

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: P324635

Luminaire Tested: **GLEON-SA1B-830-U-SLR-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324635  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA1B-830-U-SLR-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3525 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G1

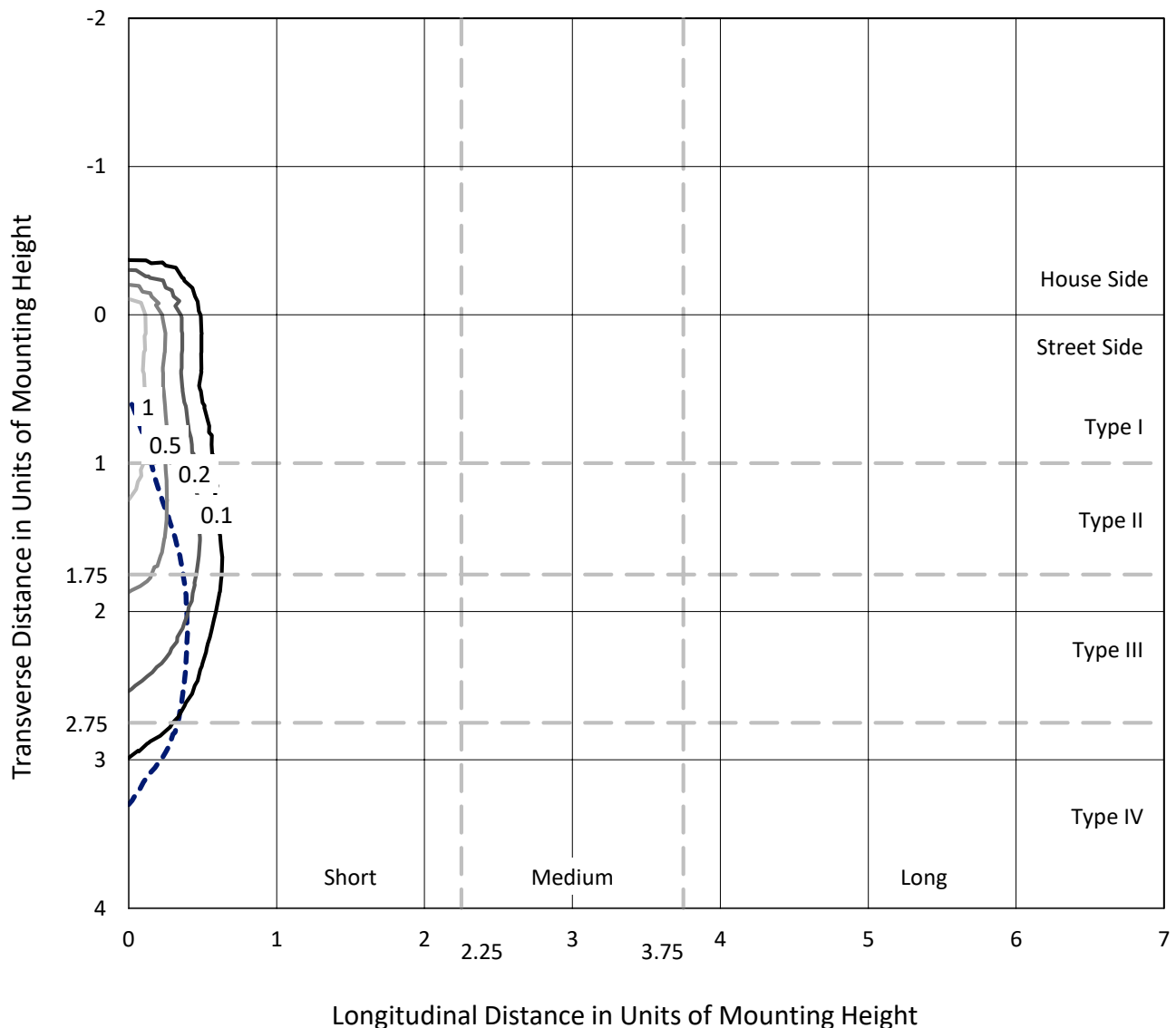
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P324635  
 CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

## Iso-Footcandle Lines of Horizontal Illumination

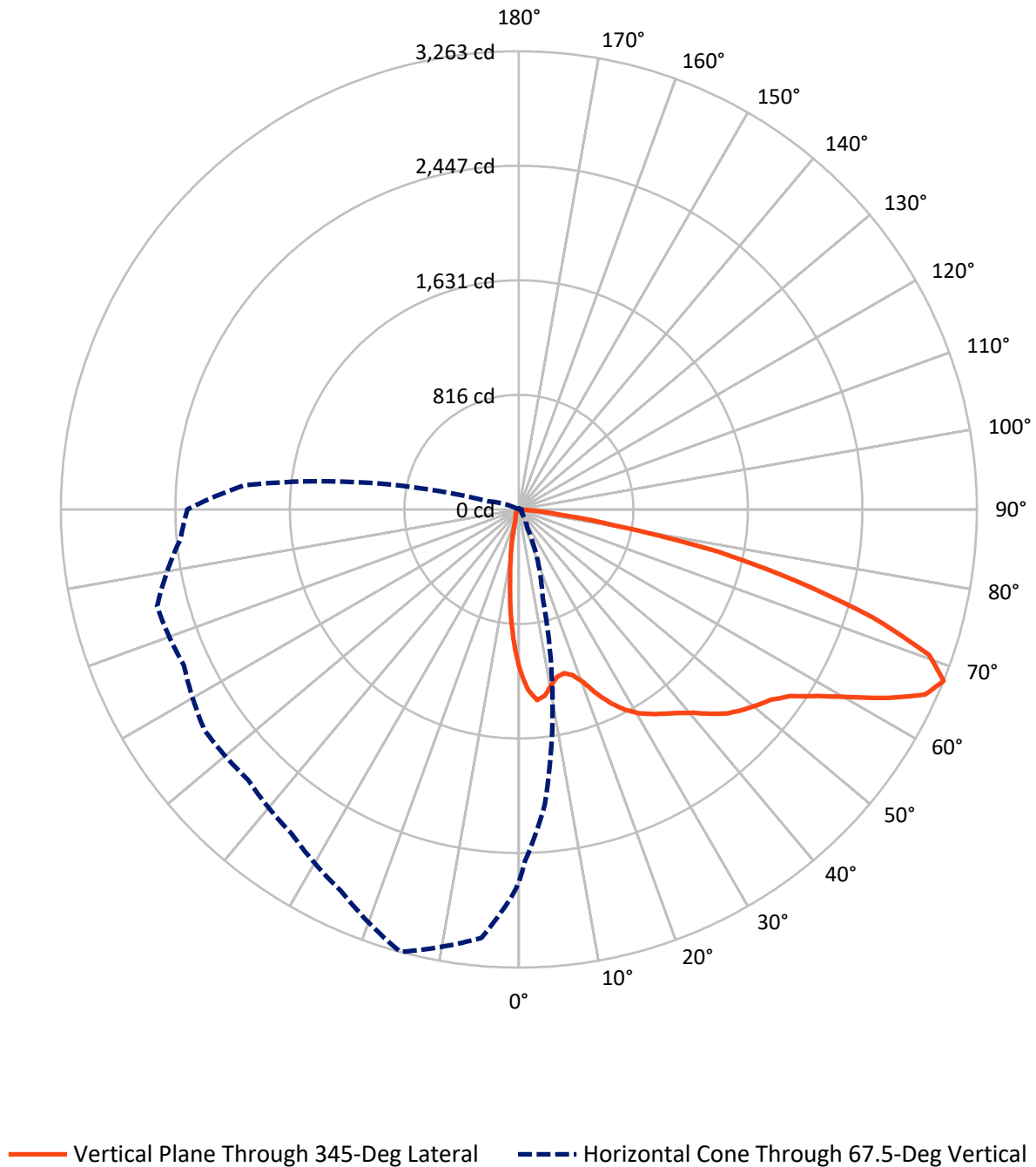
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P324635  
CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P324635  
 CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 426.6    | 0.0    | 426.6  |
|                    | % Fixture | 12.1     | 0.0    | 12.1   |
| <b>Street Side</b> | Lumens    | 3098.4   | 0.0    | 3098.4 |
|                    | % Fixture | 87.9     | 0.0    | 87.9   |
| <b>Total</b>       | Lumens    | 3525.0   | 0.0    | 3525.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 88.1   | 2.5       |
| 10°-20°   | 175.4  | 5.0       |
| 20°-30°   | 249.1  | 7.1       |
| 30°-40°   | 367.9  | 10.4      |
| 40°-50°   | 530.6  | 15.1      |
| 50°-60°   | 744.9  | 21.1      |
| 60°-70°   | 868.3  | 24.6      |
| 70°-80°   | 443.9  | 12.6      |
| 80°-90°   | 56.7   | 1.6       |
| 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°    | 3525.0 | 100.0     |
| 0°-180°   | 3525.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P324635

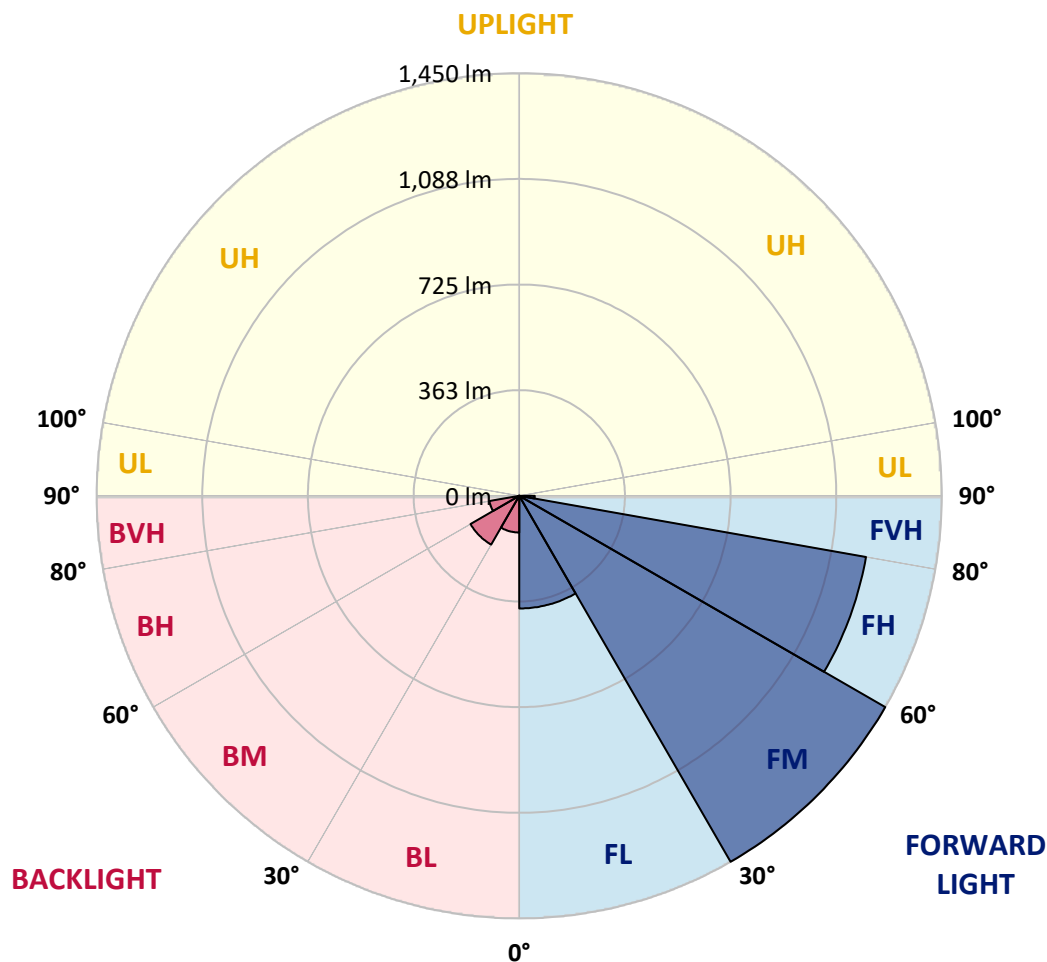
CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 386.6  | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 1450.2 | 41.1      |                         |      |         |
| FH   | (60°-80°)   | 1208.2 | 34.3      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 53.2   | 1.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 126.0  | 3.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 193.2  | 5.5       | B0/220                  |      |         |
| BH   | (60°-80°)   | 104.0  | 2.9       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 3.4    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type IV Medium



REPORT NUMBER: P324635

CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 1°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 |
| 2.5°  | 1257.3 | 1247.6 | 1236.9 | 1202.0 | 1169.6 | 1132.6 | 1102.3 | 1081.3 | 1054.9 | 1020.7 | 1012.0 |
| 5°    | 1248.3 | 1237.9 | 1204.4 | 1126.7 | 1058.8 | 992.6  | 928.8  | 891.4  | 845.0  | 797.9  | 786.2  |
| 7.5°  | 1157.6 | 1146.8 | 1098.3 | 992.0  | 900.4  | 804.9  | 722.1  | 670.8  | 618.4  | 575.3  | 552.4  |
| 10°   | 1063.3 | 1051.4 | 997.0  | 867.9  | 755.2  | 668.8  | 608.0  | 559.1  | 509.5  | 463.4  | 426.7  |
| 12.5° | 998.3  | 982.8  | 923.7  | 777.4  | 679.2  | 620.6  | 563.8  | 505.2  | 438.0  | 388.6  | 348.2  |
| 15°   | 971.1  | 953.4  | 890.9  | 742.5  | 652.3  | 583.5  | 509.5  | 437.5  | 358.9  | 302.3  | 265.2  |
| 17.5° | 992.1  | 969.1  | 902.1  | 740.1  | 618.6  | 524.9  | 431.3  | 346.9  | 261.5  | 204.2  | 177.9  |
| 20°   | 1063.6 | 1033.4 | 948.4  | 739.5  | 577.6  | 455.2  | 336.7  | 241.1  | 172.3  | 138.6  | 124.7  |
| 22.5° | 1176.2 | 1136.2 | 1014.8 | 744.8  | 535.4  | 382.1  | 243.1  | 163.8  | 129.4  | 111.9  | 103.7  |
| 25°   | 1312.1 | 1265.8 | 1110.5 | 763.7  | 498.3  | 310.9  | 176.7  | 129.4  | 109.2  | 96.4   | 89.5   |
| 27.5° | 1441.3 | 1403.8 | 1231.4 | 790.9  | 469.6  | 253.5  | 143.4  | 109.7  | 93.4   | 84.8   | 79.3   |
| 30°   | 1570.4 | 1523.2 | 1355.5 | 823.3  | 435.0  | 214.6  | 126.1  | 100.0  | 83.7   | 74.6   | 71.1   |
| 32.5° | 1664.3 | 1625.0 | 1452.7 | 846.7  | 398.1  | 189.2  | 112.7  | 91.5   | 78.2   | 69.0   | 63.8   |
| 35°   | 1774.7 | 1730.2 | 1536.0 | 851.8  | 374.4  | 173.2  | 101.4  | 82.3   | 67.8   | 59.6   | 54.1   |
| 37.5° | 1893.9 | 1838.6 | 1632.2 | 840.5  | 355.9  | 165.3  | 92.8   | 78.2   | 63.3   | 54.9   | 49.1   |
| 40°   | 2025.8 | 1963.4 | 1724.6 | 824.1  | 337.7  | 162.7  | 86.3   | 75.0   | 59.8   | 51.3   | 45.3   |
| 42.5° | 2164.8 | 2091.1 | 1804.6 | 806.9  | 326.1  | 153.5  | 85.7   | 71.8   | 57.1   | 47.9   | 41.9   |
| 45°   | 2281.5 | 2206.8 | 1886.7 | 801.2  | 318.0  | 143.4  | 88.5   | 69.6   | 55.3   | 45.3   | 39.4   |
| 47.5° | 2374.5 | 2303.9 | 1970.9 | 813.9  | 313.3  | 134.3  | 80.7   | 72.5   | 54.3   | 42.9   | 37.2   |
| 50°   | 2485.6 | 2405.6 | 2089.4 | 851.8  | 306.4  | 125.1  | 73.0   | 83.0   | 54.3   | 41.4   | 35.4   |
| 52.5° | 2624.8 | 2545.7 | 2221.7 | 910.6  | 292.7  | 112.4  | 65.6   | 83.2   | 54.8   | 39.4   | 33.1   |
| 55°   | 2800.0 | 2742.6 | 2410.6 | 975.1  | 270.9  | 93.7   | 56.8   | 71.5   | 52.8   | 35.7   | 30.9   |
| 57.5° | 2968.0 | 2921.1 | 2582.8 | 1019.2 | 241.6  | 73.1   | 49.4   | 57.6   | 48.3   | 31.4   | 27.6   |
| 59°   | 3013.9 | 2962.7 | 2645.9 | 1021.2 | 219.8  | 63.8   | 45.8   | 47.6   | 47.3   | 29.4   | 25.6   |
| 60°   | 3013.9 | 2959.5 | 2664.1 | 1010.5 | 203.9  | 58.6   | 43.4   | 42.4   | 49.3   | 28.1   | 24.4   |
| 62.5° | 2959.3 | 2882.8 | 2605.0 | 938.2  | 166.3  | 49.9   | 37.9   | 35.1   | 44.3   | 25.2   | 21.5   |
| 65°   | 2845.8 | 2734.4 | 2403.6 | 807.4  | 148.3  | 45.8   | 32.7   | 28.7   | 30.7   | 22.2   | 18.9   |
| 67.5° | 2656.4 | 2505.4 | 2113.2 | 652.3  | 141.1  | 44.6   | 28.2   | 24.4   | 23.2   | 19.0   | 16.5   |
| 70°   | 2322.9 | 2155.4 | 1760.6 | 512.8  | 134.9  | 44.1   | 23.7   | 20.5   | 18.7   | 16.0   | 14.0   |
| 72.5° | 1690.7 | 1516.0 | 1250.0 | 401.0  | 131.3  | 45.1   | 19.0   | 17.2   | 15.4   | 12.5   | 10.9   |
| 75°   | 967.1  | 852.7  | 702.6  | 264.9  | 111.9  | 43.1   | 14.7   | 14.4   | 11.0   | 9.0    | 7.5    |
| 77.5° | 499.7  | 484.5  | 421.0  | 101.7  | 53.6   | 18.9   | 9.7    | 8.3    | 6.5    | 5.5    | 4.5    |
| 80°   | 215.6  | 213.3  | 184.5  | 29.4   | 14.2   | 10.5   | 5.5    | 3.5    | 3.0    | 2.3    | 1.8    |
| 82.5° | 74.5   | 74.5   | 65.6   | 9.9    | 6.3    | 5.2    | 0.7    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 15.0   | 16.9   | 11.9   | 0.0    | 2.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

REPORT NUMBER: P324635

CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 |
| 2.5°  | 1001.5 | 981.3  | 979.9  | 967.2  | 951.4  | 944.2  | 940.0  | 947.4  | 956.4  | 957.4  | 970.9  |
| 5°    | 777.4  | 756.2  | 765.0  | 742.5  | 747.0  | 742.5  | 735.1  | 736.5  | 740.5  | 727.9  | 743.5  |
| 7.5°  | 545.9  | 529.9  | 540.1  | 534.1  | 542.1  | 545.2  | 540.7  | 534.1  | 514.3  | 512.0  | 525.5  |
| 10°   | 411.5  | 393.3  | 382.4  | 371.1  | 373.6  | 378.7  | 377.1  | 372.2  | 359.7  | 360.4  | 373.4  |
| 12.5° | 330.7  | 310.3  | 288.7  | 260.8  | 254.0  | 257.8  | 254.0  | 251.2  | 239.1  | 240.1  | 251.7  |
| 15°   | 250.8  | 234.1  | 211.6  | 189.2  | 177.0  | 178.2  | 167.5  | 160.0  | 152.5  | 143.4  | 150.5  |
| 17.5° | 169.3  | 159.1  | 152.5  | 145.8  | 131.3  | 127.9  | 114.4  | 99.9   | 94.2   | 90.0   | 93.0   |
| 20°   | 119.9  | 114.4  | 111.7  | 111.4  | 103.0  | 98.9   | 85.7   | 76.7   | 73.8   | 73.0   | 74.8   |
| 22.5° | 100.2  | 96.2   | 92.3   | 90.2   | 86.0   | 81.2   | 71.1   | 66.6   | 64.6   | 63.6   | 65.0   |
| 25°   | 87.2   | 84.2   | 80.2   | 76.5   | 74.8   | 69.6   | 62.5   | 59.1   | 57.8   | 56.8   | 57.4   |
| 27.5° | 77.5   | 74.8   | 70.1   | 67.8   | 66.5   | 62.0   | 55.8   | 53.1   | 51.9   | 51.6   | 51.4   |
| 30°   | 69.8   | 67.3   | 63.0   | 60.3   | 57.9   | 53.9   | 50.3   | 47.6   | 46.4   | 46.1   | 45.8   |
| 32.5° | 62.1   | 60.1   | 57.3   | 54.6   | 52.1   | 48.4   | 45.3   | 43.1   | 41.2   | 40.9   | 40.7   |
| 35°   | 52.4   | 50.4   | 48.9   | 48.8   | 46.4   | 42.9   | 40.6   | 37.7   | 36.2   | 35.7   | 35.9   |
| 37.5° | 46.6   | 43.9   | 40.6   | 41.7   | 41.1   | 38.6   | 35.4   | 32.6   | 31.1   | 30.7   | 30.7   |
| 40°   | 42.9   | 40.1   | 36.2   | 34.2   | 36.2   | 35.7   | 30.7   | 27.9   | 26.4   | 26.2   | 25.9   |
| 42.5° | 39.4   | 36.6   | 32.2   | 28.9   | 29.9   | 31.4   | 26.6   | 23.9   | 22.4   | 22.0   | 21.5   |
| 45°   | 36.9   | 33.9   | 29.1   | 25.2   | 23.2   | 26.4   | 22.7   | 19.4   | 18.5   | 17.9   | 17.5   |
| 47.5° | 34.6   | 31.7   | 26.2   | 21.9   | 18.5   | 19.0   | 18.2   | 15.9   | 14.9   | 14.2   | 14.0   |
| 50°   | 32.6   | 29.6   | 23.7   | 18.7   | 15.4   | 14.0   | 14.7   | 12.5   | 11.7   | 11.0   | 10.7   |
| 52.5° | 30.2   | 27.4   | 21.0   | 16.2   | 12.9   | 11.0   | 11.2   | 9.9    | 9.0    | 8.5    | 8.3    |
| 55°   | 28.4   | 25.6   | 18.9   | 14.2   | 11.4   | 9.0    | 8.0    | 7.7    | 7.2    | 6.8    | 6.7    |
| 57.5° | 25.9   | 23.2   | 16.7   | 12.0   | 9.7    | 7.3    | 6.2    | 6.2    | 6.0    | 5.7    | 5.5    |
| 59°   | 24.4   | 22.0   | 15.4   | 10.9   | 8.9    | 6.3    | 5.5    | 5.7    | 5.5    | 5.2    | 5.0    |
| 60°   | 23.2   | 21.0   | 14.4   | 10.0   | 8.3    | 5.8    | 5.0    | 5.3    | 5.2    | 4.8    | 4.7    |
| 62.5° | 20.5   | 19.0   | 12.4   | 8.3    | 7.3    | 4.7    | 4.2    | 4.5    | 4.5    | 4.3    | 4.2    |
| 65°   | 18.0   | 16.4   | 10.5   | 7.0    | 6.8    | 4.0    | 3.3    | 4.0    | 4.2    | 3.8    | 3.5    |
| 67.5° | 15.7   | 14.0   | 9.2    | 5.7    | 6.3    | 3.2    | 2.5    | 3.3    | 4.5    | 3.5    | 3.2    |
| 70°   | 13.4   | 11.7   | 7.2    | 4.5    | 6.7    | 2.2    | 2.0    | 3.0    | 5.3    | 3.8    | 3.0    |
| 72.5° | 10.4   | 9.0    | 5.0    | 3.3    | 7.2    | 1.5    | 1.5    | 2.5    | 6.0    | 4.2    | 2.8    |
| 75°   | 7.2    | 5.8    | 3.0    | 2.0    | 5.8    | 1.0    | 1.0    | 2.3    | 5.7    | 3.8    | 2.7    |
| 77.5° | 4.2    | 3.2    | 1.0    | 0.2    | 3.0    | 0.0    | 0.2    | 1.7    | 4.0    | 2.3    | 1.2    |
| 80°   | 1.5    | 0.7    | 0.0    | 0.0    | 1.8    | 0.0    | 0.0    | 0.0    | 0.3    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P324635

CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 |
| 2.5°  | 974.4  | 997.0  | 1017.2 | 1047.7 | 1084.0 | 1125.7 | 1161.6 | 1200.2 | 1236.4 | 1251.5 | 1261.8 |
| 5°    | 746.6  | 774.5  | 807.1  | 852.0  | 911.8  | 985.4  | 1054.4 | 1132.4 | 1216.2 | 1258.1 | 1297.6 |
| 7.5°  | 527.9  | 556.3  | 596.7  | 644.4  | 716.7  | 804.4  | 894.6  | 1002.3 | 1115.9 | 1182.2 | 1247.5 |
| 10°   | 379.6  | 414.5  | 452.2  | 517.5  | 591.0  | 674.2  | 767.0  | 887.2  | 1013.8 | 1087.3 | 1166.0 |
| 12.5° | 258.3  | 298.1  | 355.2  | 428.3  | 514.7  | 596.2  | 676.8  | 791.6  | 938.5  | 1011.3 | 1095.7 |
| 15°   | 155.0  | 177.0  | 237.5  | 322.1  | 428.0  | 529.5  | 617.9  | 732.9  | 889.6  | 978.8  | 1066.4 |
| 17.5° | 95.5   | 105.7  | 138.6  | 208.1  | 319.3  | 447.7  | 568.8  | 713.1  | 896.6  | 1005.1 | 1099.0 |
| 20°   | 76.2   | 80.2   | 90.7   | 122.9  | 211.6  | 357.5  | 513.5  | 709.1  | 953.9  | 1087.5 | 1188.2 |
| 22.5° | 66.1   | 70.0   | 77.0   | 89.3   | 133.1  | 267.7  | 461.1  | 712.7  | 1036.0 | 1210.9 | 1328.5 |
| 25°   | 58.3   | 61.6   | 68.3   | 78.5   | 97.5   | 188.5  | 405.0  | 729.1  | 1143.1 | 1364.0 | 1488.9 |
| 27.5° | 52.1   | 54.9   | 61.1   | 70.5   | 83.7   | 131.6  | 341.3  | 749.0  | 1270.0 | 1520.7 | 1643.9 |
| 30°   | 46.4   | 48.9   | 54.4   | 63.1   | 72.6   | 101.2  | 271.5  | 762.5  | 1397.1 | 1643.9 | 1754.6 |
| 32.5° | 41.6   | 43.4   | 48.4   | 55.8   | 63.1   | 80.7   | 206.4  | 760.3  | 1491.4 | 1746.4 | 1834.3 |
| 35°   | 36.6   | 38.4   | 42.8   | 49.1   | 54.9   | 66.6   | 162.3  | 719.8  | 1573.6 | 1852.8 | 1925.5 |
| 37.5° | 31.1   | 33.4   | 37.6   | 43.3   | 47.3   | 58.6   | 131.3  | 670.8  | 1656.9 | 1974.4 | 2027.2 |
| 40°   | 26.4   | 28.7   | 32.4   | 38.6   | 41.1   | 55.6   | 100.9  | 611.2  | 1750.6 | 2110.3 | 2138.7 |
| 42.5° | 21.9   | 24.0   | 27.9   | 33.2   | 38.7   | 47.9   | 74.6   | 543.1  | 1840.6 | 2226.6 | 2240.4 |
| 45°   | 17.7   | 19.9   | 23.9   | 29.2   | 41.4   | 39.7   | 57.8   | 470.1  | 1913.3 | 2323.2 | 2327.8 |
| 47.5° | 14.0   | 16.0   | 20.2   | 27.6   | 38.6   | 31.7   | 41.2   | 412.8  | 1974.2 | 2398.7 | 2386.9 |
| 50°   | 10.9   | 12.5   | 16.9   | 31.6   | 33.7   | 26.2   | 31.2   | 393.8  | 2028.8 | 2445.5 | 2414.8 |
| 52.5° | 8.5    | 10.0   | 13.9   | 29.6   | 26.2   | 21.7   | 26.2   | 411.6  | 2103.6 | 2484.2 | 2430.5 |
| 55°   | 6.8    | 8.3    | 10.9   | 16.9   | 17.9   | 18.4   | 22.4   | 428.3  | 2232.7 | 2575.1 | 2523.1 |
| 57.5° | 5.7    | 7.2    | 8.9    | 11.9   | 13.5   | 15.5   | 19.9   | 430.2  | 2384.9 | 2726.0 | 2676.9 |
| 59°   | 5.2    | 6.5    | 8.0    | 10.5   | 11.9   | 14.2   | 18.7   | 420.2  | 2438.5 | 2781.0 | 2756.4 |
| 60°   | 4.8    | 6.2    | 7.5    | 9.7    | 11.0   | 13.4   | 18.0   | 410.6  | 2440.8 | 2779.0 | 2790.3 |
| 62.5° | 4.2    | 5.5    | 6.7    | 8.2    | 9.4    | 11.4   | 16.2   | 375.4  | 2341.9 | 2688.0 | 2770.0 |
| 65°   | 3.7    | 4.8    | 6.0    | 7.0    | 8.0    | 10.2   | 14.7   | 311.1  | 2173.1 | 2541.2 | 2630.5 |
| 67.5° | 3.3    | 4.2    | 5.5    | 6.2    | 7.2    | 9.0    | 13.0   | 221.8  | 1962.2 | 2361.7 | 2419.6 |
| 70°   | 3.0    | 4.0    | 5.0    | 5.7    | 6.5    | 7.8    | 11.2   | 127.4  | 1656.9 | 2098.8 | 2140.0 |
| 72.5° | 2.8    | 3.8    | 4.5    | 5.3    | 5.8    | 7.0    | 10.2   | 60.0   | 1213.2 | 1681.3 | 1789.0 |
| 75°   | 2.5    | 3.5    | 4.2    | 5.0    | 5.5    | 6.3    | 8.7    | 28.7   | 806.9  | 1216.7 | 1339.1 |
| 77.5° | 1.5    | 2.8    | 3.8    | 4.5    | 4.8    | 5.5    | 7.2    | 16.5   | 515.0  | 842.2  | 992.0  |
| 80°   | 0.0    | 1.0    | 2.8    | 3.8    | 4.2    | 4.7    | 5.5    | 13.0   | 275.5  | 481.1  | 577.5  |
| 82.5° | 0.0    | 0.0    | 2.0    | 3.0    | 2.8    | 3.2    | 4.2    | 8.2    | 124.2  | 314.5  | 354.4  |
| 85°   | 0.0    | 0.0    | 0.7    | 2.3    | 2.0    | 1.5    | 2.8    | 2.8    | 27.2   | 159.1  | 198.6  |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.2    | 1.0    | 0.7    | 1.2    | 0.3    | 0.2    | 11.9   | 48.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

REPORT NUMBER: P324635

CATALOG NUMBER: GLEON-SA1B-830-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1148.3 |
| 2.5°  | 1298.1 | 1310.4 | 1331.3 | 1341.1 | 1336.3 | 1315.8 | 1291.2 | 1266.2 | 1251.5 | 1257.3 |
| 5°    | 1377.9 | 1441.5 | 1478.2 | 1490.4 | 1470.1 | 1424.0 | 1363.7 | 1284.2 | 1256.0 | 1248.3 |
| 7.5°  | 1377.9 | 1497.6 | 1573.4 | 1586.8 | 1541.4 | 1451.0 | 1338.0 | 1213.9 | 1172.6 | 1157.6 |
| 10°   | 1329.5 | 1492.4 | 1598.1 | 1619.4 | 1555.9 | 1420.8 | 1269.3 | 1127.7 | 1078.8 | 1063.3 |
| 12.5° | 1274.8 | 1450.4 | 1561.7 | 1591.0 | 1538.9 | 1390.7 | 1221.7 | 1069.4 | 1011.8 | 998.3  |
| 15°   | 1241.3 | 1398.6 | 1490.8 | 1512.0 | 1489.9 | 1373.2 | 1210.4 | 1051.9 | 984.1  | 971.1  |
| 17.5° | 1253.3 | 1358.5 | 1391.7 | 1404.1 | 1419.0 | 1367.0 | 1241.3 | 1090.3 | 1004.5 | 992.1  |
| 20°   | 1298.6 | 1316.3 | 1299.1 | 1314.6 | 1354.7 | 1373.0 | 1314.9 | 1183.2 | 1080.1 | 1063.6 |
| 22.5° | 1375.4 | 1294.4 | 1246.1 | 1252.3 | 1301.1 | 1392.9 | 1427.5 | 1315.8 | 1196.9 | 1176.2 |
| 25°   | 1464.9 | 1312.1 | 1216.7 | 1211.2 | 1261.3 | 1419.1 | 1530.3 | 1460.0 | 1335.0 | 1312.1 |
| 27.5° | 1577.4 | 1351.8 | 1210.7 | 1205.2 | 1247.5 | 1443.7 | 1615.9 | 1602.7 | 1480.4 | 1441.3 |
| 30°   | 1664.3 | 1390.9 | 1228.6 | 1215.9 | 1261.3 | 1460.7 | 1684.5 | 1723.7 | 1596.3 | 1570.4 |
| 32.5° | 1726.6 | 1437.0 | 1257.6 | 1239.3 | 1300.4 | 1490.1 | 1737.4 | 1834.6 | 1703.5 | 1664.3 |
| 35°   | 1774.0 | 1487.1 | 1304.6 | 1274.3 | 1354.2 | 1534.7 | 1787.0 | 1952.7 | 1817.6 | 1774.7 |
| 37.5° | 1818.4 | 1557.4 | 1377.9 | 1341.8 | 1438.5 | 1606.5 | 1839.5 | 2086.6 | 1945.2 | 1893.9 |
| 40°   | 1880.4 | 1637.1 | 1490.9 | 1458.9 | 1580.3 | 1704.4 | 1904.9 | 2226.2 | 2090.3 | 2025.8 |
| 42.5° | 1942.3 | 1722.6 | 1606.7 | 1615.3 | 1757.1 | 1823.3 | 1989.4 | 2373.8 | 2233.6 | 2164.8 |
| 45°   | 1998.9 | 1810.7 | 1771.5 | 1811.6 | 1921.3 | 1953.7 | 2073.4 | 2459.2 | 2348.0 | 2281.5 |
| 47.5° | 2049.4 | 1921.0 | 1935.3 | 2042.0 | 2108.0 | 2071.7 | 2136.2 | 2532.8 | 2433.1 | 2374.5 |
| 50°   | 2108.0 | 2063.6 | 2151.2 | 2302.2 | 2322.9 | 2178.6 | 2193.3 | 2620.0 | 2532.7 | 2485.6 |
| 52.5° | 2172.1 | 2213.9 | 2390.4 | 2523.5 | 2516.8 | 2294.7 | 2250.8 | 2717.7 | 2669.1 | 2624.8 |
| 55°   | 2244.9 | 2335.3 | 2601.0 | 2730.5 | 2724.9 | 2424.3 | 2346.0 | 2838.4 | 2840.1 | 2800.0 |
| 57.5° | 2353.0 | 2439.8 | 2743.9 | 2898.0 | 2907.6 | 2573.9 | 2507.3 | 2973.7 | 2994.7 | 2968.0 |
| 59°   | 2430.5 | 2507.6 | 2800.5 | 2968.0 | 3006.8 | 2689.6 | 2625.2 | 3052.2 | 3038.3 | 3013.9 |
| 60°   | 2487.9 | 2550.7 | 2828.6 | 3004.6 | 3064.4 | 2768.1 | 2712.2 | 3098.3 | 3043.5 | 3013.9 |
| 62.5° | 2630.0 | 2644.5 | 2879.2 | 3046.0 | 3130.7 | 2942.5 | 2957.0 | 3176.8 | 3007.6 | 2959.3 |
| 65°   | 2696.3 | 2703.8 | 2878.5 | 2971.9 | 3066.5 | 3078.2 | 3179.1 | 3179.1 | 2919.9 | 2845.8 |
| 67.5° | 2668.6 | 2632.4 | 2735.7 | 2726.0 | 2820.6 | 2997.6 | 3262.6 | 3062.5 | 2752.3 | 2656.4 |
| 70°   | 2443.1 | 2303.7 | 2257.8 | 2262.0 | 2334.3 | 2607.3 | 3097.3 | 2719.5 | 2435.0 | 2322.9 |
| 72.5° | 2032.8 | 1698.3 | 1585.0 | 1714.4 | 1733.2 | 2003.8 | 2639.5 | 2048.0 | 1795.7 | 1690.7 |
| 75°   | 1635.1 | 1197.2 | 1012.8 | 1149.4 | 1181.5 | 1466.4 | 2041.9 | 1275.5 | 1048.9 | 967.1  |
| 77.5° | 1174.6 | 859.4  | 726.8  | 717.2  | 758.7  | 930.0  | 1448.9 | 641.9  | 535.4  | 499.7  |
| 80°   | 667.3  | 565.6  | 609.0  | 574.6  | 595.5  | 581.5  | 688.4  | 281.6  | 230.6  | 215.6  |
| 82.5° | 402.8  | 334.3  | 362.0  | 301.4  | 381.4  | 332.2  | 265.2  | 90.2   | 78.3   | 74.5   |
| 85°   | 262.0  | 182.7  | 95.2   | 63.8   | 131.4  | 212.3  | 59.3   | 24.5   | 18.9   | 15.0   |
| 87.5° | 90.3   | 46.6   | 4.7    | 2.0    | 14.0   | 39.6   | 2.2    | 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    |

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2408-195-9  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 08/07/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: MCGRAW EDISON  
 Catalog Number: **GALN-SB1A-830-U-5WQ**  
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

### Spectral Parameters

CCT (K): 3050  
 CIE  $u'$ : 0.2476  
 CIE  $v'$ : 0.5251  
 Duv: 0.0034  
 CIE x: 0.4383  
 CIE y: 0.4131  
 CIE z: 0.1487  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 581  
 Purity: 55.55201  
 R<sub>f</sub>: 81.5  
 R<sub>g</sub>: 99.2

CRI (Ra): 81.0  
 R1: 79.6  
 R2: 85.6  
 R3: 92.0  
 R4: 82.6  
 R5: 78.9  
 R6: 81.7  
 R7: 85.2  
 R8: 62.0  
 R9: 7.1  
 R10: 67.0  
 R11: 82.7  
 R12: 63.2  
 R13: 80.3  
 R14: 95.0  
 R15: 71.7



### Test Conditions

Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

| 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: SP1-2408-195-9

**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

### 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               | 168                                    | NR                             | 620               | 940                                    | NR                             | 750               | 35                                     | NR                             | 880               | 1                                      | NR                             |
| 365               | 0                                      | NR                             | 495               | 233                                    | NR                             | 625               | 897                                    | NR                             | 755               | 30                                     | NR                             | 885               | 1                                      | NR                             |
| 370               | 0                                      | NR                             | 500               | 300                                    | NR                             | 630               | 847                                    | NR                             | 760               | 26                                     | NR                             | 890               | 1                                      | NR                             |
| 375               | 0                                      | NR                             | 505               | 372                                    | NR                             | 635               | 790                                    | NR                             | 765               | 22                                     | NR                             | 895               | 1                                      | NR                             |
| 380               | 0                                      | NR                             | 510               | 430                                    | NR                             | 640               | 730                                    | NR                             | 770               | 19                                     | NR                             | 900               | 1                                      | NR                             |
| 385               | 0                                      | NR                             | 515               | 483                                    | NR                             | 645               | 668                                    | NR                             | 775               | 16                                     | NR                             | 905               | 1                                      | NR                             |
| 390               | 0                                      | NR                             | 520               | 524                                    | NR                             | 650               | 605                                    | NR                             | 780               | 14                                     | NR                             | 910               | 0                                      | NR                             |
| 395               | 2                                      | NR                             | 525               | 555                                    | NR                             | 655               | 545                                    | NR                             | 785               | 12                                     | NR                             | 915               | 0                                      | NR                             |
| 400               | 4                                      | NR                             | 530               | 581                                    | NR                             | 660               | 485                                    | NR                             | 790               | 10                                     | NR                             | 920               | 0                                      | NR                             |
| 405               | 7                                      | NR                             | 535               | 604                                    | NR                             | 665               | 430                                    | NR                             | 795               | 9                                      | NR                             | 925               | 0                                      | NR                             |
| 410               | 17                                     | NR                             | 540               | 623                                    | NR                             | 670               | 378                                    | NR                             | 800               | 8                                      | NR                             | 930               | 0                                      | NR                             |
| 415               | 34                                     | NR                             | 545               | 645                                    | NR                             | 675               | 331                                    | NR                             | 805               | 7                                      | NR                             | 935               | 0                                      | NR                             |
| 420               | 68                                     | NR                             | 550               | 667                                    | NR                             | 680               | 290                                    | NR                             | 810               | 6                                      | NR                             | 940               | 0                                      | NR                             |
| 425               | 128                                    | NR                             | 555               | 693                                    | NR                             | 685               | 251                                    | NR                             | 815               | 5                                      | NR                             | 945               | 0                                      | NR                             |
| 430               | 214                                    | NR                             | 560               | 719                                    | NR                             | 690               | 218                                    | NR                             | 820               | 4                                      | NR                             | 950               | 0                                      | NR                             |
| 435               | 339                                    | NR                             | 565               | 754                                    | NR                             | 695               | 188                                    | NR                             | 825               | 4                                      | NR                             | 955               | 0                                      | NR                             |
| 440               | 507                                    | NR                             | 570               | 791                                    | NR                             | 700               | 162                                    | NR                             | 830               | 3                                      | NR                             | 960               | 0                                      | NR                             |
| 445               | 573                                    | NR                             | 575               | 830                                    | NR                             | 705               | 139                                    | NR                             | 835               | 3                                      | NR                             | 965               | 0                                      | NR                             |
| 450               | 356                                    | NR                             | 580               | 873                                    | NR                             | 710               | 119                                    | NR                             | 840               | 3                                      | NR                             | 970               | 0                                      | NR                             |
| 455               | 217                                    | NR                             | 585               | 913                                    | NR                             | 715               | 102                                    | NR                             | 845               | 2                                      | NR                             | 975               | 0                                      | NR                             |
| 460               | 168                                    | NR                             | 590               | 948                                    | NR                             | 720               | 88                                     | NR                             | 850               | 2                                      | NR                             | 980               | 0                                      | NR                             |
| 465               | 113                                    | NR                             | 595               | 974                                    | NR                             | 725               | 76                                     | NR                             | 855               | 2                                      | NR                             | 985               | 0                                      | NR                             |
| 470               | 85                                     | NR                             | 600               | 994                                    | NR                             | 730               | 65                                     | NR                             | 860               | 1                                      | NR                             | 990               | 0                                      | NR                             |
| 475               | 85                                     | NR                             | 605               | 998                                    | NR                             | 735               | 55                                     | NR                             | 865               | 1                                      | NR                             | 995               | 0                                      | NR                             |
| 480               | 94                                     | NR                             | 610               | 994                                    | NR                             | 740               | 47                                     | NR                             | 870               | 1                                      | NR                             | 1000              | 0                                      | NR                             |
| 485               | 120                                    | NR                             | 615               | 973                                    | NR                             | 745               | 41                                     | NR                             | 875               | 1                                      | NR                             |                   |                                        |                                |

REPORT NUMBER: SP1-2408-195-9

### Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

| λ<br>(nm) | Power<br>W <sup>Λ</sup> /nm | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>W <sup>Λ</sup> /nm | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>W <sup>Λ</sup> /nm | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>W <sup>Λ</sup> /nm | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>W <sup>Λ</sup> /nm | Lumens<br>(Φ/nm) |
|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|
| 360       | 0                           | NR               | 490       | 168                         | NR               | 620       | 940                         | NR               | 750       | 35                          | NR               | 880       | 1                           | NR               |
| 365       | 0                           | NR               | 495       | 233                         | NR               | 625       | 897                         | NR               | 755       | 30                          | NR               | 885       | 1                           | NR               |
| 370       | 0                           | NR               | 500       | 300                         | NR               | 630       | 847                         | NR               | 760       | 26                          | NR               | 890       | 1                           | NR               |
| 375       | 0                           | NR               | 505       | 372                         | NR               | 635       | 790                         | NR               | 765       | 22                          | NR               | 895       | 1                           | NR               |
| 380       | 0                           | NR               | 510       | 430                         | NR               | 640       | 730                         | NR               | 770       | 19                          | NR               | 900       | 1                           | NR               |
| 385       | 0                           | NR               | 515       | 483                         | NR               | 645       | 668                         | NR               | 775       | 16                          | NR               | 905       | 1                           | NR               |
| 390       | 0                           | NR               | 520       | 524                         | NR               | 650       | 605                         | NR               | 780       | 14                          | NR               | 910       | 0                           | NR               |
| 395       | 2                           | NR               | 525       | 555                         | NR               | 655       | 545                         | NR               | 785       | 12                          | NR               | 915       | 0                           | NR               |
| 400       | 4                           | NR               | 530       | 581                         | NR               | 660       | 485                         | NR               | 790       | 10                          | NR               | 920       | 0                           | NR               |
| 405       | 7                           | NR               | 535       | 604                         | NR               | 665       | 430                         | NR               | 795       | 9                           | NR               | 925       | 0                           | NR               |
| 410       | 17                          | NR               | 540       | 623                         | NR               | 670       | 378                         | NR               | 800       | 8                           | NR               | 930       | 0                           | NR               |
| 415       | 34                          | NR               | 545       | 645                         | NR               | 675       | 331                         | NR               | 805       | 7                           | NR               | 935       | 0                           | NR               |
| 420       | 68                          | NR               | 550       | 667                         | NR               | 680       | 290                         | NR               | 810       | 6                           | NR               | 940       | 0                           | NR               |
| 425       | 128                         | NR               | 555       | 693                         | NR               | 685       | 251                         | NR               | 815       | 5                           | NR               | 945       | 0                           | NR               |
| 430       | 214                         | NR               | 560       | 719                         | NR               | 690       | 218                         | NR               | 820       | 4                           | NR               | 950       | 0                           | NR               |
| 435       | 339                         | NR               | 565       | 754                         | NR               | 695       | 188                         | NR               | 825       | 4                           | NR               | 955       | 0                           | NR               |
| 440       | 507                         | NR               | 570       | 791                         | NR               | 700       | 162                         | NR               | 830       | 3                           | NR               | 960       | 0                           | NR               |
| 445       | 573                         | NR               | 575       | 830                         | NR               | 705       | 139                         | NR               | 835       | 3                           | NR               | 965       | 0                           | NR               |
| 450       | 356                         | NR               | 580       | 873                         | NR               | 710       | 119                         | NR               | 840       | 3                           | NR               | 970       | 0                           | NR               |
| 455       | 217                         | NR               | 585       | 913                         | NR               | 715       | 102                         | NR               | 845       | 2                           | NR               | 975       | 0                           | NR               |
| 460       | 168                         | NR               | 590       | 948                         | NR               | 720       | 88                          | NR               | 850       | 2                           | NR               | 980       | 0                           | NR               |
| 465       | 113                         | NR               | 595       | 974                         | NR               | 725       | 76                          | NR               | 855       | 2                           | NR               | 985       | 0                           | NR               |
| 470       | 85                          | NR               | 600       | 994                         | NR               | 730       | 65                          | NR               | 860       | 1                           | NR               | 990       | 0                           | NR               |
| 475       | 85                          | NR               | 605       | 998                         | NR               | 735       | 55                          | NR               | 865       | 1                           | NR               | 995       | 0                           | NR               |
| 480       | 94                          | NR               | 610       | 994                         | NR               | 740       | 47                          | NR               | 870       | 1                           | NR               | 1000      | 0                           | NR               |
| 485       | 120                         | NR               | 615       | 973                         | NR               | 745       | 41                          | NR               | 875       | 1                           | NR               |           |                             |                  |

REPORT NUMBER: SP1-2408-195-9

### Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

| $\lambda$<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               | 168                                    | NR                             | 620               | 940                                    | NR                             | 750               | 35                                     | NR                             | 880               | 1                                      | NR                             |
| 365               | 0                                      | NR                             | 495               | 233                                    | NR                             | 625               | 897                                    | NR                             | 755               | 30                                     | NR                             | 885               | 1                                      | NR                             |
| 370               | 0                                      | NR                             | 500               | 300                                    | NR                             | 630               | 847                                    | NR                             | 760               | 26                                     | NR                             | 890               | 1                                      | NR                             |
| 375               | 0                                      | NR                             | 505               | 372                                    | NR                             | 635               | 790                                    | NR                             | 765               | 22                                     | NR                             | 895               | 1                                      | NR                             |
| 380               | 0                                      | NR                             | 510               | 430                                    | NR                             | 640               | 730                                    | NR                             | 770               | 19                                     | NR                             | 900               | 1                                      | NR                             |
| 385               | 0                                      | NR                             | 515               | 483                                    | NR                             | 645               | 668                                    | NR                             | 775               | 16                                     | NR                             | 905               | 1                                      | NR                             |
| 390               | 0                                      | NR                             | 520               | 524                                    | NR                             | 650               | 605                                    | NR                             | 780               | 14                                     | NR                             | 910               | 0                                      | NR                             |
| 395               | 2                                      | NR                             | 525               | 555                                    | NR                             | 655               | 545                                    | NR                             | 785               | 12                                     | NR                             | 915               | 0                                      | NR                             |
| 400               | 4                                      | NR                             | 530               | 581                                    | NR                             | 660               | 485                                    | NR                             | 790               | 10                                     | NR                             | 920               | 0                                      | NR                             |
| 405               | 7                                      | NR                             | 535               | 604                                    | NR                             | 665               | 430                                    | NR                             | 795               | 9                                      | NR                             | 925               | 0                                      | NR                             |
| 410               | 17                                     | NR                             | 540               | 623                                    | NR                             | 670               | 378                                    | NR                             | 800               | 8                                      | NR                             | 930               | 0                                      | NR                             |
| 415               | 34                                     | NR                             | 545               | 645                                    | NR                             | 675               | 331                                    | NR                             | 805               | 7                                      | NR                             | 935               | 0                                      | NR                             |
| 420               | 68                                     | NR                             | 550               | 667                                    | NR                             | 680               | 290                                    | NR                             | 810               | 6                                      | NR                             | 940               | 0                                      | NR                             |
| 425               | 128                                    | NR                             | 555               | 693                                    | NR                             | 685               | 251                                    | NR                             | 815               | 5                                      | NR                             | 945               | 0                                      | NR                             |
| 430               | 214                                    | NR                             | 560               | 719                                    | NR                             | 690               | 218                                    | NR                             | 820               | 4                                      | NR                             | 950               | 0                                      | NR                             |
| 435               | 339                                    | NR                             | 565               | 754                                    | NR                             | 695               | 188                                    | NR                             | 825               | 4                                      | NR                             | 955               | 0                                      | NR                             |
| 440               | 507                                    | NR                             | 570               | 791                                    | NR                             | 700               | 162                                    | NR                             | 830               | 3                                      | NR                             | 960               | 0                                      | NR                             |
| 445               | 573                                    | NR                             | 575               | 830                                    | NR                             | 705               | 139                                    | NR                             | 835               | 3                                      | NR                             | 965               | 0                                      | NR                             |
| 450               | 356                                    | NR                             | 580               | 873                                    | NR                             | 710               | 119                                    | NR                             | 840               | 3                                      | NR                             | 970               | 0                                      | NR                             |
| 455               | 217                                    | NR                             | 585               | 913                                    | NR                             | 715               | 102                                    | NR                             | 845               | 2                                      | NR                             | 975               | 0                                      | NR                             |
| 460               | 168                                    | NR                             | 590               | 948                                    | NR                             | 720               | 88                                     | NR                             | 850               | 2                                      | NR                             | 980               | 0                                      | NR                             |
| 465               | 113                                    | NR                             | 595               | 974                                    | NR                             | 725               | 76                                     | NR                             | 855               | 2                                      | NR                             | 985               | 0                                      | NR                             |
| 470               | 85                                     | NR                             | 600               | 994                                    | NR                             | 730               | 65                                     | NR                             | 860               | 1                                      | NR                             | 990               | 0                                      | NR                             |
| 475               | 85                                     | NR                             | 605               | 998                                    | NR                             | 735               | 55                                     | NR                             | 865               | 1                                      | NR                             | 995               | 0                                      | NR                             |
| 480               | 94                                     | NR                             | 610               | 994                                    | NR                             | 740               | 47                                     | NR                             | 870               | 1                                      | NR                             | 1000              | 0                                      | NR                             |
| 485               | 120                                    | NR                             | 615               | 973                                    | NR                             | 745               | 41                                     | NR                             | 875               | 1                                      | NR                             |                   |                                        |                                |

REPORT NUMBER: SP1-2408-195-9

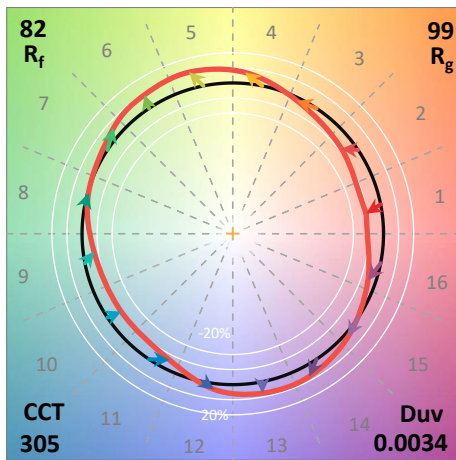
TM-30-18

### Summary

$R_f = 81.5$   
 $R_g = 99.2$   
 $CIE R_a = 81.0$   
 $R_9 = 7.1$



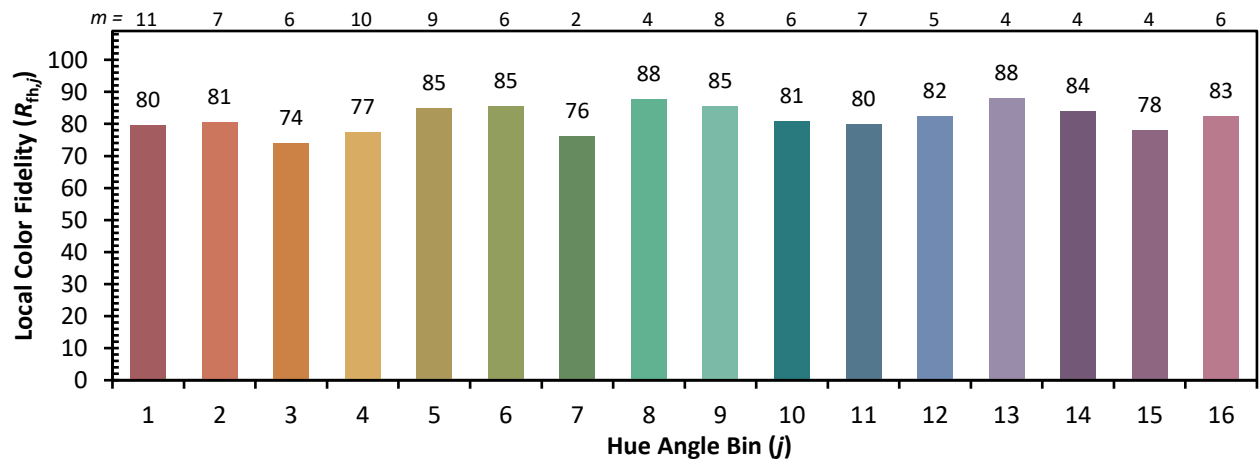
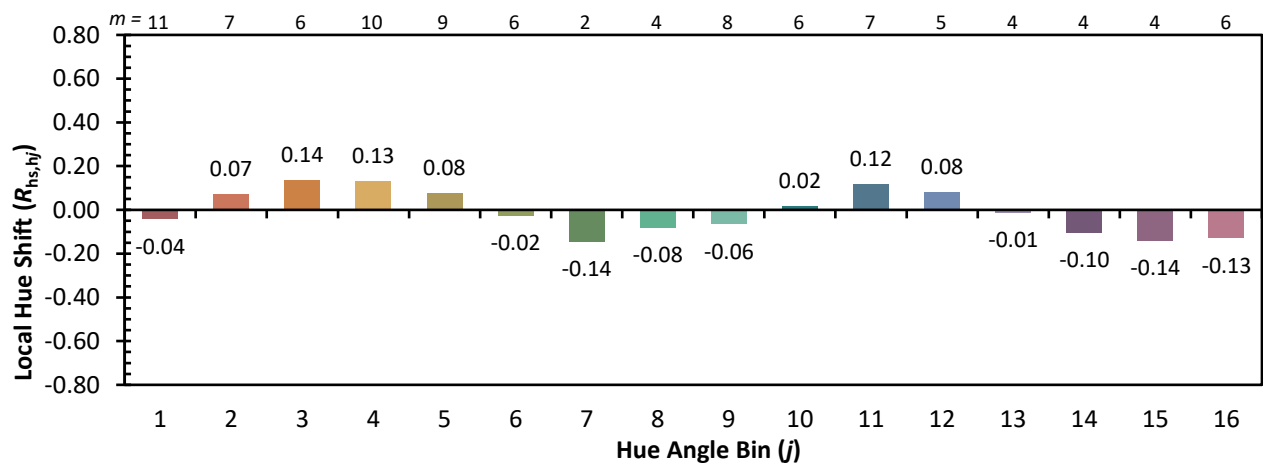
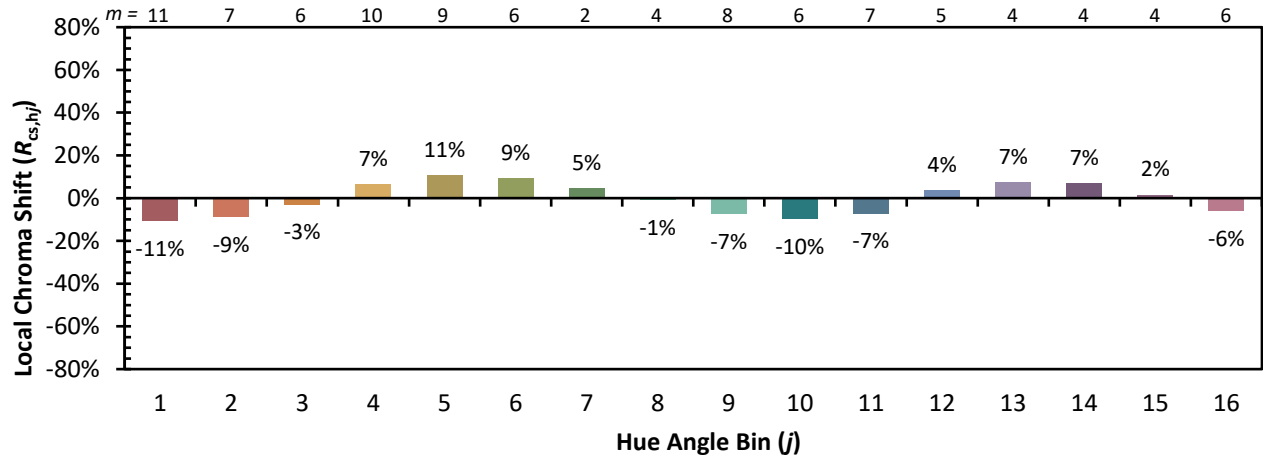
### Color Vector Graphics



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 92 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 94 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 91 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 78 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 |            |



**Color Rendition by Hue-Angle Bin**


**Measure Comparisons**



(END OF REPORT)