

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: P1050003

Luminaire Tested: **GALN-SA1C-940-U-LBC**

Issue Date: 07/10/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P1050003  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/10/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1C-940-U-LBC  
Description: GALLEON II AREA AND ROADWAY LUMINAIRE 1050mA 1xLight Square PACKAGE  
90CRI 4000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL  
Light Source: (14) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3796.1 lumens  
Efficiency: N/A  
Efficacy: 75.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1

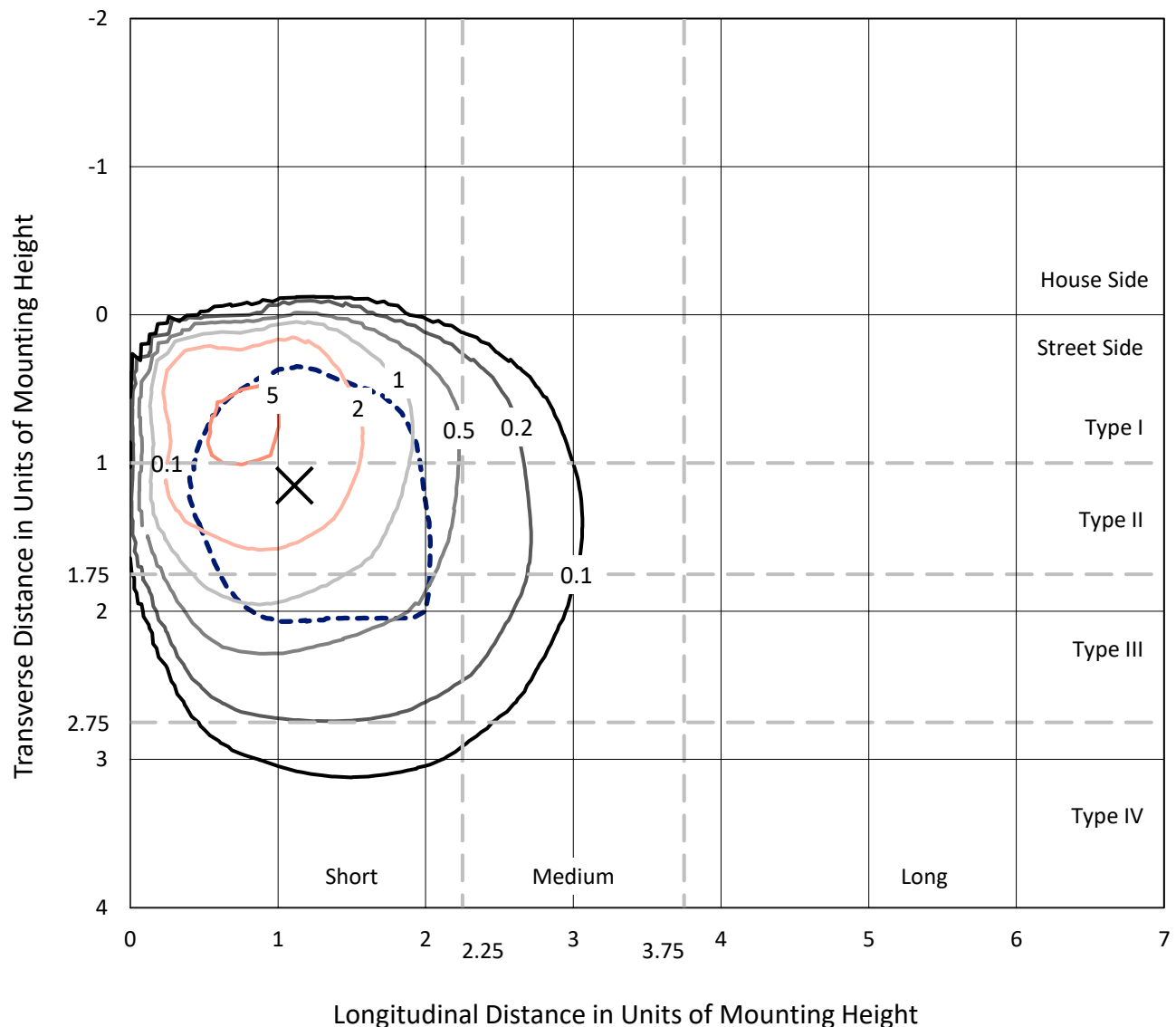
Input Watts (W): 50.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.97  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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## Iso-Footcandle Lines of Horizontal Illumination

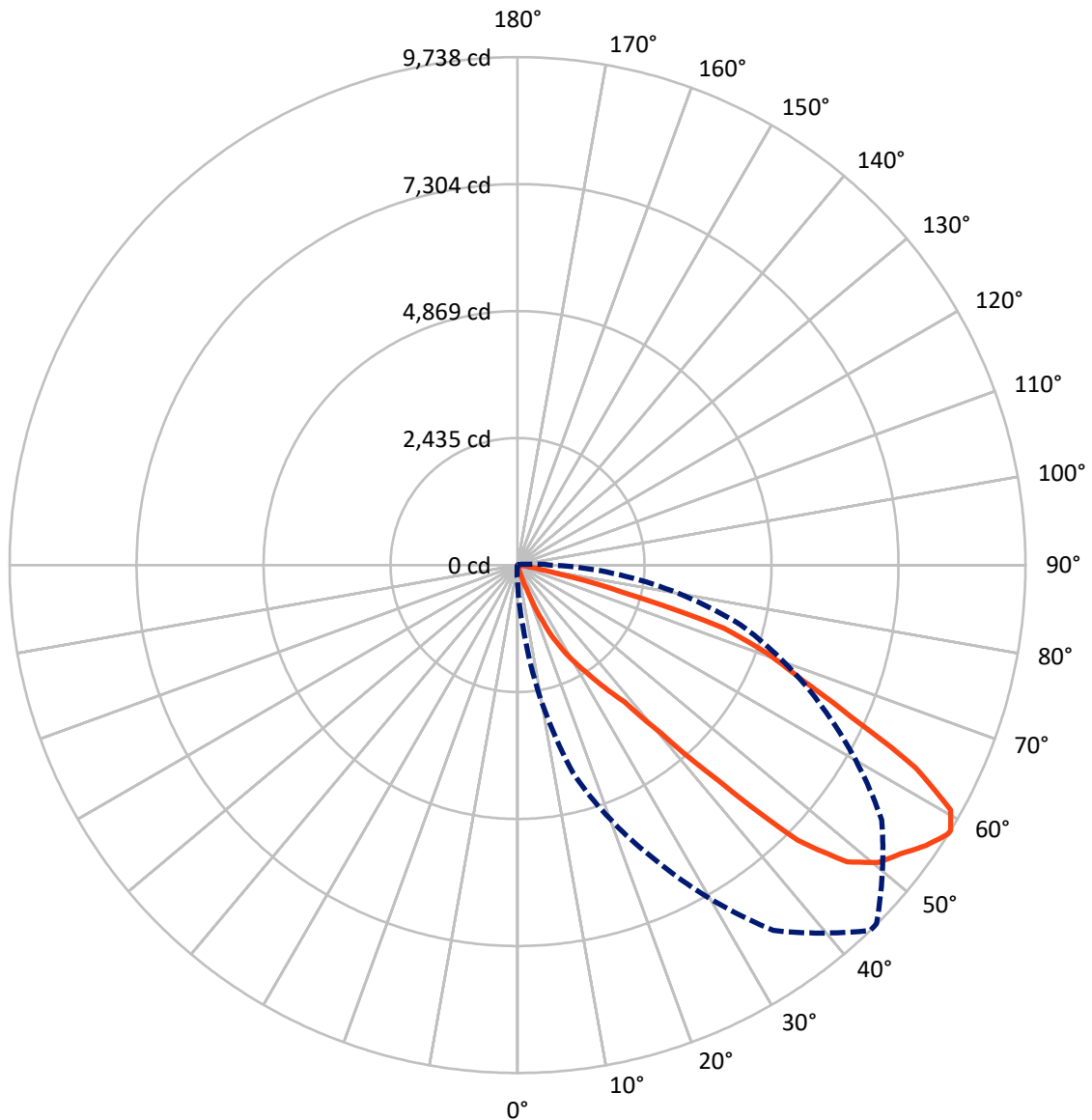
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral      - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 25.9     | 0.0    | 25.9   |
|                    | % Fixture | 0.7      | 0.0    | 0.7    |
| <b>Street Side</b> | Lumens    | 3770.2   | 0.0    | 3770.2 |
|                    | % Fixture | 99.3     | 0.0    | 99.3   |
| <b>Total</b>       | Lumens    | 3796.1   | 0.0    | 3796.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.5    | 0.0       |
| 10°-20°   | 8.3    | 0.2       |
| 20°-30°   | 89.9   | 2.4       |
| 30°-40°   | 266.0  | 7.0       |
| 40°-50°   | 792.7  | 20.9      |
| 50°-60°   | 1257.8 | 33.1      |
| 60°-70°   | 1049.1 | 27.6      |
| 70°-80°   | 323.6  | 8.5       |
| 80°-90°   | 7.2    | 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°    | 3796.1 | 100.0     |
| 0°-180°   | 3796.1 | 100.0     |



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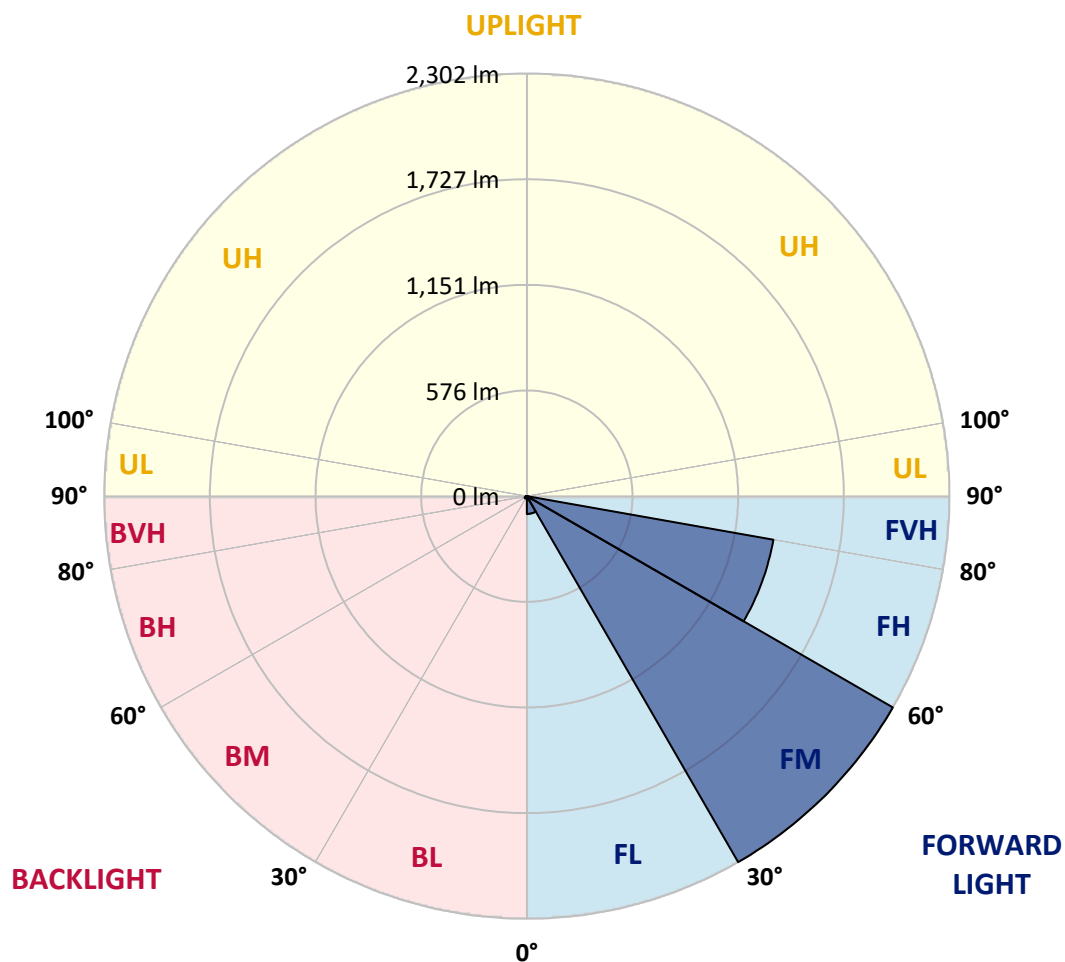
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 97.2   | 2.6       |                         |      |         |
| FM   | (30°-60°)   | 2302.2 | 60.6      |                         |      |         |
| FH   | (60°-80°)   | 1363.9 | 35.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 6.8    | 0.2       |                         |      | G0/10   |
| BL   | (0°-30°)    | 2.5    | 0.1       | B0/110                  |      |         |
| BM   | (30°-60°)   | 14.2   | 0.4       | B0/220                  |      |         |
| BH   | (60°-80°)   | 8.8    | 0.2       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.3    | 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-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°     | 15°    | 25°    | 35°    | 44°    | 45°    | 55°    | 65°    | 75°    |
|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 16.6  | 16.6   | 16.6   | 16.6   | 16.6   | 16.6   | 16.6   | 16.6   | 16.6   | 16.6   |
| 2.5°  | 21.5  | 21.5   | 20.6   | 19.5   | 18.4   | 17.2   | 16.9   | 16.3   | 16.1   | 15.8   |
| 5°    | 22.4  | 22.4   | 22.1   | 21.2   | 20.1   | 19.2   | 19.2   | 18.4   | 17.8   | 17.2   |
| 7.5°  | 22.9  | 23.2   | 23.8   | 23.5   | 22.9   | 22.1   | 22.1   | 21.5   | 20.6   | 19.2   |
| 10°   | 23.8  | 24.7   | 25.8   | 26.4   | 26.7   | 26.7   | 26.4   | 26.1   | 24.7   | 22.7   |
| 12.5° | 24.7  | 26.4   | 29.2   | 32.1   | 33.8   | 36.1   | 35.8   | 35.3   | 31.5   | 27.2   |
| 15°   | 26.4  | 29.0   | 35.0   | 43.3   | 56.2   | 64.2   | 67.4   | 64.5   | 52.2   | 36.7   |
| 17.5° | 28.4  | 32.7   | 50.8   | 90.6   | 148.5  | 176.1  | 192.7  | 179.2  | 118.7  | 69.7   |
| 20°   | 30.4  | 39.9   | 94.3   | 234.9  | 385.4  | 475.5  | 500.4  | 461.4  | 296.2  | 132.8  |
| 22.5° | 33.8  | 55.9   | 191.3  | 485.5  | 830.5  | 965.5  | 991.0  | 866.3  | 559.5  | 262.1  |
| 25°   | 41.0  | 81.2   | 329.8  | 791.2  | 1239.4 | 1467.4 | 1456.8 | 1293.3 | 907.6  | 418.7  |
| 27.5° | 51.3  | 118.1  | 498.7  | 1124.1 | 1631.1 | 1832.1 | 1856.2 | 1654.0 | 1209.8 | 615.7  |
| 30°   | 66.2  | 163.7  | 679.9  | 1390.8 | 1945.1 | 2162.5 | 2166.5 | 1957.4 | 1480.3 | 788.6  |
| 32.5° | 80.6  | 206.8  | 838.5  | 1648.6 | 2254.5 | 2492.8 | 2510.6 | 2253.4 | 1682.1 | 968.7  |
| 35°   | 91.5  | 234.9  | 999.1  | 1875.1 | 2566.5 | 2894.9 | 2893.7 | 2588.3 | 1921.3 | 1129.6 |
| 37.5° | 92.3  | 263.0  | 1144.5 | 2106.8 | 2961.7 | 3329.3 | 3365.7 | 3029.1 | 2210.4 | 1328.6 |
| 40°   | 90.3  | 294.5  | 1328.6 | 2468.2 | 3673.7 | 4237.8 | 4269.9 | 3845.5 | 2790.2 | 1669.2 |
| 42.5° | 92.6  | 349.3  | 1627.4 | 3135.5 | 4856.0 | 5666.1 | 5728.1 | 5281.9 | 3856.1 | 2364.4 |
| 45°   | 104.7 | 452.2  | 2253.4 | 4251.8 | 6541.3 | 7528.9 | 7508.3 | 6865.7 | 5096.3 | 3422.5 |
| 47.5° | 144.5 | 704.3  | 3181.3 | 5338.4 | 7618.4 | 8497.9 | 8515.7 | 7730.2 | 5820.1 | 4236.0 |
| 50°   | 222.2 | 1077.7 | 3961.0 | 5912.7 | 8081.5 | 8963.9 | 8947.3 | 8039.7 | 6095.1 | 4636.7 |
| 52.5° | 289.1 | 1347.8 | 4352.2 | 6114.3 | 8140.9 | 9194.2 | 9193.0 | 8121.1 | 6137.9 | 4671.1 |
| 55°   | 305.7 | 1368.1 | 4355.3 | 6125.2 | 8273.9 | 9495.6 | 9533.4 | 8321.5 | 6193.2 | 4520.8 |
| 57.5° | 299.1 | 1211.3 | 4173.5 | 6188.3 | 8510.8 | 9728.7 | 9730.7 | 8515.7 | 6333.7 | 4428.8 |
| 58°   | 293.4 | 1186.6 | 4136.8 | 6224.2 | 8551.5 | 9738.4 | 9733.6 | 8524.6 | 6448.1 | 4425.3 |
| 60°   | 261.2 | 1030.3 | 3993.7 | 6315.6 | 8491.0 | 9538.3 | 9492.7 | 8330.4 | 6431.2 | 4390.0 |
| 62.5° | 205.3 | 803.8  | 3852.9 | 6209.8 | 7842.4 | 8569.3 | 8588.2 | 7375.2 | 5862.8 | 4184.4 |
| 65°   | 163.5 | 599.0  | 3559.3 | 5447.0 | 6457.9 | 7037.1 | 7107.7 | 5997.3 | 4893.6 | 3543.2 |
| 67.5° | 130.2 | 433.0  | 2985.8 | 4336.7 | 5110.1 | 5873.2 | 5924.5 | 5035.3 | 3791.3 | 2714.8 |
| 70°   | 105.8 | 292.8  | 2061.0 | 3171.6 | 4214.8 | 5072.8 | 5076.0 | 4183.0 | 2829.8 | 1778.8 |
| 72.5° | 93.8  | 202.7  | 1196.4 | 2313.0 | 3417.6 | 4133.7 | 4050.2 | 3394.4 | 2174.8 | 1053.6 |
| 75°   | 81.2  | 134.5  | 586.7  | 1414.0 | 2072.1 | 2086.2 | 2118.0 | 1574.6 | 1087.1 | 501.0  |
| 77.5° | 66.8  | 95.5   | 231.1  | 386.3  | 621.4  | 795.5  | 825.0  | 625.1  | 361.6  | 123.3  |
| 80°   | 45.9  | 45.3   | 62.2   | 118.4  | 177.8  | 222.8  | 207.9  | 160.9  | 94.6   | 47.3   |
| 82.5° | 19.8  | 21.5   | 28.1   | 33.8   | 27.5   | 26.7   | 25.5   | 16.3   | 12.6   | 9.7    |
| 85°   | 6.3   | 5.7    | 6.0    | 6.0    | 4.9    | 3.7    | 3.7    | 1.7    | 0.0    | 0.0    |
| 87.5° | 3.2   | 2.6    | 2.6    | 2.3    | 1.4    | 0.6    | 0.3    | 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° |
|--------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 16.6   | 0°    | 16.6  | 16.6  | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 |
| 15.5   | 2.5°  | 15.2  | 15.2  | 14.6 | 14.1 | 13.8 | 13.2 | 12.9 | 12.6 | 12.3 | 12.0 |
| 16.6   | 5°    | 16.1  | 15.8  | 14.9 | 14.1 | 13.2 | 12.3 | 11.8 | 11.2 | 10.6 | 10.3 |
| 18.4   | 7.5°  | 17.5  | 16.9  | 15.2 | 13.8 | 12.6 | 11.5 | 10.9 | 10.0 | 9.5  | 8.6  |
| 20.4   | 10°   | 19.2  | 18.1  | 15.8 | 14.1 | 12.3 | 10.9 | 10.0 | 9.2  | 8.3  | 7.2  |
| 23.2   | 12.5° | 21.5  | 19.5  | 16.6 | 13.8 | 11.8 | 10.0 | 9.2  | 8.0  | 7.2  | 6.3  |
| 27.0   | 15°   | 23.5  | 20.9  | 16.9 | 13.8 | 11.2 | 9.2  | 8.0  | 6.9  | 6.0  | 4.9  |
| 33.8   | 17.5° | 26.4  | 22.1  | 16.6 | 12.9 | 10.3 | 8.0  | 6.9  | 6.0  | 4.6  | 2.9  |
| 50.2   | 20°   | 31.3  | 22.9  | 16.1 | 12.0 | 8.9  | 6.6  | 5.2  | 4.0  | 2.0  | 0.6  |
| 75.4   | 22.5° | 39.0  | 25.2  | 15.5 | 10.9 | 7.7  | 5.2  | 3.4  | 1.4  | 0.0  | 0.0  |
| 114.7  | 25°   | 53.9  | 29.2  | 15.5 | 10.3 | 6.9  | 3.7  | 1.1  | 0.0  | 0.0  | 0.0  |
| 162.9  | 27.5° | 71.7  | 34.7  | 15.5 | 8.9  | 5.4  | 2.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 222.0  | 30°   | 89.8  | 40.7  | 15.5 | 7.7  | 4.3  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  |
| 273.3  | 32.5° | 107.0 | 45.9  | 15.8 | 6.6  | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 344.4  | 35°   | 124.5 | 46.7  | 15.5 | 5.7  | 1.7  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 431.6  | 37.5° | 146.8 | 45.0  | 14.6 | 5.2  | 0.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 567.8  | 40°   | 180.7 | 45.9  | 13.8 | 4.9  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 810.7  | 42.5° | 243.2 | 49.6  | 12.6 | 4.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1291.3 | 45°   | 420.4 | 66.5  | 11.5 | 5.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1938.5 | 47.5° | 695.4 | 119.6 | 11.2 | 5.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2335.1 | 50°   | 887.5 | 150.6 | 11.8 | 5.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2384.7 | 52.5° | 886.1 | 167.8 | 12.3 | 5.7  | 1.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2198.0 | 55°   | 787.7 | 170.9 | 13.2 | 6.3  | 3.7  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1888.9 | 57.5° | 658.4 | 156.0 | 15.2 | 7.7  | 6.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1840.4 | 58°   | 635.5 | 149.1 | 15.8 | 8.0  | 7.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1596.4 | 60°   | 520.8 | 121.6 | 20.1 | 10.0 | 10.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1308.8 | 62.5° | 359.6 | 106.1 | 22.9 | 12.9 | 10.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 965.0  | 65°   | 254.4 | 95.8  | 24.9 | 13.8 | 8.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 685.6  | 67.5° | 190.1 | 88.3  | 27.5 | 14.1 | 4.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 430.1  | 70°   | 145.7 | 82.9  | 33.8 | 14.9 | 1.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 256.4  | 72.5° | 118.7 | 76.6  | 41.0 | 15.5 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 153.7  | 75°   | 98.4  | 69.1  | 39.6 | 16.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 82.0   | 77.5° | 65.4  | 53.6  | 36.1 | 16.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 29.2   | 80°   | 22.9  | 21.2  | 28.1 | 14.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 6.0    | 82.5° | 3.4   | 2.9   | 4.0  | 5.2  | 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° |
|------|-------|------|------|------|------|------|------|------|------|------|------|
| 16.6 | 0°    | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 |
| 11.8 | 2.5°  | 11.8 | 11.8 | 11.5 | 11.8 | 11.8 | 12.3 | 13.8 | 15.8 | 18.1 | 18.9 |
| 10.0 | 5°    | 9.7  | 9.5  | 9.2  | 9.2  | 9.2  | 10.0 | 11.2 | 13.5 | 16.1 | 17.2 |
| 8.3  | 7.5°  | 8.0  | 7.7  | 7.5  | 7.2  | 7.2  | 7.7  | 9.2  | 11.8 | 14.3 | 15.5 |
| 6.9  | 10°   | 6.6  | 6.0  | 5.7  | 5.4  | 5.4  | 6.0  | 7.5  | 10.0 | 12.9 | 14.1 |
| 5.7  | 12.5° | 5.4  | 4.6  | 4.0  | 3.7  | 3.4  | 4.3  | 5.7  | 8.0  | 11.2 | 12.6 |
| 4.3  | 15°   | 3.7  | 2.9  | 2.0  | 1.7  | 1.4  | 2.3  | 3.7  | 6.3  | 9.5  | 11.2 |
| 2.3  | 17.5° | 2.0  | 0.9  | 0.3  | 0.0  | 0.0  | 0.6  | 1.7  | 4.6  | 7.7  | 9.2  |
| 0.0  | 20°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 2.3  | 5.7  | 7.2  |
| 0.0  | 22.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.3  | 3.4  | 4.9  |
| 0.0  | 25°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.4  | 2.6  |
| 0.0  | 27.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.6  |
| 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  | 0.9  |
| 0.0  | 87.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.1  | 2.3  |
| 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: P1050003

CATALOG NUMBER: GALN-SA1C-940-U-LBC

**CANDELA DISTRIBUTION (continued):**

| 275° |       | 285° | 295° | 305° | 315° | 316° | 325° | 335° | 345° | 355° | 360°  |
|------|-------|------|------|------|------|------|------|------|------|------|-------|
| 16.6 | 0°    | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6  |
| 19.8 | 2.5°  | 20.4 | 20.1 | 19.5 | 18.9 | 18.9 | 18.9 | 19.8 | 20.6 | 21.5 | 21.5  |
| 17.8 | 5°    | 18.9 | 18.9 | 18.6 | 18.1 | 18.1 | 18.4 | 19.5 | 20.9 | 22.1 | 22.4  |
| 16.3 | 7.5°  | 17.5 | 18.1 | 17.5 | 17.2 | 17.5 | 17.8 | 18.9 | 20.6 | 22.4 | 22.9  |
| 15.2 | 10°   | 16.6 | 16.9 | 16.9 | 16.6 | 16.6 | 17.2 | 18.4 | 20.6 | 22.9 | 23.8  |
| 13.8 | 12.5° | 15.5 | 16.1 | 15.8 | 15.8 | 15.8 | 16.3 | 17.8 | 20.4 | 23.5 | 24.7  |
| 12.3 | 15°   | 14.3 | 15.2 | 15.2 | 14.9 | 14.9 | 15.2 | 17.2 | 20.1 | 24.4 | 26.4  |
| 10.6 | 17.5° | 13.2 | 14.1 | 14.3 | 13.8 | 13.8 | 14.3 | 16.3 | 20.1 | 24.9 | 28.4  |
| 8.6  | 20°   | 10.9 | 12.3 | 13.2 | 12.3 | 12.3 | 12.9 | 14.9 | 18.9 | 25.2 | 30.4  |
| 6.3  | 22.5° | 8.6  | 10.0 | 11.2 | 10.9 | 10.9 | 11.2 | 13.8 | 18.1 | 25.5 | 33.8  |
| 3.7  | 25°   | 6.3  | 7.7  | 8.6  | 9.2  | 9.2  | 10.0 | 12.6 | 17.5 | 26.7 | 41.0  |
| 1.7  | 27.5° | 3.7  | 5.4  | 6.6  | 7.2  | 7.5  | 8.6  | 11.8 | 16.9 | 28.7 | 51.3  |
| 0.0  | 30°   | 1.7  | 3.2  | 4.6  | 5.7  | 5.7  | 7.7  | 10.9 | 16.3 | 31.3 | 66.2  |
| 0.0  | 32.5° | 0.0  | 1.4  | 2.3  | 4.0  | 4.3  | 6.3  | 10.0 | 15.8 | 35.0 | 80.6  |
| 0.0  | 35°   | 0.0  | 0.0  | 1.1  | 3.2  | 3.2  | 5.2  | 9.2  | 15.2 | 40.7 | 91.5  |
| 0.0  | 37.5° | 0.0  | 0.0  | 0.0  | 2.3  | 2.6  | 4.6  | 8.9  | 14.9 | 41.9 | 92.3  |
| 0.0  | 40°   | 0.0  | 0.0  | 0.0  | 1.7  | 2.0  | 4.3  | 8.9  | 15.2 | 37.9 | 90.3  |
| 0.0  | 42.5° | 0.0  | 0.0  | 0.0  | 1.1  | 1.4  | 4.3  | 8.9  | 15.8 | 34.1 | 92.6  |
| 0.0  | 45°   | 0.0  | 0.0  | 0.0  | 0.9  | 1.1  | 4.6  | 8.6  | 15.5 | 32.1 | 104.7 |
| 0.0  | 47.5° | 0.0  | 0.0  | 0.0  | 1.1  | 1.7  | 4.6  | 8.3  | 15.2 | 32.4 | 144.5 |
| 0.0  | 50°   | 0.0  | 0.0  | 0.0  | 1.4  | 2.0  | 4.6  | 8.6  | 14.6 | 35.6 | 222.2 |
| 0.0  | 52.5° | 0.0  | 0.0  | 0.0  | 1.1  | 1.7  | 5.2  | 9.5  | 14.3 | 38.7 | 289.1 |
| 0.0  | 55°   | 0.0  | 0.0  | 0.0  | 0.3  | 0.9  | 6.6  | 10.3 | 14.3 | 43.6 | 305.7 |
| 0.0  | 57.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 7.5  | 11.8 | 15.2 | 51.6 | 299.1 |
| 0.0  | 58°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 7.5  | 12.0 | 15.2 | 52.2 | 293.4 |
| 0.0  | 60°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 7.5  | 13.2 | 16.9 | 56.2 | 261.2 |
| 0.0  | 62.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 6.3  | 15.8 | 21.2 | 58.5 | 205.3 |
| 0.0  | 65°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.2  | 18.6 | 23.2 | 60.2 | 163.5 |
| 0.0  | 67.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 4.9  | 19.2 | 23.5 | 61.1 | 130.2 |
| 0.0  | 70°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.2  | 18.9 | 25.2 | 63.9 | 105.8 |
| 0.0  | 72.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.7  | 17.2 | 27.8 | 63.9 | 93.8  |
| 0.0  | 75°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 6.0  | 16.1 | 31.3 | 58.2 | 81.2  |
| 0.0  | 77.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.7  | 15.8 | 36.4 | 51.9 | 66.8  |
| 0.0  | 80°   | 0.6  | 0.9  | 0.9  | 0.6  | 0.6  | 4.9  | 15.5 | 37.0 | 44.2 | 45.9  |
| 0.3  | 82.5° | 1.7  | 2.3  | 2.0  | 1.4  | 1.4  | 4.3  | 13.8 | 31.0 | 22.9 | 19.8  |
| 1.7  | 85°   | 3.2  | 3.7  | 3.7  | 3.2  | 3.2  | 4.0  | 8.6  | 11.2 | 7.7  | 6.3   |
| 3.2  | 87.5° | 4.3  | 4.9  | 4.9  | 4.3  | 4.3  | 4.0  | 3.7  | 3.4  | 3.2  | 3.2   |
| 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: SP1-2407-184-16

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-940-U-5WQ

Data in this report applies to families of products including GSS-SB1A-940-U-5WQ

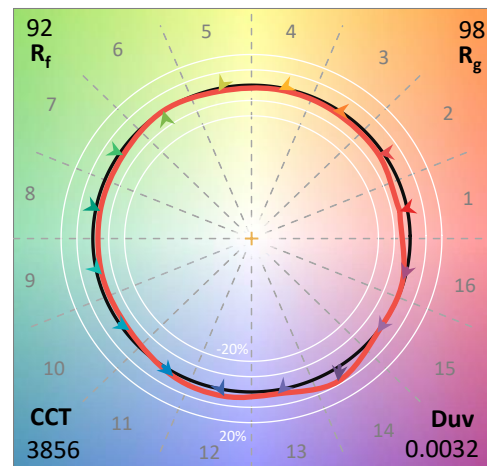
### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-16  
 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-940-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 4000K CCT 26 LEDS

### Spectral Parameters

CCT (K): 3856  
 CIE  $u'$ : 0.2261  
 CIE  $v'$ : 0.5084  
 Duv: 0.0032  
 CIE x: 0.3896  
 CIE y: 0.3894  
 CIE z: 0.2211  
 Peak Wavelength (nm): 614  
 Dominant Wavelength (nm): 578  
 Purity: 33.77304  
 R<sub>f</sub>: 91.8  
 R<sub>g</sub>: 98.4

CRI (Ra): 92.1  
 R1: 91.8  
 R2: 94.1  
 R3: 95.3  
 R4: 92.8  
 R5: 91.0  
 R6: 91.6  
 R7: 95.0  
 R8: 85.2  
 R9: 60.7  
 R10: 85.2  
 R11: 92.4  
 R12: 74.5  
 R13: 92.3  
 R14: 97.0  
 R15: 88.5



### Test Conditions

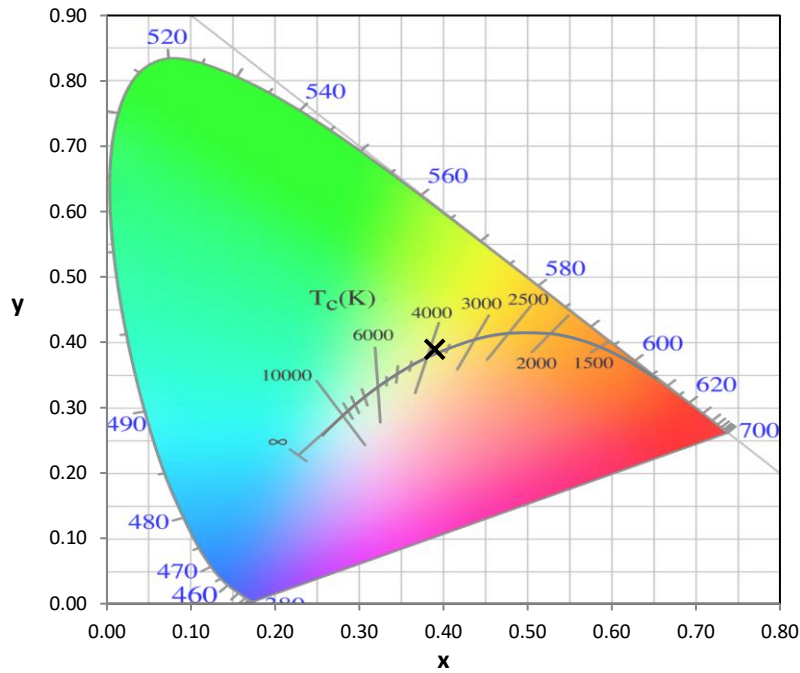
Stabilization Time: 23M  
 Operation Time: 1H 23M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-16

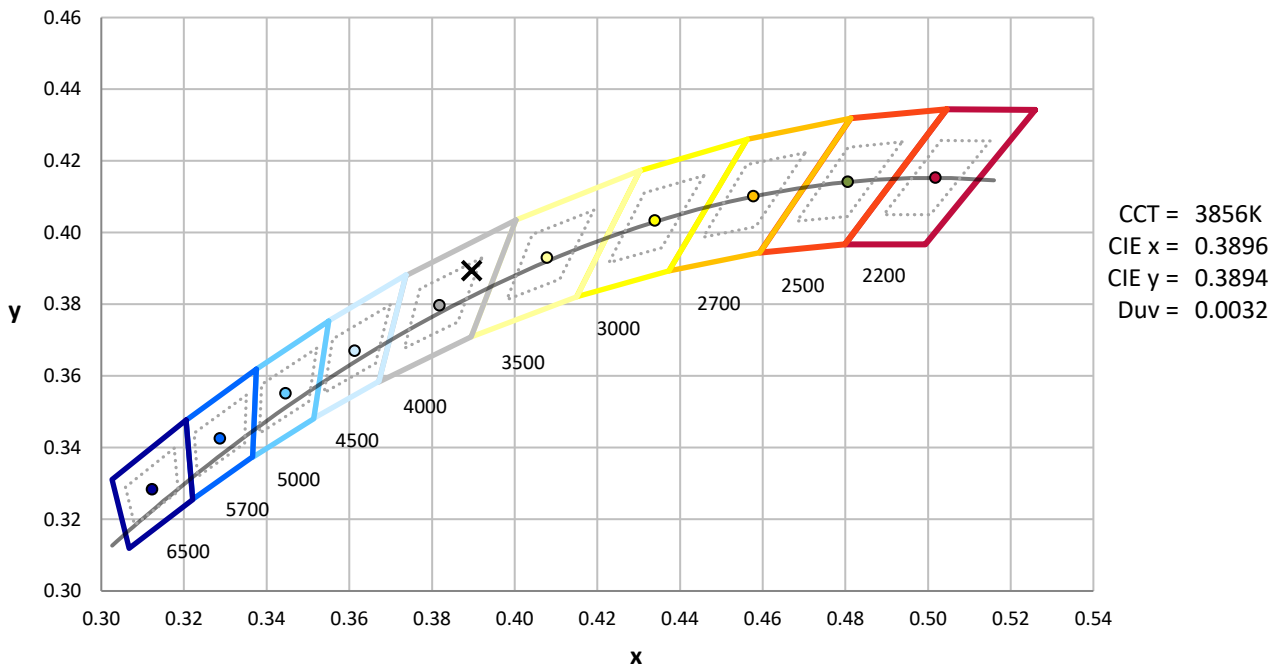
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| 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: SP1-2407-184-16

**CIE 1931 Chromaticity Diagram**



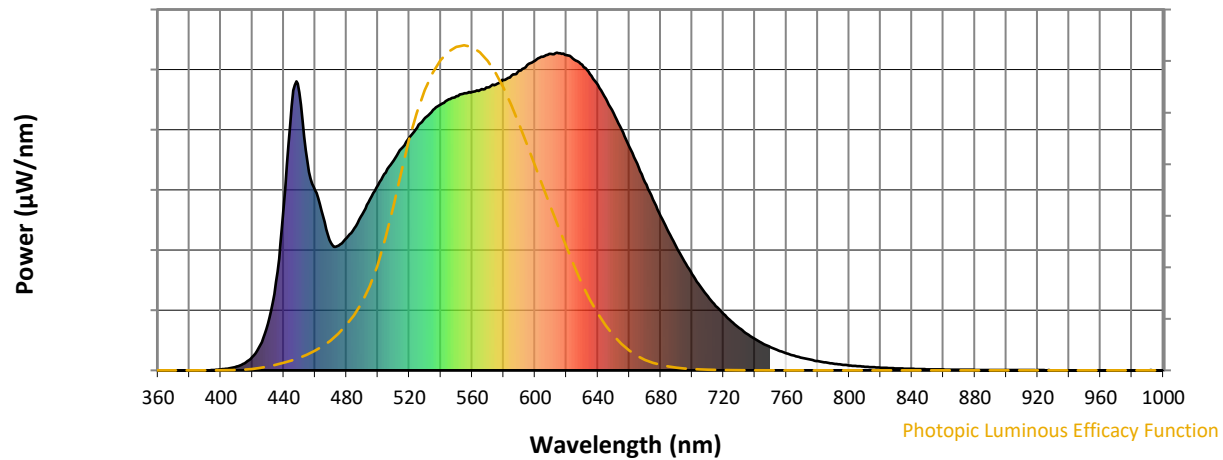
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-16

### Photopic Flux vs. Wavelength

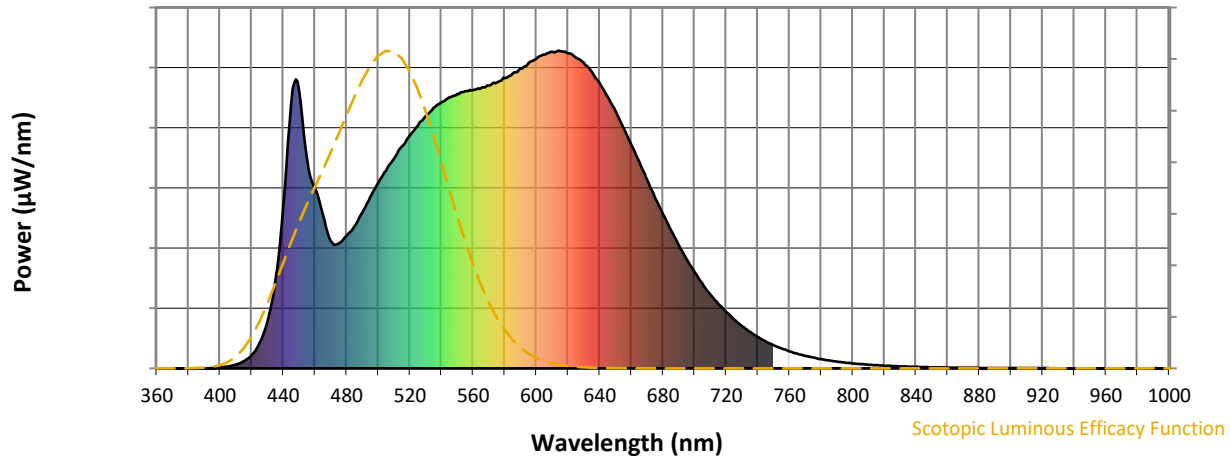


### Photopic Lumens: NR

| $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|
| 360               | 0                             | NR                             | 490               | 492                           | NR                             | 620               | 993                           | NR                             | 750               | 73                            | NR                             | 880               | 1                             | NR                             |
| 365               | 0                             | NR                             | 495               | 539                           | NR                             | 625               | 978                           | NR                             | 755               | 62                            | NR                             | 885               | 1                             | NR                             |
| 370               | 0                             | NR                             | 500               | 583                           | NR                             | 630               | 962                           | NR                             | 760               | 54                            | NR                             | 890               | 1                             | NR                             |
| 375               | 0                             | NR                             | 505               | 623                           | NR                             | 635               | 933                           | NR                             | 765               | 46                            | NR                             | 895               | 1                             | NR                             |
| 380               | 0                             | NR                             | 510               | 661                           | NR                             | 640               | 898                           | NR                             | 770               | 39                            | NR                             | 900               | 1                             | NR                             |
| 385               | 0                             | NR                             | 515               | 698                           | NR                             | 645               | 855                           | NR                             | 775               | 34                            | NR                             | 905               | 1                             | NR                             |
| 390               | 0                             | NR                             | 520               | 733                           | NR                             | 650               | 810                           | NR                             | 780               | 29                            | NR                             | 910               | 1                             | NR                             |
| 395               | 1                             | NR                             | 525               | 764                           | NR                             | 655               | 759                           | NR                             | 785               | 25                            | NR                             | 915               | 1                             | NR                             |
| 400               | 3                             | NR                             | 530               | 794                           | NR                             | 660               | 704                           | NR                             | 790               | 21                            | NR                             | 920               | 1                             | NR                             |
| 405               | 6                             | NR                             | 535               | 820                           | NR                             | 665               | 651                           | NR                             | 795               | 18                            | NR                             | 925               | 1                             | NR                             |
| 410               | 12                            | NR                             | 540               | 837                           | NR                             | 670               | 592                           | NR                             | 800               | 16                            | NR                             | 930               | 1                             | NR                             |
| 415               | 22                            | NR                             | 545               | 853                           | NR                             | 675               | 538                           | NR                             | 805               | 13                            | NR                             | 935               | 0                             | NR                             |
| 420               | 42                            | NR                             | 550               | 864                           | NR                             | 680               | 486                           | NR                             | 810               | 12                            | NR                             | 940               | 0                             | NR                             |
| 425               | 79                            | NR                             | 555               | 872                           | NR                             | 685               | 435                           | NR                             | 815               | 10                            | NR                             | 945               | 0                             | NR                             |
| 430               | 147                           | NR                             | 560               | 876                           | NR                             | 690               | 389                           | NR                             | 820               | 9                             | NR                             | 950               | 0                             | NR                             |
| 435               | 278                           | NR                             | 565               | 883                           | NR                             | 695               | 344                           | NR                             | 825               | 7                             | NR                             | 955               | 0                             | NR                             |
| 440               | 515                           | NR                             | 570               | 891                           | NR                             | 700               | 303                           | NR                             | 830               | 6                             | NR                             | 960               | 0                             | NR                             |
| 445               | 832                           | NR                             | 575               | 900                           | NR                             | 705               | 266                           | NR                             | 835               | 5                             | NR                             | 965               | 0                             | NR                             |
| 450               | 874                           | NR                             | 580               | 914                           | NR                             | 710               | 233                           | NR                             | 840               | 5                             | NR                             | 970               | 0                             | NR                             |
| 455               | 659                           | NR                             | 585               | 927                           | NR                             | 715               | 203                           | NR                             | 845               | 4                             | NR                             | 975               | 0                             | NR                             |
| 460               | 567                           | NR                             | 590               | 944                           | NR                             | 720               | 178                           | NR                             | 850               | 4                             | NR                             | 980               | 0                             | NR                             |
| 465               | 485                           | NR                             | 595               | 961                           | NR                             | 725               | 154                           | NR                             | 855               | 3                             | NR                             | 985               | 0                             | NR                             |
| 470               | 401                           | NR                             | 600               | 975                           | NR                             | 730               | 133                           | NR                             | 860               | 3                             | NR                             | 990               | 0                             | NR                             |
| 475               | 393                           | NR                             | 605               | 988                           | NR                             | 735               | 115                           | NR                             | 865               | 2                             | NR                             | 995               | 1                             | NR                             |
| 480               | 417                           | NR                             | 610               | 996                           | NR                             | 740               | 98                            | NR                             | 870               | 2                             | NR                             | 1000              | 0                             | NR                             |
| 485               | 448                           | NR                             | 615               | 998                           | NR                             | 745               | 85                            | NR                             | 875               | 2                             | NR                             |                   |                               |                                |

REPORT NUMBER: SP1-2407-184-16

### Scotopic Flux vs. Wavelength



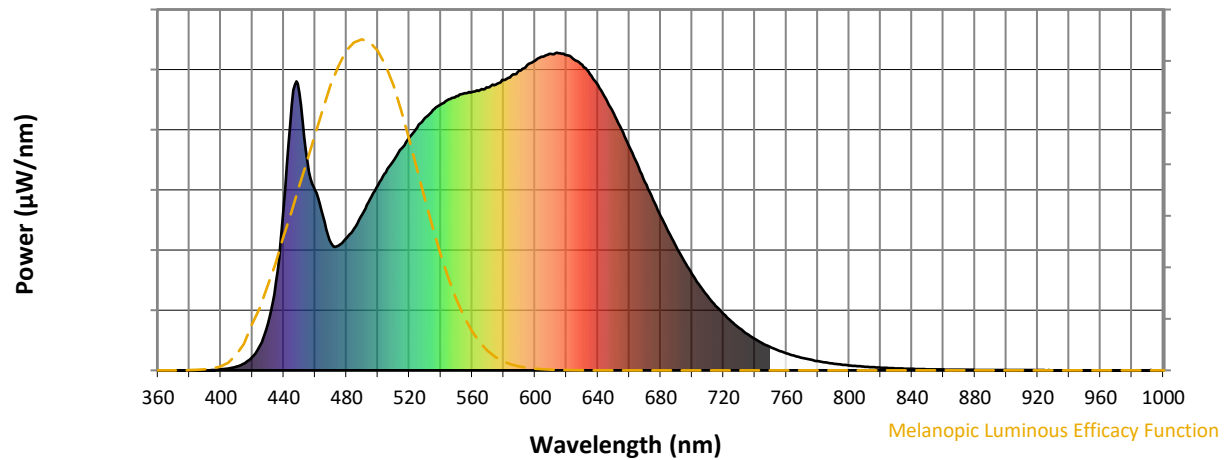
Scotopic Lumens: NR

S/P: 1.72

| λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 492                      | NR            | 620    | 993                      | NR            | 750    | 73                       | NR            | 880    | 1                        | NR            |
| 365    | 0                        | NR            | 495    | 539                      | NR            | 625    | 978                      | NR            | 755    | 62                       | NR            | 885    | 1                        | NR            |
| 370    | 0                        | NR            | 500    | 583                      | NR            | 630    | 962                      | NR            | 760    | 54                       | NR            | 890    | 1                        | NR            |
| 375    | 0                        | NR            | 505    | 623                      | NR            | 635    | 933                      | NR            | 765    | 46                       | NR            | 895    | 1                        | NR            |
| 380    | 0                        | NR            | 510    | 661                      | NR            | 640    | 898                      | NR            | 770    | 39                       | NR            | 900    | 1                        | NR            |
| 385    | 0                        | NR            | 515    | 698                      | NR            | 645    | 855                      | NR            | 775    | 34                       | NR            | 905    | 1                        | NR            |
| 390    | 0                        | NR            | 520    | 733                      | NR            | 650    | 810                      | NR            | 780    | 29                       | NR            | 910    | 1                        | NR            |
| 395    | 1                        | NR            | 525    | 764                      | NR            | 655    | 759                      | NR            | 785    | 25                       | NR            | 915    | 1                        | NR            |
| 400    | 3                        | NR            | 530    | 794                      | NR            | 660    | 704                      | NR            | 790    | 21                       | NR            | 920    | 1                        | NR            |
| 405    | 6                        | NR            | 535    | 820                      | NR            | 665    | 651                      | NR            | 795    | 18                       | NR            | 925    | 1                        | NR            |
| 410    | 12                       | NR            | 540    | 837                      | NR            | 670    | 592                      | NR            | 800    | 16                       | NR            | 930    | 1                        | NR            |
| 415    | 22                       | NR            | 545    | 853                      | NR            | 675    | 538                      | NR            | 805    | 13                       | NR            | 935    | 0                        | NR            |
| 420    | 42                       | NR            | 550    | 864                      | NR            | 680    | 486                      | NR            | 810    | 12                       | NR            | 940    | 0                        | NR            |
| 425    | 79                       | NR            | 555    | 872                      | NR            | 685    | 435                      | NR            | 815    | 10                       | NR            | 945    | 0                        | NR            |
| 430    | 147                      | NR            | 560    | 876                      | NR            | 690    | 389                      | NR            | 820    | 9                        | NR            | 950    | 0                        | NR            |
| 435    | 278                      | NR            | 565    | 883                      | NR            | 695    | 344                      | NR            | 825    | 7                        | NR            | 955    | 0                        | NR            |
| 440    | 515                      | NR            | 570    | 891                      | NR            | 700    | 303                      | NR            | 830    | 6                        | NR            | 960    | 0                        | NR            |
| 445    | 832                      | NR            | 575    | 900                      | NR            | 705    | 266                      | NR            | 835    | 5                        | NR            | 965    | 0                        | NR            |
| 450    | 874                      | NR            | 580    | 914                      | NR            | 710    | 233                      | NR            | 840    | 5                        | NR            | 970    | 0                        | NR            |
| 455    | 659                      | NR            | 585    | 927                      | NR            | 715    | 203                      | NR            | 845    | 4                        | NR            | 975    | 0                        | NR            |
| 460    | 567                      | NR            | 590    | 944                      | NR            | 720    | 178                      | NR            | 850    | 4                        | NR            | 980    | 0                        | NR            |
| 465    | 485                      | NR            | 595    | 961                      | NR            | 725    | 154                      | NR            | 855    | 3                        | NR            | 985    | 0                        | NR            |
| 470    | 401                      | NR            | 600    | 975                      | NR            | 730    | 133                      | NR            | 860    | 3                        | NR            | 990    | 0                        | NR            |
| 475    | 393                      | NR            | 605    | 988                      | NR            | 735    | 115                      | NR            | 865    | 2                        | NR            | 995    | 1                        | NR            |
| 480    | 417                      | NR            | 610    | 996                      | NR            | 740    | 98                       | NR            | 870    | 2                        | NR            | 1000   | 0                        | NR            |
| 485    | 448                      | NR            | 615    | 998                      | NR            | 745    | 85                       | NR            | 875    | 2                        | NR            |        |                          |               |

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### Melanopic Flux vs. Wavelength


**Melanopic Lumens: NR**
**M/P: 3.52**

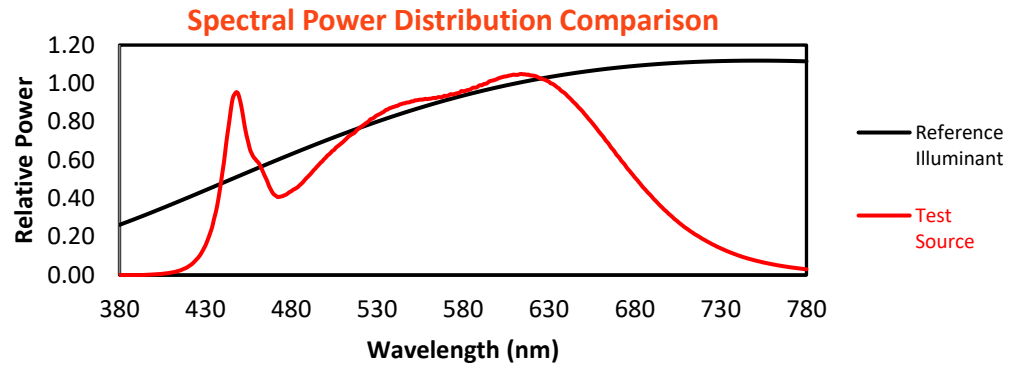
| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<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               | 492                                  | NR                             | 620               | 993                                  | NR                             | 750               | 73                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 539                                  | NR                             | 625               | 978                                  | NR                             | 755               | 62                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 583                                  | NR                             | 630               | 962                                  | NR                             | 760               | 54                                   | NR                             | 890               | 1                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 623                                  | NR                             | 635               | 933                                  | NR                             | 765               | 46                                   | NR                             | 895               | 1                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 661                                  | NR                             | 640               | 898                                  | NR                             | 770               | 39                                   | NR                             | 900               | 1                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 698                                  | NR                             | 645               | 855                                  | NR                             | 775               | 34                                   | NR                             | 905               | 1                                    | NR                             |
| 390               | 0                                    | NR                             | 520               | 733                                  | NR                             | 650               | 810                                  | NR                             | 780               | 29                                   | NR                             | 910               | 1                                    | NR                             |
| 395               | 1                                    | NR                             | 525               | 764                                  | NR                             | 655               | 759                                  | NR                             | 785               | 25                                   | NR                             | 915               | 1                                    | NR                             |
| 400               | 3                                    | NR                             | 530               | 794                                  | NR                             | 660               | 704                                  | NR                             | 790               | 21                                   | NR                             | 920               | 1                                    | NR                             |
| 405               | 6                                    | NR                             | 535               | 820                                  | NR                             | 665               | 651                                  | NR                             | 795               | 18                                   | NR                             | 925               | 1                                    | NR                             |
| 410               | 12                                   | NR                             | 540               | 837                                  | NR                             | 670               | 592                                  | NR                             | 800               | 16                                   | NR                             | 930               | 1                                    | NR                             |
| 415               | 22                                   | NR                             | 545               | 853                                  | NR                             | 675               | 538                                  | NR                             | 805               | 13                                   | NR                             | 935               | 0                                    | NR                             |
| 420               | 42                                   | NR                             | 550               | 864                                  | NR                             | 680               | 486                                  | NR                             | 810               | 12                                   | NR                             | 940               | 0                                    | NR                             |
| 425               | 79                                   | NR                             | 555               | 872                                  | NR                             | 685               | 435                                  | NR                             | 815               | 10                                   | NR                             | 945               | 0                                    | NR                             |
| 430               | 147                                  | NR                             | 560               | 876                                  | NR                             | 690               | 389                                  | NR                             | 820               | 9                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 278                                  | NR                             | 565               | 883                                  | NR                             | 695               | 344                                  | NR                             | 825               | 7                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 515                                  | NR                             | 570               | 891                                  | NR                             | 700               | 303                                  | NR                             | 830               | 6                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 832                                  | NR                             | 575               | 900                                  | NR                             | 705               | 266                                  | NR                             | 835               | 5                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 874                                  | NR                             | 580               | 914                                  | NR                             | 710               | 233                                  | NR                             | 840               | 5                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 659                                  | NR                             | 585               | 927                                  | NR                             | 715               | 203                                  | NR                             | 845               | 4                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 567                                  | NR                             | 590               | 944                                  | NR                             | 720               | 178                                  | NR                             | 850               | 4                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 485                                  | NR                             | 595               | 961                                  | NR                             | 725               | 154                                  | NR                             | 855               | 3                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 401                                  | NR                             | 600               | 975                                  | NR                             | 730               | 133                                  | NR                             | 860               | 3                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 393                                  | NR                             | 605               | 988                                  | NR                             | 735               | 115                                  | NR                             | 865               | 2                                    | NR                             | 995               | 1                                    | NR                             |
| 480               | 417                                  | NR                             | 610               | 996                                  | NR                             | 740               | 98                                   | NR                             | 870               | 2                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 448                                  | NR                             | 615               | 998                                  | NR                             | 745               | 85                                   | NR                             | 875               | 2                                    | NR                             |                   |                                      |                                |

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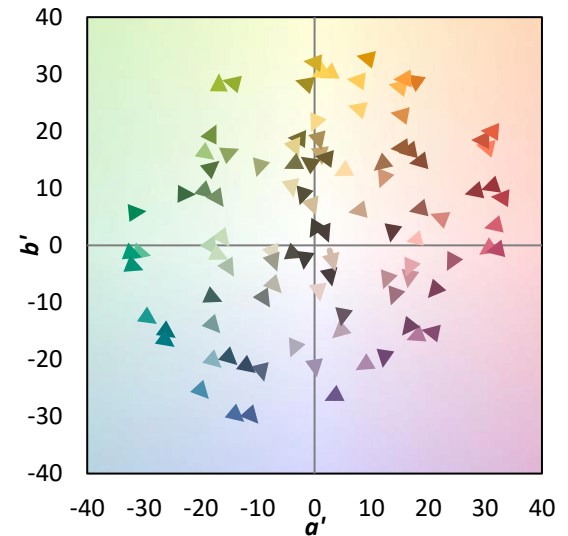
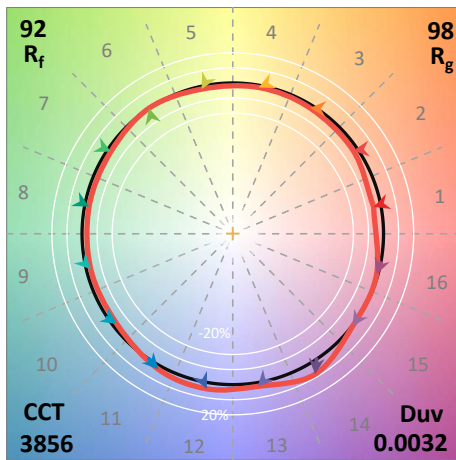
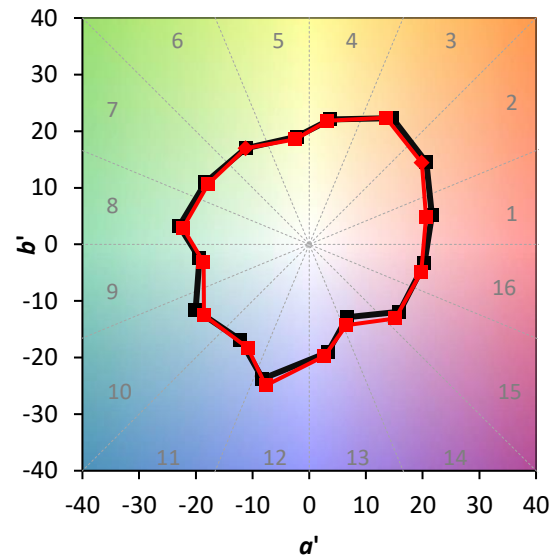
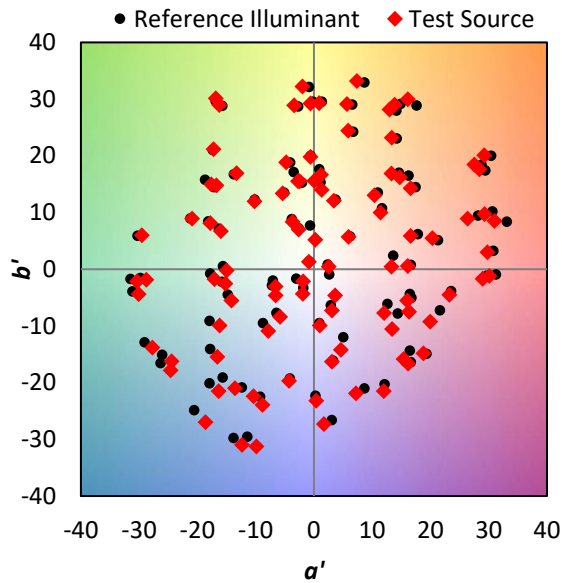
TM-30-18

### Summary

$R_f = 91.8$   
 $R_g = 98.4$   
 $CIE R_a = 92.1$   
 $R_9 = 60.7$

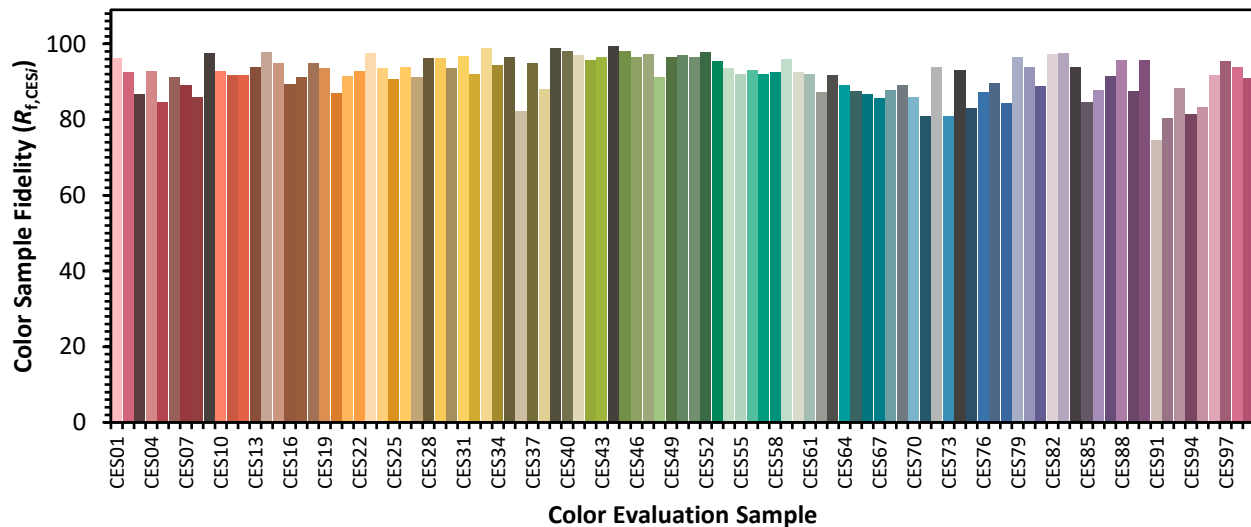


### Color Vector Graphics

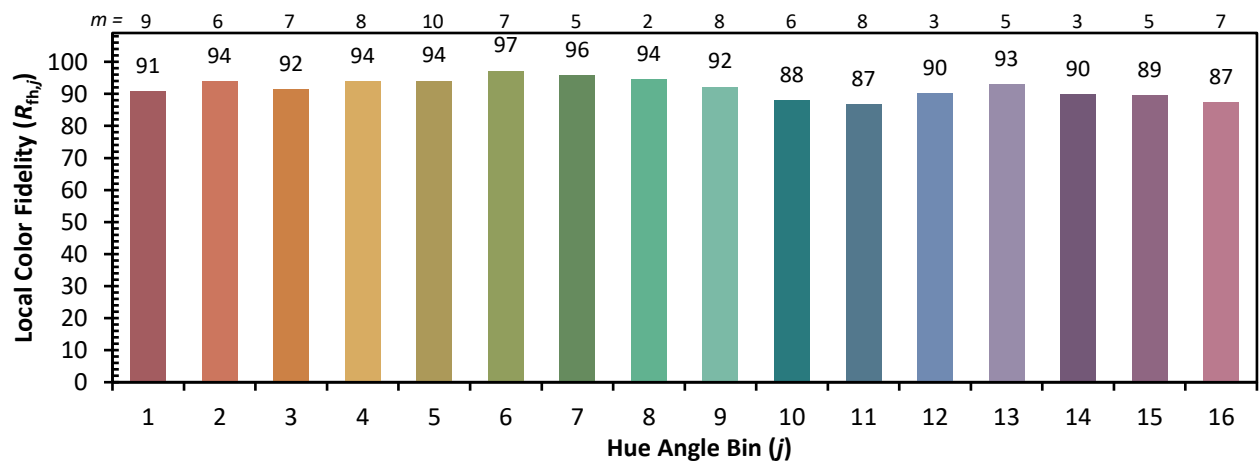
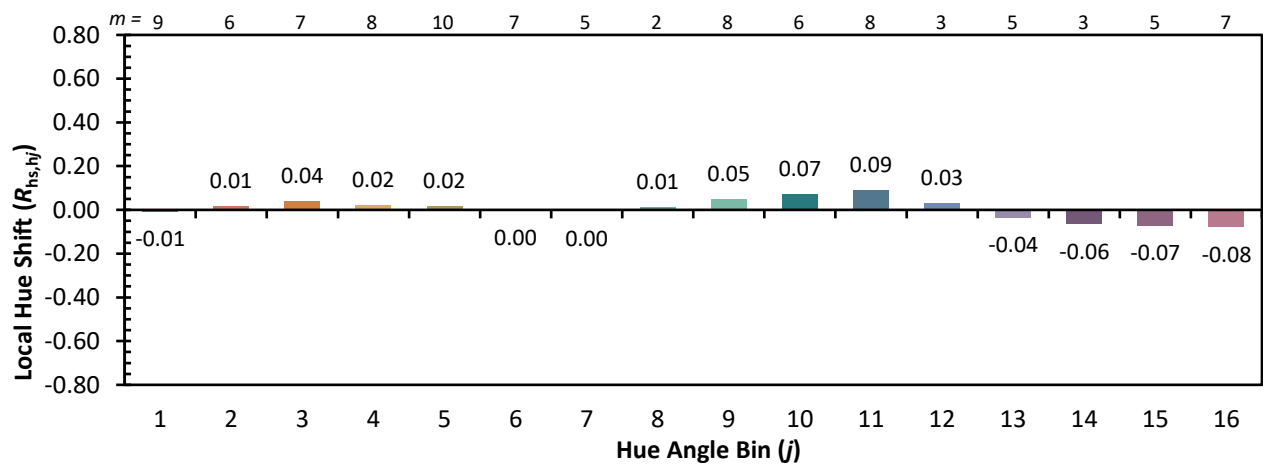
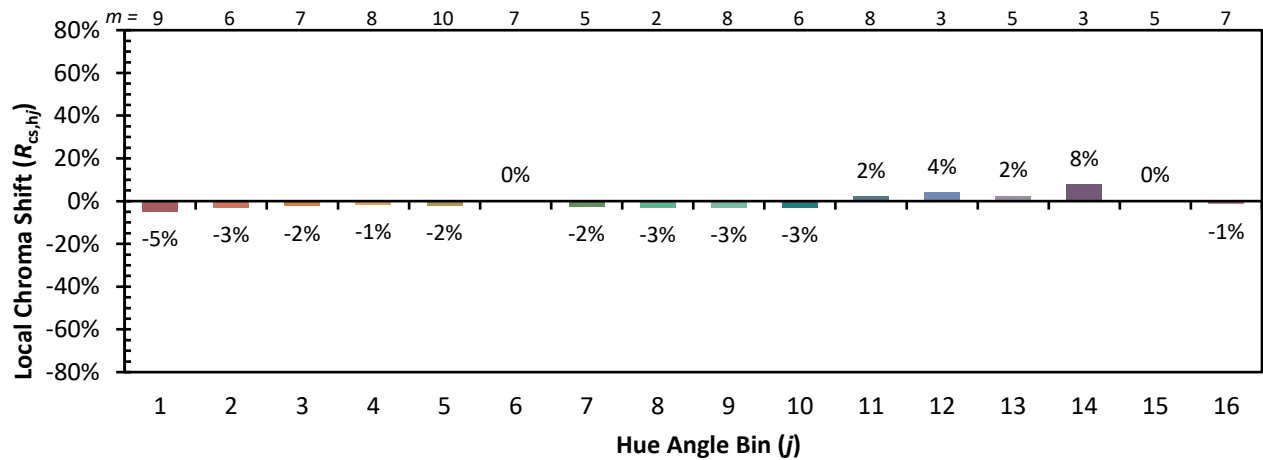


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

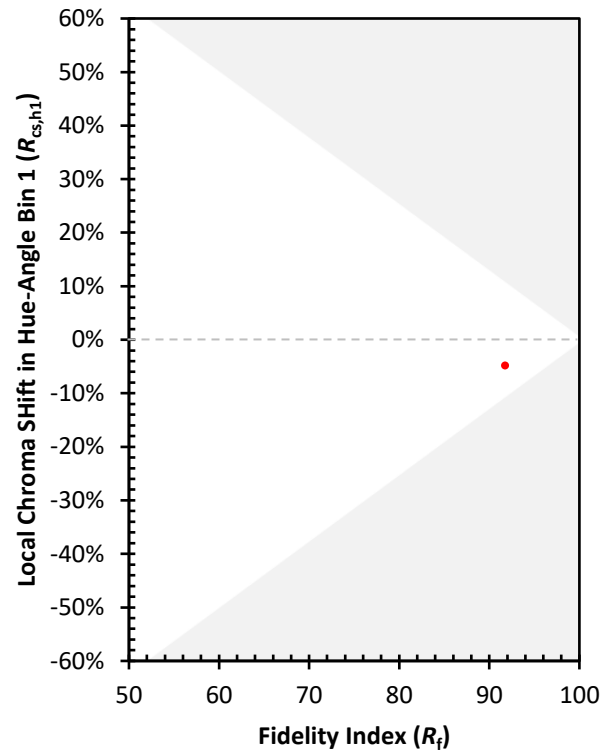
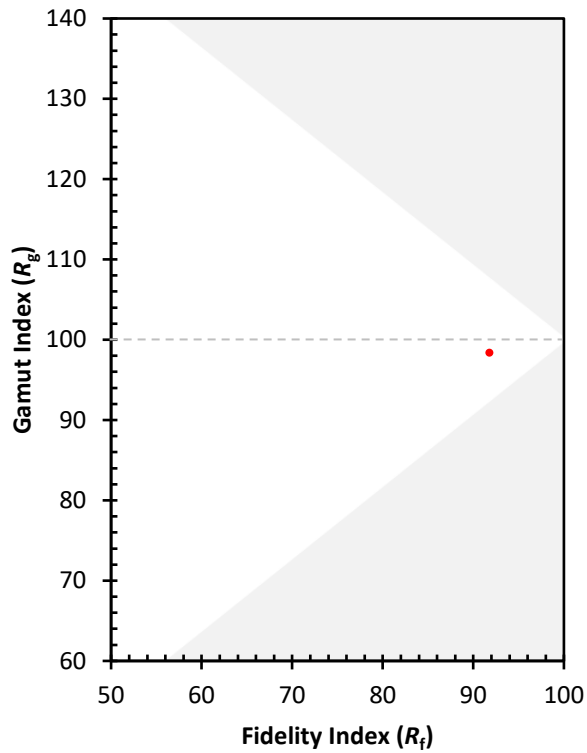
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 96 | CES76 = 87 |
| CES02 = 62 | CES27 = 91 | CES52 = 98 | CES77 = 90 |
| CES03 = 31 | CES28 = 96 | CES53 = 95 | CES78 = 84 |
| CES04 = 69 | CES29 = 96 | CES54 = 94 | CES79 = 96 |
| CES05 = 49 | CES30 = 93 | CES55 = 92 | CES80 = 94 |
| CES06 = 50 | CES31 = 97 | CES56 = 93 | CES81 = 89 |
| CES07 = 42 | CES32 = 92 | CES57 = 92 | CES82 = 97 |
| CES08 = 41 | CES33 = 99 | CES58 = 92 | CES83 = 98 |
| CES09 = 29 | CES34 = 94 | CES59 = 96 | CES84 = 94 |
| CES10 = 74 | CES35 = 96 | CES60 = 93 | CES85 = 85 |
| CES11 = 57 | CES36 = 82 | CES61 = 92 | CES86 = 88 |
| CES12 = 63 | CES37 = 95 | CES62 = 87 | CES87 = 92 |
| CES13 = 43 | CES38 = 88 | CES63 = 92 | CES88 = 96 |
| CES14 = 74 | CES39 = 99 | CES64 = 89 | CES89 = 87 |
| CES15 = 71 | CES40 = 98 | CES65 = 88 | CES90 = 96 |
| CES16 = 47 | CES41 = 97 | CES66 = 87 | CES91 = 74 |
| CES17 = 49 | CES42 = 96 | CES67 = 86 | CES92 = 80 |
| CES18 = 56 | CES43 = 96 | CES68 = 88 | CES93 = 88 |
| CES19 = 71 | CES44 = 99 | CES69 = 89 | CES94 = 82 |
| CES20 = 66 | CES45 = 98 | CES70 = 86 | CES95 = 83 |
| CES21 = 85 | CES46 = 97 | CES71 = 81 | CES96 = 92 |
| CES22 = 78 | CES47 = 97 | CES72 = 94 | CES97 = 95 |
| CES23 = 91 | CES48 = 91 | CES73 = 81 | CES98 = 94 |
| CES24 = 90 | CES49 = 96 | CES74 = 93 | CES99 = 91 |
| CES25 = 71 | CES50 = 97 | CES75 = 83 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)