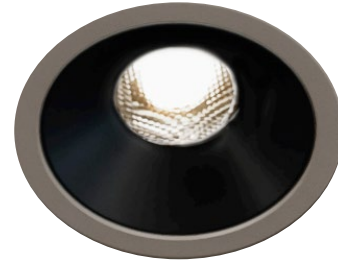


Project: _____
 Type: _____
 Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC



LED LIGHT ENGINE	
RATED WATTAGE	Static White = 16.9W, Warm Dim = 15.0W
DELIVERED LUMENS	Up to 1271 lm @ 4000K - 50° Optic FT Trim
EFFICACY	Up to 75 LPW @ 4000K - 50° Optic FT Trim
CCT @ 90CRI	2700K, 3000K, 3500K, 4000K, Warm Dim
COLOR QUALITY	90+ CRI, 2-Step SDCM
LED LIFETIME	55,000 hours @ L90
ADJUSTABLE	0° to 30° tilt, 360° pan

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
SERVICABILITY	All options: Below ceiling access

DELIVERED LUMENS MATRIX - FT REFLECTOR		
CCT & CRI	30° OPTIC	50° OPTIC
2700K (90CRI)	770 lm	1104 lm
3000K (90CRI)	816 lm	1170 lm
3500K (90CRI)	862 lm	1235 lm
4000K (90CRI)	886 lm	1271 lm
Warm Dim (98CRI)	552 lm	791 lm

FEATURES

- ¾" aperture downlight minimizes fixture and light noise at the ceiling
- Delivers up to 1271 lumens of general or accent light using SilentVu™ optical control at 50° or 30°
- 55,000 hr LED lifetime and available integral or remote driver options

TRIM OPTIONS

- Fixed and Adjustable
- Wet Location (AL, FL & WW)
- Wall Wash
- Round and Square
- Standard, Trimless, and Wood Ceiling

TRIM COLORS

- White
- Black
- Champagne
- Custom Color

REFLECTOR COLORS

- White
- Black
- Champagne
- Satin Aluminum
- Custom Color

HOUSING

- Includes (2) galvanized steel adjustable hanger bars and butterfly brackets.
- Ceiling Material: Drywall, T-bar grid, Wood and Millwork
- Steel junction box with up to (4) ½" knockouts
- All options are Air Tight and CCEA (Chicago Plenum)
- 3½" minimum plenum height above the ceiling required

LISTING/WARRANTY

- cULus Listed
- UL Listed for Damp Location (All Styles) & Wet Location with AL, WL or WW reflector options.
- ASTM E283 Certified Airtight
- IC Rated
- CA Title 24-JA8 Compliant with 50° optic, 90+CRI
- Five (5) years limited warranty
- CCEA (Chicago Plenum) Approved

DELIVERED LUMENS MATRIX - ST TRIM			
CCT & CRI	30° OPTIC	50° OPTIC	WALL WASH OPTIC
2700K (90CRI)	642 lm	977 lm	783 lm
3000K (90CRI)	680 lm	1035 lm	830 lm
3500K (90CRI)	718 lm	1093 lm	877 lm
4000K (90CRI)	739 lm	1124 lm	902 lm
Warm Dim (98CRI)	440 lm	612 lm	491 lm



Project: _____

Type: _____

Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

ORDER MATRIX

WHISPER ADJUSTABLE HOUSING IC (Example: WS-AIC-1-15S1-SHB = Whisper Adjustable IC, 15W, Standard Integral Driver, Standard Hanger Bars)

PRODUCT FAMILY	POWER PER HEAD	INTEGRAL DRIVER OPTIONS	HANGER BAR
WS-AIC-1 Whisper Adjustable IC	-15 15W	S1 (1) Whisper with Universal Dim Driver: 1%-100% 0-10V, *TRIAC, ELV, 120V/277V *TRIAC/ELV dimming only @ 120V	-SHB Standard -C24 24" C-Channel -C48 48" C-Channel
		REMOTE DRIVER OPTIONS 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		
EM-1000 (25W Remote Inverter)	EM-1003-CA (35W Remote Inverter) Title 20	EM-1006 (25W Remote Inverter) Title 20
EM-1002 (10W Remote Emergency Driver)	EM-1004 (50W Remote Inverter)	

Project: _____
 Type: _____
 Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

ORDER MATRIX

WHISPER MODULE AND TRIM

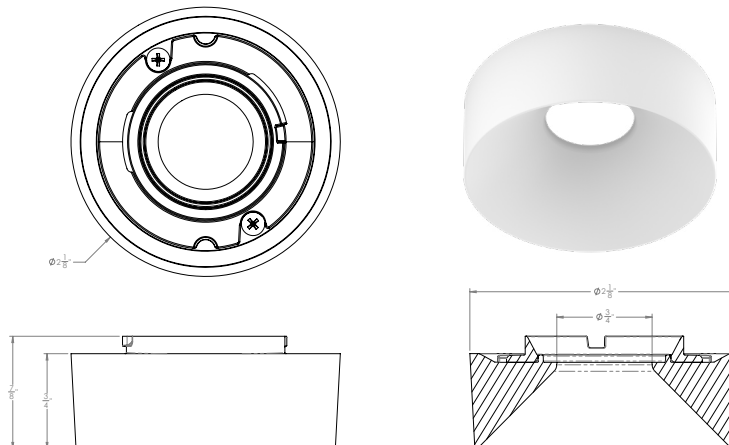
(Example: WS-AIC-1-3090-RSTWT-STWT = Whisper Adjustable Light Module, 1 head, 3000K 90CRI, Round Standard, White Trim, Standard Reflector White)

PRODUCT FAMILY	CCT & CRI	APERTURE SHAPE	TRIM STYLE	TRIM COLOR
WS-AIC-1 Whisper Adjustable IC	2790 2700K 90CRI	R Round	ST Standard	TL Trimless/Wood Ceiling
	3090 3000K 90CRI			
	3590 3500K 90CRI	S Square	TL Trimless	WT White
	4090 4000K 90CRI			
	WD98 Warm Dim 98CRI 1800K - 3000K			
Note: All Modules have a 50° optic installed but has a 30° in the box.	Note: WD98 is only Title 24 JA8 Compliant when used with FT Trim and 50° optic.	Note: DC is used when a Decorative Trim is added separately as an accessory.	Note: Select TL with a Trimless or Wood Ceiling. (Blank) is used when a Decorative Trim is added separately as an accessory.	

REFLECTOR TYPE	REFLECTOR COLOR
ST Standard (Adjustable)	WT White
AL Adjustable Lens (Wet Location)	BK Black
FT Standard (Fixed)	CN Champagne
FL Fixed Lens (Wet Location)	SA Satin Aluminum
WW Wall Wash (Wet Location)	CC¹ Custom Color
(BLANK) Decorative Type	(BLANK) Decorative Type
Note: DC is used when a Decorative Trim is added separately as an accessory.	Note: DC is used when a Decorative Trim is added separately as an accessory.

¹For Custom Color, contact CSL for details.

DECORATIVE TRIM	
WS-1-RA-DC-001	Round Drop Lens



Project: _____

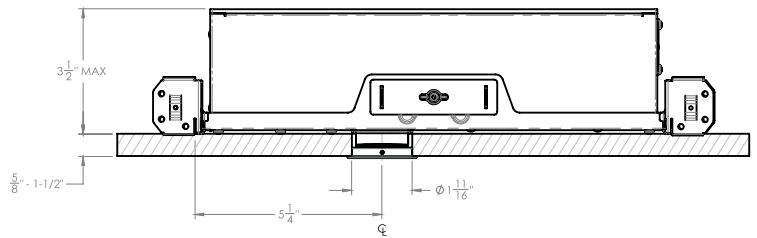
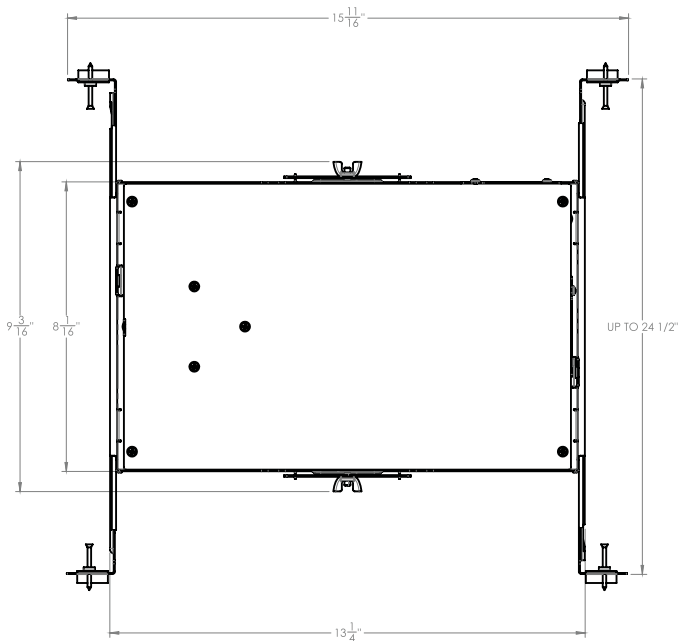
Type: _____

Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

HOUSING AND LIGHT ENGINE LINE DRAWINGS

WS-AIC-1 New Construction IC Housing



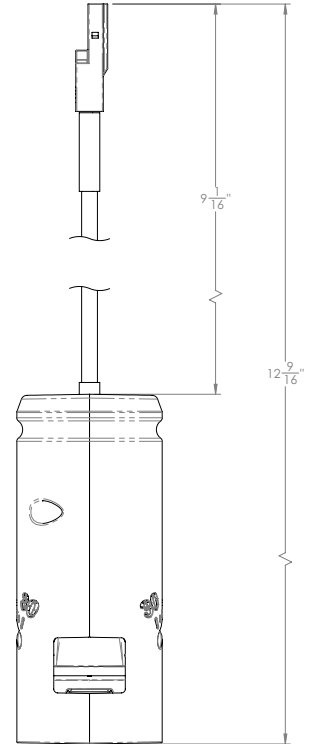
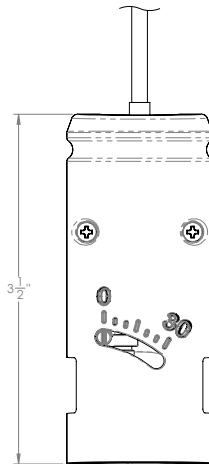
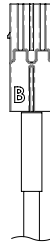
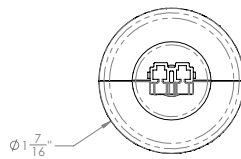
Project: _____

Type: _____

Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

WS-AIC (LIGHT MODULE)



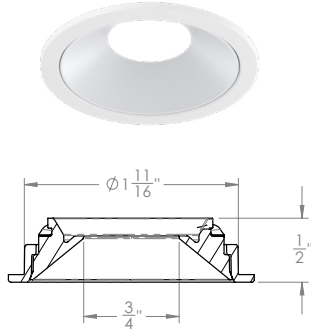
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Type: _____

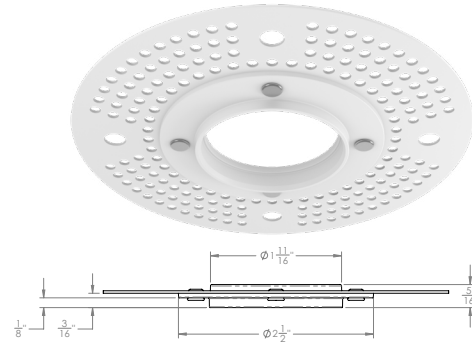
Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

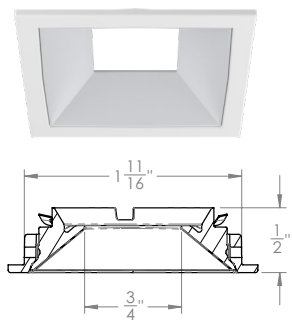
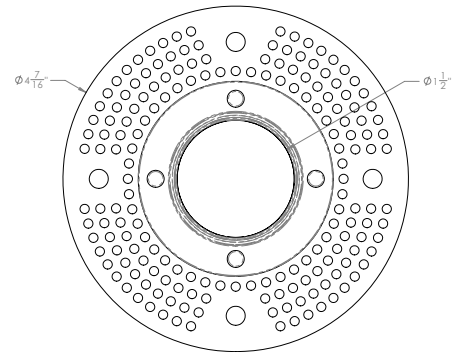
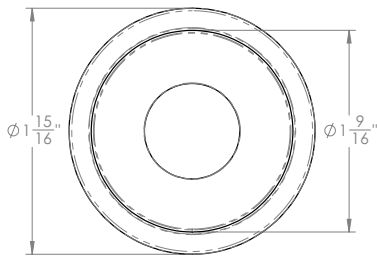
TRIM STYLES



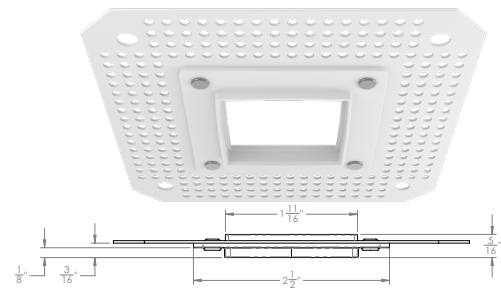
RST
ROUND STANDARD TRIM



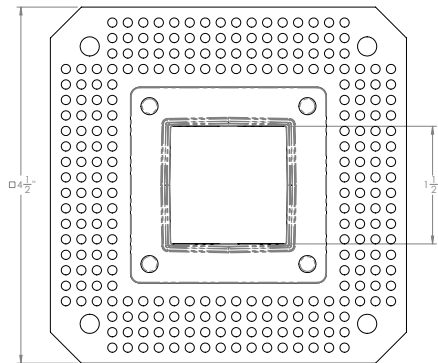
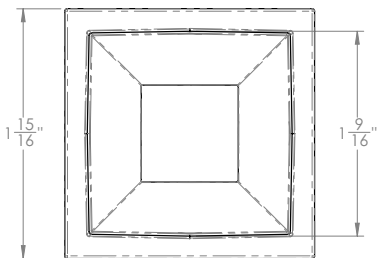
RTL
ROUND TRIMLESS



SST
SQUARE STANDARD TRIM

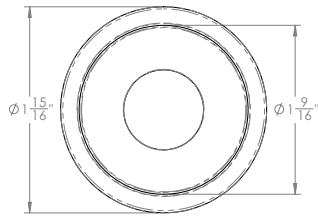
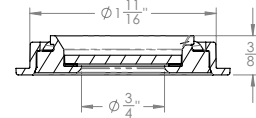
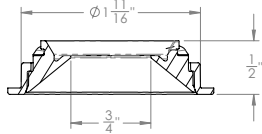


STL
SQUARE TRIMLESS

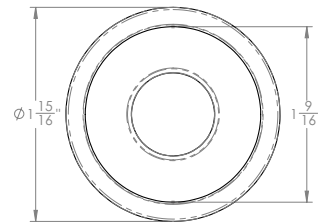


WHISPER FLEX LED DOWNLIGHT - WS-AIC

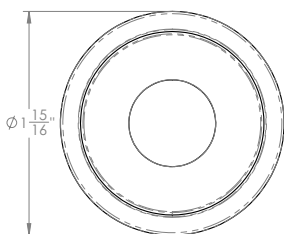
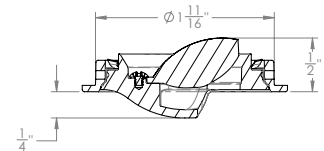
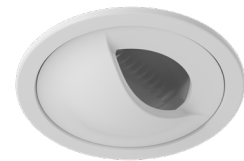
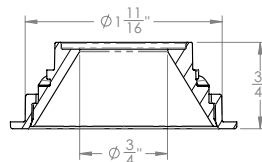
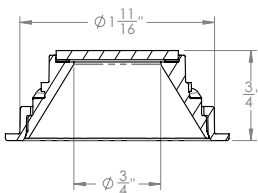
REFLECTOR STYLES (ROUND)



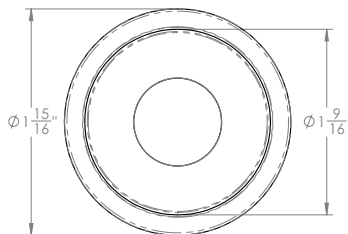
RST
ROUND STANDARD ADJUSTABLE



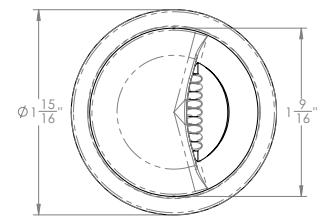
RAL
ROUND ADJUSTABLE LENS
WET LOCATION



RFT
ROUND STANDARD FIXED



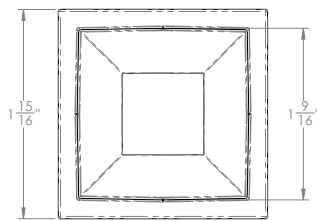
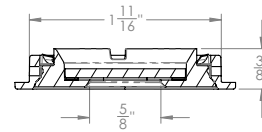
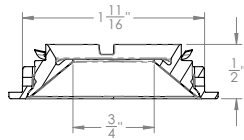
RFL
ROUND FIXED LENS
WET LOCATION



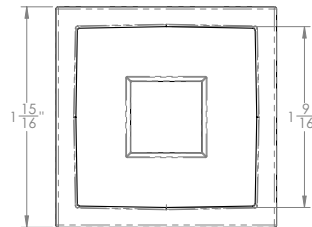
RWW
ROUND WALL WASH
WET LOCATION

WHISPER FLEX LED DOWNLIGHT - WS-AIC

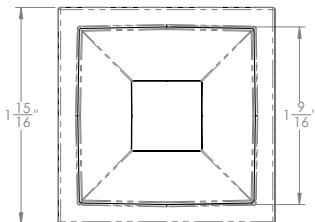
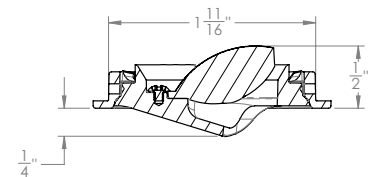
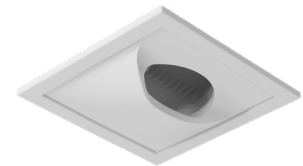
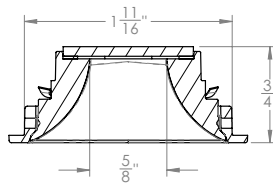
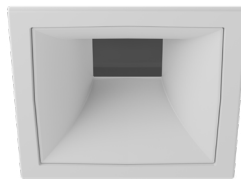
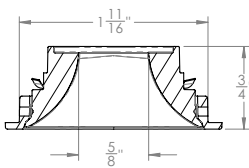
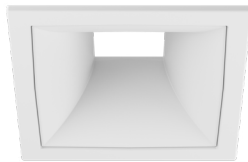
REFLECTOR STYLES (SQUARE)



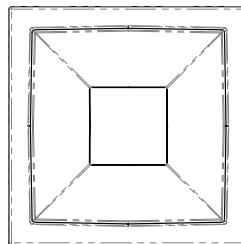
SST
SQUARE STANDARD ADJUSTABLE



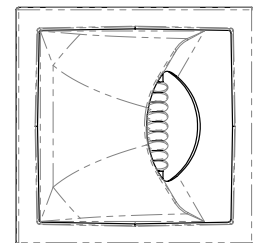
SAL
SQUARE ADJUSTABLE LENS
WET LOCATION



SFT
SQUARE STANDARD FIXED



SFL
SQUARE FIXED LENS
WET LOCATION



SWW
SQUARE WALL WASH
WET LOCATION

WHISPER FLEX LED DOWNLIGHT - WS-AIC

TRIM FINISHES



RSTWT-STWT
WT White Trim
WT White Reflector



RSTBK-STBK
BK Black Trim
BK Black Reflector



RSTCN-STCN
CN Champagne Trim
CN Champagne Reflector



RSTWT-STSA
WT White Trim
SA Satin Aluminum



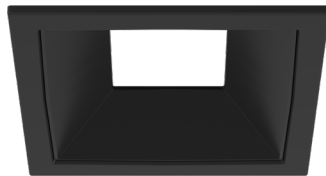
RSTWT-STBK
WT White Trim
BK Black Reflector



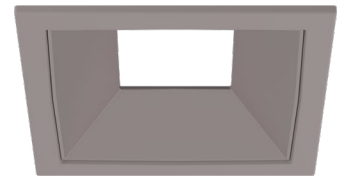
RSTWT-STCN
WT White Trim
CN Champagne Reflector



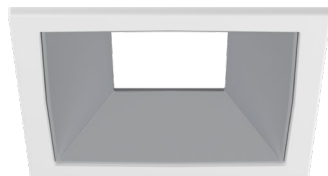
SSTWT-STWT
WT White Trim
WT White Reflector



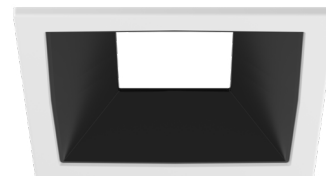
SSTBK-STBK
BK Black Trim
BK Black Reflector



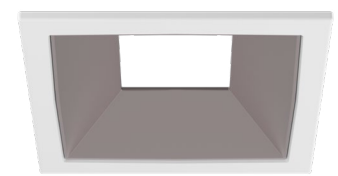
SSTCN-STCN
CN Champagne Trim
CN Champagne Reflector



SSTWT-STSA
WT White Trim
SA Satin Aluminum



SSTWT-STBK
WT White Trim
BK Black Reflector



SSTWT-STCN
WT White Trim
CN Champagne Reflector

Project: _____

Type: _____

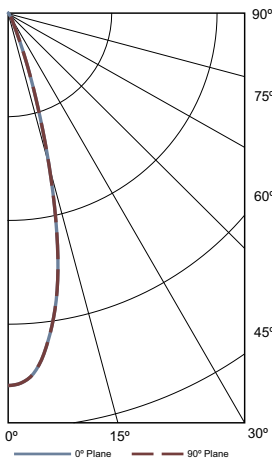
Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

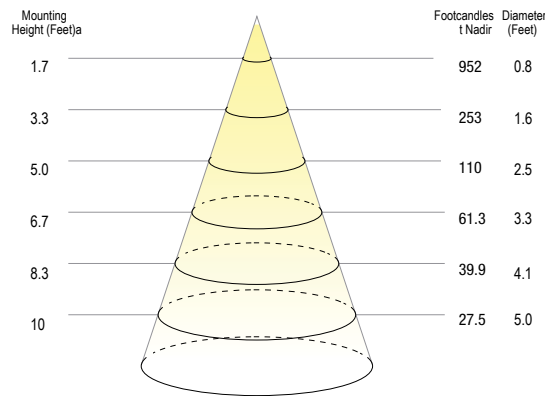
PHOTOMETRICS

Whisper Downlight 1/2" (2700K, 90CRI, 30° Optic, 16.9W) ST Trim - ST Reflector

Polar Plot



Cone of Light Tabulation



VOLTAGE	CURRENT	POWER
120 VAC	0.15 A	16.8W

POWER FACTOR	FREQUENCY	CURRENT THD
0.9625	60 Hz	19.0%

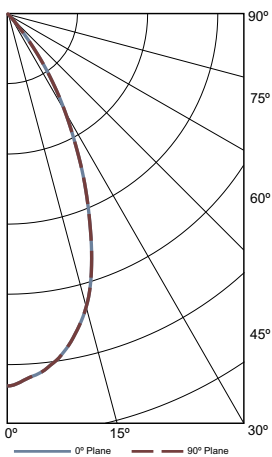
Summary of Results

Spacing Criteria	Total Lumen Output:	642 Lumens
0-180: 0.48	Luminaire Efficacy:	38.2 lm/w
90-270: 0.48	Maximum Candela:	2751 Candela

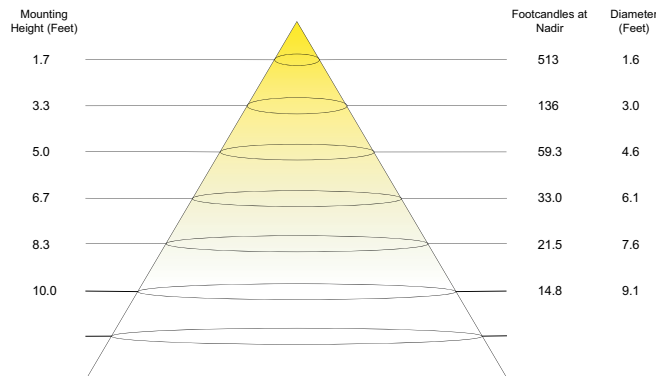
ZONE	LUMENS	% OF LUMINAIRE
0-40	633.26	98.6%
0-60	640.08	99.7%
0-90	642	100.0%

Whisper Downlight 1/2" (2700K, 90CRI, 50° Optic, 16.9W) ST Trim - ST Reflector

Polar Plot



Cone of Light Tabulation



VOLTAGE	CURRENT	POWER
120 VAC	0.15 A	16.87W

POWER FACTOR	FREQUENCY	CURRENT THD
0.971	60 Hz	18.8%

Summary of Results

Spacing Criteria	Total Lumen Output:	976.8 Lumens
0-180: 0.78	Luminaire Efficacy:	58 lm/w
90-270: 0.78	Maximum Candela:	1482 Candela

ZONE	LUMENS	% OF LUMINAIRE
0-40	956.3	97.9%
0-60	974.5	99.8%
0-90	976.8	100.0%

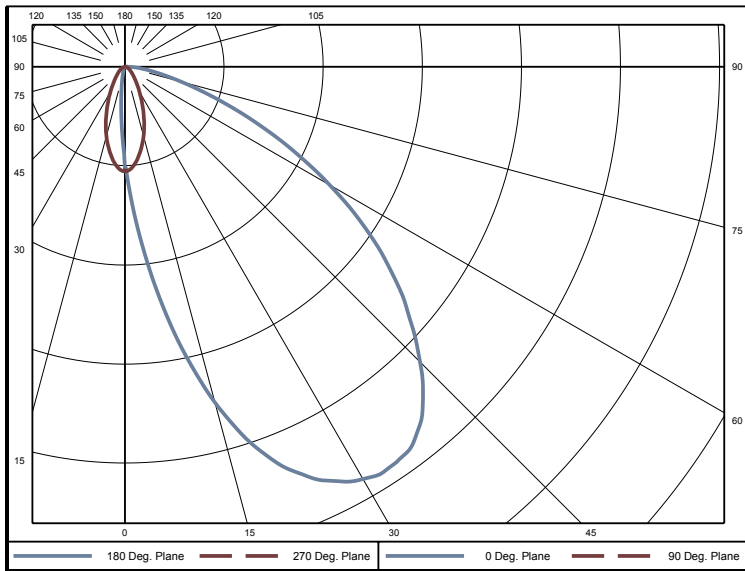
Project: _____
 Type: _____
 Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

PHOTOMETRICS

Whisper Downlight 1/2" (2700K, 90CRI, 50° Optic, 16.9W)
 Wall Wash

Polar Plot



VOLTAGE	CURRENT	POWER
120.0 VAC	0.15 A	16.78W

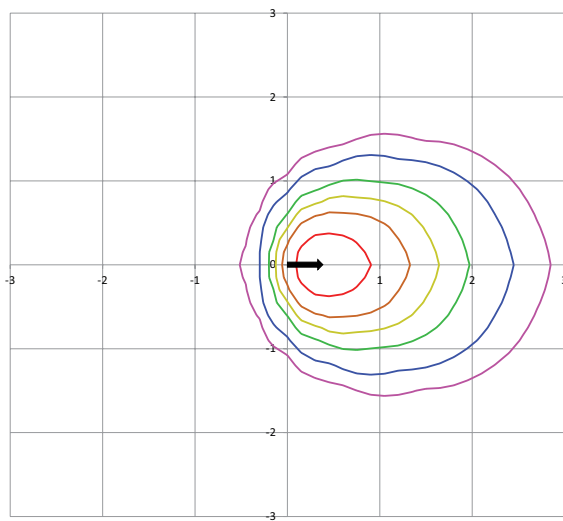
POWER FACTOR	FREQUENCY	CURRENT THD
0.962	60 Hz	19.0%

Summary of Results

Spacing Criteria	Total Lumen Output:	783.4 Lumens
0-180: 2.98	Luminaire Efficacy:	47 lm/w
90-270: 0.68	Maximum Candela:	1060 Candela

ZONE	LUMENS	% OF LUMINAIRE
0-40	402.9	51.4%
0-60	676.2	86.3%
0-90	782.2	99.8%

ISO Footcandle Plot
 Mounting Height - 8 Feet



x/y axis in units of Mounting Height - 8ft.

Project: _____

Type: _____

Note: _____

WHISPER FLEX LED DOWNLIGHT - WS-AIC

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 - NTFV 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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