

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P386670

Luminaire Tested: **GWC-SA2B-760-U-SLL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P386670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GWC-SA2B-760-U-SLL-HSS  
Description: GALLEON WALL LUMINAIRE  
(2) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8842 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 86  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

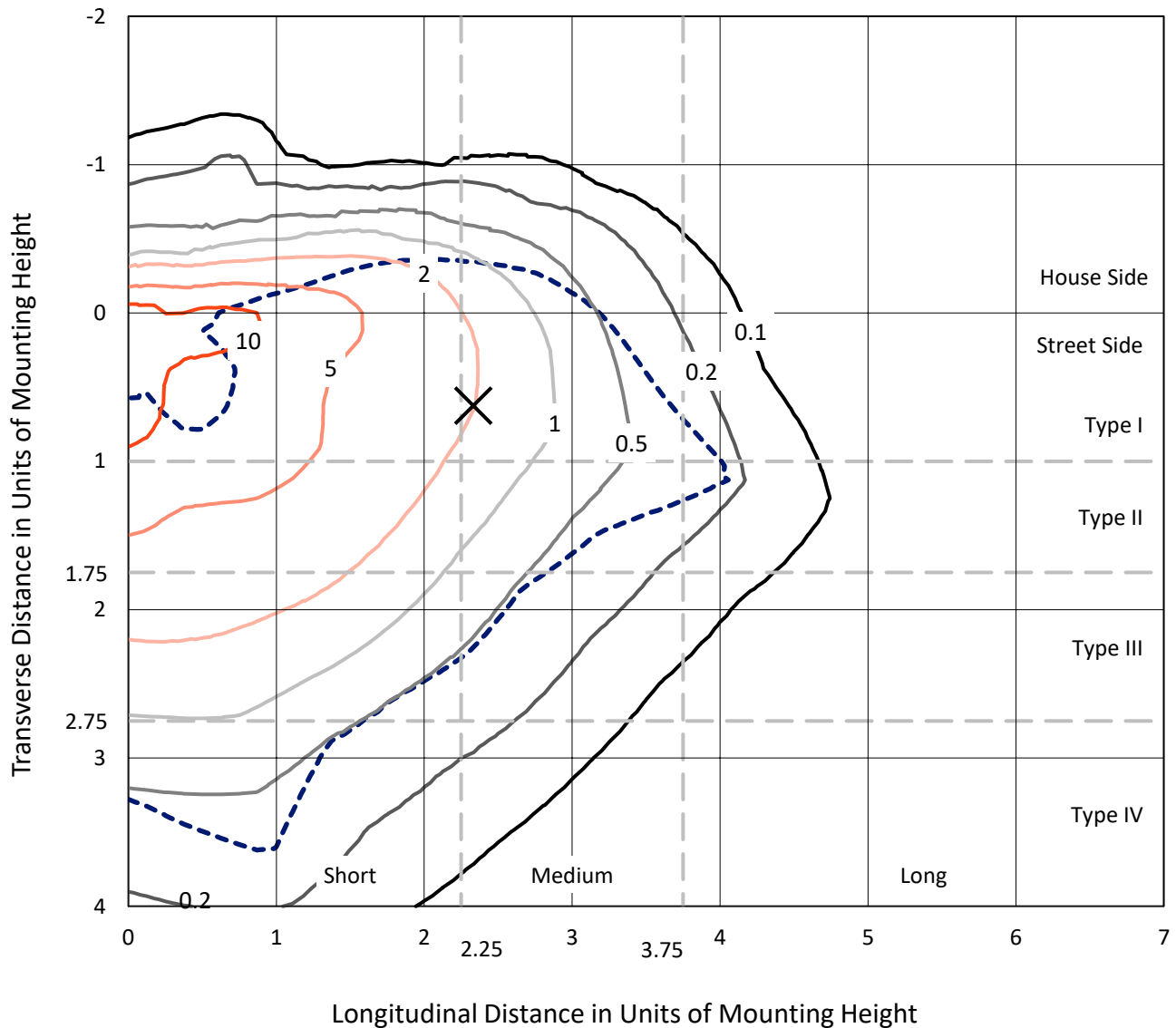


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## Iso-Footcandle Lines of Horizontal Illumination

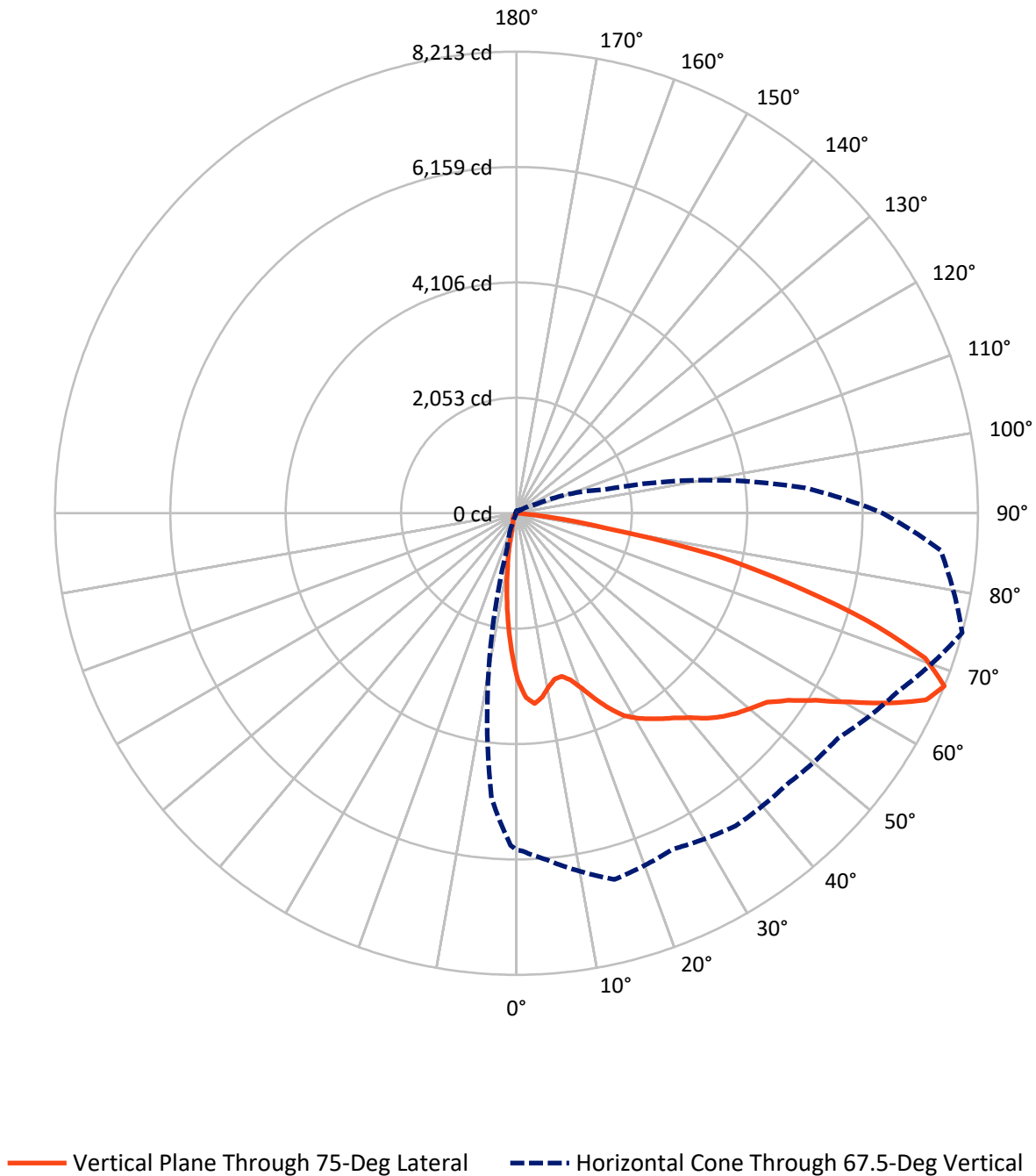
× Max cd  
- - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 17.1 fc  
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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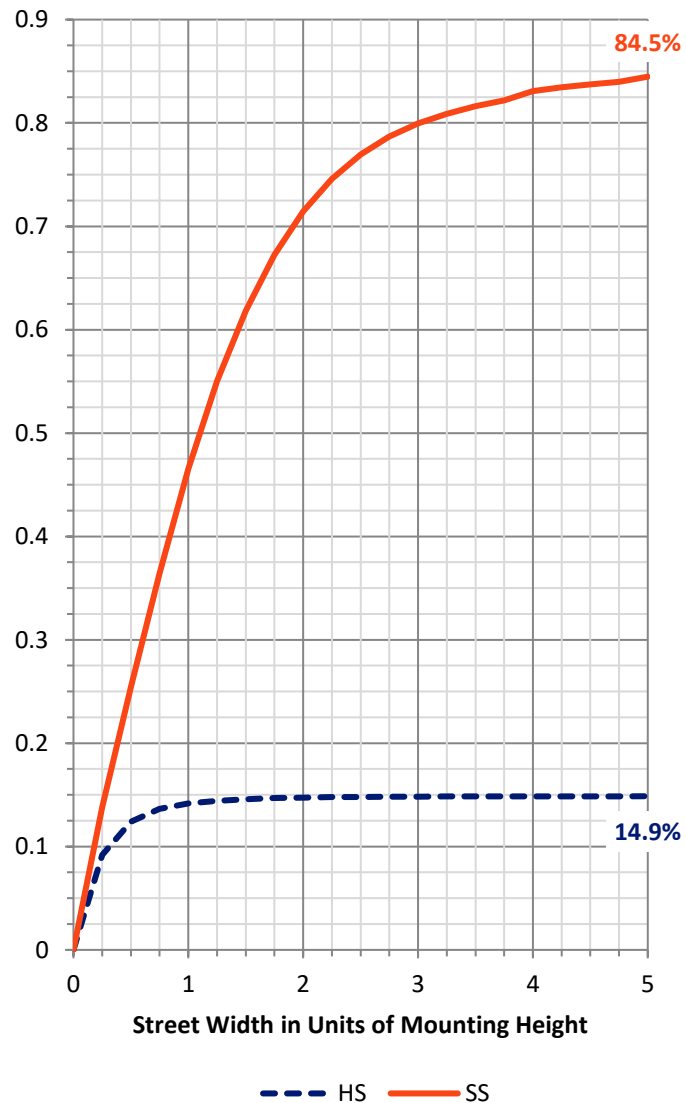
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1326.8   | 0.0    | 1326.8 |
|                    | % Fixture | 15.0     | 0.0    | 15.0   |
| <b>Street Side</b> | Lumens    | 7515.2   | 0.0    | 7515.2 |
|                    | % Fixture | 85.0     | 0.0    | 85.0   |
| <b>Total</b>       | Lumens    | 8842.0   | 0.0    | 8842.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 225.0  | 2.5       |
| 10°-20°   | 443.0  | 5.0       |
| 20°-30°   | 626.8  | 7.1       |
| 30°-40°   | 921.6  | 10.4      |
| 40°-50°   | 1324.6 | 15.0      |
| 50°-60°   | 1864.7 | 21.1      |
| 60°-70°   | 2177.8 | 24.6      |
| 70°-80°   | 1111.0 | 12.6      |
| 80°-90°   | 147.6  | 1.7       |
| 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°    | 8842.0 | 100.0     |
| 0°-180°   | 8842.0 | 100.0     |

**Coefficient of Utilization**



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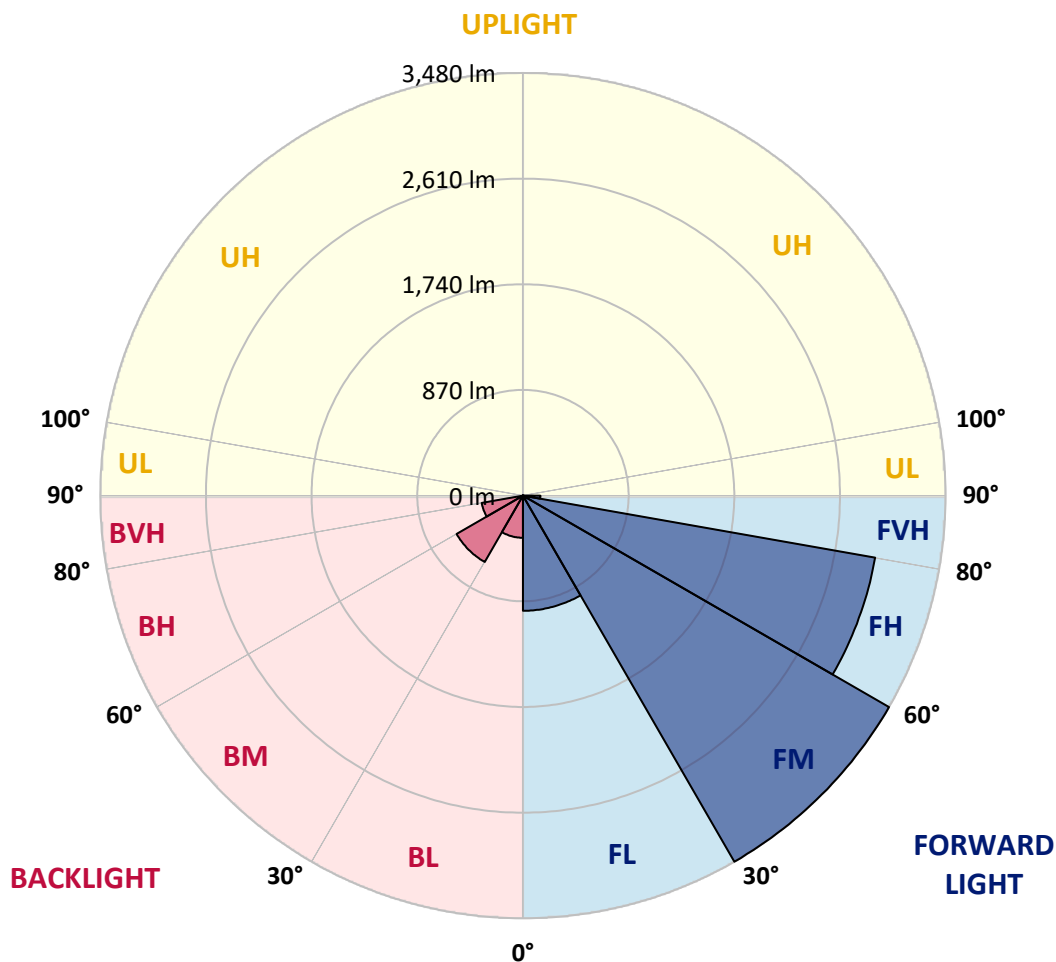
CATALOG NUMBER: GWC-SA2B-760-U-SLL-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 947.9  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 3480.1 | 39.4      |                         |      |         |
| FH   | (60°-80°)   | 2944.1 | 33.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 143.1  | 1.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 347.0  | 3.9       | B1/500                  |      |         |
| BM   | (30°-60°)   | 630.7  | 7.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 344.6  | 3.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 4.5    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 1°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 |
| 2.5°  | 3215.6 | 3220.6 | 3246.6 | 3306.9 | 3372.6 | 3377.7 | 3422.1 | 3376.4 | 3360.9 | 3287.2 | 3211.0 |
| 5°    | 3239.9 | 3259.1 | 3348.3 | 3525.5 | 3679.2 | 3728.7 | 3763.8 | 3674.2 | 3580.0 | 3399.9 | 3207.6 |
| 7.5°  | 3044.2 | 3076.5 | 3216.8 | 3549.4 | 3824.2 | 3945.6 | 3968.7 | 3828.3 | 3597.6 | 3301.0 | 3012.0 |
| 10°   | 2793.8 | 2830.6 | 2999.8 | 3408.7 | 3786.0 | 3994.2 | 4026.0 | 3842.2 | 3510.4 | 3141.0 | 2800.5 |
| 12.5° | 2591.0 | 2634.2 | 2807.2 | 3250.3 | 3654.9 | 3885.3 | 3948.1 | 3795.7 | 3435.0 | 3027.5 | 2656.0 |
| 15°   | 2497.6 | 2547.1 | 2728.8 | 3148.1 | 3509.6 | 3691.0 | 3742.9 | 3677.1 | 3393.2 | 3009.5 | 2622.5 |
| 17.5° | 2551.3 | 2604.9 | 2792.5 | 3156.9 | 3373.0 | 3450.5 | 3492.4 | 3519.2 | 3393.2 | 3118.0 | 2720.5 |
| 20°   | 2771.2 | 2829.0 | 3027.5 | 3246.1 | 3260.0 | 3231.1 | 3275.9 | 3370.1 | 3432.5 | 3324.0 | 2955.9 |
| 22.5° | 3075.2 | 3143.1 | 3367.2 | 3399.0 | 3204.7 | 3095.3 | 3101.2 | 3249.1 | 3504.2 | 3585.4 | 3282.6 |
| 25°   | 3445.9 | 3528.9 | 3756.7 | 3626.9 | 3227.7 | 3014.5 | 3012.4 | 3149.4 | 3574.1 | 3847.2 | 3646.6 |
| 27.5° | 3814.1 | 3905.4 | 4105.6 | 3905.0 | 3322.8 | 2999.8 | 2995.7 | 3119.2 | 3642.4 | 4080.1 | 4044.1 |
| 30°   | 4122.8 | 4211.6 | 4384.2 | 4106.5 | 3425.4 | 3034.2 | 3014.1 | 3151.5 | 3683.0 | 4231.3 | 4333.9 |
| 32.5° | 4374.1 | 4445.3 | 4584.8 | 4245.1 | 3535.1 | 3100.8 | 3057.2 | 3237.8 | 3752.1 | 4359.0 | 4600.3 |
| 35°   | 4650.6 | 4725.5 | 4781.2 | 4377.0 | 3658.3 | 3196.7 | 3134.3 | 3374.7 | 3858.5 | 4488.9 | 4892.2 |
| 37.5° | 4966.0 | 5040.5 | 5033.8 | 4497.7 | 3814.5 | 3355.5 | 3315.7 | 3591.7 | 4024.0 | 4617.5 | 5218.1 |
| 40°   | 5274.7 | 5350.9 | 5296.4 | 4629.6 | 3998.0 | 3617.2 | 3587.9 | 3917.6 | 4245.5 | 4782.1 | 5600.1 |
| 42.5° | 5563.7 | 5646.2 | 5529.7 | 4754.4 | 4216.6 | 3947.3 | 3997.6 | 4337.3 | 4522.8 | 4984.8 | 5929.3 |
| 45°   | 5796.6 | 5880.7 | 5725.3 | 4875.9 | 4447.0 | 4347.7 | 4498.9 | 4802.2 | 4856.2 | 5156.1 | 6151.7 |
| 47.5° | 5965.8 | 6045.4 | 5861.1 | 4997.4 | 4741.9 | 4837.4 | 5100.8 | 5289.7 | 5157.4 | 5304.8 | 6309.7 |
| 50°   | 6073.8 | 6135.8 | 5900.8 | 5149.4 | 5128.9 | 5408.7 | 5727.9 | 5820.0 | 5440.9 | 5438.8 | 6501.5 |
| 52.5° | 6142.5 | 6170.6 | 5930.2 | 5308.2 | 5532.7 | 6030.7 | 6341.9 | 6370.8 | 5732.9 | 5586.3 | 6759.9 |
| 55°   | 6379.2 | 6401.8 | 6137.9 | 5500.4 | 5866.5 | 6575.6 | 6897.3 | 6870.5 | 6063.4 | 5874.9 | 7064.8 |
| 57.5° | 6783.0 | 6806.8 | 6567.2 | 5776.9 | 6136.7 | 6912.4 | 7299.8 | 7348.0 | 6450.8 | 6280.3 | 7391.6 |
| 60°   | 6985.7 | 7030.1 | 6944.6 | 6127.0 | 6398.4 | 7127.7 | 7574.2 | 7727.9 | 6935.0 | 6814.8 | 7708.2 |
| 62.5° | 6801.8 | 6866.3 | 6990.3 | 6515.3 | 6658.6 | 7246.2 | 7659.6 | 7864.0 | 7430.9 | 7437.6 | 7903.4 |
| 65°   | 6434.9 | 6486.4 | 6696.7 | 6728.1 | 6809.3 | 7231.6 | 7448.5 | 7673.9 | 7734.6 | 8009.8 | 7892.9 |
| 67.5° | 5991.7 | 6011.0 | 6189.4 | 6744.8 | 6590.7 | 6790.9 | 6814.4 | 6981.1 | 7494.6 | 8212.5 | 7575.9 |
| 70°   | 5353.8 | 5364.3 | 5520.1 | 6184.0 | 5663.8 | 5707.8 | 5673.0 | 5706.9 | 6443.3 | 7718.7 | 6775.4 |
| 72.5° | 4308.8 | 4335.2 | 4556.7 | 5135.6 | 4126.2 | 3999.2 | 4272.3 | 4257.3 | 4962.2 | 6521.2 | 5032.1 |
| 75°   | 3172.4 | 3218.1 | 3552.7 | 4136.6 | 2896.0 | 2619.5 | 2818.9 | 2872.1 | 3527.6 | 5044.3 | 3146.9 |
| 77.5° | 2221.2 | 2255.1 | 2579.3 | 3040.9 | 2096.0 | 1873.1 | 1801.1 | 1864.3 | 2328.4 | 3649.1 | 1585.4 |
| 80°   | 1279.6 | 1292.2 | 1499.1 | 1755.8 | 1412.4 | 1615.9 | 1463.9 | 1507.5 | 1395.2 | 1623.5 | 681.9  |
| 82.5° | 837.3  | 839.4  | 920.2  | 1045.0 | 879.6  | 1022.0 | 756.5  | 967.1  | 858.2  | 652.2  | 222.0  |
| 85°   | 452.4  | 454.9  | 533.6  | 741.8  | 498.0  | 281.5  | 165.4  | 339.7  | 530.7  | 149.5  | 60.7   |
| 87.5° | 49.8   | 45.7   | 160.8  | 269.7  | 138.2  | 25.6   | 8.8    | 38.1   | 85.0   | 9.6    | 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    |

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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 |
| 2.5°  | 3172.0 | 3137.2 | 3050.5 | 2958.8 | 2885.1 | 2816.0 | 2746.4 | 2661.4 | 2595.7 | 2582.2 | 2560.5 |
| 5°    | 3104.1 | 2994.0 | 2812.2 | 2629.6 | 2482.6 | 2297.0 | 2179.3 | 2087.6 | 1997.9 | 1992.5 | 1974.5 |
| 7.5°  | 2867.1 | 2722.1 | 2466.2 | 2213.7 | 2006.7 | 1830.0 | 1651.6 | 1532.2 | 1438.4 | 1405.3 | 1385.6 |
| 10°   | 2639.2 | 2476.3 | 2156.7 | 1868.5 | 1683.8 | 1527.6 | 1401.9 | 1277.1 | 1164.0 | 1086.1 | 1050.9 |
| 12.5° | 2480.0 | 2299.9 | 1947.7 | 1699.3 | 1566.9 | 1418.7 | 1265.4 | 1109.6 | 979.3  | 885.5  | 828.1  |
| 15°   | 2418.5 | 2226.2 | 1877.7 | 1632.3 | 1468.9 | 1281.3 | 1085.3 | 907.2  | 762.7  | 677.7  | 626.2  |
| 17.5° | 2491.8 | 2268.1 | 1872.3 | 1550.6 | 1322.3 | 1089.0 | 872.5  | 662.2  | 526.1  | 461.6  | 428.5  |
| 20°   | 2677.7 | 2401.3 | 1870.2 | 1450.5 | 1148.1 | 861.2  | 591.0  | 435.6  | 353.1  | 317.1  | 301.6  |
| 22.5° | 2940.8 | 2571.4 | 1886.9 | 1351.6 | 966.7  | 615.3  | 408.0  | 320.0  | 277.7  | 258.4  | 249.6  |
| 25°   | 3279.2 | 2810.1 | 1934.3 | 1262.0 | 796.2  | 459.1  | 317.9  | 268.1  | 238.3  | 223.3  | 217.0  |
| 27.5° | 3639.9 | 3084.9 | 2008.0 | 1184.1 | 657.6  | 366.1  | 272.3  | 229.5  | 208.2  | 197.7  | 191.8  |
| 30°   | 3937.2 | 3403.2 | 2082.6 | 1097.4 | 557.1  | 319.2  | 249.2  | 209.4  | 184.7  | 178.0  | 172.6  |
| 32.5° | 4197.4 | 3644.0 | 2135.3 | 1019.1 | 491.3  | 283.6  | 225.3  | 187.2  | 170.5  | 157.5  | 151.6  |
| 35°   | 4466.7 | 3844.7 | 2133.7 | 964.2  | 446.1  | 256.8  | 205.2  | 167.5  | 147.4  | 132.4  | 127.8  |
| 37.5° | 4758.2 | 4071.3 | 2097.2 | 917.3  | 426.4  | 235.4  | 193.9  | 157.1  | 137.0  | 121.9  | 116.0  |
| 40°   | 5099.6 | 4309.2 | 2059.9 | 873.3  | 421.0  | 218.2  | 186.0  | 148.7  | 127.3  | 112.7  | 106.8  |
| 42.5° | 5432.1 | 4523.6 | 2027.3 | 840.6  | 397.5  | 217.8  | 178.9  | 142.4  | 119.8  | 105.6  | 98.9   |
| 45°   | 5698.1 | 4723.4 | 2021.0 | 821.0  | 372.8  | 225.3  | 175.1  | 138.2  | 113.9  | 99.7   | 93.4   |
| 47.5° | 5919.3 | 4940.4 | 2061.2 | 807.1  | 349.3  | 205.7  | 184.3  | 135.3  | 108.5  | 94.7   | 87.5   |
| 50°   | 6182.3 | 5206.8 | 2155.9 | 784.5  | 324.6  | 185.1  | 211.1  | 136.1  | 103.9  | 89.6   | 82.1   |
| 52.5° | 6549.2 | 5575.4 | 2294.9 | 746.4  | 290.7  | 166.3  | 207.8  | 137.0  | 98.9   | 84.2   | 76.7   |
| 55°   | 6960.6 | 6035.7 | 2444.4 | 683.2  | 243.4  | 141.6  | 178.0  | 131.1  | 89.2   | 78.3   | 71.2   |
| 57.5° | 7392.8 | 6453.3 | 2533.2 | 607.8  | 193.5  | 122.3  | 142.4  | 119.4  | 78.7   | 70.4   | 65.8   |
| 60°   | 7460.7 | 6612.1 | 2492.6 | 515.2  | 153.7  | 106.4  | 105.6  | 121.5  | 70.4   | 62.0   | 58.6   |
| 62.5° | 7291.9 | 6412.7 | 2296.2 | 432.7  | 128.6  | 93.4   | 86.7   | 106.0  | 63.7   | 55.3   | 51.9   |
| 65°   | 6967.3 | 5873.6 | 1977.8 | 390.0  | 119.4  | 80.0   | 72.0   | 74.6   | 55.7   | 48.2   | 45.2   |
| 67.5° | 6515.7 | 5154.0 | 1623.9 | 365.7  | 118.1  | 68.7   | 61.6   | 56.5   | 48.2   | 41.9   | 39.4   |
| 70°   | 5592.6 | 4293.7 | 1295.5 | 352.3  | 114.8  | 57.8   | 51.9   | 46.1   | 40.2   | 35.6   | 33.5   |
| 72.5° | 4116.1 | 3042.6 | 1007.8 | 337.6  | 115.6  | 46.1   | 45.2   | 38.1   | 32.3   | 27.6   | 26.8   |
| 75°   | 2378.3 | 1738.3 | 661.0  | 273.5  | 110.2  | 35.6   | 37.7   | 26.8   | 22.6   | 19.3   | 19.3   |
| 77.5° | 1267.5 | 1060.1 | 251.7  | 113.9  | 40.2   | 22.6   | 21.4   | 15.9   | 14.2   | 11.7   | 11.3   |
| 80°   | 552.5  | 466.6  | 75.8   | 31.8   | 22.2   | 12.1   | 8.0    | 7.1    | 6.3    | 5.0    | 4.6    |
| 82.5° | 195.6  | 168.8  | 24.7   | 15.5   | 9.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 44.4   | 31.8   | 0.0    | 3.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 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    |



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**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 |
| 2.5°  | 2516.1 | 2506.9 | 2452.4 | 2454.5 | 2464.1 | 2478.0 | 2445.3 | 2460.4 | 2501.0 | 2539.9 | 2554.6 |
| 5°    | 1945.6 | 1947.7 | 1914.6 | 1935.1 | 1953.5 | 1966.1 | 1913.3 | 1914.2 | 1946.4 | 1990.4 | 2013.4 |
| 7.5°  | 1370.9 | 1367.6 | 1369.2 | 1418.2 | 1453.0 | 1427.9 | 1447.6 | 1379.3 | 1383.5 | 1414.9 | 1391.4 |
| 10°   | 1019.1 | 973.0  | 947.0  | 983.9  | 1022.0 | 1008.2 | 974.3  | 952.1  | 967.6  | 1002.3 | 999.8  |
| 12.5° | 800.9  | 734.7  | 695.7  | 669.3  | 700.7  | 674.8  | 673.9  | 654.7  | 633.7  | 637.5  | 693.2  |
| 15°   | 602.3  | 554.1  | 508.1  | 465.8  | 464.9  | 456.1  | 411.3  | 361.1  | 356.9  | 359.4  | 388.3  |
| 17.5° | 414.2  | 397.9  | 379.1  | 342.6  | 333.0  | 296.1  | 252.6  | 232.5  | 222.4  | 227.0  | 236.7  |
| 20°   | 291.1  | 284.8  | 286.9  | 267.2  | 253.4  | 218.2  | 192.7  | 184.7  | 183.0  | 187.6  | 192.3  |
| 22.5° | 241.3  | 230.0  | 228.7  | 219.9  | 206.1  | 180.5  | 166.7  | 162.1  | 160.0  | 164.2  | 167.5  |
| 25°   | 211.1  | 199.8  | 195.2  | 189.7  | 175.1  | 157.5  | 149.1  | 144.9  | 142.8  | 145.3  | 147.4  |
| 27.5° | 186.0  | 175.5  | 171.3  | 167.5  | 153.3  | 140.7  | 134.0  | 130.3  | 128.6  | 129.4  | 131.5  |
| 30°   | 167.1  | 157.9  | 152.5  | 147.9  | 135.7  | 126.9  | 121.0  | 117.3  | 115.6  | 115.6  | 117.7  |
| 32.5° | 147.4  | 142.4  | 137.4  | 131.5  | 120.2  | 114.3  | 108.5  | 104.3  | 102.6  | 103.0  | 104.7  |
| 35°   | 122.7  | 121.0  | 122.3  | 116.9  | 107.2  | 102.2  | 96.3   | 91.7   | 90.5   | 90.9   | 92.6   |
| 37.5° | 108.9  | 101.4  | 106.0  | 103.0  | 97.6   | 90.9   | 83.4   | 79.2   | 77.1   | 78.3   | 79.2   |
| 40°   | 100.1  | 90.9   | 87.5   | 90.5   | 89.6   | 78.7   | 72.0   | 67.9   | 66.2   | 66.6   | 67.4   |
| 42.5° | 92.6   | 81.7   | 74.1   | 73.7   | 78.7   | 68.7   | 61.6   | 57.8   | 55.7   | 55.7   | 56.5   |
| 45°   | 85.4   | 73.7   | 64.5   | 57.4   | 66.2   | 58.2   | 51.5   | 48.2   | 45.7   | 45.7   | 46.1   |
| 47.5° | 80.0   | 67.0   | 56.1   | 46.9   | 49.8   | 47.7   | 42.3   | 39.0   | 36.4   | 36.4   | 36.9   |
| 50°   | 75.0   | 60.3   | 48.6   | 39.4   | 37.3   | 39.4   | 34.3   | 30.6   | 28.9   | 28.5   | 29.3   |
| 52.5° | 69.5   | 53.6   | 41.5   | 33.5   | 29.3   | 29.7   | 26.8   | 24.3   | 22.2   | 22.2   | 23.0   |
| 55°   | 64.1   | 48.2   | 36.0   | 28.5   | 24.3   | 22.2   | 21.4   | 19.7   | 18.0   | 18.0   | 18.8   |
| 57.5° | 58.6   | 42.3   | 30.6   | 23.5   | 19.3   | 17.6   | 17.6   | 16.3   | 15.1   | 15.1   | 15.9   |
| 60°   | 53.6   | 36.4   | 25.1   | 19.3   | 15.1   | 14.7   | 15.1   | 13.8   | 13.0   | 13.0   | 13.8   |
| 62.5° | 47.7   | 31.0   | 20.5   | 15.9   | 12.1   | 11.7   | 13.0   | 12.1   | 11.3   | 11.3   | 12.1   |
| 65°   | 40.6   | 26.4   | 16.3   | 12.1   | 9.2    | 9.2    | 10.9   | 10.1   | 9.2    | 9.2    | 10.1   |
| 67.5° | 34.3   | 22.2   | 12.6   | 8.8    | 6.7    | 7.1    | 9.2    | 8.4    | 8.0    | 8.0    | 8.8    |
| 70°   | 28.5   | 17.2   | 8.8    | 5.4    | 3.8    | 5.4    | 7.1    | 7.1    | 7.1    | 7.1    | 8.0    |
| 72.5° | 21.4   | 11.7   | 5.0    | 2.1    | 1.7    | 3.8    | 5.9    | 6.7    | 6.3    | 6.3    | 7.5    |
| 75°   | 13.8   | 6.7    | 1.7    | 0.0    | 0.0    | 2.1    | 4.6    | 5.4    | 5.4    | 5.0    | 6.3    |
| 77.5° | 8.0    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 2.9    | 2.5    | 2.1    | 1.7    | 2.9    |
| 80°   | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 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: P386670

CATALOG NUMBER: GWC-SA2B-760-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 | 2966.3 |
| 2.5°  | 2613.7 | 2663.1 | 2732.6 | 2806.3 | 2919.8 | 3009.9 | 3098.3 | 3174.1 | 3203.4 | 3215.6 |
| 5°    | 2068.7 | 2141.2 | 2243.0 | 2373.7 | 2578.5 | 2762.8 | 2949.6 | 3137.7 | 3219.3 | 3239.9 |
| 7.5°  | 1484.4 | 1577.0 | 1706.4 | 1870.2 | 2110.2 | 2348.9 | 2609.9 | 2885.9 | 3012.4 | 3044.2 |
| 10°   | 1098.7 | 1211.8 | 1360.0 | 1532.6 | 1761.7 | 2007.2 | 2291.6 | 2607.0 | 2751.5 | 2793.8 |
| 12.5° | 779.5  | 932.4  | 1130.9 | 1340.8 | 1539.3 | 1758.4 | 2046.1 | 2393.8 | 2545.4 | 2591.0 |
| 15°   | 457.8  | 605.7  | 840.6  | 1121.7 | 1375.9 | 1597.9 | 1890.3 | 2284.4 | 2451.6 | 2497.6 |
| 17.5° | 262.6  | 336.3  | 513.9  | 827.2  | 1172.4 | 1479.8 | 1841.3 | 2311.7 | 2508.5 | 2551.3 |
| 20°   | 200.6  | 224.1  | 296.1  | 532.8  | 934.5  | 1363.8 | 1841.3 | 2465.8 | 2708.3 | 2771.2 |
| 22.5° | 175.5  | 192.7  | 222.0  | 317.9  | 687.8  | 1239.4 | 1862.7 | 2688.6 | 3005.7 | 3075.2 |
| 25°   | 155.8  | 171.3  | 196.4  | 239.2  | 469.1  | 1091.5 | 1913.3 | 2962.2 | 3355.9 | 3445.9 |
| 27.5° | 139.5  | 154.1  | 176.8  | 209.4  | 320.8  | 913.1  | 1981.6 | 3283.0 | 3742.1 | 3814.1 |
| 30°   | 124.8  | 138.6  | 159.2  | 182.2  | 247.5  | 710.8  | 2039.8 | 3585.4 | 4045.3 | 4122.8 |
| 32.5° | 111.0  | 123.6  | 142.0  | 159.2  | 202.7  | 525.7  | 2046.1 | 3825.0 | 4297.0 | 4374.1 |
| 35°   | 98.0   | 109.3  | 126.1  | 139.5  | 168.0  | 415.1  | 1948.5 | 4032.7 | 4548.8 | 4650.6 |
| 37.5° | 85.4   | 96.3   | 111.0  | 121.0  | 147.9  | 338.4  | 1799.4 | 4264.4 | 4871.7 | 4966.0 |
| 40°   | 73.7   | 83.4   | 98.4   | 105.1  | 139.9  | 260.1  | 1637.3 | 4507.3 | 5188.4 | 5274.7 |
| 42.5° | 62.8   | 72.0   | 86.7   | 99.7   | 122.7  | 194.3  | 1462.2 | 4735.2 | 5473.2 | 5563.7 |
| 45°   | 52.4   | 62.0   | 76.7   | 105.6  | 101.8  | 145.3  | 1275.0 | 4886.4 | 5698.1 | 5796.6 |
| 47.5° | 42.3   | 53.2   | 73.3   | 100.5  | 81.3   | 106.8  | 1126.7 | 5029.6 | 5868.6 | 5965.8 |
| 50°   | 33.9   | 44.8   | 82.5   | 89.6   | 66.6   | 81.7   | 1064.7 | 5157.8 | 5980.4 | 6073.8 |
| 52.5° | 27.6   | 37.7   | 77.9   | 68.7   | 55.7   | 67.4   | 1098.2 | 5365.5 | 6083.9 | 6142.5 |
| 55°   | 23.0   | 29.7   | 46.9   | 47.7   | 47.3   | 57.4   | 1139.7 | 5663.8 | 6351.5 | 6379.2 |
| 57.5° | 20.1   | 23.9   | 32.7   | 36.9   | 39.8   | 51.1   | 1140.5 | 6091.8 | 6765.8 | 6783.0 |
| 60°   | 17.2   | 20.9   | 27.2   | 29.7   | 34.3   | 45.7   | 1099.1 | 6241.4 | 6928.7 | 6985.7 |
| 62.5° | 15.1   | 18.4   | 22.6   | 24.7   | 28.9   | 41.0   | 1001.9 | 6024.8 | 6705.1 | 6801.8 |
| 65°   | 13.4   | 16.8   | 18.8   | 20.9   | 25.6   | 36.9   | 841.9  | 5591.7 | 6333.9 | 6434.9 |
| 67.5° | 11.7   | 14.7   | 16.8   | 18.8   | 23.0   | 32.7   | 619.9  | 5088.7 | 5908.0 | 5991.7 |
| 70°   | 10.5   | 13.0   | 15.1   | 16.8   | 20.1   | 27.6   | 376.1  | 4318.0 | 5319.1 | 5353.8 |
| 72.5° | 10.1   | 11.7   | 13.8   | 15.1   | 17.6   | 24.3   | 190.6  | 3173.3 | 4252.2 | 4308.8 |
| 75°   | 8.8    | 10.5   | 12.6   | 13.4   | 15.5   | 20.9   | 77.5   | 2084.2 | 3081.5 | 3172.4 |
| 77.5° | 7.1    | 9.6    | 11.3   | 12.1   | 13.4   | 17.2   | 39.4   | 1332.0 | 2162.6 | 2221.2 |
| 80°   | 2.5    | 7.1    | 9.6    | 10.1   | 11.3   | 12.6   | 26.0   | 729.2  | 1254.5 | 1279.6 |
| 82.5° | 0.0    | 4.6    | 7.5    | 7.1    | 8.0    | 9.6    | 16.8   | 346.8  | 828.1  | 837.3  |
| 85°   | 0.0    | 2.1    | 5.9    | 4.6    | 3.4    | 6.7    | 5.9    | 75.8   | 434.4  | 452.4  |
| 87.5° | 0.0    | 0.0    | 0.4    | 2.1    | 1.7    | 2.5    | 0.8    | 0.4    | 39.4   | 49.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

INVUE

Report Number: SP1-2012-088-5-R3

Luminaire Tested: CCW-SA1A-760-U-SL2-HSS

Test Date: 01/19/2021

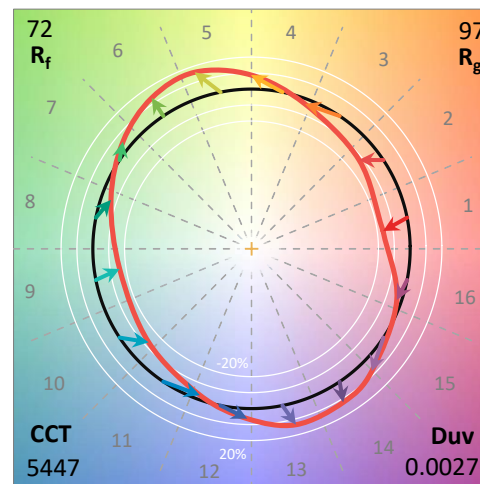
### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2012-088-5-R3  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 01/19/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: INVUE  
 Catalog Number: **CCW-SA1A-760-U-SL2-HSS**  
 Description: INVUE WALL PACK

\*\*\*THIS IS A REVISION OF SP1-2012-088-5-R2. TO UPDATE THE CATALOG  
 INFORMATION.\*\*\*TESTED IN SITU. INVUE WALL PACK LIGHT SQUARE T2 OPTICS 1-SQUARE WITH  
 HOUSE SIDE SHIELD

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 5447   | CRI (Ra): | 71.9 |      |       |
| CIE u':                   | 0.2053 | R1:       | 70.7 | R9:  | -27.5 |
| CIE v':                   | 0.4809 | R2:       | 74.8 | R10: | 41.5  |
| Duv:                      | 0.0027 | R3:       | 78.7 | R11: | 74.9  |
| CIE x:                    | 0.3337 | R4:       | 74.0 | R12: | 49.9  |
| CIE y:                    | 0.3473 | R5:       | 72.5 | R13: | 70.2  |
| CIE z:                    | 0.3190 | R6:       | 67.7 | R14: | 88.1  |
| Peak Wavelength (nm):     | 443    | R7:       | 77.7 |      |       |
| Dominant Wavelength (nm): | 556    | R8:       | 58.8 |      |       |
| Purity:                   | 4.5    |           |      |      |       |
| Rf:                       | 72.3   |           |      |      |       |
| Rg:                       | 97.2   |           |      |      |       |



### Test Conditions

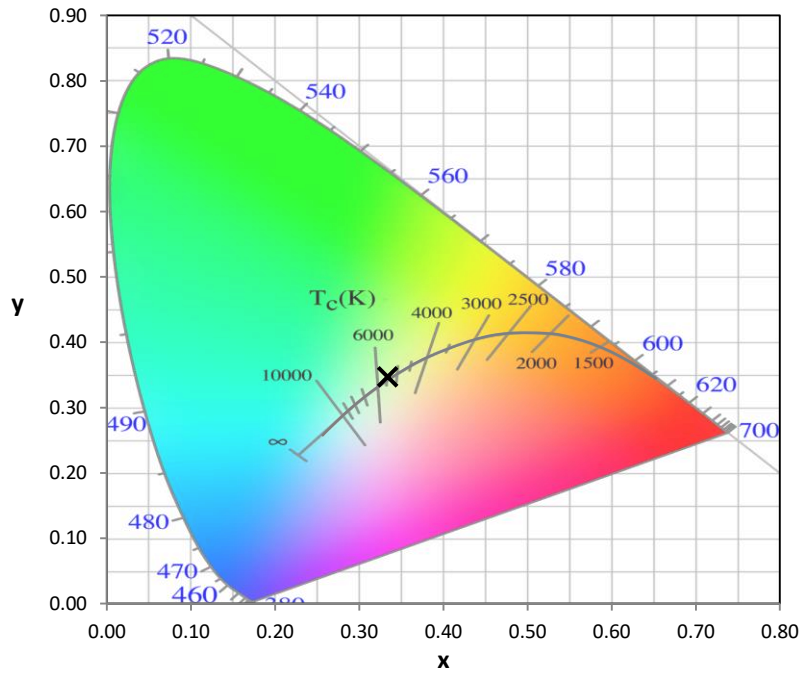
Stabilization Time: 75M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.4/18%  
 Sphere Temperature (°C): 25.3

REPORT NUMBER: SP1-2012-088-5-R3

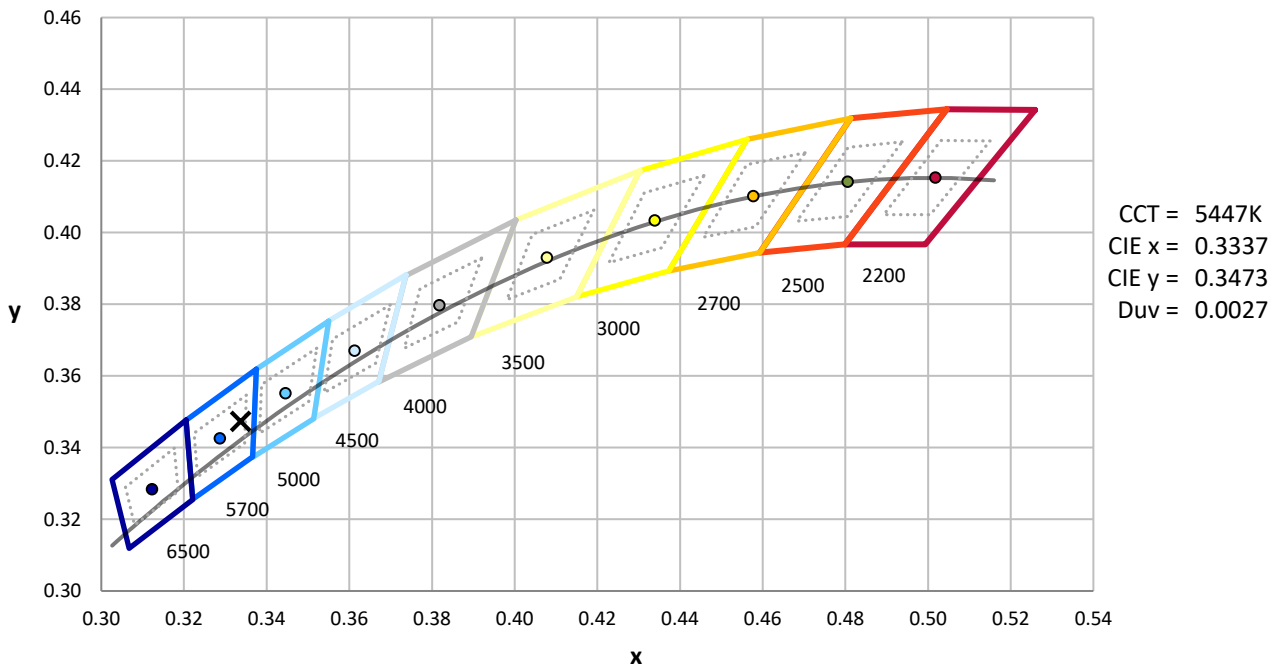
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 7/29/2020        | 1/29/2021            |
| 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: SP1-2012-088-5-R3

**CIE 1931 Chromaticity Diagram**



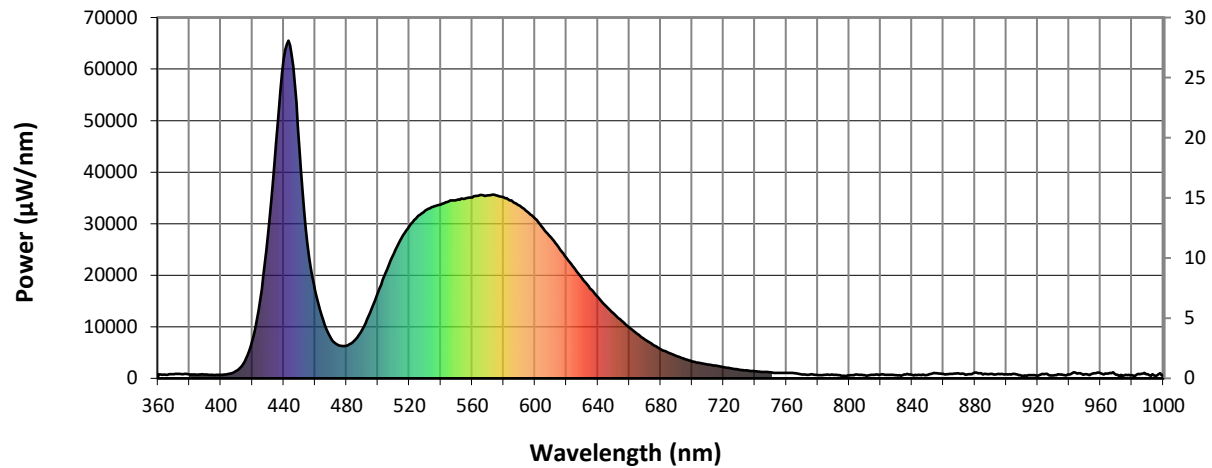
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-2012-088-5-R3

### Photopic Flux vs. Wavelength

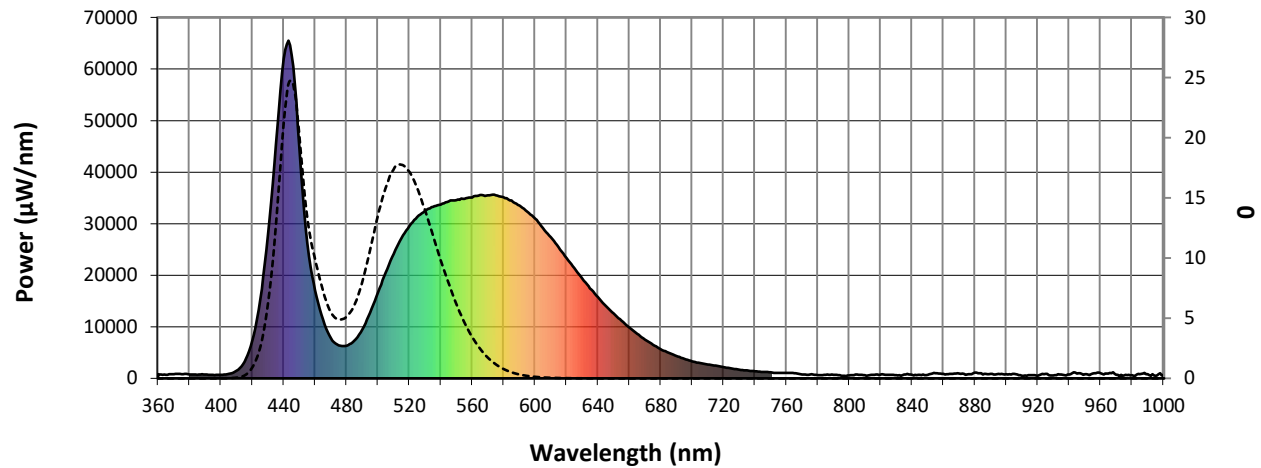


#####

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 828              | 0.0              | 490       | 9471             | 1.3              | 620       | 23317            | 6.1              | 750       | 1157             | 0.0              | 880       | 1136             | 0.0              |
| 365       | 696              | 0.0              | 495       | 12752            | 2.3              | 625       | 21413            | 4.7              | 755       | 1067             | 0.0              | 885       | 773              | 0.0              |
| 370       | 807              | 0.0              | 500       | 16685            | 3.7              | 630       | 19344            | 3.5              | 760       | 1059             | 0.0              | 890       | 872              | 0.0              |
| 375       | 837              | 0.0              | 505       | 20565            | 5.8              | 635       | 17464            | 2.6              | 765       | 1009             | 0.0              | 895       | 891              | 0.0              |
| 380       | 757              | 0.0              | 510       | 24119            | 8.3              | 640       | 15745            | 1.9              | 770       | 774              | 0.0              | 900       | 807              | 0.0              |
| 385       | 706              | 0.0              | 515       | 27181            | 11.3             | 645       | 14060            | 1.4              | 775       | 761              | 0.0              | 905       | 899              | 0.0              |
| 390       | 746              | 0.0              | 520       | 29555            | 14.3             | 650       | 12579            | 0.9              | 780       | 653              | 0.0              | 910       | 506              | 0.0              |
| 395       | 660              | 0.0              | 525       | 31307            | 16.8             | 655       | 11181            | 0.6              | 785       | 704              | 0.0              | 915       | 598              | 0.0              |
| 400       | 671              | 0.0              | 530       | 32558            | 19.2             | 660       | 9847             | 0.4              | 790       | 663              | 0.0              | 920       | 510              | 0.0              |
| 405       | 848              | 0.0              | 535       | 33301            | 20.7             | 665       | 8641             | 0.3              | 795       | 493              | 0.0              | 925       | 874              | 0.0              |
| 410       | 1490             | 0.0              | 540       | 33727            | 22.0             | 670       | 7535             | 0.2              | 800       | 584              | 0.0              | 930       | 549              | 0.0              |
| 415       | 3203             | 0.0              | 545       | 34356            | 22.9             | 675       | 6542             | 0.1              | 805       | 739              | 0.0              | 935       | 720              | 0.0              |
| 420       | 7298             | 0.0              | 550       | 34589            | 23.5             | 680       | 5664             | 0.1              | 810       | 601              | 0.0              | 940       | 754              | 0.0              |
| 425       | 15315            | 0.1              | 555       | 34855            | 23.8             | 685       | 4962             | 0.0              | 815       | 677              | 0.0              | 945       | 931              | 0.0              |
| 430       | 27886            | 0.2              | 560       | 35083            | 23.8             | 690       | 4369             | 0.0              | 820       | 726              | 0.0              | 950       | 811              | 0.0              |
| 435       | 45485            | 0.5              | 565       | 35553            | 23.6             | 695       | 3785             | 0.0              | 825       | 693              | 0.0              | 955       | 955              | 0.0              |
| 440       | 61965            | 1.0              | 570       | 35511            | 23.1             | 700       | 3318             | 0.0              | 830       | 619              | 0.0              | 960       | 1025             | 0.0              |
| 445       | 62721            | 1.3              | 575       | 35515            | 22.1             | 705       | 2962             | 0.0              | 835       | 738              | 0.0              | 965       | 916              | 0.0              |
| 450       | 44754            | 1.2              | 580       | 35114            | 20.9             | 710       | 2689             | 0.0              | 840       | 681              | 0.0              | 970       | 695              | 0.0              |
| 455       | 26152            | 0.9              | 585       | 34546            | 19.2             | 715       | 2476             | 0.0              | 845       | 691              | 0.0              | 975       | 568              | 0.0              |
| 460       | 17101            | 0.7              | 590       | 33522            | 17.3             | 720       | 2192             | 0.0              | 850       | 710              | 0.0              | 980       | 643              | 0.0              |
| 465       | 11400            | 0.6              | 595       | 32326            | 15.3             | 725       | 1939             | 0.0              | 855       | 1025             | 0.0              | 985       | 804              | 0.0              |
| 470       | 7763             | 0.5              | 600       | 30973            | 13.3             | 730       | 1698             | 0.0              | 860       | 889              | 0.0              | 990       | 812              | 0.0              |
| 475       | 6419             | 0.5              | 605       | 29160            | 11.3             | 735       | 1533             | 0.0              | 865       | 885              | 0.0              | 995       | 496              | 0.0              |
| 480       | 6330             | 0.6              | 610       | 27373            | 9.4              | 740       | 1375             | 0.0              | 870       | 905              | 0.0              | 1000      | 659              | 0.0              |
| 485       | 7299             | 0.9              | 615       | 25423            | 7.7              | 745       | 1254             | 0.0              | 875       | 739              | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2012-088-5-R3

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 1610.2

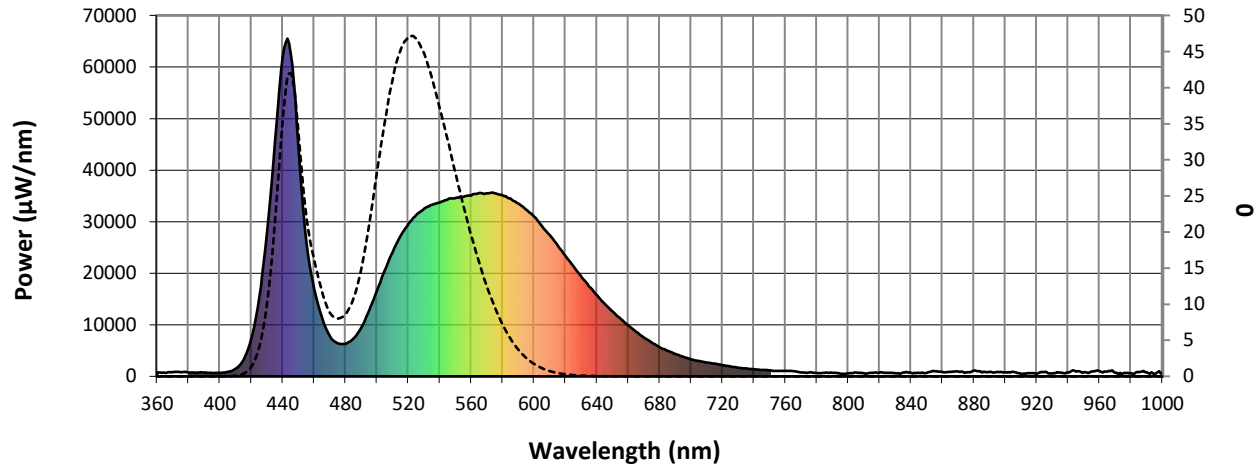
S/P: 0.74

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 828              | 0.0              | 490       | 9471             | 14.6             | 620       | 23317            | 0.3              | 750       | 1157             | 0.0              | 880       | 1136             | 0.0              |
| 365       | 696              | 0.0              | 495       | 12752            | 20.6             | 625       | 21413            | 0.2              | 755       | 1067             | 0.0              | 885       | 773              | 0.0              |
| 370       | 807              | 0.0              | 500       | 16685            | 27.9             | 630       | 19344            | 0.1              | 760       | 1059             | 0.0              | 890       | 872              | 0.0              |
| 375       | 837              | 0.0              | 505       | 20565            | 35.0             | 635       | 17464            | 0.1              | 765       | 1009             | 0.0              | 895       | 891              | 0.0              |
| 380       | 757              | 0.0              | 510       | 24119            | 40.9             | 640       | 15745            | 0.0              | 770       | 774              | 0.0              | 900       | 807              | 0.0              |
| 385       | 706              | 0.0              | 515       | 27181            | 45.1             | 645       | 14060            | 0.0              | 775       | 761              | 0.0              | 905       | 899              | 0.0              |
| 390       | 746              | 0.0              | 520       | 29555            | 47.0             | 650       | 12579            | 0.0              | 780       | 653              | 0.0              | 910       | 506              | 0.0              |
| 395       | 660              | 0.0              | 525       | 31307            | 46.8             | 655       | 11181            | 0.0              | 785       | 704              | 0.0              | 915       | 598              | 0.0              |
| 400       | 671              | 0.0              | 530       | 32558            | 44.9             | 660       | 9847             | 0.0              | 790       | 663              | 0.0              | 920       | 510              | 0.0              |
| 405       | 848              | 0.0              | 535       | 33301            | 41.5             | 665       | 8641             | 0.0              | 795       | 493              | 0.0              | 925       | 874              | 0.0              |
| 410       | 1490             | 0.1              | 540       | 33727            | 37.3             | 670       | 7535             | 0.0              | 800       | 584              | 0.0              | 930       | 549              | 0.0              |
| 415       | 3203             | 0.3              | 545       | 34356            | 32.9             | 675       | 6542             | 0.0              | 805       | 739              | 0.0              | 935       | 720              | 0.0              |
| 420       | 7298             | 1.2              | 550       | 34589            | 28.3             | 680       | 5664             | 0.0              | 810       | 601              | 0.0              | 940       | 754              | 0.0              |
| 425       | 15315            | 3.7              | 555       | 34855            | 23.8             | 685       | 4962             | 0.0              | 815       | 677              | 0.0              | 945       | 931              | 0.0              |
| 430       | 27886            | 9.5              | 560       | 35083            | 19.6             | 690       | 4369             | 0.0              | 820       | 726              | 0.0              | 950       | 811              | 0.0              |
| 435       | 45485            | 20.3             | 565       | 35553            | 16.0             | 695       | 3785             | 0.0              | 825       | 693              | 0.0              | 955       | 955              | 0.0              |
| 440       | 61965            | 34.6             | 570       | 35511            | 12.5             | 700       | 3318             | 0.0              | 830       | 619              | 0.0              | 960       | 1025             | 0.0              |
| 445       | 62721            | 42.0             | 575       | 35515            | 9.7              | 705       | 2962             | 0.0              | 835       | 738              | 0.0              | 965       | 916              | 0.0              |
| 450       | 44754            | 34.7             | 580       | 35114            | 7.2              | 710       | 2689             | 0.0              | 840       | 681              | 0.0              | 970       | 695              | 0.0              |
| 455       | 26152            | 22.9             | 585       | 34546            | 5.3              | 715       | 2476             | 0.0              | 845       | 691              | 0.0              | 975       | 568              | 0.0              |
| 460       | 17101            | 16.5             | 590       | 33522            | 3.7              | 720       | 2192             | 0.0              | 850       | 710              | 0.0              | 980       | 643              | 0.0              |
| 465       | 11400            | 12.0             | 595       | 32326            | 2.6              | 725       | 1939             | 0.0              | 855       | 1025             | 0.0              | 985       | 804              | 0.0              |
| 470       | 7763             | 8.9              | 600       | 30973            | 1.7              | 730       | 1698             | 0.0              | 860       | 889              | 0.0              | 990       | 812              | 0.0              |
| 475       | 6419             | 8.0              | 605       | 29160            | 1.1              | 735       | 1533             | 0.0              | 865       | 885              | 0.0              | 995       | 496              | 0.0              |
| 480       | 6330             | 8.5              | 610       | 27373            | 0.7              | 740       | 1375             | 0.0              | 870       | 905              | 0.0              | 1000      | 659              | 0.0              |
| 485       | 7299             | 10.6             | 615       | 25423            | 0.5              | 745       | 1254             | 0.0              | 875       | 739              | 0.0              |           |                  |                  |



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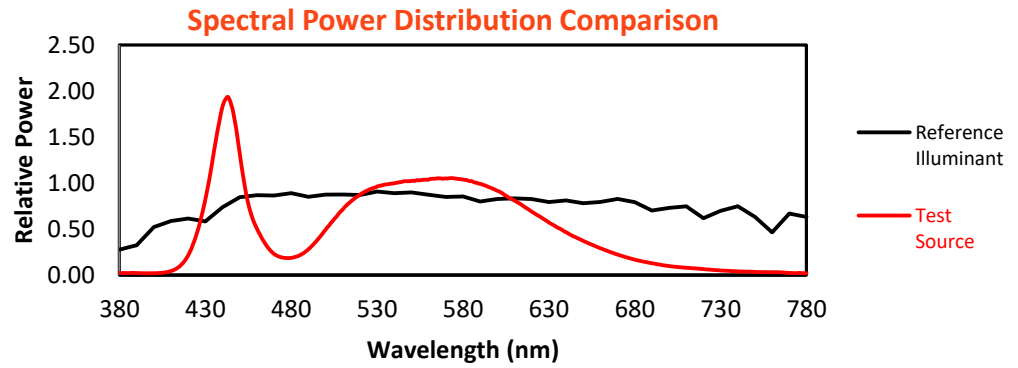
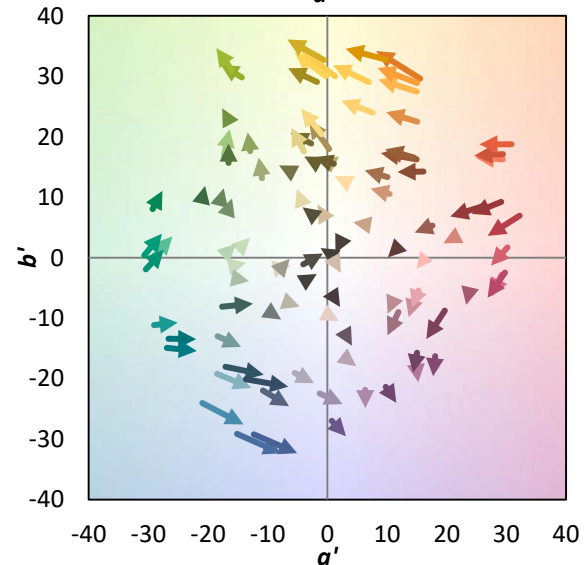
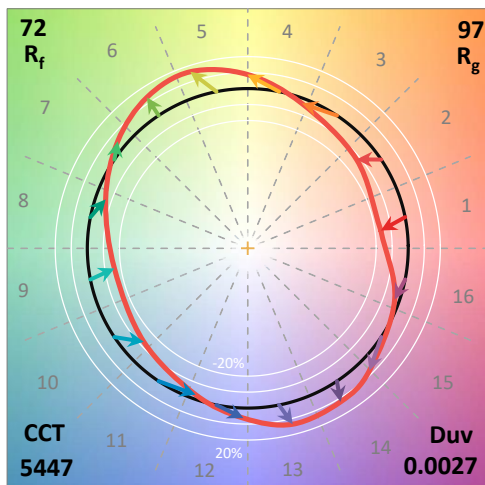
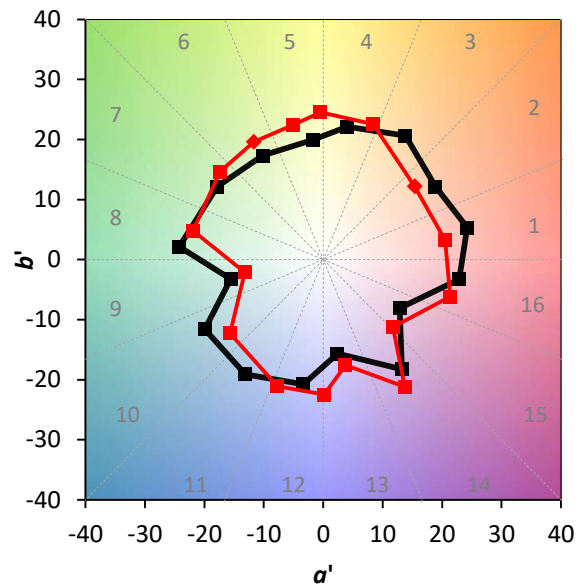
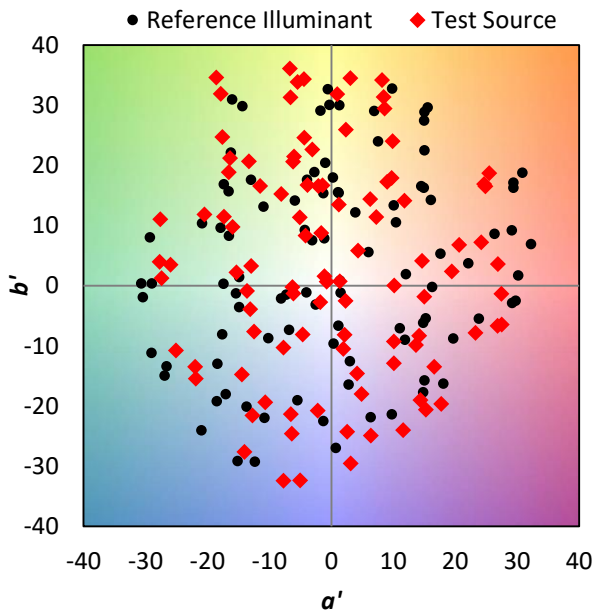
### Melanopic Flux vs. Wavelength



**Melanopic Lumens: 4010.3**      **S/P: 1.85**

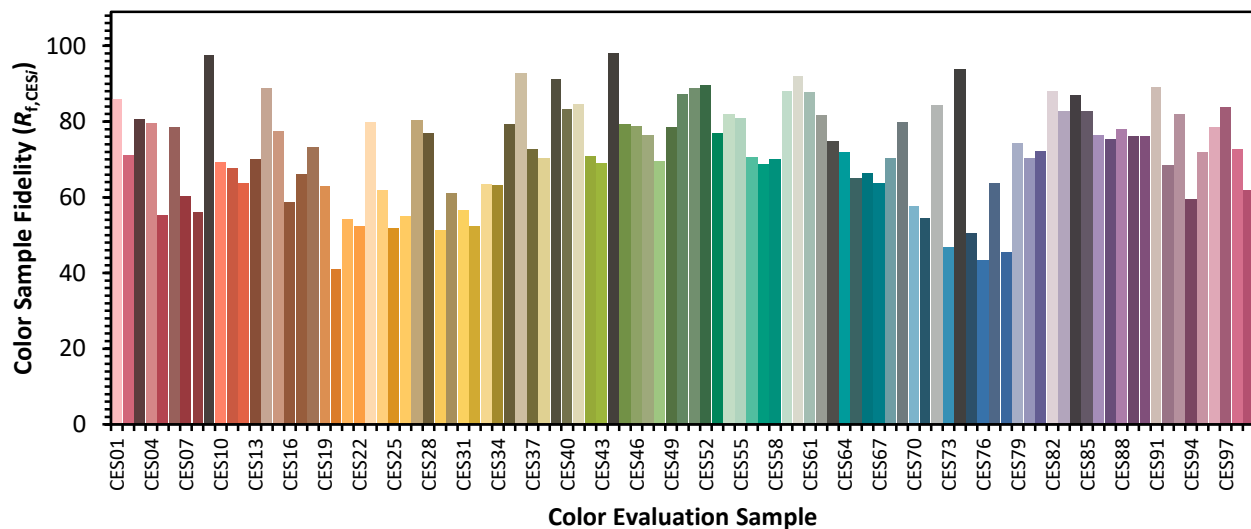
| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 828              | 0.0              | 490       | 9471             | 7.9              | 620       | 23317            | 0.0              | 750       | 1157             | 0.0              | 880       | 1136             | 0.0              |
| 365       | 696              | 0.0              | 495       | 12752            | 10.5             | 625       | 21413            | 0.0              | 755       | 1067             | 0.0              | 885       | 773              | 0.0              |
| 370       | 807              | 0.0              | 500       | 16685            | 13.4             | 630       | 19344            | 0.0              | 760       | 1059             | 0.0              | 890       | 872              | 0.0              |
| 375       | 837              | 0.0              | 505       | 20565            | 15.8             | 635       | 17464            | 0.0              | 765       | 1009             | 0.0              | 895       | 891              | 0.0              |
| 380       | 757              | 0.0              | 510       | 24119            | 17.3             | 640       | 15745            | 0.0              | 770       | 774              | 0.0              | 900       | 807              | 0.0              |
| 385       | 706              | 0.0              | 515       | 27181            | 17.8             | 645       | 14060            | 0.0              | 775       | 761              | 0.0              | 905       | 899              | 0.0              |
| 390       | 746              | 0.0              | 520       | 29555            | 17.2             | 650       | 12579            | 0.0              | 780       | 653              | 0.0              | 910       | 506              | 0.0              |
| 395       | 660              | 0.0              | 525       | 31307            | 15.9             | 655       | 11181            | 0.0              | 785       | 704              | 0.0              | 915       | 598              | 0.0              |
| 400       | 671              | 0.0              | 530       | 32558            | 14.1             | 660       | 9847             | 0.0              | 790       | 663              | 0.0              | 920       | 510              | 0.0              |
| 405       | 848              | 0.0              | 535       | 33301            | 12.0             | 665       | 8641             | 0.0              | 795       | 493              | 0.0              | 925       | 874              | 0.0              |
| 410       | 1490             | 0.1              | 540       | 33727            | 9.9              | 670       | 7535             | 0.0              | 800       | 584              | 0.0              | 930       | 549              | 0.0              |
| 415       | 3203             | 0.2              | 545       | 34356            | 8.0              | 675       | 6542             | 0.0              | 805       | 739              | 0.0              | 935       | 720              | 0.0              |
| 420       | 7298             | 0.8              | 550       | 34589            | 6.2              | 680       | 5664             | 0.0              | 810       | 601              | 0.0              | 940       | 754              | 0.0              |
| 425       | 15315            | 2.4              | 555       | 34855            | 4.7              | 685       | 4962             | 0.0              | 815       | 677              | 0.0              | 945       | 931              | 0.0              |
| 430       | 27886            | 5.9              | 560       | 35083            | 3.5              | 690       | 4369             | 0.0              | 820       | 726              | 0.0              | 950       | 811              | 0.0              |
| 435       | 45485            | 12.1             | 565       | 35553            | 2.5              | 695       | 3785             | 0.0              | 825       | 693              | 0.0              | 955       | 955              | 0.0              |
| 440       | 61965            | 20.7             | 570       | 35511            | 1.7              | 700       | 3318             | 0.0              | 830       | 619              | 0.0              | 960       | 1025             | 0.0              |
| 445       | 62721            | 24.7             | 575       | 35515            | 1.2              | 705       | 2962             | 0.0              | 835       | 738              | 0.0              | 965       | 916              | 0.0              |
| 450       | 44754            | 20.6             | 580       | 35114            | 0.8              | 710       | 2689             | 0.0              | 840       | 681              | 0.0              | 970       | 695              | 0.0              |
| 455       | 26152            | 13.7             | 585       | 34546            | 0.5              | 715       | 2476             | 0.0              | 845       | 691              | 0.0              | 975       | 568              | 0.0              |
| 460       | 17101            | 10.1             | 590       | 33522            | 0.3              | 720       | 2192             | 0.0              | 850       | 710              | 0.0              | 980       | 643              | 0.0              |
| 465       | 11400            | 7.4              | 595       | 32326            | 0.2              | 725       | 1939             | 0.0              | 855       | 1025             | 0.0              | 985       | 804              | 0.0              |
| 470       | 7763             | 5.6              | 600       | 30973            | 0.1              | 730       | 1698             | 0.0              | 860       | 889              | 0.0              | 990       | 812              | 0.0              |
| 475       | 6419             | 4.9              | 605       | 29160            | 0.1              | 735       | 1533             | 0.0              | 865       | 885              | 0.0              | 995       | 496              | 0.0              |
| 480       | 6330             | 5.1              | 610       | 27373            | 0.0              | 740       | 1375             | 0.0              | 870       | 905              | 0.0              | 1000      | 659              | 0.0              |
| 485       | 7299             | 6.0              | 615       | 25423            | 0.0              | 745       | 1254             | 0.0              | 875       | 739              | 0.0              |           |                  |                  |

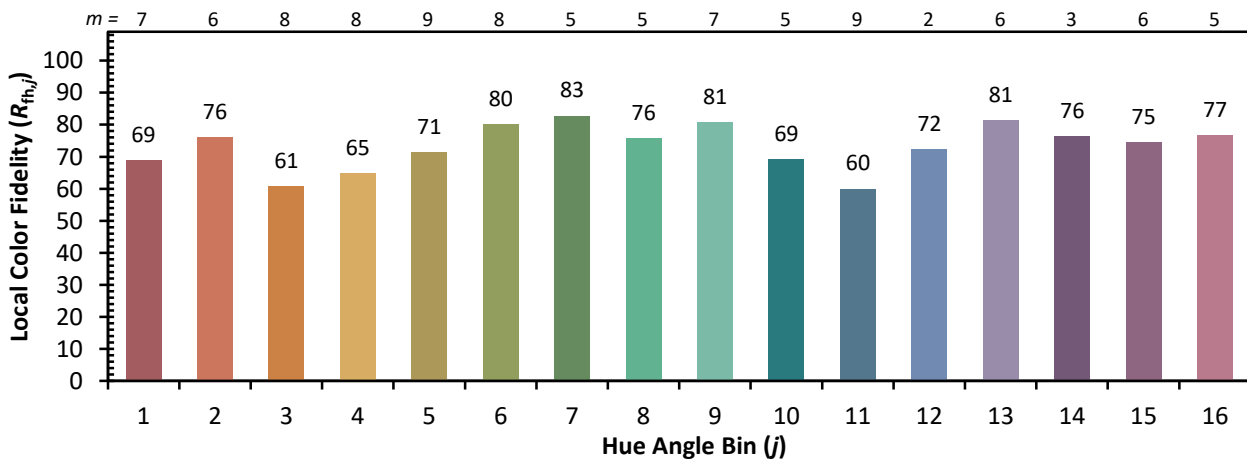
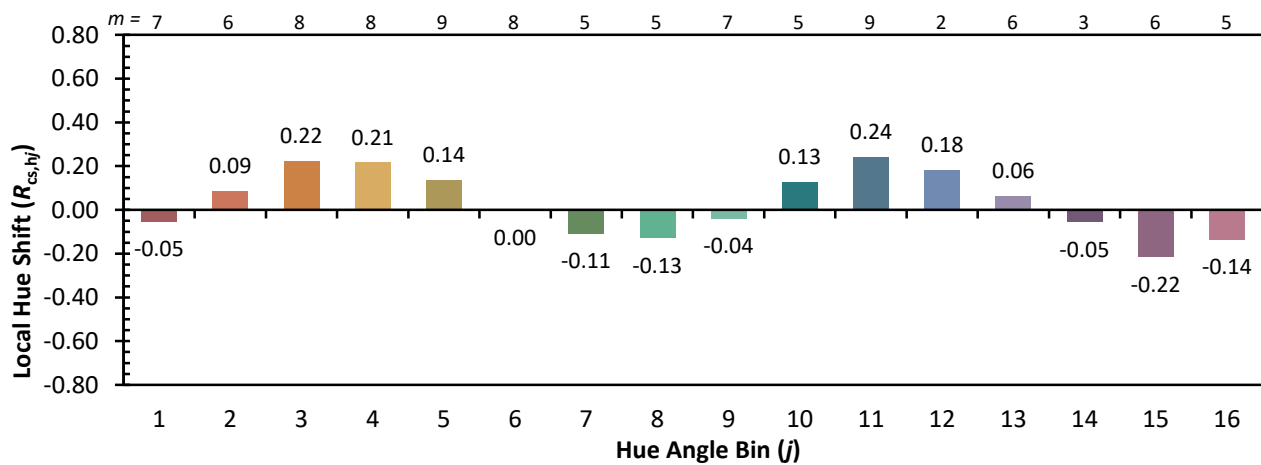
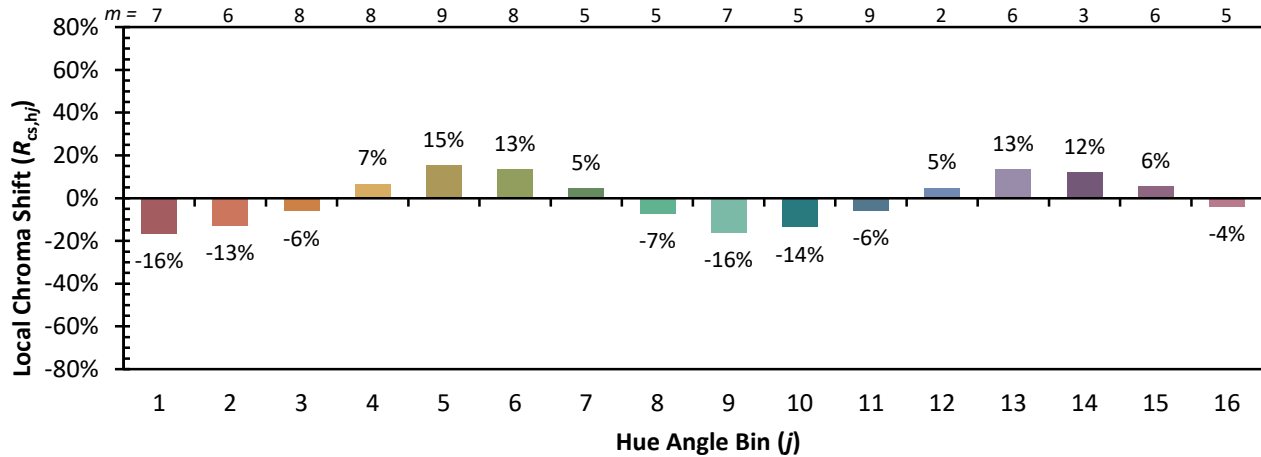
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**TM-30-18**
**Summary**
 $R_f = 72.3$   
 $R_g = 97.2$   
 CIE  $R_a = 71.9$   
 $R_g = -27.5$ 

**Color Vector Graphics**


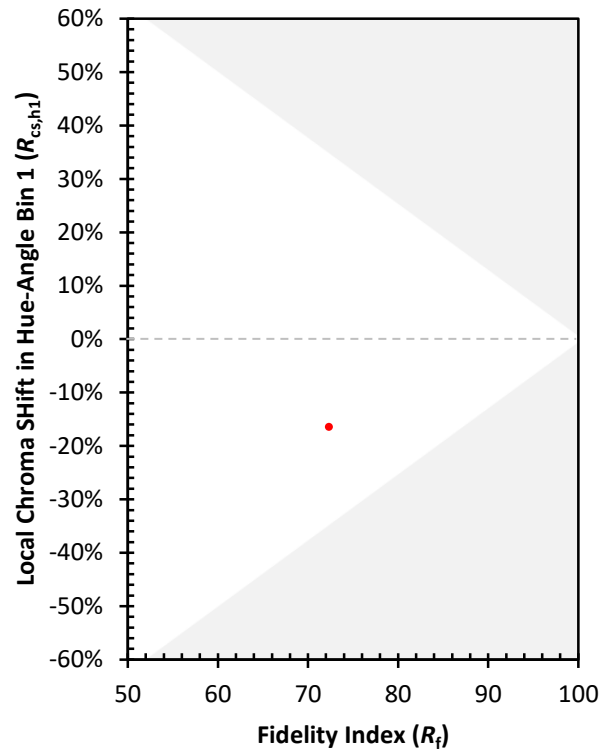
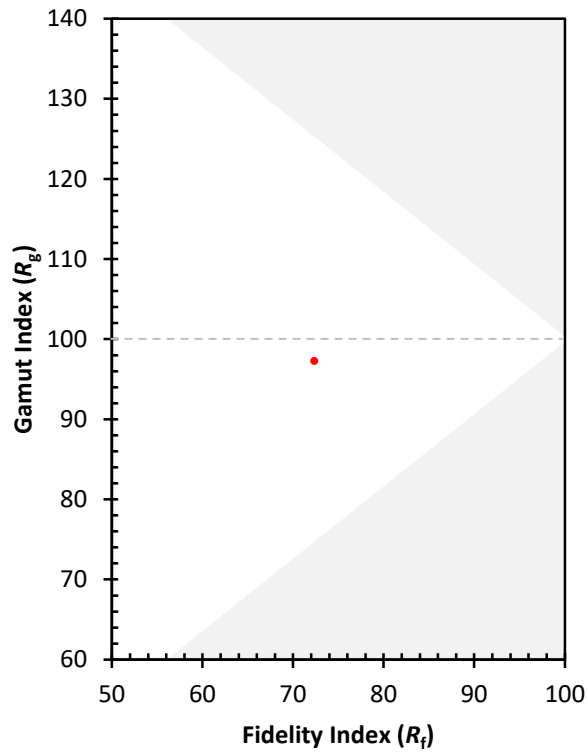
**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 55 | CES51 = 89 | CES76 = 43 |
| CES02 = 59 | CES27 = 80 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 51 | CES54 = 82 | CES79 = 74 |
| CES05 = 46 | CES30 = 61 | CES55 = 81 | CES80 = 70 |
| CES06 = 50 | CES31 = 56 | CES56 = 71 | CES81 = 72 |
| CES07 = 38 | CES32 = 52 | CES57 = 69 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 83 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 83 |
| CES11 = 55 | CES36 = 93 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 73 | CES62 = 82 | CES87 = 75 |
| CES13 = 41 | CES38 = 70 | CES63 = 75 | CES88 = 78 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 85 | CES66 = 66 | CES91 = 89 |
| CES17 = 48 | CES42 = 71 | CES67 = 64 | CES92 = 69 |
| CES18 = 55 | CES43 = 69 | CES68 = 70 | CES93 = 82 |
| CES19 = 71 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 72 |
| CES21 = 85 | CES46 = 79 | CES71 = 54 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 69 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 79 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 50 |            |



**Color Rendition by Hue-Angle Bin**


**Measure Comparisons**



(END OF REPORT)