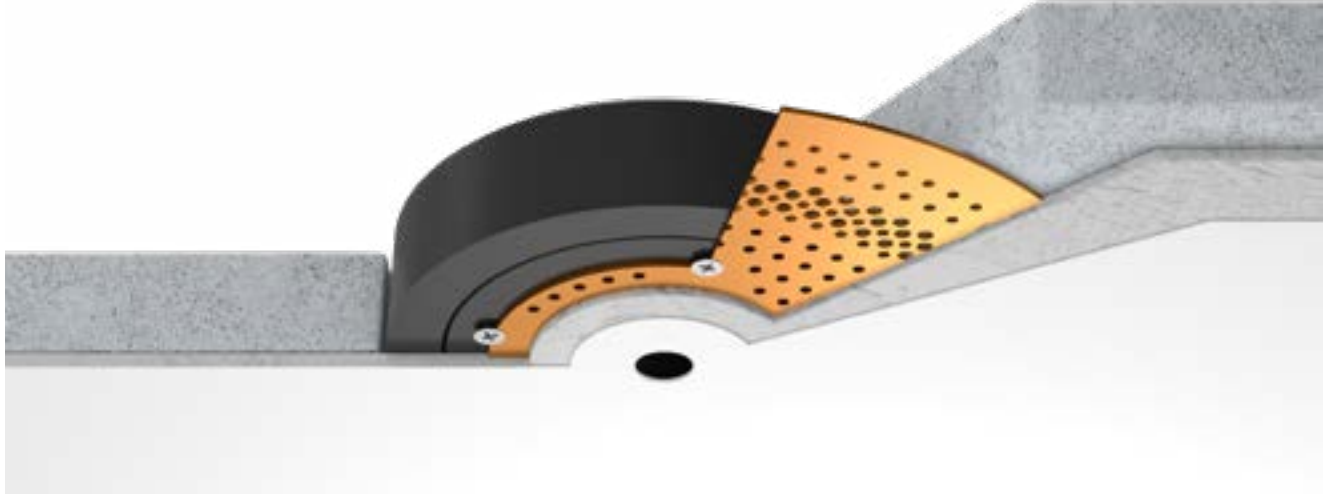


Project: _____
 Type: _____
 Note: _____

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



LED LIGHT ENGINE	
RATED WATTAGE	Static White = 17.8W, Warm Dim = 16.2W
DELIVERED LUMENS	Up to 1264 lm @ 4000K - 50° Optic
EFFICACY	Up to 66.5 LPW @ 4000K - 50° Optic
CCT @ 90CRI	2700K, 3000K, 3500K, 4000K, Warm Dim
COLOR QUALITY	90+ CRI, 2-Step SDCM
LED LIFETIME	55,000 hours @ L90
MAX AMBIENT	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	
OPTICS	50° Installed and 30° included

POWER SUPPLY	
INPUT VOLTAGE	120/277V, 50/60Hz
DIMMING	*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

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)

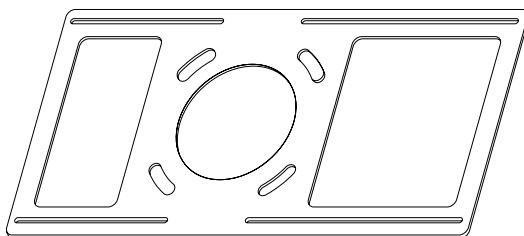
PRODUCT FAMILY	SHAPE	CCT & CRI	POWER PER WHISPER	INTEGRAL DRIVER OPTIONS – INCLUDES WHISPER WITH INTEGRAL DRIVER
WS-IC- Whisper Downlight IC Rated New Construction or Remodel	R Round	2790 2700K 90CRI	-15 15W	S1 (1) Whisper with Universal Dim Driver: 1%-100% 0-10V, *TRIAC, ELV, 120V/277V EL1 (1) Whisper with EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V Integral drivers must be accessible from above the ceiling to validate warranty. *TRIAC/ELV dimming only @ 120V
	S Square	3090 3000K 90CRI		
		3590 3500K 90CRI		
		4090 4000K 90CRI		
		WD98 Warm Dim 98CRI 1800K - 3000K		
		Note: WD98 is not Title 24 JA-8 compliant		REMOTE DRIVER OPTIONS – INCLUDES WHISPER(S) + REMOTE DRIVER SR1 (1) Whisper + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V SR2 (2) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V SR3 (3) Whispers + (1) Universal Dim Driver: 1%-100% 0-10V, TRIAC, or ELV, 120V/277V ER1 (1) Whisper + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V ER2 (2) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V ER3 (3) Whispers + (1) EldoLED Dim Driver: 0.1%-100% 0-10V, 120V/277V LRE1 (1) Whisper + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V LRE2 (2) Whispers + (1) Lutron Dim Driver: 1%-100% EcoSystem, 120V/277V LRE3 (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.

Emergency Options only applicable for integral driver options.

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

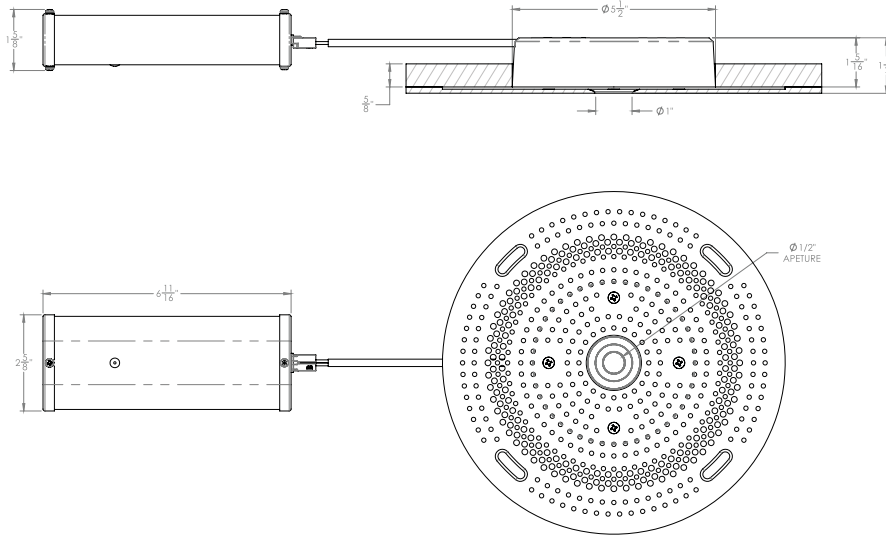
ADDITIONAL ACCESSORIES

WS-PAN	Whisper New Construction Rough-in Pan Optional, for new construction applications
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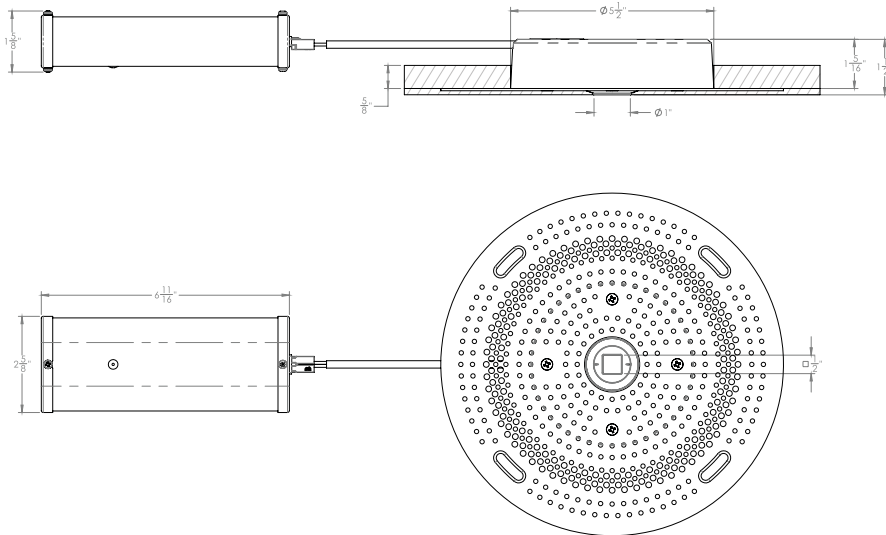


WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

WS-IC STANDARD INTEGRAL DRIVER (ROUND MUD IN)



WS-IC STANDARD INTEGRAL DRIVER (SQUARE MUD IN)



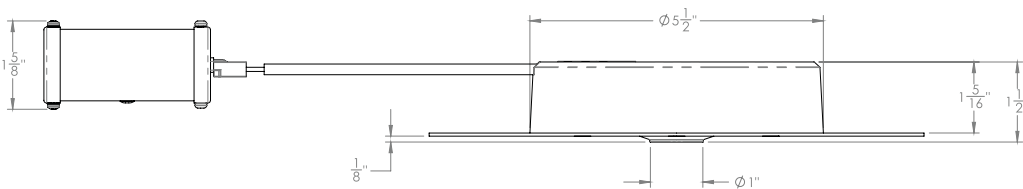
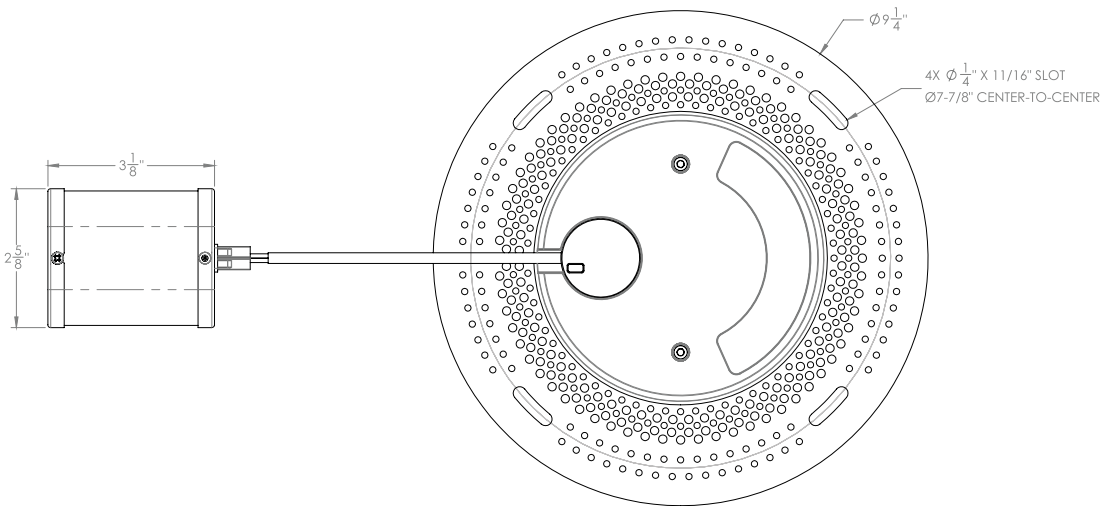
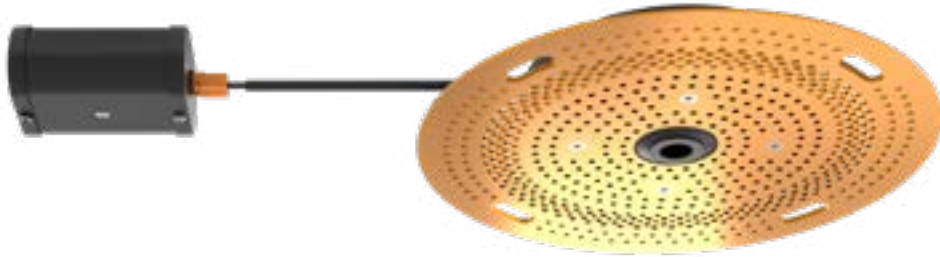
Project: _____

Type: _____

Note: _____

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

WS-IC REMOTE DRIVER



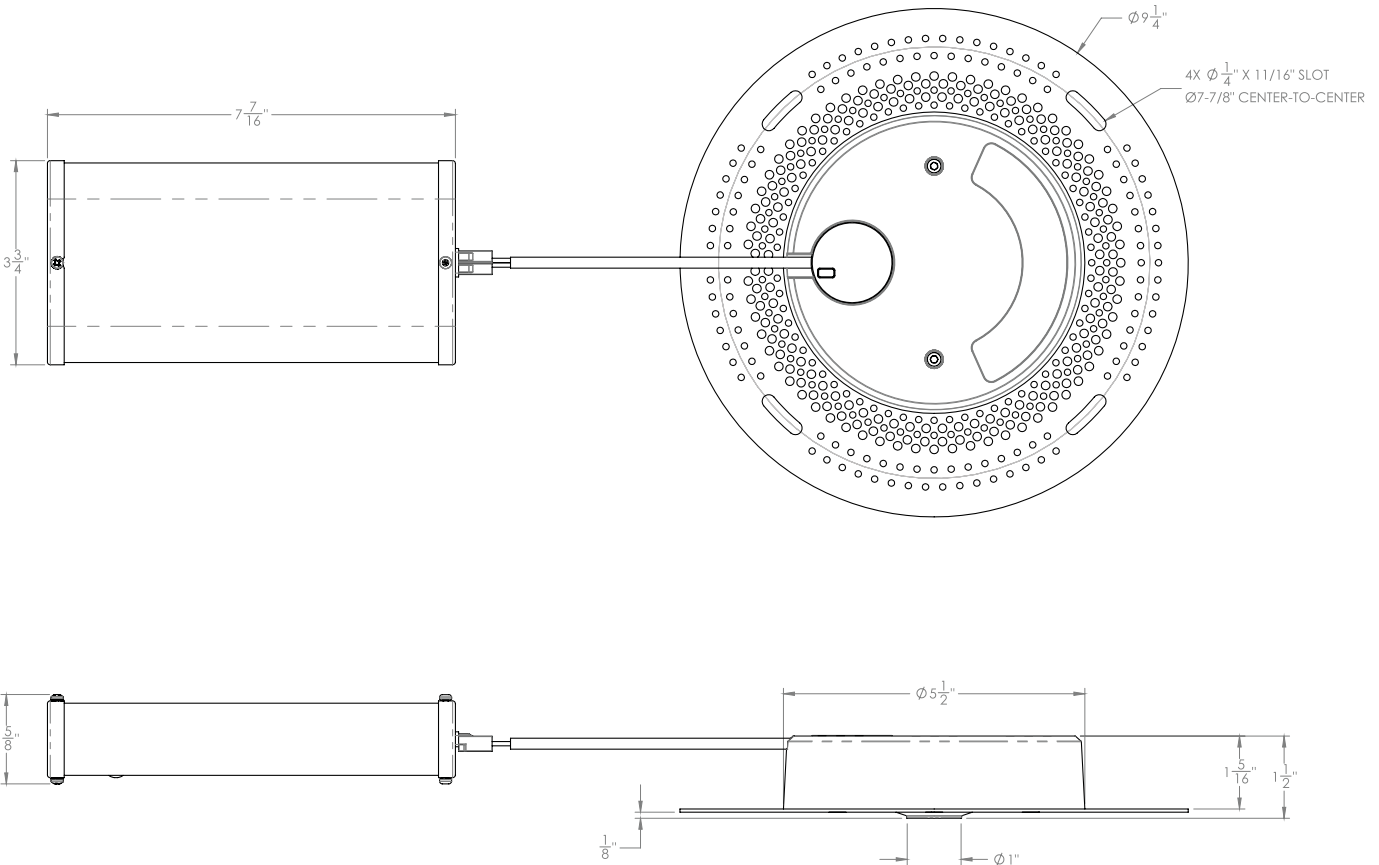
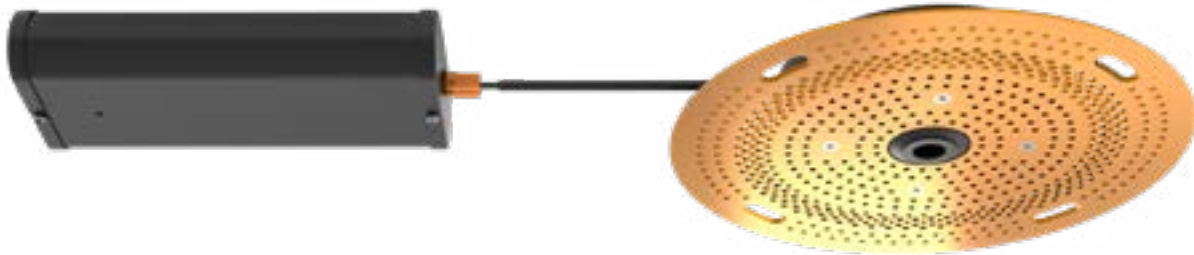
Project: _____

Type: _____

Note: _____

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

WS-IC, ELDO LED 0.1% DIMMING DRIVER

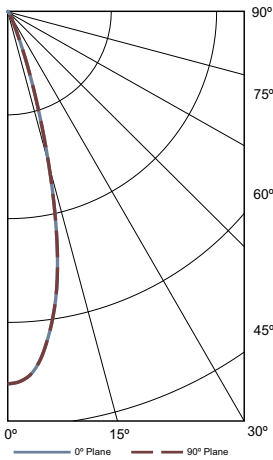


WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

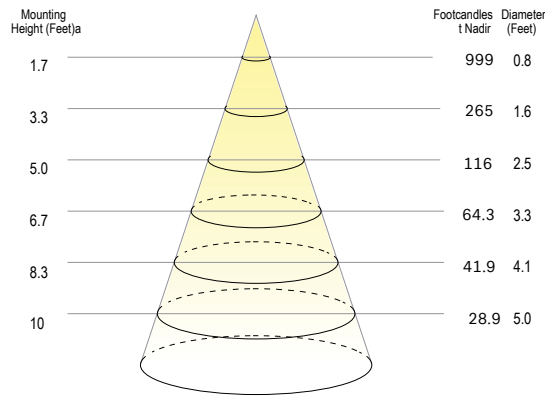
PHOTOMETRICS

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%

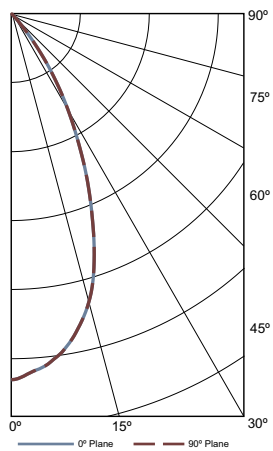
Summary of Results

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

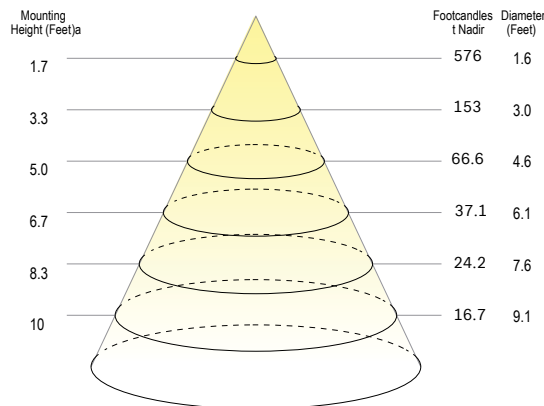
ZONE	LUMENS	% OF LUMINAIRE
0-40	664.6	95.6%
0-60	671.98	99.70%
0-90	673.85	100.0%

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

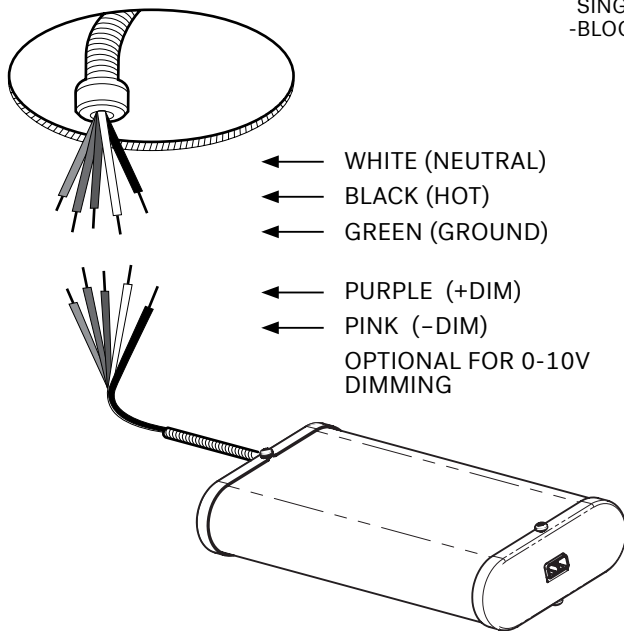
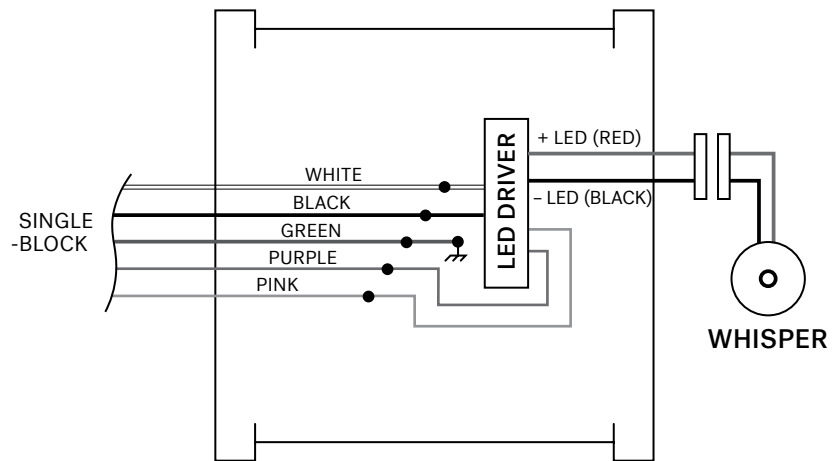
ZONE	LUMENS	% OF LUMINAIRE
0-40	1074.78	97.9%
0-60	1095.2	99.8%
0-90	1097.9	100.0%

Project: _____
 Type: _____
 Note: _____

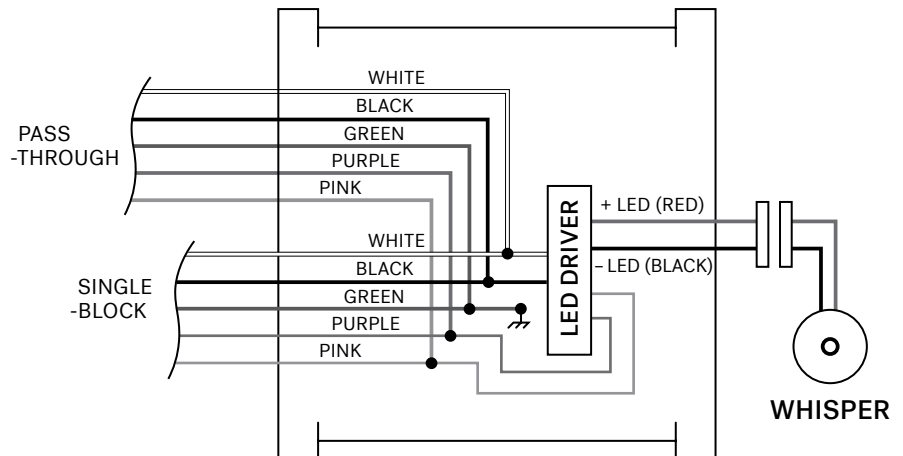
WHISPER 1/2" STANDARD LED DOWNLIGHT - WS-IC

WIRING DIAGRAM - INTEGRAL DRIVER OPTIONS

FOR SINGLE-BLOCK CONNECTION (LED DRIVER INSIDE)



FOR PASS-THROUGH CONNECTION (LED DRIVER INSIDE)



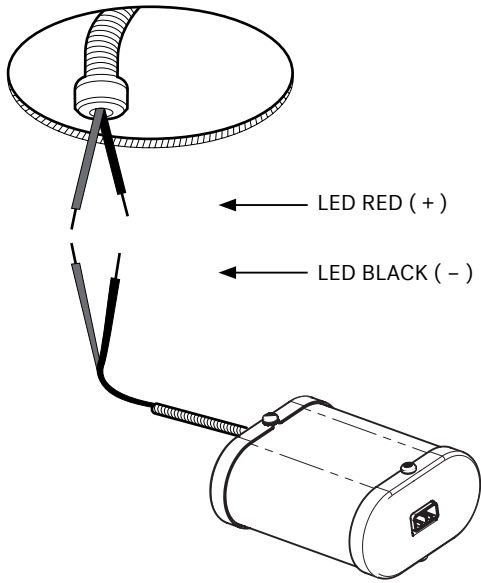
Project: _____

Type: _____

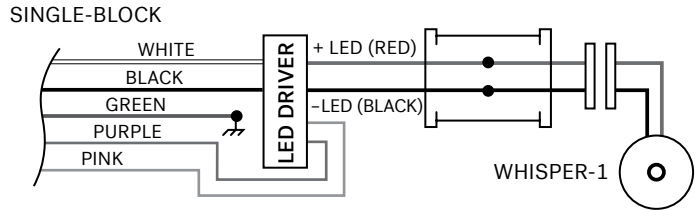
Note: _____

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

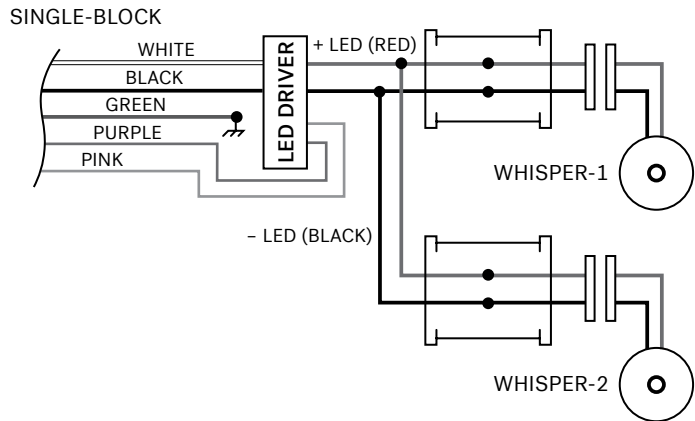
WIRING DIAGRAM - REMOTE DRIVER OPTIONS



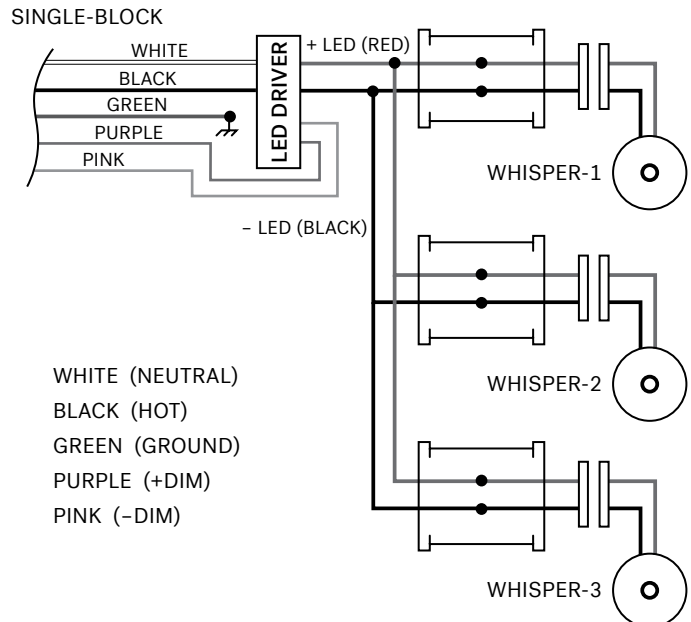
① WHISPER + ① REMOTE DRIVER (LED Driver Outside)



② WHISPERS + ① REMOTE DRIVER (LED Driver Outside)



③ WHISPERS + ① REMOTE DRIVER (LED DRIVER OUTSIDE)



⚠ 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 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-OIMFLV8, GLXP-OIMFLV8, GLPAC-DIMFLV4-*, GLPAC-DIM- FLV8-*, GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, DIN-AO8, 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.

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