



## OVERVIEW

## ORDERING INFORMATION

### Fixture Overview

High End Systems' SolaFrame 3000 combines unprecedented light output from its 1000 watt Ultra-Brite White LED engine with a limitless palette of effects and color possibilities. Engineered for the largest lighting applications, SolaFrame 3000 is the first automated LED luminaire to rival and exceed the output of the most powerful arc lamp fixtures, while simultaneously offering the advantages of LED technology such as long engine life.

### Applications

- Arenas and stadiums
- Concert halls and performing arts centers
- Film and television broadcast studios
- Large scale events
- Megachurches and houses of worship

### Product Features

- White LED Engine
- 1000 W Ultra-Brite engine producing 37,000 field lumens or High Fidelity Engine with incredibly accurate color rendering
- CMY / CTO - Linear color mixing system
- Six + open position replaceable Color Wheel
- Framing system for total control of beam shaping
- Iris, Light Frost, Prism and 7°-55° Zoom
- Seven position plus open interchangeable Gobo Wheel
- Seven position plus open Rotating Gobo Wheel
- Continuously Variable Animation Wheel
- TM30 Filter Boosts Ultra-Brite Engine to 85+ CRI
- Patented Lens Defogger

### SolaFrame 3000

| Model       | Description  |
|-------------|--|
| 2581A1200   | SolaFrame 3000 fixture, Ultra-Brite, black, with Road Case                   |
| 2581A1200-B | SolaFrame 3000 fixture, Ultra-Brite, black, with Molded Rubber Insert        |
| 2581A1200-F | SolaFrame 3000 fixture, Ultra-Brite, black                                   |
| 2581A1201   | SolaFrame 3000 fixture, High Fidelity, black, with Road Case                 |
| 2581A1201-B | SolaFrame 3000 fixture, High Fidelity, black, with Road Molded Rubber Insert |
| 2581A1201-F | SolaFrame 3000 fixture, High Fidelity, black                                 |

Color Options: Fixtures ship standard in black. White available by request.

Notes: Fixture includes two (2) Omega Brackets, one (1) Fixture Power Cord (Bare Ends to powerCON TRUE1™ Input), and one (1) safety cable.

### Accessories

| Model #   | Description   |
|-----------|---|
| 2560B7004 | Fixture Power Cord upgrade, 5-20 Edison to powerCON TRUE1™, 20A |
| 2560B7005 | Fixture Power Cord upgrade, Stage Pin to powerCON TRUE1, 20A    |
| 2560B7006 | Fixture Power Cord upgrade, L6-20 to powerCON TRUE1, 20A        |
| 2560B7007 | Fixture Power Cord upgrade, L5-20 to powerCON TRUE1, 20A        |
| 67040007  | MegaClaw™   |
| 55040014  | Cheeseborough 2" Alloy 1/2 Coupler Truss Clamp                  |
| 67040010  | Mini-Claw™  |



## PRODUCT SPECIFICATIONS

### Source

|                        |                          |                            |
|------------------------|--------------------------|----------------------------|
| Engine Options         | Ultra-Brite white engine | High Fidelity white engine |
| LED Details            | 1000 W                   | 1000 W                     |
| Max Lumens on the Wall | 37,000 Lumens            | 25,000 Lumens              |
| LPW                    | 37 Lumens per Watt       | 25 Lumens per Watt         |
| LED Life               | 50,000 hours             | 50,000 hours               |
| Native CCT             | 7000 K                   | 6000 K                     |

### Color

|                   |   |
|-------------------|---|
| Color Mixing      | Cyan, Magenta, Yellow, CTO-Linear   |
| Color Temperature | Variable down to 2800 K   |
| Color Wheel       | Six (6) interchangeable dichroic chips plus open includes TM-30 Filter standard |
| Notes             | See Page 5 for color rendering information                                      |

### Optical

|                          |   |
|--------------------------|---|
| Beam angle range         | 7°–55°  |
| Gate size                | 30 mm   |
| Aperture size            | 120 mm  |
| Pattern Projection       | Rotating and indexable wheel with seven (7) patterns plus open<br>Fixed wheel with seven (7) patterns plus open |
| Prism                    | Three-facet rotating and indexable prism<br>Additional accessories available                                    |
| Frost                    | Light frost<br>Additional accessories available   |
| Flicker control/Hz range | 2.4 khz or 16 khz   |
| Animation                | Rotating animation wheel  |
| Iris                     | 16 Blade Iris   |
| Notes                    | See page 3 for additional gobo information  |

### Control

|                     |  |
|---------------------|--|
| Input method        | DMX (5-pin) or Ethernet                                    |
| Protocols           | DMX via RS-485<br>ArtNet or sACN via Ethernet              |
| Modes (Footprint)   | One (49)   |
| RDM functions       | Yes  |
| UI type             | Full color graphical UI with 6 button navigational control |
| Local control       | Yes  |
| Dimming performance | 16-Bit, DMX Controlled                                     |

### Electrical

|                              |   |
|------------------------------|---|
| Voltage range                | 100–240V 50–60Hz                        |
| Input method                 | powerCON TRUE1                          |
| Wattage (Standard/+Defogger) | 1,341 W / 1504 W                        |
| Current (Max/Standard)       | 14.7 A at 100 V / 5.5 A at 240 V        |
| Notes                        | See Page 6 for power factor information |

### Thermal

|                               |   |
|-------------------------------|---|
| Ambient operating temp        | -10–45° C (14–113° F)   |
| Fan                           | Four Modes: Standard, Studio, Continuous, and Studio Continuous                           |
| Stationary dBA/Full intensity | Standard - 42 dBA<br>Studio - 38 dBA<br>Continuous - 44 dBA<br>Studio Continuous - 41 dBA |

### Physical

|                      |   |
|----------------------|---|
| Pan and Tilt Range   | 540 Pan, 265 Tilt   |
| Max Pan/Tilt Speed   | 360° in 2.65 s / 180° in 1.58 s   |
| Materials            | Steel and aluminum frame with molded plastic covers                               |
| Color options        | Black, White by request   |
| Mounting options     | Any Orientation   |
| IP rating            | IP-20   |
| Weight               | 48 kg (106 lb)  |
| Included accessories | powerCON TRUE1 to bare end fixture tail<br>Two (2) clamp Brackets<br>Safety Cable |
| Notes                | See page 6 for dimensions   |

### Warranty

|                  |   |
|------------------|---|
| Fixture Warranty | Five (5) years for light engine<br>Two (2) years for complete fixture             |
| Warranty Details | <a href="https://www.highend.com/warranty/">https://www.highend.com/warranty/</a> |

### Regulatory & Compliance

|                               |   |
|-------------------------------|---|
| Approved Regulatory Standards | Conforms to UL STD.1573<br>Certified to CSA STD. C22.2 No: 155<br>CE<br>EAC |
|-------------------------------|---|

### Safety

|        |  |
|--------|--|
| Safety | Minimum distance to illuminated surface = 2.0 m<br>Minimum distance from fixture head to combustible materials = 0.1 m |
|--------|--|

### Notes about LED luminaires

All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. Thermal conditions can be affected by ambient temperatures and orientation.



## OPTICAL INFORMATION

### Fixed Gobo Dimensions

|                  |                 |
|------------------|-----------------|
| Outside Diameter | 33 mm (1.29 in) |
| Image Diameter   | 25 mm (0.98 in) |
| Materials        | 0.5 mm Aluminum |

### Rotating Gobo Dimensions

|                  |   |
|------------------|---|
| Outside Diameter | 30 mm (1.18 in)                           |
| Image Diameter   | 25 mm (0.98 in)                           |
| Materials        | 0.5 mm Aluminum or 1.1 mm Glass Borofloat |

### Interchangeable Color Wheel



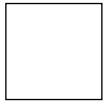
1 - Red



2 - Light Blue



3 - Green



4 - TM-30



5 - Orange



6 - Dark Blue

### Fixed Gobo Wheel



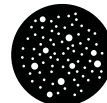
1 - Tunnel



2 - Triangles



3 - Organic



4 - Shower



5 - Abstract



6 - Cobble



7 - Endgrain

### Rotating Gobo Wheel



1 - Bar



2 - Stripe Strips



3 - Crescents



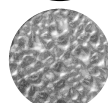
4 - GeoSwirl



5 - Seashell  
(Magnetically indexed adaptor)

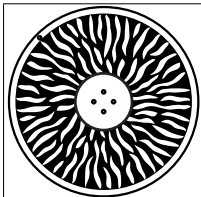


6 - Pinwheel Dots



7 - Ice

### Animation Wheel



Continuously Rotating  
Animation wheel



## PHOTOMETRIC INFORMATION

### SolaFrame 3000 - Ultra-Brite

| Mode          | Degree | Candela   | Field Lumens | LED Power Consumption | Lumens Per Watt |
|---------------|--------|-----------|--------------|-----------------------|-----------------|
| Narrow        | 7      | 1,485,557 | 14,940       | 1000 W                | 14.9            |
| Medium        | 30     | 192,321   | 33,638       | 1000 W                | 33.6            |
| Wide          | 55     | 66,226    | 37,000       | 1000 W                | 37              |
| Wide w/ Frost | 58     | 59,470    | 32,188       | 1000 W                | 32.5            |

Metric conversions: For meters, multiply feet by 0.3048.  
For lux, multiply footcandles by 10.76.

### SolaFrame 3000 - High Fidelity

| Mode          | Degree | Candela   | Field Lumens | LED Power Consumption | Lumens Per Watt |
|---------------|--------|-----------|--------------|-----------------------|-----------------|
| Narrow        | 7      | 1,003,755 | 10,094       | 1000 W                | 10              |
| Medium        | 30     | 129,946   | 22,729       | 1000 W                | 22.7            |
| Wide          | 55     | 44,747    | 24,387       | 1000 W                | 24.3            |
| Wide w/ Frost | 58     | 40,182    | 21,749       | 1000 W                | 21.7            |

Metric conversions: For meters, multiply feet by 0.3048.  
For lux, multiply footcandles by 10.76.

### Narrow Zoom - 7 Degrees

| Throw Distance (d) | 10 ft   | 15 ft  | 20 ft  | 25 ft  | 188.7 ft |
|--------------------|---------|--------|--------|--------|----------|
|                    | 3.0 m   | 4.6 m  | 6.1 m  | 7.6 m  | 57.5 m   |
| Field Diameter     | 1.2 ft  | 1.8 ft | 2.4 ft | 3.1 ft | 23.4 ft  |
|                    | 0.37 m  | 0.56 m | 0.75 m | 0.93 m | 7.13 m   |
| Illuminance (fc)   | 14,075  | 6,172  | 3,473  | 2,234  | 39       |
| Illuminance (lux)  | 151,510 | 66,442 | 37,391 | 24,047 | 422      |

### Narrow Zoom - 7 Degrees

| Throw Distance (d) | 10 ft   | 15 ft  | 20 ft  | 25 ft  | 188.7 ft |
|--------------------|---------|--------|--------|--------|----------|
|                    | 3.0 m   | 4.6 m  | 6.1 m  | 7.6 m  | 57.5 m   |
| Field Diameter     | 1.2 ft  | 1.9 ft | 2.5 ft | 3.1 ft | 23.4 ft  |
|                    | 0.37 m  | 0.57 m | 0.76 m | 0.94 m | 7.13 m   |
| Illuminance (fc)   | 10,126  | 4,440  | 2,499  | 1,607  | 28       |
| Illuminance (lux)  | 109,000 | 47,800 | 26,900 | 17,300 | 304      |

### Medium Zoom - 30 Degrees

| Throw Distance (d) | 10 ft  | 15 ft  | 20 ft   | 25 ft   | 188.7 ft |
|--------------------|--------|--------|---------|---------|----------|
|                    | 3.0 m  | 4.6 m  | 6.1 m   | 7.6 m   | 57.5 m   |
| Field Diameter     | 5.4 ft | 8.0 ft | 10.7 ft | 13.4 ft | 101 ft   |
|                    | 1.6 m  | 2.4 m  | 3.3 m   | 4.1 m   | 31 m     |
| Illuminance (fc)   | 6,779  | 3,198  | 1,911   | 1,247   | 22       |
| Illuminance (lux)  | 72,975 | 34,333 | 20,572  | 13,427  | 236      |

### Medium Zoom - 30 Degrees

| Throw Distance (d) | 10 ft  | 15 ft  | 20 ft   | 25 ft   | 188.7 ft |
|--------------------|--------|--------|---------|---------|----------|
|                    | 3.0 m  | 4.6 m  | 6.1 m   | 7.6 m   | 57.5 m   |
| Field Diameter     | 5.4 ft | 8.0 ft | 10.7 ft | 13.4 ft | 101 ft   |
|                    | 1.6 m  | 2.4 m  | 3.3 m   | 4.1 m   | 31 m     |
| Illuminance (fc)   | 4,877  | 2,294  | 1,374   | 897     | 16       |
| Illuminance (lux)  | 52,500 | 24,700 | 14,800  | 9,660   | 170      |

### Wide Zoom - 55 Degrees

| Throw Distance (d) | 10 ft   | 15 ft   | 20 ft   | 25 ft  | 188.7 ft |
|--------------------|---------|---------|---------|--------|----------|
|                    | 3.0 m   | 4.6 m   | 6.1 m   | 7.6 m  | 57.5 m   |
| Field Diameter     | 10.4 ft | 15.6 ft | 20.8 ft | 26 ft  | 196 ft   |
|                    | 3.17 m  | 4.76 m  | 6.34 m  | 7.93 m | 60 m     |
| Illuminance (fc)   | 601     | 273     | 157     | 104    | 1.8      |
| Illuminance (lux)  | 6,477   | 2,974   | 1,695   | 1,120  | 20       |

To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared.

### Wide Zoom - 55 Degrees

| Throw Distance (d) | 10 ft   | 15 ft   | 20 ft   | 25 ft  | 188.7 ft |
|--------------------|---------|---------|---------|--------|----------|
|                    | 3.0 m   | 4.6 m   | 6.1 m   | 7.6 m  | 57.5 m   |
| Field Diameter     | 10.4 ft | 15.6 ft | 20.8 ft | 26 ft  | 23.4 ft  |
|                    | 3.17 m  | 4.76 m  | 6.34 m  | 7.93 m | 7.13 m   |
| Illuminance (fc)   | 432     | 198     | 113     | 74     | 1.3      |
| Illuminance (lux)  | 4,660   | 2,140   | 1,220   | 806    | 20       |

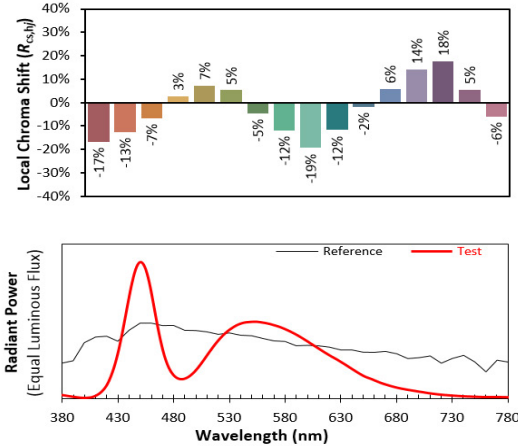
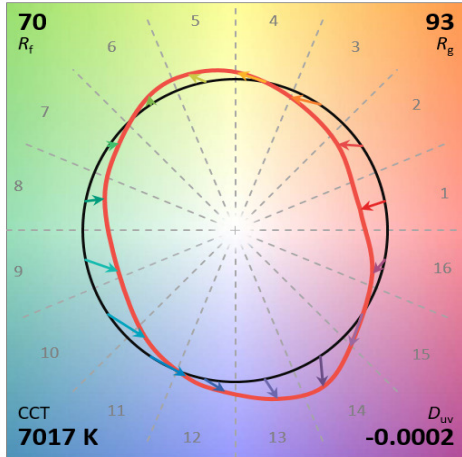
To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared.



## COLOR METRIC INFORMATION

Ultra-Brite Engine

### IES TM-30-15 Color Rendition Report



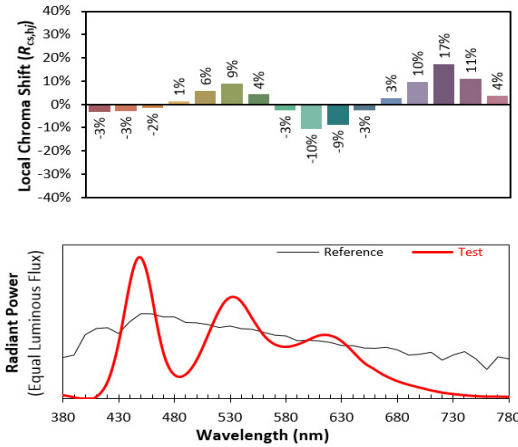
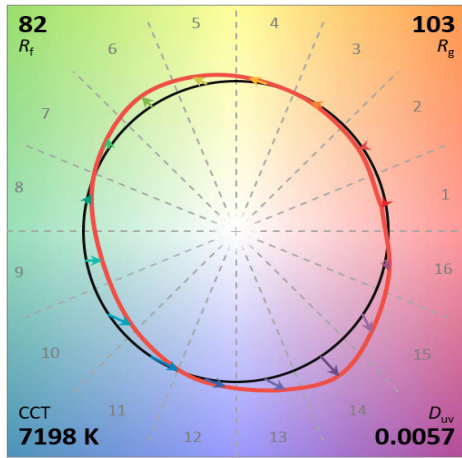
Colors are for visual orientation purposes only. Please contact ETC for full TM-30-15 report.

### Additional Color Metrics

| SolaFrame 3000 Ultra-Brite Engine |            |
|-----------------------------------|------------|
| CRI $R_a$ ( $R_g$ )               | 70 (-14.5) |
| TLCI                              | 47         |

Ultra-Brite Engine with TM-30 Filter

### IES TM-30-15 Color Rendition Report



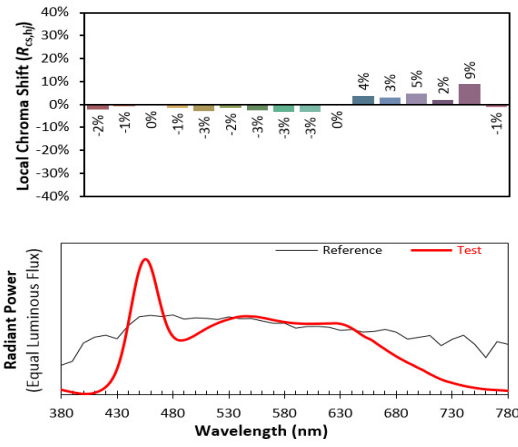
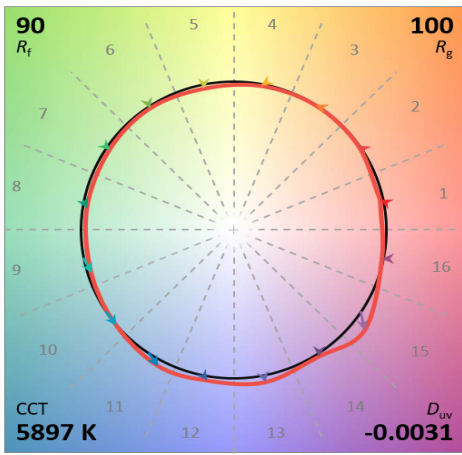
Colors are for visual orientation purposes only. Please contact ETC for full TM-30-15 report.

### Additional Color Metrics

| SolaFrame 3000 Ultra-Brite Engine with TM-30 Filter |           |
|---|-----------|
| CRI $R_a$ ( $R_g$ )                                 | 85 (70.2) |
| TLCI  | 84        |

High Fidelity Engine

### IES TM-30-15 Color Rendition Report



Colors are for visual orientation purposes only. Please contact ETC for full TM-30-15 report.

### Additional Color Metrics

| SolaFrame 3000 High Fidelity Engine |         |
|-------------------------------------|---------|
| CRI $R_a$ ( $R_g$ )                 | 96 (94) |
| TLCI                                | 94      |

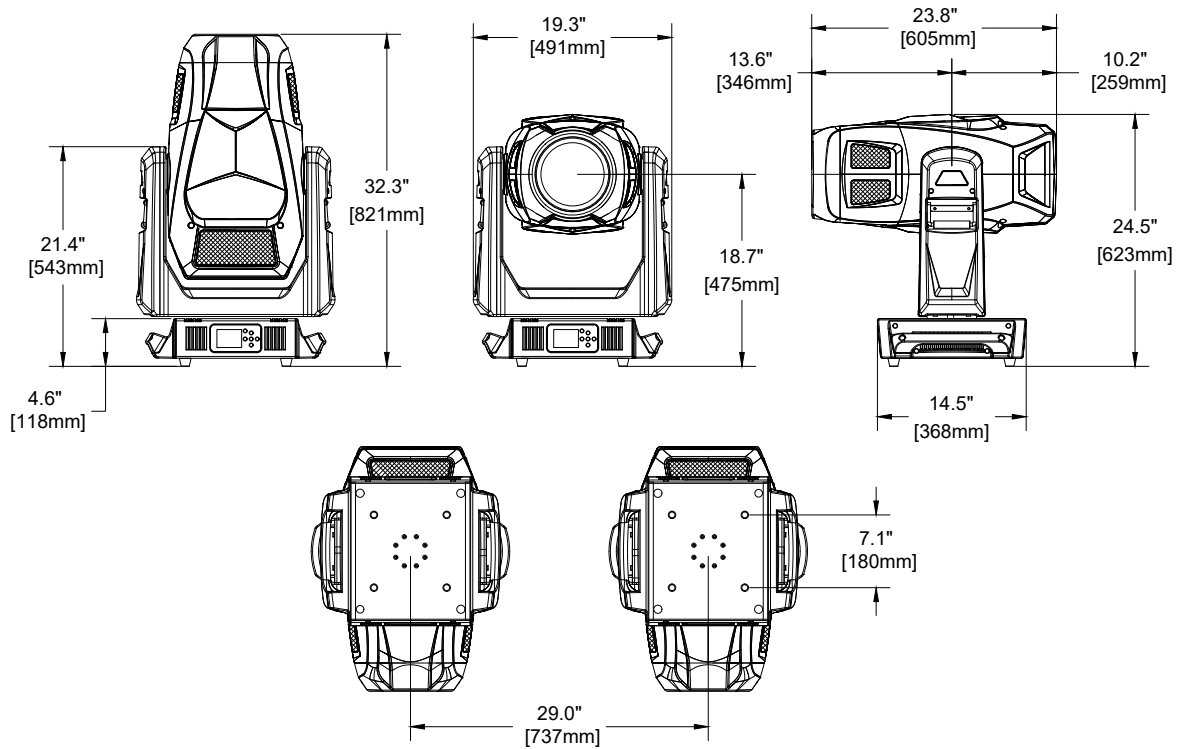


## PHYSICAL INFORMATION

### SolaFrame 3000 Dimensions

| MODEL                                | HEIGHT |      | WIDTH |     | DEPTH |     | WEIGHT |      |
|--------------------------------------|--------|------|-------|-----|-------|-----|--------|------|
|                                      | in     | mm   | in    | mm  | in    | mm  | lb     | kg   |
| SolaFrame 3000*                      | 32.3   | 821  | 19.3  | 491 | 14.5  | 368 | 106    | 48   |
| SolaFrame 3000 in Box                | 20.3   | 516  | 26.5  | 673 | 27    | 686 | 124    | 56.2 |
| SolaFrame 3000 in Molded Case Insert | 28.5   | 715  | 27.2  | 690 | 22.7  | 575 | 147    | 66.5 |
| SolaFrame 3000 in Roadcase           | 39.9   | 1013 | 28.9  | 661 | 26.0  | 661 | 241    | 110  |

\*Does not include mounting hardware



### SolaFrame 3000 Power Table

| VAC | Amps | Hz | Watts | VA   | PF   | Crest Factor |
|-----|------|----|-------|------|------|--------------|
| 100 | 14.7 | 50 | 1471  | 1461 | 0.99 | 1.40         |
| 120 | 11.8 | 60 | 1420  | 1416 | 0.99 | 1.41         |
| 200 | 6.6  | 50 | 1323  | 1322 | 0.99 | 1.49         |
| 208 | 6.3  | 60 | 1322  | 1326 | 0.99 | 1.47         |
| 220 | 6.0  | 50 | 1321  | 1346 | 0.99 | 1.51         |
| 240 | 5.5  | 60 | 1316  | 1324 | 0.98 | 1.50         |

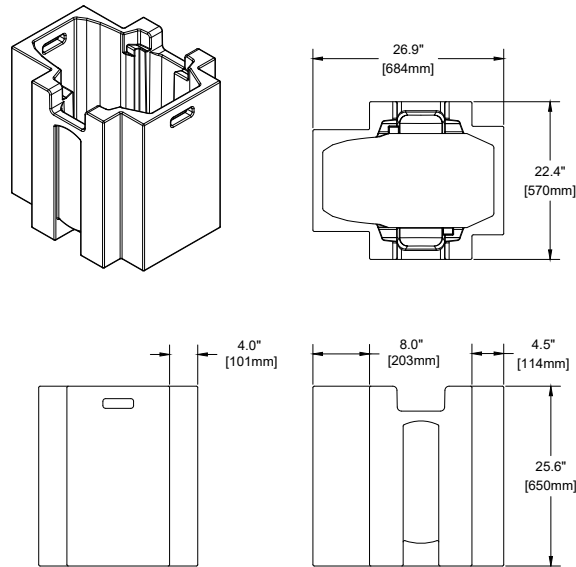


## ADDITIONAL ORDERING INFORMATION

### Additional Accessories

| MODEL     | DESCRIPTION  |
|-----------|--|
| 2581A2015 | Optional Four Facet Linear Prism Accessory (Not Installed) |
| 2581A2029 | Optional 8 Facet Effects Prism Accessory (Not installed)   |
| PSR1082   | Molded Case Insert   |
| 2581A2027 | Optional Heavy Frost Accessory (Not Installed)             |
| H7500001  | Extra Omega Brackets                                       |
| H7300105  | Galvanized Safety Cable w/Spring Snap                      |

### Molded Case Insert Dimensions



### Roadcase Dimensions (Single Mode)

### (Dual Mode)

