Date:	Approved:
Type:	
Luminaire:	
Project:	

SSF2109

Exterior Nine Inch Round RGBW High-Powered Flood Light

(Shown w/Cut-Off Visor)

Made in USA with domestic & globally sourced components

FEATURES

- Up to 2748 lumens
- RGBW & Tunable White in one luminaire
- Wide range mounting options
- Many optical accessories
- ColourQuick, ColourClone, ColourSoft, and ColourMode (see page 4)
- 1.5G Vibration resistance

PERFORMANCE

Beam Spread: 10°, 15°, 25°, 30°, 60°, 80°, 90°, 100°, 15° x 30°, 30° x 60°
CCT Options: ColourMode (CM) RGBW and tunable white in one luminaire using 6 DMX channels
Lumens: 2748 lumens (typical)
Lumen Maintenance: L70 > 70,000 hours

PHYSICAL

Mounting: Standard mounting is ½" - 14 NPS and includes adjustments for 145° vertical rotation and 360° horizontal rotation
Housing: Marine grade, corrosion resistant, low copper, solid die-cast aluminum; captive stainless steel fasteners
Finish: Available in Black, Bronze, Graphite Grey, Silver, White and Custom Colors. Six stage chemical iron phosphate conversion pre-treatment. Polyester powder coat finish, 18 µm minimum, 5,000 hour salt spray test (ASTM B117) compliant with Florida / AAMA 2604 specification.
Warranty: 5-Year limited warranty
Lens: Anti-reflective-clear, tempered glass w/silicone gasketing - IK07 Impact Rating
Ingress Protection: IP66 rated for dry, damp or wet locations
Weight: 10.1 lbs
Ambient Operating Temp: -22°F to 122°F (-30°C to 50°C)

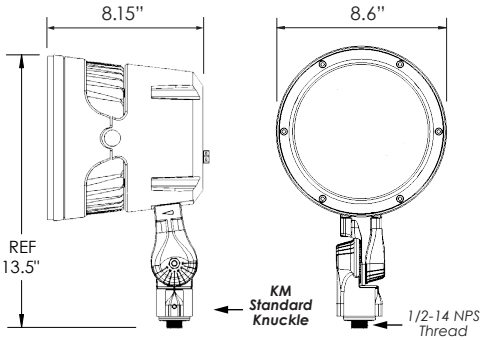
ELECTRICAL

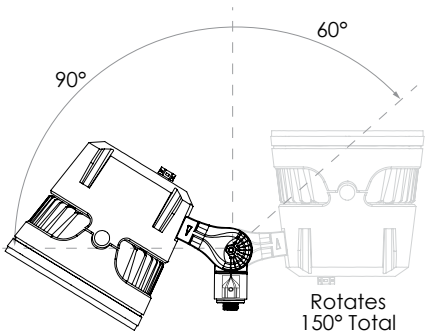
Voltage: Universal 120 - 277 VAC
Power Supply: Integral Class II, electronic high-power factor > .90 @ 120V
Power Consumption: Maximum 66W
Dimming: ColourSoft embedded firmware enables 16-bit resolution using only 8-bits of data to enhance the low trim curve for no-flicker at the slowest transition speeds
Certification: ETL / cETL or CE, tested to UL 1598 and UL 8750 standards / UL-Class I / IES LM-79 / LM-80
Standards: cETLus Listed, CE, NOM, tested to UL 1598 and UL 8750 standards / UL-Class I / IES LM-79 / LM-80

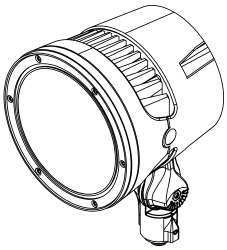
RGBW TECHNOLOGY

ColourQuick ColourClone ColourSoft ColourMode

PHYSICAL DIMENSIONS







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solid state luminaires

Date:	Approved:
Type:	
Luminaire:	
Project:	

SSF2109

PRODUCT CODE

EXAMPLE: SSF2109-UNV-RGBW-BKE-10-CV9-KM

MODEL	VOLTAGE	COLOR	FINISH	OPTICS	TRIM	MOUNT
SSF2109	UNV					

MODEL

SSF2109

VOLTAGE

UNV	Universal 120 - 277 VAC

Color

RGBW	RGBW
RGBW-TW	RGBW & Tunable White
TW	Tunable White

FINISH

BKE	Black
BRE	Bronze
GRE	Graphite Grey
SLE	Silver
WHE	White
CCE	Custom Color

OPTICS typical

10	Narrow Spot 10°
15	Spot 15°
25	Narrow Flood 25°
30	Mid Flood 30°
60	Flood 60°
80	Wide Flood 80°
90	Extra Wide Flood 90°
100	Extra Wide Flood 100°
***1530**	15° x 30° Ellipsoidal
***3060**	30° x 60° Ellipsoidal

*Unavailable with SN9

*See page 10 for optic orientation

TRIM

CV9	Cut-Off Visor
CV9-RG9	Cut-Off Visor with Rock Guard
LSN9	Long Snoot
LSN9-SF9	Long Snoot with Screen Frame
RG9	Rock Guard
SN9	Snoot Enclosed Glass Front Lens

MOUNT

Choose one mount option

KM	Medium Knuckle Mount (Standard)
AS	Architectural Surface Mount
AS-BASE	Architectural Surface Mount with Base
FEX6	Flood Extension Arm - 6"
FEX12	Flood Extension Arm - 12"
HGS-03	Heavy Duty Ground Stake
JB	Junction Box (Outdoor Rated)
PF	Post Top Fitter
Y9	Yoke Arm (Removes Knuckle)

Note: Must specify mount as part of catalog number. Mounts may not be convertible from one to another without rework at the factory.

Cable Accessories (order seperately)

REQUIRED: Each run requires a Field Installed Data Terminator.

_____ **TCAPFIELD** Field Installed Data Terminator (w/ 120 ohm Resistor)

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CONTROL COMPONENTS

(Indicate the quantity needed for each item.)

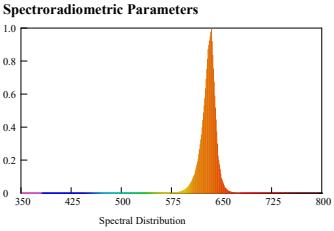
_____ **PHAROS TPS-5-B** 5" Designer Touch Panel Station
_____ **PHAROS XPC1** Expert Controller; 512 channels of eDMX/DMX
_____ **PHAROS XPC2** Expert Controller; 1024 channels of eDMX/DMX
_____ **PHAROS XPT-5-B** Expert Touch Panel; 5" Display in Black
_____ **PHAROS TPC-BB** Touch Panel Controller - Black on Black *(512 Channels EDMX)*
_____ **PHAROS EXT** Extension for TPC Connectivity
_____ **PHAROS LPC1** Lighting Playback Controller 1 (512 channels DMX/eDMX)
_____ **PHAROS LPC2** Lighting Playback Controller 2 (1,024 channels DMX/eDMX)
_____ **PDX2** Power Data Wiring Box *(exterior rated)*
_____ **PDX-RDS2** Power Data Wiring Box w/2-port splitter
_____ **PDX-RDS4** Power Data Wiring Box w/4-port splitter
_____ **SCSC-2WH (2BK)** White or Black Wall Mount ColourSelect Controller *(2 universe)*
_____ **CSC-E** ColourSelect Controller *(2 universe)*

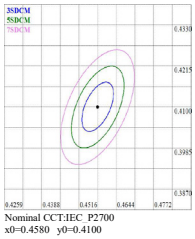
_____ **DE3BK(WH)** Nicolaudie STICK DE-3 Black or White Wall Mount Controller w/color dial
_____ **CW4-WH** Nicolaudie STICK White Touch Screen with Internal WiFi
_____ **GA2WH(BK)** Nicolaudie STICK-GA2 White or Black Wall Mount Controller
_____ **DXC-25** 25 foot DMX cable
_____ **DXC-50** 50 foot DMX cable
_____ **DXC-100** 100 foot DMX cable
_____ **CD-10** 10 foot controller data cable (for CSC only)
_____ **CD-25** 25 foot controller data cable (for CSC only)
_____ **CD-50** 50 foot controller data cable (for CSC only)
_____ **CD-100** 100 foot controller data cable (for CSC only)
_____ **MV 5900** Multiverse Show Baby DMX Wireless Bridge (Indoor)
_____ **7400-5707M** Show DMX Vero DMX Wireless Bridge (Exterior)
_____ **NICOLAUDIE NINA**

Controller Data Cables/DMX Cables listed are exterior rated cables.
(Belden 3105A or equivalent) CD-XX cables have male XLR at one end.

PHOTOMETRIC DATA

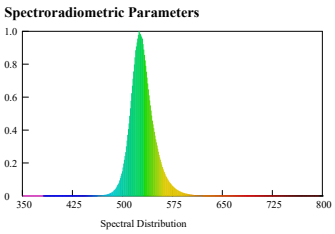
RGBW-RED ONLY

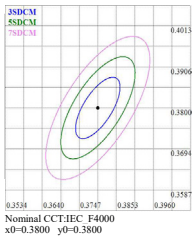




Dominant Wavelength: 622.0 nm(E)
Luminous Flux: 48.67 lm
Chromaticity Difference: -0.08736Duv
Bandwidth: 20.4nm
Purity: 1.0035
Peak Wavelength: 635.0 nm
Radiant Flux: 0.261 W

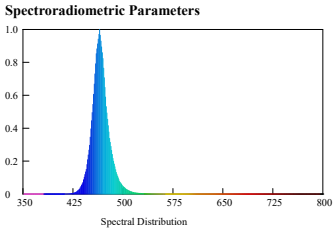
RGBW-GREEN ONLY

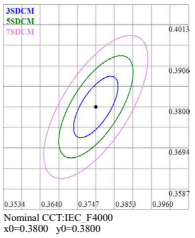




Dominant Wavelength: 532.0 nm(E)
Luminous Flux: 95.24 lm
Chromaticity Difference: +0.1522Duv
Bandwidth: 30.1nm
Purity: 0.8711
Peak Wavelength: 525.0 nm
Radiant Flux: 0.174 W

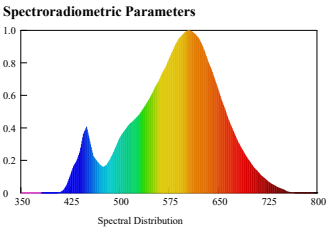
RGBW-BLUE ONLY

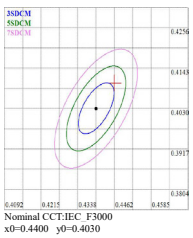




Dominant Wavelength: 468.0 nm(E)
Luminous Flux: 21.32 lm
Chromaticity Difference: -0.1744Duv
Bandwidth: 25.1nm
Purity: 0.8711
Peak Wavelength: 465.0 nm
Radiant Flux: 0.35 W

RGBW-WHITE ONLY





Correlated Color Temperature: 2898 K
Colour Fidelity Index: Rf=83
Luminous Flux: 102.14 lm
Chromaticity Difference: +0.00118Duv
Bandwidth: 130.2nm
Rendering Index: Ra=82.8

Dominant Wavelength: 581.0 nm(E)
Gamut Index: Rg=96
Purity: 0.5737
Peak Wavelength: 605.0 nm
Radiant Flux: 0.299 W

R1=81 R2=90 R3=97 R4=81 R5=81 R6=88 R7=84 R8=60
R9=11 R10=78 R11=80 R12=75 R13=83 R14=99 R15=74 Re=77

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ColourLine RGBW Technology

RGBW Flood Light

All These Features In A Single Luminaire

ColourQuick

RAPID-MIX COLOR

- Instantaneous Color Mixing – Within 1 inch
- Shortest Distance in Industry for Blending Colors
- 4-in-1 RGBW LED designed to SSL Specifications

ColourLine RGBW luminaires provide the quickest color mixing in the industry. The SSL ColourQuick technology enables our ColourLine Linear Indoor Cove and Graze, as well as, our Outdoor Floods to color-mix almost instantly, within one inch.

ColourClone

TRU-COLOR RGBW MATCHING

- Robotic Calibration of every luminaire provides 1-Step consistency
- Every luminaire has same X, Y color coordinates
- Perfect match for add-ons and replacements

As part of our manufacturing process, SSL Automated Manufacturing Robots calibrate every luminaire to the exact same X,Y color coordinates to provide Step-1 like consistency. This process enables every luminaire to be an exact clone. At the end of the process, a bar code is generated for every board. This allows for exact matching for job add-ons or warranty replacements.

ColourSoft

SMOOTH LOW-TRIM DIMMING

- Flicker-Free Color Transitions and Dimming
- 16-bit performance (65,536 steps) using *only 8-bit addressing*
- SSL Engineered Custom Software and Firmware

Standard dimming technology uses 8-bit resolution for 256 individual steps. Our 32-bit on-board MCU uses SSL developed software to provide 16-bit resolution that allows 65,536 steps of resolution and only use 8-bits of addressing space! We also use a logarithmic delineation of the resolution to concentrate in the lower third of the dimming curve so the low-end dimming and color transitions have zero flicker.

ColourMode

RGBW AND TUNABLE WHITE IN ONE

- SSL Designed Firmware uses 6 DMX Channels
- RGBW and Tunable White (2-Step, >90CRI) in One Luminaire
- 5 Distinct Luminaire Personalities for - Maximum Flexibility

SSL uses Digital Dual Mode (DDM) technology to provide RGBW and Tunable White in one luminaire! SSL firmware is designed to use 6 DMX channels in the DDM Personality Mode. Maximum Mood Enhancement is available to use for any type of environment. Channels 1-4 are reserved for RGBW. Channels 5-6 are used for White color tuning. Channel 5 controls intensity, channel 6 controls White color.

Scalable

- Full DMX, RDM control capability with latest industry standards
- A wide variety of DMX protocol controls and system accessories
- SSL has many RGBW products utilizing the ColourLine Technology
- Multiple personality settings to enhance RGBW & Tunable White
- Control 1000's of DMX channels with multiple universes & zones
- Powerful luminaires with super optics for long-throw applications
- SSL provides turnkey design and technical integration support

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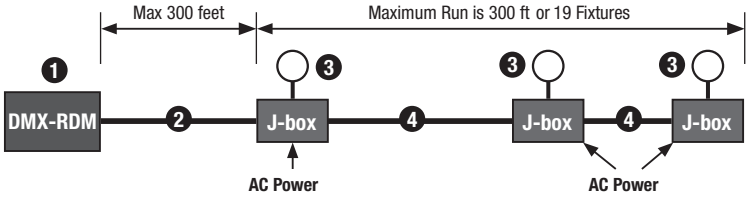
WIRING CONFIGURATIONS

SINGLE SEGMENT CONFIGURATION EXAMPLES

STANDARD CONFIGURATION

1) DMX-RDM Controller
2) DMX Data Cable **DXC-xx** or **CD-xx** (CSC only)
3) RGBW Flood (with standard 5-Pin cord whip)
4) Controller Data Cables/DMX Cables are exterior rated (by others). (Belden 3105A or equivalent) CD-XX cables have male XLR at one end.

AC Power - Supplied by others in various methods; to each luminairee separately, in separate conduits, or in the same conduit (Cables with same voltage rating).



GENERAL:

1. All electrical connections must be in accordance with codes, ordinaces, or the National Electrical Code.
2. Before starting the installation, make sure all the electricity has been turned off and the electrical breaker has been locked out and tagged out.
3. To ensure the success of the installation, be sure to read these instructions and review the disgrams throughly before beginning.
4. Do not exceed the luminaire specified voltage
5. The luminaire cord should be fed throught the top knockout hole of the jbox.

NOTE: The important safeguards and instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur.

INSTALLATION:

1) Verify Physical Layout Plan

a) Ensure all hardware is present.

b) Ensure all electrical feeds are correctly positioned with all hardware and any other active components.

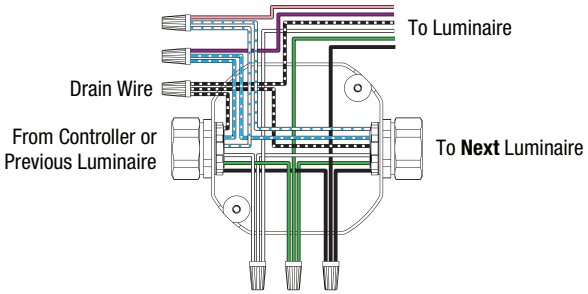
c) Confirm DMX Addressing Plan
   i. SSL recommends pre-addressing luminaires before mounting installation.
   ii. Ensure that addressing is documented for future upgrading, configuring or troubleshooting.
   iii. Create an addressing table to document all luminaire IDs and their physical location.

Notice

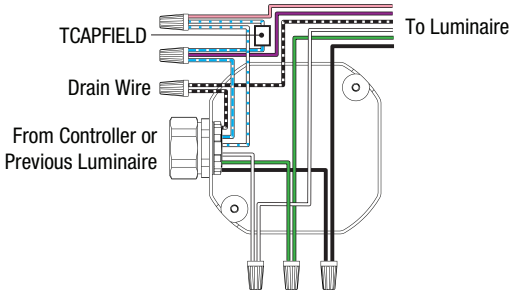
- Maximum of 32 DMX/RMS enabled luminaires per run
- UL wiring details shown
- DMX terminator is required at the end of each run to maintain data integrity

WIRING DIAGRAM AT JUNCTION BOX - FOR UL OR CE OPTIONS

DMX / RDM
DAISY CHAIN LAYOUT FIRST OR MIDDLE RUN



DMX / RDM
DAISY CHAIN LAYOUT END OF THE RUN



WIRING COLOR CODE		
POWER	Black	Line
	White	Neutral
	Green	Ground
DATA	Purple	Data +
	Pink/Gray	Data -
	Braided	Drain Wire
TCAPFIELD	TCAPFIELD	Termination

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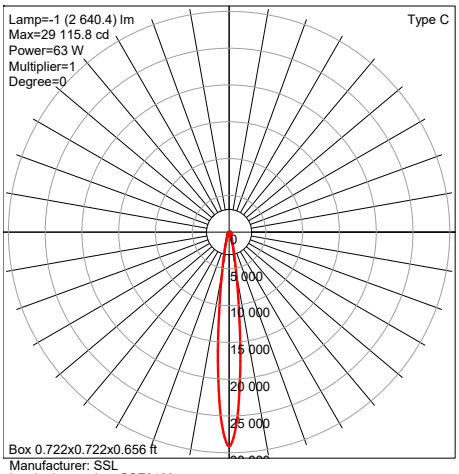
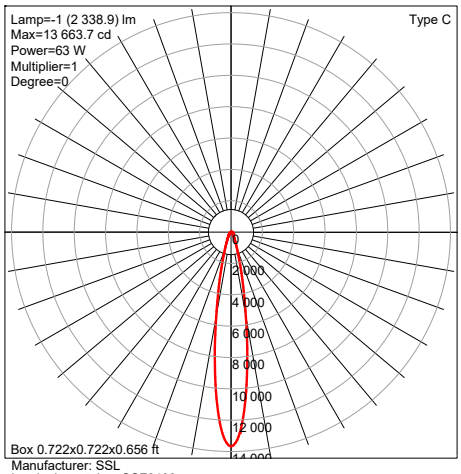
LUMENS / WATTAGE typical

Model	Watts	Lumens
SSF2109	66W	2748 lm

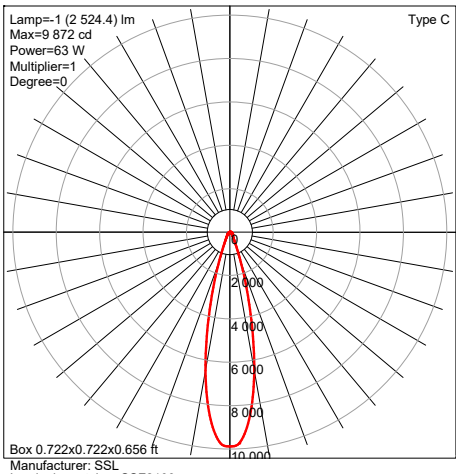
PHOTOMETRIC GRAPHS



Manufacturer: SSL
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-10



Manufacturer: SSL
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-15



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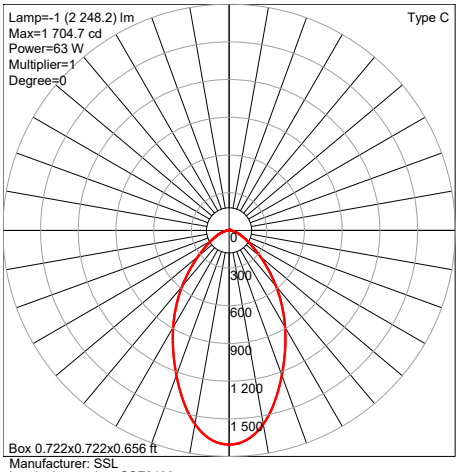
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-25



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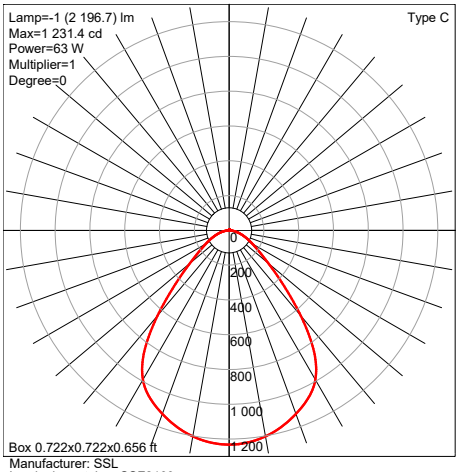
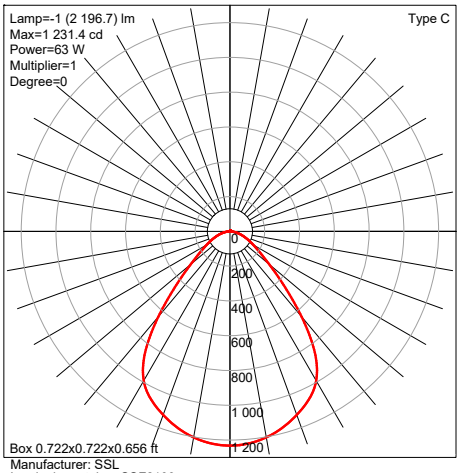
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-60



Manufacturer: SSL
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-80



Manufacturer: SSL
Luminaire catalog: SSF2109
Luminaire: SSF2109-UNV-RGBW-90

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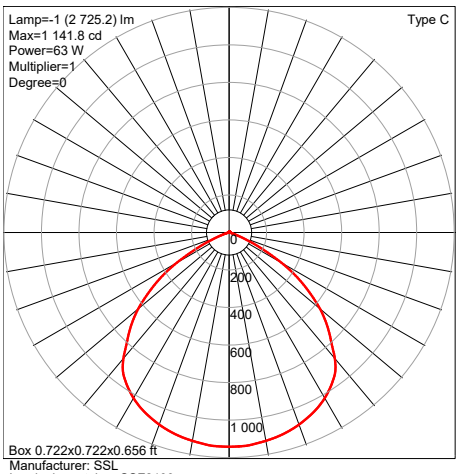
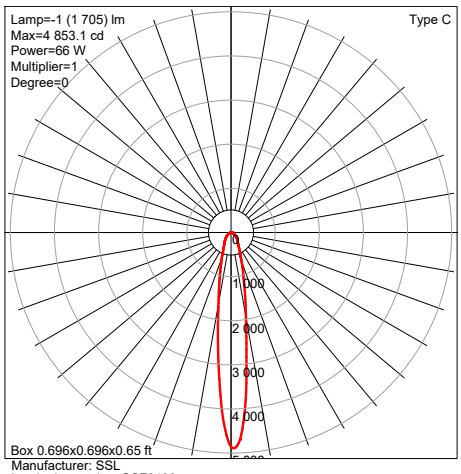
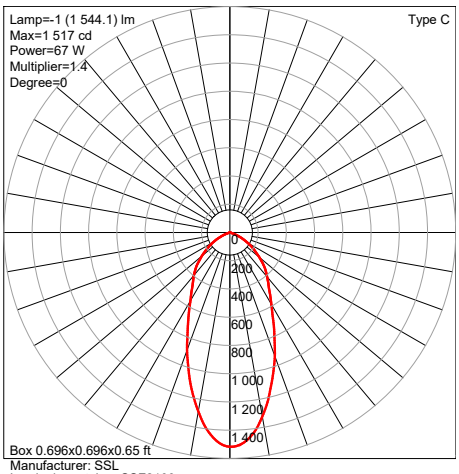
PHOTOMETRIC GRAPHS







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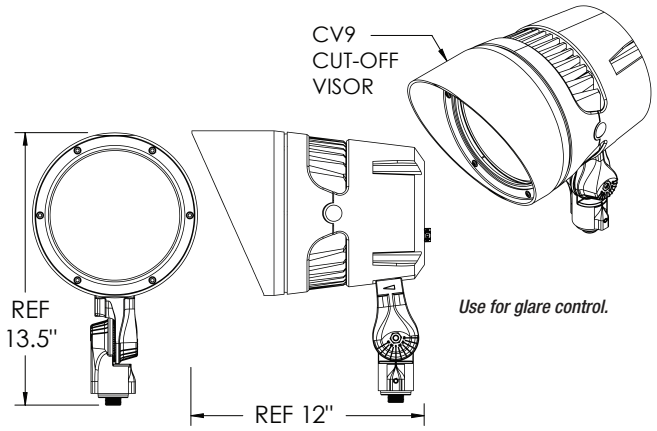
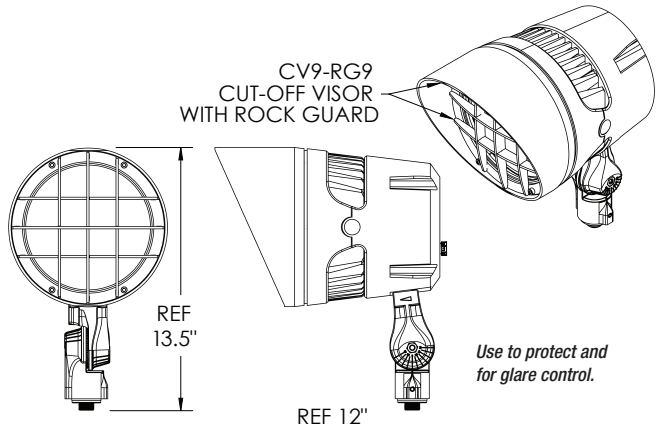
TRIM

CV9 Cut-Off Visor



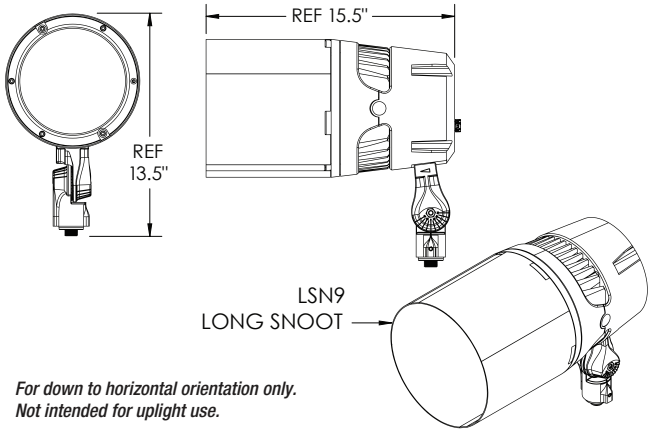
Use for glare control.

CV9-RG9 Cut-Off Visor with Rock Guard



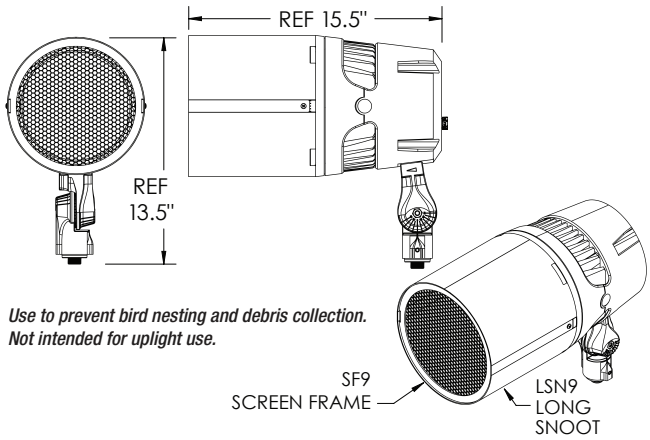
Use to protect and for glare control.

LSN9 Long Snoot



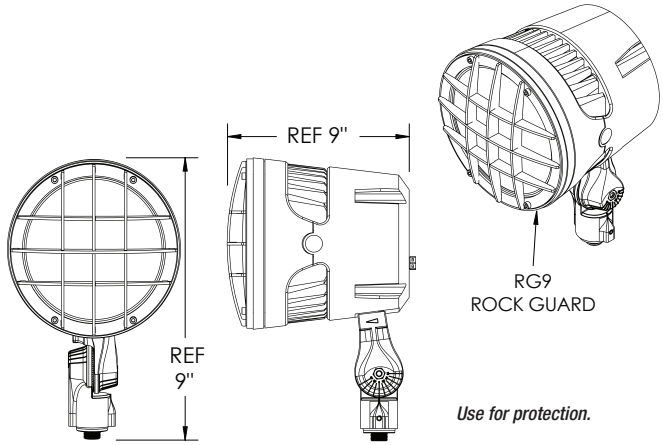
For down to horizontal orientation only.
Not intended for uplight use.

LSN9-SF9 Long Snoot with Screen Frame



Use to prevent bird nesting and debris collection.
Not intended for uplight use.

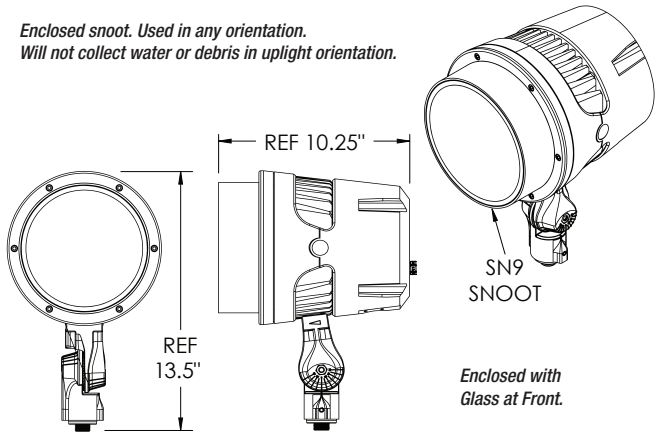
RG9 Rock Guard



Use for protection.

SN9 Snoot Enclosed Glass Front Lens

Enclosed snoot. Used in any orientation.
Will not collect water or debris in uplight orientation.



Enclosed with Glass at Front.

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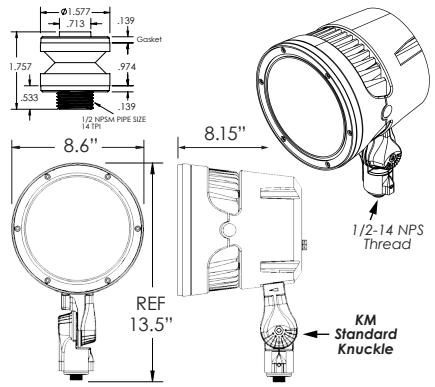
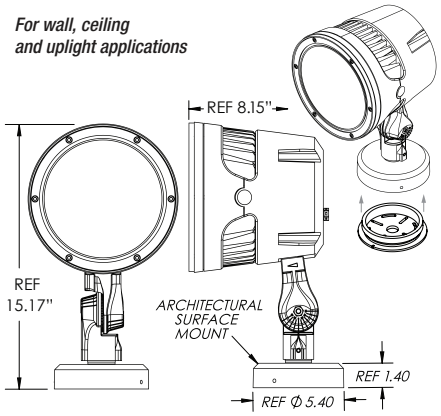
MOUNTING ACCESSORIES

Please choose one mounting option.

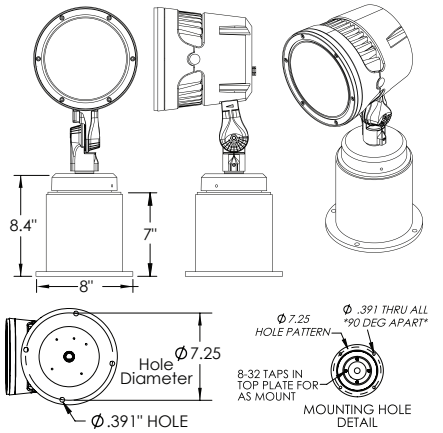
KM Medium Knuckle Mount (Standard)



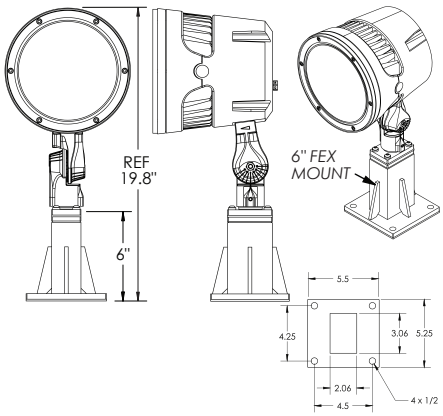
AS Architectural Surface Mount



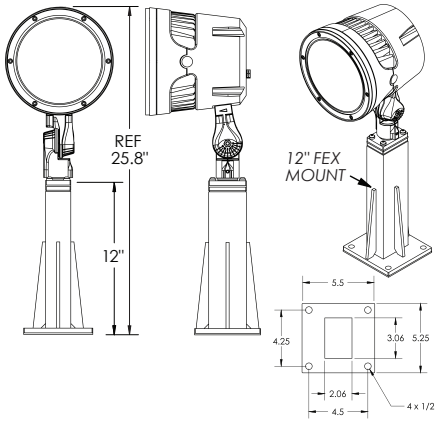
AS-BASE Architectural Surface Mount with Base



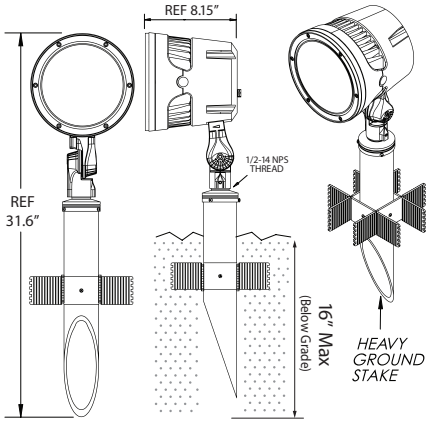
FEX6 Flood Extension Arm - 6"



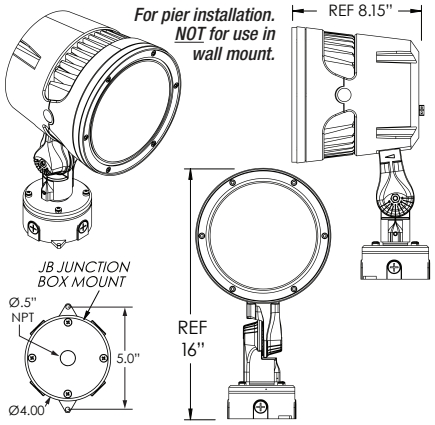
FEX12 Flood Extension Arm - 12"



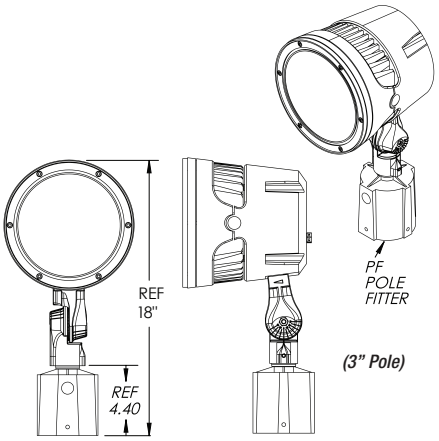
HGS-03 Heavy Duty Ground Stake



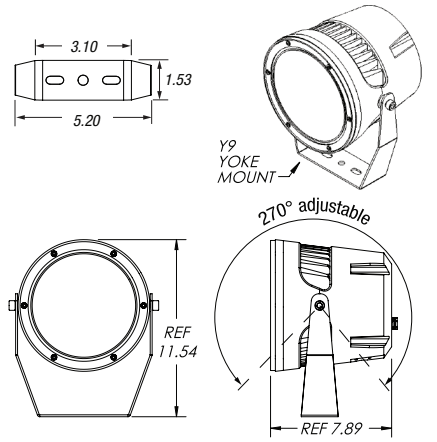
JB Junction Box (Outdoor Rated)



PF Post Top Fitter



Y9 Yoke Arm (Removes Knuckle)



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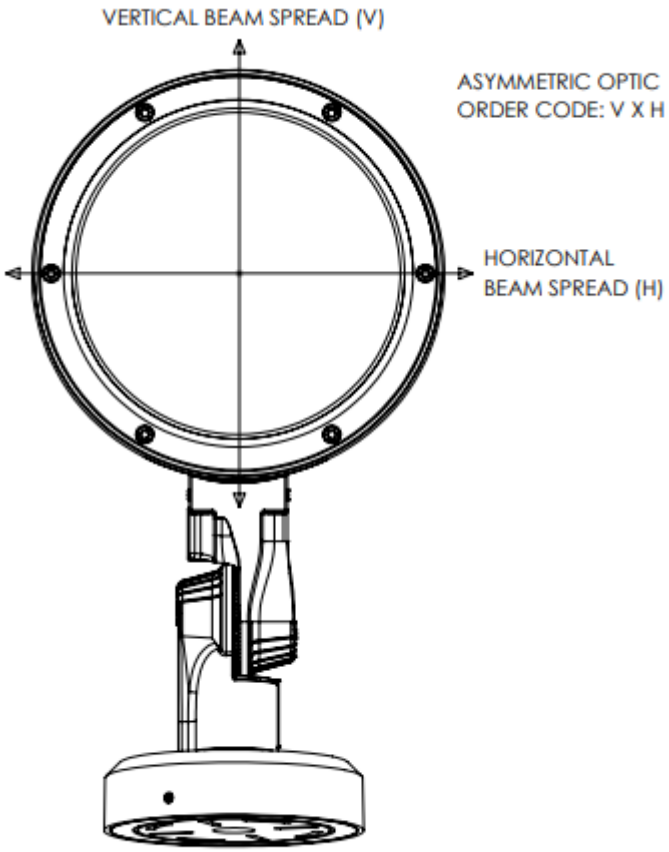
OPTIC ORIENTATION



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