solid state luminaires

| | |
|---|---|
| Date: | Approved: |
| Type: | |
| Luminaire: | |
| Project: | |

# SSF2105

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

*(Shown w/Cut-Off Visor)*

Intertek CE NOM RGBW-TW

Made in USA with domestic & globally sourced components

## FEATURES

- Up to 630 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:** 630 lumens (typical)
**Lumen Maintenance:** L70 > 70,000 hours

## PHYSICAL

**Mounting:** Standard mounting is ½" - 14 NPS and includes adjustments for 150° 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:** 6.1 lbs
**Ambient Operating Temp:** -22°F to 122°F (-30°C to 50°C)

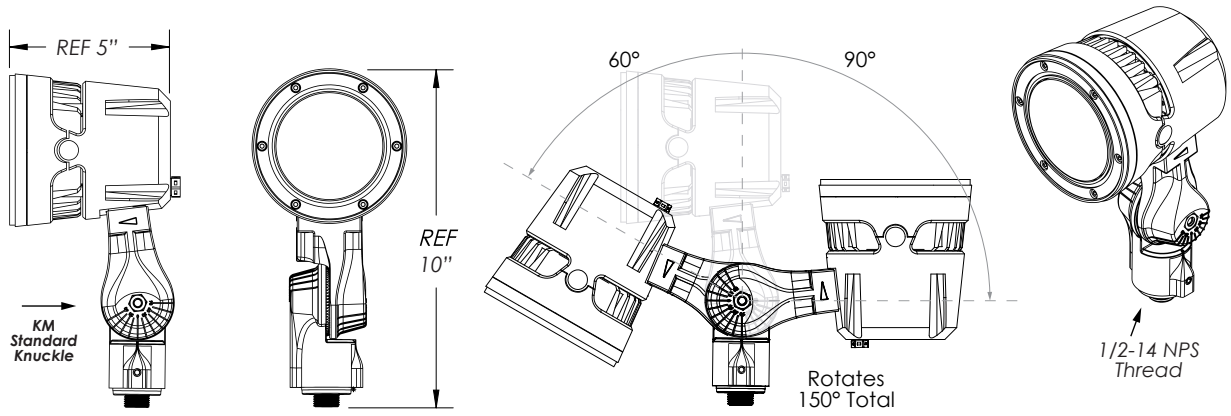
## ELECTRICAL

**Voltage:** Universal 120 - 277 VAC
**Power Supply:** Integral Class II, electronic high-power factor > .90 @ 120V
**Power Consumption:** Maximum 18W
**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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|---|---|
| Date: | Approved: |
| Type: | |
| Luminaire: | |
| Project: | |

# SSF2105

## PRODUCT CODE

EXAMPLE: SSF2105-UNV-RGBW-BKE-10-CV5-KM

| MODEL | VOLTAGE | COLOR | FINISH | OPTICS | TRIM | MOUNT |
|---|---|---|---|---|---|---|
| SSF2105 | UNV | | | | | |

### MODEL

**SSF2105**

### 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 SN5

*See page 11 for optic orientation

### TRIM

| | |
|---|---|
| **CV5** | Cut-Off Visor |
| **CV5-RG5** | Cut-Off Visor with Rock Guard |
| **LSN5** | Long Snoot |
| **LSN5-SF5** | Long Snoot with Screen Frame |
| **RG5** | Rock Guard |
| **SN5** | 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" |
| **FEX18** | Flood Extension Arm - 18" |
| **HGS-03** | Heavy Duty Ground Stake |
| **JB** | Junction Box (Outdoor Rated) |
| **PF** | Post Top Fitter |
| **SB** | Surface Base Mount |
| **SF238** | Slip Fitter |
| **TM** | Tree Mount |
| **Y5** | 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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# SSF2105

## CONTROL COMPONENTS

*(Indicate the quantity needed for each item.)*

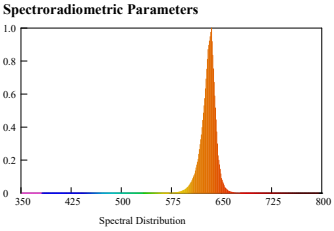
_____ **PHAROS TPS-5-B** 5" Designer Touch Panel Station
_____ **PHAROS XPC1** Expert Controller; 512 channels of eDMX/DMX
_____ **PHAROS XPC2** Expert Controller; 1024 channels of eDMX/DMX
_____ **PHAROS XPT-5-B** Expert Touch Panel; 5" Display in Black
_____ **PHAROS TPC-BB** Touch Panel Controller - 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)*

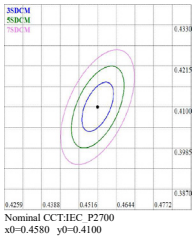
_____ **DE3BK(WH)** Nicolaudie STICK DE-3 Black or White Wall Mount Controller w/color dial
_____ **CW4-WH** Nicolaudie STICK White Touch Screen with Internal WiFi
_____ **GA2WH(BK)** Nicolaudie STICK-GA2 White or Black Wall Mount Controller
_____ **DXC-25** 25 foot DMX cable
_____ **DXC-50** 50 foot 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

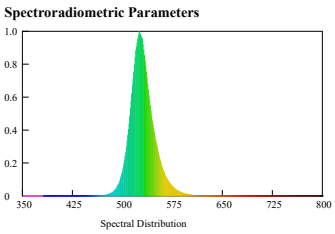
### RGBW-RED ONLY

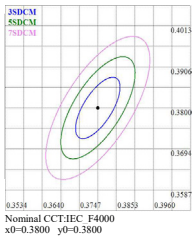



Dominant Wavelength: 622.0 nm(E)
Luminous Flux: 48.67 lm
Chromaticity Difference: -0.08736Duv
Bandwidth: 20.4nm
Purity: 1.0035
Peak Wavelength: 635.0 nm
Radiant Flux: 0.261 W

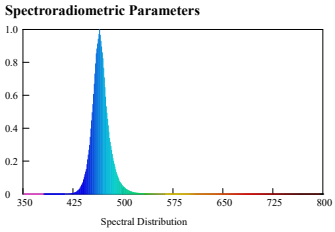
### RGBW-GREEN ONLY

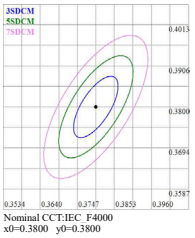



Dominant Wavelength: 532.0 nm(E)
Luminous Flux: 95.24 lm
Chromaticity Difference: +0.1522Duv
Bandwidth: 30.1nm
Purity: 0.8711
Peak Wavelength: 525.0 nm
Radiant Flux: 0.174 W

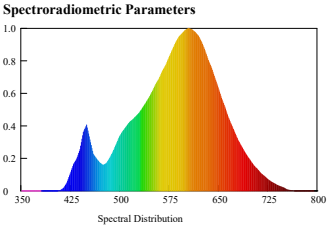
### RGBW-BLUE ONLY

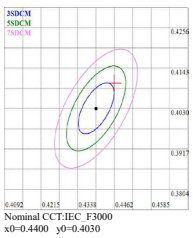



Dominant Wavelength: 468.0 nm(E)
Luminous Flux: 21.32 lm
Chromaticity Difference: -0.1744Duv
Bandwidth: 25.1nm
Purity: 0.8711
Peak Wavelength: 465.0 nm
Radiant Flux: 0.35 W

### 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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# SSF2105

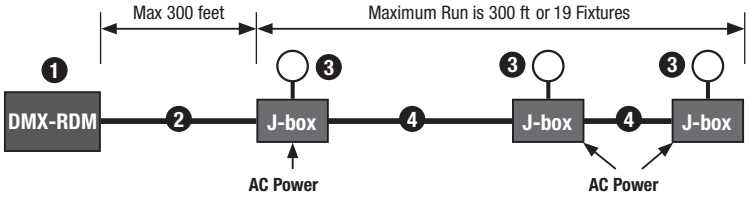
## WIRING CONFIGURATIONS

### 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.

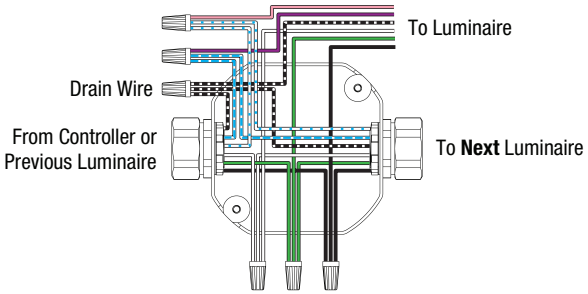
c) Confirm DMX Addressing Plan
   i. SSL recommends pre-addressing luminaires before mounting installation.
   ii. Ensure that addressing is documented for future upgrading, configuring or troubleshooting.
   iii. Create an addressing table to document all luminaire IDs and their physical location.

**Notice**

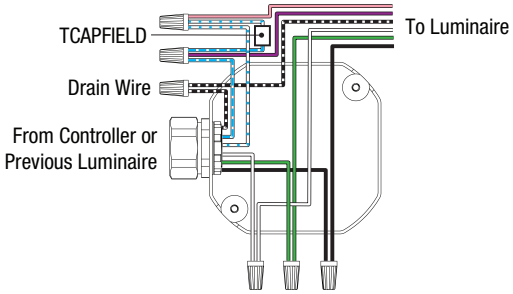
- Maximum of 32 DMX/RMS enabled luminaires per run
- UL wiring details shown
- DMX terminator is required at the end of each run to maintain data integrity

#### 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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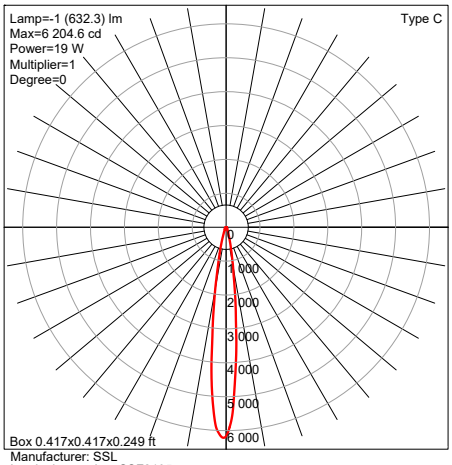
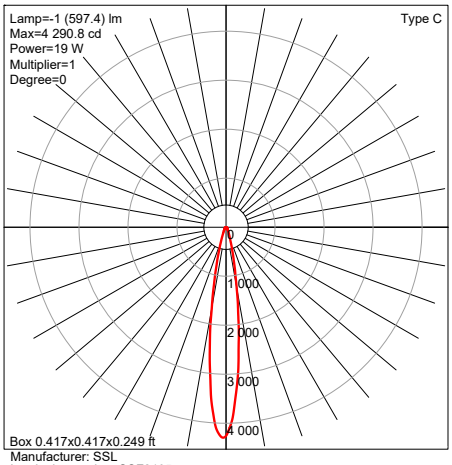
# SSF2105

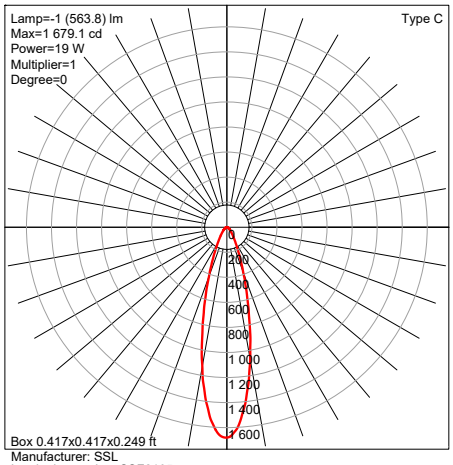
## LUMENS / WATTAGE typical

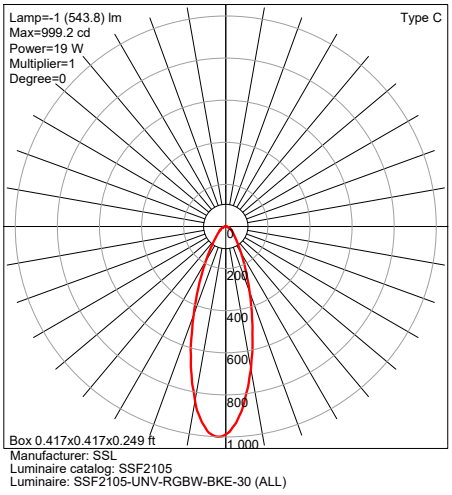
| Model | Watts | Lumens |
|---|---|---|
| SSF2105 | 18W | 630 lm |

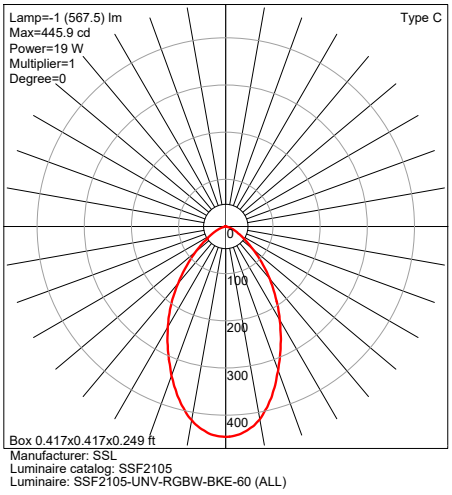
## PHOTOMETRIC GRAPHS

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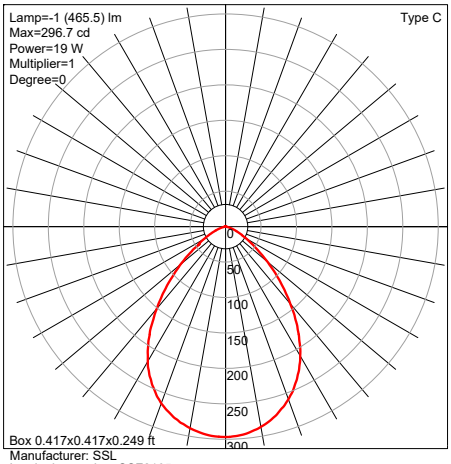
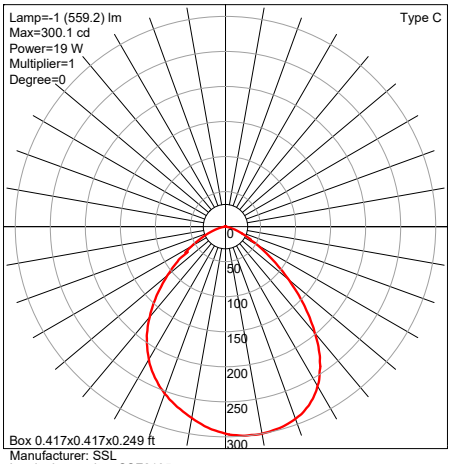
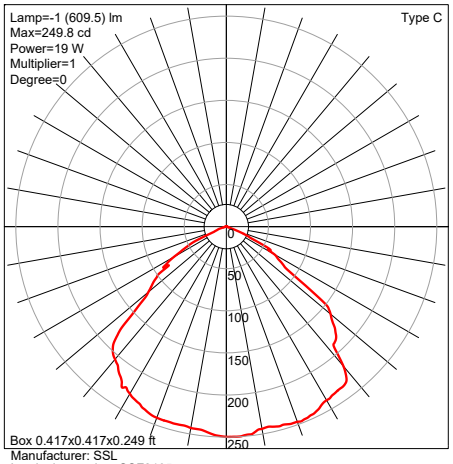
## PHOTOMETRIC GRAPHS




Manufacturer: SSL
Luminaire catalog: SSF2105
Luminaire: SSF2105-UNV-RGBW-BKE-80 (ALL)




Manufacturer: SSL
Luminaire catalog: SSF2105
Luminaire: SSF2105-UNV-RGBW-BKE-90 (ALL)

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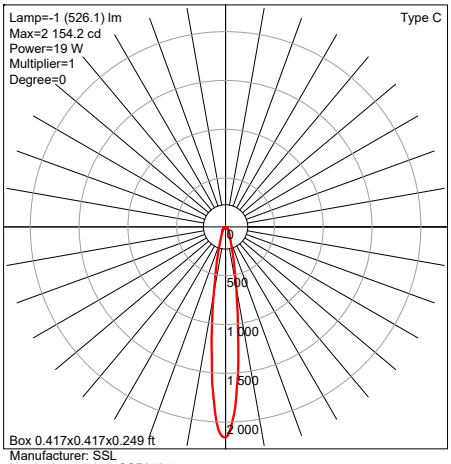
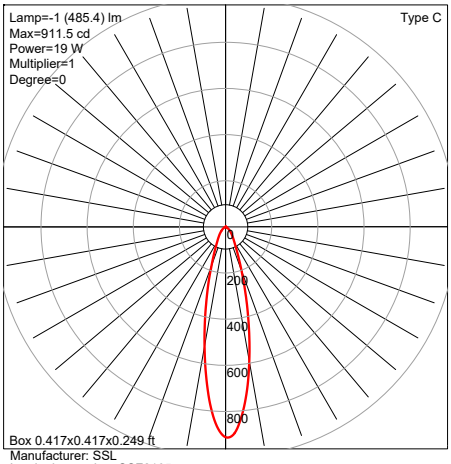
Luminaire catalog: SSF2105
Luminaire: SSF2105-UNV-RGBW-BKE-100 (ALL)




Manufacturer: SSL
Luminaire catalog: SSF2105
Luminaire: SSF2105-UNV-RGBW-BKE-1530 (ALL)




Manufacturer: SSL
Luminaire catalog: SSF2105
Luminaire: SSF2105-UNV-RGBW-BKE-3060 (ALL)

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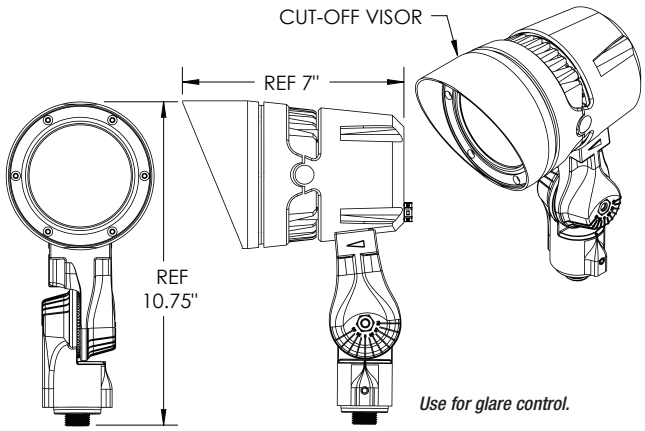
# SSF2105

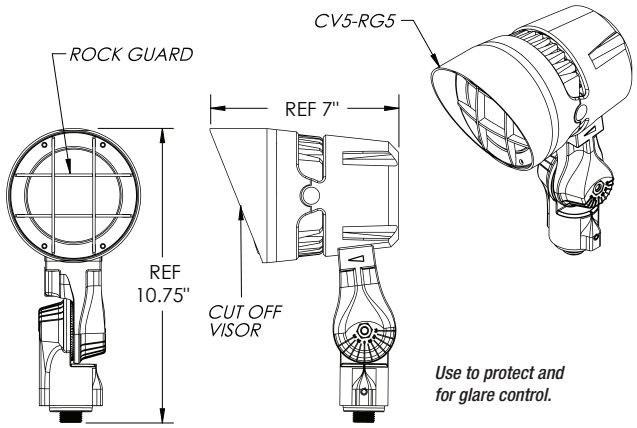
## TRIM

### **CV5** Cut-Off Visor



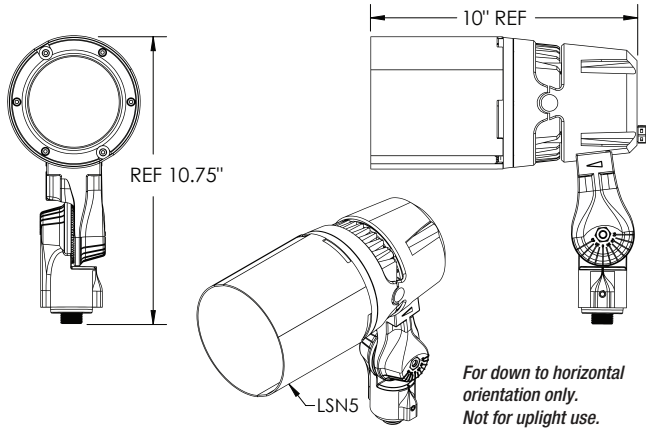

*Use for glare control.*

### **CV5-RG5** Cut-Off Visor with Rock Guard



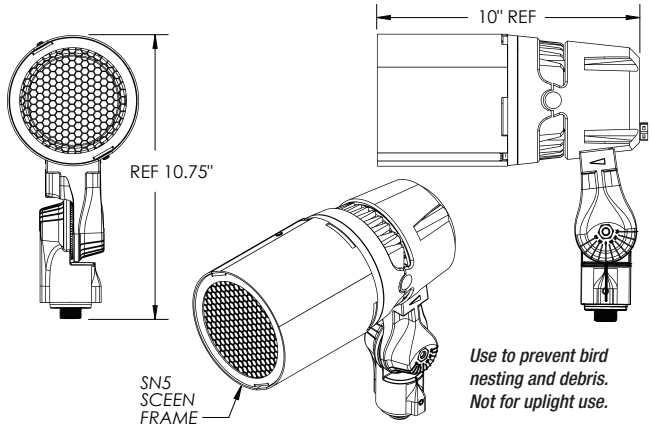

*Use to protect and for glare control.*

### **LSN5** Long Snoot



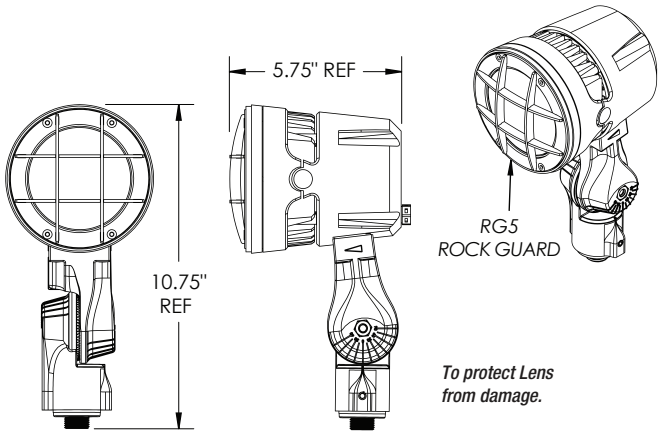

*For down to horizontal orientation only. Not for uplight use.*

### **LSN5-SF5** Long Snoot with Screen Frame




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

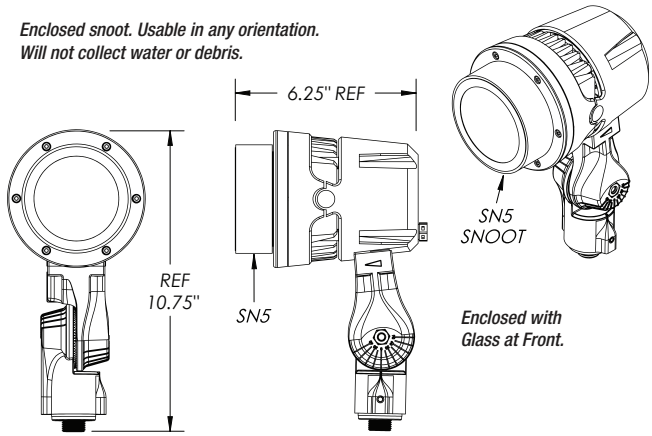
### **RG5** Rock Guard




*To protect Lens from damage.*

### **SN5** Snoot Enclosed Glass Front Lens

*Enclosed snoot. Usable in any orientation. Will not collect water or debris.*




*Enclosed with Glass at Front.*

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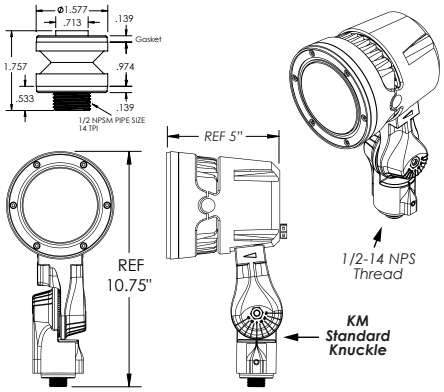
# SSF2105

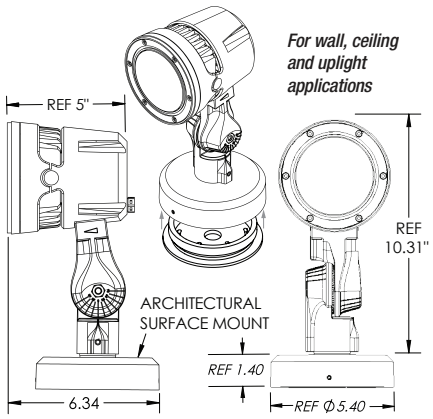
## MOUNTING ACCESSORIES

*Please choose one mounting option.*

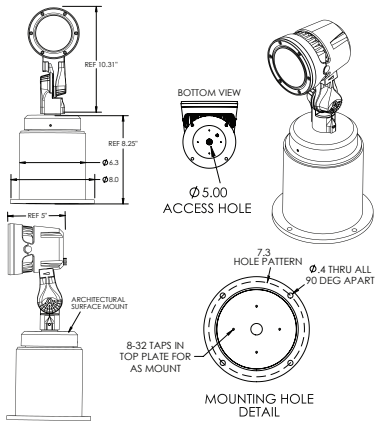
### **KM** Medium Knuckle Mount (Standard)



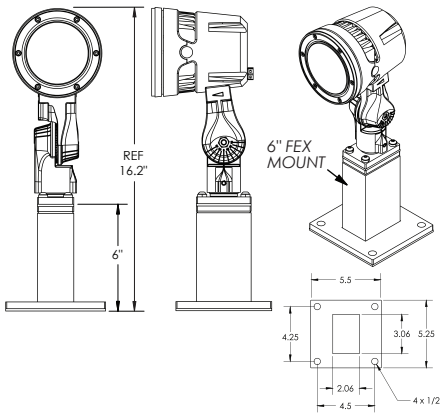

### **AS** Architectural Surface Mount



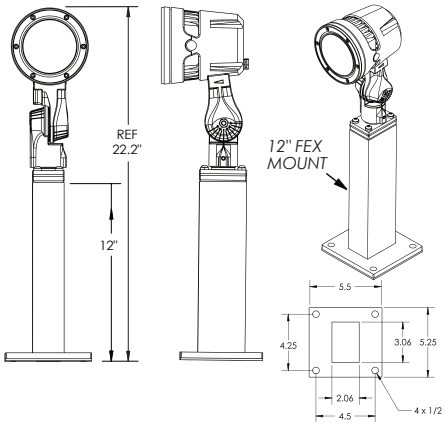

### **AS-BASE** Architectural Surface Mount with Base



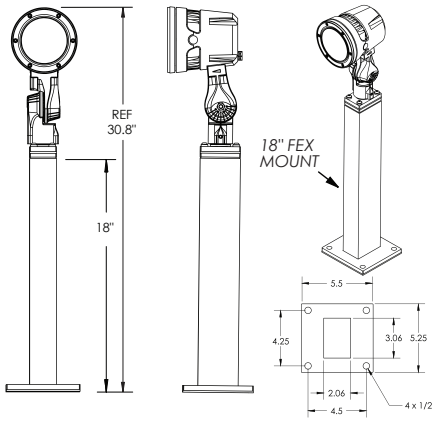

### **FEX6** Flood Extension Arm - 6"



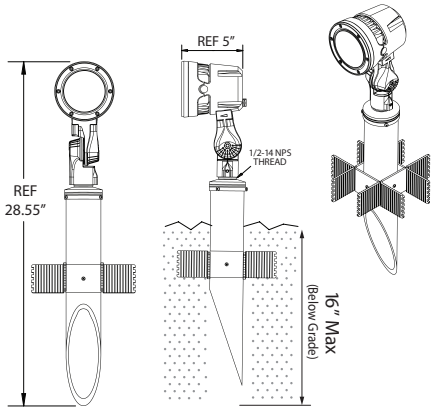

### **FEX12** Flood Extension Arm - 12"



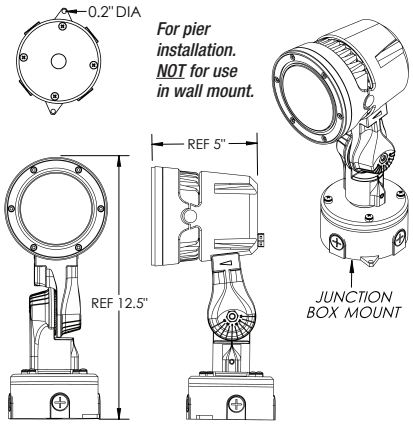

### **FEX18** Flood Extension Arm - 18"



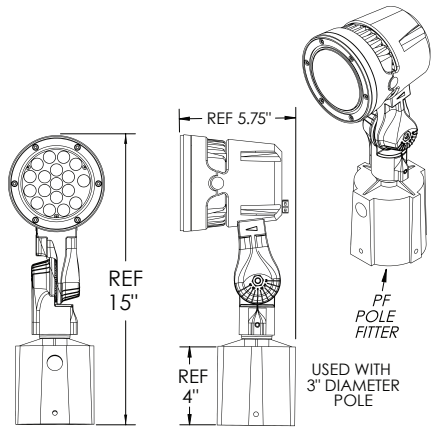

### **HGS-03** Heavy Duty Ground Stake




### **JB** Junction Box (Outdoor Rated)




### **PF** Post Top Fitter

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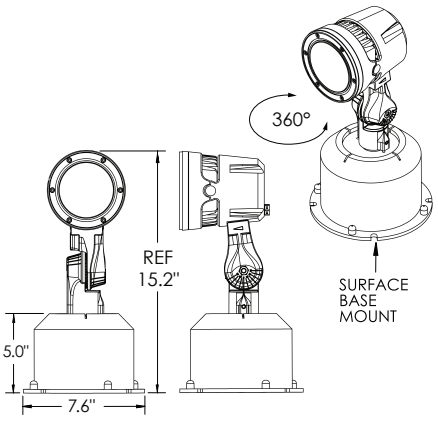
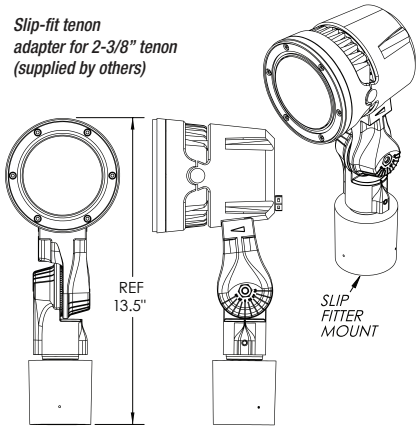
## MOUNTING ACCESSORIES

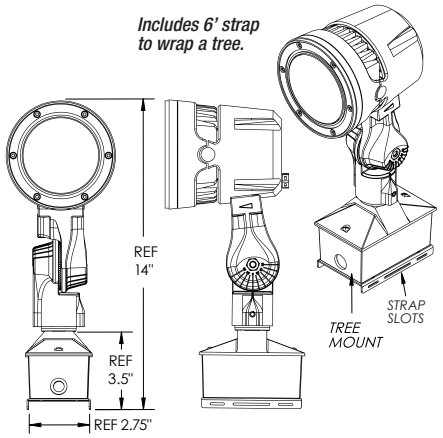
**SB** Surface Base Mount



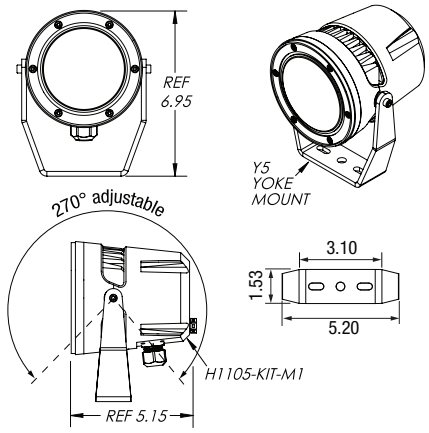

**SF238** Slip Fitter




**TM** Tree Mount




**Y5** Yoke Arm (Removes Knuckle)

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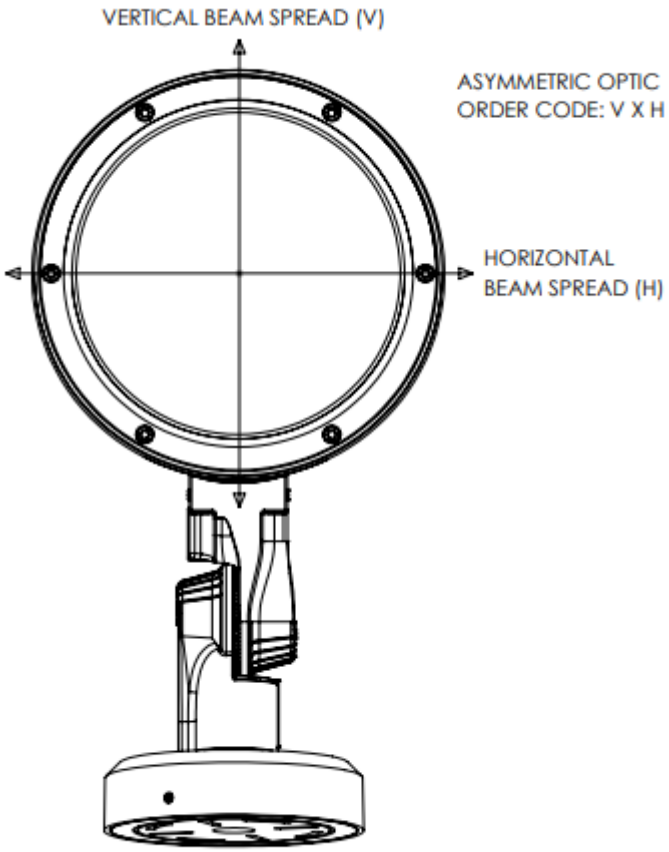
## OPTIC ORIENTATION

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