

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: P1211757

Luminaire Tested: **GKO-PB1F-827-U-T1**

Issue Date: 11/5/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P1211757  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 11/5/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GKO-PB1F-827-U-T1  
Description: GEKKO WALL PACK 6500LM PACKAGE 80CRI 2700K FIXTURE w/ TYPE I DISTRIBUTION OPTIC  
Light Source: (10) 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

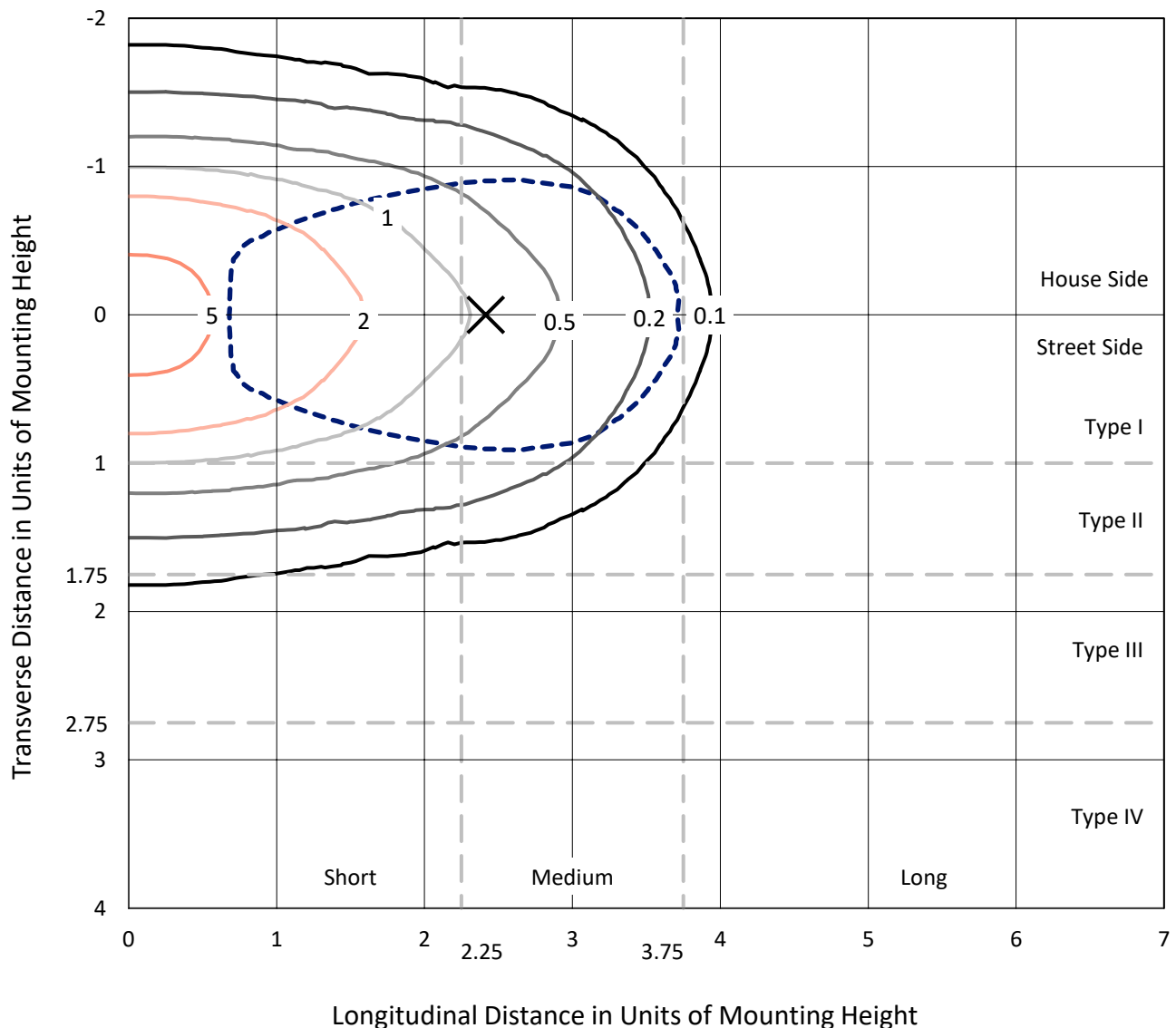
Lumens per Lamp: N/A  
Luminaire Lumens: 5940.4 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 54.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.7%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

REPORT NUMBER: P1211757  
 CATALOG NUMBER: GKO-PB1F-827-U-T1

## Iso-Footcandle Lines of Horizontal Illumination

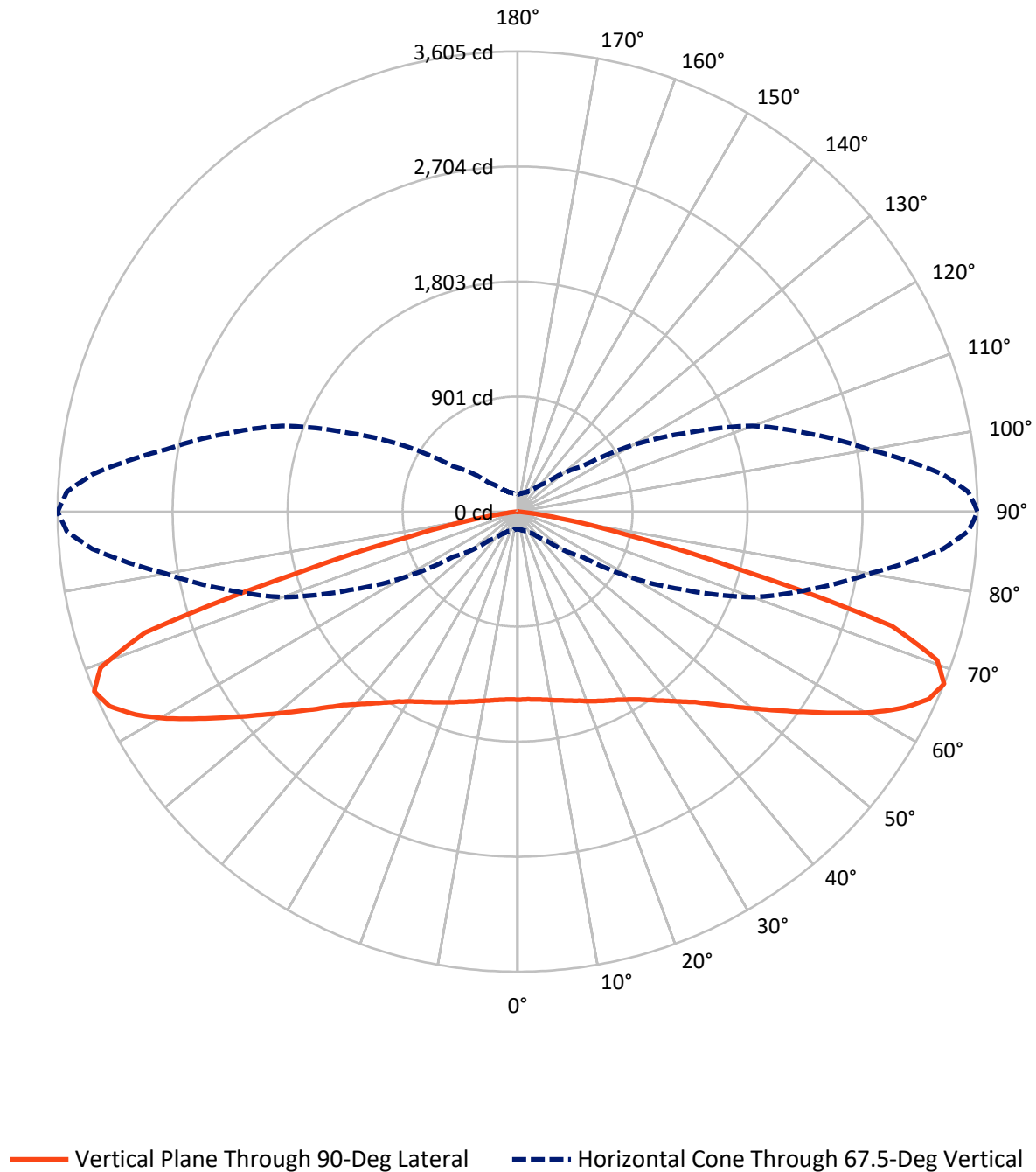
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.6 fc  
 Type I - Short - N/A

REPORT NUMBER: P1211757  
CATALOG NUMBER: GKO-PB1F-827-U-T1

## Luminous Intensity Polar Plot



REPORT NUMBER: P1211757

CATALOG NUMBER: GKO-PB1F-827-U-T1

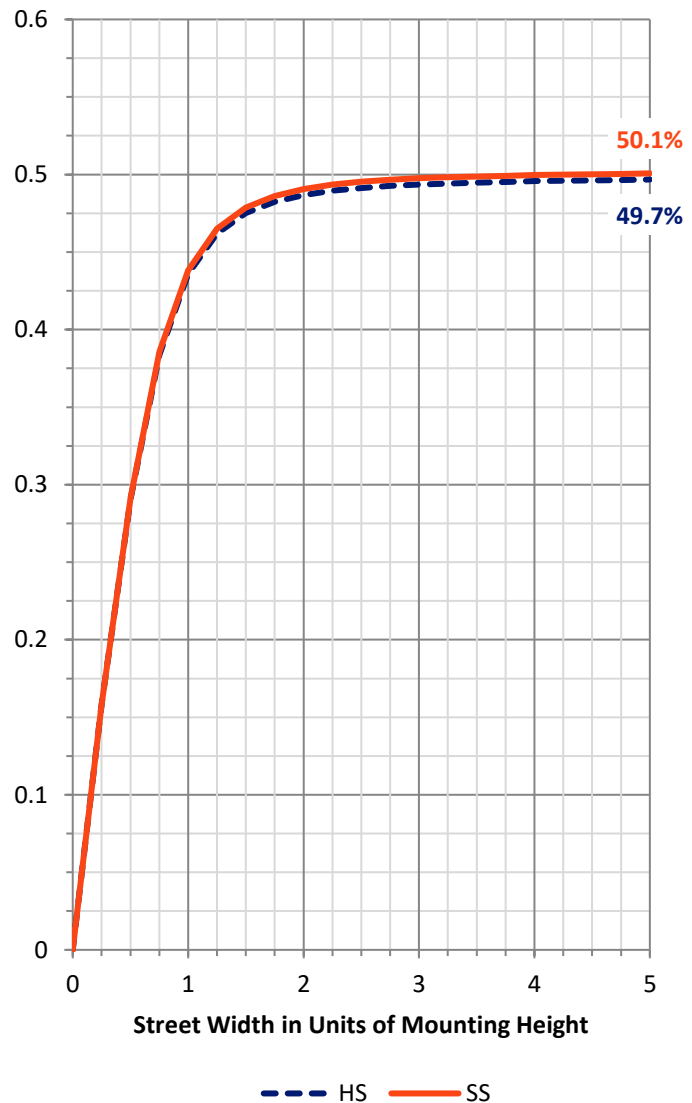
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2970.2   | 0.0    | 2970.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2970.2   | 0.0    | 2970.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 5940.4   | 0.0    | 5940.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 141.4  | 2.4       |
| 10°-20°   | 426.0  | 7.2       |
| 20°-30°   | 708.4  | 11.9      |
| 30°-40°   | 941.0  | 15.8      |
| 40°-50°   | 1060.9 | 17.9      |
| 50°-60°   | 1090.9 | 18.4      |
| 60°-70°   | 1031.0 | 17.4      |
| 70°-80°   | 504.7  | 8.5       |
| 80°-90°   | 36.1   | 0.6       |
| 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°    | 5940.4 | 100.0     |
| 0°-180°   | 5940.4 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P1211757

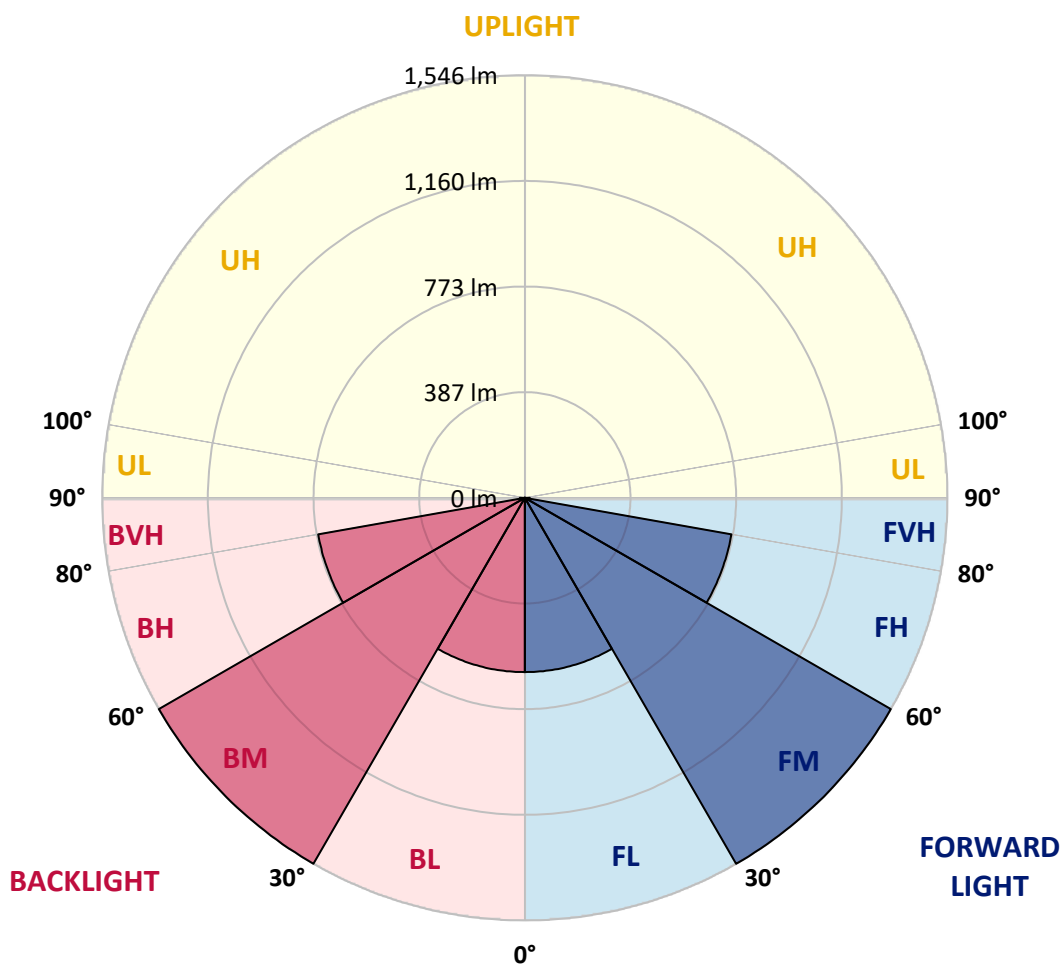
CATALOG NUMBER: GKO-PB1F-827-U-T1

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 637.9  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 1546.4 | 26.0      |                         |      |         |
| FH   | (60°-80°)   | 767.8  | 12.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 18.0   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 637.9  | 10.7      | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1546.4 | 26.0      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 767.8  | 12.9      | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 18.0   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type I Short



REPORT NUMBER: P1211757

CATALOG NUMBER: GKO-PB1F-827-U-T1

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 70°    | 75°    | 80°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 | 1474.0 |
| 2.5°  | 1475.1 | 1477.3 | 1472.9 | 1472.9 | 1475.1 | 1476.2 | 1476.2 | 1477.3 | 1475.1 | 1475.1 | 1474.0 |
| 5°    | 1475.1 | 1476.2 | 1474.0 | 1474.0 | 1476.2 | 1479.5 | 1478.4 | 1480.6 | 1480.6 | 1479.5 | 1479.5 |
| 7.5°  | 1474.0 | 1476.2 | 1474.0 | 1475.1 | 1478.4 | 1485.0 | 1485.0 | 1485.0 | 1487.2 | 1489.4 | 1489.4 |
| 10°   | 1472.9 | 1475.1 | 1476.2 | 1477.3 | 1481.7 | 1491.6 | 1493.8 | 1494.9 | 1498.1 | 1501.4 | 1501.4 |
| 12.5° | 1467.5 | 1469.7 | 1472.9 | 1477.3 | 1485.0 | 1498.1 | 1502.5 | 1505.8 | 1511.3 | 1514.6 | 1516.8 |
| 15°   | 1459.8 | 1460.9 | 1468.6 | 1477.3 | 1489.4 | 1505.8 | 1514.6 | 1520.0 | 1527.7 | 1532.1 | 1535.4 |
| 17.5° | 1448.9 | 1450.0 | 1462.0 | 1475.1 | 1492.7 | 1515.7 | 1529.9 | 1538.7 | 1546.3 | 1552.9 | 1557.3 |
| 20°   | 1434.6 | 1437.9 | 1452.1 | 1472.9 | 1498.1 | 1525.5 | 1546.3 | 1561.7 | 1569.3 | 1575.9 | 1582.5 |
| 22.5° | 1417.1 | 1420.4 | 1437.9 | 1467.5 | 1503.6 | 1538.7 | 1566.0 | 1585.7 | 1595.6 | 1604.4 | 1612.0 |
| 25°   | 1390.8 | 1395.2 | 1416.0 | 1454.3 | 1505.8 | 1552.9 | 1587.9 | 1613.1 | 1621.9 | 1632.8 | 1639.4 |
| 27.5° | 1350.3 | 1353.6 | 1378.8 | 1428.0 | 1499.2 | 1568.2 | 1613.1 | 1642.7 | 1652.6 | 1664.6 | 1671.2 |
| 30°   | 1286.8 | 1293.3 | 1324.0 | 1385.3 | 1482.8 | 1580.3 | 1642.7 | 1672.3 | 1684.3 | 1696.4 | 1705.1 |
| 32.5° | 1204.6 | 1214.5 | 1248.4 | 1327.3 | 1451.0 | 1584.7 | 1674.5 | 1708.4 | 1723.7 | 1736.9 | 1747.8 |
| 35°   | 1102.8 | 1112.7 | 1153.2 | 1252.8 | 1400.7 | 1575.9 | 1706.2 | 1750.0 | 1768.6 | 1786.2 | 1799.3 |
| 37.5° | 986.7  | 995.5  | 1044.8 | 1158.6 | 1328.4 | 1548.5 | 1731.4 | 1796.0 | 1821.2 | 1844.2 | 1861.7 |
| 40°   | 869.5  | 879.4  | 933.1  | 1054.6 | 1240.8 | 1495.9 | 1742.4 | 1846.4 | 1878.1 | 1907.7 | 1929.6 |
| 42.5° | 742.5  | 754.5  | 814.8  | 944.0  | 1138.9 | 1423.7 | 1733.6 | 1895.7 | 1935.1 | 1975.6 | 2008.5 |
| 45°   | 629.7  | 631.9  | 697.6  | 822.4  | 1027.2 | 1330.6 | 1702.9 | 1942.8 | 1996.4 | 2053.4 | 2100.5 |
| 47.5° | 521.3  | 525.7  | 582.6  | 706.4  | 911.1  | 1225.5 | 1647.1 | 1980.0 | 2065.4 | 2138.8 | 2207.8 |
| 50°   | 424.9  | 430.4  | 481.9  | 592.5  | 795.1  | 1110.5 | 1571.5 | 2001.9 | 2124.6 | 2224.2 | 2320.6 |
| 52.5° | 346.1  | 352.6  | 395.3  | 492.8  | 677.9  | 990.0  | 1478.4 | 2005.2 | 2178.2 | 2309.6 | 2437.8 |
| 55°   | 288.0  | 292.4  | 325.3  | 403.0  | 565.1  | 865.2  | 1372.2 | 1988.8 | 2213.3 | 2386.3 | 2557.1 |
| 57.5° | 243.1  | 247.5  | 270.5  | 331.8  | 463.2  | 737.0  | 1243.0 | 1950.4 | 2231.9 | 2453.1 | 2677.6 |
| 60°   | 211.4  | 214.6  | 231.1  | 274.9  | 381.1  | 616.6  | 1103.9 | 1882.5 | 2226.4 | 2494.7 | 2777.2 |
| 62.5° | 188.4  | 189.5  | 203.7  | 234.4  | 314.3  | 502.7  | 947.3  | 1780.7 | 2181.5 | 2500.2 | 2845.1 |
| 65°   | 167.6  | 168.7  | 177.4  | 199.3  | 258.5  | 404.1  | 784.1  | 1640.5 | 2096.1 | 2461.9 | 2855.0 |
| 67.5° | 135.8  | 138.0  | 151.1  | 167.6  | 212.5  | 319.8  | 617.7  | 1456.5 | 1962.5 | 2362.2 | 2799.2 |
| 70°   | 108.4  | 109.5  | 122.7  | 141.3  | 173.0  | 251.9  | 474.2  | 1209.0 | 1753.3 | 2200.1 | 2654.6 |
| 72.5° | 81.0   | 83.2   | 95.3   | 113.9  | 141.3  | 194.9  | 342.8  | 914.4  | 1401.8 | 1855.2 | 2311.8 |
| 75°   | 64.6   | 65.7   | 70.1   | 87.6   | 109.5  | 147.8  | 231.1  | 554.1  | 844.3  | 1147.7 | 1417.1 |
| 77.5° | 54.8   | 55.9   | 55.9   | 67.9   | 81.0   | 99.7   | 122.7  | 220.1  | 357.0  | 508.1  | 673.5  |
| 80°   | 44.9   | 47.1   | 42.7   | 50.4   | 58.0   | 58.0   | 56.9   | 105.1  | 168.7  | 238.7  | 313.2  |
| 82.5° | 32.9   | 35.0   | 32.9   | 35.0   | 35.0   | 31.8   | 29.6   | 39.4   | 53.7   | 73.4   | 79.9   |
| 85°   | 23.0   | 24.1   | 26.3   | 24.1   | 23.0   | 18.6   | 14.2   | 11.0   | 6.6    | 7.7    | 11.0   |
| 87.5° | 15.3   | 18.6   | 21.9   | 20.8   | 17.5   | 14.2   | 9.9    | 6.6    | 3.3    | 4.4    | 4.4    |
| 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: P1211757  
 CATALOG NUMBER: GKO-PB1F-827-U-T1

**CANDELA DISTRIBUTION (continued):**

|       | 85°    | 87.5°  | 90°    |
|-------|--------|--------|--------|
| 0°    | 1474.0 | 1474.0 | 1474.0 |
| 2.5°  | 1475.1 | 1474.0 | 1472.9 |
| 5°    | 1480.6 | 1479.5 | 1478.4 |
| 7.5°  | 1488.3 | 1488.3 | 1488.3 |
| 10°   | 1500.3 | 1502.5 | 1502.5 |
| 12.5° | 1515.7 | 1517.9 | 1517.9 |
| 15°   | 1534.3 | 1535.4 | 1537.6 |
| 17.5° | 1557.3 | 1558.4 | 1558.4 |
| 20°   | 1584.7 | 1583.6 | 1585.7 |
| 22.5° | 1612.0 | 1612.0 | 1612.0 |
| 25°   | 1640.5 | 1640.5 | 1640.5 |
| 27.5° | 1673.4 | 1673.4 | 1671.2 |
| 30°   | 1709.5 | 1709.5 | 1709.5 |
| 32.5° | 1753.3 | 1754.4 | 1755.5 |
| 35°   | 1809.2 | 1811.3 | 1814.6 |
| 37.5° | 1872.7 | 1878.1 | 1881.4 |
| 40°   | 1948.2 | 1950.4 | 1955.9 |
| 42.5° | 2032.6 | 2039.1 | 2040.2 |
| 45°   | 2137.7 | 2148.6 | 2153.0 |
| 47.5° | 2261.4 | 2276.8 | 2284.4 |
| 50°   | 2399.4 | 2417.0 | 2427.9 |
| 52.5° | 2549.5 | 2577.9 | 2591.1 |
| 55°   | 2709.4 | 2758.6 | 2772.9 |
| 57.5° | 2890.0 | 2956.9 | 2976.6 |
| 60°   | 3067.5 | 3161.6 | 3193.4 |
| 62.5° | 3218.6 | 3351.1 | 3390.5 |
| 65°   | 3324.8 | 3484.7 | 3542.7 |
| 67.5° | 3346.7 | 3536.2 | 3605.2 |
| 70°   | 3215.3 | 3409.1 | 3489.1 |
| 72.5° | 2795.9 | 2971.1 | 3070.7 |
| 75°   | 1651.5 | 1777.4 | 1746.7 |
| 77.5° | 829.0  | 865.2  | 870.6  |
| 80°   | 363.6  | 385.5  | 394.2  |
| 82.5° | 89.8   | 92.0   | 104.0  |
| 85°   | 12.0   | 14.2   | 13.1   |
| 87.5° | 4.4    | 4.4    | 5.5    |
| 90°   | 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: SP3-2511-595-2

Test Date: 11/12/2025

Luminaire Tested: GKO-PB1C-827-U-T4W

Data in this report applies to families of products including GKO-PB1C-827\*

### Test Information

Test Method: LM-79-2019  
 Report Number: SP3-2511-595-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP3 - 3M SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 01/27/2026  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGraw-Edison  
 Catalog Number: **GKO-PB1C-827-U-T4W**  
 Description: Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution

### Spectral Parameters

CCT (K): 2740  
 CIE  $u'$ : 0.2602  
 CIE  $v'$ : 0.5290  
 Duv: 0.0017  
 CIE x: 0.4595  
 CIE y: 0.4151  
 CIE z: 0.1255  
 Peak Wavelength (nm): 605  
 Dominant Wavelength (nm): 583  
 Purity: 62.5206  
 R<sub>f</sub>: 84.8  
 R<sub>g</sub>: 94.5

CRI (Ra): 81.1  
 R1: 79.2  
 R2: 90.4  
 R3: 95.8  
 R4: 79.2  
 R5: 79.6  
 R6: 89.5  
 R7: 81.1  
 R8: 54.5  
 R9: -0.3  
 R10: 79.1  
 R11: 79.0  
 R12: 72.7  
 R13: 81.7  
 R14: 98.3  
 R15: 70.3



### Test Conditions

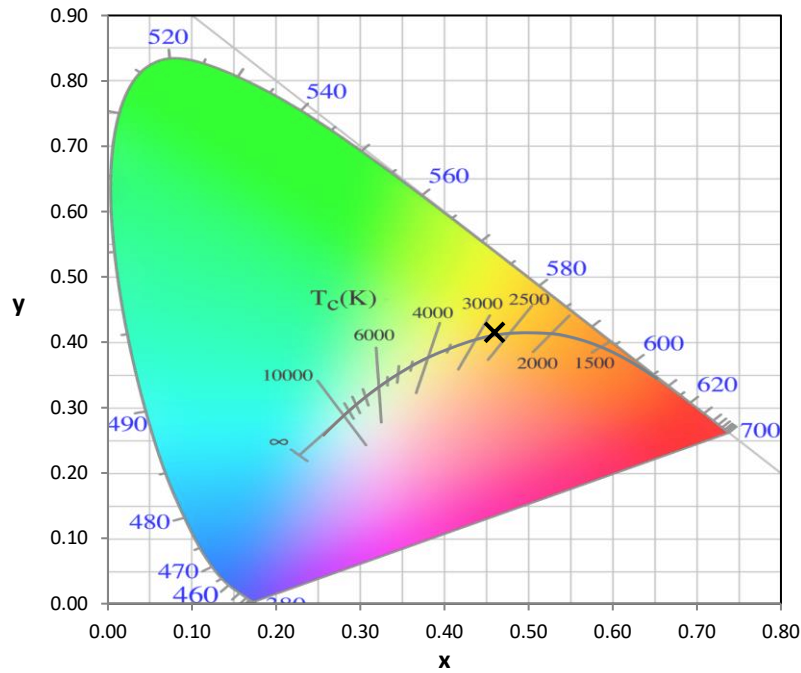
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP3-2511-595-2

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | 3M SPHERE IN02505     | 7/1/2025         | 1/1/2026             |
| Power Meter                    | XITRON INXT2011006    | 10/21/2025       | 10/21/2026           |
| AC Power Source                | CHROMA 61604 IN6064A  | 10/20/2025       | 10/20/2026           |
| DC Power Source                | EYSIGHT N5770A IN0534 | 10/20/2025       | 10/20/2026           |
| Sphere Thermometer             | TANDD IN4036E         | 10/21/2025       | 10/21/2026           |
|                                |                       |                  |                      |

REPORT NUMBER: SP3-2511-595-2

**CIE 1931 Chromaticity Diagram**



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



REPORT NUMBER: SP3-2511-595-2

### 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               | 193                                  | NR                             | 620               | 932                                  | NR                             | 750               | 29                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 235                                  | NR                             | 625               | 886                                  | NR                             | 755               | 25                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 278                                  | NR                             | 630               | 832                                  | NR                             | 760               | 21                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 318                                  | NR                             | 635               | 771                                  | NR                             | 765               | 18                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 351                                  | NR                             | 640               | 708                                  | NR                             | 770               | 15                                   | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 380                                  | NR                             | 645               | 642                                  | NR                             | 775               | 13                                   | NR                             | 905               | 0                                    | NR                             |
| 390               | 0                                    | NR                             | 520               | 402                                  | NR                             | 650               | 578                                  | NR                             | 780               | 11                                   | NR                             | 910               | 0                                    | NR                             |
| 395               | 0                                    | NR                             | 525               | 423                                  | NR                             | 655               | 517                                  | NR                             | 785               | 9                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 1                                    | NR                             | 530               | 440                                  | NR                             | 660               | 457                                  | NR                             | 790               | 8                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 2                                    | NR                             | 535               | 460                                  | NR                             | 665               | 404                                  | NR                             | 795               | 7                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 5                                    | NR                             | 540               | 480                                  | NR                             | 670               | 352                                  | NR                             | 800               | 6                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 10                                   | NR                             | 545               | 507                                  | NR                             | 675               | 308                                  | NR                             | 805               | 5                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 19                                   | NR                             | 550               | 539                                  | NR                             | 680               | 267                                  | NR                             | 810               | 4                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 32                                   | NR                             | 555               | 574                                  | NR                             | 685               | 231                                  | NR                             | 815               | 4                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 55                                   | NR                             | 560               | 617                                  | NR                             | 690               | 198                                  | NR                             | 820               | 3                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 90                                   | NR                             | 565               | 668                                  | NR                             | 695               | 171                                  | NR                             | 825               | 3                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 151                                  | NR                             | 570               | 718                                  | NR                             | 700               | 146                                  | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 275                                  | NR                             | 575               | 777                                  | NR                             | 705               | 124                                  | NR                             | 835               | 2                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 381                                  | NR                             | 580               | 832                                  | NR                             | 710               | 106                                  | NR                             | 840               | 2                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 304                                  | NR                             | 585               | 886                                  | NR                             | 715               | 90                                   | NR                             | 845               | 2                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 227                                  | NR                             | 590               | 933                                  | NR                             | 720               | 77                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 208                                  | NR                             | 595               | 970                                  | NR                             | 725               | 66                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 167                                  | NR                             | 600               | 992                                  | NR                             | 730               | 56                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 138                                  | NR                             | 605               | 1000                                 | NR                             | 735               | 47                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 146                                  | NR                             | 610               | 991                                  | NR                             | 740               | 40                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 164                                  | NR                             | 615               | 969                                  | NR                             | 745               | 34                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

REPORT NUMBER: SP3-2511-595-2

### Scotopic Flux vs. Wavelength



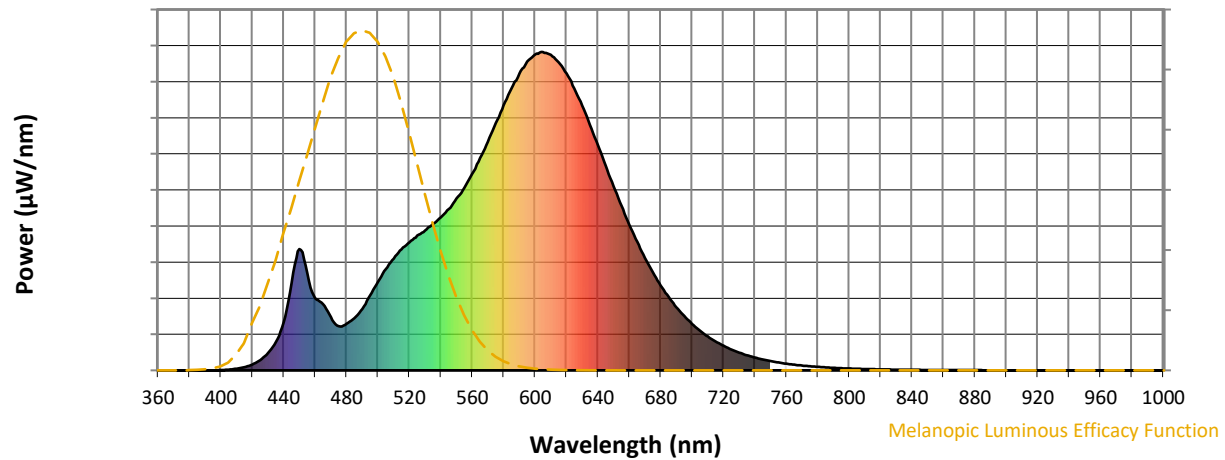
Scotopic Lumens: NR

S/P: 1.22

| $\lambda$<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               | 193                                  | NR                             | 620               | 932                                  | NR                             | 750               | 29                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 235                                  | NR                             | 625               | 886                                  | NR                             | 755               | 25                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 278                                  | NR                             | 630               | 832                                  | NR                             | 760               | 21                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 318                                  | NR                             | 635               | 771                                  | NR                             | 765               | 18                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 351                                  | NR                             | 640               | 708                                  | NR                             | 770               | 15                                   | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 380                                  | NR                             | 645               | 642                                  | NR                             | 775               | 13                                   | NR                             | 905               | 0                                    | NR                             |
| 390               | 0                                    | NR                             | 520               | 402                                  | NR                             | 650               | 578                                  | NR                             | 780               | 11                                   | NR                             | 910               | 0                                    | NR                             |
| 395               | 0                                    | NR                             | 525               | 423                                  | NR                             | 655               | 517                                  | NR                             | 785               | 9                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 1                                    | NR                             | 530               | 440                                  | NR                             | 660               | 457                                  | NR                             | 790               | 8                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 2                                    | NR                             | 535               | 460                                  | NR                             | 665               | 404                                  | NR                             | 795               | 7                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 5                                    | NR                             | 540               | 480                                  | NR                             | 670               | 352                                  | NR                             | 800               | 6                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 10                                   | NR                             | 545               | 507                                  | NR                             | 675               | 308                                  | NR                             | 805               | 5                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 19                                   | NR                             | 550               | 539                                  | NR                             | 680               | 267                                  | NR                             | 810               | 4                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 32                                   | NR                             | 555               | 574                                  | NR                             | 685               | 231                                  | NR                             | 815               | 4                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 55                                   | NR                             | 560               | 617                                  | NR                             | 690               | 198                                  | NR                             | 820               | 3                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 90                                   | NR                             | 565               | 668                                  | NR                             | 695               | 171                                  | NR                             | 825               | 3                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 151                                  | NR                             | 570               | 718                                  | NR                             | 700               | 146                                  | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 275                                  | NR                             | 575               | 777                                  | NR                             | 705               | 124                                  | NR                             | 835               | 2                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 381                                  | NR                             | 580               | 832                                  | NR                             | 710               | 106                                  | NR                             | 840               | 2                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 304                                  | NR                             | 585               | 886                                  | NR                             | 715               | 90                                   | NR                             | 845               | 2                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 227                                  | NR                             | 590               | 933                                  | NR                             | 720               | 77                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 208                                  | NR                             | 595               | 970                                  | NR                             | 725               | 66                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 167                                  | NR                             | 600               | 992                                  | NR                             | 730               | 56                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 138                                  | NR                             | 605               | 1000                                 | NR                             | 735               | 47                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 146                                  | NR                             | 610               | 991                                  | NR                             | 740               | 40                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 164                                  | NR                             | 615               | 969                                  | NR                             | 745               | 34                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

REPORT NUMBER: SP3-2511-595-2

### Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.26

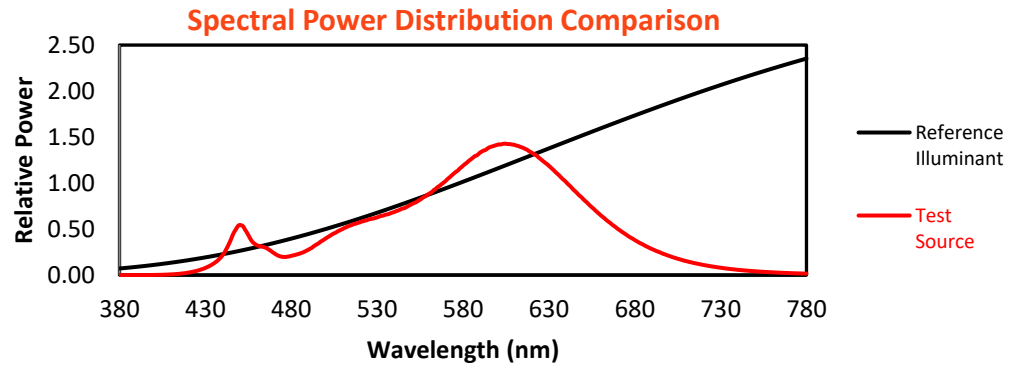
| $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | 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               | 193                                    | NR                             | 620               | 932                                    | NR                             | 750               | 29                                     | NR                             | 880               | 1                                      | NR                             |
| 365               | 0                                      | NR                             | 495               | 235                                    | NR                             | 625               | 886                                    | NR                             | 755               | 25                                     | NR                             | 885               | 1                                      | NR                             |
| 370               | 0                                      | NR                             | 500               | 278                                    | NR                             | 630               | 832                                    | NR                             | 760               | 21                                     | NR                             | 890               | 0                                      | NR                             |
| 375               | 0                                      | NR                             | 505               | 318                                    | NR                             | 635               | 771                                    | NR                             | 765               | 18                                     | NR                             | 895               | 0                                      | NR                             |
| 380               | 0                                      | NR                             | 510               | 351                                    | NR                             | 640               | 708                                    | NR                             | 770               | 15                                     | NR                             | 900               | 0                                      | NR                             |
| 385               | 0                                      | NR                             | 515               | 380                                    | NR                             | 645               | 642                                    | NR                             | 775               | 13                                     | NR                             | 905               | 0                                      | NR                             |
| 390               | 0                                      | NR                             | 520               | 402                                    | NR                             | 650               | 578                                    | NR                             | 780               | 11                                     | NR                             | 910               | 0                                      | NR                             |
| 395               | 0                                      | NR                             | 525               | 423                                    | NR                             | 655               | 517                                    | NR                             | 785               | 9                                      | NR                             | 915               | 0                                      | NR                             |
| 400               | 1                                      | NR                             | 530               | 440                                    | NR                             | 660               | 457                                    | NR                             | 790               | 8                                      | NR                             | 920               | 0                                      | NR                             |
| 405               | 2                                      | NR                             | 535               | 460                                    | NR                             | 665               | 404                                    | NR                             | 795               | 7                                      | NR                             | 925               | 0                                      | NR                             |
| 410               | 5                                      | NR                             | 540               | 480                                    | NR                             | 670               | 352                                    | NR                             | 800               | 6                                      | NR                             | 930               | 0                                      | NR                             |
| 415               | 10                                     | NR                             | 545               | 507                                    | NR                             | 675               | 308                                    | NR                             | 805               | 5                                      | NR                             | 935               | 0                                      | NR                             |
| 420               | 19                                     | NR                             | 550               | 539                                    | NR                             | 680               | 267                                    | NR                             | 810               | 4                                      | NR                             | 940               | 0                                      | NR                             |
| 425               | 32                                     | NR                             | 555               | 574                                    | NR                             | 685               | 231                                    | NR                             | 815               | 4                                      | NR                             | 945               | 0                                      | NR                             |
| 430               | 55                                     | NR                             | 560               | 617                                    | NR                             | 690               | 198                                    | NR                             | 820               | 3                                      | NR                             | 950               | 0                                      | NR                             |
| 435               | 90                                     | NR                             | 565               | 668                                    | NR                             | 695               | 171                                    | NR                             | 825               | 3                                      | NR                             | 955               | 0                                      | NR                             |
| 440               | 151                                    | NR                             | 570               | 718                                    | NR                             | 700               | 146                                    | NR                             | 830               | 2                                      | NR                             | 960               | 0                                      | NR                             |
| 445               | 275                                    | NR                             | 575               | 777                                    | NR                             | 705               | 124                                    | NR                             | 835               | 2                                      | NR                             | 965               | 0                                      | NR                             |
| 450               | 381                                    | NR                             | 580               | 832                                    | NR                             | 710               | 106                                    | NR                             | 840               | 2                                      | NR                             | 970               | 0                                      | NR                             |
| 455               | 304                                    | NR                             | 585               | 886                                    | NR                             | 715               | 90                                     | NR                             | 845               | 2                                      | NR                             | 975               | 0                                      | NR                             |
| 460               | 227                                    | NR                             | 590               | 933                                    | NR                             | 720               | 77                                     | NR                             | 850               | 1                                      | NR                             | 980               | 0                                      | NR                             |
| 465               | 208                                    | NR                             | 595               | 970                                    | NR                             | 725               | 66                                     | NR                             | 855               | 1                                      | NR                             | 985               | 0                                      | NR                             |
| 470               | 167                                    | NR                             | 600               | 992                                    | NR                             | 730               | 56                                     | NR                             | 860               | 1                                      | NR                             | 990               | 0                                      | NR                             |
| 475               | 138                                    | NR                             | 605               | 1000                                   | NR                             | 735               | 47                                     | NR                             | 865               | 1                                      | NR                             | 995               | 0                                      | NR                             |
| 480               | 146                                    | NR                             | 610               | 991                                    | NR                             | 740               | 40                                     | NR                             | 870               | 1                                      | NR                             | 1000              | 0                                      | NR                             |
| 485               | 164                                    | NR                             | 615               | 969                                    | NR                             | 745               | 34                                     | NR                             | 875               | 1                                      | NR                             |                   |                                        |                                |

REPORT NUMBER: SP3-2511-595-2

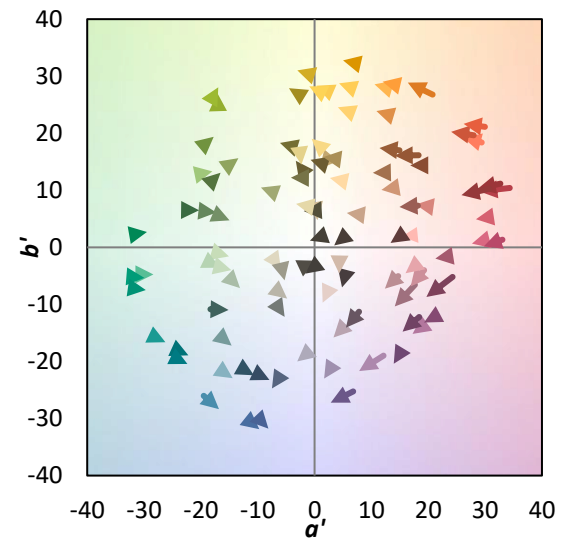
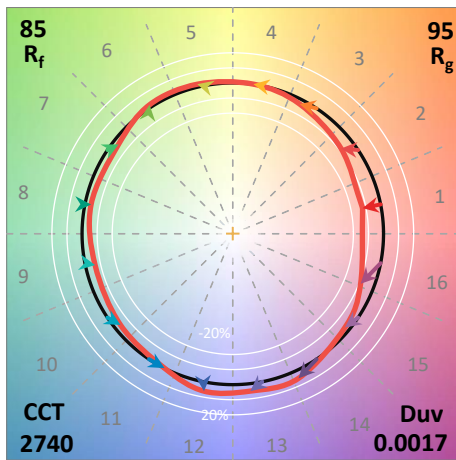
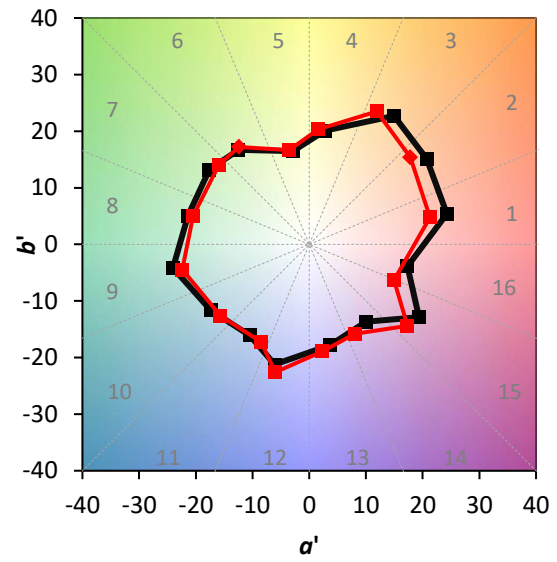
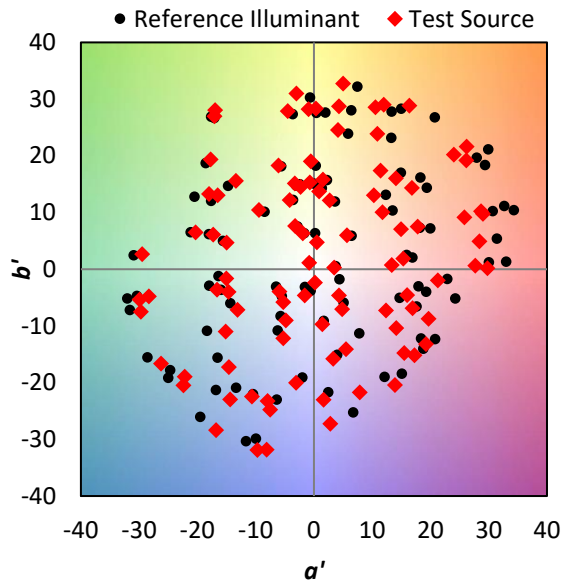
TM-30-18

### Summary

$R_f = 84.8$   
 $R_g = 94.5$   
 $CIE\ R_a = 81.1$   
 $R_g = -0.3$

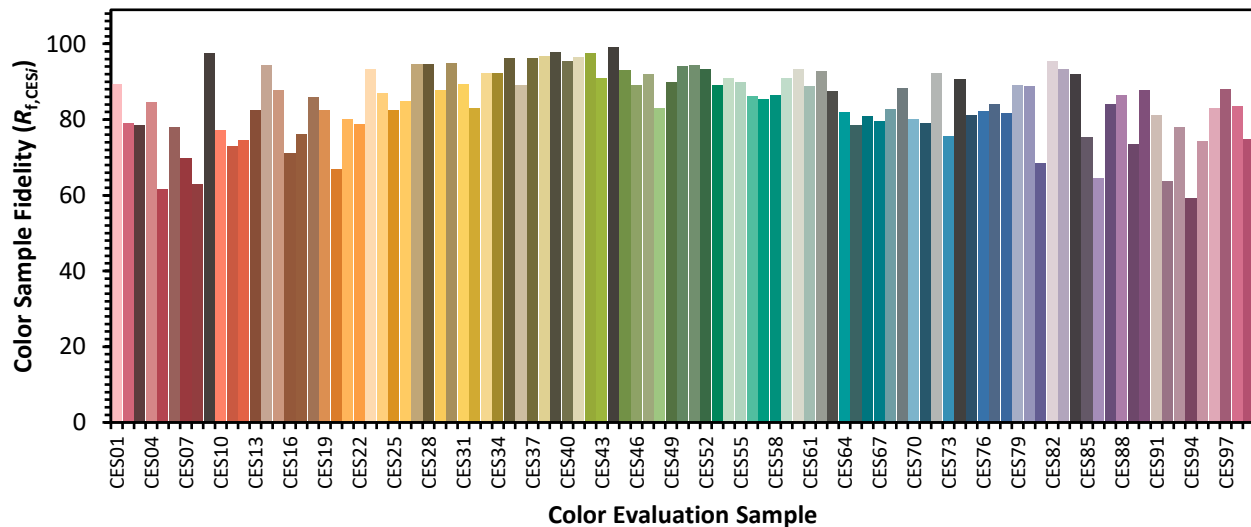


### Color Vector Graphics

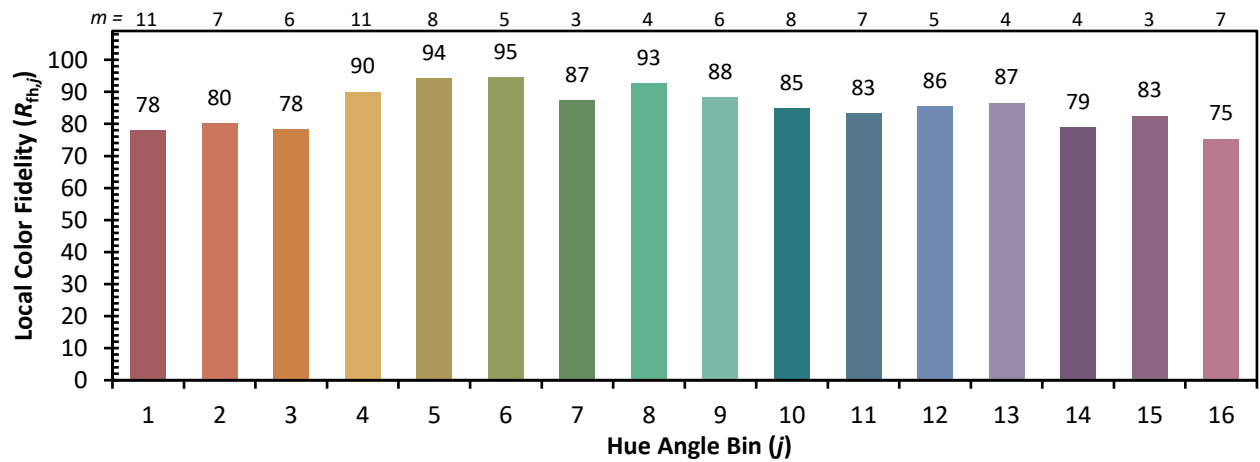
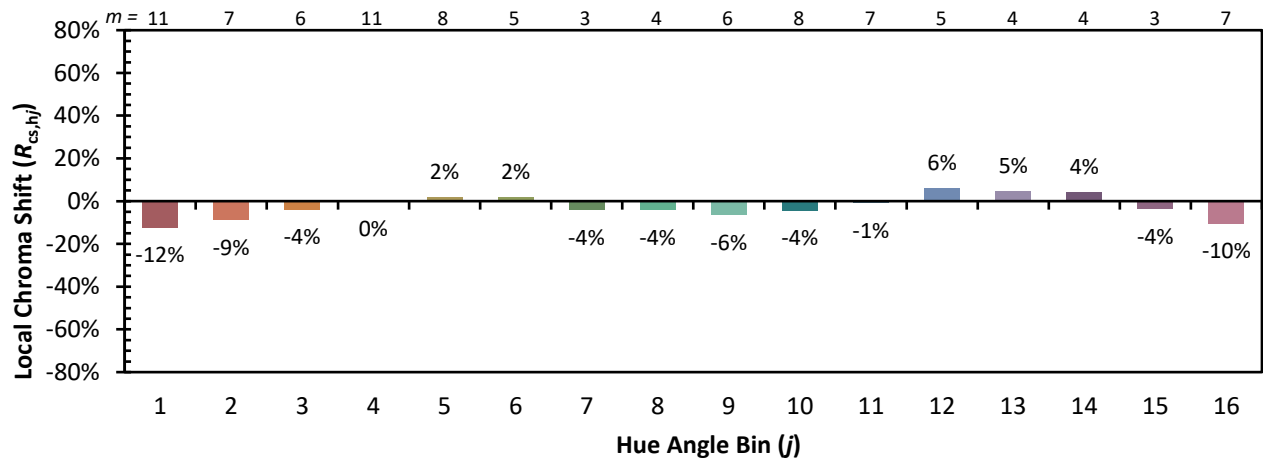


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 85 | CES51 = 94 | CES76 = 82 |
| CES02 = 63 | CES27 = 95 | CES52 = 93 | CES77 = 84 |
| CES03 = 31 | CES28 = 95 | CES53 = 89 | CES78 = 82 |
| CES04 = 71 | CES29 = 88 | CES54 = 91 | CES79 = 89 |
| CES05 = 50 | CES30 = 95 | CES55 = 90 | CES80 = 89 |
| CES06 = 52 | CES31 = 89 | CES56 = 86 | CES81 = 68 |
| CES07 = 43 | CES32 = 83 | CES57 = 85 | CES82 = 96 |
| CES08 = 41 | CES33 = 92 | CES58 = 86 | CES83 = 93 |
| CES09 = 29 | CES34 = 92 | CES59 = 91 | CES84 = 92 |
| CES10 = 77 | CES35 = 96 | CES60 = 93 | CES85 = 75 |
| CES11 = 60 | CES36 = 89 | CES61 = 89 | CES86 = 65 |
| CES12 = 66 | CES37 = 96 | CES62 = 93 | CES87 = 84 |
| CES13 = 44 | CES38 = 97 | CES63 = 87 | CES88 = 86 |
| CES14 = 74 | CES39 = 98 | CES64 = 82 | CES89 = 73 |
| CES15 = 72 | CES40 = 95 | CES65 = 79 | CES90 = 88 |
| CES16 = 48 | CES41 = 96 | CES66 = 81 | CES91 = 81 |
| CES17 = 50 | CES42 = 98 | CES67 = 80 | CES92 = 64 |
| CES18 = 57 | CES43 = 91 | CES68 = 83 | CES93 = 78 |
| CES19 = 73 | CES44 = 99 | CES69 = 88 | CES94 = 59 |
| CES20 = 67 | CES45 = 93 | CES70 = 80 | CES95 = 74 |
| CES21 = 87 | CES46 = 89 | CES71 = 79 | CES96 = 83 |
| CES22 = 79 | CES47 = 92 | CES72 = 92 | CES97 = 88 |
| CES23 = 92 | CES48 = 83 | CES73 = 76 | CES98 = 84 |
| CES24 = 91 | CES49 = 90 | CES74 = 91 | CES99 = 75 |
| CES25 = 72 | CES50 = 94 | CES75 = 81 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)