crestron.com       | GLX-OIMFLV8, GLXP-OIMFLV8,<br>GLPAC-DIMFLV4-*, GLPAC-DIM-<br>FLV8-*,<br>GLPP-DIMFLVEX-PM,<br>GLPP-1DIMFLV2EX-PM,<br>GLPP-1DIMFLV3EX-PM, DIN-AO8,<br>DIN-4DIMFLV4, CLS-EXP-DIMFLV,<br>CLCI-1DIMFLV2EX | Logarithmic               |
| ABB                  | www.abb.com/KNX        | SD/S 2.16.1  | Logarithmic               |

Note: All dimming guidance presented, based on driver manufacturers testing and recommendations.