

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



Scaled data based on original data using  
LM-79-08 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: P1049799

Luminaire Tested: **GALN-SA4C-835-U-LBC**

Issue Date: 07/10/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P1049799  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/10/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4C-835-U-LBC  
Description: GALLEON II AREA AND ROADWAY LUMINAIRE 1050mA 4xLight Square PACKAGE  
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL  
Light Source: (56) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18428.8 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G3

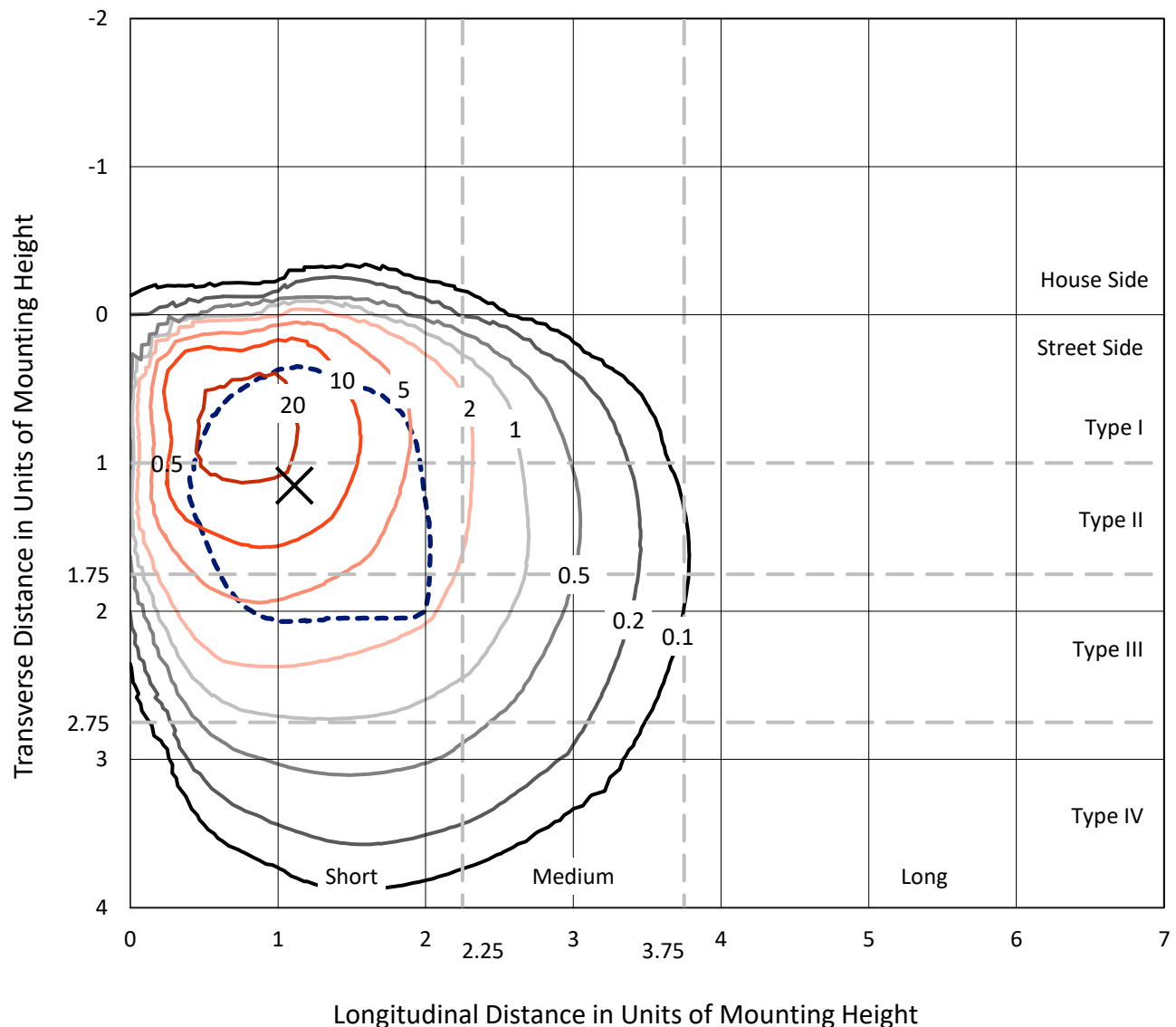
Input Watts (W): 190.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.97  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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## Iso-Footcandle Lines of Horizontal Illumination

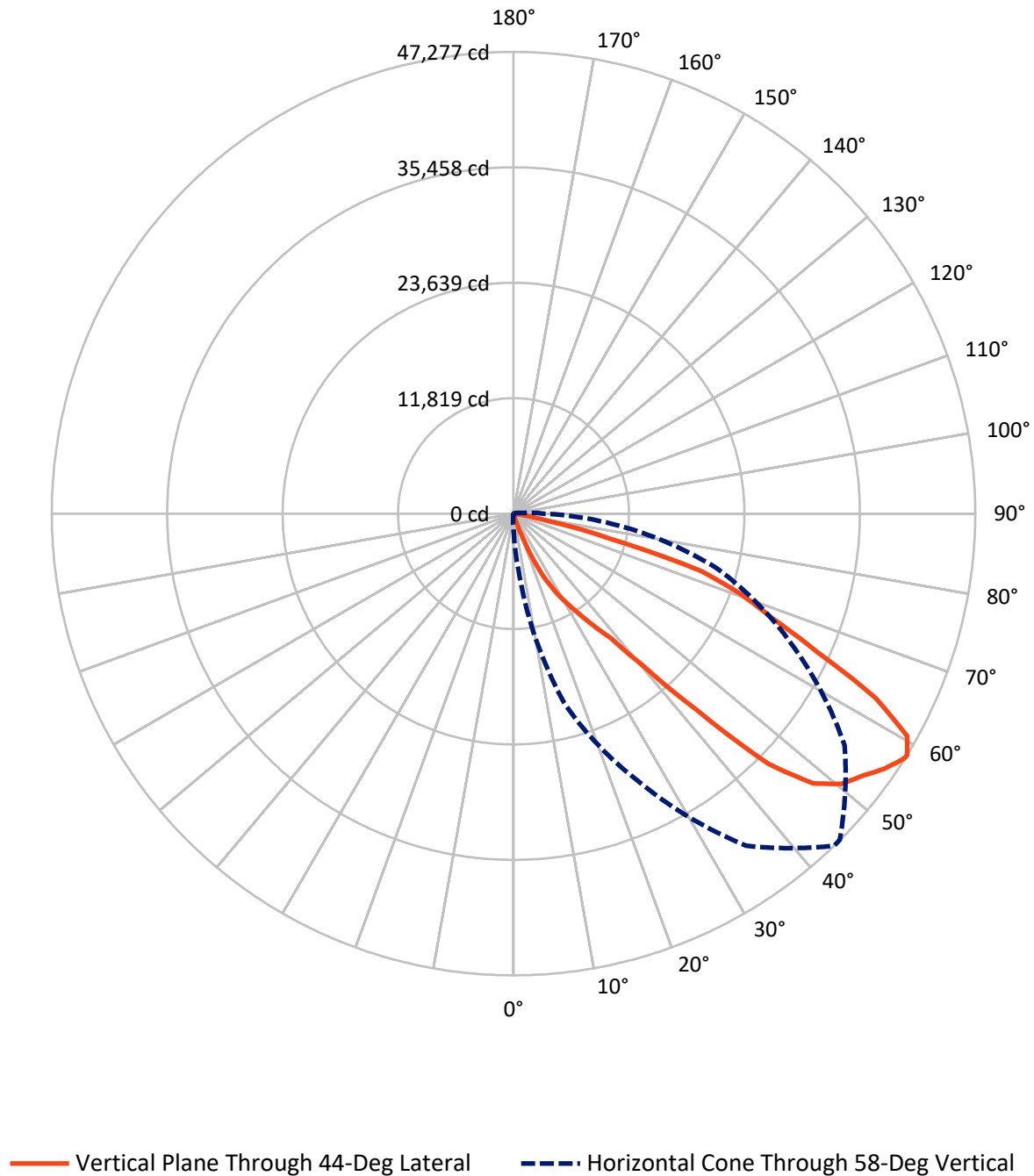
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 32.1 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 125.8    | 0.0    | 125.8   |
|                    | % Fixture | 0.7      | 0.0    | 0.7     |
| <b>Street Side</b> | Lumens    | 18303.0  | 0.0    | 18303.0 |
|                    | % Fixture | 99.3     | 0.0    | 99.3    |
| <b>Total</b>       | Lumens    | 18428.8  | 0.0    | 18428.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 7.2     | 0.0       |
| 10°-20°   | 40.4    | 0.2       |
| 20°-30°   | 436.6   | 2.4       |
| 30°-40°   | 1291.1  | 7.0       |
| 40°-50°   | 3848.2  | 20.9      |
| 50°-60°   | 6106.2  | 33.1      |
| 60°-70°   | 5093.3  | 27.6      |
| 70°-80°   | 1570.9  | 8.5       |
| 80°-90°   | 34.9    | 0.2       |
| 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°    | 18428.8 | 100.0     |
| 0°-180°   | 18428.8 | 100.0     |



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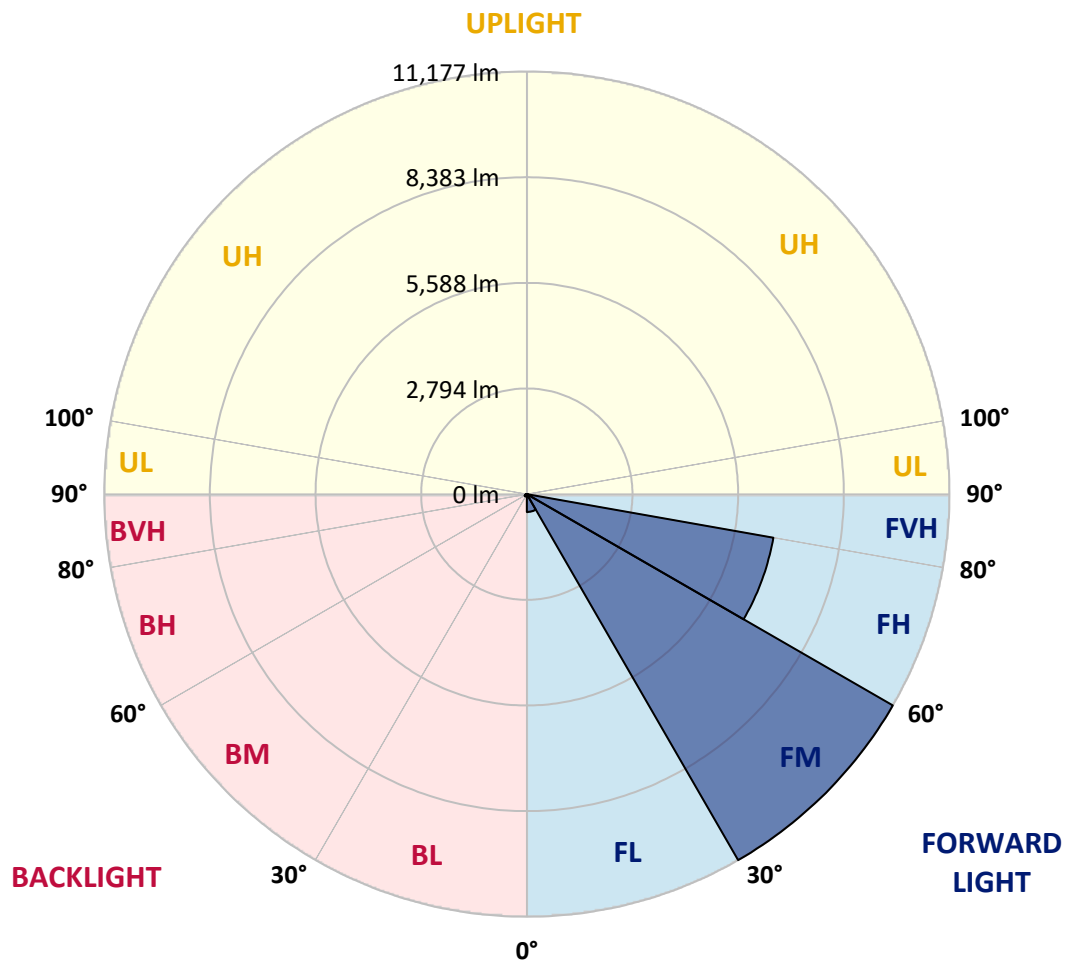
CATALOG NUMBER: GALN-SA4C-835-U-LBC

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 471.9   | 2.6       |                         |      |         |
| FM   | (30°-60°)   | 11176.7 | 60.6      |                         |      |         |
| FH   | (60°-80°)   | 6621.2  | 35.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 33.2    | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 12.3    | 0.1       | B0/110                  |      |         |
| BM   | (30°-60°)   | 68.9    | 0.4       | B0/220                  |      |         |
| BH   | (60°-80°)   | 43.0    | 0.2       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.7     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°     | 44°     | 45°     | 55°     | 65°     | 75°     |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 80.7   | 80.7   | 80.7    | 80.7    | 80.7    | 80.7    | 80.7    | 80.7    | 80.7    | 80.7    |
| 2.5°  | 104.4  | 104.4  | 100.2   | 94.7    | 89.1    | 83.5    | 82.1    | 79.4    | 78.0    | 76.6    |
| 5°    | 108.6  | 108.6  | 107.2   | 103.0   | 97.4    | 93.3    | 93.3    | 89.1    | 86.3    | 83.5    |
| 7.5°  | 111.4  | 112.8  | 115.5   | 114.2   | 111.4   | 107.2   | 107.2   | 104.4   | 100.2   | 93.3    |
| 10°   | 115.5  | 119.7  | 125.3   | 128.1   | 129.5   | 129.5   | 128.1   | 126.7   | 119.7   | 110.0   |
| 12.5° | 119.7  | 128.1  | 142.0   | 155.9   | 164.3   | 175.4   | 174.0   | 171.2   | 153.1   | 132.3   |
| 15°   | 128.1  | 140.6  | 169.8   | 210.2   | 272.9   | 311.8   | 327.2   | 313.2   | 253.4   | 178.2   |
| 17.5° | 137.8  | 158.7  | 246.4   | 439.9   | 721.1   | 854.8   | 935.5   | 870.1   | 576.3   | 338.3   |
| 20°   | 147.6  | 193.5  | 458.0   | 1140.2  | 1871.0  | 2308.2  | 2429.3  | 2240.0  | 1438.1  | 644.6   |
| 22.5° | 164.3  | 271.5  | 928.6   | 2356.9  | 4031.6  | 4687.3  | 4811.2  | 4205.7  | 2716.1  | 1272.4  |
| 25°   | 199.1  | 394.0  | 1601.0  | 3840.9  | 6016.8  | 7123.6  | 7072.1  | 6278.5  | 4406.1  | 2032.5  |
| 27.5° | 249.2  | 573.6  | 2420.9  | 5457.2  | 7918.5  | 8894.4  | 9011.3  | 8029.9  | 5873.4  | 2988.9  |
| 30°   | 321.6  | 794.9  | 3300.8  | 6751.9  | 9442.9  | 10498.1 | 10517.6 | 9502.7  | 7186.2  | 3828.4  |
| 32.5° | 391.2  | 1003.7 | 4070.6  | 8003.4  | 10945.0 | 12101.9 | 12188.2 | 10939.4 | 8166.3  | 4702.6  |
| 35°   | 444.1  | 1140.2 | 4850.2  | 9103.2  | 12459.6 | 14053.6 | 14048.1 | 12565.4 | 9327.3  | 5483.6  |
| 37.5° | 448.3  | 1276.6 | 5556.0  | 10228.0 | 14378.0 | 16162.7 | 16339.5 | 14705.2 | 10730.6 | 6449.8  |
| 40°   | 438.5  | 1429.7 | 6449.8  | 11982.1 | 17834.7 | 20573.0 | 20729.0 | 18668.6 | 13545.5 | 8103.6  |
| 42.5° | 449.7  | 1695.6 | 7900.4  | 15221.7 | 23574.5 | 27507.3 | 27808.0 | 25641.8 | 18720.1 | 11478.2 |
| 45°   | 508.1  | 2195.4 | 10939.4 | 20641.2 | 31756.1 | 36550.6 | 36450.4 | 33330.6 | 24741.1 | 16615.2 |
| 47.5° | 701.6  | 3419.1 | 15444.4 | 25916.1 | 36985.0 | 41254.7 | 41341.0 | 37527.9 | 28254.9 | 20564.7 |
| 50°   | 1078.9 | 5231.7 | 19229.6 | 28704.5 | 39233.3 | 43516.9 | 43436.1 | 39030.0 | 29589.9 | 22509.5 |
| 52.5° | 1403.3 | 6543.1 | 21128.5 | 29683.2 | 39521.4 | 44634.8 | 44629.2 | 39425.4 | 29797.3 | 22676.6 |
| 55°   | 1484.0 | 6641.9 | 21143.8 | 29736.1 | 40167.4 | 46097.9 | 46281.7 | 40398.5 | 30066.0 | 21947.1 |
| 57.5° | 1452.0 | 5880.4 | 20261.2 | 30042.4 | 41317.3 | 47229.7 | 47239.5 | 41341.0 | 30748.2 | 21500.2 |
| 58°   | 1424.2 | 5760.7 | 20083.0 | 30216.4 | 41515.0 | 47277.0 | 47253.4 | 41384.1 | 31303.6 | 21483.5 |
| 60°   | 1268.2 | 5002.0 | 19388.3 | 30660.5 | 41221.2 | 46305.3 | 46084.0 | 40441.6 | 31221.5 | 21312.3 |
| 62.5° | 996.8  | 3902.2 | 18704.8 | 30146.8 | 38072.2 | 41601.3 | 41693.2 | 35804.4 | 28462.3 | 20314.1 |
| 65°   | 793.5  | 2908.2 | 17279.2 | 26443.7 | 31351.0 | 34163.1 | 34505.6 | 29115.2 | 23756.9 | 17201.3 |
| 67.5° | 632.0  | 2102.1 | 14495.0 | 21053.3 | 24807.9 | 28512.4 | 28761.6 | 24444.6 | 18405.5 | 13179.4 |
| 70°   | 513.7  | 1421.4 | 10005.3 | 15397.1 | 20461.7 | 24626.9 | 24642.3 | 20307.1 | 13737.6 | 8635.4  |
| 72.5° | 455.2  | 984.2  | 5808.0  | 11229.0 | 16591.5 | 20067.7 | 19662.6 | 16478.8 | 10558.0 | 5114.7  |
| 75°   | 394.0  | 652.9  | 2848.3  | 6864.6  | 10059.6 | 10127.8 | 10282.3 | 7644.2  | 5277.6  | 2432.1  |
| 77.5° | 324.4  | 463.6  | 1122.1  | 1875.2  | 3016.8  | 3861.8  | 4005.2  | 3034.9  | 1755.5  | 598.6   |
| 80°   | 222.7  | 220.0  | 302.1   | 575.0   | 863.1   | 1081.7  | 1009.3  | 781.0   | 459.4   | 229.7   |
| 82.5° | 96.1   | 104.4  | 136.4   | 164.3   | 133.6   | 129.5   | 123.9   | 79.4    | 61.3    | 47.3    |
| 85°   | 30.6   | 27.8   | 29.2    | 29.2    | 23.7    | 18.1    | 18.1    | 8.4     | 0.0     | 0.0     |
| 87.5° | 15.3   | 12.5   | 12.5    | 11.1    | 7.0     | 2.8     | 1.4     | 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     |

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**CANDELA DISTRIBUTION (continued):**

| 85°     |       | 90°    | 95°   | 105°  | 115° | 125° | 135° | 145° | 155° | 165° | 175° |
|---------|-------|--------|-------|-------|------|------|------|------|------|------|------|
| 80.7    | 0°    | 80.7   | 80.7  | 80.7  | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 |
| 75.2    | 2.5°  | 73.8   | 73.8  | 71.0  | 68.2 | 66.8 | 64.0 | 62.6 | 61.3 | 59.9 | 58.5 |
| 80.7    | 5°    | 78.0   | 76.6  | 72.4  | 68.2 | 64.0 | 59.9 | 57.1 | 54.3 | 51.5 | 50.1 |
| 89.1    | 7.5°  | 84.9   | 82.1  | 73.8  | 66.8 | 61.3 | 55.7 | 52.9 | 48.7 | 45.9 | 41.8 |
| 98.8    | 10°   | 93.3   | 87.7  | 76.6  | 68.2 | 59.9 | 52.9 | 48.7 | 44.5 | 40.4 | 34.8 |
| 112.8   | 12.5° | 104.4  | 94.7  | 80.7  | 66.8 | 57.1 | 48.7 | 44.5 | 39.0 | 34.8 | 30.6 |
| 130.9   | 15°   | 114.2  | 101.6 | 82.1  | 66.8 | 54.3 | 44.5 | 39.0 | 33.4 | 29.2 | 23.7 |
| 164.3   | 17.5° | 128.1  | 107.2 | 80.7  | 62.6 | 50.1 | 39.0 | 33.4 | 29.2 | 22.3 | 13.9 |
| 243.6   | 20°   | 151.7  | 111.4 | 78.0  | 58.5 | 43.2 | 32.0 | 25.1 | 19.5 | 9.7  | 2.8  |
| 366.1   | 22.5° | 189.3  | 122.5 | 75.2  | 52.9 | 37.6 | 25.1 | 16.7 | 7.0  | 0.0  | 0.0  |
| 556.9   | 25°   | 261.7  | 142.0 | 75.2  | 50.1 | 33.4 | 18.1 | 5.6  | 0.0  | 0.0  | 0.0  |
| 790.7   | 27.5° | 348.0  | 168.4 | 75.2  | 43.2 | 26.5 | 9.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1077.5  | 30°   | 435.7  | 197.7 | 75.2  | 37.6 | 20.9 | 1.4  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1326.7  | 32.5° | 519.3  | 222.7 | 76.6  | 32.0 | 13.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1672.0  | 35°   | 604.2  | 226.9 | 75.2  | 27.8 | 8.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2095.2  | 37.5° | 712.8  | 218.6 | 71.0  | 25.1 | 4.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2756.4  | 40°   | 877.0  | 222.7 | 66.8  | 23.7 | 1.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3935.6  | 42.5° | 1180.5 | 240.8 | 61.3  | 23.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 6268.8  | 45°   | 2040.9 | 323.0 | 55.7  | 25.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 9410.9  | 47.5° | 3375.9 | 580.5 | 54.3  | 25.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 11336.2 | 50°   | 4308.7 | 730.9 | 57.1  | 26.5 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 11577.0 | 52.5° | 4301.7 | 814.4 | 59.9  | 27.8 | 5.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 10670.7 | 55°   | 3824.2 | 829.7 | 64.0  | 30.6 | 18.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 9170.0  | 57.5° | 3196.4 | 757.3 | 73.8  | 37.6 | 33.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 8934.7  | 58°   | 3085.0 | 723.9 | 76.6  | 39.0 | 36.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 7750.0  | 60°   | 2528.1 | 590.3 | 97.4  | 48.7 | 48.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 6353.7  | 62.5° | 1745.7 | 515.1 | 111.4 | 62.6 | 50.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 4684.5  | 65°   | 1234.8 | 465.0 | 121.1 | 66.8 | 40.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3328.6  | 67.5° | 923.0  | 428.8 | 133.6 | 68.2 | 20.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2088.2  | 70°   | 707.2  | 402.3 | 164.3 | 72.4 | 5.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1244.6  | 72.5° | 576.3  | 371.7 | 199.1 | 75.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 746.2   | 75°   | 477.5  | 335.5 | 192.1 | 82.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 398.2   | 77.5° | 317.4  | 260.3 | 175.4 | 82.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.0   | 80°   | 111.4  | 103.0 | 136.4 | 72.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 29.2    | 82.5° | 16.7   | 13.9  | 19.5  | 25.1 | 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  |

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**CANDELA DISTRIBUTION (continued):**

| 180° |       | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° |
|------|-------|------|------|------|------|------|------|------|------|------|------|
| 80.7 | 0°    | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 |
| 57.1 | 2.5°  | 57.1 | 57.1 | 55.7 | 57.1 | 57.1 | 59.9 | 66.8 | 76.6 | 87.7 | 91.9 |
| 48.7 | 5°    | 47.3 | 45.9 | 44.5 | 44.5 | 44.5 | 48.7 | 54.3 | 65.4 | 78.0 | 83.5 |
| 40.4 | 7.5°  | 39.0 | 37.6 | 36.2 | 34.8 | 34.8 | 37.6 | 44.5 | 57.1 | 69.6 | 75.2 |
| 33.4 | 10°   | 32.0 | 29.2 | 27.8 | 26.5 | 26.5 | 29.2 | 36.2 | 48.7 | 62.6 | 68.2 |
| 27.8 | 12.5° | 26.5 | 22.3 | 19.5 | 18.1 | 16.7 | 20.9 | 27.8 | 39.0 | 54.3 | 61.3 |
| 20.9 | 15°   | 18.1 | 13.9 | 9.7  | 8.4  | 7.0  | 11.1 | 18.1 | 30.6 | 45.9 | 54.3 |
| 11.1 | 17.5° | 9.7  | 4.2  | 1.4  | 0.0  | 0.0  | 2.8  | 8.4  | 22.3 | 37.6 | 44.5 |
| 0.0  | 20°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 11.1 | 27.8 | 34.8 |
| 0.0  | 22.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.4  | 16.7 | 23.7 |
| 0.0  | 25°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 7.0  | 12.5 |
| 0.0  | 27.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 2.8  |
| 0.0  | 30°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 32.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 35°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 37.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 40°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 42.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 45°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 47.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 50°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 52.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 55°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 57.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 58°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 60°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 62.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 65°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 67.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 70°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 72.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 75°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 77.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 0.0  | 80°   | 0.0  | 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  | 4.2  |
| 0.0  | 87.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.6  | 11.1 |
| 0.0  | 90°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |



REPORT NUMBER: P1049799

CATALOG NUMBER: GALN-SA4C-835-U-LBC

**CANDELA DISTRIBUTION (continued):**

| 275° |       | 285° | 295° | 305° | 315° | 316° | 325° | 335° | 345°  | 355°  | 360°   |
|------|-------|------|------|------|------|------|------|------|-------|-------|--------|
| 80.7 | 0°    | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7 | 80.7  | 80.7  | 80.7   |
| 96.1 | 2.5°  | 98.8 | 97.4 | 94.7 | 91.9 | 91.9 | 91.9 | 96.1 | 100.2 | 104.4 | 104.4  |
| 86.3 | 5°    | 91.9 | 91.9 | 90.5 | 87.7 | 87.7 | 89.1 | 94.7 | 101.6 | 107.2 | 108.6  |
| 79.4 | 7.5°  | 84.9 | 87.7 | 84.9 | 83.5 | 84.9 | 86.3 | 91.9 | 100.2 | 108.6 | 111.4  |
| 73.8 | 10°   | 80.7 | 82.1 | 82.1 | 80.7 | 80.7 | 83.5 | 89.1 | 100.2 | 111.4 | 115.5  |
| 66.8 | 12.5° | 75.2 | 78.0 | 76.6 | 76.6 | 76.6 | 79.4 | 86.3 | 98.8  | 114.2 | 119.7  |
| 59.9 | 15°   | 69.6 | 73.8 | 73.8 | 72.4 | 72.4 | 73.8 | 83.5 | 97.4  | 118.3 | 128.1  |
| 51.5 | 17.5° | 64.0 | 68.2 | 69.6 | 66.8 | 66.8 | 69.6 | 79.4 | 97.4  | 121.1 | 137.8  |
| 41.8 | 20°   | 52.9 | 59.9 | 64.0 | 59.9 | 59.9 | 62.6 | 72.4 | 91.9  | 122.5 | 147.6  |
| 30.6 | 22.5° | 41.8 | 48.7 | 54.3 | 52.9 | 52.9 | 54.3 | 66.8 | 87.7  | 123.9 | 164.3  |
| 18.1 | 25°   | 30.6 | 37.6 | 41.8 | 44.5 | 44.5 | 48.7 | 61.3 | 84.9  | 129.5 | 199.1  |
| 8.4  | 27.5° | 18.1 | 26.5 | 32.0 | 34.8 | 36.2 | 41.8 | 57.1 | 82.1  | 139.2 | 249.2  |
| 0.0  | 30°   | 8.4  | 15.3 | 22.3 | 27.8 | 27.8 | 37.6 | 52.9 | 79.4  | 151.7 | 321.6  |
| 0.0  | 32.5° | 0.0  | 7.0  | 11.1 | 19.5 | 20.9 | 30.6 | 48.7 | 76.6  | 169.8 | 391.2  |
| 0.0  | 35°   | 0.0  | 0.0  | 5.6  | 15.3 | 15.3 | 25.1 | 44.5 | 73.8  | 197.7 | 444.1  |
| 0.0  | 37.5° | 0.0  | 0.0  | 0.0  | 11.1 | 12.5 | 22.3 | 43.2 | 72.4  | 203.3 | 448.3  |
| 0.0  | 40°   | 0.0  | 0.0  | 0.0  | 8.4  | 9.7  | 20.9 | 43.2 | 73.8  | 183.8 | 438.5  |
| 0.0  | 42.5° | 0.0  | 0.0  | 0.0  | 5.6  | 7.0  | 20.9 | 43.2 | 76.6  | 165.7 | 449.7  |
| 0.0  | 45°   | 0.0  | 0.0  | 0.0  | 4.2  | 5.6  | 22.3 | 41.8 | 75.2  | 155.9 | 508.1  |
| 0.0  | 47.5° | 0.0  | 0.0  | 0.0  | 5.6  | 8.4  | 22.3 | 40.4 | 73.8  | 157.3 | 701.6  |
| 0.0  | 50°   | 0.0  | 0.0  | 0.0  | 7.0  | 9.7  | 22.3 | 41.8 | 71.0  | 172.6 | 1078.9 |
| 0.0  | 52.5° | 0.0  | 0.0  | 0.0  | 5.6  | 8.4  | 25.1 | 45.9 | 69.6  | 187.9 | 1403.3 |
| 0.0  | 55°   | 0.0  | 0.0  | 0.0  | 1.4  | 4.2  | 32.0 | 50.1 | 69.6  | 211.6 | 1484.0 |
| 0.0  | 57.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 36.2 | 57.1 | 73.8  | 250.6 | 1452.0 |
| 0.0  | 58°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 36.2 | 58.5 | 73.8  | 253.4 | 1424.2 |
| 0.0  | 60°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 36.2 | 64.0 | 82.1  | 272.9 | 1268.2 |
| 0.0  | 62.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 30.6 | 76.6 | 103.0 | 284.0 | 996.8  |
| 0.0  | 65°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 25.1 | 90.5 | 112.8 | 292.3 | 793.5  |
| 0.0  | 67.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 23.7 | 93.3 | 114.2 | 296.5 | 632.0  |
| 0.0  | 70°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 25.1 | 91.9 | 122.5 | 310.4 | 513.7  |
| 0.0  | 72.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 27.8 | 83.5 | 135.0 | 310.4 | 455.2  |
| 0.0  | 75°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 29.2 | 78.0 | 151.7 | 282.6 | 394.0  |
| 0.0  | 77.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 27.8 | 76.6 | 176.8 | 252.0 | 324.4  |
| 0.0  | 80°   | 2.8  | 4.2  | 4.2  | 2.8  | 2.8  | 23.7 | 75.2 | 179.6 | 214.4 | 222.7  |
| 1.4  | 82.5° | 8.4  | 11.1 | 9.7  | 7.0  | 7.0  | 20.9 | 66.8 | 150.4 | 111.4 | 96.1   |
| 8.4  | 85°   | 15.3 | 18.1 | 18.1 | 15.3 | 15.3 | 19.5 | 41.8 | 54.3  | 37.6  | 30.6   |
| 15.3 | 87.5° | 20.9 | 23.7 | 23.7 | 20.9 | 20.9 | 19.5 | 18.1 | 16.7  | 15.3  | 15.3   |
| 0.0  | 90°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0    |

(END OF RI



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-10

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-835-U-5WQ

Data in this report applies to families of products including GSS-SB1A-835-U-5WQ

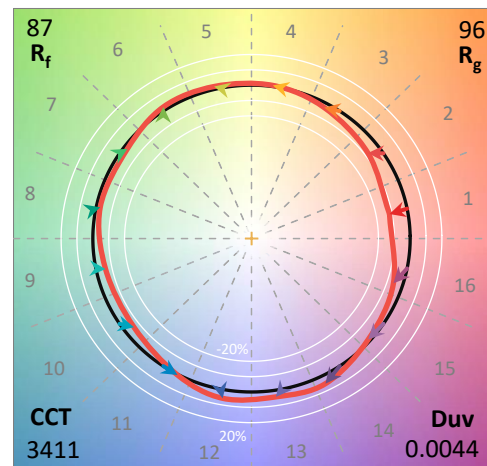
### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-10  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 10/15/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGraw-Edison  
 Catalog Number: **GSS-SB1A-835-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI  
 3500K CCT 26 LEDS

### Spectral Parameters

CCT (K): 3411  
 CIE  $u'$ : 0.2360  
 CIE  $v'$ : 0.5189  
 Duv: 0.0044  
 CIE x: 0.4154  
 CIE y: 0.4059  
 CIE z: 0.1787  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 579  
 Purity: 46.51914  
 R<sub>f</sub>: 86.6  
 R<sub>g</sub>: 95.9

CRI (Ra): 83.5  
 R1: 81.1  
 R2: 88.9  
 R3: 97.2  
 R4: 83.8  
 R5: 81.7  
 R6: 86.9  
 R7: 86.1  
 R8: 62.2  
 R9: 6.3  
 R10: 75.4  
 R11: 84.1  
 R12: 69.7  
 R13: 82.8  
 R14: 98.5  
 R15: 72.6



### Test Conditions

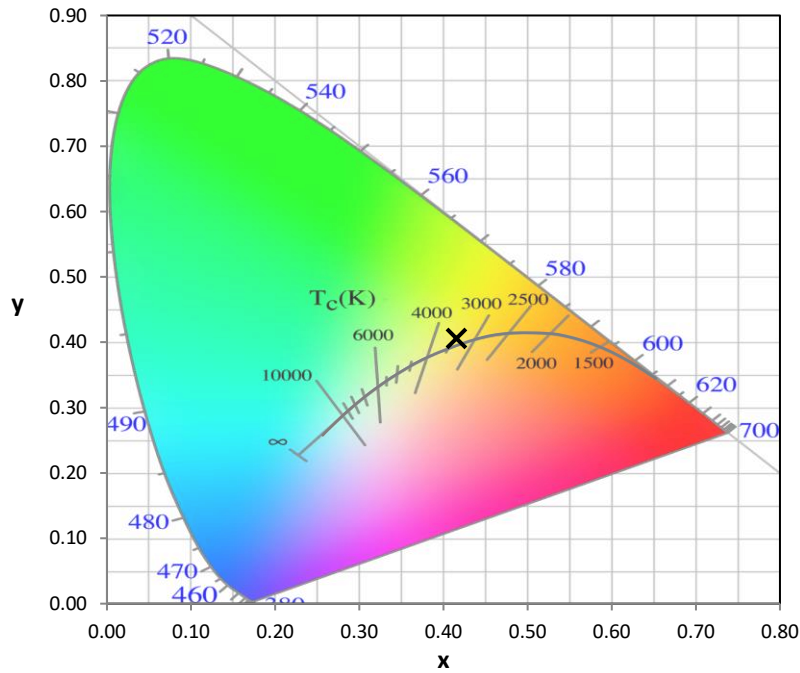
Stabilization Time: 35M  
 Operation Time: 1H 35M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

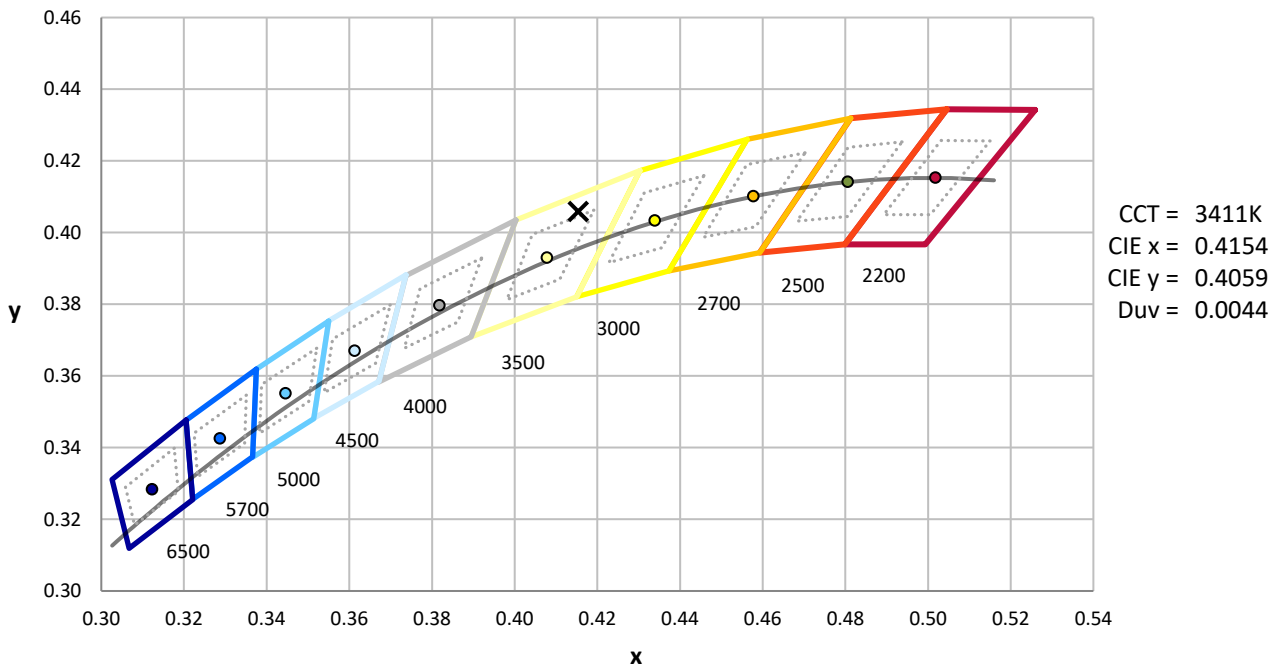
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 6/18/2024        | 12/18/2024           |
| Power Meter                    | INXT2011004           | 2/8/2024         | 2/8/2025             |
| AC Power Source                | IN0063                | 10/24/2023       | 10/24/2024           |
| DC Power Source                | IN0208                | 10/24/2023       | 10/24/2024           |
| Sphere Thermometer             | IN0085                | 10/24/2023       | 10/24/2024           |
| Room Thermometer               | IN0046                | 10/24/2023       | 10/24/2024           |

REPORT NUMBER: SP1-2407-184-10

**CIE 1931 Chromaticity Diagram**



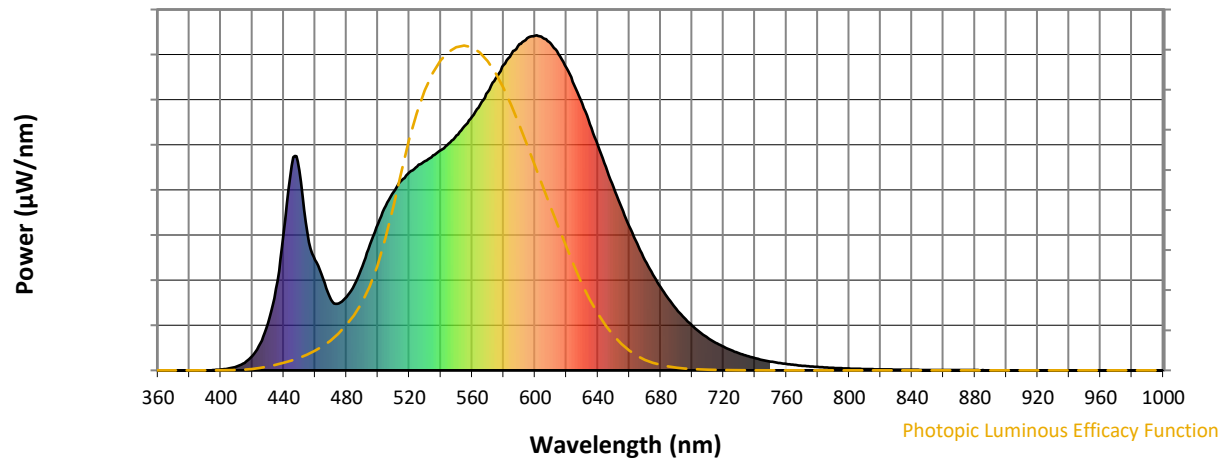
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

### Photopic Flux vs. Wavelength

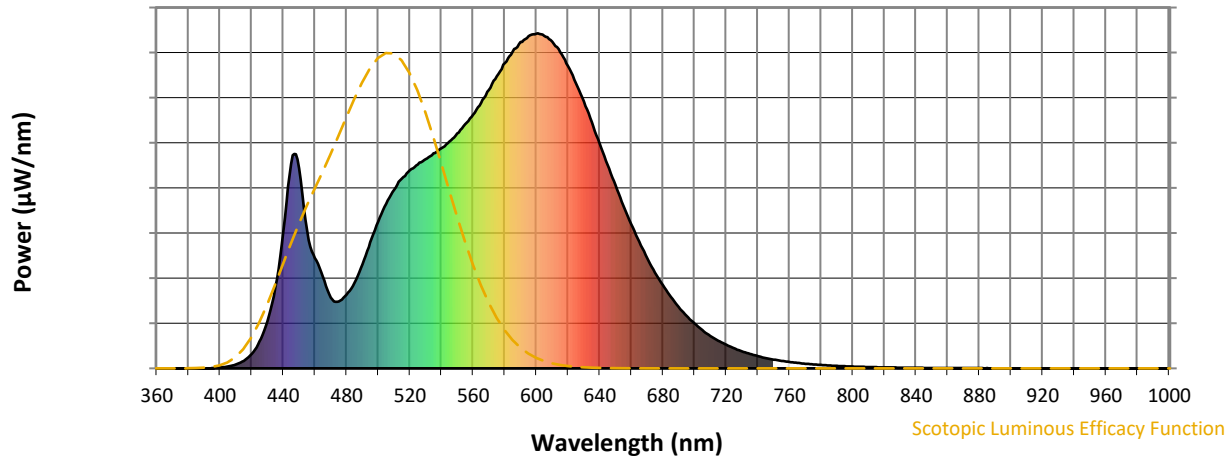


### Photopic Lumens: NR

| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360               | 0                                    | NR                             | 490               | 311                                  | NR                             | 620               | 903                                  | NR                             | 750               | 26                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 376                                  | NR                             | 625               | 851                                  | NR                             | 755               | 22                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 438                                  | NR                             | 630               | 797                                  | NR                             | 760               | 19                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 491                                  | NR                             | 635               | 735                                  | NR                             | 765               | 16                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 533                                  | NR                             | 640               | 672                                  | NR                             | 770               | 14                                   | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 566                                  | NR                             | 645               | 607                                  | NR                             | 775               | 12                                   | NR                             | 905               | 0                                    | NR                             |
| 390               | 0                                    | NR                             | 520               | 592                                  | NR                             | 650               | 546                                  | NR                             | 780               | 10                                   | NR                             | 910               | 0                                    | NR                             |
| 395               | 1                                    | NR                             | 525               | 608                                  | NR                             | 655               | 487                                  | NR                             | 785               | 9                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 3                                    | NR                             | 530               | 625                                  | NR                             | 660               | 429                                  | NR                             | 790               | 7                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 6                                    | NR                             | 535               | 642                                  | NR                             | 665               | 378                                  | NR                             | 795               | 6                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 12                                   | NR                             | 540               | 657                                  | NR                             | 670               | 329                                  | NR                             | 800               | 5                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 22                                   | NR                             | 545               | 677                                  | NR                             | 675               | 286                                  | NR                             | 805               | 5                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 43                                   | NR                             | 550               | 701                                  | NR                             | 680               | 248                                  | NR                             | 810               | 4                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 80                                   | NR                             | 555               | 728                                  | NR                             | 685               | 213                                  | NR                             | 815               | 3                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 140                                  | NR                             | 560               | 757                                  | NR                             | 690               | 184                                  | NR                             | 820               | 3                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 243                                  | NR                             | 565               | 793                                  | NR                             | 695               | 156                                  | NR                             | 825               | 3                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 412                                  | NR                             | 570               | 831                                  | NR                             | 700               | 134                                  | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 610                                  | NR                             | 575               | 872                                  | NR                             | 705               | 114                                  | NR                             | 835               | 2                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 597                                  | NR                             | 580               | 911                                  | NR                             | 710               | 97                                   | NR                             | 840               | 2                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 412                                  | NR                             | 585               | 944                                  | NR                             | 715               | 83                                   | NR                             | 845               | 1                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 330                                  | NR                             | 590               | 974                                  | NR                             | 720               | 70                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 274                                  | NR                             | 595               | 992                                  | NR                             | 725               | 60                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 211                                  | NR                             | 600               | 999                                  | NR                             | 730               | 51                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 200                                  | NR                             | 605               | 992                                  | NR                             | 735               | 43                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 220                                  | NR                             | 610               | 975                                  | NR                             | 740               | 36                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 255                                  | NR                             | 615               | 944                                  | NR                             | 745               | 31                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

REPORT NUMBER: SP1-2407-184-10

### Scotopic Flux vs. Wavelength



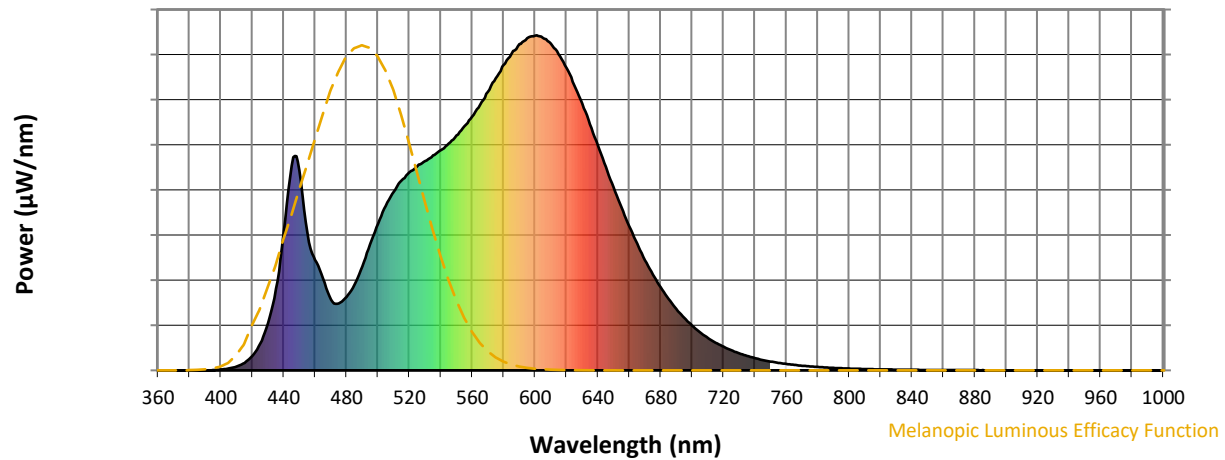
Scotopic Lumens: NR

S/P: 1.48

| λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) |
|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|
| 360       | 0                           | NR               | 490       | 311                         | NR               | 620       | 903                         | NR               | 750       | 26                          | NR               | 880       | 1                           | NR               |
| 365       | 0                           | NR               | 495       | 376                         | NR               | 625       | 851                         | NR               | 755       | 22                          | NR               | 885       | 1                           | NR               |
| 370       | 0                           | NR               | 500       | 438                         | NR               | 630       | 797                         | NR               | 760       | 19                          | NR               | 890       | 0                           | NR               |
| 375       | 0                           | NR               | 505       | 491                         | NR               | 635       | 735                         | NR               | 765       | 16                          | NR               | 895       | 0                           | NR               |
| 380       | 0                           | NR               | 510       | 533                         | NR               | 640       | 672                         | NR               | 770       | 14                          | NR               | 900       | 0                           | NR               |
| 385       | 0                           | NR               | 515       | 566                         | NR               | 645       | 607                         | NR               | 775       | 12                          | NR               | 905       | 0                           | NR               |
| 390       | 0                           | NR               | 520       | 592                         | NR               | 650       | 546                         | NR               | 780       | 10                          | NR               | 910       | 0                           | NR               |
| 395       | 1                           | NR               | 525       | 608                         | NR               | 655       | 487                         | NR               | 785       | 9                           | NR               | 915       | 0                           | NR               |
| 400       | 3                           | NR               | 530       | 625                         | NR               | 660       | 429                         | NR               | 790       | 7                           | NR               | 920       | 0                           | NR               |
| 405       | 6                           | NR               | 535       | 642                         | NR               | 665       | 378                         | NR               | 795       | 6                           | NR               | 925       | 0                           | NR               |
| 410       | 12                          | NR               | 540       | 657                         | NR               | 670       | 329                         | NR               | 800       | 5                           | NR               | 930       | 0                           | NR               |
| 415       | 22                          | NR               | 545       | 677                         | NR               | 675       | 286                         | NR               | 805       | 5                           | NR               | 935       | 0                           | NR               |
| 420       | 43                          | NR               | 550       | 701                         | NR               | 680       | 248                         | NR               | 810       | 4                           | NR               | 940       | 0                           | NR               |
| 425       | 80                          | NR               | 555       | 728                         | NR               | 685       | 213                         | NR               | 815       | 3                           | NR               | 945       | 0                           | NR               |
| 430       | 140                         | NR               | 560       | 757                         | NR               | 690       | 184                         | NR               | 820       | 3                           | NR               | 950       | 0                           | NR               |
| 435       | 243                         | NR               | 565       | 793                         | NR               | 695       | 156                         | NR               | 825       | 3                           | NR               | 955       | 0                           | NR               |
| 440       | 412                         | NR               | 570       | 831                         | NR               | 700       | 134                         | NR               | 830       | 2                           | NR               | 960       | 0                           | NR               |
| 445       | 610                         | NR               | 575       | 872                         | NR               | 705       | 114                         | NR               | 835       | 2                           | NR               | 965       | 0                           | NR               |
| 450       | 597                         | NR               | 580       | 911                         | NR               | 710       | 97                          | NR               | 840       | 2                           | NR               | 970       | 0                           | NR               |
| 455       | 412                         | NR               | 585       | 944                         | NR               | 715       | 83                          | NR               | 845       | 1                           | NR               | 975       | 0                           | NR               |
| 460       | 330                         | NR               | 590       | 974                         | NR               | 720       | 70                          | NR               | 850       | 1                           | NR               | 980       | 0                           | NR               |
| 465       | 274                         | NR               | 595       | 992                         | NR               | 725       | 60                          | NR               | 855       | 1                           | NR               | 985       | 0                           | NR               |
| 470       | 211                         | NR               | 600       | 999                         | NR               | 730       | 51                          | NR               | 860       | 1                           | NR               | 990       | 0                           | NR               |
| 475       | 200                         | NR               | 605       | 992                         | NR               | 735       | 43                          | NR               | 865       | 1                           | NR               | 995       | 0                           | NR               |
| 480       | 220                         | NR               | 610       | 975                         | NR               | 740       | 36                          | NR               | 870       | 1                           | NR               | 1000      | 0                           | NR               |
| 485       | 255                         | NR               | 615       | 944                         | NR               | 745       | 31                          | NR               | 875       | 1                           | NR               |           |                             |                  |

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### Melanopic Flux vs. Wavelength


**Melanopic Lumens: NR**
**M/P: 2.88**

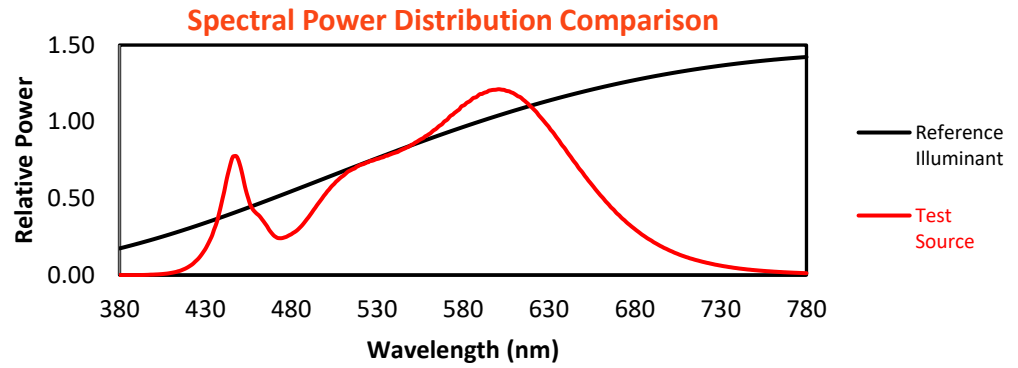
| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360               | 0                                    | NR                             | 490               | 311                                  | NR                             | 620               | 903                                  | NR                             | 750               | 26                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 376                                  | NR                             | 625               | 851                                  | NR                             | 755               | 22                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 438                                  | NR                             | 630               | 797                                  | NR                             | 760               | 19                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 491                                  | NR                             | 635               | 735                                  | NR                             | 765               | 16                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 533                                  | NR                             | 640               | 672                                  | NR                             | 770               | 14                                   | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 566                                  | NR                             | 645               | 607                                  | NR                             | 775               | 12                                   | NR                             | 905               | 0                                    | NR                             |
| 390               | 0                                    | NR                             | 520               | 592                                  | NR                             | 650               | 546                                  | NR                             | 780               | 10                                   | NR                             | 910               | 0                                    | NR                             |
| 395               | 1                                    | NR                             | 525               | 608                                  | NR                             | 655               | 487                                  | NR                             | 785               | 9                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 3                                    | NR                             | 530               | 625                                  | NR                             | 660               | 429                                  | NR                             | 790               | 7                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 6                                    | NR                             | 535               | 642                                  | NR                             | 665               | 378                                  | NR                             | 795               | 6                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 12                                   | NR                             | 540               | 657                                  | NR                             | 670               | 329                                  | NR                             | 800               | 5                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 22                                   | NR                             | 545               | 677                                  | NR                             | 675               | 286                                  | NR                             | 805               | 5                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 43                                   | NR                             | 550               | 701                                  | NR                             | 680               | 248                                  | NR                             | 810               | 4                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 80                                   | NR                             | 555               | 728                                  | NR                             | 685               | 213                                  | NR                             | 815               | 3                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 140                                  | NR                             | 560               | 757                                  | NR                             | 690               | 184                                  | NR                             | 820               | 3                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 243                                  | NR                             | 565               | 793                                  | NR                             | 695               | 156                                  | NR                             | 825               | 3                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 412                                  | NR                             | 570               | 831                                  | NR                             | 700               | 134                                  | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 610                                  | NR                             | 575               | 872                                  | NR                             | 705               | 114                                  | NR                             | 835               | 2                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 597                                  | NR                             | 580               | 911                                  | NR                             | 710               | 97                                   | NR                             | 840               | 2                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 412                                  | NR                             | 585               | 944                                  | NR                             | 715               | 83                                   | NR                             | 845               | 1                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 330                                  | NR                             | 590               | 974                                  | NR                             | 720               | 70                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 274                                  | NR                             | 595               | 992                                  | NR                             | 725               | 60                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 211                                  | NR                             | 600               | 999                                  | NR                             | 730               | 51                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 200                                  | NR                             | 605               | 992                                  | NR                             | 735               | 43                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 220                                  | NR                             | 610               | 975                                  | NR                             | 740               | 36                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 255                                  | NR                             | 615               | 944                                  | NR                             | 745               | 31                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

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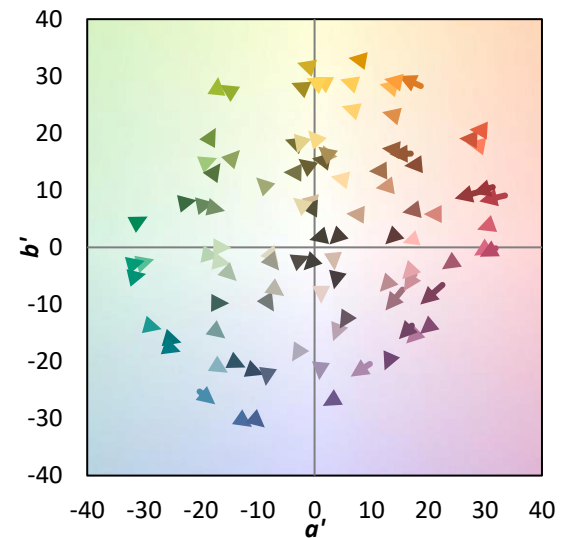
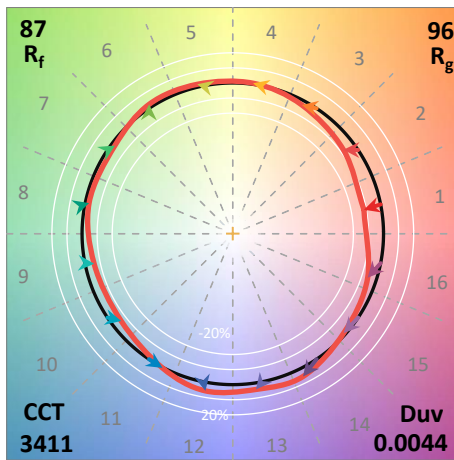
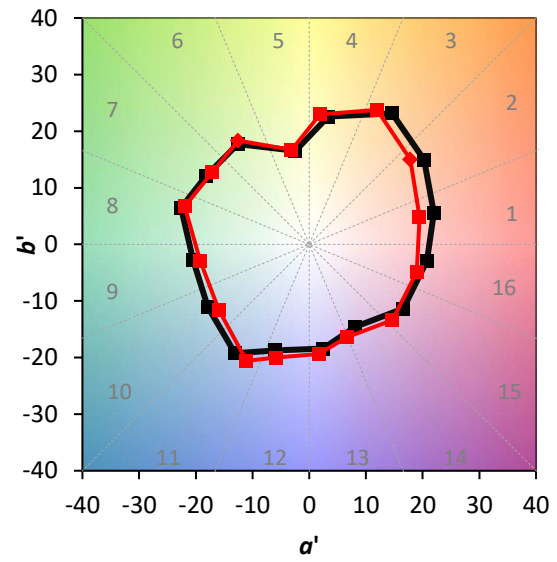
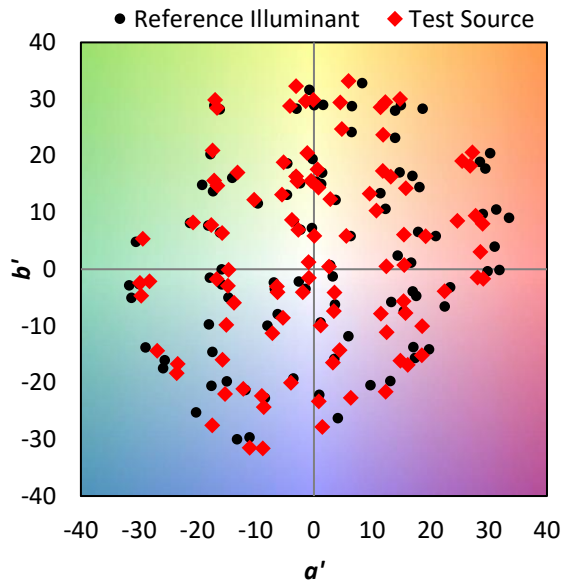
TM-30-18

### Summary

$R_f = 86.6$   
 $R_g = 95.9$   
 $CIE R_a = 83.5$   
 $R_9 = 6.3$

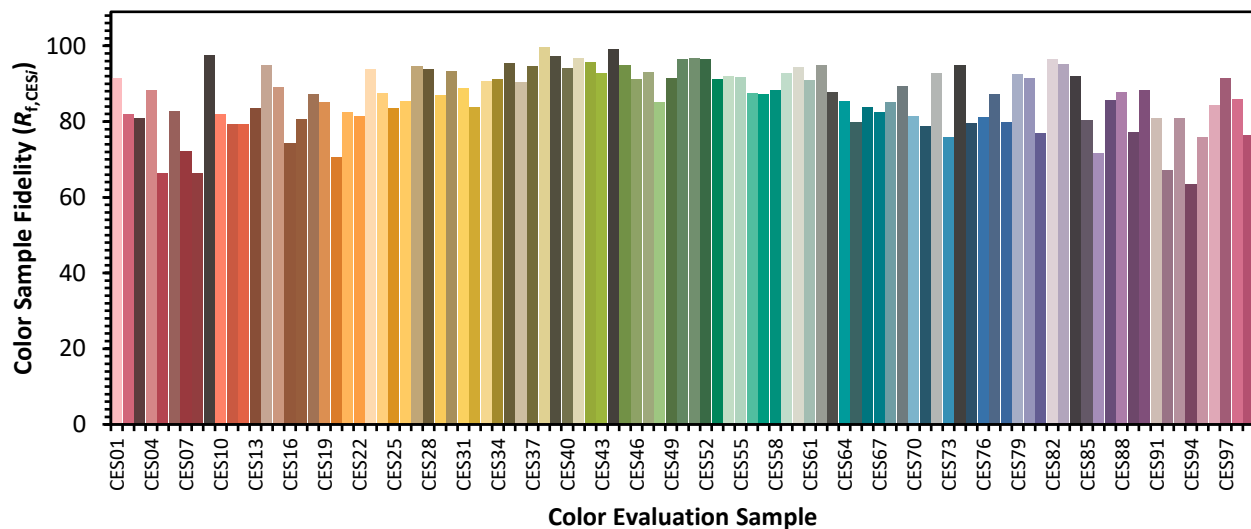


### Color Vector Graphics

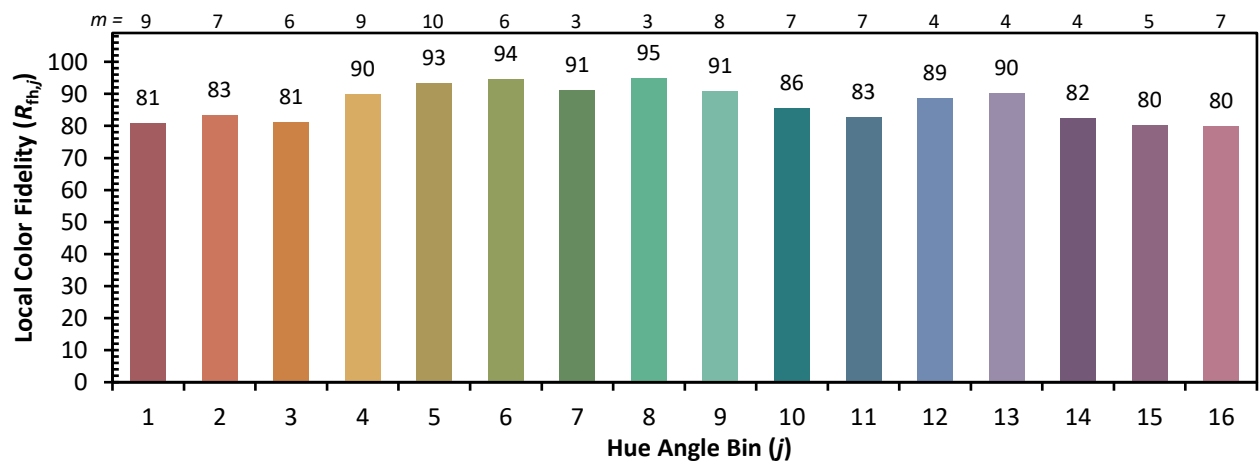
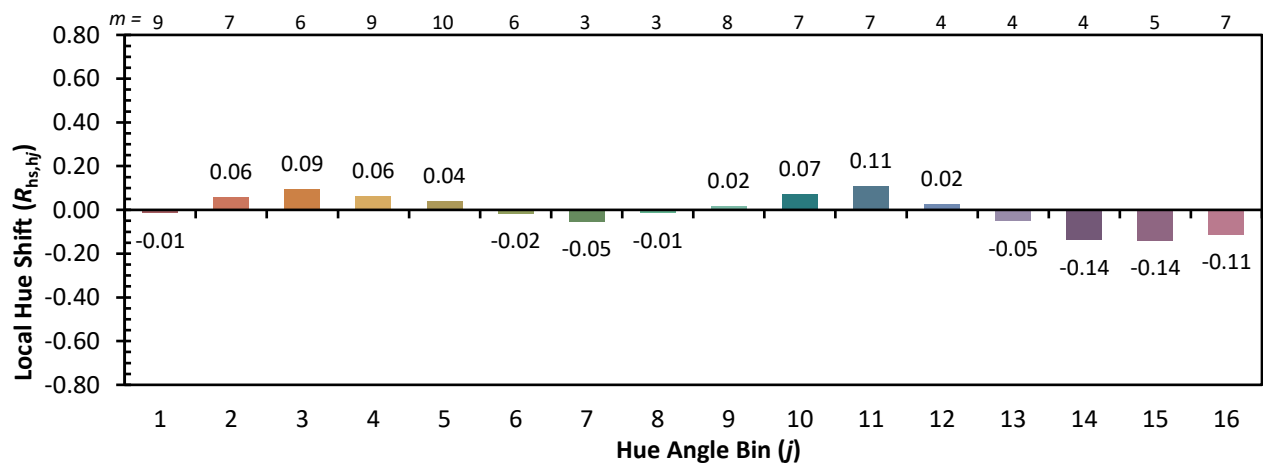
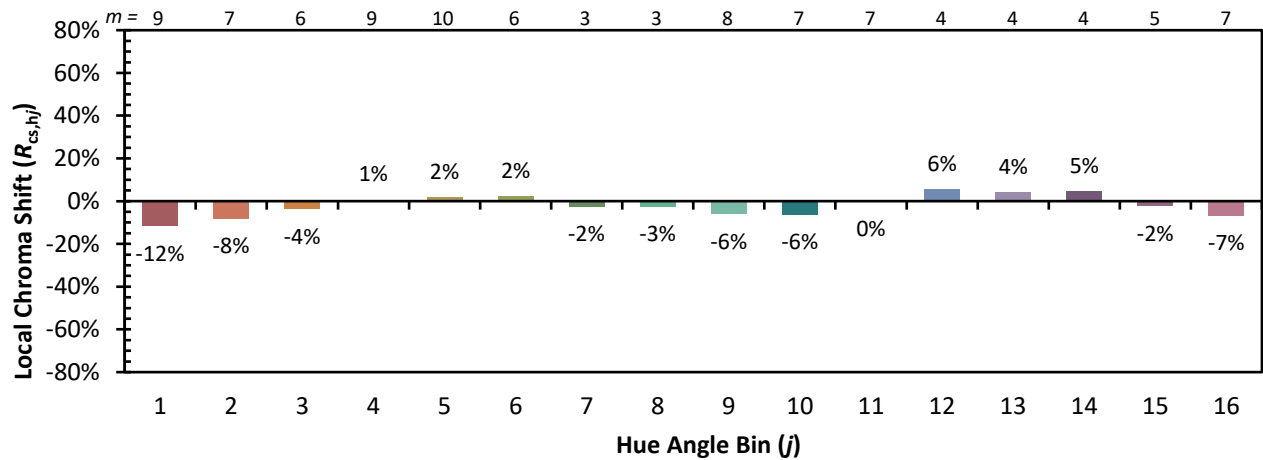


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

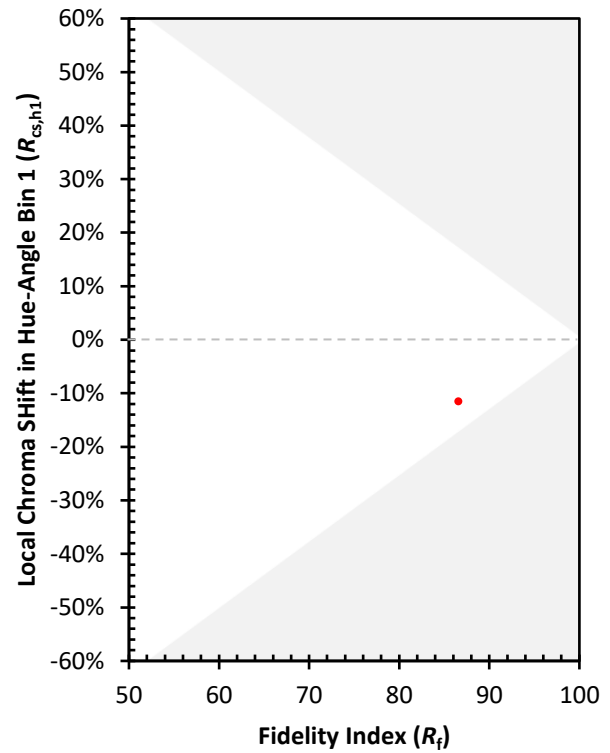
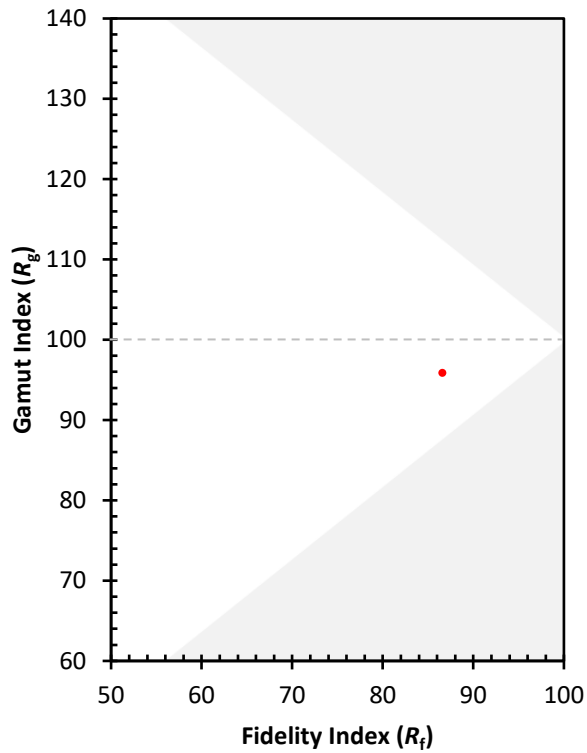
|            |             |            |            |
|------------|-------------|------------|------------|
| CES01 = 86 | CES26 = 85  | CES51 = 97 | CES76 = 81 |
| CES02 = 62 | CES27 = 95  | CES52 = 96 | CES77 = 87 |
| CES03 = 31 | CES28 = 94  | CES53 = 91 | CES78 = 80 |
| CES04 = 70 | CES29 = 87  | CES54 = 92 | CES79 = 93 |
| CES05 = 49 | CES30 = 93  | CES55 = 92 | CES80 = 91 |
| CES06 = 51 | CES31 = 89  | CES56 = 88 | CES81 = 77 |
| CES07 = 41 | CES32 = 84  | CES57 = 87 | CES82 = 96 |
| CES08 = 40 | CES33 = 91  | CES58 = 88 | CES83 = 95 |
| CES09 = 29 | CES34 = 91  | CES59 = 93 | CES84 = 92 |
| CES10 = 75 | CES35 = 95  | CES60 = 94 | CES85 = 80 |
| CES11 = 58 | CES36 = 90  | CES61 = 91 | CES86 = 72 |
| CES12 = 64 | CES37 = 95  | CES62 = 95 | CES87 = 86 |
| CES13 = 43 | CES38 = 100 | CES63 = 88 | CES88 = 88 |
| CES14 = 74 | CES39 = 97  | CES64 = 85 | CES89 = 77 |
| CES15 = 71 | CES40 = 94  | CES65 = 80 | CES90 = 88 |
| CES16 = 47 | CES41 = 97  | CES66 = 84 | CES91 = 81 |
| CES17 = 49 | CES42 = 96  | CES67 = 82 | CES92 = 67 |
| CES18 = 56 | CES43 = 93  | CES68 = 85 | CES93 = 81 |
| CES19 = 72 | CES44 = 99  | CES69 = 89 | CES94 = 63 |
| CES20 = 66 | CES45 = 95  | CES70 = 81 | CES95 = 76 |
| CES21 = 86 | CES46 = 91  | CES71 = 79 | CES96 = 84 |
| CES22 = 78 | CES47 = 93  | CES72 = 93 | CES97 = 92 |
| CES23 = 91 | CES48 = 85  | CES73 = 76 | CES98 = 86 |
| CES24 = 90 | CES49 = 92  | CES74 = 95 | CES99 = 77 |
| CES25 = 72 | CES50 = 96  | CES75 = 80 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)