

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: P386390

Luminaire Tested: **GWC-SA2A-735-U-SLL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P386390  
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-SA2A-735-U-SLL-HSS  
Description: GALLEON WALL LUMINAIRE  
(2) 70 CRI, 3500K, 615mA 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: 6773 lumens  
Efficiency: N/A  
Efficacy: 102.6 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): 66  
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

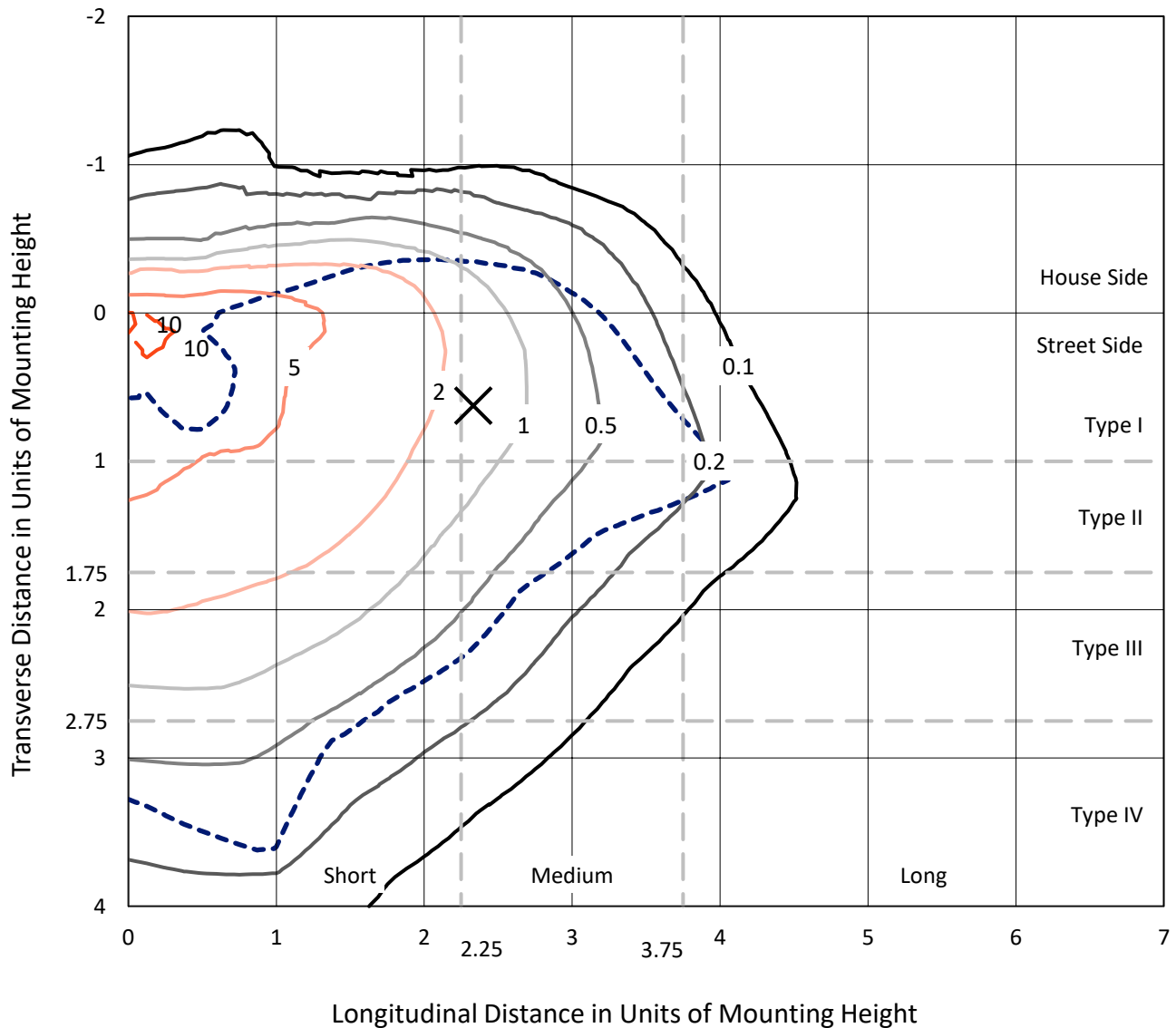


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

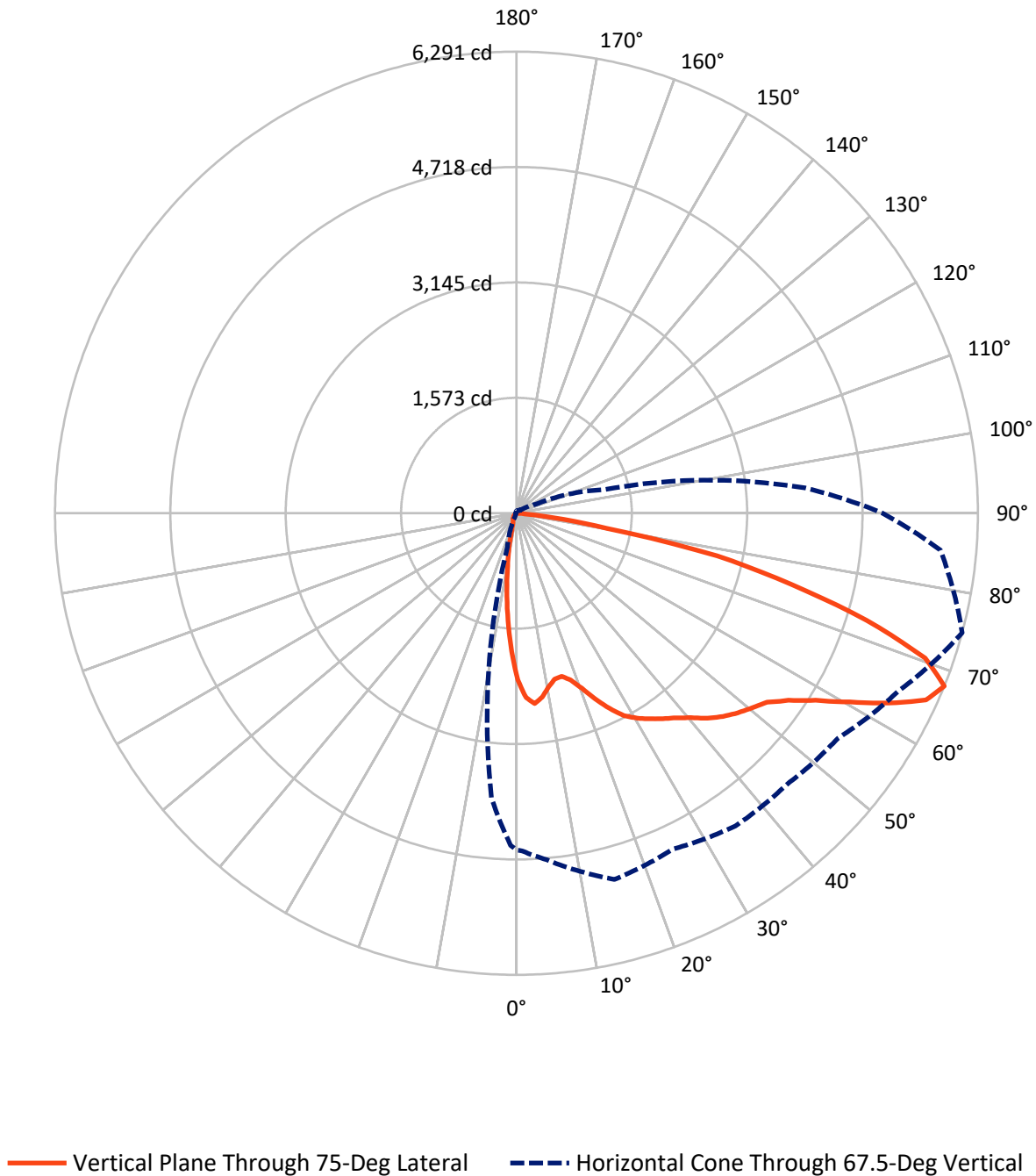


Based on 15 foot mounting height. Maximum calculated value = 13.1 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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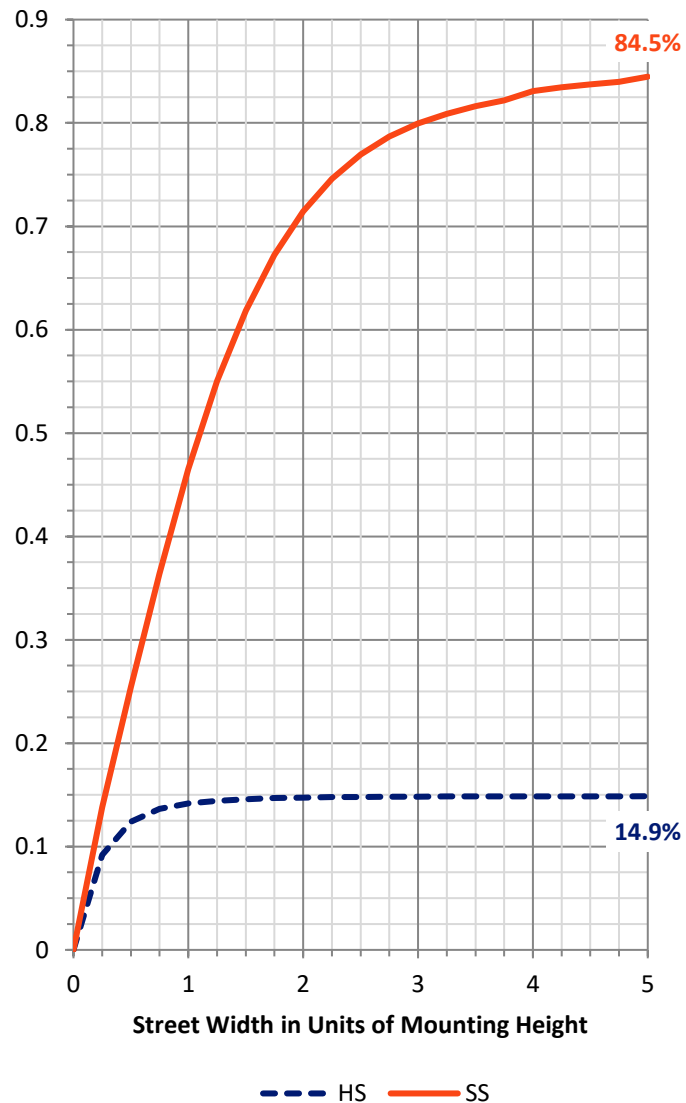
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1016.4   | 0.0    | 1016.4 |
|                    | % Fixture | 15.0     | 0.0    | 15.0   |
| <b>Street Side</b> | Lumens    | 5756.7   | 0.0    | 5756.7 |
|                    | % Fixture | 85.0     | 0.0    | 85.0   |
| <b>Total</b>       | Lumens    | 6773.0   | 0.0    | 6773.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 172.4  | 2.5       |
| 10°-20°   | 339.4  | 5.0       |
| 20°-30°   | 480.1  | 7.1       |
| 30°-40°   | 705.9  | 10.4      |
| 40°-50°   | 1014.6 | 15.0      |
| 50°-60°   | 1428.3 | 21.1      |
| 60°-70°   | 1668.2 | 24.6      |
| 70°-80°   | 851.0  | 12.6      |
| 80°-90°   | 113.1  | 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°    | 6773.0 | 100.0     |
| 0°-180°   | 6773.0 | 100.0     |

**Coefficient of Utilization**



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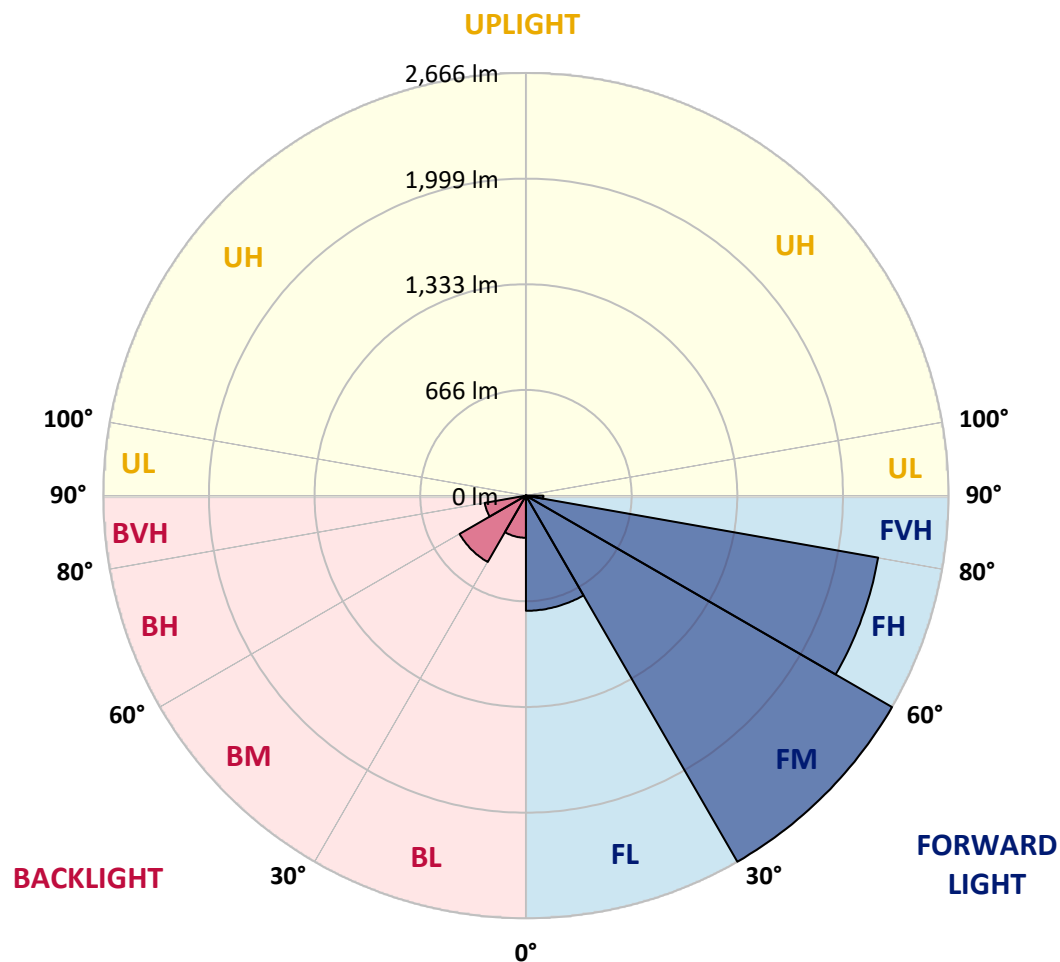
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 726.1  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 2665.7 | 39.4      |                         |      |         |
| FH   | (60°-80°)   | 2255.2 | 33.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 109.6  | 1.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 265.8  | 3.9       | B1/500                  |      |         |
| BM   | (30°-60°)   | 483.1  | 7.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 264.0  | 3.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 3.4    | 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°    | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 |
| 2.5°  | 2463.2 | 2467.0 | 2486.9 | 2533.1 | 2583.4 | 2587.3 | 2621.3 | 2586.3 | 2574.5 | 2518.0 | 2459.6 |
| 5°    | 2481.8 | 2496.5 | 2564.8 | 2700.6 | 2818.3 | 2856.1 | 2883.1 | 2814.4 | 2742.3 | 2604.3 | 2457.1 |
| 7.5°  | 2332.0 | 2356.7 | 2464.1 | 2718.9 | 2929.3 | 3022.4 | 3040.1 | 2932.5 | 2755.7 | 2528.6 | 2307.2 |
| 10°   | 2140.0 | 2168.3 | 2297.9 | 2611.0 | 2900.1 | 3059.6 | 3083.9 | 2943.1 | 2689.0 | 2406.1 | 2145.2 |
| 12.5° | 1984.8 | 2017.8 | 2150.3 | 2489.8 | 2799.7 | 2976.2 | 3024.3 | 2907.5 | 2631.2 | 2319.1 | 2034.4 |
| 15°   | 1913.2 | 1951.0 | 2090.3 | 2411.5 | 2688.4 | 2827.3 | 2867.1 | 2816.7 | 2599.2 | 2305.3 | 2008.8 |
| 17.5° | 1954.3 | 1995.4 | 2139.1 | 2418.2 | 2583.8 | 2643.2 | 2675.2 | 2695.8 | 2599.2 | 2388.4 | 2083.9 |
| 20°   | 2122.7 | 2167.0 | 2319.1 | 2486.6 | 2497.2 | 2475.0 | 2509.3 | 2581.5 | 2629.4 | 2546.2 | 2264.2 |
| 22.5° | 2355.6 | 2407.7 | 2579.3 | 2603.6 | 2454.8 | 2371.0 | 2375.5 | 2488.8 | 2684.2 | 2746.4 | 2514.5 |
| 25°   | 2639.6 | 2703.1 | 2877.6 | 2778.3 | 2472.5 | 2309.1 | 2307.5 | 2412.5 | 2737.8 | 2947.0 | 2793.3 |
| 27.5° | 2921.6 | 2991.6 | 3144.9 | 2991.2 | 2545.3 | 2297.9 | 2294.7 | 2389.3 | 2790.1 | 3125.4 | 3097.7 |
| 30°   | 3158.1 | 3226.1 | 3358.3 | 3145.6 | 2623.9 | 2324.2 | 2308.8 | 2414.1 | 2821.2 | 3241.2 | 3319.8 |
| 32.5° | 3350.6 | 3405.1 | 3512.0 | 3251.8 | 2708.0 | 2375.3 | 2341.8 | 2480.2 | 2874.2 | 3339.1 | 3523.9 |
| 35°   | 3562.4 | 3619.8 | 3662.5 | 3352.9 | 2802.3 | 2448.7 | 2400.9 | 2585.0 | 2955.6 | 3438.6 | 3747.5 |
| 37.5° | 3804.0 | 3861.1 | 3855.9 | 3445.2 | 2922.0 | 2570.3 | 2539.8 | 2751.3 | 3082.3 | 3537.0 | 3997.1 |
| 40°   | 4040.4 | 4098.9 | 4057.1 | 3546.3 | 3062.5 | 2770.8 | 2748.4 | 3000.9 | 3252.1 | 3663.1 | 4289.7 |
| 42.5° | 4261.8 | 4325.0 | 4235.8 | 3641.9 | 3229.9 | 3023.6 | 3062.1 | 3322.4 | 3464.5 | 3818.4 | 4541.9 |
| 45°   | 4440.2 | 4504.7 | 4385.7 | 3734.9 | 3406.4 | 3330.4 | 3446.3 | 3678.5 | 3719.9 | 3949.6 | 4712.3 |
| 47.5° | 4569.8 | 4630.7 | 4489.6 | 3828.0 | 3632.3 | 3705.4 | 3907.3 | 4052.0 | 3950.6 | 4063.5 | 4833.3 |
| 50°   | 4652.6 | 4700.1 | 4520.1 | 3944.5 | 3928.7 | 4143.1 | 4387.5 | 4458.2 | 4167.8 | 4166.2 | 4980.2 |
| 52.5° | 4705.2 | 4726.7 | 4542.5 | 4066.1 | 4238.1 | 4619.6 | 4858.0 | 4880.1 | 4391.4 | 4279.1 | 5178.1 |
| 55°   | 4886.5 | 4903.8 | 4701.7 | 4213.4 | 4493.8 | 5036.9 | 5283.3 | 5262.9 | 4644.6 | 4500.2 | 5411.8 |
| 57.5° | 5195.8 | 5214.1 | 5030.5 | 4425.1 | 4700.7 | 5294.9 | 5591.7 | 5628.6 | 4941.4 | 4810.7 | 5662.0 |
| 60°   | 5351.1 | 5385.1 | 5319.6 | 4693.3 | 4901.3 | 5459.9 | 5801.9 | 5919.6 | 5312.3 | 5220.2 | 5904.6 |
| 62.5° | 5210.3 | 5259.7 | 5354.6 | 4990.8 | 5100.5 | 5550.7 | 5867.4 | 6023.9 | 5692.2 | 5697.2 | 6054.0 |
| 65°   | 4929.2 | 4968.6 | 5129.7 | 5153.8 | 5216.0 | 5539.4 | 5705.6 | 5878.3 | 5924.8 | 6135.6 | 6046.0 |
| 67.5° | 4589.7 | 4604.4 | 4741.1 | 5166.6 | 5048.5 | 5201.9 | 5219.8 | 5347.6 | 5740.9 | 6290.8 | 5803.1 |
| 70°   | 4101.0 | 4109.1 | 4228.4 | 4737.0 | 4338.5 | 4372.2 | 4345.5 | 4371.6 | 4935.6 | 5912.5 | 5190.1 |
| 72.5° | 3300.6 | 3320.8 | 3490.5 | 3933.9 | 3160.7 | 3063.5 | 3272.7 | 3261.1 | 3801.1 | 4995.2 | 3854.6 |
| 75°   | 2430.1 | 2465.1 | 2721.4 | 3168.7 | 2218.4 | 2006.5 | 2159.3 | 2200.1 | 2702.2 | 3863.9 | 2410.5 |
| 77.5° | 1701.4 | 1727.5 | 1975.7 | 2329.3 | 1605.5 | 1434.8 | 1379.6 | 1428.1 | 1783.6 | 2795.3 | 1214.4 |
| 80°   | 980.2  | 989.8  | 1148.3 | 1345.0 | 1081.9 | 1237.8 | 1121.4 | 1154.7 | 1068.7 | 1243.6 | 522.3  |
| 82.5° | 641.4  | 643.0  | 704.9  | 800.6  | 673.7  | 782.9  | 579.4  | 740.8  | 657.4  | 499.6  | 170.0  |
| 85°   | 346.5  | 348.4  | 408.7  | 568.2  | 381.5  | 215.6  | 126.7  | 260.2  | 406.5  | 114.5  | 46.5   |
| 87.5° | 38.1   | 34.9   | 123.2  | 206.7  | 105.9  | 19.5   | 6.8    | 29.2   | 65.1   | 7.4    | 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°    | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 |
| 2.5°  | 2429.7 | 2403.2 | 2336.7 | 2266.5 | 2210.0 | 2157.0 | 2103.8 | 2038.7 | 1988.3 | 1978.0 | 1961.4 |
| 5°    | 2377.8 | 2293.4 | 2154.1 | 2014.2 | 1901.6 | 1759.5 | 1669.4 | 1599.1 | 1530.5 | 1526.2 | 1512.4 |
| 7.5°  | 2196.2 | 2085.2 | 1889.1 | 1695.7 | 1537.1 | 1401.8 | 1265.1 | 1173.7 | 1101.8 | 1076.5 | 1061.3 |
| 10°   | 2021.7 | 1896.8 | 1652.0 | 1431.3 | 1289.8 | 1170.1 | 1073.9 | 978.3  | 891.7  | 831.9  | 805.0  |
| 12.5° | 1899.7 | 1761.7 | 1491.9 | 1301.7 | 1200.3 | 1086.7 | 969.3  | 850.0  | 750.1  | 678.2  | 634.3  |
| 15°   | 1852.6 | 1705.3 | 1438.4 | 1250.3 | 1125.2 | 981.5  | 831.3  | 695.0  | 584.3  | 519.1  | 479.7  |
| 17.5° | 1908.8 | 1737.4 | 1434.2 | 1187.8 | 1012.9 | 834.2  | 668.3  | 507.3  | 403.0  | 353.6  | 328.2  |
| 20°   | 2051.2 | 1839.4 | 1432.6 | 1111.1 | 879.5  | 659.6  | 452.7  | 333.7  | 270.5  | 242.9  | 231.0  |
| 22.5° | 2252.7 | 1969.7 | 1445.4 | 1035.4 | 740.5  | 471.3  | 312.5  | 245.1  | 212.7  | 197.9  | 191.3  |
| 25°   | 2511.9 | 2152.5 | 1481.7 | 966.7  | 609.9  | 351.6  | 243.5  | 205.4  | 182.5  | 171.0  | 166.2  |
| 27.5° | 2788.1 | 2363.0 | 1538.2 | 907.1  | 503.7  | 280.4  | 208.5  | 175.9  | 159.4  | 151.4  | 146.9  |
| 30°   | 3015.9 | 2606.9 | 1595.3 | 840.7  | 426.8  | 244.5  | 190.9  | 160.4  | 141.5  | 136.4  | 132.2  |
| 32.5° | 3215.2 | 2791.4 | 1635.7 | 780.6  | 376.3  | 217.2  | 172.7  | 143.4  | 130.6  | 120.6  | 116.1  |
| 35°   | 3421.6 | 2945.1 | 1634.4 | 738.6  | 341.7  | 196.7  | 157.3  | 128.3  | 112.9  | 101.4  | 97.9   |
| 37.5° | 3644.8 | 3118.6 | 1606.5 | 702.7  | 326.6  | 180.3  | 148.5  | 120.3  | 104.9  | 93.4   | 88.9   |
| 40°   | 3906.3 | 3300.8 | 1577.9 | 668.9  | 322.5  | 167.1  | 142.4  | 113.9  | 97.5   | 86.3   | 81.8   |
| 42.5° | 4161.0 | 3465.1 | 1552.9 | 644.0  | 304.5  | 166.8  | 137.0  | 109.1  | 91.8   | 80.9   | 75.7   |
| 45°   | 4364.8 | 3618.2 | 1548.1 | 628.8  | 285.6  | 172.7  | 134.1  | 105.9  | 87.3   | 76.4   | 71.6   |
| 47.5° | 4534.2 | 3784.3 | 1578.8 | 618.3  | 267.5  | 157.5  | 141.2  | 103.6  | 83.1   | 72.5   | 67.1   |
| 50°   | 4735.7 | 3988.5 | 1651.4 | 600.9  | 248.7  | 141.8  | 161.7  | 104.3  | 79.6   | 68.7   | 62.8   |
| 52.5° | 5016.7 | 4270.8 | 1757.9 | 571.7  | 222.6  | 127.4  | 159.1  | 104.9  | 75.7   | 64.5   | 58.7   |
| 55°   | 5331.8 | 4623.4 | 1872.5 | 523.3  | 186.4  | 108.4  | 136.4  | 100.4  | 68.3   | 60.0   | 54.6   |
| 57.5° | 5662.9 | 4943.3 | 1940.5 | 465.6  | 148.2  | 93.7   | 109.1  | 91.4   | 60.3   | 53.9   | 50.4   |
| 60°   | 5714.9 | 5064.9 | 1909.3 | 394.6  | 117.7  | 81.5   | 80.9   | 93.0   | 53.9   | 47.4   | 44.9   |
| 62.5° | 5585.6 | 4912.2 | 1758.9 | 331.4  | 98.5   | 71.6   | 66.4   | 81.2   | 48.8   | 42.4   | 39.8   |
| 65°   | 5337.0 | 4499.2 | 1515.1 | 298.7  | 91.4   | 61.2   | 55.1   | 57.1   | 42.6   | 36.9   | 34.7   |
| 67.5° | 4991.1 | 3948.0 | 1243.9 | 280.1  | 90.5   | 52.6   | 47.2   | 43.3   | 36.9   | 32.1   | 30.2   |
| 70°   | 4283.9 | 3289.0 | 992.4  | 269.8  | 87.9   | 44.2   | 39.8   | 35.3   | 30.8   | 27.2   | 25.6   |
| 72.5° | 3153.0 | 2330.6 | 772.0  | 258.6  | 88.6   | 35.3   | 34.7   | 29.2   | 24.7   | 21.1   | 20.6   |
| 75°   | 1821.8 | 1331.5 | 506.3  | 209.5  | 84.4   | 27.2   | 28.8   | 20.6   | 17.3   | 14.7   | 14.7   |
| 77.5° | 970.9  | 812.1  | 192.9  | 87.3   | 30.8   | 17.3   | 16.3   | 12.2   | 10.9   | 9.0    | 8.6    |
| 80°   | 423.2  | 357.4  | 58.1   | 24.4   | 17.0   | 9.3    | 6.1    | 5.4    | 4.8    | 3.9    | 3.6    |
| 82.5° | 149.8  | 129.3  | 19.0   | 11.8   | 7.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 34.0   | 24.4   | 0.0    | 2.9    | 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°    | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 |
| 2.5°  | 1927.4 | 1920.3 | 1878.6 | 1880.2 | 1887.5 | 1898.1 | 1873.1 | 1884.6 | 1915.8 | 1945.6 | 1956.9 |
| 5°    | 1490.3 | 1491.9 | 1466.6 | 1482.3 | 1496.5 | 1506.0 | 1465.6 | 1466.3 | 1491.0 | 1524.6 | 1542.3 |
| 7.5°  | 1050.1 | 1047.5 | 1048.8 | 1086.4 | 1113.0 | 1093.7 | 1108.9 | 1056.5 | 1059.7 | 1083.8 | 1065.8 |
| 10°   | 780.6  | 745.3  | 725.4  | 753.7  | 782.9  | 772.3  | 746.3  | 729.3  | 741.2  | 767.8  | 765.9  |
| 12.5° | 613.4  | 562.8  | 532.9  | 512.7  | 536.8  | 516.9  | 516.2  | 501.4  | 485.5  | 488.3  | 531.0  |
| 15°   | 461.3  | 424.5  | 389.2  | 356.8  | 356.1  | 349.4  | 315.1  | 276.6  | 273.4  | 275.2  | 297.4  |
| 17.5° | 317.3  | 304.8  | 290.4  | 262.5  | 255.0  | 226.9  | 193.5  | 178.1  | 170.4  | 173.9  | 181.3  |
| 20°   | 223.0  | 218.2  | 219.8  | 204.7  | 194.1  | 167.1  | 147.6  | 141.5  | 140.3  | 143.7  | 147.3  |
| 22.5° | 184.8  | 176.1  | 175.2  | 168.4  | 157.8  | 138.3  | 127.7  | 124.2  | 122.6  | 125.8  | 128.3  |
| 25°   | 161.7  | 153.0  | 149.6  | 145.3  | 134.1  | 120.6  | 114.2  | 111.0  | 109.4  | 111.3  | 112.9  |
| 27.5° | 142.4  | 134.4  | 131.2  | 128.3  | 117.4  | 107.8  | 102.7  | 99.8   | 98.5   | 99.1   | 100.7  |
| 30°   | 128.0  | 121.0  | 116.8  | 113.3  | 104.0  | 97.2   | 92.7   | 89.8   | 88.6   | 88.6   | 90.2   |
| 32.5° | 112.9  | 109.1  | 105.2  | 100.7  | 92.1   | 87.6   | 83.1   | 79.8   | 78.6   | 78.9   | 80.2   |
| 35°   | 94.0   | 92.7   | 93.7   | 89.5   | 82.1   | 78.3   | 73.8   | 70.3   | 69.3   | 69.6   | 70.9   |
| 37.5° | 83.4   | 77.7   | 81.2   | 78.9   | 74.8   | 69.6   | 63.9   | 60.7   | 59.0   | 60.0   | 60.7   |
| 40°   | 76.7   | 69.6   | 67.1   | 69.3   | 68.7   | 60.3   | 55.1   | 51.9   | 50.7   | 51.0   | 51.7   |
| 42.5° | 70.9   | 62.6   | 56.8   | 56.5   | 60.3   | 52.6   | 47.2   | 44.2   | 42.6   | 42.6   | 43.3   |
| 45°   | 65.5   | 56.5   | 49.4   | 44.0   | 50.7   | 44.6   | 39.5   | 36.9   | 34.9   | 34.9   | 35.3   |
| 47.5° | 61.2   | 51.3   | 43.0   | 36.0   | 38.1   | 36.5   | 32.4   | 29.9   | 27.9   | 27.9   | 28.3   |
| 50°   | 57.4   | 46.2   | 37.2   | 30.2   | 28.6   | 30.2   | 26.3   | 23.4   | 22.2   | 21.8   | 22.5   |
| 52.5° | 53.3   | 41.1   | 31.8   | 25.6   | 22.5   | 22.7   | 20.6   | 18.6   | 17.0   | 17.0   | 17.7   |
| 55°   | 49.1   | 36.9   | 27.6   | 21.8   | 18.6   | 17.0   | 16.3   | 15.1   | 13.8   | 13.8   | 14.5   |
| 57.5° | 44.9   | 32.4   | 23.4   | 17.9   | 14.7   | 13.4   | 13.4   | 12.5   | 11.6   | 11.6   | 12.2   |
| 60°   | 41.1   | 27.9   | 19.3   | 14.7   | 11.6   | 11.3   | 11.6   | 10.6   | 10.0   | 10.0   | 10.6   |
| 62.5° | 36.5   | 23.8   | 15.7   | 12.2   | 9.3    | 9.0    | 10.0   | 9.3    | 8.6    | 8.6    | 9.3    |
| 65°   | 31.1   | 20.2   | 12.5   | 9.3    | 7.0    | 7.0    | 8.4    | 7.7    | 7.0    | 7.0    | 7.7    |
| 67.5° | 26.3   | 17.0   | 9.6    | 6.8    | 5.2    | 5.4    | 7.0    | 6.4    | 6.1    | 6.1    | 6.8    |
| 70°   | 21.8   | 13.2   | 6.8    | 4.1    | 2.9    | 4.1    | 5.4    | 5.4    | 5.4    | 5.4    | 6.1    |
| 72.5° | 16.3   | 9.0    | 3.9    | 1.6    | 1.3    | 2.9    | 4.5    | 5.2    | 4.8    | 4.8    | 5.7    |
| 75°   | 10.6   | 5.2    | 1.3    | 0.0    | 0.0    | 1.6    | 3.6    | 4.1    | 4.1    | 3.9    | 4.8    |
| 77.5° | 6.1    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 2.3    | 1.9    | 1.6    | 1.3    | 2.3    |
| 80°   | 1.6    | 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: P386390

CATALOG NUMBER: GWC-SA2A-735-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 | 2272.2 |
| 2.5°  | 2002.0 | 2040.0 | 2093.2 | 2149.7 | 2236.6 | 2305.6 | 2373.3 | 2431.3 | 2453.8 | 2463.2 |
| 5°    | 1584.7 | 1640.2 | 1718.2 | 1818.2 | 1975.2 | 2116.3 | 2259.4 | 2403.4 | 2466.0 | 2481.8 |
| 7.5°  | 1137.0 | 1208.0 | 1307.2 | 1432.6 | 1616.4 | 1799.3 | 1999.2 | 2210.7 | 2307.5 | 2332.0 |
| 10°   | 841.6  | 928.2  | 1041.8 | 1174.0 | 1349.4 | 1537.5 | 1755.4 | 1997.0 | 2107.6 | 2140.0 |
| 12.5° | 597.1  | 714.2  | 866.3  | 1027.0 | 1179.1 | 1346.9 | 1567.4 | 1833.6 | 1949.8 | 1984.8 |
| 15°   | 350.7  | 464.0  | 644.0  | 859.3  | 1054.0 | 1224.0 | 1448.0 | 1749.9 | 1877.9 | 1913.2 |
| 17.5° | 201.1  | 257.7  | 393.7  | 633.7  | 898.1  | 1133.6 | 1410.4 | 1770.8 | 1921.5 | 1954.3 |
| 20°   | 153.7  | 171.6  | 226.9  | 408.1  | 715.8  | 1044.7 | 1410.4 | 1888.8 | 2074.6 | 2122.7 |
| 22.5° | 134.4  | 147.6  | 170.0  | 243.5  | 526.8  | 949.4  | 1426.8 | 2059.5 | 2302.4 | 2355.6 |
| 25°   | 119.4  | 131.2  | 150.5  | 183.2  | 359.3  | 836.2  | 1465.6 | 2269.0 | 2570.7 | 2639.6 |
| 27.5° | 106.8  | 118.1  | 135.4  | 160.4  | 245.7  | 699.5  | 1518.0 | 2514.8 | 2866.5 | 2921.6 |
| 30°   | 95.6   | 106.2  | 121.9  | 139.6  | 189.7  | 544.5  | 1562.5 | 2746.4 | 3098.8 | 3158.1 |
| 32.5° | 85.0   | 94.7   | 108.8  | 121.9  | 155.3  | 402.6  | 1567.4 | 2930.0 | 3291.5 | 3350.6 |
| 35°   | 75.1   | 83.7   | 96.6   | 106.8  | 128.7  | 318.0  | 1492.6 | 3089.1 | 3484.4 | 3562.4 |
| 37.5° | 65.5   | 73.8   | 85.0   | 92.7   | 113.3  | 259.3  | 1378.4 | 3266.6 | 3731.7 | 3804.0 |
| 40°   | 56.5   | 63.9   | 75.4   | 80.5   | 107.2  | 199.2  | 1254.2 | 3452.6 | 3974.3 | 4040.4 |
| 42.5° | 48.1   | 55.1   | 66.4   | 76.4   | 94.0   | 148.9  | 1120.0 | 3627.2 | 4192.5 | 4261.8 |
| 45°   | 40.1   | 47.4   | 58.7   | 80.9   | 78.0   | 111.3  | 976.7  | 3743.0 | 4364.8 | 4440.2 |
| 47.5° | 32.4   | 40.8   | 56.2   | 77.0   | 62.3   | 81.8   | 863.1  | 3852.7 | 4495.4 | 4569.8 |
| 50°   | 26.0   | 34.3   | 63.2   | 68.7   | 51.0   | 62.6   | 815.6  | 3950.9 | 4581.0 | 4652.6 |
| 52.5° | 21.1   | 28.8   | 59.7   | 52.6   | 42.6   | 51.7   | 841.2  | 4110.0 | 4660.3 | 4705.2 |
| 55°   | 17.7   | 22.7   | 36.0   | 36.5   | 36.3   | 44.0   | 873.0  | 4338.5 | 4865.3 | 4886.5 |
| 57.5° | 15.4   | 18.3   | 25.0   | 28.3   | 30.4   | 39.2   | 873.6  | 4666.4 | 5182.6 | 5195.8 |
| 60°   | 13.2   | 16.1   | 20.9   | 22.7   | 26.3   | 34.9   | 841.9  | 4781.0 | 5307.5 | 5351.1 |
| 62.5° | 11.6   | 14.1   | 17.3   | 19.0   | 22.2   | 31.5   | 767.5  | 4615.1 | 5136.1 | 5210.3 |
| 65°   | 10.2   | 12.9   | 14.5   | 16.1   | 19.5   | 28.3   | 644.9  | 4283.3 | 4851.9 | 4929.2 |
| 67.5° | 9.0    | 11.3   | 12.9   | 14.5   | 17.7   | 25.0   | 474.9  | 3897.9 | 4525.5 | 4589.7 |
| 70°   | 8.0    | 10.0   | 11.6   | 12.9   | 15.4   | 21.1   | 288.1  | 3307.6 | 4074.4 | 4101.0 |
| 72.5° | 7.7    | 9.0    | 10.6   | 11.6   | 13.4   | 18.6   | 146.0  | 2430.8 | 3257.3 | 3300.6 |
| 75°   | 6.8    | 8.0    | 9.6    | 10.2   | 11.8   | 16.1   | 59.4   | 1596.5 | 2360.5 | 2430.1 |
| 77.5° | 5.4    | 7.4    | 8.6    | 9.3    | 10.2   | 13.2   | 30.2   | 1020.3 | 1656.5 | 1701.4 |
| 80°   | 1.9    | 5.4    | 7.4    | 7.7    | 8.6    | 9.6    | 19.9   | 558.6  | 960.9  | 980.2  |
| 82.5° | 0.0    | 3.6    | 5.7    | 5.4    | 6.1    | 7.4    | 12.9   | 265.7  | 634.3  | 641.4  |
| 85°   | 0.0    | 1.6    | 4.5    | 3.6    | 2.5    | 5.2    | 4.5    | 58.1   | 332.7  | 346.5  |
| 87.5° | 0.0    | 0.0    | 0.3    | 1.6    | 1.3    | 1.9    | 0.7    | 0.3    | 30.2   | 38.1   |
| 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: SP1-2104-224-2

Luminaire Tested: CCW-SA-2A-735-U-SL4

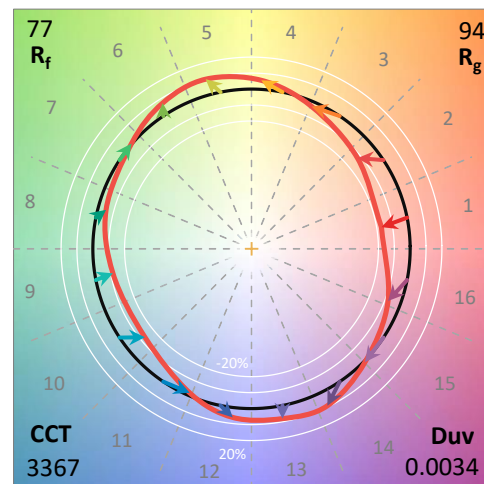
Test Date: 04/26/2021

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2104-224-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 04/26/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: INVUE  
 Catalog Number: **CCW-SA-2A-735-U-SL4**  
 Description: INVUE WALL PACK ClearCurve Light Square

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 3367   | CRI (Ra): | 73.3 |      |       |
| CIE u':                   | 0.2376 | R1:       | 69.1 | R9:  | -34.3 |
| CIE v':                   | 0.5184 | R2:       | 81.3 | R10: | 58.3  |
| Duv:                      | 0.0034 | R3:       | 93.4 | R11: | 69.1  |
| CIE x:                    | 0.4168 | R4:       | 71.8 | R12: | 54.2  |
| CIE y:                    | 0.4041 | R5:       | 69.6 | R13: | 71.1  |
| CIE z:                    | 0.1791 | R6:       | 75.4 | R14: | 96.4  |
| Peak Wavelength (nm):     | 590    | R7:       | 79.5 |      |       |
| Dominant Wavelength (nm): | 580    | R8:       | 46.4 |      |       |
| Purity:                   | 46.5   |           |      |      |       |
| Rf:                       | 77.2   |           |      |      |       |
| Rg:                       | 94.4   |           |      |      |       |



### Test Conditions

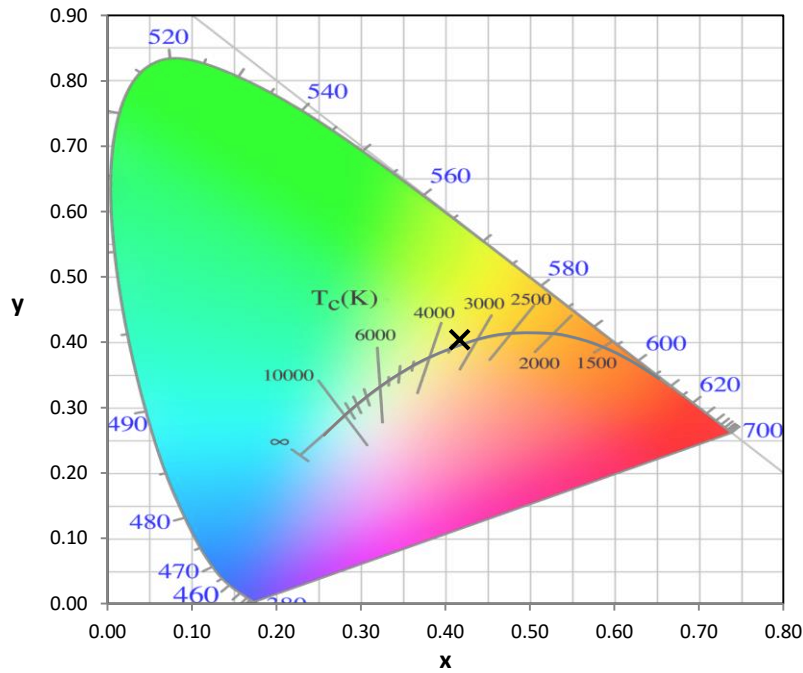
Stabilization Time: 71M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 24.9/38%  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2104-224-2

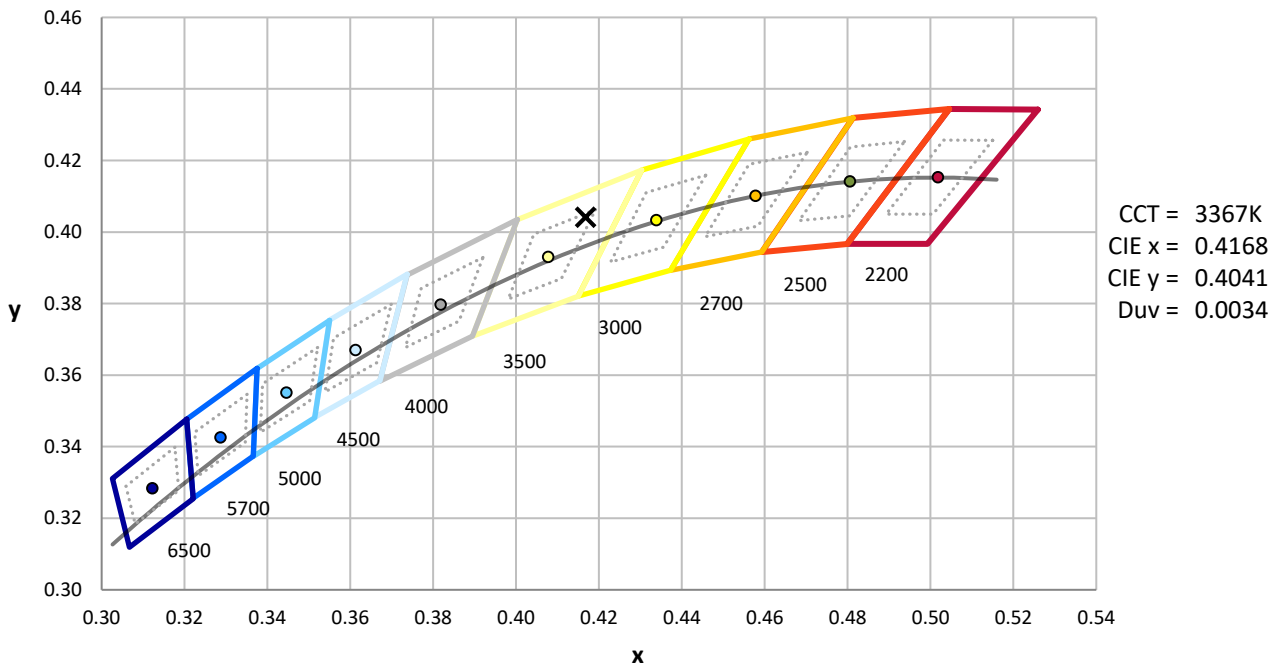
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| 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: SP1-2104-224-2

**CIE 1931 Chromaticity Diagram**



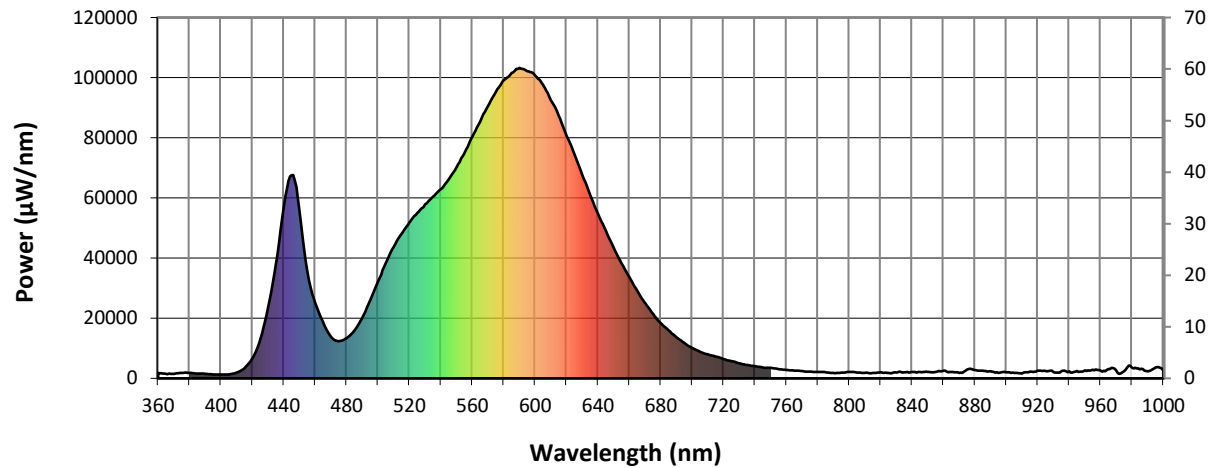
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2104-224-2

### Photopic Flux vs. Wavelength

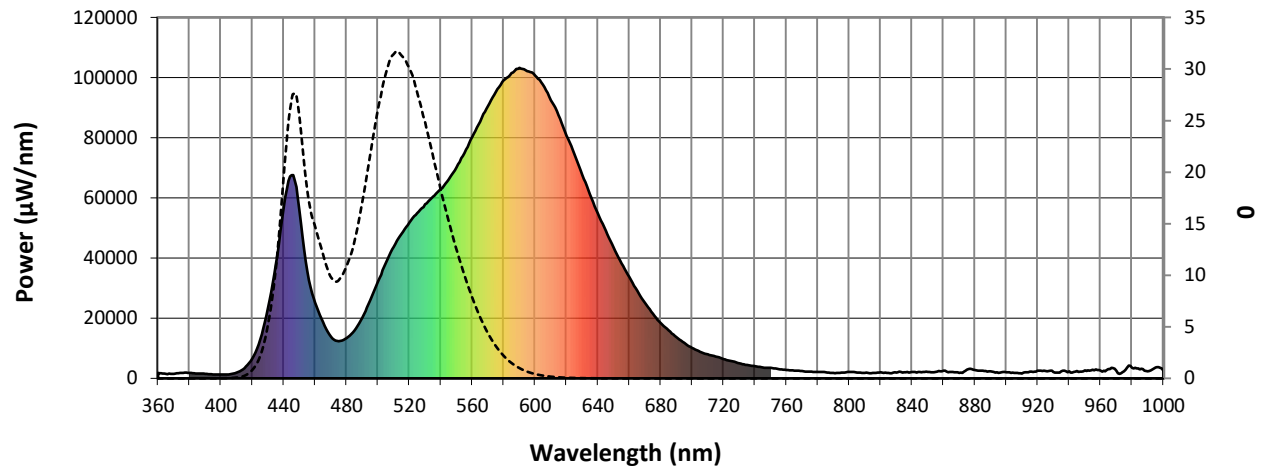


#####

| 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       | 1840             | 0.0              | 490       | 20271            | 2.9              | 620       | 80709            | 21.0             | 750       | 3465             | 0.0              | 880       | 2800             | 0.0              |
| 365       | 1514             | 0.0              | 495       | 25910            | 4.7              | 625       | 74695            | 16.5             | 755       | 3075             | 0.0              | 885       | 2582             | 0.0              |
| 370       | 1514             | 0.0              | 500       | 32216            | 7.1              | 630       | 67709            | 12.3             | 760       | 2794             | 0.0              | 890       | 2353             | 0.0              |
| 375       | 1843             | 0.0              | 505       | 38336            | 10.7             | 635       | 61156            | 9.2              | 765       | 2593             | 0.0              | 895       | 1819             | 0.0              |
| 380       | 1796             | 0.0              | 510       | 43738            | 15.0             | 640       | 54795            | 6.5              | 770       | 2401             | 0.0              | 900       | 2024             | 0.0              |
| 385       | 1575             | 0.0              | 515       | 47977            | 19.9             | 645       | 49111            | 4.7              | 775       | 2233             | 0.0              | 905       | 1851             | 0.0              |
| 390       | 1527             | 0.0              | 520       | 51818            | 25.1             | 650       | 43533            | 3.2              | 780       | 2166             | 0.0              | 910       | 1602             | 0.0              |
| 395       | 1326             | 0.0              | 525       | 54890            | 29.5             | 655       | 38234            | 2.2              | 785       | 2051             | 0.0              | 915       | 2200             | 0.0              |
| 400       | 1233             | 0.0              | 530       | 57872            | 34.1             | 660       | 33754            | 1.4              | 790       | 1765             | 0.0              | 920       | 2530             | 0.0              |
| 405       | 1329             | 0.0              | 535       | 60410            | 37.5             | 665       | 29162            | 0.9              | 795       | 1903             | 0.0              | 925       | 2487             | 0.0              |
| 410       | 1902             | 0.0              | 540       | 62857            | 41.0             | 670       | 25117            | 0.5              | 800       | 2127             | 0.0              | 930       | 2089             | 0.0              |
| 415       | 3436             | 0.0              | 545       | 66165            | 44.0             | 675       | 21511            | 0.4              | 805       | 1867             | 0.0              | 935       | 2293             | 0.0              |
| 420       | 6571             | 0.0              | 550       | 70124            | 47.7             | 680       | 18435            | 0.2              | 810       | 1775             | 0.0              | 940       | 2315             | 0.0              |
| 425       | 12957            | 0.1              | 555       | 74973            | 51.2             | 685       | 16004            | 0.1              | 815       | 1812             | 0.0              | 945       | 2481             | 0.0              |
| 430       | 23376            | 0.2              | 560       | 80227            | 54.5             | 690       | 13701            | 0.1              | 820       | 1973             | 0.0              | 950       | 2701             | 0.0              |
| 435       | 38205            | 0.5              | 565       | 85358            | 56.8             | 695       | 11765            | 0.0              | 825       | 1773             | 0.0              | 955       | 2892             | 0.0              |
| 440       | 56691            | 0.9              | 570       | 90422            | 58.8             | 700       | 10145            | 0.0              | 830       | 1925             | 0.0              | 960       | 2609             | 0.0              |
| 445       | 67585            | 1.4              | 575       | 95259            | 59.3             | 705       | 8865             | 0.0              | 835       | 2001             | 0.0              | 965       | 3066             | 0.0              |
| 450       | 55963            | 1.5              | 580       | 99033            | 58.8             | 710       | 7954             | 0.0              | 840       | 2142             | 0.0              | 970       | 2566             | 0.0              |
| 455       | 35549            | 1.2              | 585       | 101572           | 56.4             | 715       | 7285             | 0.0              | 845       | 2101             | 0.0              | 975       | 2375             | 0.0              |
| 460       | 25268            | 1.0              | 590       | 103264           | 53.4             | 720       | 6412             | 0.0              | 850       | 2097             | 0.0              | 980       | 3526             | 0.0              |
| 465       | 18712            | 1.0              | 595       | 102194           | 48.4             | 725       | 5721             | 0.0              | 855       | 2090             | 0.0              | 985       | 2982             | 0.0              |
| 470       | 13835            | 0.9              | 600       | 100645           | 43.4             | 730       | 5017             | 0.0              | 860       | 2535             | 0.0              | 990       | 2305             | 0.0              |
| 475       | 12398            | 1.0              | 605       | 97644            | 37.8             | 735       | 4459             | 0.0              | 865       | 2101             | 0.0              | 995       | 3671             | 0.0              |
| 480       | 13406            | 1.3              | 610       | 92487            | 31.8             | 740       | 4062             | 0.0              | 870       | 1798             | 0.0              | 1000      | 2560             | 0.0              |
| 485       | 15865            | 1.9              | 615       | 87436            | 26.4             | 745       | 3636             | 0.0              | 875       | 2857             | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-224-2

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 7088.7

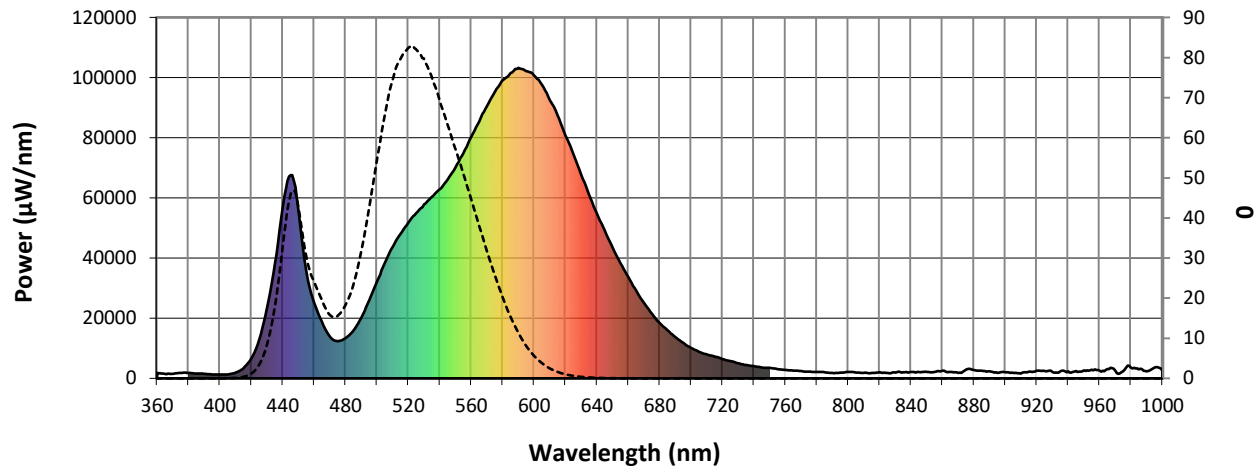
S/P: 1.35

| 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       | 1840             | 0.0              | 490       | 20271            | 31.2             | 620       | 80709            | 1.0              | 750       | 3465             | 0.0              | 880       | 2800             | 0.0              |
| 365       | 1514             | 0.0              | 495       | 25910            | 41.9             | 625       | 74695            | 0.6              | 755       | 3075             | 0.0              | 885       | 2582             | 0.0              |
| 370       | 1514             | 0.0              | 500       | 32216            | 53.9             | 630       | 67709            | 0.4              | 760       | 2794             | 0.0              | 890       | 2353             | 0.0              |
| 375       | 1843             | 0.0              | 505       | 38336            | 65.2             | 635       | 61156            | 0.2              | 765       | 2593             | 0.0              | 895       | 1819             | 0.0              |
| 380       | 1796             | 0.0              | 510       | 43738            | 74.1             | 640       | 54795            | 0.1              | 770       | 2401             | 0.0              | 900       | 2024             | 0.0              |
| 385       | 1575             | 0.0              | 515       | 47977            | 79.5             | 645       | 49111            | 0.1              | 775       | 2233             | 0.0              | 905       | 1851             | 0.0              |
| 390       | 1527             | 0.0              | 520       | 51818            | 82.4             | 650       | 43533            | 0.1              | 780       | 2166             | 0.0              | 910       | 1602             | 0.0              |
| 395       | 1326             | 0.0              | 525       | 54890            | 82.1             | 655       | 38234            | 0.0              | 785       | 2051             | 0.0              | 915       | 2200             | 0.0              |
| 400       | 1233             | 0.0              | 530       | 57872            | 79.8             | 660       | 33754            | 0.0              | 790       | 1765             | 0.0              | 920       | 2530             | 0.0              |
| 405       | 1329             | 0.0              | 535       | 60410            | 75.3             | 665       | 29162            | 0.0              | 795       | 1903             | 0.0              | 925       | 2487             | 0.0              |
| 410       | 1902             | 0.1              | 540       | 62857            | 69.5             | 670       | 25117            | 0.0              | 800       | 2127             | 0.0              | 930       | 2089             | 0.0              |
| 415       | 3436             | 0.4              | 545       | 66165            | 63.4             | 675       | 21511            | 0.0              | 805       | 1867             | 0.0              | 935       | 2293             | 0.0              |
| 420       | 6571             | 1.1              | 550       | 70124            | 57.3             | 680       | 18435            | 0.0              | 810       | 1775             | 0.0              | 940       | 2315             | 0.0              |
| 425       | 12957            | 3.2              | 555       | 74973            | 51.2             | 685       | 16004            | 0.0              | 815       | 1812             | 0.0              | 945       | 2481             | 0.0              |
| 430       | 23376            | 8.0              | 560       | 80227            | 44.8             | 690       | 13701            | 0.0              | 820       | 1973             | 0.0              | 950       | 2701             | 0.0              |
| 435       | 38205            | 17.1             | 565       | 85358            | 38.3             | 695       | 11765            | 0.0              | 825       | 1773             | 0.0              | 955       | 2892             | 0.0              |
| 440       | 56691            | 31.7             | 570       | 90422            | 31.9             | 700       | 10145            | 0.0              | 830       | 1925             | 0.0              | 960       | 2609             | 0.0              |
| 445       | 67585            | 45.3             | 575       | 95259            | 25.9             | 705       | 8865             | 0.0              | 835       | 2001             | 0.0              | 965       | 3066             | 0.0              |
| 450       | 55963            | 43.4             | 580       | 99033            | 20.4             | 710       | 7954             | 0.0              | 840       | 2142             | 0.0              | 970       | 2566             | 0.0              |
| 455       | 35549            | 31.1             | 585       | 101572           | 15.5             | 715       | 7285             | 0.0              | 845       | 2101             | 0.0              | 975       | 2375             | 0.0              |
| 460       | 25268            | 24.4             | 590       | 103264           | 11.5             | 720       | 6412             | 0.0              | 850       | 2097             | 0.0              | 980       | 3526             | 0.0              |
| 465       | 18712            | 19.8             | 595       | 102194           | 8.1              | 725       | 5721             | 0.0              | 855       | 2090             | 0.0              | 985       | 2982             | 0.0              |
| 470       | 13835            | 15.9             | 600       | 100645           | 5.7              | 730       | 5017             | 0.0              | 860       | 2535             | 0.0              | 990       | 2305             | 0.0              |
| 475       | 12398            | 15.5             | 605       | 97644            | 3.8              | 735       | 4459             | 0.0              | 865       | 2101             | 0.0              | 995       | 3671             | 0.0              |
| 480       | 13406            | 18.1             | 610       | 92487            | 2.5              | 740       | 4062             | 0.0              | 870       | 1798             | 0.0              | 1000      | 2560             | 0.0              |
| 485       | 15865            | 23.0             | 615       | 87436            | 1.6              | 745       | 3636             | 0.0              | 875       | 2857             | 0.0              |           |                  |                  |



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### Melanopic Flux vs. Wavelength



Melanopic Lumens: 2621

M/P: 0.5

| 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       | 1840             | 0.0              | 490       | 20271            | 16.9             | 620       | 80709            | 0.1              | 750       | 3465             | 0.0              | 880       | 2800             | 0.0              |
| 365       | 1514             | 0.0              | 495       | 25910            | 21.4             | 625       | 74695            | 0.0              | 755       | 3075             | 0.0              | 885       | 2582             | 0.0              |
| 370       | 1514             | 0.0              | 500       | 32216            | 25.9             | 630       | 67709            | 0.0              | 760       | 2794             | 0.0              | 890       | 2353             | 0.0              |
| 375       | 1843             | 0.0              | 505       | 38336            | 29.4             | 635       | 61156            | 0.0              | 765       | 2593             | 0.0              | 895       | 1819             | 0.0              |
| 380       | 1796             | 0.0              | 510       | 43738            | 31.4             | 640       | 54795            | 0.0              | 770       | 2401             | 0.0              | 900       | 2024             | 0.0              |
| 385       | 1575             | 0.0              | 515       | 47977            | 31.3             | 645       | 49111            | 0.0              | 775       | 2233             | 0.0              | 905       | 1851             | 0.0              |
| 390       | 1527             | 0.0              | 520       | 51818            | 30.2             | 650       | 43533            | 0.0              | 780       | 2166             | 0.0              | 910       | 1602             | 0.0              |
| 395       | 1326             | 0.0              | 525       | 54890            | 27.8             | 655       | 38234            | 0.0              | 785       | 2051             | 0.0              | 915       | 2200             | 0.0              |
| 400       | 1233             | 0.0              | 530       | 57872            | 25.0             | 660       | 33754            | 0.0              | 790       | 1765             | 0.0              | 920       | 2530             | 0.0              |
| 405       | 1329             | 0.0              | 535       | 60410            | 21.7             | 665       | 29162            | 0.0              | 795       | 1903             | 0.0              | 925       | 2487             | 0.0              |
| 410       | 1902             | 0.1              | 540       | 62857            | 18.4             | 670       | 25117            | 0.0              | 800       | 2127             | 0.0              | 930       | 2089             | 0.0              |
| 415       | 3436             | 0.2              | 545       | 66165            | 15.4             | 675       | 21511            | 0.0              | 805       | 1867             | 0.0              | 935       | 2293             | 0.0              |
| 420       | 6571             | 0.8              | 550       | 70124            | 12.6             | 680       | 18435            | 0.0              | 810       | 1775             | 0.0              | 940       | 2315             | 0.0              |
| 425       | 12957            | 2.0              | 555       | 74973            | 10.1             | 685       | 16004            | 0.0              | 815       | 1812             | 0.0              | 945       | 2481             | 0.0              |
| 430       | 23376            | 4.9              | 560       | 80227            | 7.9              | 690       | 13701            | 0.0              | 820       | 1973             | 0.0              | 950       | 2701             | 0.0              |
| 435       | 38205            | 10.2             | 565       | 85358            | 6.0              | 695       | 11765            | 0.0              | 825       | 1773             | 0.0              | 955       | 2892             | 0.0              |
| 440       | 56691            | 18.9             | 570       | 90422            | 4.4              | 700       | 10145            | 0.0              | 830       | 1925             | 0.0              | 960       | 2609             | 0.0              |
| 445       | 67585            | 26.7             | 575       | 95259            | 3.2              | 705       | 8865             | 0.0              | 835       | 2001             | 0.0              | 965       | 3066             | 0.0              |
| 450       | 55963            | 25.8             | 580       | 99033            | 2.2              | 710       | 7954             | 0.0              | 840       | 2142             | 0.0              | 970       | 2566             | 0.0              |
| 455       | 35549            | 18.6             | 585       | 101572           | 1.5              | 715       | 7285             | 0.0              | 845       | 2101             | 0.0              | 975       | 2375             | 0.0              |
| 460       | 25268            | 14.9             | 590       | 103264           | 1.0              | 720       | 6412             | 0.0              | 850       | 2097             | 0.0              | 980       | 3526             | 0.0              |
| 465       | 18712            | 12.2             | 595       | 102194           | 0.7              | 725       | 5721             | 0.0              | 855       | 2090             | 0.0              | 985       | 2982             | 0.0              |
| 470       | 13835            | 9.9              | 600       | 100645           | 0.4              | 730       | 5017             | 0.0              | 860       | 2535             | 0.0              | 990       | 2305             | 0.0              |
| 475       | 12398            | 9.5              | 605       | 97644            | 0.3              | 735       | 4459             | 0.0              | 865       | 2101             | 0.0              | 995       | 3671             | 0.0              |
| 480       | 13406            | 10.8             | 610       | 92487            | 0.2              | 740       | 4062             | 0.0              | 870       | 1798             | 0.0              | 1000      | 2560             | 0.0              |
| 485       | 15865            | 13.1             | 615       | 87436            | 0.1              | 745       | 3636             | 0.0              | 875       | 2857             | 0.0              |           |                  |                  |

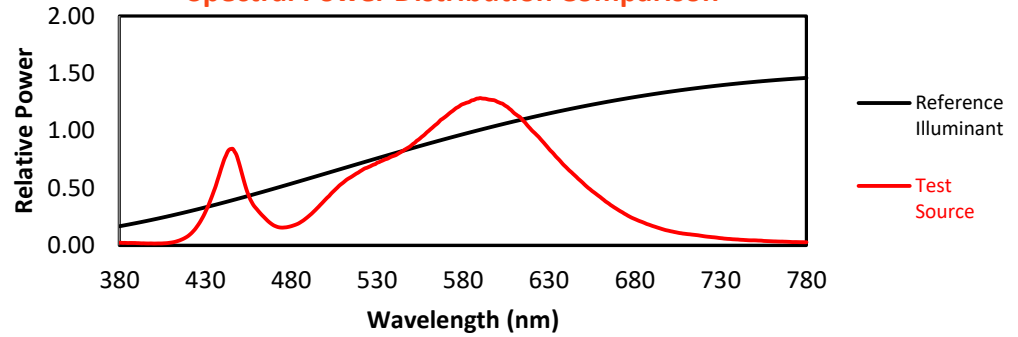
REPORT NUMBER: SP1-2104-224-2

TM-30-18

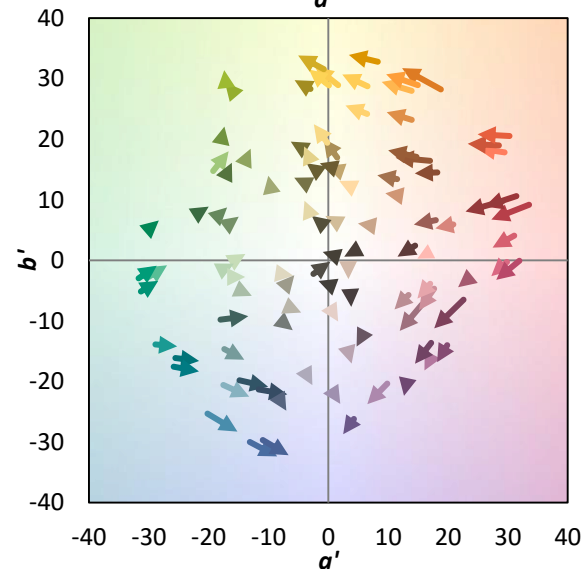
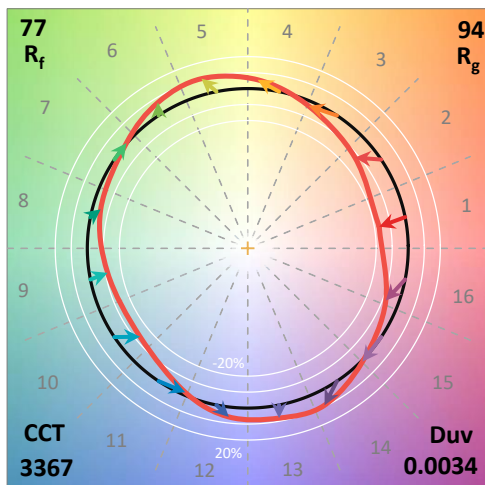
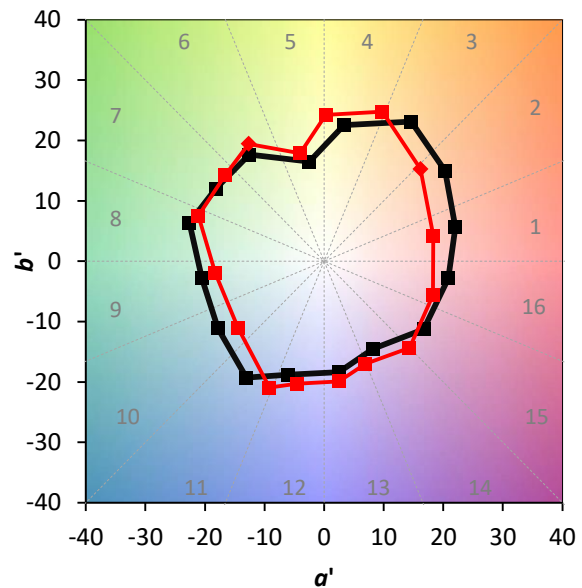
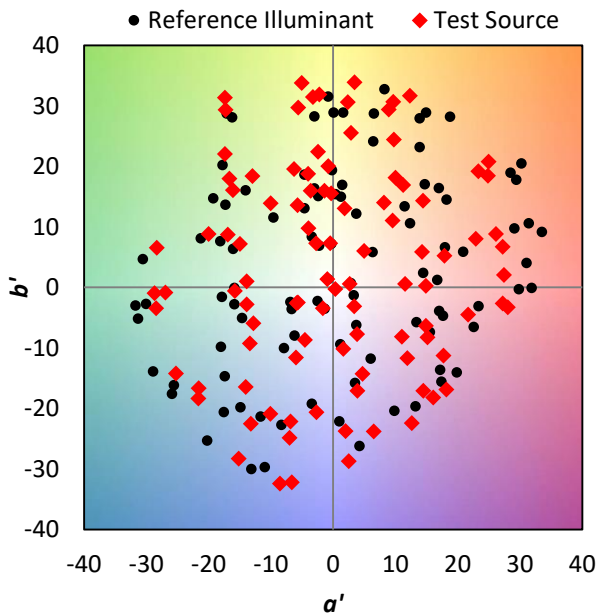
### Summary

$R_f = 77.2$   
 $R_g = 94.4$   
 CIE  $R_a = 73.3$   
 $R_g = -34.3$

### Spectral Power Distribution Comparison

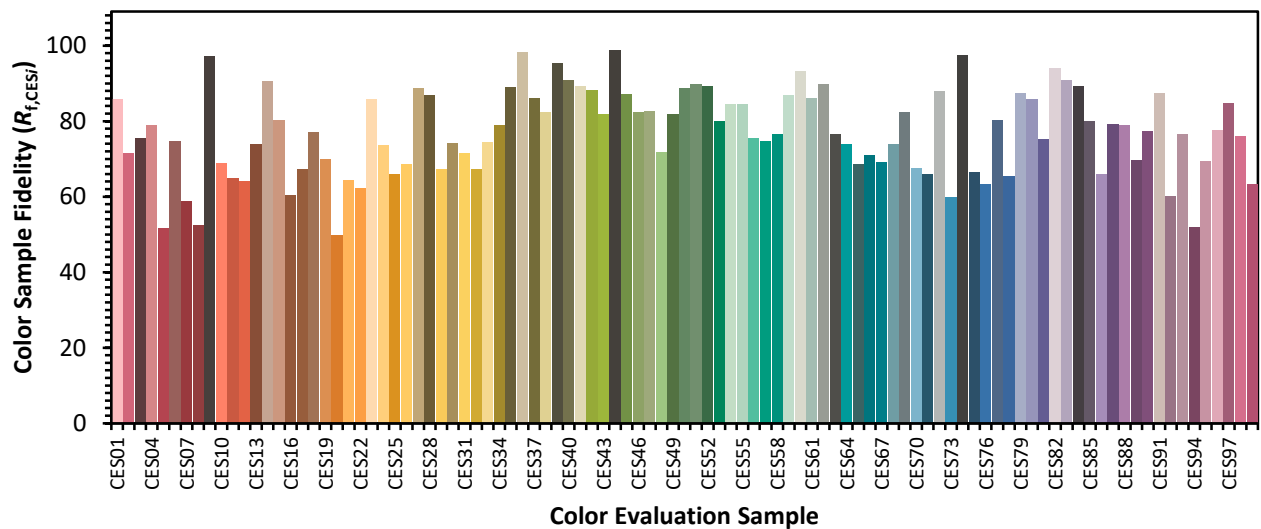


### Color Vector Graphics

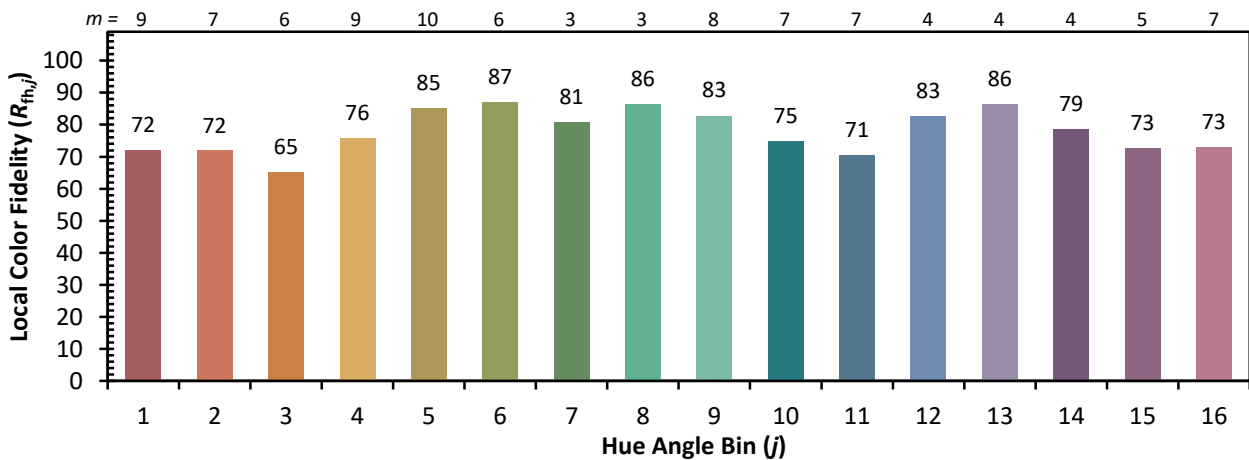
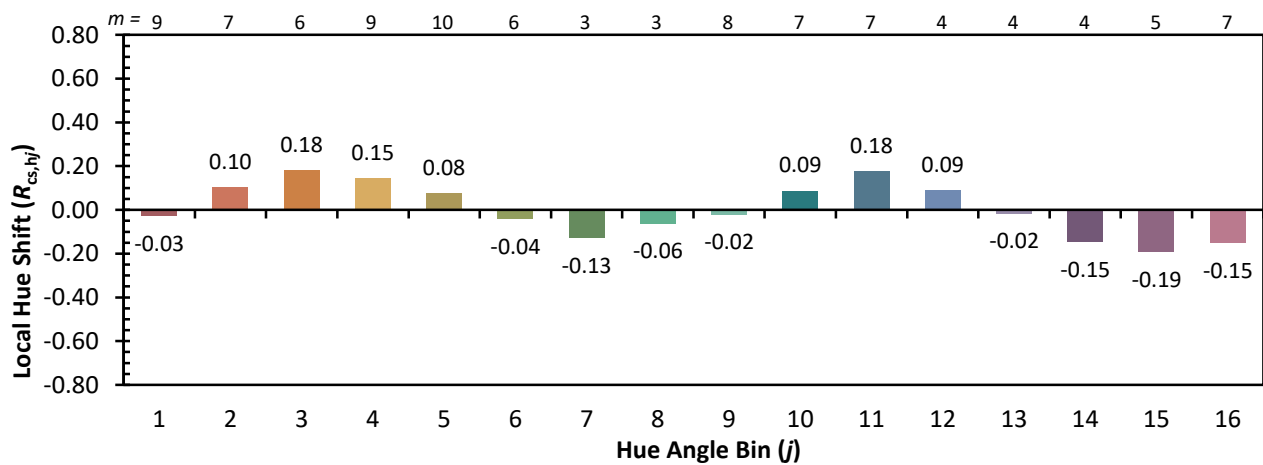
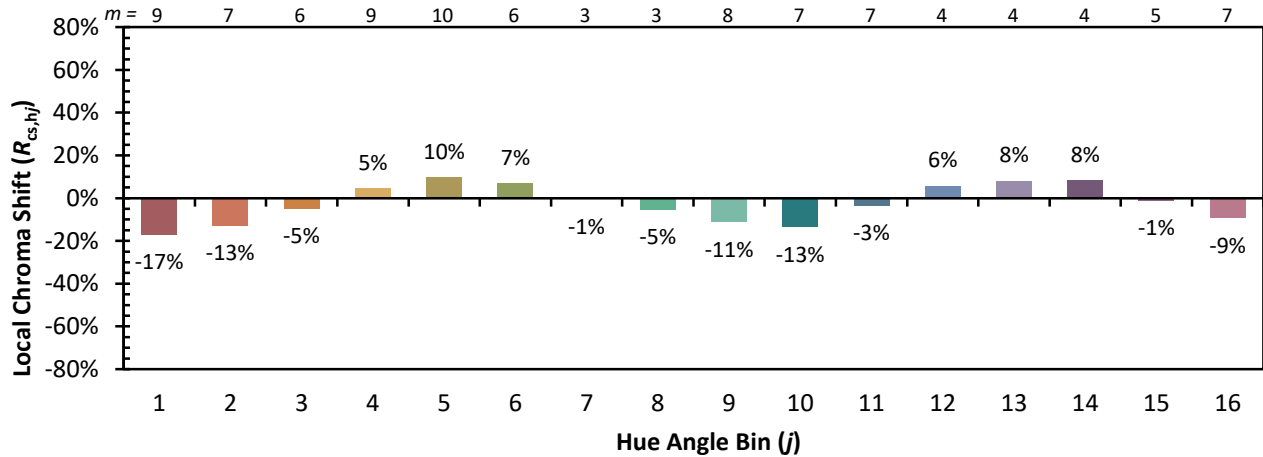


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

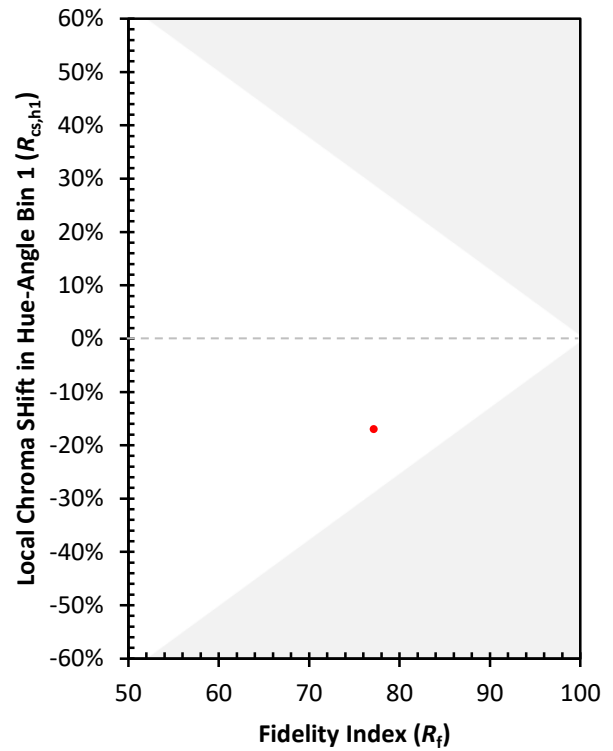
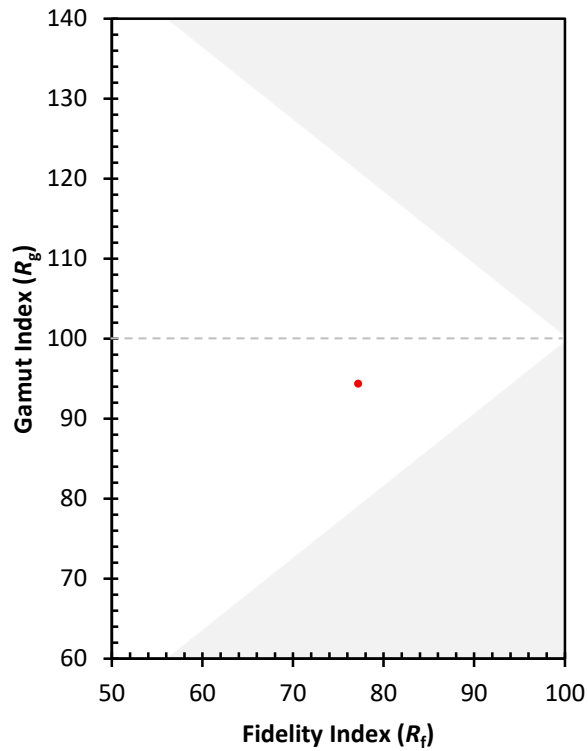
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 69 | CES51 = 90 | CES76 = 63 |
| CES02 = 62 | CES27 = 89 | CES52 = 89 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 80 | CES78 = 65 |
| CES04 = 70 | CES29 = 67 | CES54 = 85 | CES79 = 87 |
| CES05 = 48 | CES30 = 74 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 71 | CES56 = 76 | CES81 = 75 |
| CES07 = 41 | CES32 = 67 | CES57 = 75 | CES82 = 94 |
| CES08 = 39 | CES33 = 75 | CES58 = 77 | CES83 = 91 |
| CES09 = 29 | CES34 = 79 | CES59 = 87 | CES84 = 89 |
| CES10 = 75 | CES35 = 89 | CES60 = 93 | CES85 = 80 |
| CES11 = 58 | CES36 = 98 | CES61 = 86 | CES86 = 66 |
| CES12 = 64 | CES37 = 86 | CES62 = 90 | CES87 = 79 |
| CES13 = 43 | CES38 = 82 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 95 | CES64 = 74 | CES89 = 70 |
| CES15 = 71 | CES40 = 91 | CES65 = 69 | CES90 = 77 |
| CES16 = 47 | CES41 = 89 | CES66 = 71 | CES91 = 87 |
| CES17 = 50 | CES42 = 88 | CES67 = 69 | CES92 = 60 |
| CES18 = 56 | CES43 = 82 | CES68 = 74 | CES93 = 76 |
| CES19 = 72 | CES44 = 99 | CES69 = 82 | CES94 = 52 |
| CES20 = 65 | CES45 = 87 | CES70 = 67 | CES95 = 69 |
| CES21 = 86 | CES46 = 82 | CES71 = 66 | CES96 = 78 |
| CES22 = 79 | CES47 = 83 | CES72 = 88 | CES97 = 85 |
| CES23 = 92 | CES48 = 72 | CES73 = 60 | CES98 = 76 |
| CES24 = 91 | CES49 = 82 | CES74 = 97 | CES99 = 63 |
| CES25 = 72 | CES50 = 89 | CES75 = 67 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)