

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P639749

Luminaire Tested: GWS-SA5C-740-U-SLR-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA5C-740-U-SLR-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (80) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

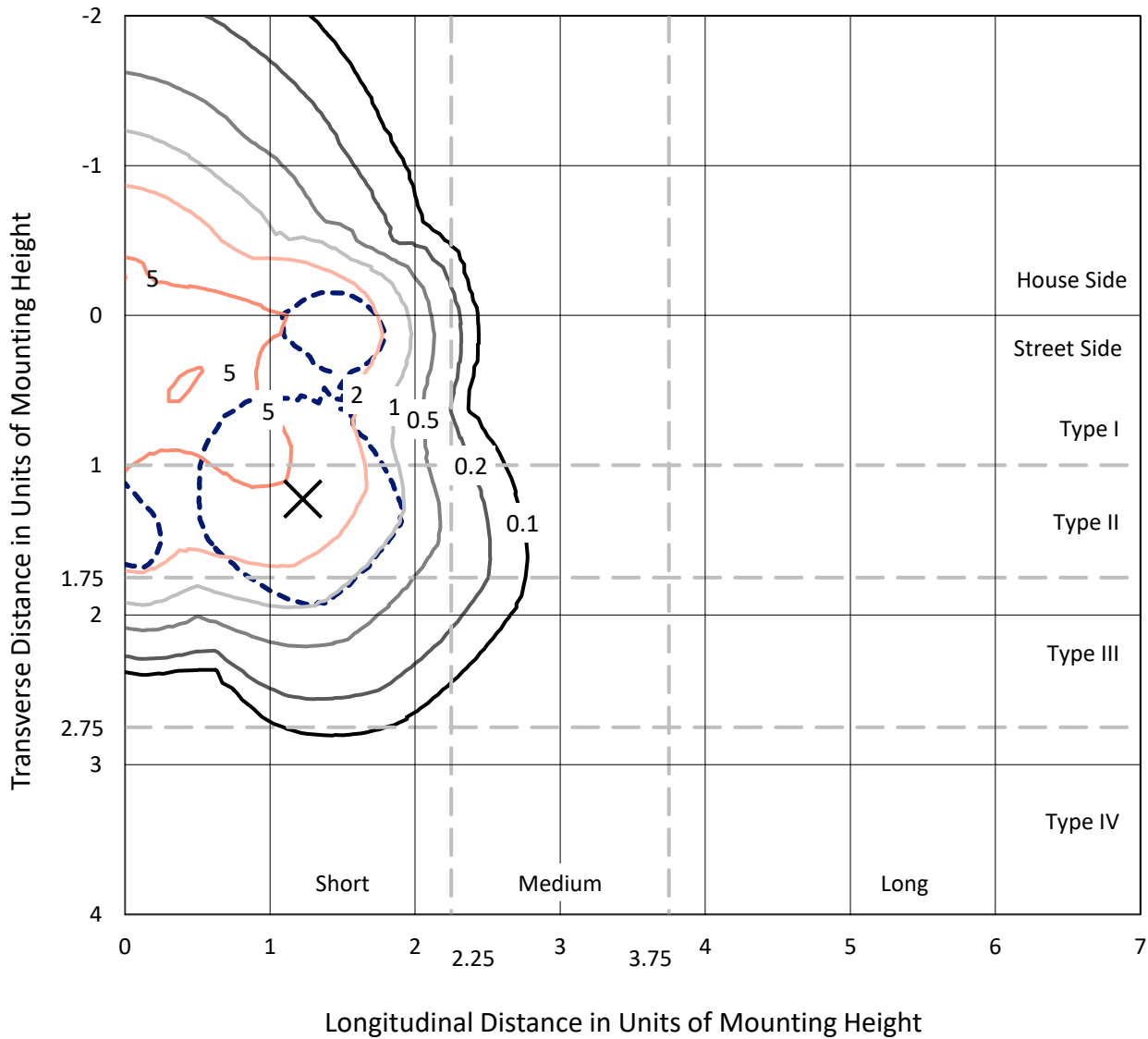
Lumens per Lamp: N/A  
Luminaire Lumens: 18630.7 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 157.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P639749  
 CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

### Iso-Footcandle Lines of Horizontal Illumination

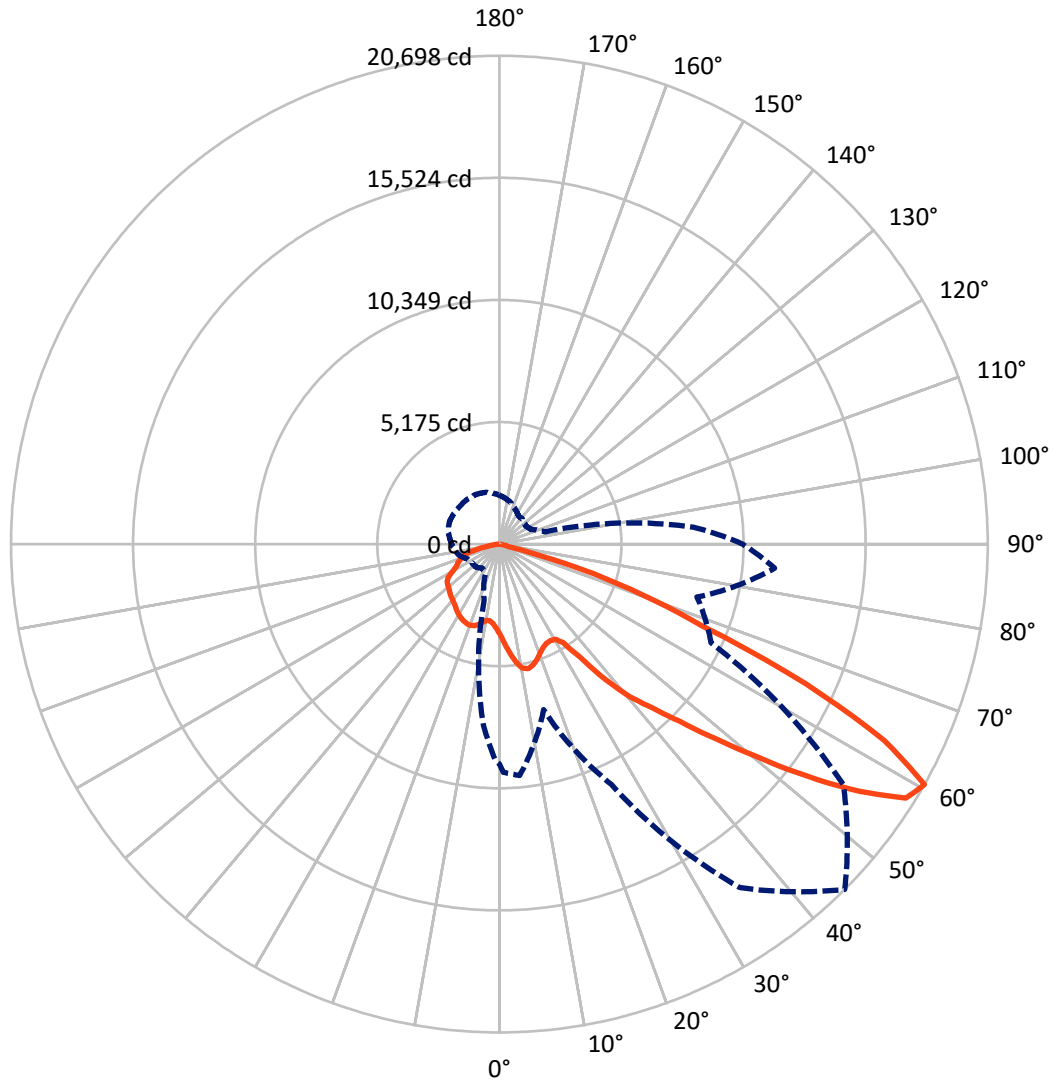
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc  
 Type III - Short - N/A

REPORT NUMBER: P639749  
CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P639749

CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

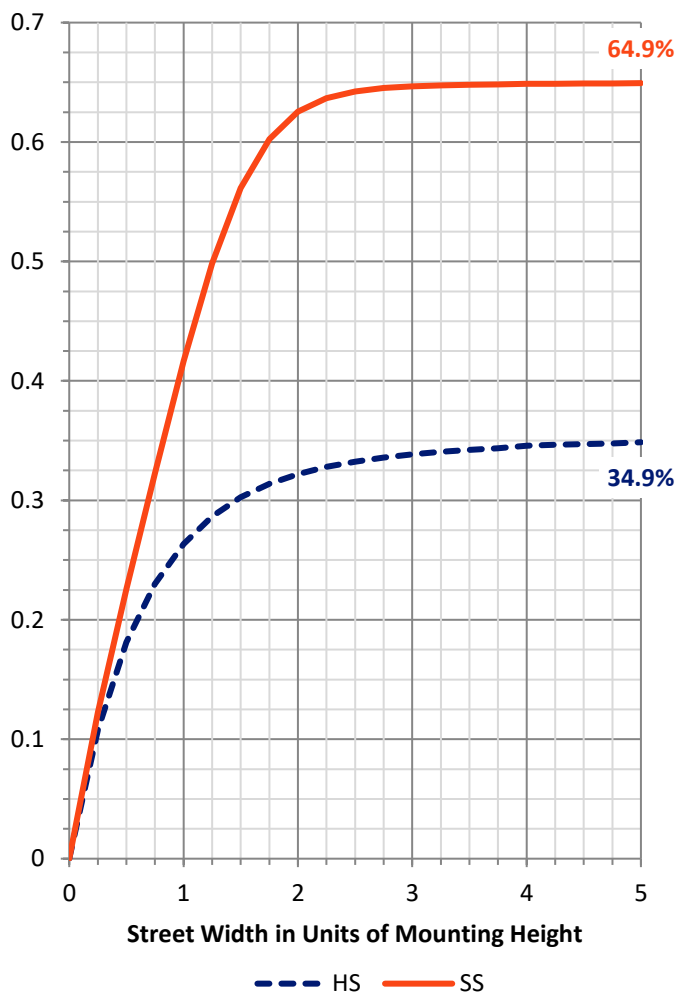
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6530.7   | 0.0    | 6530.7  |
|                    | % Fixture | 35.1     | 0.0    | 35.1    |
| <b>Street Side</b> | Lumens    | 12100.0  | 0.0    | 12100.0 |
|                    | % Fixture | 64.9     | 0.0    | 64.9    |
| <b>Total</b>       | Lumens    | 18630.7  | 0.0    | 18630.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 373.4   | 2.0       |
| 10°-20°   | 1180.0  | 6.3       |
| 20°-30°   | 1916.8  | 10.3      |
| 30°-40°   | 2703.2  | 14.5      |
| 40°-50°   | 3735.8  | 20.1      |
| 50°-60°   | 4809.0  | 25.8      |
| 60°-70°   | 3047.0  | 16.4      |
| 70°-80°   | 781.9   | 4.2       |
| 80°-90°   | 83.6    | 0.4       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 18630.7 | 100.0     |
| 0°-180°   | 18630.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P639749

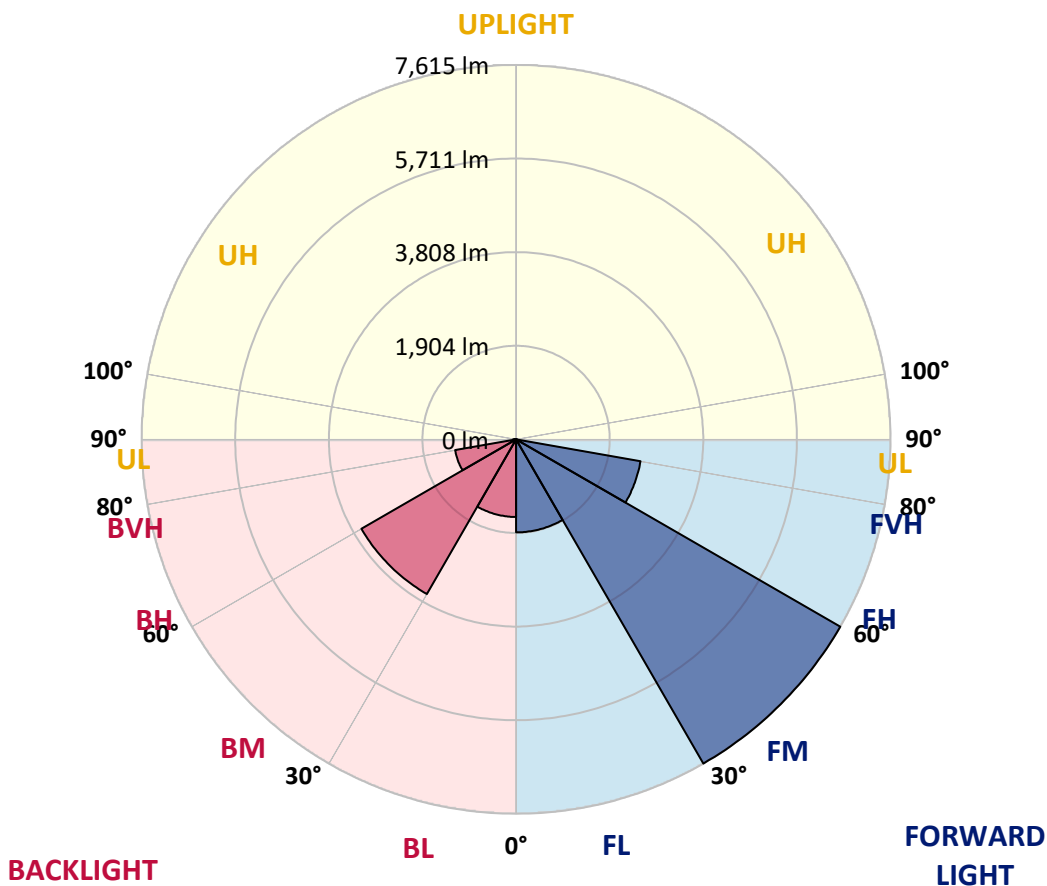
CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1891.7 | 10.2      |                         |      |         |
| FM (30°-60°)   | 7615.2 | 40.9      |                         |      |         |
| FH (60°-80°)   | 2570.4 | 13.8      |                         |      | G2/5000 |
| FVH (80°-90°)  | 22.7   | 0.1       |                         |      | G1/100  |
| BL (0°-30°)    | 1578.5 | 8.5       | B3/2500                 |      |         |
| BM (30°-60°)   | 3632.8 | 19.5      | B3/5000                 |      |         |
| BH (60°-80°)   | 1258.5 | 6.8       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 60.9   | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type III Short





REPORT NUMBER: P639749

CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°    | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3827.3  | 3827.3  | 3827.3  | 3827.3 | 3827.3  | 3827.3  | 3827.3  | 3827.3  | 3827.3  | 3827.3  | 3827.3  |
| 2.5°  | 4003.1  | 4030.4  | 4047.5  | 4079.9 | 4138.0  | 4170.4  | 4206.3  | 4167.0  | 4177.2  | 4172.1  | 4109.0  |
| 5°    | 4240.4  | 4272.8  | 4317.2  | 4412.8 | 4520.4  | 4580.1  | 4636.5  | 4627.9  | 4575.0  | 4486.2  | 4423.1  |
| 7.5°  | 4462.3  | 4499.9  | 4576.7  | 4732.0 | 4890.8  | 4983.0  | 5051.3  | 5006.9  | 4962.5  | 4822.5  | 4663.8  |
| 10°   | 4636.5  | 4658.6  | 4762.8  | 4971.0 | 5155.4  | 5259.5  | 5343.2  | 5332.9  | 5271.5  | 5114.4  | 4901.1  |
| 12.5° | 4800.3  | 4815.7  | 4928.4  | 5136.6 | 5302.2  | 5348.3  | 5416.6  | 5438.8  | 5418.3  | 5300.5  | 5090.5  |
| 15°   | 4976.2  | 5005.2  | 5109.3  | 5268.1 | 5343.2  | 5295.4  | 5319.3  | 5380.7  | 5438.8  | 5438.8  | 5245.9  |
| 17.5° | 5140.0  | 5165.6  | 5271.5  | 5339.8 | 5268.1  | 5141.7  | 5148.6  | 5227.1  | 5365.4  | 5510.5  | 5387.6  |
| 20°   | 5285.1  | 5309.0  | 5413.2  | 5348.3 | 5121.3  | 4936.9  | 4931.8  | 5027.4  | 5251.0  | 5556.6  | 5539.5  |
| 22.5° | 5443.9  | 5478.0  | 5565.1  | 5355.1 | 4984.7  | 4750.8  | 4749.1  | 4848.1  | 5150.3  | 5602.7  | 5713.6  |
| 25°   | 5669.2  | 5722.2  | 5766.5  | 5414.9 | 4911.3  | 4629.6  | 4651.8  | 4745.7  | 5117.9  | 5677.8  | 5971.4  |
| 27.5° | 6003.8  | 6046.5  | 6043.1  | 5539.5 | 4907.9  | 4580.1  | 4626.2  | 4735.5  | 5175.9  | 5810.9  | 6242.8  |
| 30°   | 6365.7  | 6387.9  | 6352.1  | 5713.6 | 4986.4  | 4610.8  | 4679.1  | 4808.9  | 5322.7  | 6031.1  | 6642.3  |
| 32.5° | 6766.9  | 6794.2  | 6725.9  | 5974.8 | 5169.1  | 4837.9  | 4988.1  | 5051.3  | 5529.3  | 6348.7  | 7065.6  |
| 35°   | 7227.8  | 7280.7  | 7139.0  | 6319.6 | 5706.8  | 5665.8  | 5884.3  | 5802.4  | 5968.0  | 6724.2  | 7518.0  |
| 37.5° | 7712.6  | 7714.3  | 7511.2  | 6830.1 | 6761.8  | 6831.8  | 7268.8  | 7012.7  | 6898.3  | 7142.5  | 7978.9  |
| 40°   | 8124.0  | 8113.8  | 7801.4  | 7518.0 | 7680.2  | 7958.4  | 8485.9  | 8093.3  | 7792.9  | 7704.1  | 8361.3  |
| 42.5° | 8535.4  | 8497.9  | 8182.1  | 7955.0 | 8313.5  | 8885.4  | 9481.2  | 8999.8  | 8366.4  | 8214.5  | 8738.6  |
| 45°   | 9061.2  | 9049.3  | 8668.6  | 8129.2 | 8885.4  | 9923.3  | 10713.7 | 9933.5  | 8706.2  | 8511.5  | 9366.8  |
| 47.5° | 9909.6  | 9851.6  | 9143.2  | 8115.5 | 9421.4  | 11306.0 | 12304.7 | 11109.7 | 8943.4  | 8518.4  | 10380.8 |
| 50°   | 10739.3 | 10667.6 | 9709.9  | 8113.8 | 9974.5  | 12740.0 | 14182.5 | 12538.6 | 9185.8  | 8559.3  | 11411.9 |
| 52.5° | 11577.5 | 11577.5 | 10640.3 | 8306.7 | 10554.9 | 14341.2 | 16352.2 | 14319.1 | 9599.0  | 9095.4  | 12680.3 |
| 55°   | 12075.9 | 12209.1 | 11686.7 | 8632.7 | 11234.3 | 16225.9 | 18498.0 | 16241.2 | 10237.4 | 10063.3 | 13851.3 |
| 57.5° | 11442.6 | 11691.8 | 11616.7 | 8405.7 | 11635.5 | 17610.3 | 20317.8 | 17699.1 | 10553.2 | 10177.7 | 13675.5 |
| 60°   | 9324.1  | 9670.7  | 9843.1  | 7258.5 | 11239.5 | 17770.8 | 20698.4 | 17794.7 | 9901.1  | 8666.9  | 11714.0 |
| 62.5° | 6198.4  | 6483.5  | 6746.4  | 5186.1 | 9730.4  | 15986.9 | 18306.8 | 15992.0 | 8269.1  | 6468.2  | 8115.5  |
| 65°   | 3040.3  | 3252.0  | 3535.4  | 3065.9 | 7601.7  | 13358.0 | 14273.0 | 12922.7 | 5981.6  | 3620.7  | 4139.7  |
| 67.5° | 795.5   | 855.3   | 894.5   | 1189.8 | 5445.6  | 9597.3  | 9308.8  | 9452.1  | 3842.7  | 1183.0  | 1082.3  |
| 70°   | 413.1   | 416.5   | 414.8   | 491.6  | 3680.5  | 6099.4  | 6415.2  | 5935.5  | 2681.8  | 495.1   | 426.8   |
| 72.5° | 295.3   | 297.0   | 291.9   | 331.2  | 1777.1  | 3494.4  | 3620.7  | 3581.5  | 1404.9  | 293.6   | 291.9   |
| 75°   | 192.9   | 194.6   | 191.2   | 194.6  | 268.0   | 397.8   | 367.0   | 385.8   | 233.9   | 186.1   | 186.1   |
| 77.5° | 114.4   | 116.1   | 114.4   | 117.8  | 114.4   | 114.4   | 105.8   | 105.8   | 100.7   | 100.7   | 102.4   |
| 80°   | 76.8    | 76.8    | 75.1    | 78.5   | 71.7    | 71.7    | 68.3    | 66.6    | 61.5    | 59.7    | 59.7    |
| 82.5° | 46.1    | 47.8    | 46.1    | 46.1   | 42.7    | 42.7    | 39.3    | 37.6    | 32.4    | 32.4    | 30.7    |
| 85°   | 23.9    | 23.9    | 22.2    | 22.2   | 18.8    | 17.1    | 13.7    | 13.7    | 10.2    | 8.5     | 8.5     |
| 87.5° | 3.4     | 3.4     | 1.7     | 1.7    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



REPORT NUMBER: P639749  
 CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3827.3  | 3827.3  | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 |
| 2.5°  | 4091.9  | 4057.7  | 4006.5 | 3957.0 | 3910.9 | 3863.1 | 3808.5 | 3752.2 | 3704.4 | 3654.9 | 3629.3 |
| 5°    | 4339.4  | 4269.4  | 4136.3 | 4018.5 | 3912.6 | 3825.6 | 3731.7 | 3651.5 | 3576.3 | 3514.9 | 3484.2 |
| 7.5°  | 4563.0  | 4453.8  | 4252.4 | 4066.3 | 3922.9 | 3803.4 | 3673.7 | 3554.2 | 3453.4 | 3378.3 | 3349.3 |
| 10°   | 4769.6  | 4639.9  | 4375.3 | 4139.7 | 3972.4 | 3839.2 | 3680.5 | 3518.3 | 3385.2 | 3286.1 | 3262.2 |
| 12.5° | 4936.9  | 4788.4  | 4472.6 | 4199.4 | 4001.4 | 3858.0 | 3718.0 | 3578.1 | 3446.6 | 3318.6 | 3298.1 |
| 15°   | 5085.4  | 4909.6  | 4546.0 | 4237.0 | 3991.2 | 3808.5 | 3690.7 | 3673.7 | 3673.7 | 3528.6 | 3487.6 |
| 17.5° | 5213.4  | 5020.5  | 4605.7 | 4254.1 | 3926.3 | 3661.7 | 3590.0 | 3738.5 | 3905.8 | 3801.7 | 3709.5 |
| 20°   | 5360.3  | 5126.4  | 4655.2 | 4254.1 | 3806.8 | 3475.6 | 3468.8 | 3721.5 | 3969.0 | 3970.7 | 3873.4 |
| 22.5° | 5508.8  | 5249.3  | 4713.3 | 4238.7 | 3642.9 | 3260.5 | 3386.9 | 3653.2 | 3873.4 | 3967.3 | 3900.7 |
| 25°   | 5749.5  | 5420.0  | 4805.5 | 4226.8 | 3451.7 | 3113.7 | 3313.5 | 3562.7 | 3748.8 | 3847.8 | 3805.1 |
| 27.5° | 6055.0  | 5645.3  | 4945.4 | 4245.5 | 3262.2 | 3026.7 | 3234.9 | 3444.9 | 3613.9 | 3701.0 | 3670.2 |
| 30°   | 6396.5  | 5904.8  | 5095.7 | 4278.0 | 3125.7 | 2982.3 | 3141.0 | 3310.0 | 3460.3 | 3547.3 | 3533.7 |
| 32.5° | 6831.8  | 6186.5  | 5225.4 | 4233.6 | 3048.9 | 2960.1 | 3042.0 | 3163.2 | 3308.3 | 3363.0 | 3374.9 |
| 35°   | 7352.4  | 6497.2  | 5324.4 | 4059.5 | 2978.9 | 2936.2 | 2934.5 | 3009.6 | 3112.0 | 3199.1 | 3207.6 |
| 37.5° | 7832.1  | 6860.8  | 5433.7 | 3760.7 | 2852.5 | 2876.4 | 2808.2 | 2852.5 | 2953.3 | 3040.3 | 3074.5 |
| 40°   | 8306.7  | 7229.5  | 5585.6 | 3380.0 | 2687.0 | 2743.3 | 2663.1 | 2693.8 | 2774.0 | 2888.4 | 2943.0 |
| 42.5° | 8767.6  | 7562.4  | 5746.1 | 2990.8 | 2521.4 | 2557.2 | 2497.5 | 2528.2 | 2611.8 | 2755.2 | 2816.7 |
| 45°   | 9269.5  | 8013.1  | 5870.7 | 2623.8 | 2378.0 | 2362.6 | 2314.8 | 2359.2 | 2485.5 | 2642.6 | 2716.0 |
| 47.5° | 10218.6 | 8723.2  | 5952.6 | 2379.7 | 2301.2 | 2190.2 | 2135.6 | 2231.2 | 2374.6 | 2533.3 | 2622.1 |
| 50°   | 11377.7 | 9750.9  | 5928.7 | 2224.3 | 2234.6 | 2012.7 | 1993.9 | 2120.2 | 2273.8 | 2439.4 | 2536.7 |
| 52.5° | 12296.2 | 10759.8 | 5657.3 | 2075.8 | 2104.8 | 1900.0 | 1845.4 | 2029.7 | 2176.5 | 2345.5 | 2446.3 |
| 55°   | 12997.8 | 11099.5 | 4824.2 | 1900.0 | 1893.2 | 1818.0 | 1703.7 | 1935.8 | 2079.2 | 2236.3 | 2345.5 |
| 57.5° | 12425.9 | 10343.2 | 3576.3 | 1657.6 | 1616.6 | 1655.9 | 1544.9 | 1777.1 | 1959.7 | 2115.1 | 2212.4 |
| 60°   | 10312.5 | 8246.9  | 1992.2 | 1468.1 | 1352.0 | 1447.6 | 1430.5 | 1609.8 | 1830.0 | 1993.9 | 2077.5 |
| 62.5° | 7000.8  | 5491.7  | 1181.3 | 1160.8 | 1096.0 | 1232.5 | 1323.0 | 1440.8 | 1657.6 | 1790.7 | 1869.3 |
| 65°   | 3489.3  | 2668.2  | 785.3  | 868.9  | 877.4  | 1014.0 | 1184.7 | 1314.5 | 1495.4 | 1632.0 | 1710.5 |
| 67.5° | 1012.3  | 829.6   | 597.5  | 664.1  | 756.2  | 865.5  | 1002.1 | 1155.7 | 1331.5 | 1493.7 | 1585.9 |
| 70°   | 437.0   | 442.1   | 474.6  | 553.1  | 643.6  | 756.2  | 892.8  | 1043.0 | 1191.5 | 1316.2 | 1386.2 |
| 72.5° | 309.0   | 320.9   | 356.8  | 437.0  | 522.4  | 629.9  | 766.5  | 911.6  | 1019.1 | 1145.5 | 1218.9 |
| 75°   | 198.0   | 206.6   | 235.6  | 297.0  | 360.2  | 464.3  | 594.1  | 727.2  | 838.2  | 928.7  | 998.6  |
| 77.5° | 109.3   | 111.0   | 134.9  | 170.7  | 213.4  | 280.0  | 375.6  | 479.7  | 561.6  | 612.8  | 676.0  |
| 80°   | 63.2    | 63.2    | 75.1   | 97.3   | 122.9  | 163.9  | 216.8  | 268.0  | 317.5  | 350.0  | 380.7  |
| 82.5° | 34.1    | 34.1    | 39.3   | 52.9   | 66.6   | 90.5   | 121.2  | 146.8  | 177.5  | 194.6  | 215.1  |
| 85°   | 10.2    | 10.2    | 13.7   | 18.8   | 23.9   | 34.1   | 47.8   | 61.5   | 75.1   | 87.1   | 99.0   |
| 87.5° | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.7    |
| 90°   | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |





REPORT NUMBER: P639749

CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 |
| 2.5°  | 3624.1 | 3600.2 | 3586.6 | 3569.5 | 3574.6 | 3559.3 | 3550.7 | 3555.9 | 3525.1 | 3555.9 | 3586.6 |
| 5°    | 3472.2 | 3438.1 | 3410.8 | 3388.6 | 3378.3 | 3357.8 | 3345.9 | 3345.9 | 3327.1 | 3357.8 | 3395.4 |
| 7.5°  | 3339.1 | 3311.8 | 3298.1 | 3284.4 | 3269.1 | 3250.3 | 3229.8 | 3223.0 | 3211.0 | 3243.5 | 3275.9 |
| 10°   | 3250.3 | 3253.7 | 3262.2 | 3281.0 | 3277.6 | 3265.7 | 3234.9 | 3217.9 | 3217.9 | 3255.4 | 3304.9 |
| 12.5° | 3291.3 | 3327.1 | 3347.6 | 3381.7 | 3388.6 | 3378.3 | 3347.6 | 3333.9 | 3368.1 | 3424.4 | 3506.4 |
| 15°   | 3450.0 | 3473.9 | 3491.0 | 3518.3 | 3516.6 | 3508.1 | 3484.2 | 3494.4 | 3607.1 | 3716.3 | 3789.7 |
| 17.5° | 3622.4 | 3595.1 | 3591.7 | 3608.8 | 3613.9 | 3603.7 | 3590.0 | 3636.1 | 3822.2 | 3924.6 | 3962.2 |
| 20°   | 3747.1 | 3653.2 | 3632.7 | 3639.5 | 3653.2 | 3648.0 | 3648.0 | 3723.2 | 3916.1 | 3963.9 | 3916.1 |
| 22.5° | 3784.6 | 3651.5 | 3620.7 | 3622.4 | 3641.2 | 3642.9 | 3651.5 | 3730.0 | 3842.7 | 3844.4 | 3771.0 |
| 25°   | 3724.9 | 3596.8 | 3574.6 | 3578.1 | 3600.2 | 3598.5 | 3602.0 | 3646.3 | 3695.8 | 3675.4 | 3620.7 |
| 27.5° | 3612.2 | 3501.2 | 3494.4 | 3513.2 | 3542.2 | 3526.8 | 3516.6 | 3528.6 | 3552.5 | 3526.8 | 3479.0 |
| 30°   | 3484.2 | 3390.3 | 3393.7 | 3429.5 | 3460.3 | 3434.7 | 3409.1 | 3415.9 | 3417.6 | 3390.3 | 3335.7 |
| 32.5° | 3349.3 | 3279.3 | 3291.3 | 3328.8 | 3364.7 | 3337.4 | 3310.0 | 3306.6 | 3274.2 | 3241.8 | 3188.8 |
| 35°   | 3214.4 | 3187.1 | 3202.5 | 3233.2 | 3264.0 | 3241.8 | 3224.7 | 3214.4 | 3144.5 | 3096.7 | 3052.3 |
| 37.5° | 3091.5 | 3112.0 | 3139.3 | 3158.1 | 3168.4 | 3166.6 | 3156.4 | 3132.5 | 3040.3 | 2984.0 | 2925.9 |
| 40°   | 2982.3 | 3045.4 | 3074.5 | 3083.0 | 3098.4 | 3095.0 | 3093.2 | 3059.1 | 2937.9 | 2878.2 | 2811.6 |
| 42.5° | 2883.3 | 2972.0 | 3021.5 | 3030.1 | 3038.6 | 3040.3 | 3035.2 | 2985.7 | 2847.4 | 2777.4 | 2714.3 |
| 45°   | 2787.7 | 2903.8 | 2966.9 | 2958.4 | 2970.3 | 2970.3 | 2975.5 | 2910.6 | 2758.7 | 2687.0 | 2620.4 |
| 47.5° | 2704.0 | 2840.6 | 2898.6 | 2888.4 | 2895.2 | 2900.3 | 2905.5 | 2830.4 | 2661.4 | 2593.1 | 2524.8 |
| 50°   | 2627.2 | 2772.3 | 2821.8 | 2825.2 | 2825.2 | 2837.2 | 2835.5 | 2762.1 | 2579.4 | 2506.0 | 2437.7 |
| 52.5° | 2545.3 | 2702.3 | 2755.2 | 2777.4 | 2784.3 | 2789.4 | 2765.5 | 2680.1 | 2495.8 | 2407.0 | 2343.8 |
| 55°   | 2449.7 | 2630.6 | 2678.4 | 2707.4 | 2721.1 | 2717.7 | 2685.2 | 2598.2 | 2410.4 | 2321.6 | 2249.9 |
| 57.5° | 2304.6 | 2477.0 | 2545.3 | 2558.9 | 2581.1 | 2567.5 | 2529.9 | 2456.5 | 2273.8 | 2185.1 | 2111.7 |
| 60°   | 2145.8 | 2270.4 | 2325.1 | 2337.0 | 2319.9 | 2325.1 | 2319.9 | 2249.9 | 2091.2 | 2021.2 | 1946.1 |
| 62.5° | 1937.5 | 2048.5 | 2106.5 | 2121.9 | 2092.9 | 2111.7 | 2104.8 | 2017.8 | 1859.0 | 1785.6 | 1719.0 |
| 65°   | 1780.5 | 1901.7 | 1970.0 | 1978.5 | 1970.0 | 1978.5 | 1954.6 | 1848.8 | 1698.6 | 1623.4 | 1555.2 |
| 67.5° | 1657.6 | 1782.2 | 1853.9 | 1877.8 | 1869.3 | 1867.6 | 1830.0 | 1707.1 | 1551.7 | 1469.8 | 1382.7 |
| 70°   | 1445.9 | 1555.2 | 1647.3 | 1705.4 | 1705.4 | 1672.9 | 1601.2 | 1486.9 | 1362.3 | 1292.3 | 1224.0 |
| 72.5° | 1280.3 | 1418.6 | 1509.1 | 1568.8 | 1580.8 | 1562.0 | 1461.3 | 1340.1 | 1196.7 | 1126.7 | 1055.0 |
| 75°   | 1055.0 | 1189.8 | 1287.1 | 1365.7 | 1381.0 | 1360.5 | 1244.5 | 1125.0 | 991.8  | 923.5  | 851.8  |
| 77.5° | 705.0  | 785.3  | 863.8  | 935.5  | 920.1  | 933.8  | 855.3  | 764.8  | 682.8  | 631.6  | 599.2  |
| 80°   | 397.8  | 450.7  | 474.6  | 513.8  | 513.8  | 513.8  | 462.6  | 419.9  | 373.9  | 344.8  | 312.4  |
| 82.5° | 225.3  | 259.5  | 269.7  | 302.2  | 310.7  | 312.4  | 278.3  | 250.9  | 221.9  | 206.6  | 184.4  |
| 85°   | 104.1  | 122.9  | 124.6  | 143.4  | 150.2  | 163.9  | 148.5  | 129.7  | 112.7  | 105.8  | 92.2   |
| 87.5° | 3.4    | 10.2   | 13.7   | 25.6   | 34.1   | 39.3   | 42.7   | 42.7   | 35.8   | 32.4   | 27.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P639749

CATALOG NUMBER: GWS-SA5C-740-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°    | 359°    | 360°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3 | 3827.3  | 3827.3  | 3827.3  |
| 2.5°  | 3624.1 | 3665.1 | 3712.9 | 3747.1 | 3808.5 | 3859.7 | 3912.6 | 3970.7  | 4013.4  | 4003.1  |
| 5°    | 3441.5 | 3509.8 | 3596.8 | 3677.1 | 3791.4 | 3907.5 | 4035.6 | 4167.0  | 4243.8  | 4240.4  |
| 7.5°  | 3339.1 | 3436.4 | 3542.2 | 3649.8 | 3784.6 | 3951.9 | 4148.2 | 4353.1  | 4457.2  | 4462.3  |
| 10°   | 3393.7 | 3497.8 | 3569.5 | 3660.0 | 3801.7 | 4011.7 | 4247.2 | 4493.1  | 4612.6  | 4636.5  |
| 12.5° | 3566.1 | 3557.6 | 3552.5 | 3617.3 | 3788.0 | 4054.3 | 4342.8 | 4636.5  | 4771.3  | 4800.3  |
| 15°   | 3730.0 | 3554.2 | 3448.3 | 3492.7 | 3726.6 | 4081.6 | 4436.7 | 4793.5  | 4945.4  | 4976.2  |
| 17.5° | 3760.7 | 3494.4 | 3298.1 | 3328.8 | 3629.3 | 4090.2 | 4527.2 | 4947.1  | 5111.0  | 5140.0  |
| 20°   | 3675.4 | 3417.6 | 3188.8 | 3146.2 | 3506.4 | 4068.0 | 4583.5 | 5075.2  | 5254.4  | 5285.1  |
| 22.5° | 3567.8 | 3349.3 | 3106.9 | 2995.9 | 3356.1 | 4045.8 | 4646.7 | 5210.0  | 5416.6  | 5443.9  |
| 25°   | 3455.1 | 3262.2 | 3030.1 | 2861.1 | 3185.4 | 4032.1 | 4752.5 | 5387.6  | 5636.8  | 5669.2  |
| 27.5° | 3335.7 | 3156.4 | 2963.5 | 2796.2 | 3028.4 | 4049.2 | 4902.8 | 5674.4  | 5957.7  | 6003.8  |
| 30°   | 3207.6 | 3050.6 | 2920.8 | 2774.0 | 2920.8 | 4064.6 | 5068.3 | 5968.0  | 6300.9  | 6365.7  |
| 32.5° | 3074.5 | 2953.3 | 2876.4 | 2784.3 | 2854.3 | 4028.7 | 5213.4 | 6297.4  | 6710.6  | 6766.9  |
| 35°   | 2941.3 | 2854.3 | 2820.1 | 2803.0 | 2765.5 | 3897.3 | 5331.2 | 6630.3  | 7178.3  | 7227.8  |
| 37.5° | 2816.7 | 2751.8 | 2741.6 | 2760.4 | 2628.9 | 3682.2 | 5467.8 | 7053.7  | 7637.5  | 7712.6  |
| 40°   | 2700.6 | 2640.9 | 2639.2 | 2635.7 | 2478.7 | 3388.6 | 5652.2 | 7483.9  | 8089.9  | 8124.0  |
| 42.5° | 2593.1 | 2518.0 | 2531.6 | 2490.6 | 2355.8 | 3071.1 | 5826.3 | 7850.9  | 8511.5  | 8535.4  |
| 45°   | 2497.5 | 2398.5 | 2413.8 | 2362.6 | 2297.7 | 2738.2 | 5979.9 | 8284.5  | 9045.9  | 9061.2  |
| 47.5° | 2405.3 | 2299.4 | 2256.8 | 2253.4 | 2287.5 | 2430.9 | 6130.2 | 9119.3  | 9882.3  | 9909.6  |
| 50°   | 2319.9 | 2205.6 | 2084.4 | 2159.5 | 2224.3 | 2200.4 | 6317.9 | 10013.8 | 10746.1 | 10739.3 |
| 52.5° | 2238.0 | 2087.8 | 1915.4 | 2060.5 | 2060.5 | 2029.7 | 6265.0 | 10556.6 | 11459.7 | 11577.5 |
| 55°   | 2144.1 | 1898.3 | 1739.5 | 1894.9 | 1819.8 | 1876.1 | 5327.8 | 10734.2 | 11908.6 | 12075.9 |
| 57.5° | 1958.0 | 1664.4 | 1526.1 | 1609.8 | 1497.1 | 1739.5 | 3827.3 | 9853.3  | 11145.6 | 11442.6 |
| 60°   | 1778.8 | 1492.0 | 1401.5 | 1386.2 | 1239.3 | 1418.6 | 2480.4 | 7714.3  | 9173.9  | 9324.1  |
| 62.5° | 1568.8 | 1343.5 | 1266.7 | 1148.9 | 996.9  | 1032.8 | 1502.2 | 5076.9  | 6164.3  | 6198.4  |
| 65°   | 1410.1 | 1217.2 | 1070.3 | 930.4  | 816.0  | 749.4  | 887.7  | 2448.0  | 3081.3  | 3040.3  |
| 67.5° | 1210.3 | 1043.0 | 903.0  | 802.3  | 708.4  | 624.8  | 590.7  | 727.2   | 822.8   | 795.5   |
| 70°   | 1077.2 | 916.7  | 781.8  | 686.2  | 599.2  | 515.5  | 455.8  | 428.5   | 419.9   | 413.1   |
| 72.5° | 928.7  | 788.7  | 648.7  | 556.5  | 474.6  | 397.8  | 343.1  | 310.7   | 302.2   | 295.3   |
| 75°   | 740.9  | 609.4  | 481.4  | 394.3  | 322.6  | 268.0  | 232.2  | 204.9   | 199.7   | 192.9   |
| 77.5° | 489.9  | 390.9  | 286.8  | 233.9  | 191.2  | 162.2  | 138.3  | 121.2   | 117.8   | 114.4   |
| 80°   | 269.7  | 225.3  | 175.8  | 141.7  | 114.4  | 99.0   | 90.5   | 80.2    | 78.5    | 76.8    |
| 82.5° | 160.5  | 134.9  | 100.7  | 80.2   | 66.6   | 59.7   | 54.6   | 49.5    | 47.8    | 46.1    |
| 85°   | 80.2   | 63.2   | 44.4   | 37.6   | 34.1   | 30.7   | 30.7   | 25.6    | 23.9    | 23.9    |
| 87.5° | 20.5   | 17.1   | 10.2   | 8.5    | 8.5    | 8.5    | 6.8    | 5.1     | 5.1     | 3.4     |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     |

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW, INVUE, LUMARK AND STREETWORKS

DATA VALID FOR LUMINIAIRES UTILIZING SA LIGHT ENGINES

Report Number: SP1-2101-121-2

Luminaire Tested: IFLD-S-SA2A-740-U-T3R-HSS

Test Date: 03/05/2021

**Test Information**

Test Method: LM-79-08  
 Report Number: SP1-2101-121-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry: 4π  
 Issue Date: 03/05/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: **IFLD-S-SA2A-740-U-T3R-HSS**  
 Description: STREETWORKS INF FLOOD

SHIELD, DRIVER PROGRAMMED @ 615mA.

**Spectral Parameters**

|                           |         |           |      |      |       |
|---------------------------|---------|-----------|------|------|-------|
| CCT (K):                  | 3905    | CRI (Ra): | 71.2 | R9:  | -29.7 |
| CIE u':                   | 0.2273  | R1:       | 68.9 | R10: | 46.2  |
| CIE v':                   | 0.5024  | R2:       | 77.0 | R11: | 68.8  |
| Duv:                      | -0.0008 | R3:       | 84.0 | R12: | 45.6  |
| CIE x:                    | 0.3841  | R4:       | 71.6 | R13: | 69.5  |
| CIE y:                    | 0.3774  | R5:       | 68.9 | R14: | 90.7  |
| CIE z:                    | 0.2385  | R6:       | 68.3 |      |       |
| Peak Wavelength (nm):     | 443     | R7:       | 78.7 |      |       |
| Dominant Wavelength (nm): | 579     | R8:       | 52.2 |      |       |
| Purity:                   | 28.7    |           |      |      |       |
| Rf:                       | 71.7    |           |      |      |       |
| Rg:                       | 96.9    |           |      |      |       |



**Test Conditions**

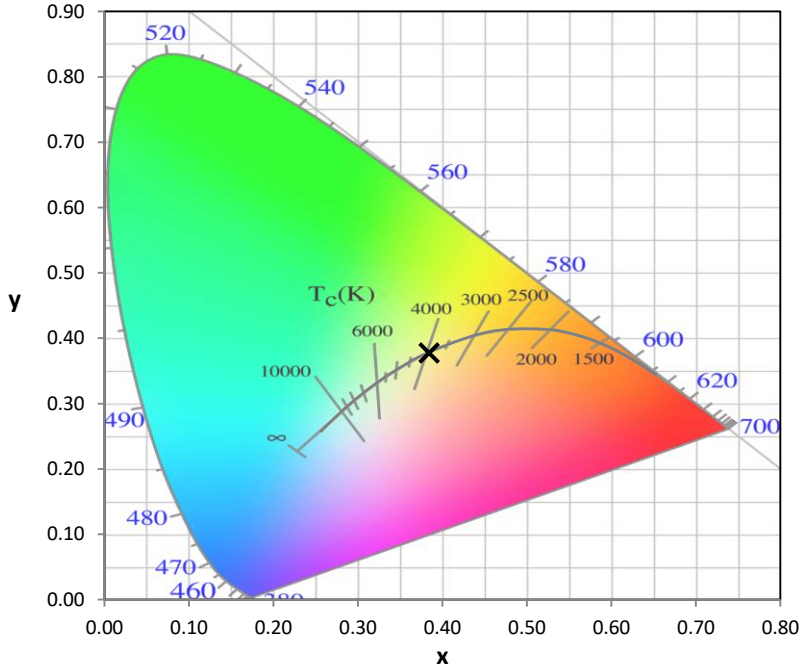
Stabilization Time: 211M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 24.8/312%  
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2101-121-2

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 1/31/2021        | 7/31/2021            |
| Power Meter                    | IN0071                | 12/1/2020        | 12/1/2021            |
| AC Power Source                | IN0063                | 12/1/2020        | 12/1/2021            |
| DC Power Source                | IN0208                | 12/1/2020        | 12/1/2021            |
| Sphere Thermometer             | IN0085                | 12/1/2020        | 12/1/2021            |
| Room Thermometer               | IN0046                | 12/1/2020        | 12/1/2021            |

REPORT NUMBER: SP1-2101-121-2

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2101-121-2

**Photopic Flux vs. Wavelength**



#####

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2304          | 0.0           | 490    | 19043         | 2.7           | 620    | 97577         | 25.4          | 750    | 4830          | 0.0           | 880    | 3505          | 0.0           |
| 365    | 2150          | 0.0           | 495    | 26606         | 4.8           | 625    | 90158         | 19.9          | 755    | 4664          | 0.0           | 885    | 2991          | 0.0           |
| 370    | 2146          | 0.0           | 500    | 36376         | 8.0           | 630    | 82240         | 14.9          | 760    | 4006          | 0.0           | 890    | 2327          | 0.0           |
| 375    | 2332          | 0.0           | 505    | 47714         | 13.3          | 635    | 74361         | 11.2          | 765    | 3715          | 0.0           | 895    | 2775          | 0.0           |
| 380    | 2527          | 0.0           | 510    | 58741         | 20.2          | 640    | 66994         | 8.0           | 770    | 3696          | 0.0           | 900    | 2141          | 0.0           |
| 385    | 2304          | 0.0           | 515    | 68716         | 28.5          | 645    | 60405         | 5.8           | 775    | 3117          | 0.0           | 905    | 2421          | 0.0           |
| 390    | 2064          | 0.0           | 520    | 77136         | 37.4          | 650    | 53806         | 3.9           | 780    | 3062          | 0.0           | 910    | 2200          | 0.0           |
| 395    | 1856          | 0.0           | 525    | 83567         | 44.9          | 655    | 47610         | 2.7           | 785    | 2907          | 0.0           | 915    | 2716          | 0.0           |
| 400    | 1856          | 0.0           | 530    | 89283         | 52.6          | 660    | 42018         | 1.8           | 790    | 2655          | 0.0           | 920    | 2656          | 0.0           |
| 405    | 2374          | 0.0           | 535    | 94097         | 58.4          | 665    | 36742         | 1.2           | 795    | 2467          | 0.0           | 925    | 2671          | 0.0           |
| 410    | 4084          | 0.0           | 540    | 96845         | 63.1          | 670    | 32105         | 0.7           | 800    | 2609          | 0.0           | 930    | 3292          | 0.0           |
| 415    | 8543          | 0.0           | 545    | 100829        | 67.1          | 675    | 27946         | 0.5           | 805    | 2293          | 0.0           | 935    | 3188          | 0.0           |
| 420    | 18394         | 0.1           | 550    | 105648        | 71.8          | 680    | 24146         | 0.3           | 810    | 2188          | 0.0           | 940    | 1997          | 0.0           |
| 425    | 37987         | 0.2           | 555    | 110017        | 75.1          | 685    | 21191         | 0.2           | 815    | 2386          | 0.0           | 945    | 2623          | 0.0           |
| 430    | 67605         | 0.5           | 560    | 114586        | 77.9          | 690    | 18544         | 0.1           | 820    | 2712          | 0.0           | 950    | 2969          | 0.0           |
| 435    | 102160        | 1.2           | 565    | 118987        | 79.1          | 695    | 16058         | 0.1           | 825    | 2473          | 0.0           | 955    | 2277          | 0.0           |
| 440    | 135103        | 2.1           | 570    | 122326        | 79.5          | 700    | 14133         | 0.0           | 830    | 1969          | 0.0           | 960    | 4267          | 0.0           |
| 445    | 140126        | 2.9           | 575    | 125968        | 78.4          | 705    | 12309         | 0.0           | 835    | 1917          | 0.0           | 965    | 2034          | 0.0           |
| 450    | 102339        | 2.7           | 580    | 127613        | 75.8          | 710    | 11142         | 0.0           | 840    | 2248          | 0.0           | 970    | 3586          | 0.0           |
| 455    | 58751         | 2.0           | 585    | 129466        | 71.9          | 715    | 10143         | 0.0           | 845    | 2266          | 0.0           | 975    | 2505          | 0.0           |
| 460    | 36892         | 1.5           | 590    | 128813        | 66.6          | 720    | 9072          | 0.0           | 850    | 2558          | 0.0           | 980    | 2666          | 0.0           |
| 465    | 24637         | 1.3           | 595    | 126387        | 59.9          | 725    | 8130          | 0.0           | 855    | 2767          | 0.0           | 985    | 2934          | 0.0           |
| 470    | 16738         | 1.0           | 600    | 123477        | 53.2          | 730    | 7149          | 0.0           | 860    | 2826          | 0.0           | 990    | 4120          | 0.0           |
| 475    | 13456         | 1.1           | 605    | 118718        | 46.0          | 735    | 6311          | 0.0           | 865    | 2385          | 0.0           | 995    | 3858          | 0.0           |
| 480    | 13081         | 1.2           | 610    | 112091        | 38.5          | 740    | 5711          | 0.0           | 870    | 3194          | 0.0           | 1000   | 3405          | 0.0           |
| 485    | 14734         | 1.7           | 615    | 105039        | 31.7          | 745    | 5111          | 0.0           | 875    | 3189          | 0.0           |        |               |               |

REPORT NUMBER: SP1-2101-121-2

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: 10425.8 S/P: 1.47**

| λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2304          | 0.0           | 490    | 19043         | 29.3          | 620    | 97577         | 1.2           | 750    | 4830          | 0.0           | 880    | 3505          | 0.0           |
| 365    | 2150          | 0.0           | 495    | 26606         | 43.0          | 625    | 90158         | 0.8           | 755    | 4664          | 0.0           | 885    | 2991          | 0.0           |
| 370    | 2146          | 0.0           | 500    | 36376         | 60.8          | 630    | 82240         | 0.5           | 760    | 4006          | 0.0           | 890    | 2327          | 0.0           |
| 375    | 2332          | 0.0           | 505    | 47714         | 81.1          | 635    | 74361         | 0.3           | 765    | 3715          | 0.0           | 895    | 2775          | 0.0           |
| 380    | 2527          | 0.0           | 510    | 58741         | 99.6          | 640    | 66994         | 0.2           | 770    | 3696          | 0.0           | 900    | 2141          | 0.0           |
| 385    | 2304          | 0.0           | 515    | 68716         | 113.9         | 645    | 60405         | 0.1           | 775    | 3117          | 0.0           | 905    | 2421          | 0.0           |
| 390    | 2064          | 0.0           | 520    | 77136         | 122.6         | 650    | 53806         | 0.1           | 780    | 3062          | 0.0           | 910    | 2200          | 0.0           |
| 395    | 1856          | 0.0           | 525    | 83567         | 125.0         | 655    | 47610         | 0.0           | 785    | 2907          | 0.0           | 915    | 2716          | 0.0           |
| 400    | 1856          | 0.0           | 530    | 89283         | 123.1         | 660    | 42018         | 0.0           | 790    | 2655          | 0.0           | 920    | 2656          | 0.0           |
| 405    | 2374          | 0.1           | 535    | 94097         | 117.3         | 665    | 36742         | 0.0           | 795    | 2467          | 0.0           | 925    | 2671          | 0.0           |
| 410    | 4084          | 0.2           | 540    | 96845         | 107.0         | 670    | 32105         | 0.0           | 800    | 2609          | 0.0           | 930    | 3292          | 0.0           |
| 415    | 8543          | 0.9           | 545    | 100829        | 96.7          | 675    | 27946         | 0.0           | 805    | 2293          | 0.0           | 935    | 3188          | 0.0           |
| 420    | 18394         | 3.0           | 550    | 105648        | 86.4          | 680    | 24146         | 0.0           | 810    | 2188          | 0.0           | 940    | 1997          | 0.0           |
| 425    | 37987         | 9.3           | 555    | 110017        | 75.2          | 685    | 21191         | 0.0           | 815    | 2386          | 0.0           | 945    | 2623          | 0.0           |
| 430    | 67605         | 23.0          | 560    | 114586        | 64.0          | 690    | 18544         | 0.0           | 820    | 2712          | 0.0           | 950    | 2969          | 0.0           |
| 435    | 102160        | 45.7          | 565    | 118987        | 53.4          | 695    | 16058         | 0.0           | 825    | 2473          | 0.0           | 955    | 2277          | 0.0           |
| 440    | 135103        | 75.5          | 570    | 122326        | 43.2          | 700    | 14133         | 0.0           | 830    | 1969          | 0.0           | 960    | 4267          | 0.0           |
| 445    | 140126        | 93.8          | 575    | 125968        | 34.3          | 705    | 12309         | 0.0           | 835    | 1917          | 0.0           | 965    | 2034          | 0.0           |
| 450    | 102339        | 79.3          | 580    | 127613        | 26.3          | 710    | 11142         | 0.0           | 840    | 2248          | 0.0           | 970    | 3586          | 0.0           |
| 455    | 58751         | 51.3          | 585    | 129466        | 19.8          | 715    | 10143         | 0.0           | 845    | 2266          | 0.0           | 975    | 2505          | 0.0           |
| 460    | 36892         | 35.6          | 590    | 128813        | 14.3          | 720    | 9072          | 0.0           | 850    | 2558          | 0.0           | 980    | 2666          | 0.0           |
| 465    | 24637         | 26.0          | 595    | 126387        | 10.1          | 725    | 8130          | 0.0           | 855    | 2767          | 0.0           | 985    | 2934          | 0.0           |
| 470    | 16738         | 19.3          | 600    | 123477        | 7.0           | 730    | 7149          | 0.0           | 860    | 2826          | 0.0           | 990    | 4120          | 0.0           |
| 475    | 13456         | 16.8          | 605    | 118718        | 4.7           | 735    | 6311          | 0.0           | 865    | 2385          | 0.0           | 995    | 3858          | 0.0           |
| 480    | 13081         | 17.7          | 610    | 112091        | 3.0           | 740    | 5711          | 0.0           | 870    | 3194          | 0.0           | 1000   | 3405          | 0.0           |
| 485    | 14734         | 21.4          | 615    | 105039        | 1.9           | 745    | 5111          | 0.0           | 875    | 3189          | 0.0           |        |               |               |



REPORT NUMBER: SP1-2101-121-2

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 3927.2 M/P: 0.55**

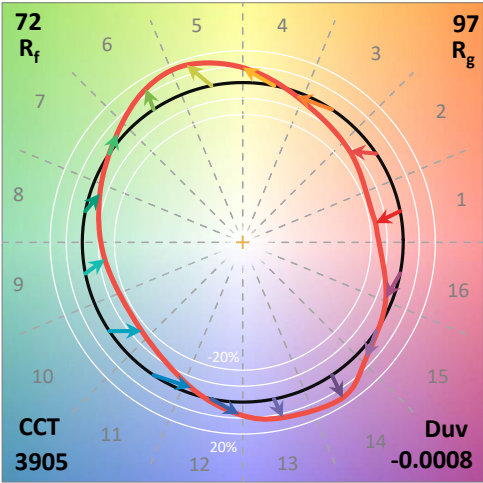
| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2304          | 0.0           | 490    | 19043         | 15.8          | 620    | 97577         | 0.1           | 750    | 4830          | 0.0           | 880    | 3505          | 0.0           |
| 365    | 2150          | 0.0           | 495    | 26606         | 22.0          | 625    | 90158         | 0.0           | 755    | 4664          | 0.0           | 885    | 2991          | 0.0           |
| 370    | 2146          | 0.0           | 500    | 36376         | 29.2          | 630    | 82240         | 0.0           | 760    | 4006          | 0.0           | 890    | 2327          | 0.0           |
| 375    | 2332          | 0.0           | 505    | 47714         | 36.6          | 635    | 74361         | 0.0           | 765    | 3715          | 0.0           | 895    | 2775          | 0.0           |
| 380    | 2527          | 0.0           | 510    | 58741         | 42.2          | 640    | 66994         | 0.0           | 770    | 3696          | 0.0           | 900    | 2141          | 0.0           |
| 385    | 2304          | 0.0           | 515    | 68716         | 44.9          | 645    | 60405         | 0.0           | 775    | 3117          | 0.0           | 905    | 2421          | 0.0           |
| 390    | 2064          | 0.0           | 520    | 77136         | 44.9          | 650    | 53806         | 0.0           | 780    | 3062          | 0.0           | 910    | 2200          | 0.0           |
| 395    | 1856          | 0.0           | 525    | 83567         | 42.4          | 655    | 47610         | 0.0           | 785    | 2907          | 0.0           | 915    | 2716          | 0.0           |
| 400    | 1856          | 0.0           | 530    | 89283         | 38.6          | 660    | 42018         | 0.0           | 790    | 2655          | 0.0           | 920    | 2656          | 0.0           |
| 405    | 2374          | 0.0           | 535    | 94097         | 33.9          | 665    | 36742         | 0.0           | 795    | 2467          | 0.0           | 925    | 2671          | 0.0           |
| 410    | 4084          | 0.2           | 540    | 96845         | 28.3          | 670    | 32105         | 0.0           | 800    | 2609          | 0.0           | 930    | 3292          | 0.0           |
| 415    | 8543          | 0.6           | 545    | 100829        | 23.4          | 675    | 27946         | 0.0           | 805    | 2293          | 0.0           | 935    | 3188          | 0.0           |
| 420    | 18394         | 2.1           | 550    | 105648        | 19.0          | 680    | 24146         | 0.0           | 810    | 2188          | 0.0           | 940    | 1997          | 0.0           |
| 425    | 37987         | 5.9           | 555    | 110017        | 14.8          | 685    | 21191         | 0.0           | 815    | 2386          | 0.0           | 945    | 2623          | 0.0           |
| 430    | 67605         | 14.3          | 560    | 114586        | 11.3          | 690    | 18544         | 0.0           | 820    | 2712          | 0.0           | 950    | 2969          | 0.0           |
| 435    | 102160        | 27.3          | 565    | 118987        | 8.4           | 695    | 16058         | 0.0           | 825    | 2473          | 0.0           | 955    | 2277          | 0.0           |
| 440    | 135103        | 45.1          | 570    | 122326        | 6.0           | 700    | 14133         | 0.0           | 830    | 1969          | 0.0           | 960    | 4267          | 0.0           |
| 445    | 140126        | 55.3          | 575    | 125968        | 4.2           | 705    | 12309         | 0.0           | 835    | 1917          | 0.0           | 965    | 2034          | 0.0           |
| 450    | 102339        | 47.2          | 580    | 127613        | 2.9           | 710    | 11142         | 0.0           | 840    | 2248          | 0.0           | 970    | 3586          | 0.0           |
| 455    | 58751         | 30.8          | 585    | 129466        | 1.9           | 715    | 10143         | 0.0           | 845    | 2266          | 0.0           | 975    | 2505          | 0.0           |
| 460    | 36892         | 21.7          | 590    | 128813        | 1.3           | 720    | 9072          | 0.0           | 850    | 2558          | 0.0           | 980    | 2666          | 0.0           |
| 465    | 24637         | 16.1          | 595    | 126387        | 0.8           | 725    | 8130          | 0.0           | 855    | 2767          | 0.0           | 985    | 2934          | 0.0           |
| 470    | 16738         | 12.0          | 600    | 123477        | 0.5           | 730    | 7149          | 0.0           | 860    | 2826          | 0.0           | 990    | 4120          | 0.0           |
| 475    | 13456         | 10.3          | 605    | 118718        | 0.3           | 735    | 6311          | 0.0           | 865    | 2385          | 0.0           | 995    | 3858          | 0.0           |
| 480    | 13081         | 10.5          | 610    | 112091        | 0.2           | 740    | 5711          | 0.0           | 870    | 3194          | 0.0           | 1000   | 3405          | 0.0           |
| 485    | 14734         | 12.1          | 615    | 105039        | 0.1           | 745    | 5111          | 0.0           | 875    | 3189          | 0.0           |        |               |               |

**Summary**

$R_f = 71.7$   
 $R_g = 96.9$   
 CIE  $R_a = 71.2$   
 $R_g = -29.7$

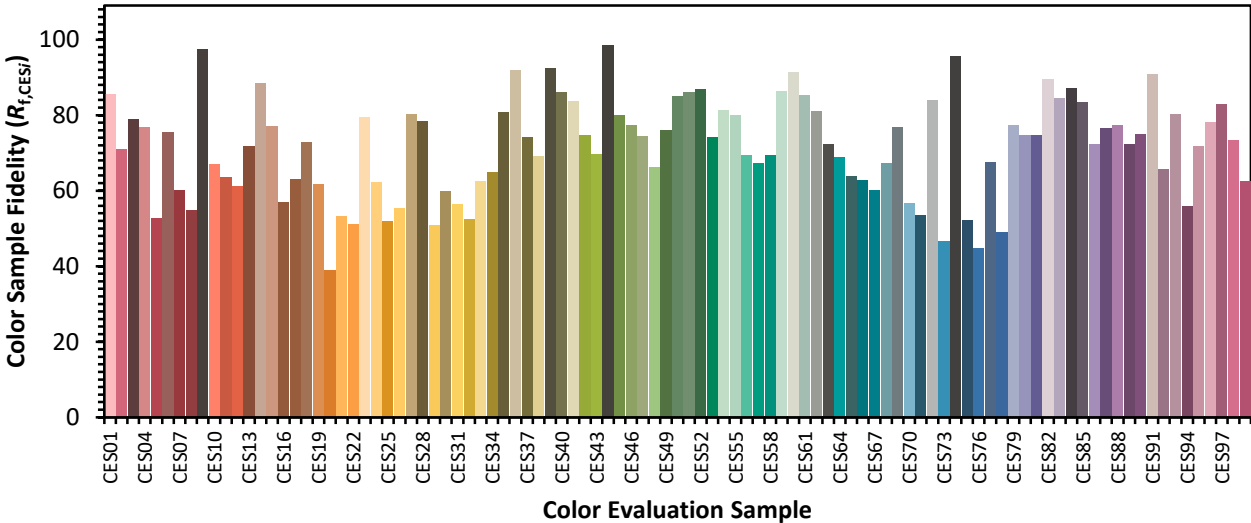


**Color Vector Graphics**



**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 55 | CES51 = 86 | CES76 = 45 |
| CES02 = 61 | CES27 = 80 | CES52 = 87 | CES77 = 68 |
| CES03 = 30 | CES28 = 79 | CES53 = 74 | CES78 = 49 |
| CES04 = 70 | CES29 = 51 | CES54 = 81 | CES79 = 77 |
| CES05 = 47 | CES30 = 60 | CES55 = 80 | CES80 = 75 |
| CES06 = 50 | CES31 = 56 | CES56 = 69 | CES81 = 75 |
| CES07 = 40 | CES32 = 52 | CES57 = 67 | CES82 = 90 |
| CES08 = 39 | CES33 = 62 | CES58 = 69 | CES83 = 85 |
| CES09 = 29 | CES34 = 65 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 81 | CES60 = 91 | CES85 = 83 |
| CES11 = 57 | CES36 = 92 | CES61 = 85 | CES86 = 72 |
| CES12 = 63 | CES37 = 74 | CES62 = 81 | CES87 = 77 |
| CES13 = 42 | CES38 = 69 | CES63 = 72 | CES88 = 77 |
| CES14 = 74 | CES39 = 92 | CES64 = 69 | CES89 = 72 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 75 |
| CES16 = 46 | CES41 = 84 | CES66 = 63 | CES91 = 91 |
| CES17 = 49 | CES42 = 75 | CES67 = 60 | CES92 = 66 |
| CES18 = 56 | CES43 = 70 | CES68 = 67 | CES93 = 80 |
| CES19 = 72 | CES44 = 98 | CES69 = 77 | CES94 = 56 |
| CES20 = 65 | CES45 = 80 | CES70 = 57 | CES95 = 72 |
| CES21 = 86 | CES46 = 77 | CES71 = 53 | CES96 = 78 |
| CES22 = 78 | CES47 = 74 | CES72 = 84 | CES97 = 83 |
| CES23 = 92 | CES48 = 66 | CES73 = 47 | CES98 = 73 |
| CES24 = 91 | CES49 = 76 | CES74 = 96 | CES99 = 63 |
| CES25 = 72 | CES50 = 85 | CES75 = 52 |            |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)