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: P1460649

Luminaire Tested: PRV-PC1A-740-U-T2U

Issue Date: 06/10/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1460649 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/10/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-PC1A-740-U-T2U |
| Description: | PREVAIL DISCRETE LED 1 SQUARE AT 425MA 70CRI 4000K FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC |
| Light Source: | (40) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8591.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 165.2 lumens/watt |
| Luminous Opening: | Rectangular (W 0.67' x L: 0.67' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B2 - U0 - G2 |
| Input Watts (W): | 52 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 3.35% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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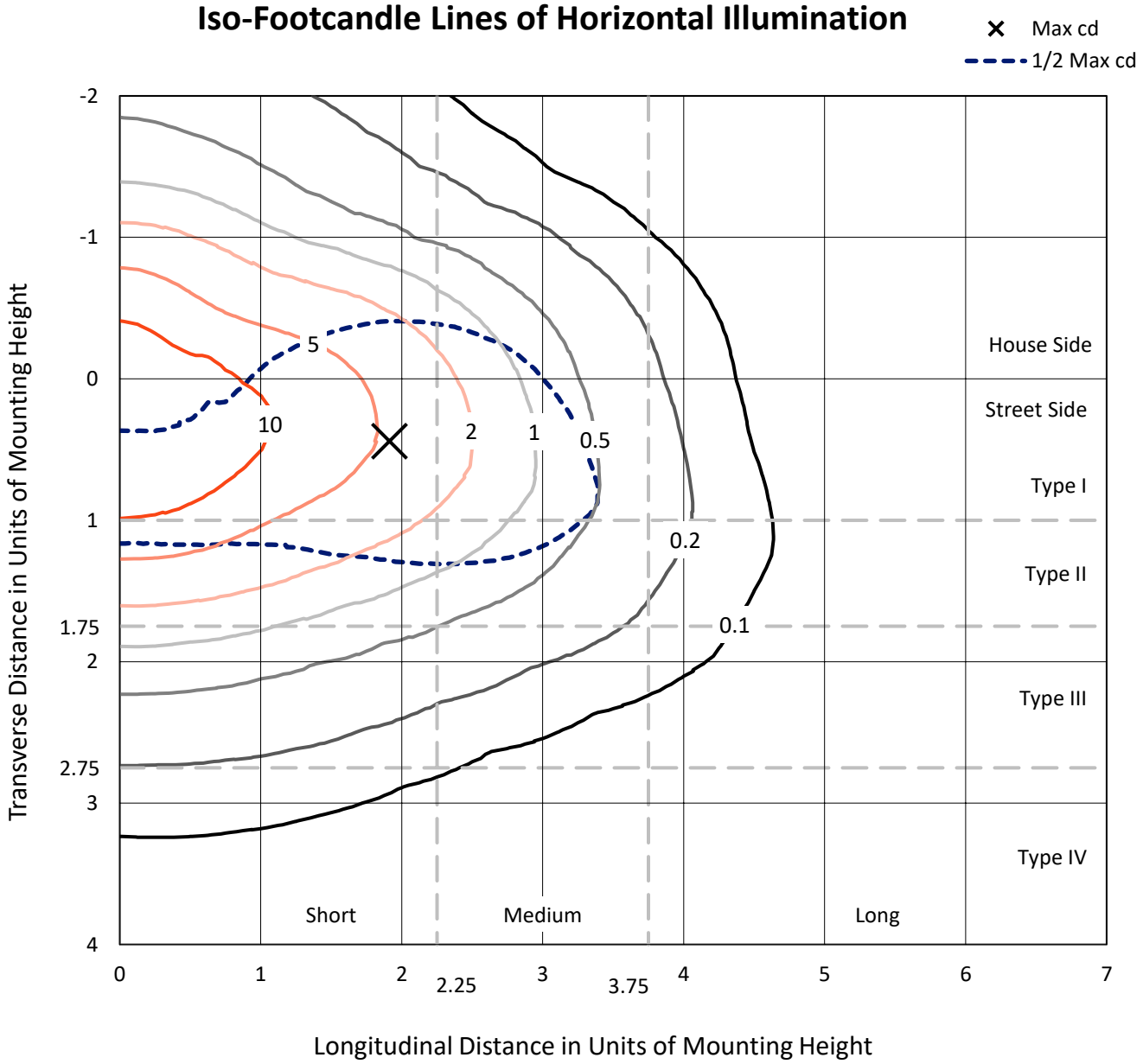
Scaled Data Report

REPORT NUMBER: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

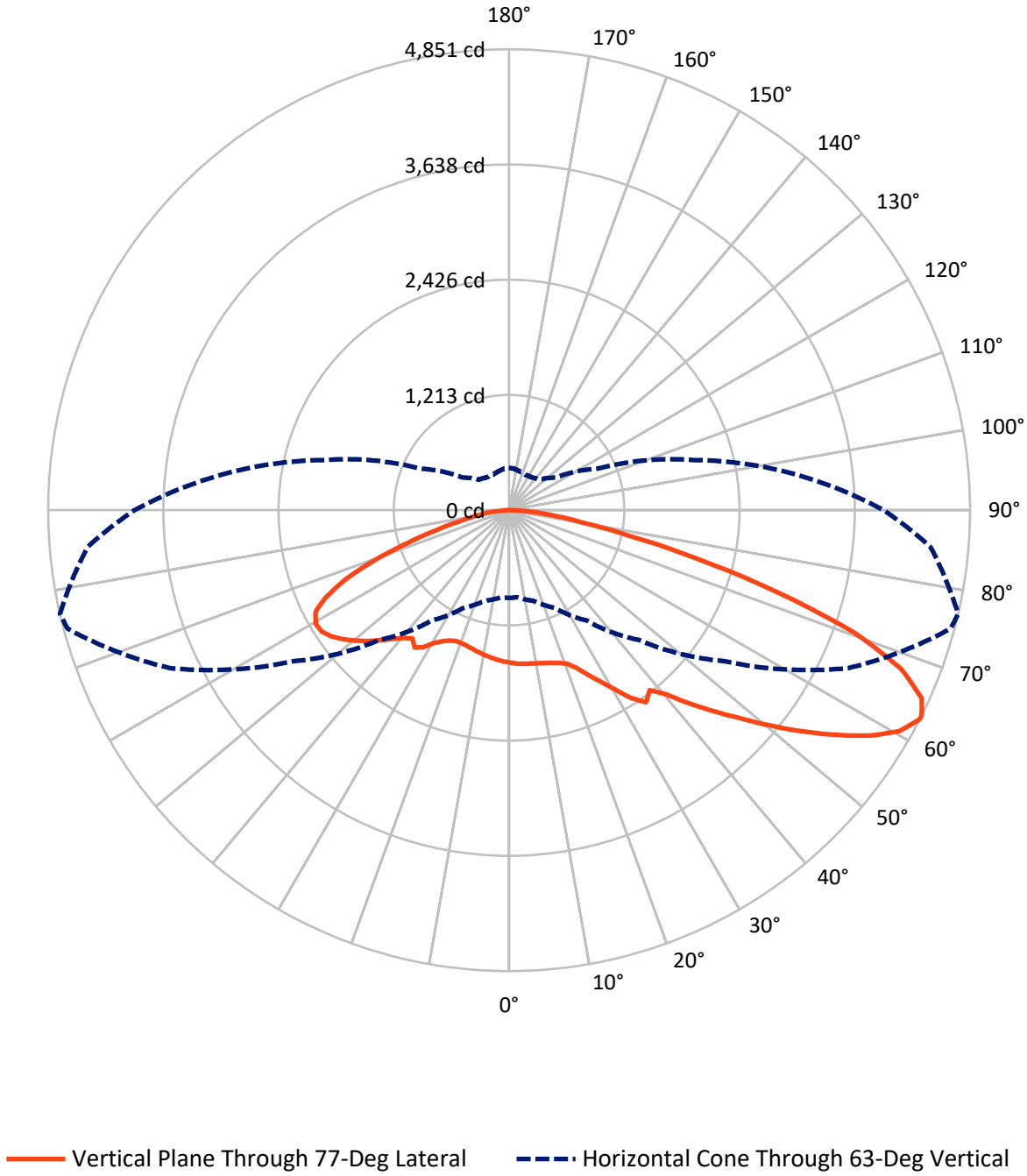
## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 20 fc
Type II - Short - N/A

REPORT NUMBER: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

## Luminous Intensity Polar Plot



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Scaled Data Report

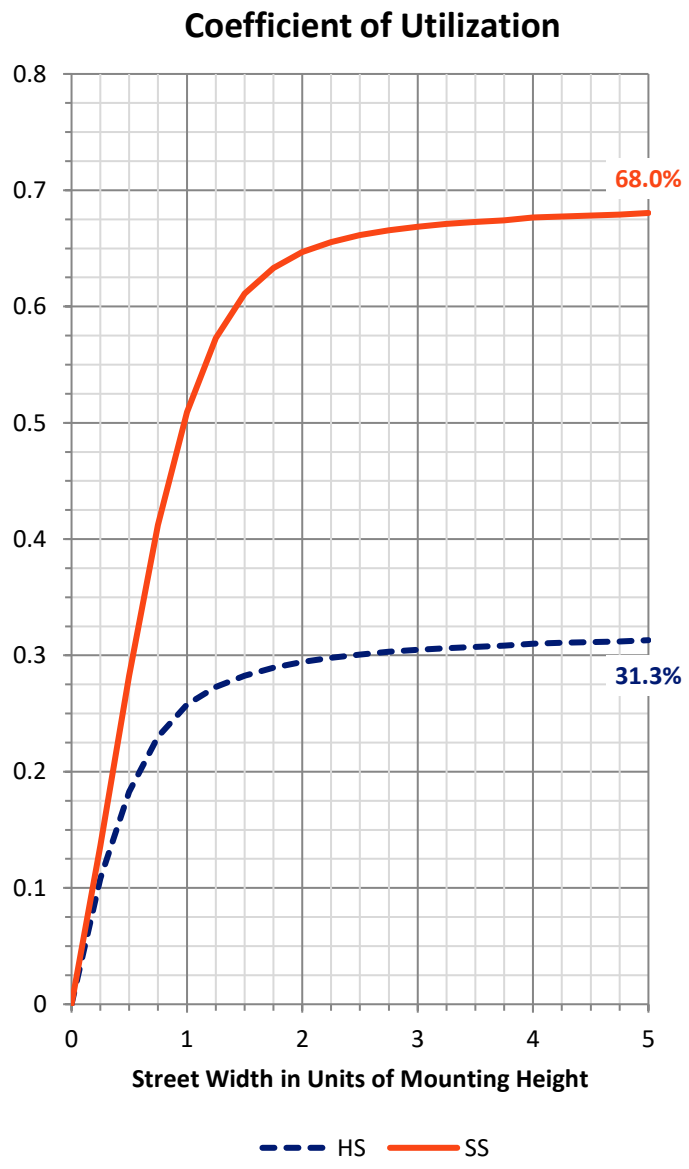
REPORT NUMBER: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2725.1 | 0.0 | 2725.1 |
| | % Fixture | 31.7 | 0.0 | 31.7 |
| **Street Side** | Lumens | 5866.8 | 0.0 | 5866.8 |
| | % Fixture | 68.3 | 0.0 | 68.3 |
| **Total** | Lumens | 8591.9 | 0.0 | 8591.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 153.3 | 1.8 |
| 10°-20° | 470.5 | 5.5 |
| 20°-30° | 835.3 | 9.7 |
| 30°-40° | 1244.5 | 14.5 |
| 40°-50° | 1595.3 | 18.6 |
| 50°-60° | 1792.1 | 20.9 |
| 60°-70° | 1582.5 | 18.4 |
| 70°-80° | 756.6 | 8.8 |
| 80°-90° | 161.8 | 1.9 |
| 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° | 8591.9 | 100.0 |
| 0°-180° | 8591.9 | 100.0 |

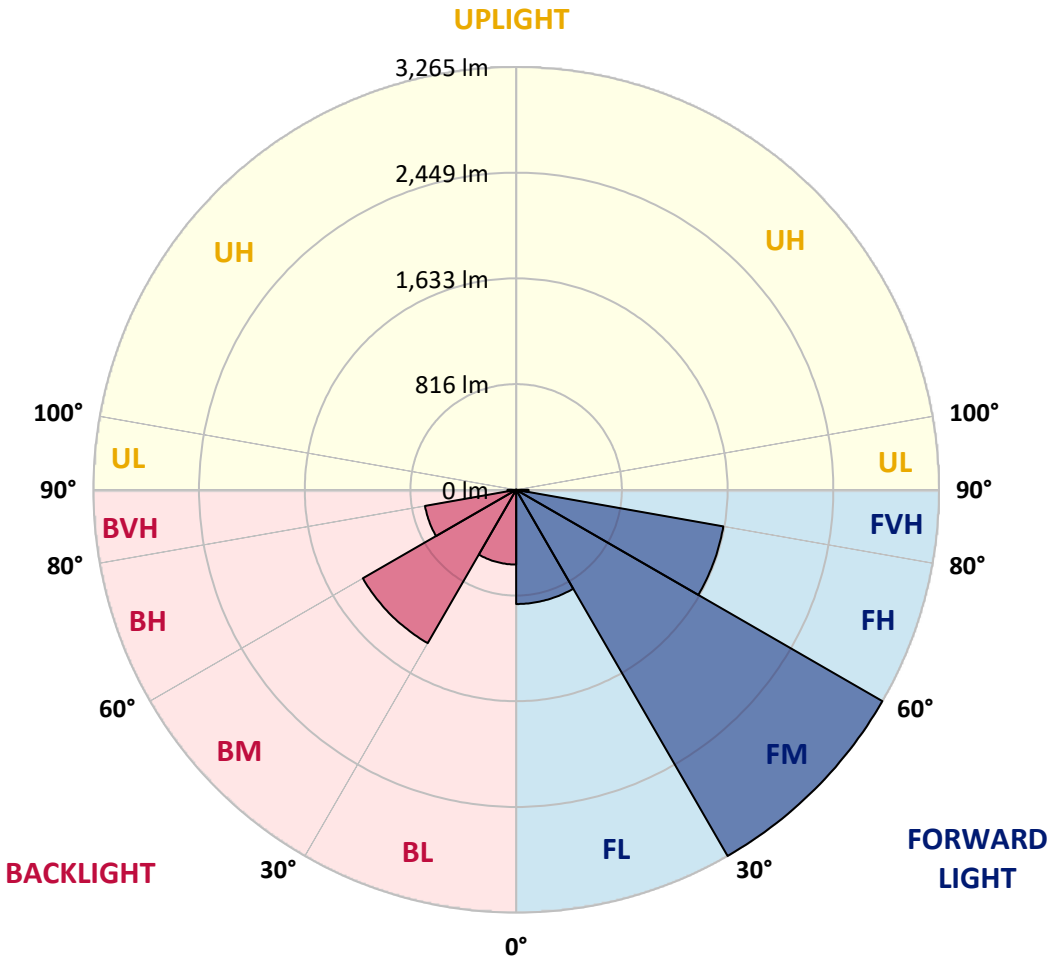


REPORT NUMBER: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 881.9 | 10.3 | | | |
| FM | (30°-60°) | 3265.3 | 38.0 | | | |
| FH | (60°-80°) | 1624.6 | 18.9 | | | G1/1800 |
| FVH | (80°-90°) | 95.1 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 577.3 | 6.7 | B2/1000 | | |
| BM | (30°-60°) | 1366.6 | 15.9 | B2/2500 | | |
| BH | (60°-80°) | 714.5 | 8.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 66.7 | 0.8 | | | 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 II Short



REPORT NUMBER: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | *1604.1* | 1604.1 |
| 2.5° | 1642.8 | 1650.0 | 1643.2 | 1642.4 | 1639.7 | 1631.7 | 1632.1 | 1621.7 | 1614.1 | *1617.7* | 1607.7 |
| 5° | 1704.7 | 1705.5 | 1701.9 | 1696.0 | 1685.6 | 1669.6 | 1655.2 | 1640.1 | 1622.1 | *1623.7* | 1608.1 |
| 7.5° | 1787.0 | 1789.0 | 1775.4 | 1763.4 | 1742.7 | 1713.5 | 1688.8 | 1656.8 | 1629.7 | *1630.5* | 1604.9 |
| 10° | 1878.5 | 1880.4 | 1868.9 | 1848.1 | 1814.6 | 1771.8 | 1725.9 | 1682.8 | 1641.2 | *1639.3* | 1602.1 |
| 12.5° | 1981.9 | 1984.3 | 1975.5 | 1939.5 | 1895.6 | 1836.9 | 1775.8 | 1711.9 | 1657.2 | *1651.6* | 1606.5 |
| 15° | 2097.7 | 2102.1 | 2080.9 | 2045.4 | 1988.3 | 1910.0 | 1831.7 | 1748.7 | 1675.6 | *1666.8* | 1610.9 |
| 17.5° | 2265.0 | 2250.6 | 2235.5 | 2186.7 | 2100.9 | 2004.2 | 1894.0 | 1793.0 | 1699.6 | *1690.0* | 1618.5 |
| 20° | 2434.7 | 2435.9 | 2420.3 | 2390.0 | 2285.4 | 2160.8 | 1992.3 | 1857.3 | 1737.5 | *1724.3* | 1642.4 |
| 22.5° | 2421.9 | 2422.3 | 2429.5 | 2443.5 | 2431.9 | 2366.4 | 2211.9 | 2001.4 | 1823.7 | *1798.2* | 1688.8 |
| 25° | 2464.3 | 2471.5 | 2466.7 | 2456.3 | 2405.6 | 2371.6 | 2338.1 | 2181.9 | 1950.7 | *1916.0* | 1775.8 |
| 27.5° | 2564.9 | 2576.9 | 2569.3 | 2560.1 | 2502.2 | 2437.5 | 2339.3 | 2262.2 | 2080.5 | *2038.6* | 1873.7 |
| 30° | 2673.1 | 2677.5 | 2666.7 | 2652.4 | 2610.4 | 2554.1 | 2460.7 | 2325.7 | 2213.1 | *2183.9* | 2012.6 |
| 32.5° | 2754.2 | 2755.4 | 2750.2 | 2753.4 | 2710.7 | 2672.7 | 2607.2 | 2471.9 | 2366.4 | *2356.5* | 2241.0 |
| 35° | 2814.1 | 2827.3 | 2823.3 | 2837.2 | 2811.7 | 2792.5 | 2757.4 | 2690.7 | 2523.0 | *2483.4* | 2307.7 |
| 37.5° | 2872.8 | 2887.6 | 2899.5 | 2906.7 | 2882.8 | 2880.8 | 2874.4 | 2766.6 | 2457.5 | *2404.0* | 2203.5 |
| 40° | 2891.2 | 2899.5 | 2949.5 | 2978.2 | 2941.5 | 2939.5 | 2926.3 | 2789.7 | 2585.3 | *2548.5* | 2344.1 |
| 42.5° | 2872.0 | 2870.4 | 2929.9 | 2951.9 | 2971.8 | 2992.2 | 3017.7 | 2965.8 | 2800.9 | *2778.9* | 2555.7 |
| 45° | 2750.6 | 2732.2 | 2764.2 | 2878.0 | 2947.1 | 3025.7 | 3133.9 | 3157.5 | 3049.7 | *3017.7* | 2788.5 |
| 47.5° | 2595.3 | 2583.3 | 2623.2 | 2757.8 | 2880.4 | 3036.9 | 3227.0 | 3365.6 | 3300.1 | *3270.1* | 3057.3 |
| 50° | 2350.9 | 2364.8 | 2447.9 | 2595.6 | 2771.8 | 3019.3 | 3302.1 | 3566.4 | 3585.2 | *3563.2* | 3328.0 |
| 52.5° | 2031.4 | 2041.4 | 2218.7 | 2408.0 | 2622.0 | 2907.1 | 3334.8 | 3773.7 | 3881.9 | *3869.5* | 3604.8 |
| 55° | 1689.2 | 1719.1 | 1846.5 | 2138.8 | 2396.0 | 2767.0 | 3312.0 | 3941.0 | 4195.4 | *4174.2* | 3895.5 |
| 57.5° | 1398.1 | 1429.2 | 1517.1 | 1781.8 | 2128.8 | 2554.9 | 3227.4 | 4059.6 | 4475.3 | *4477.3* | 4167.0 |
| 60° | 1136.1 | 1163.6 | 1228.3 | 1442.0 | 1815.4 | 2302.1 | 3058.1 | 4083.6 | 4701.3 | *4720.1* | 4363.9 |
| 62.5° | 951.6 | 962.8 | 1023.9 | 1176.4 | 1500.3 | 1999.8 | 2820.9 | 3975.3 | 4812.7 | *4849.5* | 4454.1 |
| 63° | *924.5* | *919.3* | *987.9* | *1134.1* | *1416.8* | *1932.8* | *2771.8* | *3933.8* | *4813.1* | *4851.1* | *4453.7* |
| 65° | 784.7 | 792.3 | 836.6 | 960.4 | 1192.8 | 1652.8 | 2489.8 | 3715.4 | 4718.5 | *4773.2* | 4353.5 |
| 67.5° | 615.4 | 622.6 | 683.3 | 783.9 | 949.2 | 1340.2 | 2118.1 | 3329.6 | 4397.8 | *4446.9* | 4012.9 |
| 70° | 488.0 | 491.2 | 529.9 | 621.4 | 771.1 | 1044.2 | 1664.4 | 2790.5 | 3811.2 | *3849.5* | 3399.5 |
| 72.5° | 395.7 | 406.1 | 431.7 | 487.2 | 584.2 | 793.5 | 1255.9 | 2200.7 | 3009.4 | *2951.9* | 2499.4 |
| 75° | 331.8 | 335.0 | 360.6 | 388.1 | 438.5 | 571.4 | 906.1 | 1622.5 | 2051.8 | *2047.4* | 1628.9 |
| 77.5° | 280.3 | 286.7 | 292.7 | 305.9 | 334.6 | 406.5 | 636.5 | 1126.9 | 1306.6 | *1284.2* | 939.2 |
| 80° | 236.4 | 238.8 | 236.4 | 238.8 | 249.6 | 275.1 | 413.3 | 738.0 | 833.0 | *774.7* | 571.4 |
| 82.5° | 164.9 | 176.9 | 178.5 | 186.5 | 190.5 | 201.3 | 276.3 | 480.8 | 530.3 | *476.8* | 336.6 |
| 85° | 97.8 | 96.6 | 101.4 | 115.0 | 128.2 | 127.0 | 175.3 | 240.4 | 285.9 | *266.0* | 161.7 |
| 87.5° | 34.7 | 32.7 | 32.7 | 40.3 | 43.5 | 47.1 | 57.5 | 75.1 | 71.1 | *71.5* | 40.3 |
| 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: P1460649
CATALOG NUMBER: PRV-PC1A-740-U-T2U

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 | 1604.1 |
| 2.5° | 1602.5 | 1595.7 | 1592.5 | 1586.9 | 1578.2 | 1573.4 | 1569.0 | 1563.0 | 1561.0 | 1555.8 | 1555.0 |
| 5° | 1596.9 | 1590.1 | 1577.0 | 1562.6 | 1550.6 | 1541.4 | 1524.6 | 1514.7 | 1505.5 | 1503.9 | 1506.3 |
| 7.5° | 1588.1 | 1579.8 | 1559.0 | 1538.2 | 1514.7 | 1499.1 | 1477.5 | 1463.5 | 1455.6 | 1454.0 | 1457.2 |
| 10° | 1584.5 | 1569.4 | 1539.0 | 1509.5 | 1479.9 | 1455.6 | 1432.0 | 1414.4 | 1402.8 | 1401.3 | 1397.7 |
| 12.5° | 1581.0 | 1561.8 | 1520.3 | 1483.1 | 1440.8 | 1412.4 | 1386.9 | 1372.5 | 1360.5 | 1358.9 | 1358.1 |
| 15° | 1579.4 | 1555.0 | 1501.1 | 1451.2 | 1404.4 | 1370.5 | 1344.9 | 1333.4 | 1329.8 | 1327.4 | 1328.6 |
| 17.5° | 1581.7 | 1550.2 | 1484.3 | 1418.8 | 1365.3 | 1331.0 | 1311.0 | 1303.4 | 1302.2 | 1303.0 | 1305.8 |
| 20° | 1594.5 | 1553.8 | 1470.3 | 1391.7 | 1331.0 | 1295.8 | 1281.1 | 1277.1 | 1277.1 | 1281.5 | 1284.2 |
| 22.5° | 1623.3 | 1573.0 | 1463.1 | 1369.7 | 1302.2 | 1269.5 | 1252.3 | 1247.5 | 1252.7 | 1260.7 | 1262.7 |
| 25° | 1699.2 | 1628.5 | 1477.5 | 1357.3 | 1279.9 | 1240.7 | 1222.4 | 1221.6 | 1227.1 | 1234.3 | 1235.1 |
| 27.5° | 1785.8 | 1698.0 | 1511.1 | 1355.3 | 1259.1 | 1211.2 | 1191.6 | 1189.2 | 1192.0 | 1199.2 | 1199.2 |
| 30° | 1904.8 | 1790.6 | 1561.8 | 1369.7 | 1244.7 | 1178.8 | 1155.7 | 1148.1 | 1151.3 | 1160.5 | 1157.7 |
| 32.5° | 2093.3 | 1938.4 | 1640.5 | 1394.9 | 1231.5 | 1146.5 | 1115.7 | 1109.3 | 1109.3 | 1116.5 | 1119.7 |
| 35° | 2184.3 | 2047.8 | 1680.0 | 1385.3 | 1202.0 | 1108.9 | 1072.2 | 1063.0 | 1075.0 | 1088.6 | 1090.6 |
| 37.5° | 2091.7 | 1952.3 | 1624.5 | 1343.3 | 1160.1 | 1064.6 | 1029.5 | 1021.9 | 1032.3 | 1045.4 | 1047.0 |
| 40° | 2202.7 | 2041.0 | 1667.2 | 1344.5 | 1133.7 | 1023.1 | 982.0 | 957.6 | 959.2 | 969.6 | 967.2 |
| 42.5° | 2389.2 | 2192.7 | 1730.3 | 1350.1 | 1101.8 | 978.0 | 916.9 | 874.5 | 868.5 | 870.1 | 872.5 |
| 45° | 2602.8 | 2363.6 | 1805.0 | 1351.3 | 1061.0 | 922.5 | 837.0 | 784.7 | 769.9 | 761.1 | 758.7 |
| 47.5° | 2831.3 | 2546.5 | 1886.4 | 1348.5 | 1008.7 | 851.0 | 755.9 | 703.6 | 675.3 | 662.1 | 663.3 |
| 50° | 3078.8 | 2735.8 | 1959.1 | 1335.4 | 952.8 | 775.1 | 679.3 | 628.1 | 596.2 | 588.6 | 585.0 |
| 52.5° | 3313.2 | 2921.5 | 2029.0 | 1316.2 | 890.1 | 697.6 | 607.0 | 563.1 | 536.3 | 529.1 | 527.5 |
| 55° | 3561.2 | 3106.0 | 2087.7 | 1283.0 | 819.4 | 624.6 | 543.5 | 513.9 | 495.2 | 490.4 | 491.2 |
| 57.5° | 3773.7 | 3268.5 | 2119.2 | 1234.7 | 751.5 | 559.9 | 497.2 | 477.6 | 466.0 | 468.4 | 470.0 |
| 60° | 3931.8 | 3350.4 | 2112.9 | 1165.2 | 682.5 | 507.2 | 459.2 | 448.8 | 448.8 | 468.4 | 474.4 |
| 62.5° | 3956.2 | 3334.0 | 2048.6 | 1065.4 | 607.4 | 462.8 | 426.5 | 416.5 | 426.5 | 450.4 | 455.2 |
| 63° | *3941.8* | *3306.9* | *2031.8* | *1033.1* | *595.8* | *453.2* | *419.3* | *409.7* | *423.3* | *442.5* | *442.5* |
| 65° | 3800.0 | 3162.3 | 1882.8 | 925.2 | 534.7 | 421.7 | 394.1 | 389.3 | 408.1 | 420.9 | 422.9 |
| 67.5° | 3453.0 | 2866.4 | 1628.1 | 765.9 | 470.8 | 385.8 | 361.0 | 369.4 | 383.4 | 393.3 | 396.5 |
| 70° | 2902.3 | 2374.4 | 1302.6 | 616.2 | 410.5 | 348.2 | 334.2 | 339.4 | 352.2 | 361.0 | 364.2 |
| 72.5° | 2112.1 | 1789.4 | 977.2 | 492.0 | 357.4 | 311.9 | 304.3 | 303.9 | 312.3 | 315.5 | 320.3 |
| 75° | 1369.3 | 1197.6 | 713.6 | 396.9 | 305.1 | 274.7 | 266.4 | 264.0 | 279.9 | 286.3 | 292.7 |
| 77.5° | 816.2 | 742.0 | 509.5 | 326.3 | 260.0 | 225.6 | 230.4 | 230.4 | 246.8 | 266.8 | 275.9 |
| 80° | 493.6 | 453.6 | 377.8 | 270.7 | 204.5 | 184.5 | 189.3 | 192.1 | 232.0 | 270.3 | 273.9 |
| 82.5° | 297.5 | 292.3 | 280.3 | 209.6 | 158.5 | 141.0 | 150.5 | 168.9 | 218.4 | 167.3 | 192.9 |
| 85° | 146.6 | 157.7 | 180.1 | 117.0 | 98.6 | 96.2 | 101.0 | 149.3 | 144.6 | 66.7 | 62.7 |
| 87.5° | 37.5 | 44.7 | 42.3 | 31.1 | 26.8 | 24.8 | 33.5 | 55.9 | 45.9 | 16.0 | 9.6 |
| 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
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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

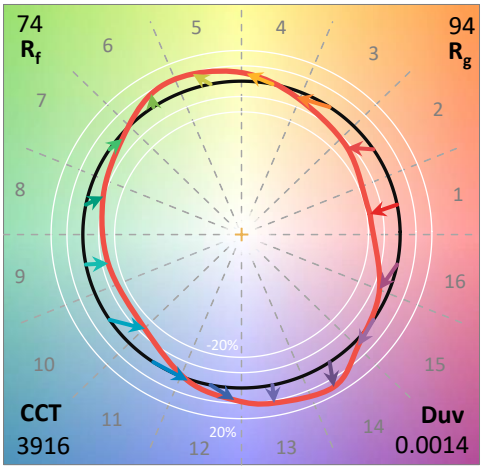
## Test Information

| | |
|---|---|
| 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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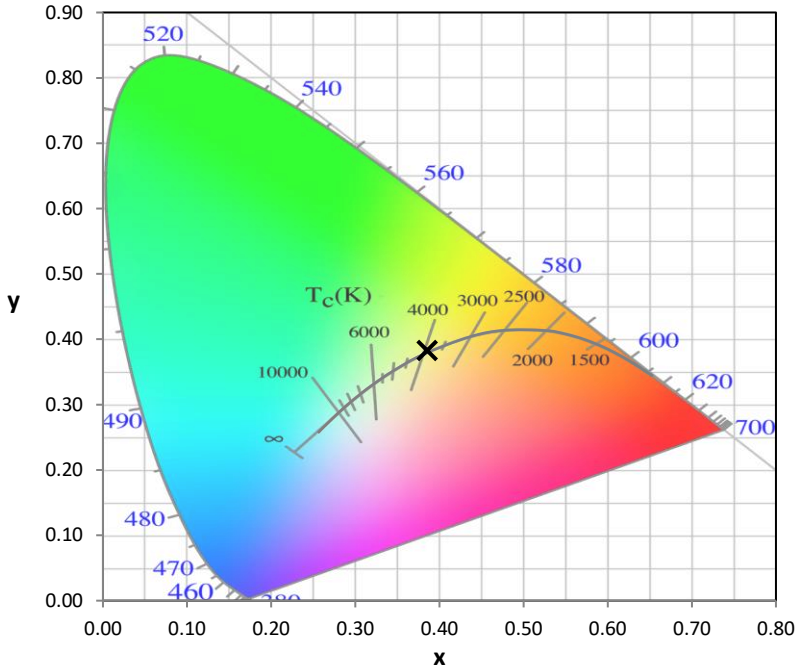
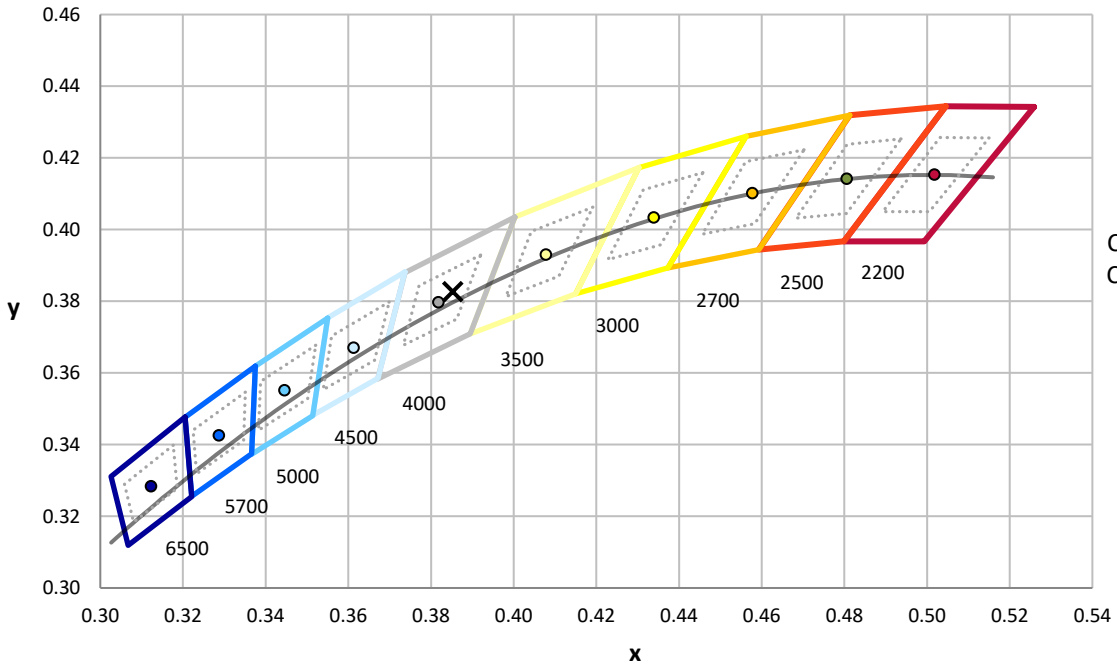
## CIE 1931 Chromaticity Diagram




## 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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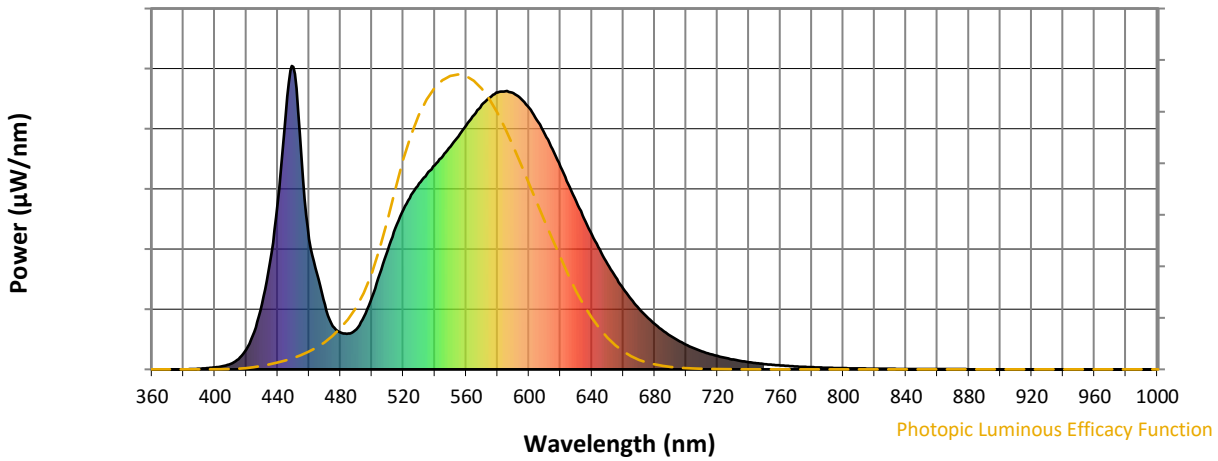
## Photopic Flux vs. Wavelength




## 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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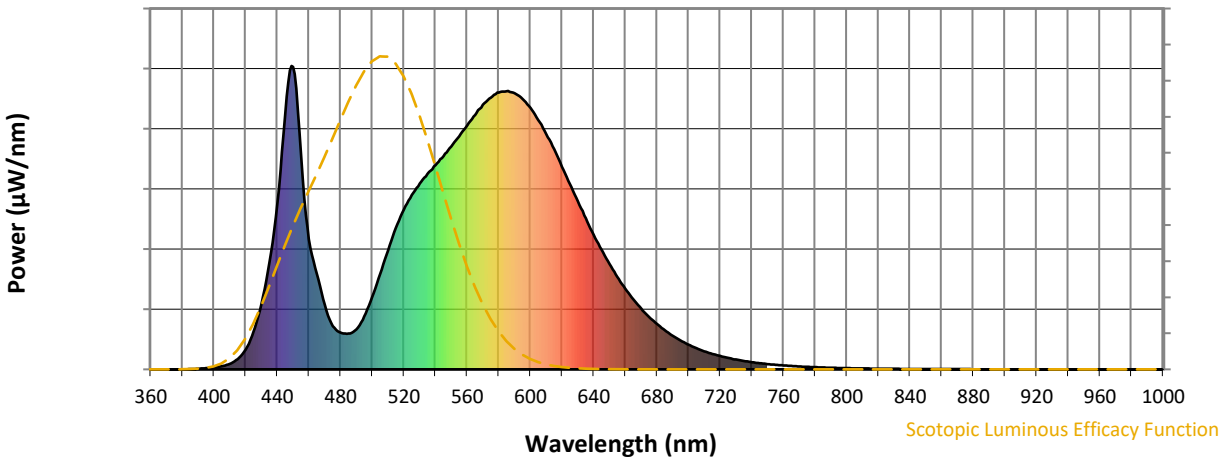
## Scotopic Flux vs. Wavelength




**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 | | | |

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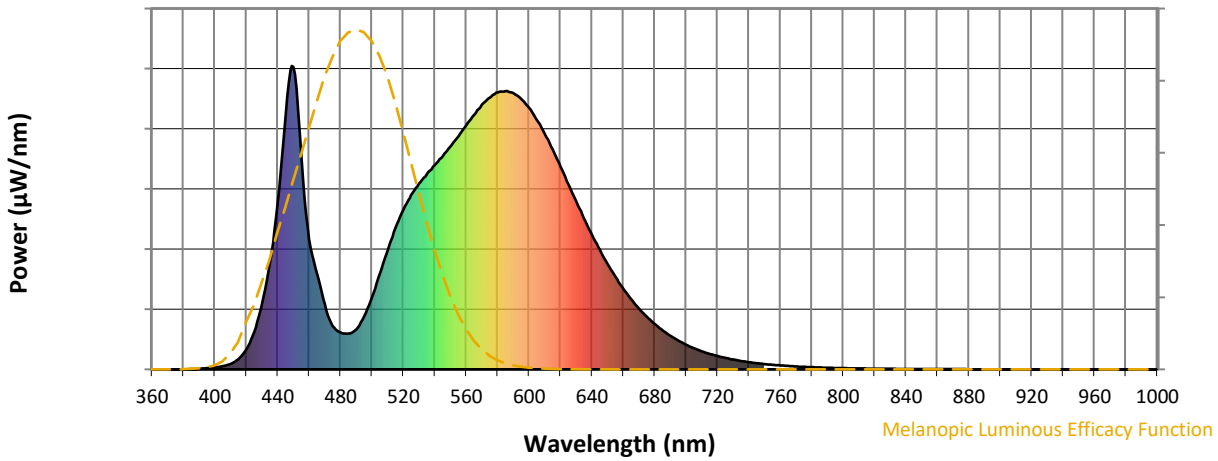
## Melanopic Flux vs. Wavelength




**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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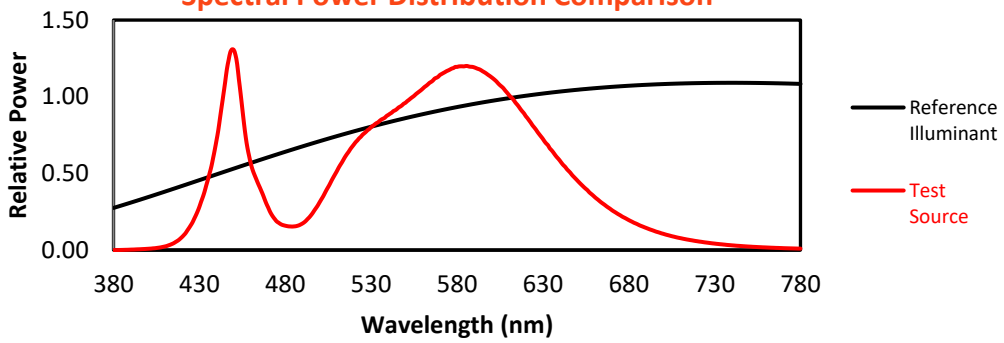
# TM-30-18

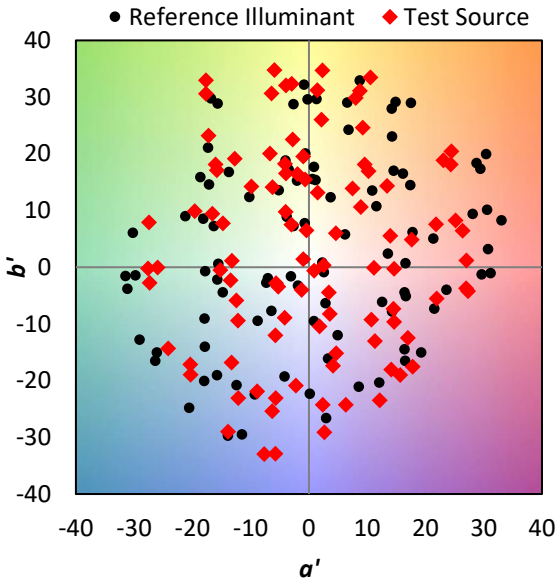
## Summary

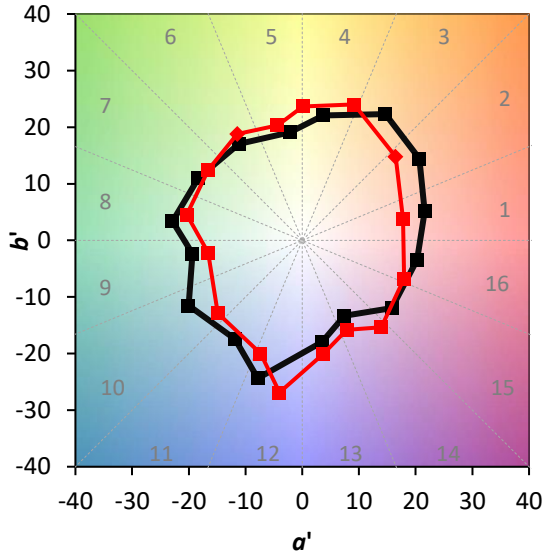
$R_f$ = 73.5
$R_g$ = 93.5
CIE $R_a$ = 71.0
$R_9$ = -37.9

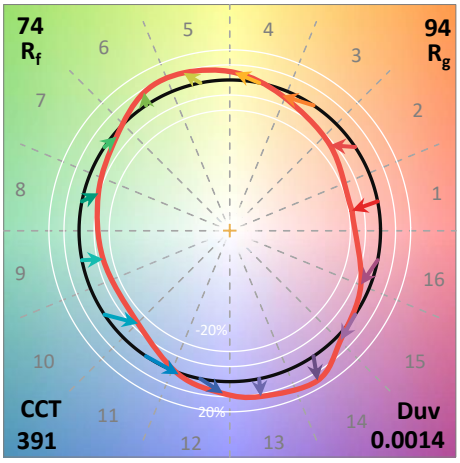
## Spectral Power Distribution Comparison

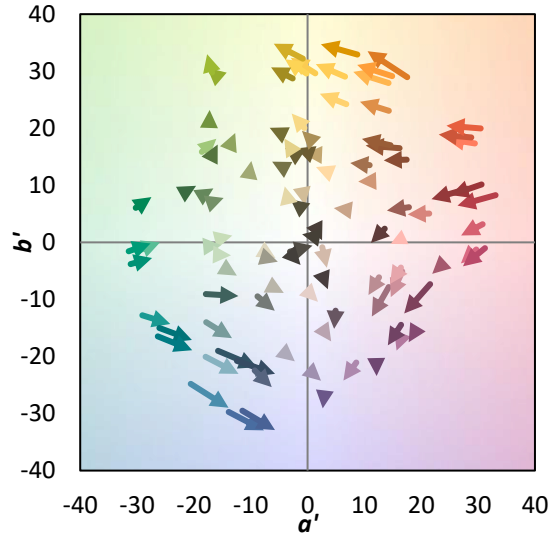



## Color Vector Graphics



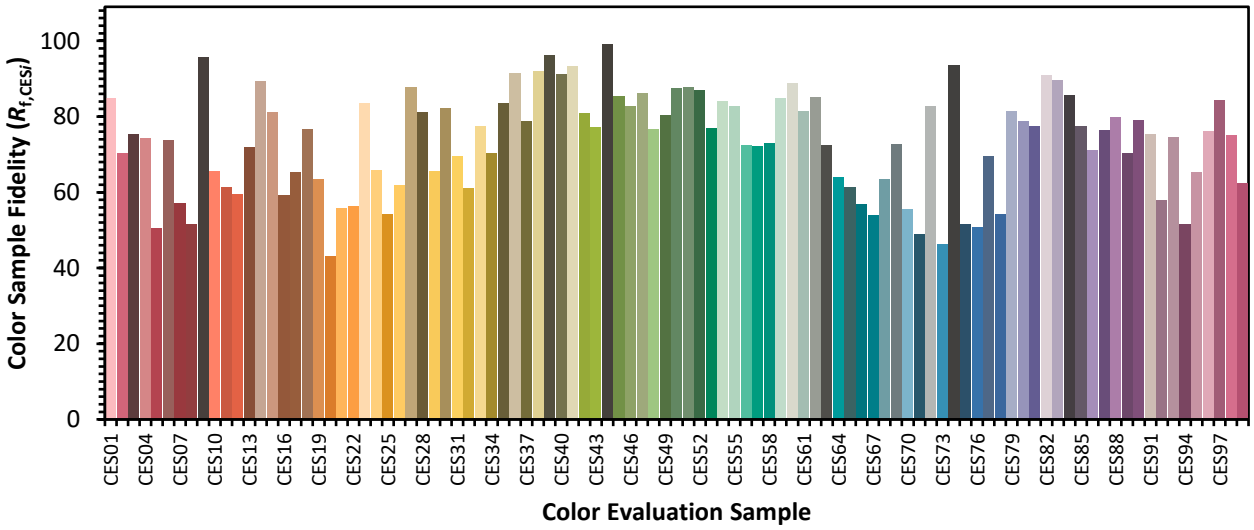



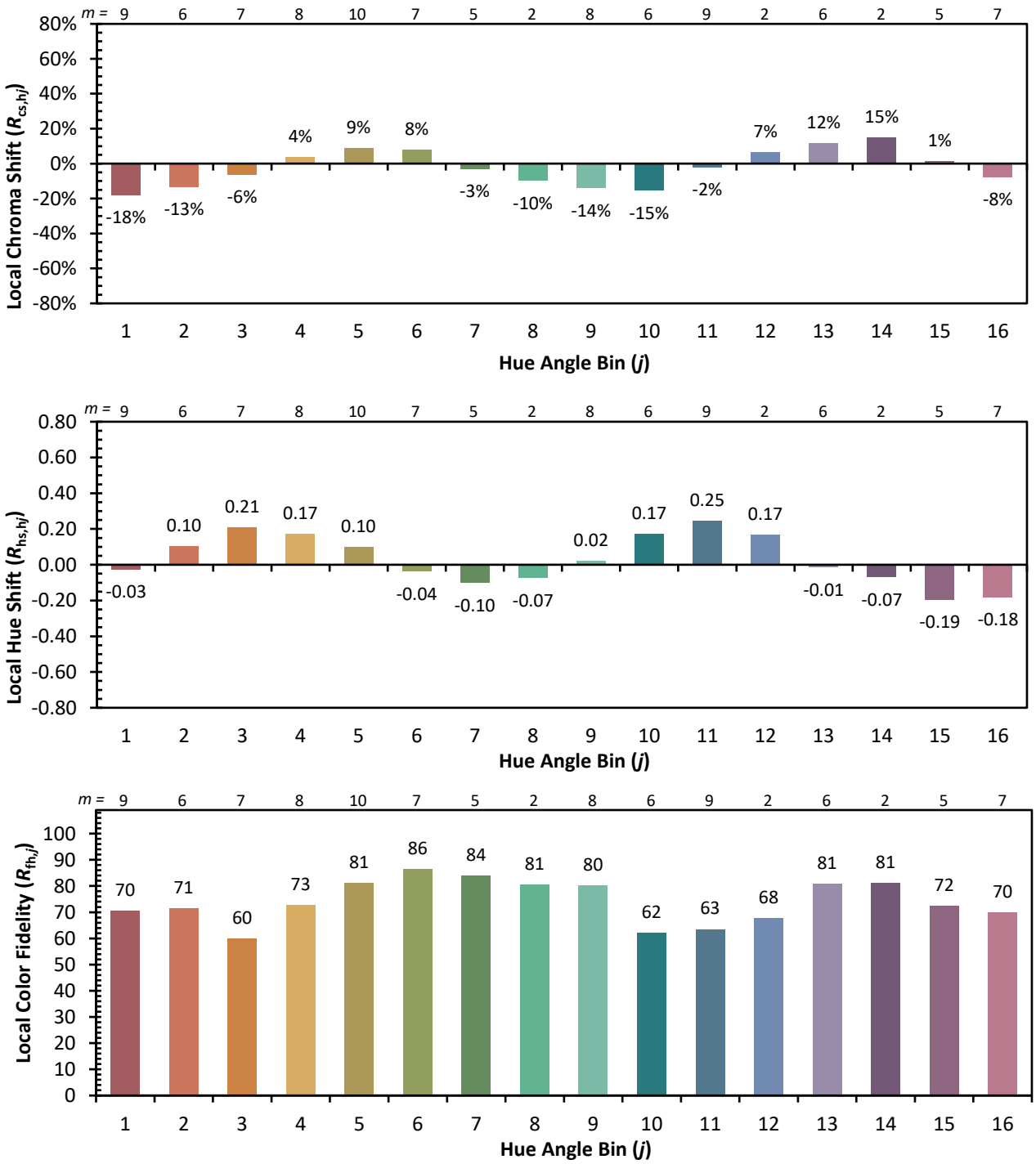



**Individual Sample Fidelity Index ($R_{f,i}$)**

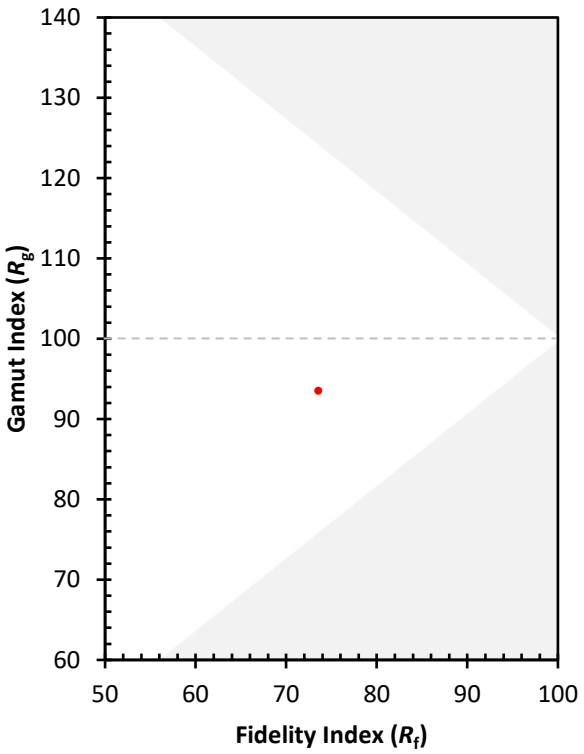
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 62 | CES51 = 88 | CES76 = 51 |
| CES02 = 61 | CES27 = 88 | CES52 = 87 | CES77 = 70 |
| CES03 = 30 | CES28 = 81 | CES53 = 77 | CES78 = 54 |
| CES04 = 70 | CES29 = 66 | CES54 = 84 | CES79 = 81 |
| CES05 = 47 | CES30 = 82 | CES55 = 83 | CES80 = 79 |
| CES06 = 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 | |

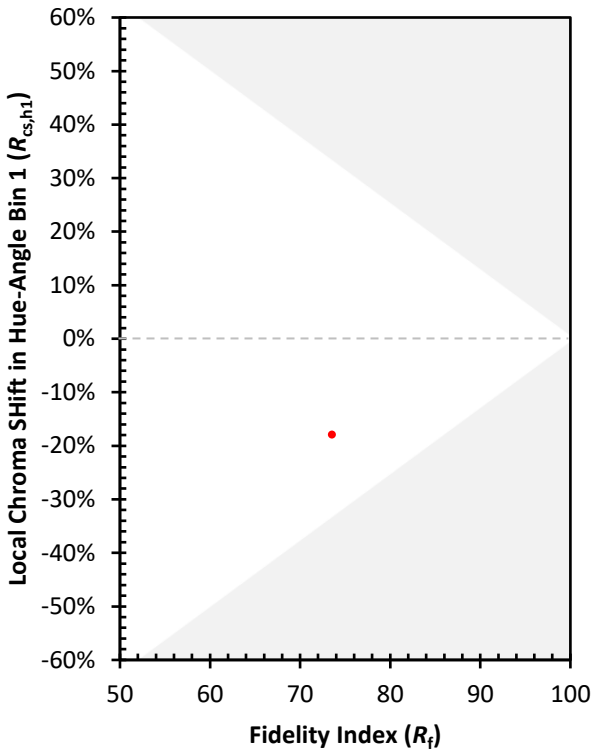


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)