

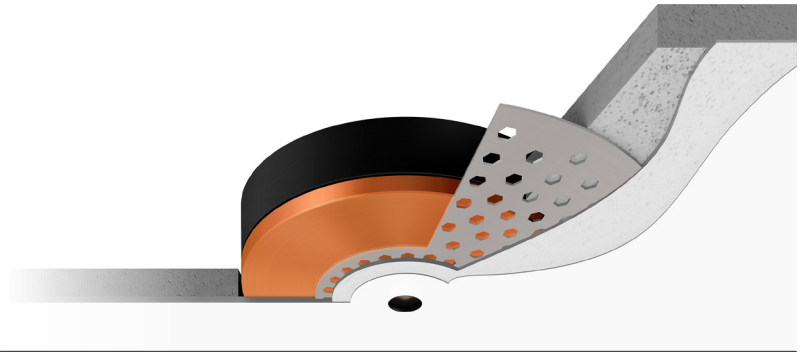
CATALOG#:

PROJECT:

FIXTURE TYPE:

CONTACT:

PHONE:



### FEATURES

- ½" aperture, trimless downlight minimizes fixture and light noise at the ceiling
- Delivers up to 1100 lumens of general or accent light using SilentVu™ optical control at 50° or 30°
- 100,000 hr LED lifetime and available integral or remote driver options

### LIGHT ENGINE

- 16.1W, delivers up to 1100lm
- 2700K, 3000K, 3500K, or 4000K at 90 CRI
- 50° (installed) and 30° SilentVu™ optics included with fixture

### DIMMING AND DRIVER OPTIONS

- Universal voltage, 120V/277V, 50/60Hz
- Universal dim standard: 1%-100% TRIAC/ELV/0-10V
- EldoLED dim available: 0.1%-100% 0-10V
- Lutron dim available: 1%-100% TRIAC or EcoSystem
- Integral and remote driver options available

### CEILING THICKNESS AND PLENUM REQUIREMENTS

- ½" - 2" ceiling thickness
- Minimum plenum height: 2½" above the ceiling
- Access above ceiling required for integral driver option

### MOUNTING OPTIONS

- Mud-in only, 3" drywall toggle bolts included
- Optional rough-in pan available

### LISTING/WARRANTY

- cULus Listed
- UL Listed for Wet Location
- ASTM E283 Certified Airtight
- IC Rated
- Energy Star Certified with 50° optic
- CA Title 24-JA8 Compliant with 50° optic, 90+CRI
- Five (5) years limited warranty, extended to Ten (10) years with remote driver option



### SPECIFICATIONS

<b>DELIVERED LUMENS</b>	Up to 1100lm
<b>WATTS</b>	16.1W
<b>EFFICACY</b>	Up to 69.1 lm/W
<b>LED</b>	Cree® LED
<b>COLOR QUALITY</b>	90+ CRI, 2-Step SDCM
<b>GCT</b>	2700K, 3000K, 3500K, 4000K
<b>INPUT VOLTAGE</b>	120/277V, 50/60Hz
<b>DIMMING</b>	TRIAC, ELV, 0-10V, dims to 1% standard, 0.1% available
<b>OPTICS</b>	50° Installed, 30° Included
<b>CEILING APPEARANCE</b>	Trimless, ½" Aperture
<b>CEILING CUTOUT</b>	5½" Diameter
<b>CEILING THICKNESS</b>	½" to 2"
<b>MIN PLENUM HEIGHT</b>	2½" to accommodate driver installation into the plenum
<b>MAX AMBIENT</b>	35°C (95°F)
<b>FINISH</b>	Trimless, only light aperture visible
<b>LED LIFETIME</b>	Calculated L90>100,000 hours @ 90% lumens
<b>WARRANTY</b>	5 years Limited Warranty, extended to 10 years with remote driver option
<b>LISTINGS</b>	UL Listed, Wet Location, IC/CP Airtight all configurations

### DELIVERED LUMENS/EFFICACY MATRIX

OPTIC	90 CRI			
	2700K	3000K	3500K	4000K
30°	651 lm	651 lm	696 lm	735 lm
50°	977 lm	977 lm	1045 lm	1104 lm
30°	40.7 lm/W	40.7 lm/W	43.6 lm/W	46.0 lm/W
50°	61.2 lm/W	61.2 lm/W	65.5 lm/W	69.1 lm/W

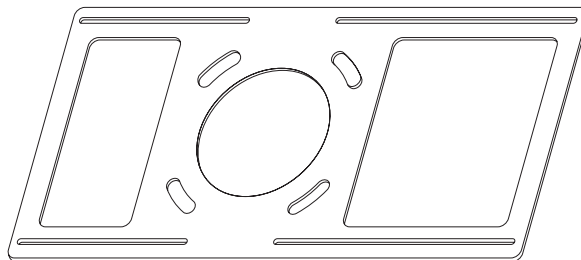
## ORDER MATRIX

**WHISPER ORDER MATRIX** (Example: WS-IC-2790-S1 Whisper Downlight, IC Rated, 2700K, 90 CRI, Integral Universal Dim driver)

PRODUCT FAMILY	CCT	CRI	INTEGRAL DRIVER OPTIONS – Includes Whisper with Integral Driver
<b>WS-IC-</b> Whisper Downlight IC Rated New Construction or Remodel	<b>27</b> (2700K)	<b>90</b> (90 CRI)	<b>-S1</b> (1) Whisper with Universal Dim Driver: 1%-100% 0-10V, TRIAC, ELV, 120V/277V <b>-EL1</b> (1) Whisper with EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V Integral drivers must be accessible from above the ceiling to validate warranty.
	<b>30</b> (3000K)		
	<b>35</b> (3500K)		
	<b>40</b> (4000K)		
			<b>REMOTE DRIVER OPTIONS – Includes Whisper(s) + Remote Driver</b>
			<b>-SR1</b> (1) Whisper + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V <b>-SR2</b> (2) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V <b>-SR3</b> (3) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V <b>-ER1</b> (1) Whisper + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V <b>-ER2</b> (2) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V <b>-ER3</b> (3) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V <b>-LRT1</b> (1) Whisper + (1) Lutron Dim Driver: 1%-100%, TRIAC 120V <b>-LRT2</b> (2) Whispers + (1) Lutron Dim Driver: 1%-100%, TRIAC 120V <b>-LRT3</b> (3) Whispers + (1) Lutron Dim Driver: 1%-100%, TRIAC 120V <b>-LRE1</b> (1) Whisper + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V <b>-LRE2</b> (2) Whispers + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V <b>-LRE3</b> (3) Whispers + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V 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.

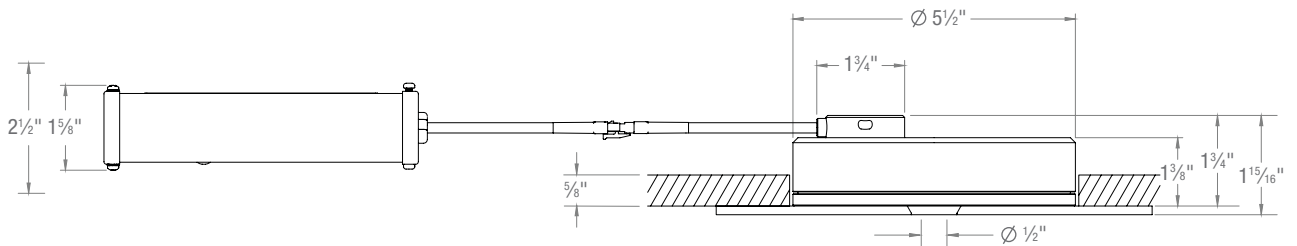
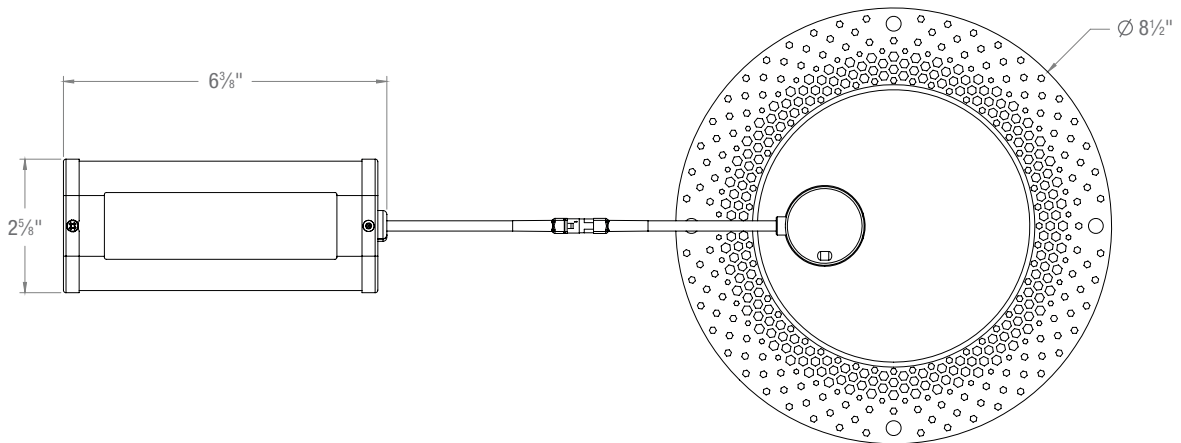
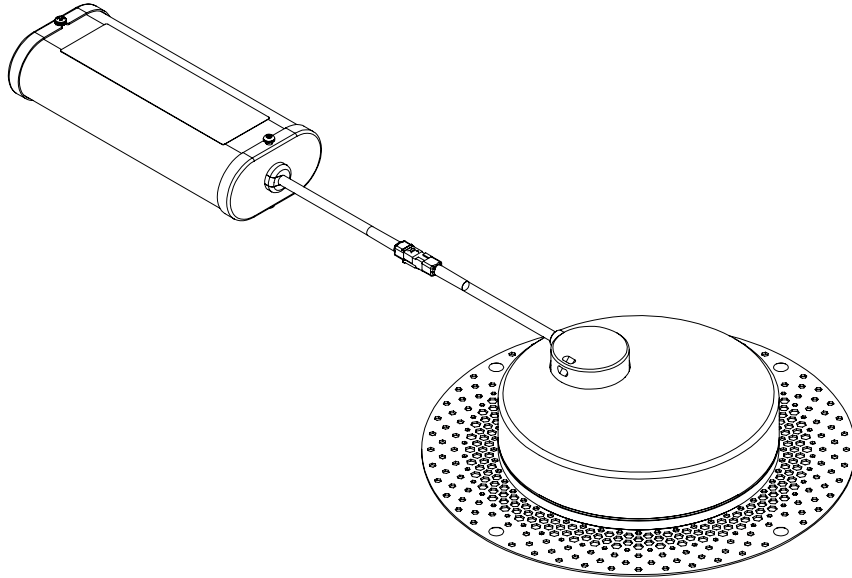
## ADDITIONAL ACCESSORIES

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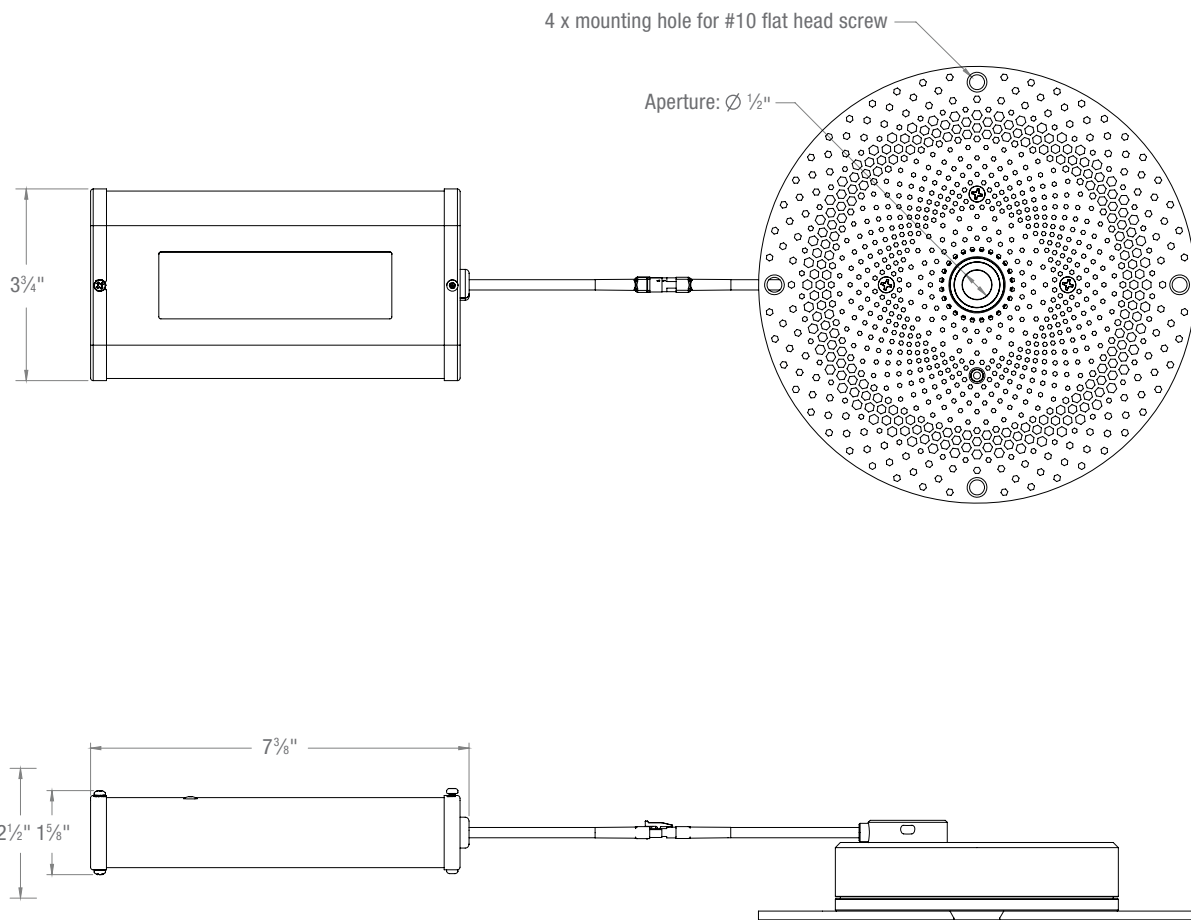
Rough-in Pan

**INTEGRAL UNIVERSAL DIMMING DRIVER**



Note:  $2\frac{1}{2}"$  Minimum plenum height to accommodate driver installation into the plenum

**INTEGRAL PERFORMANCE DIMMING DRIVER**



Note: 2 1/2" Minimum plenum height to accommodate driver installation into the plenum

## LIGHT DISTRIBUTION - GONIOPHOTOMETER

Light Distribution Test Conditions  
Results Using 30° Optics, 2700 CCT, 90 CRI

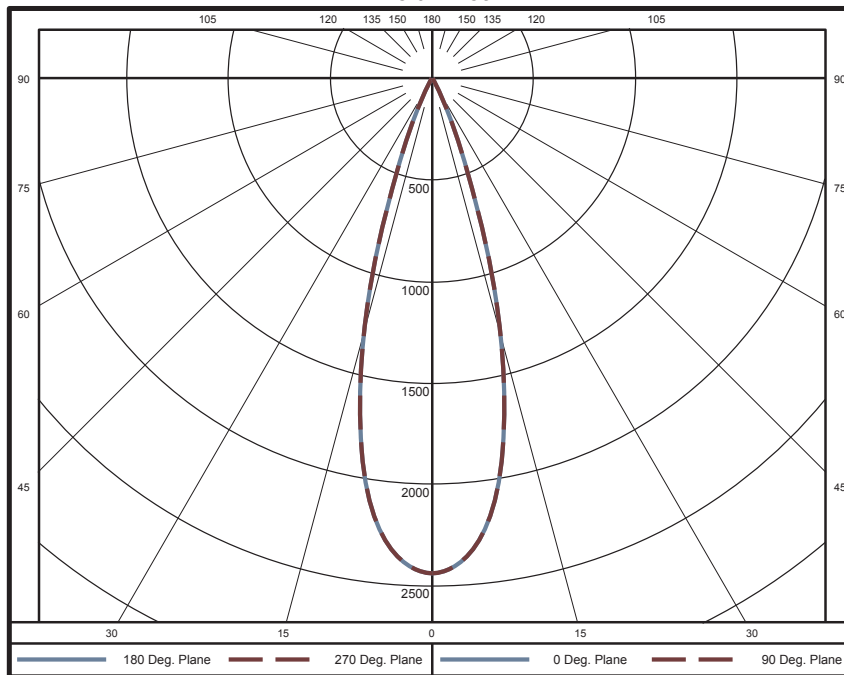
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.2 VAC	0.1345 A	15.97 W	0.988	60 Hz	12.5%

### Summary of Results

**Spacing Criteria**  
0-180: 0.52  
90-270: 0.52

**Total Lumen Output:** 650.5 Lumens  
**Luminaire Efficacy:** 40.7 lm/w  
**Maximum Candela:** 2439 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	57.1	8.8%	60-65	0.6	0.1%	120-125	0	0.0%
5-10	153.4	23.6%	65-70	0.6	0.1%	125-130	0	0.0%
10-15	190.7	29.3%	70-75	0.6	0.1%	130-135	0	0.0%
15-20	142.8	22.0%	75-80	0.6	0.1%	135-140	0	0.0%
20-25	61.4	9.4%	80-85	0.3	0.0%	140-145	0	0.0%
25-30	19.0	2.9%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	10.0	1.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	6.7	1.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	3.7	0.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	1.6	0.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.8	0.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.6	0.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	641	98.6%
0-60	648	99.6%
0-90	651	100.0%
90-180	0	0.0%

## LIGHT DISTRIBUTION - GONIOPHOTOMETER

Light Distribution Test Conditions  
Results Using 50° Optics, 2700 CCT, 90 CRI

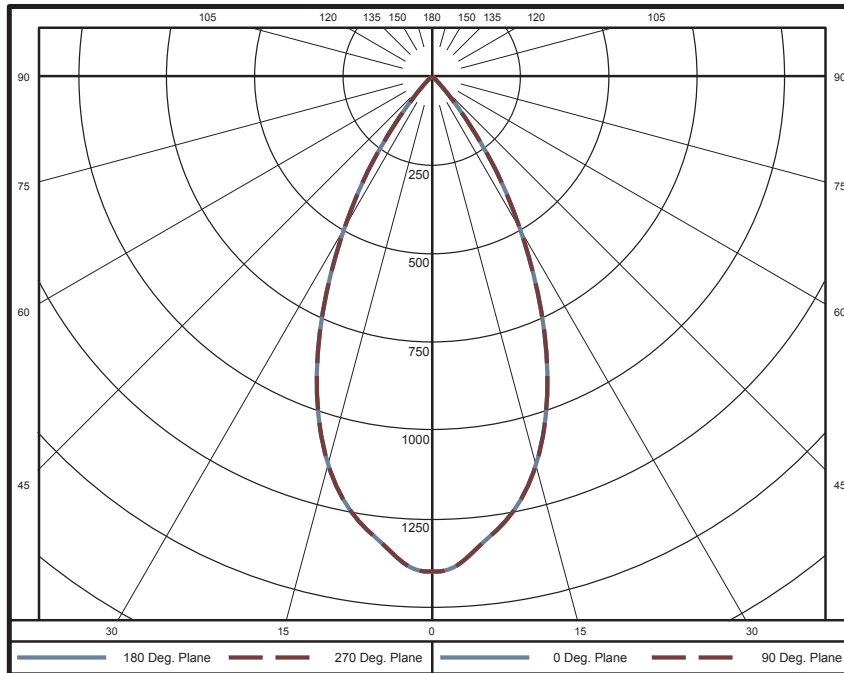
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.1 VAC	0.1347 A	15.97 W	0.988	60 Hz	12.6%

### Summary of Results

**Spacing Criteria**  
0-180: 0.80  
90-270: 0.80

**Total Lumen Output:** 977.4 Lumens  
**Luminaire Efficacy:** 61.2 lm/w  
**Maximum Candela:** 1398 Candela

### Polar Plot



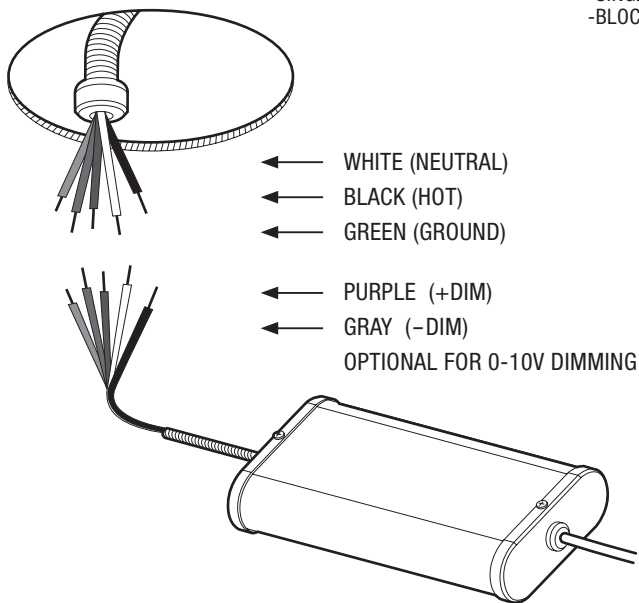
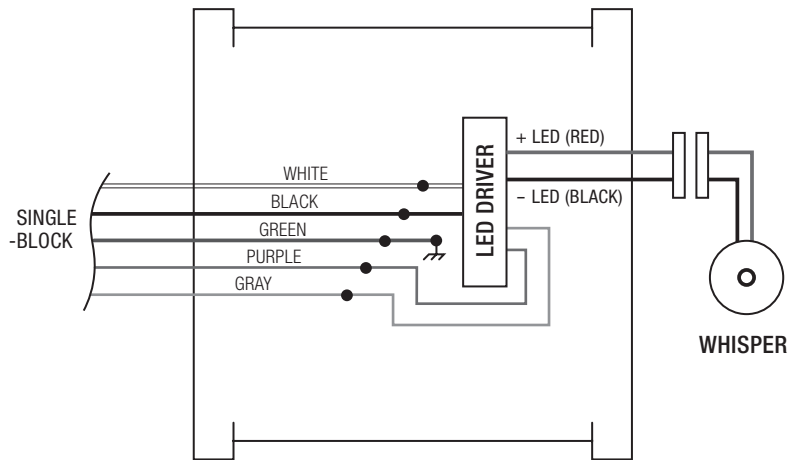
### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	32.9	3.4%	60-65	0.6	0.1%	120-125	0	0.0%
5-10	92.8	9.5%	65-70	0.5	0.1%	125-130	0	0.0%
10-15	141.6	14.5%	70-75	0.4	0.0%	130-135	0	0.0%
15-20	171.1	17.5%	75-80	0.4	0.0%	135-140	0	0.0%
20-25	175.1	17.9%	80-85	0.3	0.0%	140-145	0	0.0%
25-30	150.3	15.4%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	108.9	11.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	62.3	6.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	27.5	2.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	9.4	1.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.4	0.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.7	0.1%	115-120	0	0.0%	175-180	0	0.0%

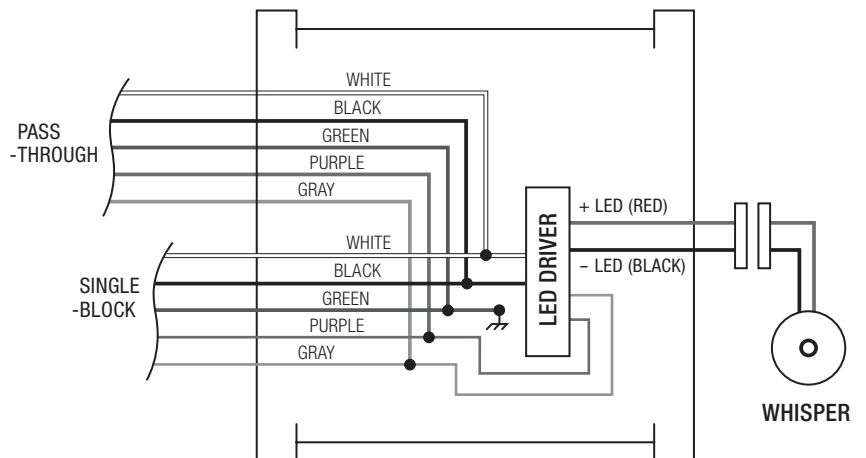
Zone	Lumens	% of Luminaire
0-40	935	95.7%
0-60	975	99.8%
0-90	977	100.0%
90-180	0	0.0%

**WIRING DIAGRAM - INTEGRAL DRIVER OPTIONS**

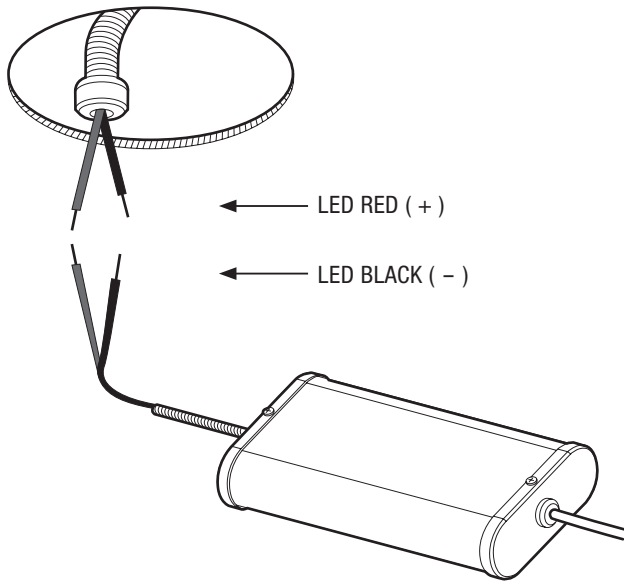
**FOR SINGLE-BLOCK CONNECTION  
( LED Driver Inside )**



**FOR PASS-THROUGH CONNECTION  
( LED Driver Inside )**



### WIRING DIAGRAM - REMOTE DRIVER OPTIONS

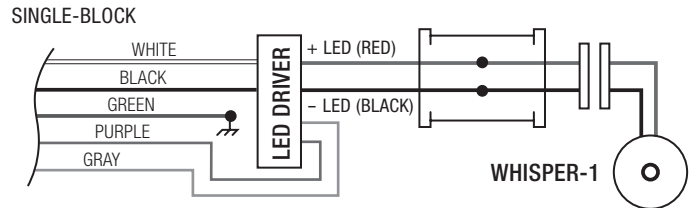


**⚠ WARNING**  
 A SINGLE LUMINAIRE SHALL NOT HAVE MORE THAN 14.4W (400MA @ 36VDC) SUPPLIED

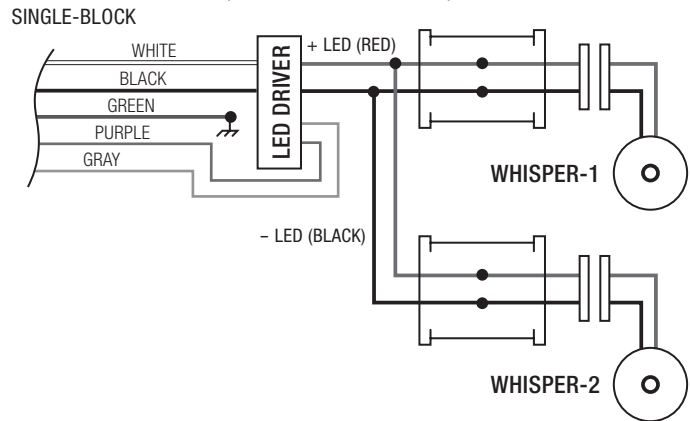
**⚠ WARNING**  
 MAKE SURE THAT THERE ARE NO EXPOSED STRANDS OF WIRE THAT COULD CAUSE A DANGEROUS SHORT CIRCUIT!

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

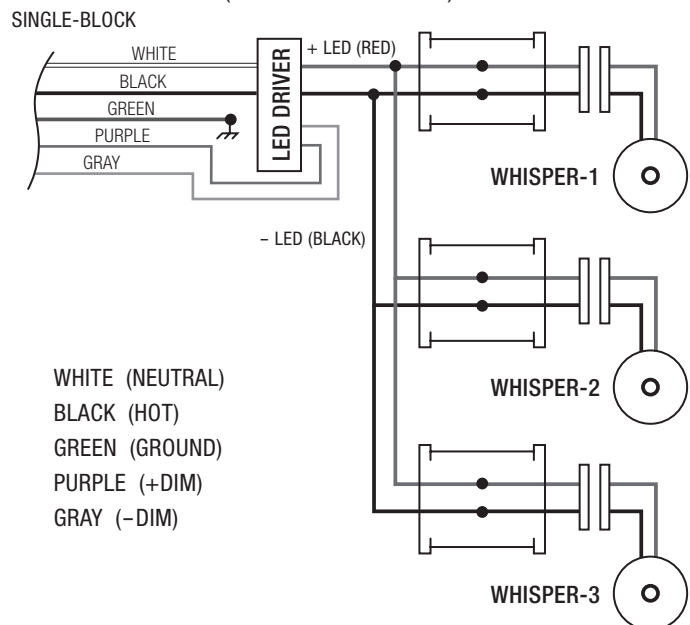
#### ① WHISPER + ① REMOTE DRIVER ( LED Driver Outside )



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



#### ③ WHISPERS + ① REMOTE DRIVER ( LED Driver Outside )



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



## DIMMING GUIDE

### S1 (ERP)

- 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 (ERP)

- 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 (ELDOLED)

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

### ER1 (ELDOLED)

- 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 Diva - DVTV, Diva - NFTV	Linear 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, Energy Savr Node - QSN-4T16-S, TVM2 Module	Linear
Crestron	www.crestron.com	GLX-01MFLV8, GLXP-01MFLV8, GLPAC-DIMFLV4-*, GLPAC-DIM- FLV8-*, GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, DIN-A08, DIN-4DIMFLV4, CLS-EXP-DIMFLV, 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.)