Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: LUMARK

Report Number: P1460482

Luminaire Tested: PRV-P-PB2C-740-U-T3R

Issue Date: 06/09/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1460482 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/9/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-P-PB2C-740-U-T3R |
| Description: | PREVAIL PETITE DISCRETE LED 2 SQUARES AT 555MA 70CRI 4000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC |
| Light Source: | (20) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10178.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 137.5 lumens/watt |
| Luminous Opening: | Rectangular (W 0.67' x L: 0.33' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G2 |
| Input Watts (W): | 74 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | 8.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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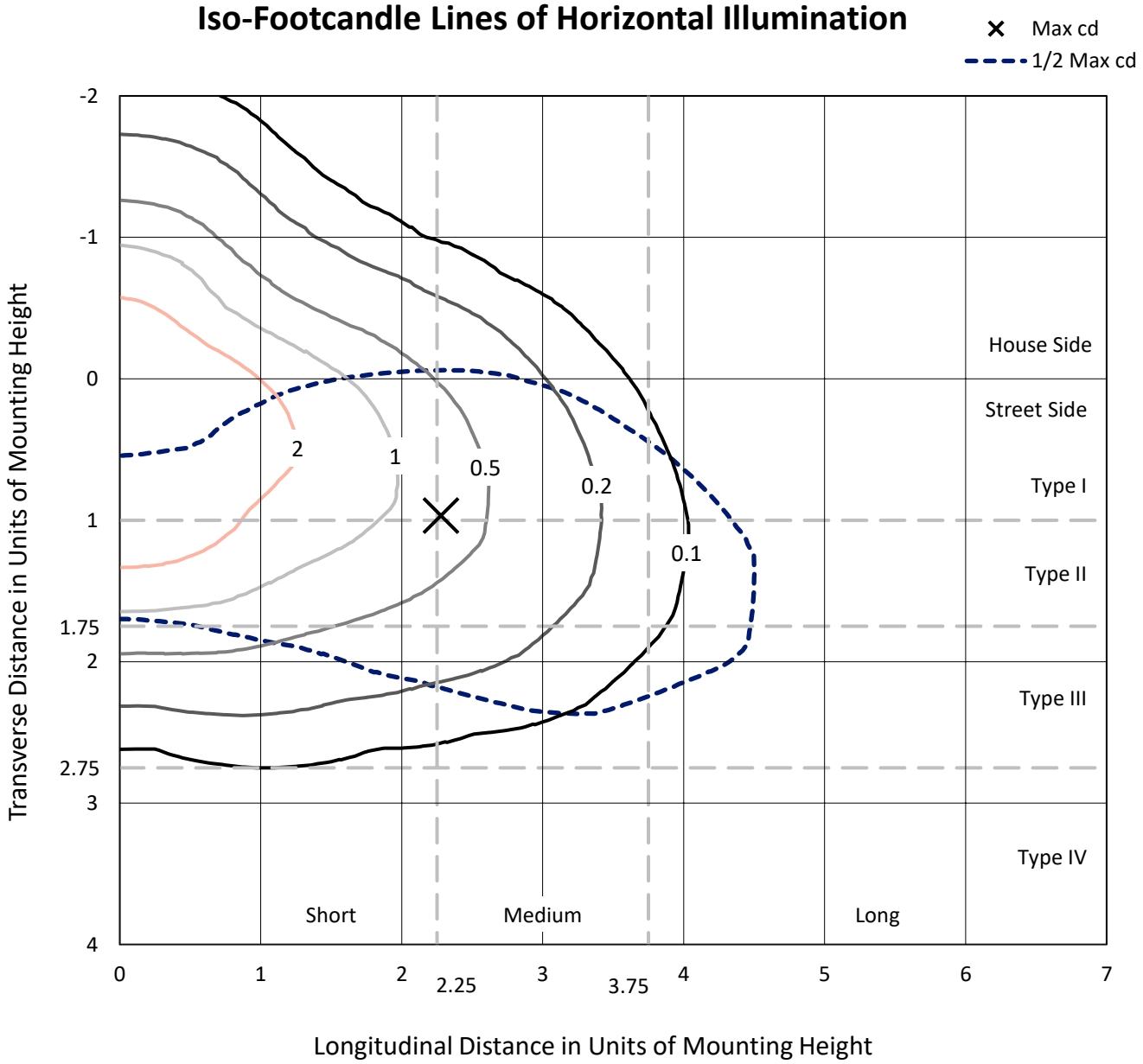
Scaled Data Report

REPORT NUMBER: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

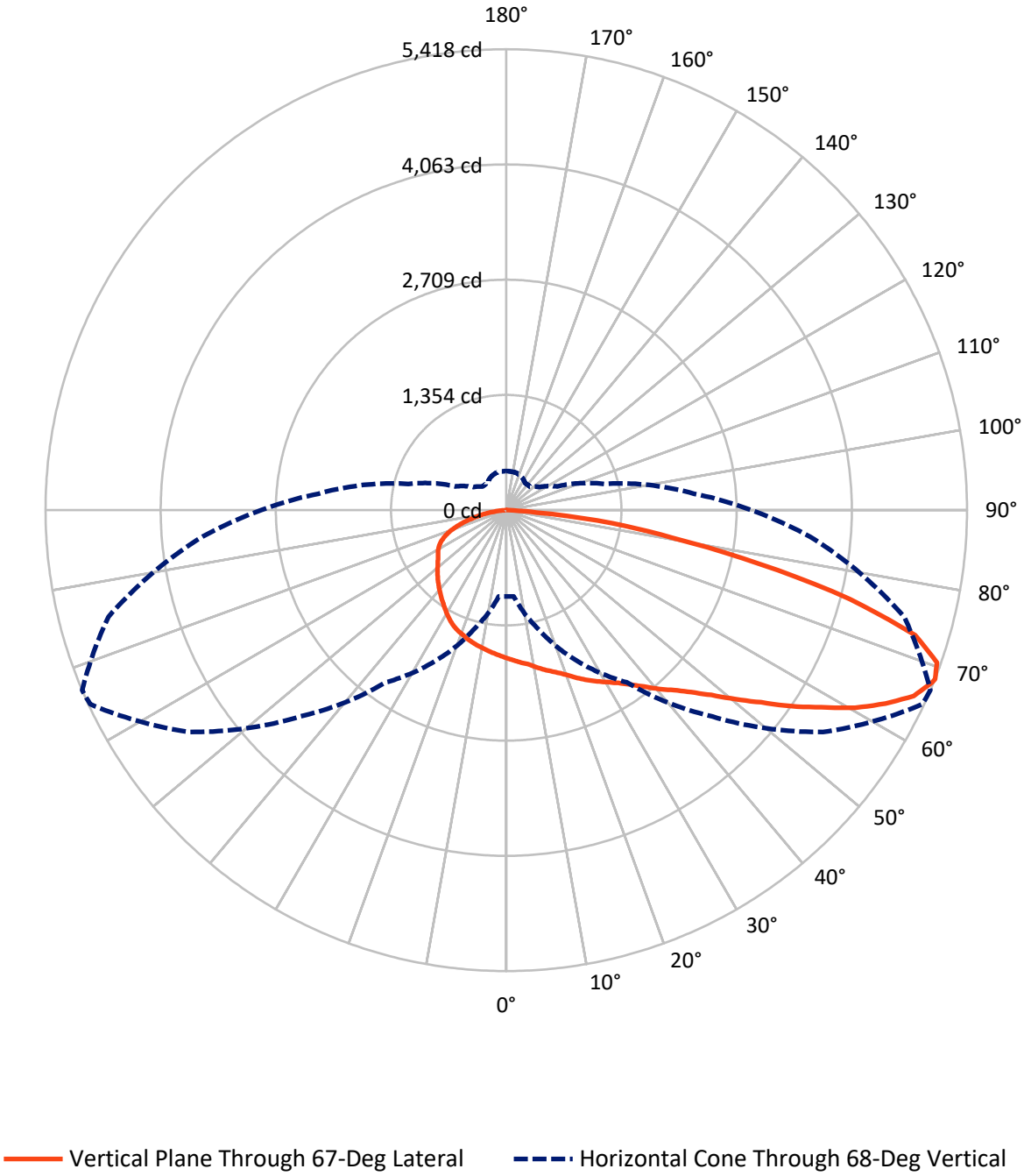
## Iso-Footcandle Lines of Horizontal Illumination




Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
Type III - Medium - N/A

REPORT NUMBER: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

## Luminous Intensity Polar Plot



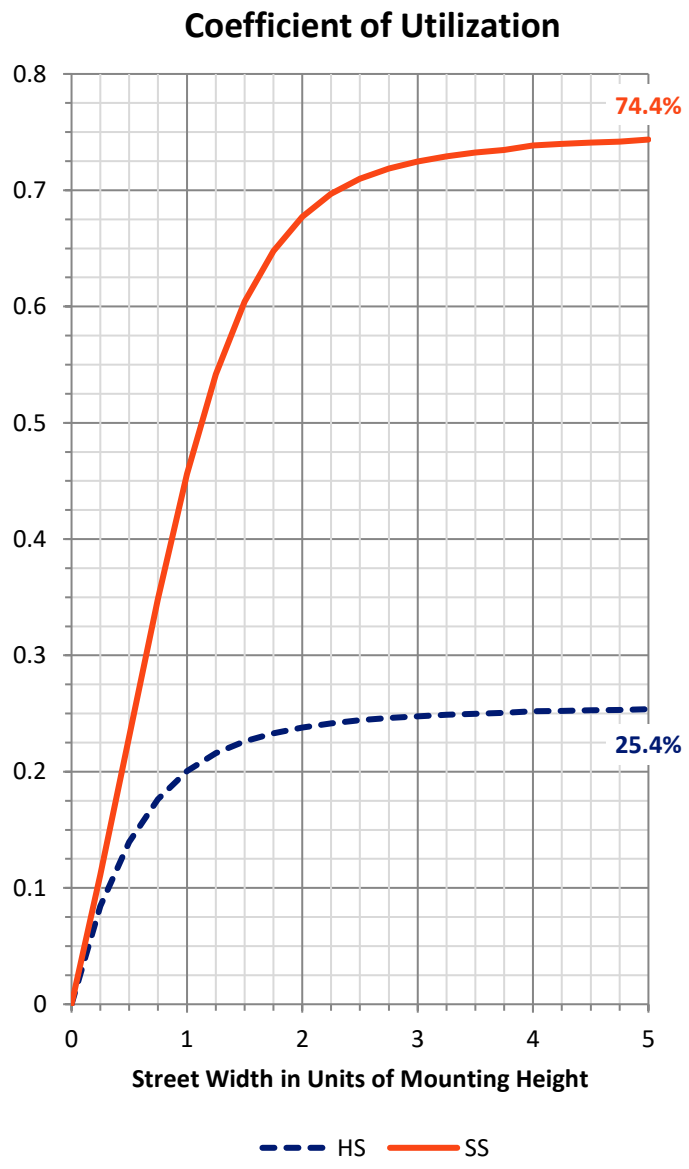
REPORT NUMBER: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2597.0 | 0.0 | 2597.0 |
| | % Fixture | 25.5 | 0.0 | 25.5 |
| **Street Side** | Lumens | 7581.6 | 0.0 | 7581.6 |
| | % Fixture | 74.5 | 0.0 | 74.5 |
| **Total** | Lumens | 10178.6 | 0.0 | 10178.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 166.7 | 1.6 |
| 10°-20° | 499.3 | 4.9 |
| 20°-30° | 847.8 | 8.3 |
| 30°-40° | 1284.8 | 12.6 |
| 40°-50° | 1736.3 | 17.1 |
| 50°-60° | 2054.7 | 20.2 |
| 60°-70° | 2070.8 | 20.3 |
| 70°-80° | 1308.3 | 12.9 |
| 80°-90° | 209.9 | 2.1 |
| 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° | 10178.6 | 100.0 |
| 0°-180° | 10178.6 | 100.0 |

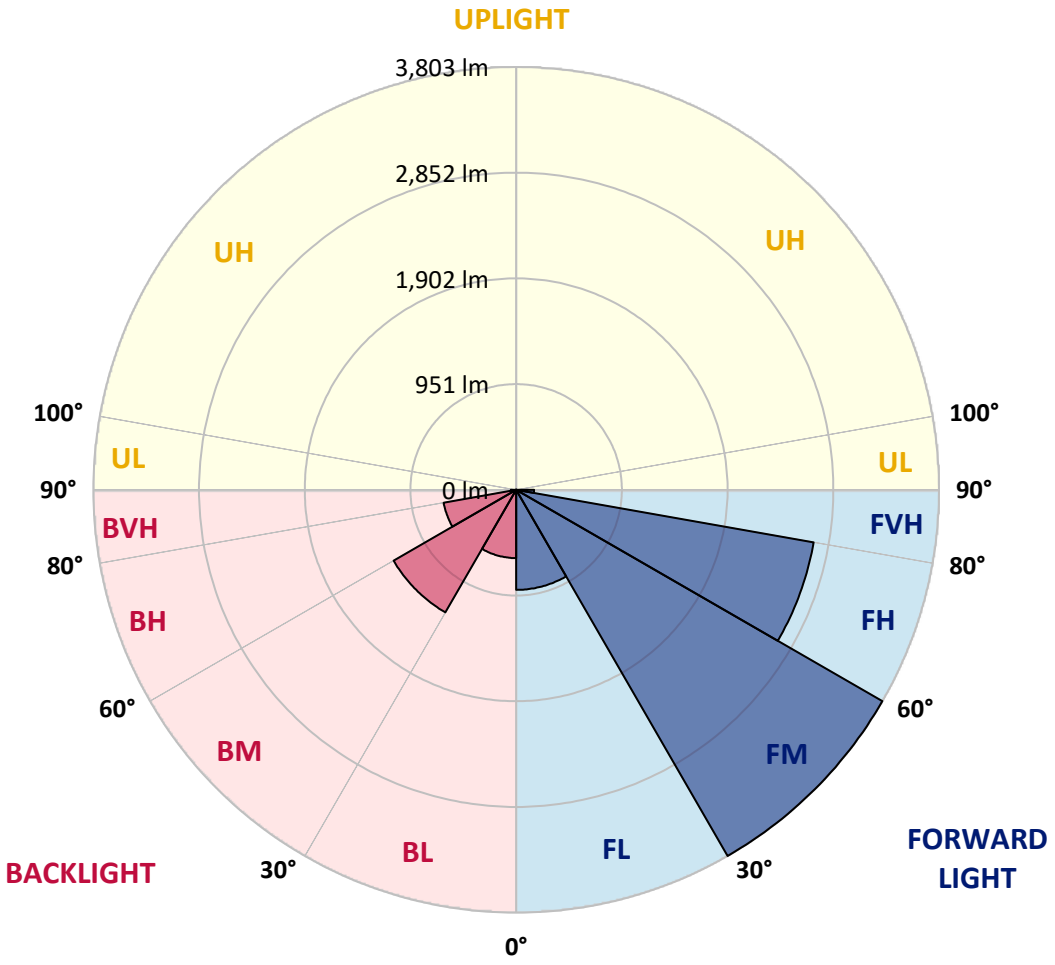


REPORT NUMBER: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 899.7 | 8.8 | | | |
| FM | (30°-60°) | 3803.2 | 37.4 | | | |
| FH | (60°-80°) | 2717.0 | 26.7 | | | G2/5000 |
| FVH | (80°-90°) | 161.6 | 1.6 | | | G2/225 |
| BL | (0°-30°) | 614.1 | 6.0 | B2/1000 | | |
| BM | (30°-60°) | 1272.6 | 12.5 | B2/2500 | | |
| BH | (60°-80°) | 662.1 | 6.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 48.2 | 0.5 | | | 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 III Medium



REPORT NUMBER: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | *1742.8* | 1742.8 | 1742.8 |
| 2.5° | 1790.5 | 1798.5 | 1804.8 | 1808.0 | 1796.9 | 1795.3 | 1787.3 | 1773.0 | *1768.3* | 1763.5 | 1752.4 |
| 5° | 1846.2 | 1857.3 | 1863.7 | 1858.9 | 1854.1 | 1843.0 | 1825.5 | 1803.2 | *1800.1* | 1787.3 | 1761.9 |
| 7.5° | 1908.2 | 1911.4 | 1922.5 | 1919.3 | 1911.4 | 1889.1 | 1868.4 | 1831.9 | *1827.1* | 1808.0 | 1777.8 |
| 10° | 1960.7 | 1970.2 | 1976.6 | 1973.4 | 1967.0 | 1947.9 | 1919.3 | 1885.9 | *1871.6* | 1839.8 | 1801.6 |
| 12.5° | 2006.8 | 2010.0 | 2021.1 | 2024.3 | 2017.9 | 2002.0 | 1975.0 | 1930.5 | *1920.9* | 1881.2 | 1817.5 |
| 15° | 2044.9 | 2043.4 | 2062.4 | 2065.6 | 2068.8 | 2052.9 | 2030.6 | 1979.7 | *1963.8* | 1919.3 | 1844.6 |
| 17.5° | 2076.7 | 2076.7 | 2091.1 | 2102.2 | 2110.1 | 2105.4 | 2087.9 | 2027.5 | *2011.5* | 1957.5 | 1866.8 |
| 20° | 2110.1 | 2111.7 | 2127.6 | 2138.8 | 2154.7 | 2161.0 | 2143.5 | 2091.1 | *2070.4* | 2003.6 | 1897.1 |
| 22.5° | 2184.9 | 2188.1 | 2192.8 | 2197.6 | 2210.3 | 2219.9 | 2215.1 | 2153.1 | *2143.5* | 2064.0 | 1930.5 |
| 25° | 2358.2 | 2347.1 | 2340.7 | 2296.2 | 2281.9 | 2285.1 | 2286.6 | 2234.2 | *2211.9* | 2127.6 | 1968.6 |
| 27.5° | 2587.2 | 2574.5 | 2555.4 | 2469.5 | 2404.3 | 2367.7 | 2358.2 | 2302.5 | *2278.7* | 2183.3 | 2014.7 |
| 30° | 2851.2 | 2855.9 | 2825.7 | 2719.2 | 2560.2 | 2461.6 | 2426.6 | 2370.9 | *2345.5* | 2237.4 | 2046.5 |
| 32.5° | 3119.9 | 3135.8 | 3105.6 | 2976.8 | 2770.1 | 2579.2 | 2515.6 | 2447.3 | *2421.8* | 2301.0 | 2086.3 |
| 35° | 3366.4 | 3353.6 | 3342.5 | 3210.5 | 2957.7 | 2722.3 | 2619.0 | 2547.4 | *2517.2* | 2393.2 | 2161.0 |
| 37.5° | 3519.0 | 3560.4 | 3549.2 | 3398.2 | 3110.3 | 2855.9 | 2747.8 | 2657.2 | *2630.1* | 2493.4 | 2237.4 |
| 40° | 3806.8 | 3794.1 | 3789.3 | 3581.0 | 3228.0 | 2960.9 | 2867.1 | 2793.9 | *2763.7* | 2614.2 | 2321.6 |
| 42.5° | 4037.4 | 4072.4 | 3992.9 | 3732.1 | 3368.0 | 3077.0 | 2991.1 | 2925.9 | *2890.9* | 2722.3 | 2382.1 |
| 45° | 4093.1 | 4075.6 | 4050.1 | 3806.8 | 3563.5 | 3188.3 | 3124.7 | 3086.5 | *3049.9* | 2860.7 | 2482.2 |
| 47.5° | 4107.4 | 4075.6 | 4015.1 | 3862.5 | 3709.8 | 3313.9 | 3269.4 | 3282.1 | *3247.1* | 3040.4 | 2620.6 |
| 50° | 4018.3 | 3988.1 | 3980.2 | 3887.9 | 3794.1 | 3441.1 | 3434.7 | 3503.1 | *3490.4* | 3242.3 | 2757.3 |
| 52.5° | 3806.8 | 3810.0 | 3853.0 | 3856.1 | 3752.8 | 3541.3 | 3627.1 | 3768.7 | *3752.8* | 3455.4 | 2902.0 |
| 55° | 3425.2 | 3449.1 | 3614.4 | 3725.7 | 3700.3 | 3611.2 | 3849.8 | 4078.8 | *4067.6* | 3706.7 | 3054.7 |
| 57.5° | 3070.6 | 3084.9 | 3218.5 | 3528.6 | 3603.3 | 3679.6 | 4064.4 | 4407.9 | *4369.8* | 3977.0 | 3213.7 |
| 60° | 2607.9 | 2641.3 | 2841.6 | 3242.3 | 3466.5 | 3736.9 | 4287.1 | 4735.5 | *4714.8* | 4247.3 | 3368.0 |
| 62.5° | 2143.5 | 2114.9 | 2405.9 | 2849.6 | 3264.6 | 3751.2 | 4473.1 | 5007.4 | *5004.2* | 4504.9 | 3496.8 |
| 65° | 1599.7 | 1607.6 | 2005.2 | 2472.7 | 2968.8 | 3681.2 | 4589.2 | 5253.9 | *5265.0* | 4732.3 | 3593.8 |
| 67.5° | 1097.2 | 1092.4 | 1542.5 | 2037.0 | 2582.4 | 3495.2 | 4576.5 | 5385.9 | *5401.8* | 4846.8 | 3601.7 |
| 68° | *1012.9* | *1017.7* | *1442.3* | *1947.9* | *2471.1* | *3430.0* | *4546.3* | *5397.0* | *5417.7* | *4843.6* | *3585.8* |
| 70° | 776.0 | 769.6 | 1129.0 | 1558.4 | 2065.6 | 3132.6 | 4377.7 | 5325.4 | *5373.1* | 4805.5 | 3465.0 |
| 72.5° | 559.7 | 577.2 | 838.0 | 1154.5 | 1501.1 | 2509.3 | 3989.7 | 4956.5 | *5028.1* | 4482.7 | 3124.7 |
| 75° | 430.9 | 438.9 | 580.4 | 811.0 | 1025.7 | 1803.2 | 3280.5 | 4085.1 | *4177.3* | 3770.3 | 2526.8 |
| 77.5° | 326.0 | 329.2 | 375.3 | 550.2 | 682.2 | 1113.1 | 2232.6 | 2970.4 | *3051.5* | 2830.5 | 1930.5 |
| 80° | 192.4 | 190.8 | 208.3 | 324.4 | 424.6 | 637.7 | 1264.2 | 1916.1 | *1981.3* | 1976.6 | 1393.0 |
| 82.5° | 116.1 | 119.3 | 119.3 | 167.0 | 217.9 | 338.7 | 648.8 | 1140.1 | *1259.4* | 1292.8 | 950.9 |
| 85° | 41.3 | 42.9 | 46.1 | 60.4 | 77.9 | 122.4 | 201.9 | 319.6 | *357.8* | 394.4 | 246.5 |
| 87.5° | 1.6 | 1.6 | 1.6 | 3.2 | 4.8 | 11.1 | 20.7 | 14.3 | *14.3* | 15.9 | 9.5 |
| 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: P1460482
CATALOG NUMBER: PRV-P-PB2C-740-U-T3R

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 | 1742.8 |
| 2.5° | 1747.6 | 1739.6 | 1723.7 | 1714.2 | 1709.4 | 1699.9 | 1687.2 | 1682.4 | 1674.4 | 1668.1 | 1666.5 |
| 5° | 1750.8 | 1734.9 | 1712.6 | 1687.2 | 1672.8 | 1650.6 | 1639.5 | 1629.9 | 1610.8 | 1604.5 | 1598.1 |
| 7.5° | 1761.9 | 1741.2 | 1703.1 | 1661.7 | 1633.1 | 1607.6 | 1585.4 | 1559.9 | 1545.6 | 1540.9 | 1536.1 |
| 10° | 1773.0 | 1747.6 | 1685.6 | 1637.9 | 1596.5 | 1561.5 | 1536.1 | 1505.9 | 1497.9 | 1483.6 | 1480.4 |
| 12.5° | 1787.3 | 1752.4 | 1677.6 | 1614.0 | 1559.9 | 1517.0 | 1483.6 | 1456.6 | 1437.5 | 1431.1 | 1437.5 |
| 15° | 1801.6 | 1753.9 | 1664.9 | 1587.0 | 1523.4 | 1474.1 | 1437.5 | 1412.1 | 1394.6 | 1381.8 | 1378.7 |
| 17.5° | 1812.8 | 1761.9 | 1650.6 | 1559.9 | 1483.6 | 1429.6 | 1385.0 | 1364.4 | 1348.5 | 1340.5 | 1343.7 |
| 20° | 1828.7 | 1768.3 | 1634.7 | 1526.6 | 1443.9 | 1385.0 | 1345.3 | 1321.4 | 1307.1 | 1307.1 | 1299.2 |
| 22.5° | 1857.3 | 1777.8 | 1625.1 | 1499.5 | 1408.9 | 1345.3 | 1305.5 | 1284.8 | 1268.9 | 1278.5 | 1280.1 |
| 25° | 1882.7 | 1787.3 | 1607.6 | 1464.5 | 1365.9 | 1300.7 | 1267.4 | 1249.9 | 1248.3 | 1254.6 | 1261.0 |
| 27.5° | 1905.0 | 1792.1 | 1587.0 | 1420.0 | 1308.7 | 1251.5 | 1227.6 | 1222.8 | 1227.6 | 1232.4 | 1243.5 |
| 30° | 1924.1 | 1800.1 | 1558.4 | 1372.3 | 1249.9 | 1195.8 | 1186.3 | 1199.0 | 1206.9 | 1214.9 | 1222.8 |
| 32.5° | 1955.9 | 1809.6 | 1529.7 | 1318.2 | 1191.0 | 1141.7 | 1154.5 | 1179.9 | 1192.6 | 1199.0 | 1211.7 |
| 35° | 2006.8 | 1841.4 | 1512.2 | 1265.8 | 1125.8 | 1090.8 | 1125.8 | 1162.4 | 1168.8 | 1171.9 | 1181.5 |
| 37.5° | 2067.2 | 1882.7 | 1502.7 | 1216.5 | 1062.2 | 1047.9 | 1095.6 | 1138.6 | 1137.0 | 1133.8 | 1146.5 |
| 40° | 2127.6 | 1914.5 | 1488.4 | 1165.6 | 1006.6 | 998.6 | 1055.9 | 1095.6 | 1089.3 | 1076.5 | 1082.9 |
| 42.5° | 2164.2 | 1920.9 | 1456.6 | 1119.5 | 955.7 | 952.5 | 1001.8 | 1035.2 | 1024.1 | 1025.7 | 1035.2 |
| 45° | 2232.6 | 1946.4 | 1423.2 | 1078.1 | 909.6 | 896.8 | 931.8 | 963.6 | 984.3 | 1005.0 | 1017.7 |
| 47.5° | 2320.0 | 1984.5 | 1394.6 | 1030.4 | 869.8 | 834.8 | 855.5 | 911.2 | 941.4 | 960.5 | 962.0 |
| 50° | 2417.0 | 2032.2 | 1367.5 | 984.3 | 828.5 | 768.0 | 780.8 | 841.2 | 863.5 | 876.2 | 880.9 |
| 52.5° | 2517.2 | 2076.7 | 1345.3 | 939.8 | 785.5 | 696.5 | 718.8 | 779.2 | 798.3 | 803.0 | 803.0 |
| 55° | 2606.3 | 2116.5 | 1321.4 | 901.6 | 733.1 | 632.9 | 656.7 | 718.8 | 736.2 | 744.2 | 752.1 |
| 57.5° | 2712.8 | 2159.4 | 1311.9 | 866.6 | 677.4 | 585.2 | 594.7 | 661.5 | 680.6 | 685.4 | 690.1 |
| 60° | 2798.7 | 2205.5 | 1303.9 | 834.8 | 621.8 | 531.1 | 545.4 | 601.1 | 628.1 | 629.7 | 632.9 |
| 62.5° | 2871.8 | 2238.9 | 1297.6 | 791.9 | 574.0 | 485.0 | 489.8 | 548.6 | 574.0 | 580.4 | 586.8 |
| 65° | 2908.4 | 2246.9 | 1272.1 | 741.0 | 524.8 | 442.1 | 442.1 | 496.1 | 527.9 | 539.1 | 545.4 |
| 67.5° | 2889.3 | 2226.2 | 1211.7 | 674.2 | 478.6 | 402.3 | 395.9 | 445.2 | 469.1 | 478.6 | 480.2 |
| 68° | *2881.4* | *2216.7* | *1191.0* | *659.9* | *472.3* | *392.8* | *388.0* | *430.9* | *454.8* | *458.0* | *459.6* |
| 70° | 2771.6 | 2138.8 | 1098.8 | 607.4 | 435.7 | 362.6 | 353.0 | 389.6 | 413.4 | 391.2 | 391.2 |
| 72.5° | 2471.1 | 1881.2 | 928.7 | 527.9 | 386.4 | 321.2 | 302.1 | 335.5 | 335.5 | 332.3 | 327.6 |
| 75° | 2030.6 | 1483.6 | 734.7 | 434.1 | 333.9 | 275.1 | 260.8 | 268.7 | 265.6 | 276.7 | 270.3 |
| 77.5° | 1534.5 | 1089.3 | 559.7 | 337.1 | 265.6 | 222.6 | 205.1 | 197.2 | 195.6 | 190.8 | 181.3 |
| 80° | 1063.8 | 749.0 | 395.9 | 256.0 | 192.4 | 155.8 | 152.7 | 138.3 | 133.6 | 90.6 | 62.0 |
| 82.5° | 714.0 | 497.7 | 270.3 | 170.1 | 122.4 | 97.0 | 82.7 | 84.3 | 73.1 | 27.0 | 1.6 |
| 85° | 192.4 | 149.5 | 109.7 | 65.2 | 49.3 | 36.6 | 28.6 | 31.8 | 28.6 | 11.1 | 1.6 |
| 87.5° | 8.0 | 6.4 | 8.0 | 8.0 | 4.8 | 3.2 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP2-2501-321-1

Test Date: 04/09/2025

Luminaire Tested: GKO-PB1E-740-U-T4W

Data in this report applies to families of products including GKO-PB1E-740-U-T4W

Report Generated By FNC07603 / LDUCLS01DT447
Version: v7.04

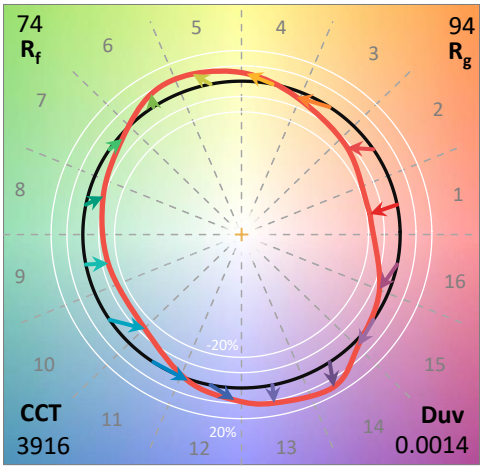
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP2-2501-321-1 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP2 - 165CM SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 04/10/2025 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GKO-PB1E-740-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCT (K): | 3916 | CRI (Ra): | | 71.0 | | | |
| CIE u': | 0.2259 | R1: | | 67.4 | R9: | | -37.9 |
| CIE v': | 0.5049 | R2: | | 78.3 | R10: | | 48.9 |
| Duv: | 0.0014 | R3: | | 87.2 | R11: | | 64.6 |
| CIE x: | 0.3853 | R4: | | 69.5 | R12: | | 40.9 |
| CIE y: | 0.3827 | R5: | | 67.2 | R13: | | 69.2 |
| CIE z: | 0.2321 | R6: | | 69.3 | R14: | | 92.7 |
| Peak Wavelength (nm): | 449 | R7: | | 79.9 | R15: | | 59.8 |
| Dominant Wavelength (nm): | 578 | R8: | | 48.9 | | | |
| Purity: | 30.46652 | | | | | | |

| | |
|---|---|
| Rf: | 73.5 |
| Rg: | 93.5 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 33M |
| Operation Time: | 1H 33M |
| Sphere Temperature (°C): | 25.0 |

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power Source | IN0212 | 10/22/2024 | 10/22/2025 |
| Sphere Thermometer | IN4036B | 10/22/2024 | 10/22/2025 |
| Room Thermometer | IN0046 | 10/22/2024 | 10/22/2025 |

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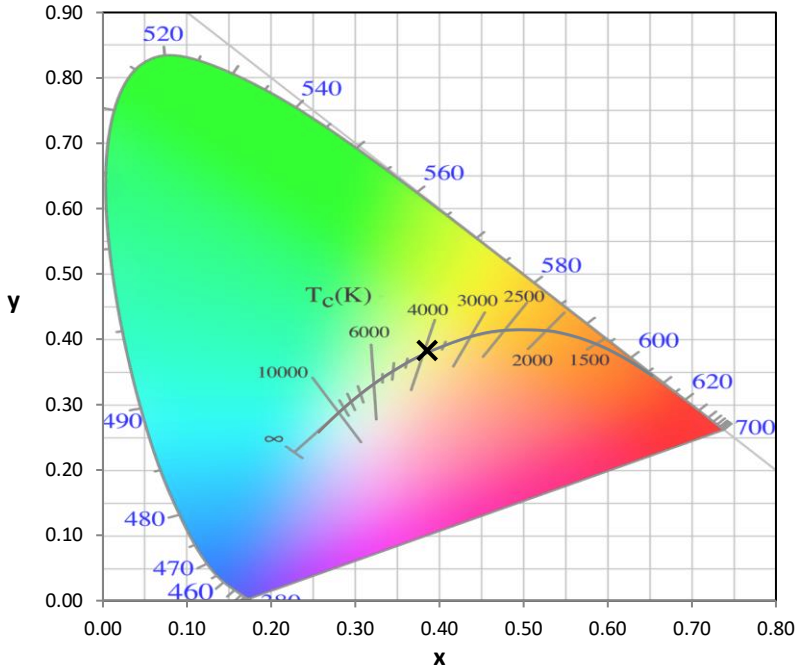
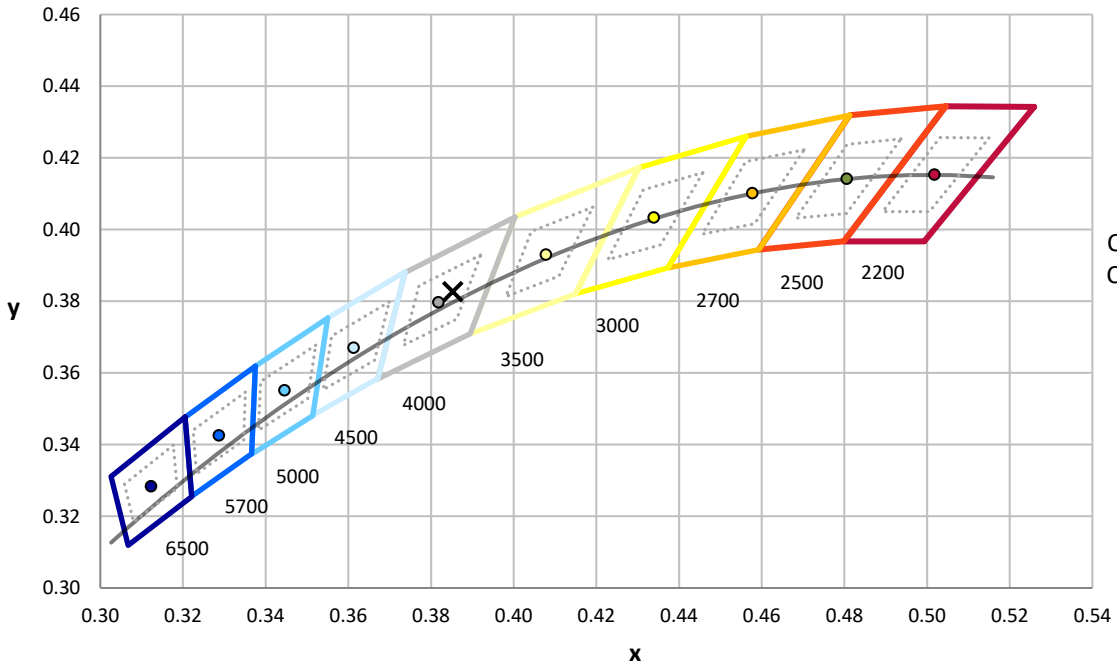
## CIE 1931 Chromaticity Diagram




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




CCT = 3916K
CIE x = 0.3853
CIE y = 0.3827
Duv = 0.0014

Point lies inside the ANSI 4000K 4-step quadrangle

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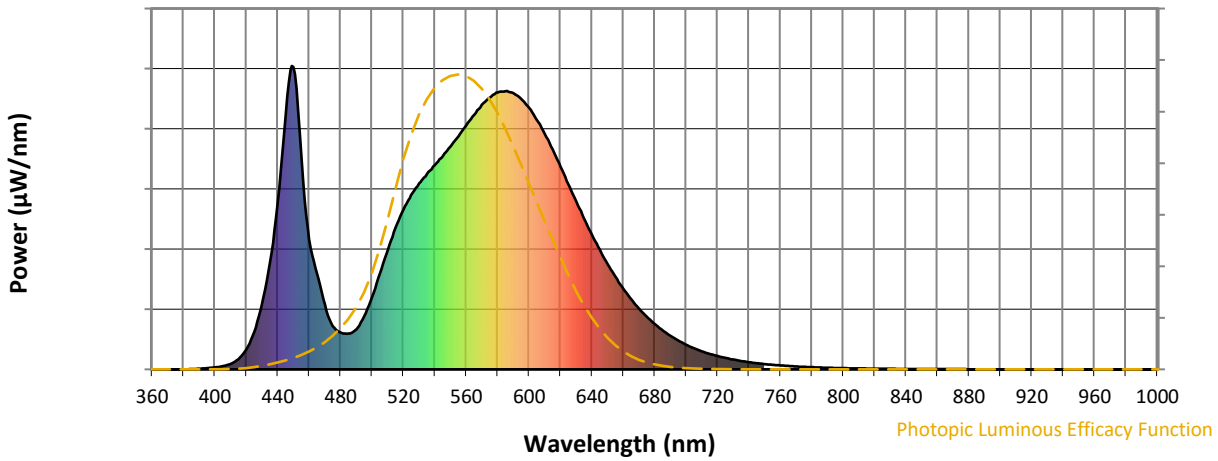
## Photopic Flux vs. Wavelength




## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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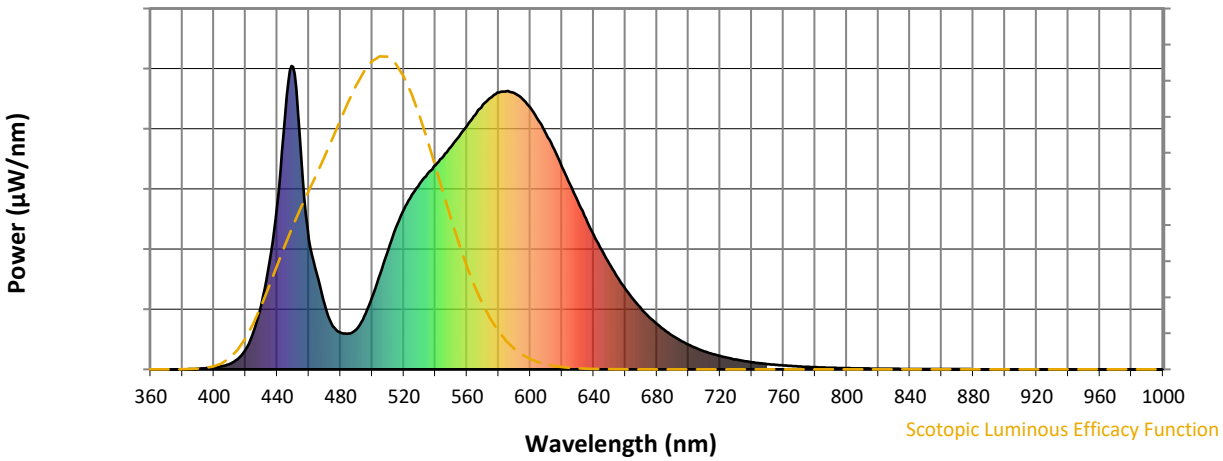
## Scotopic Flux vs. Wavelength

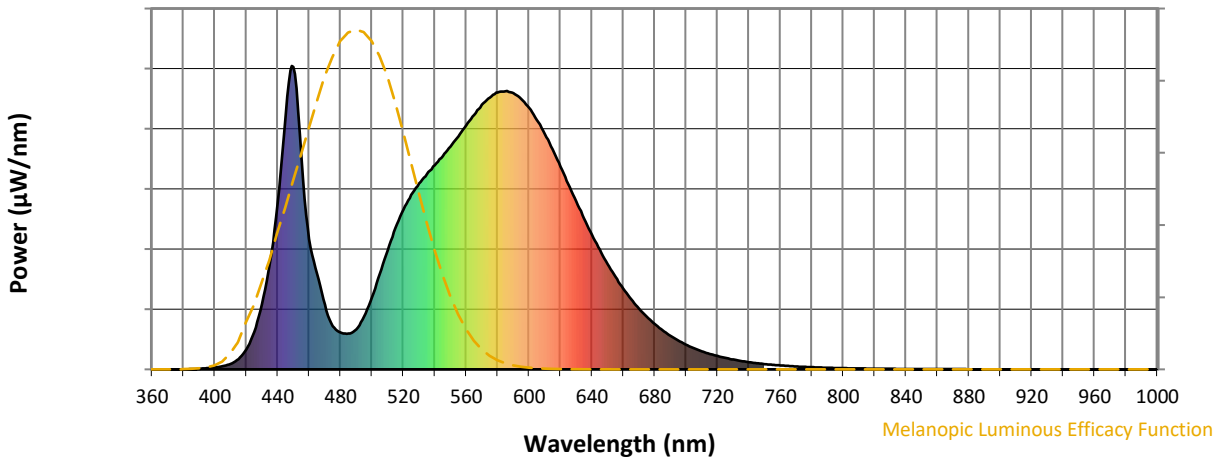



**Scotopic Lumens: NR** **S/P: 1.49**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP2-2501-321-1

## Melanopic Flux vs. Wavelength




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

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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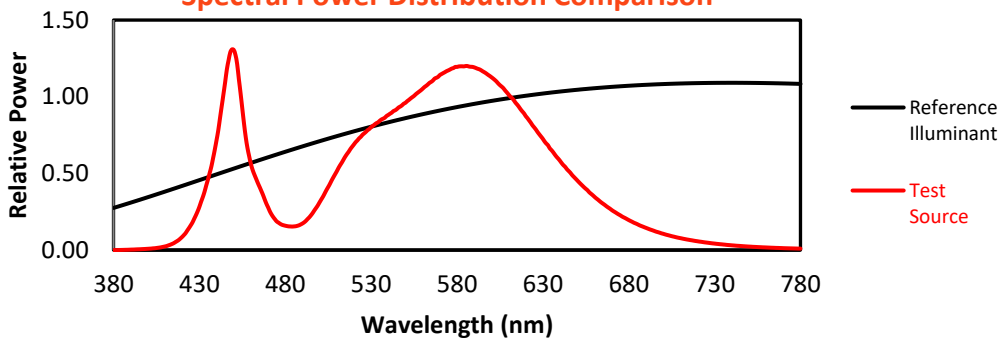
# TM-30-18

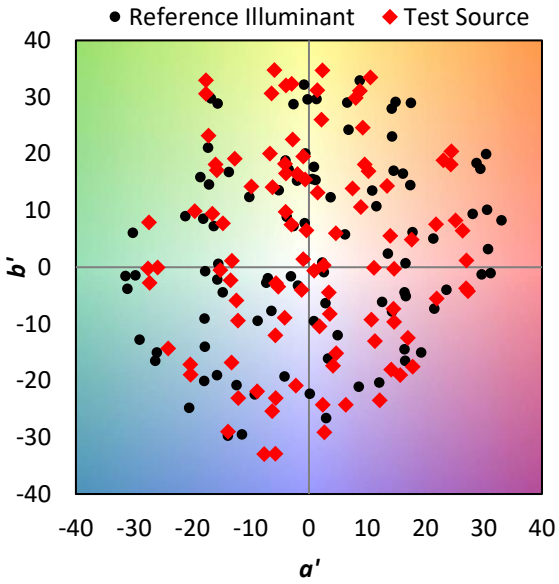
## Summary

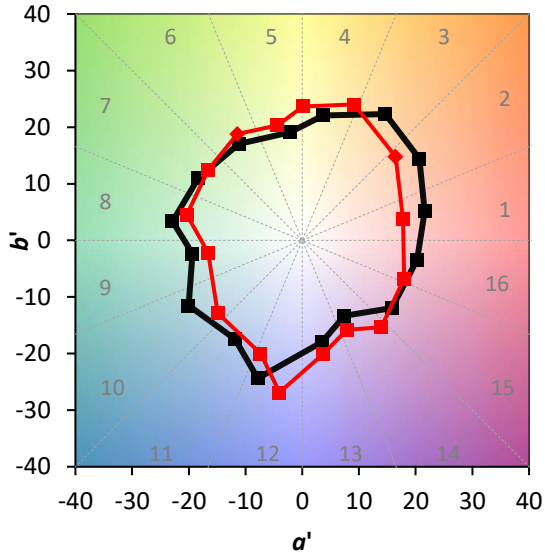
$R_f$ = 73.5
$R_g$ = 93.5
CIE $R_a$ = 71.0
$R_9$ = -37.9

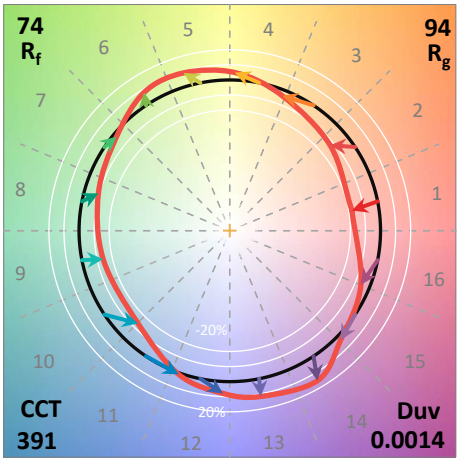
## Spectral Power Distribution Comparison

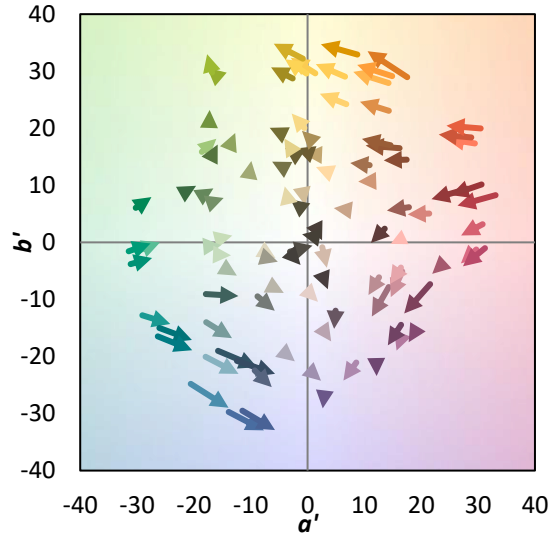



## Color Vector Graphics



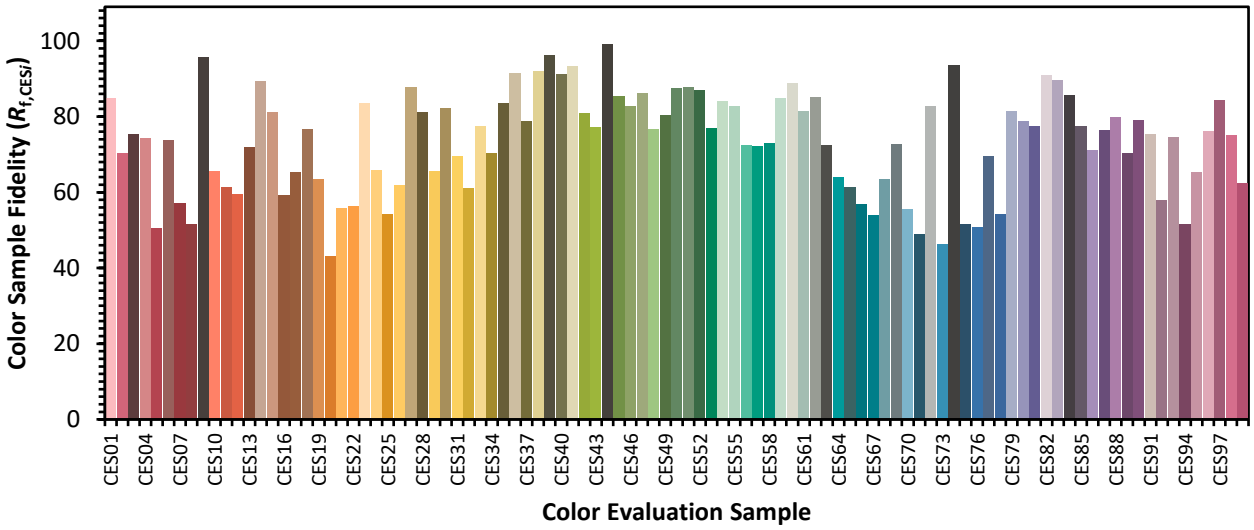



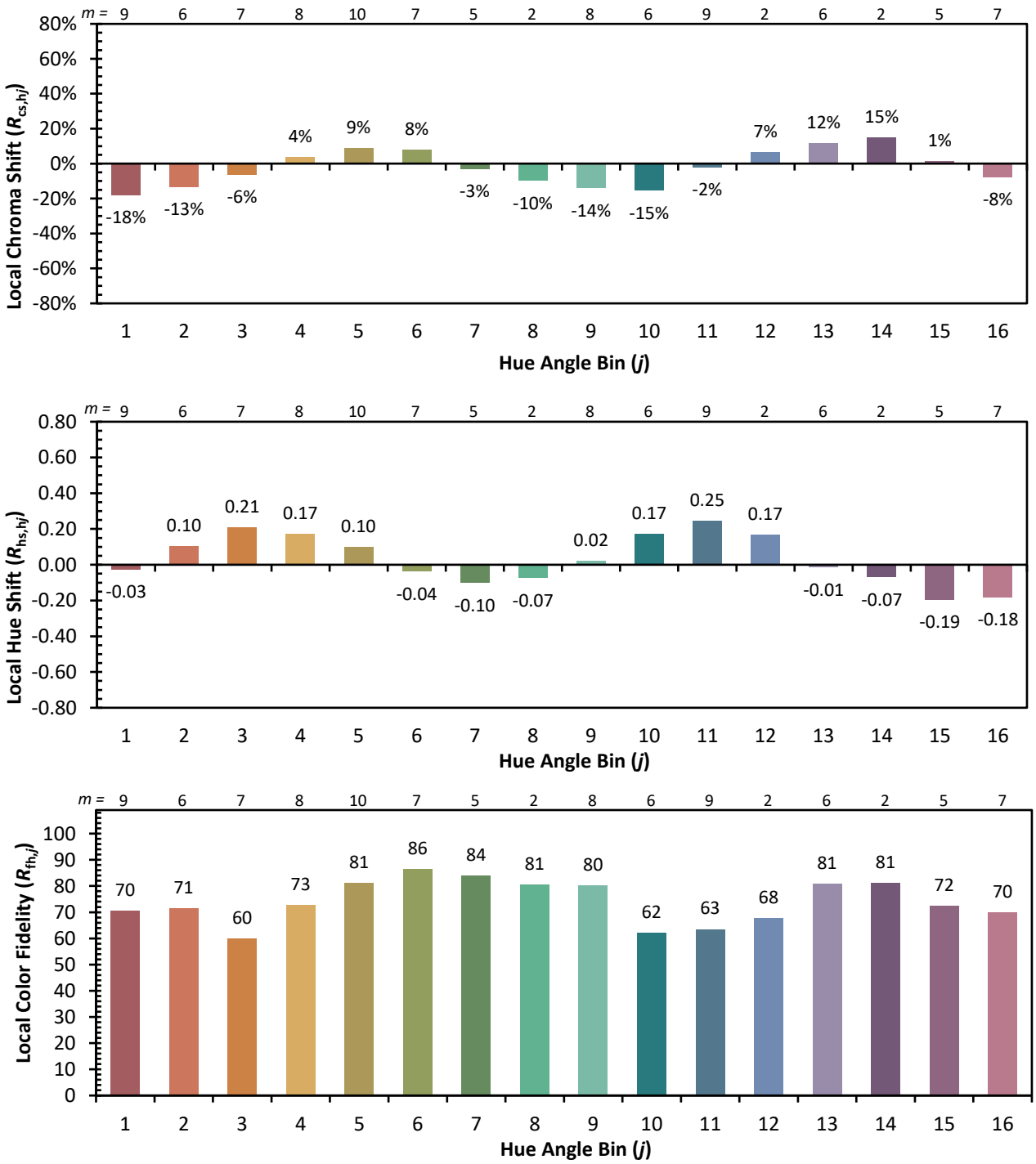



**Individual Sample Fidelity Index ($R_{f,i}$)**

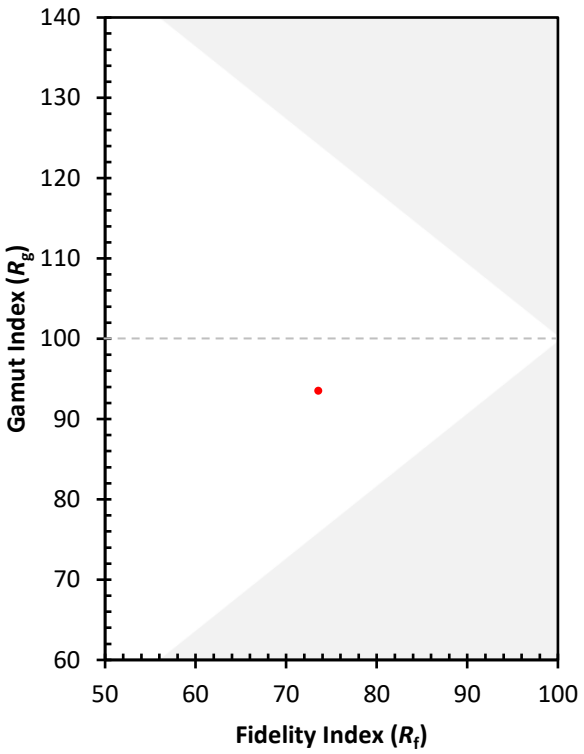
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 62 | CES51 = 88 | CES76 = 51 |
| CES02 = 61 | CES27 = 88 | CES52 = 87 | CES77 = 70 |
| CES03 = 30 | CES28 = 81 | CES53 = 77 | CES78 = 54 |
| CES04 = 70 | CES29 = 66 | CES54 = 84 | CES79 = 81 |
| CES05 = 47 | CES30 = 82 | CES55 = 83 | CES80 = 79 |
| CES06 = 50 | CES31 = 69 | CES56 = 73 | CES81 = 77 |
| CES07 = 40 | CES32 = 61 | CES57 = 72 | CES82 = 91 |
| CES08 = 39 | CES33 = 77 | CES58 = 73 | CES83 = 90 |
| CES09 = 29 | CES34 = 70 | CES59 = 85 | CES84 = 86 |
| CES10 = 74 | CES35 = 84 | CES60 = 89 | CES85 = 77 |
| CES11 = 57 | CES36 = 91 | CES61 = 81 | CES86 = 71 |
| CES12 = 63 | CES37 = 79 | CES62 = 85 | CES87 = 76 |
| CES13 = 42 | CES38 = 92 | CES63 = 72 | CES88 = 80 |
| CES14 = 74 | CES39 = 96 | CES64 = 64 | CES89 = 70 |
| CES15 = 71 | CES40 = 91 | CES65 = 61 | CES90 = 79 |
| CES16 = 46 | CES41 = 93 | CES66 = 57 | CES91 = 75 |
| CES17 = 49 | CES42 = 81 | CES67 = 54 | CES92 = 58 |
| CES18 = 56 | CES43 = 77 | CES68 = 63 | CES93 = 75 |
| CES19 = 72 | CES44 = 99 | CES69 = 73 | CES94 = 52 |
| CES20 = 65 | CES45 = 85 | CES70 = 56 | CES95 = 65 |
| CES21 = 86 | CES46 = 83 | CES71 = 49 | CES96 = 76 |
| CES22 = 78 | CES47 = 86 | CES72 = 83 | CES97 = 84 |
| CES23 = 92 | CES48 = 77 | CES73 = 46 | CES98 = 75 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 62 |
| CES25 = 72 | CES50 = 87 | CES75 = 52 | |

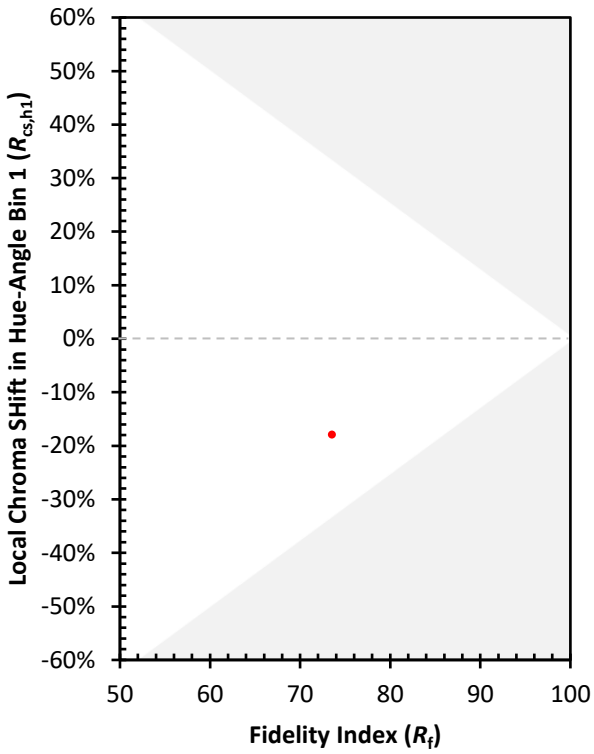


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)