

# SSF2109

## Exterior Nine Inch Round RGBW High-Powered Flood Light



(Shown w/Cut-Off Visor)



### 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 1/2" - 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)

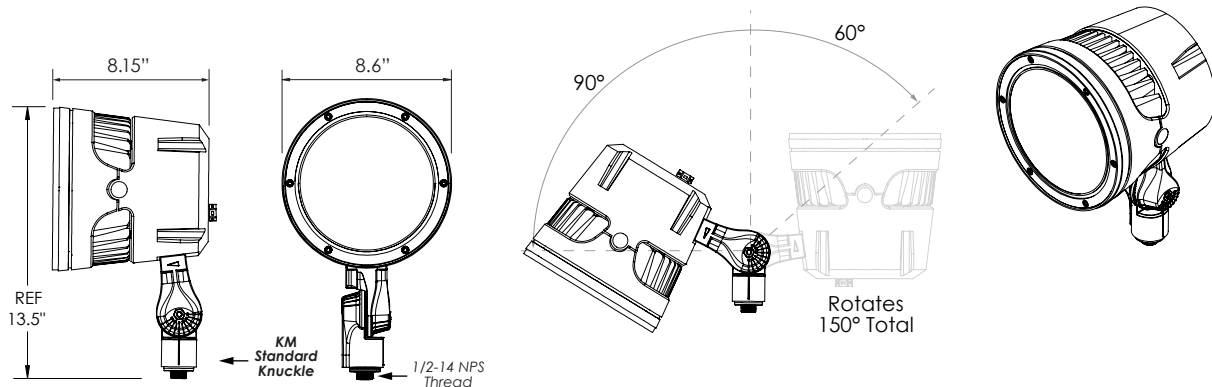
### ELECTRICAL

**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



### PHYSICAL DIMENSIONS



Date:	Approved:
Type:	
Fixture:	
Project:	

# SSF2109

## PRODUCT CODE

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

MODEL	VOLTAGE	COLOR	FINISH	OPTICS	TRIM	MOUNT
SSF2109	UNV					

<p><b>MODEL</b> SSF2109</p> <p><b>VOLTAGE</b> UNV Universal 120 - 277 VAC</p> <p><b>Color</b>  <b>RGBW</b> RGBW  <b>RGBW-TW</b> RGBW &amp; Tunable White  <b>TW</b> Tunable White</p>	<p><b>FINISH</b>  <b>BKE</b> Black  <b>BRE</b> Bronze  <b>GRE</b> Graphite Grey  <b>SLE</b> Silver  <b>WHE</b> White  <b>CCE</b> Custom Color</p> <p><b>OPTICS typical</b>  <b>10</b> Narrow Spot 10°  <b>15</b> Spot 15°  <b>25</b> Narrow Flood 25°  <b>30</b> Mid Flood 30°  <b>60</b> Flood 60°  <b>80</b> Wide Flood 80°  <b>90</b> Extra Wide Flood 90°  <b>100</b> Extra Wide Flood 100°  <b>*1530</b> 15° x 30° Ellipsoidal  <b>*3060</b> 30° x 60° Ellipsoidal            *Unavailable with SN9            *See page 10 for optic orientation</p>	<p><b>TRIM</b>  <b>CV9</b> Cut-Off Visor  <b>CV9-RG9</b> Cut-Off Visor with Rock Guard  <b>LSN9</b> Long Shoot  <b>LSN9-SF9</b> Long Shoot with Screen Frame  <b>RG9</b> Rock Guard  <b>SN9</b> Shoot Enclosed Glass Front Lens</p> <p><b>MOUNT</b> <i>Choose one mount option</i>  <b>KM</b> Medium Knuckle Mount (Standard)  <b>AS</b> Architectural Surface Mount  <b>AS-BASE</b> Architectural Surface Mount with Base  <b>FEX6</b> Flood Extension Arm - 6"  <b>FEX12</b> Flood Extension Arm - 12"  <b>HGS</b> Heavy Duty Ground Stake  <b>JB</b> Junction Box (Outdoor Rated)  <b>PF</b> Post Top Fitter  <b>Y9</b> Yoke Arm (Removes Knuckle)</p> <p>Note: Must specify mount as part of catalog number. Mounts may not be convertible from one to another without rework at the factory.</p>
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### Cable Accessories (order seperately)

**REQUIRED:** Each run requires a Field Installed Data Terminator.

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

# SSF2109

## CONTROL COMPONENTS (Indicate the quantity needed for each item.)

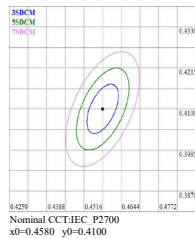
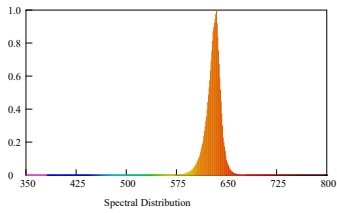
- \_\_\_\_\_ PHAROS TPS-5-B 5" Designer Touch Panel Station
- \_\_\_\_\_ PHAROS XPC1 Expert Controller; 512 channels of eDMX/DMX
- \_\_\_\_\_ PHAROS XPC2 Expert Controller; 1024 channels of eDMX/DMX
- \_\_\_\_\_ PHAROS XPT-5-B Expert Touch Panel; 5" Display in Black
- \_\_\_\_\_ PHAROS TPC-BB Touch Panel 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
- \_\_\_\_\_ CL-RS4 4 Port RDM splitter w/120V power supply
- \_\_\_\_\_ 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

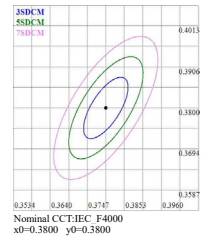
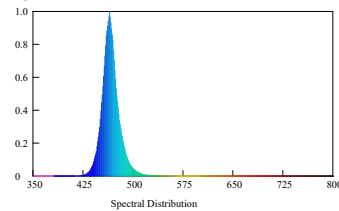
#### Spectroradiometric Parameters



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-BLUE ONLY

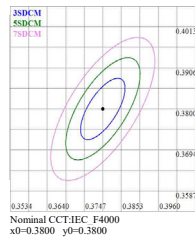
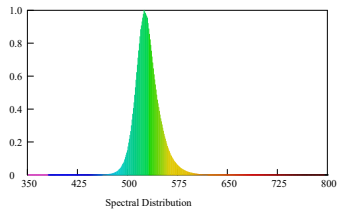
#### Spectroradiometric Parameters



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-GREEN ONLY

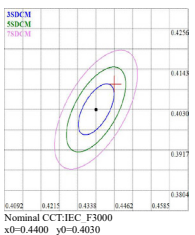
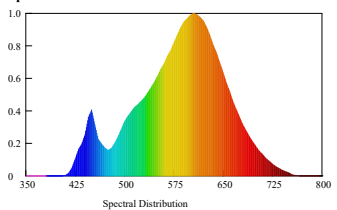
#### Spectroradiometric Parameters



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-WHITE ONLY

#### Spectroradiometric Parameters



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  
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

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



**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 fixtures 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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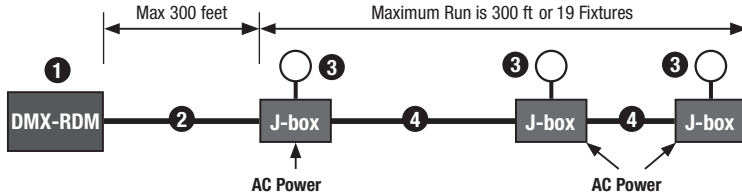
## WIRING CONFIGURATIONS

### 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 luminaire 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, ordinances, 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 diagrams thoroughly before beginning.
4. Do not exceed the luminaire specified voltage.
5. The luminaire cord should be fed through 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.

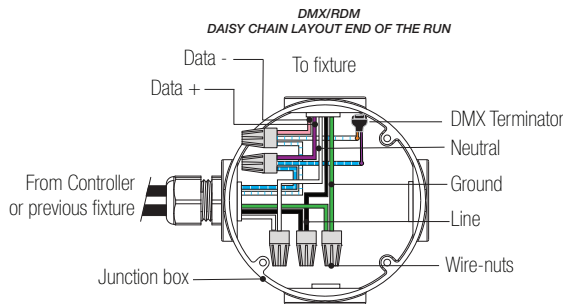
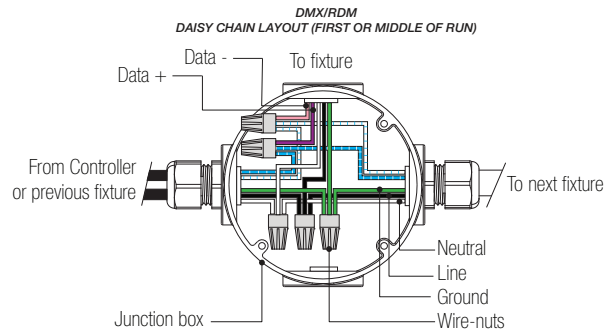
#### INSTALLATION:

- 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



#### Wiring Color Code

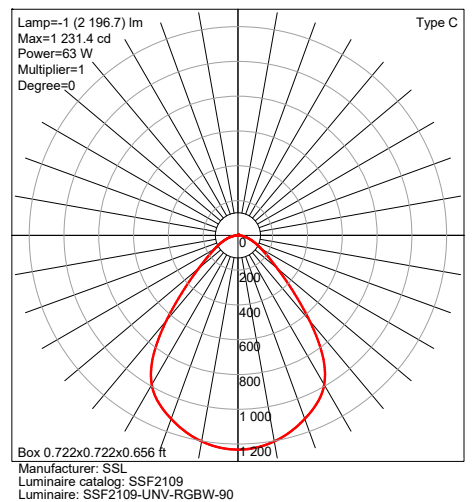
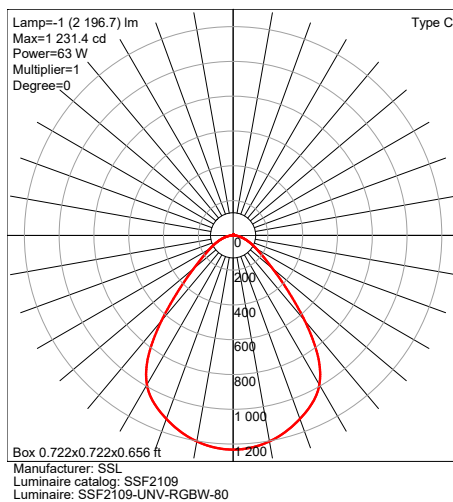
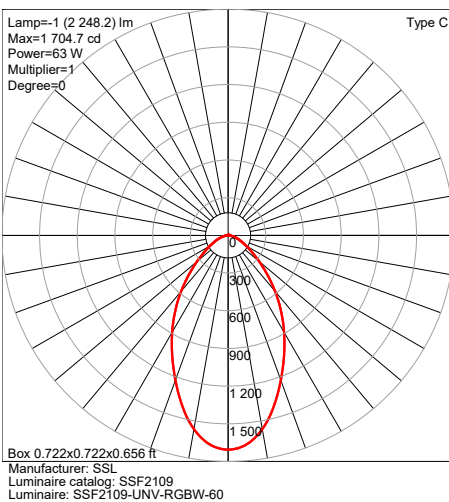
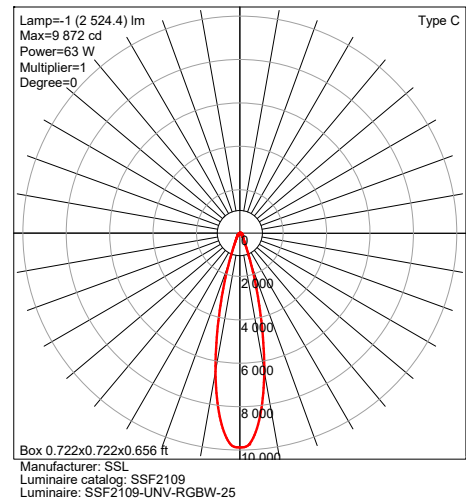
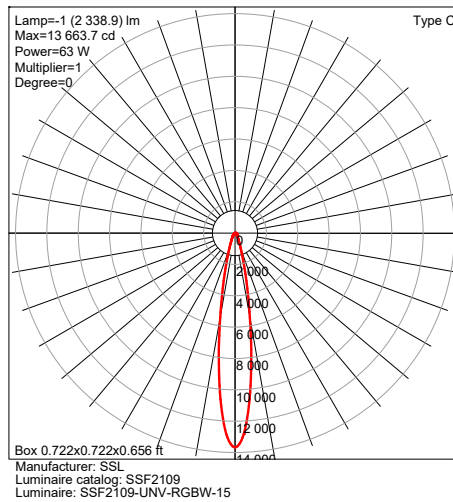
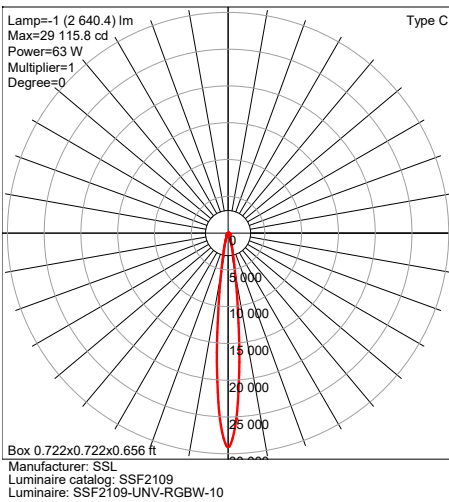
UL Color Code	CE Color Code	USE
Green	Yellow/Green	Ground
Black	Brown	Line (120 - 277 VAC)
White	Blue	Line/Neutral
Purple/Blue	Purple	Data +
Pink/White	Orange	Data -

# SSF2109

## LUMENS / WATTAGE typical

Model	Watts	Lumens
SSF2109	66W	2748 lm

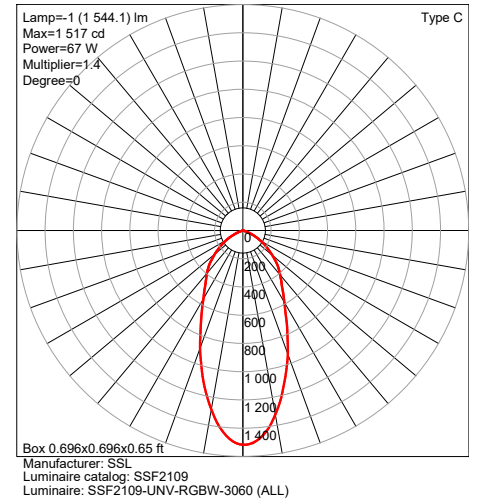
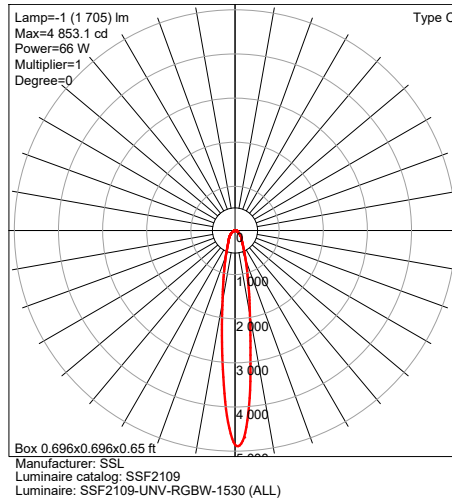
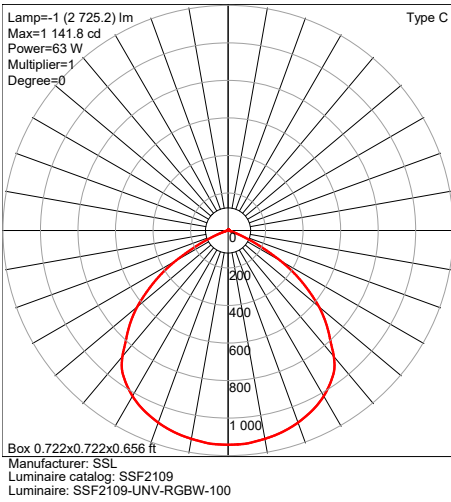
## PHOTOMETRIC GRAPHS



Due to continuous development and improvements, specifications are subject to change without notice.  
Product use certifies agreement to Solid State Luminaires terms and conditions.

# SSF2109

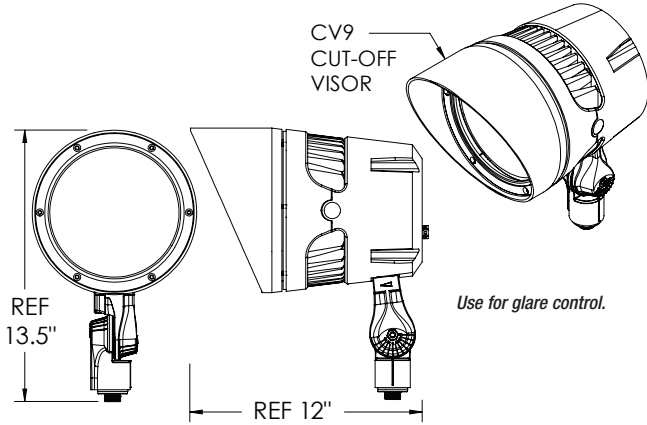
## PHOTOMETRIC GRAPHS



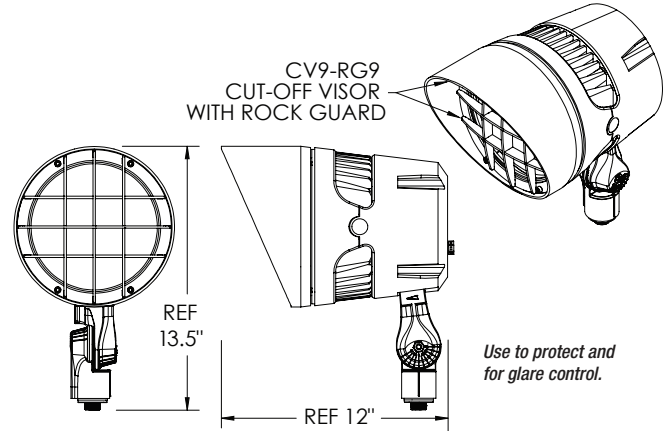
# SSF2109

## TRIM

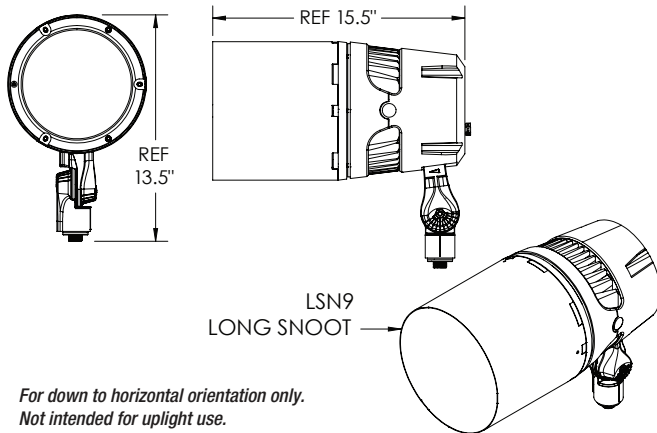
### CV9 Cut-Off Visor



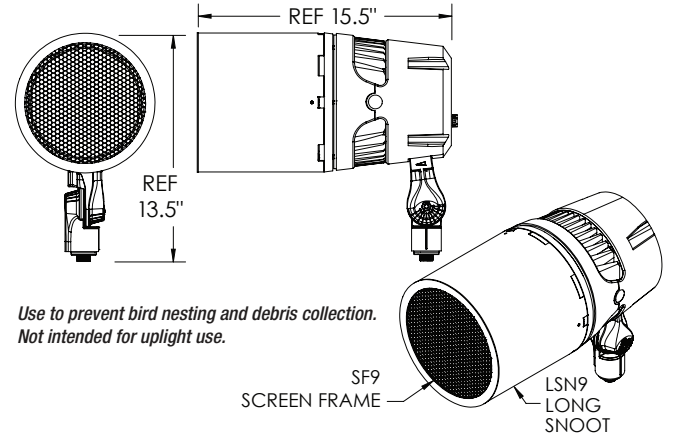
### CV9-RG9 Cut-Off Visor with Rock Guard



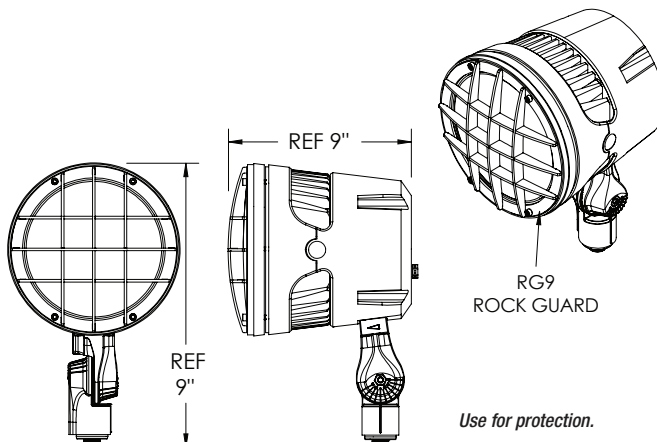
### LSN9 Long Snoot



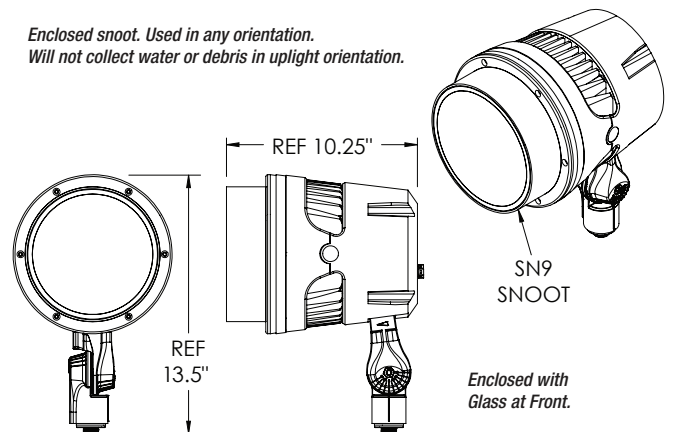
### LSN9-SF9 Long Snoot with Screen Frame



### RG9 Rock Guard



### SN9 Snoot Enclosed Glass Front Lens

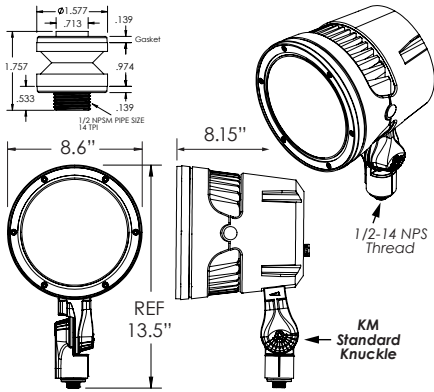




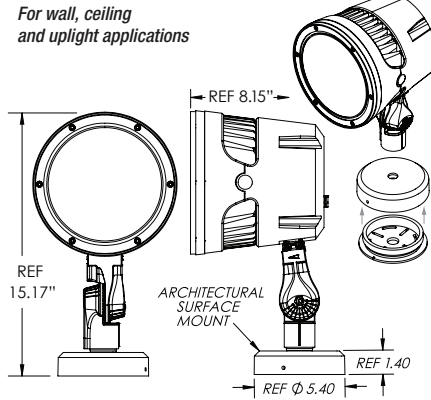
**SSF2109**

**MOUNTING ACCESSORIES** Please choose one mounting option.

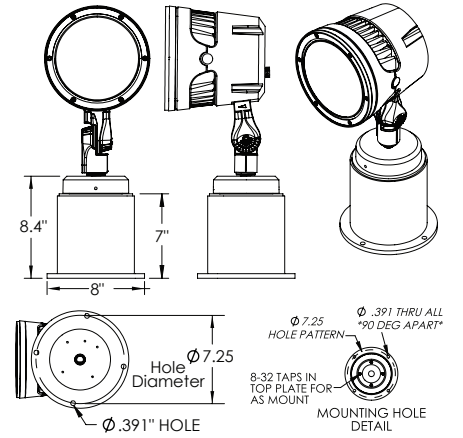
**KM Medium Knuckle Mount (Standard)**



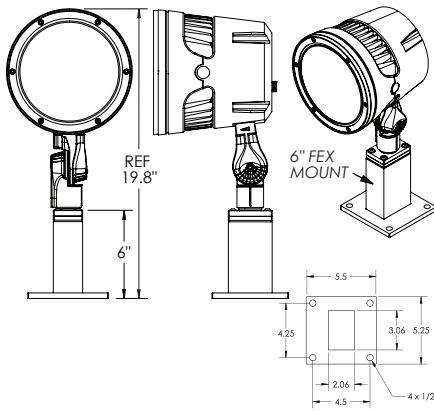
**AS Architectural Surface Mount**



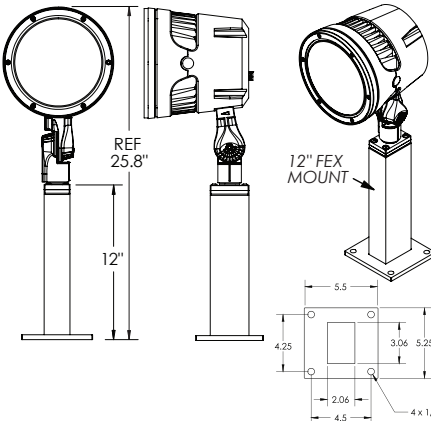
**AS-BASE Architectural Surface Mount with Base**



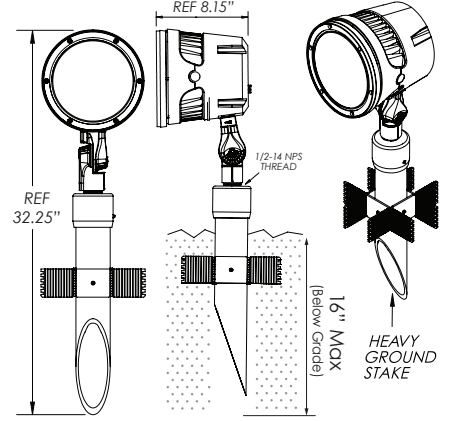
**FEX6 Flood Extension Arm - 6"**



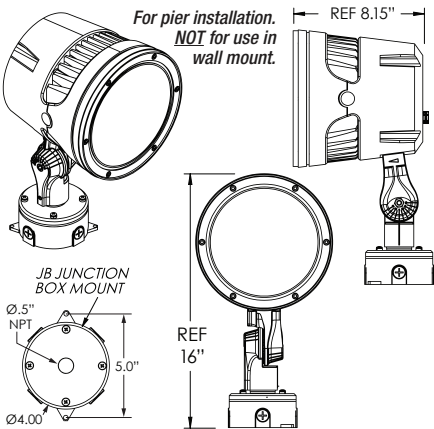
**FEX12 Flood Extension Arm - 12"**



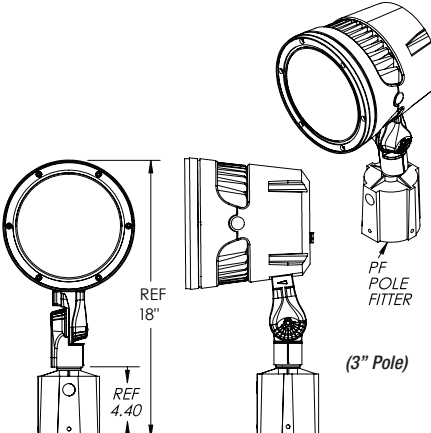
**HGS Heavy Duty Ground Stake**



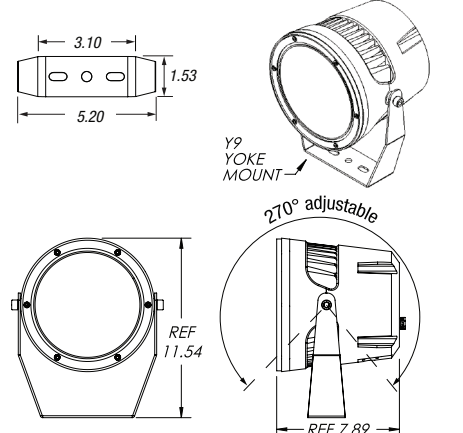
**JB Junction Box (Outdoor Rated)**



**PF Post Top Fitter**



**Y9 Yoke Arm (Removes Knuckle)**



# SSF2109

## OPTIC ORIENTATION

