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

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1121 Highway 74 South
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: P1460996

Luminaire Tested: PRV-P-PB1B-750-U-T2R-HSS

Issue Date: 06/09/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1460996 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/9/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-P-PB1B-750-U-T2R-HSS |
| Description: | PREVAIL PETITE DISCRETE LED 1 SQUARE AT 1470MA 70CRI 5000K FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (10) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 4575.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 87.2 lumens/watt |
| Luminous Opening: | Rectangular (W 0.33' x L: 0.33' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B1 - U0 - G1 |
| Input Watts (W): | 52.5 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | 6.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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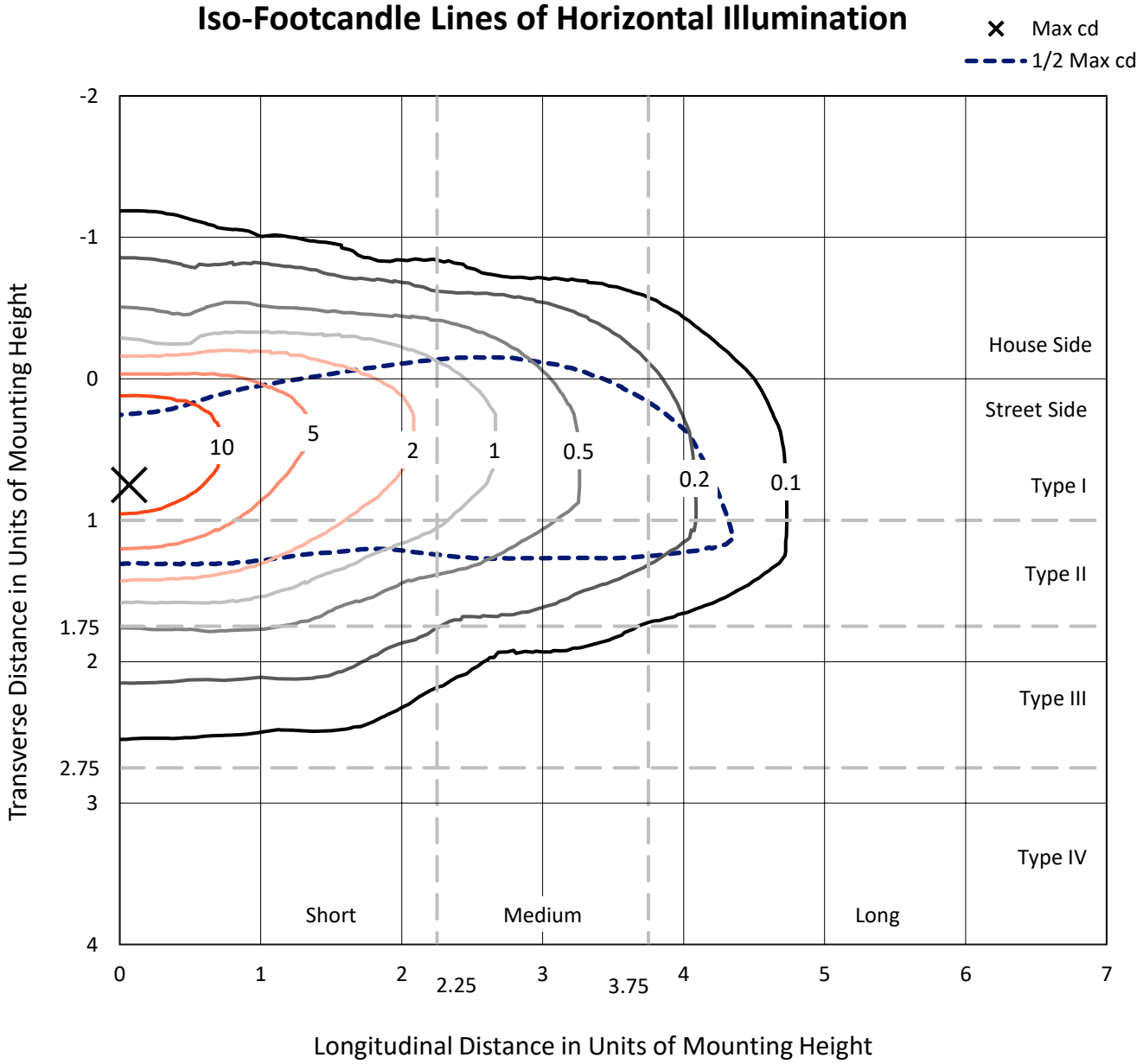
Scaled Data Report

REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

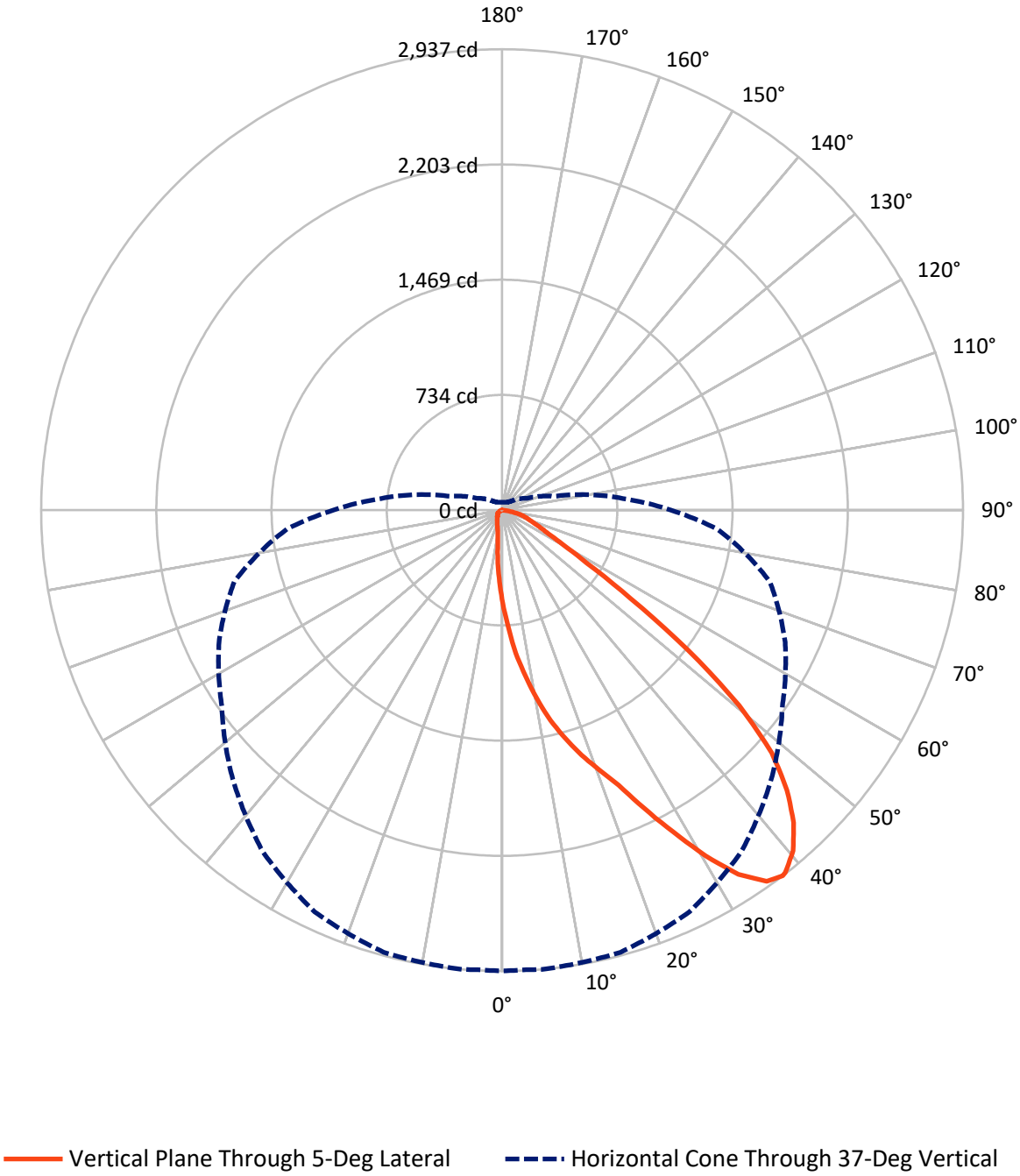
## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 16.7 fc
Type II - Short - N/A

REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

## Luminous Intensity Polar Plot



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Scaled Data Report

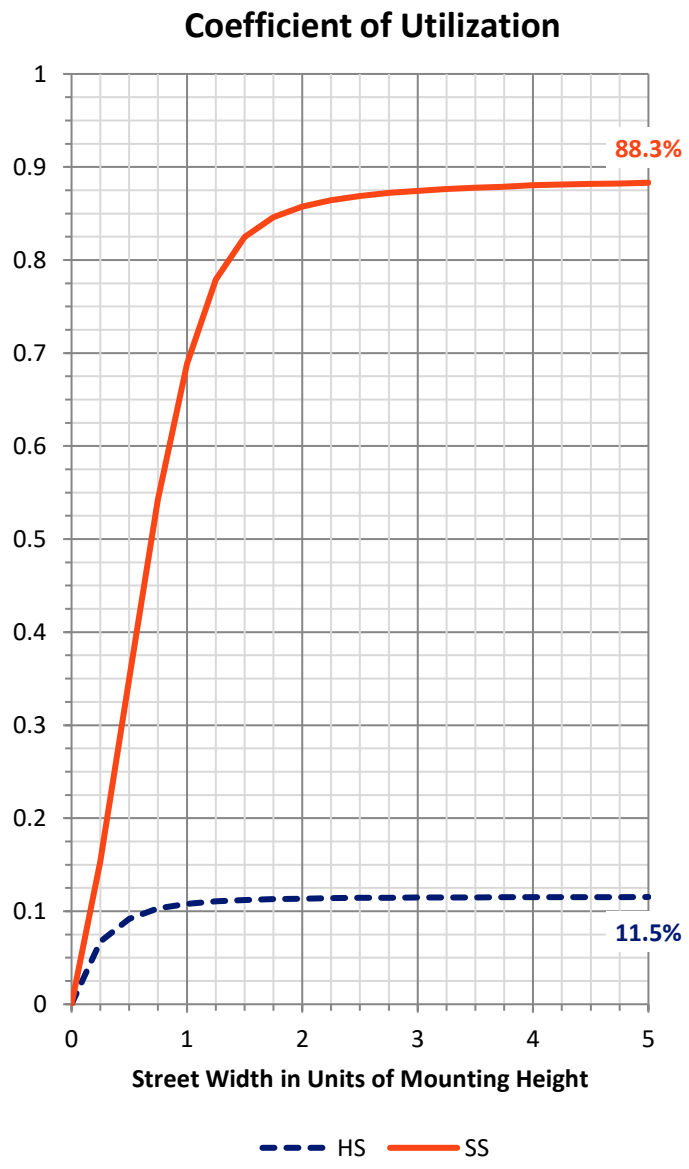
REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 531.4 | 0.0 | 531.4 |
| | % Fixture | 11.6 | 0.0 | 11.6 |
| **Street Side** | Lumens | 4044.2 | 0.0 | 4044.2 |
| | % Fixture | 88.4 | 0.0 | 88.4 |
| **Total** | Lumens | 4575.6 | 0.0 | 4575.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 60.1 | 1.3 |
| 10°-20° | 211.9 | 4.6 |
| 20°-30° | 438.8 | 9.6 |
| 30°-40° | 762.9 | 16.7 |
| 40°-50° | 996.2 | 21.8 |
| 50°-60° | 940.8 | 20.6 |
| 60°-70° | 715.5 | 15.6 |
| 70°-80° | 399.3 | 8.7 |
| 80°-90° | 50.0 | 1.1 |
| 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° | 4575.6 | 100.0 |
| 0°-180° | 4575.6 | 100.0 |

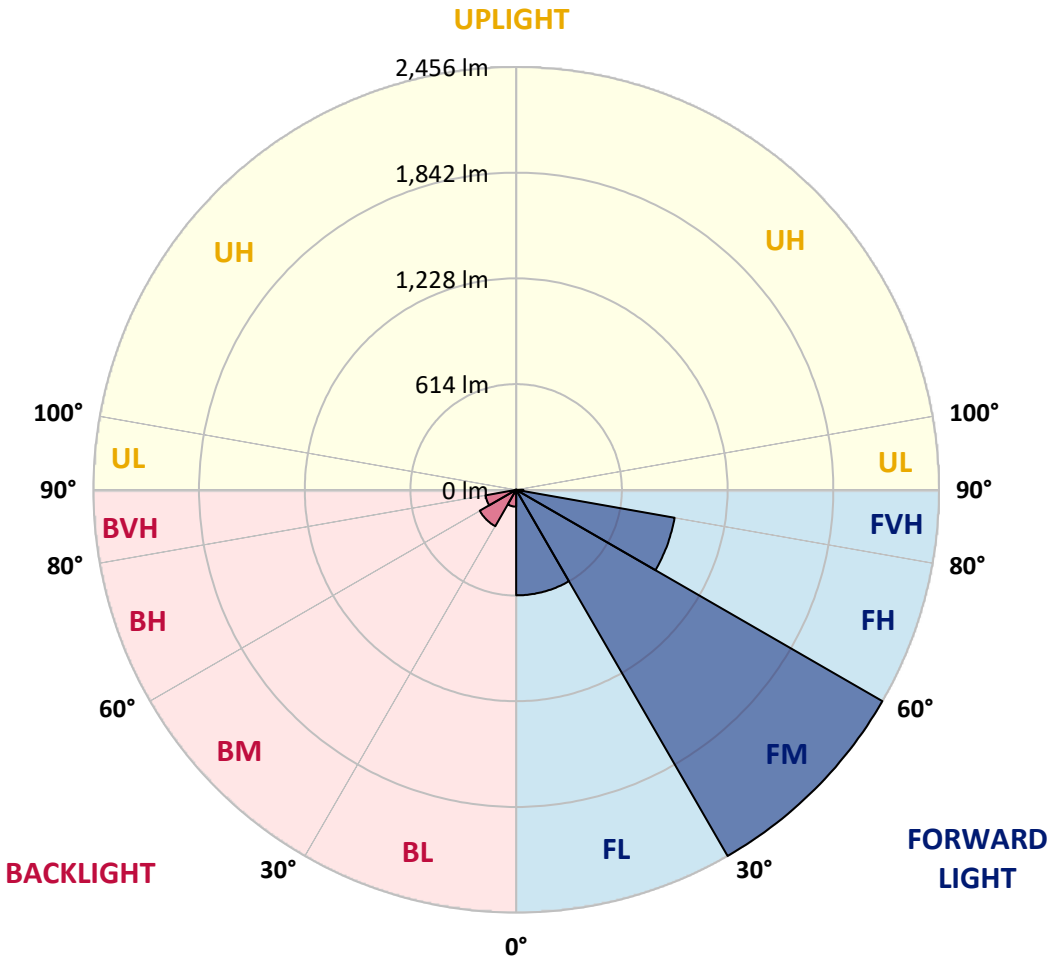


REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 613.0 | 13.4 | | | |
| FM | (30°-60°) | 2455.7 | 53.7 | | | |
| FH | (60°-80°) | 934.1 | 20.4 | | | G1/1800 |
| FVH | (80°-90°) | 41.5 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 97.8 | 2.1 | B0/110 | | |
| BM | (30°-60°) | 244.3 | 5.3 | B1/1000 | | |
| BH | (60°-80°) | 180.8 | 4.0 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.5 | 0.2 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type II Short



REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 3° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 595.0 | 595.0 | *595.0* | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 |
| 2.5° | 753.0 | 740.0 | *742.0* | 748.0 | 741.0 | 725.0 | 703.0 | 686.0 | 662.0 | 637.0 | 611.0 |
| 5° | 906.0 | 910.0 | *915.0* | 911.0 | 890.0 | 870.0 | 826.0 | 788.0 | 734.0 | 680.0 | 629.0 |
| 7.5° | 1062.0 | 1059.0 | *1065.0* | 1061.0 | 1035.0 | 999.0 | 943.0 | 882.0 | 809.0 | 729.0 | 650.0 |
| 10° | 1223.1 | 1217.1 | *1223.1* | 1209.1 | 1184.1 | 1134.1 | 1066.0 | 992.0 | 898.0 | 783.0 | 680.0 |
| 12.5° | 1369.1 | 1371.1 | *1375.1* | 1363.1 | 1322.1 | 1267.1 | 1186.1 | 1095.1 | 981.0 | 852.0 | 708.0 |
| 15° | 1506.1 | 1510.1 | *1509.1* | 1501.1 | 1463.1 | 1400.1 | 1310.1 | 1202.1 | 1072.1 | 921.0 | 747.0 |
| 17.5° | 1638.1 | 1640.1 | *1641.1* | 1629.1 | 1594.1 | 1523.1 | 1429.1 | 1305.1 | 1164.1 | 997.0 | 793.0 |
| 20° | 1770.1 | 1762.1 | *1765.1* | 1751.1 | 1707.1 | 1641.1 | 1543.1 | 1422.1 | 1261.1 | 1080.1 | 844.0 |
| 22.5° | 1896.1 | 1898.1 | *1903.1* | 1881.1 | 1832.1 | 1755.1 | 1650.1 | 1524.1 | 1363.1 | 1171.1 | 904.0 |
| 25° | 2094.1 | 2091.1 | *2104.1* | 2066.1 | 1972.1 | 1871.1 | 1765.1 | 1641.1 | 1472.1 | 1266.1 | 974.0 |
| 27.5° | 2325.1 | 2322.1 | *2321.1* | 2283.1 | 2164.1 | 2018.1 | 1876.1 | 1739.1 | 1582.1 | 1369.1 | 1048.0 |
| 30° | 2570.1 | 2568.1 | *2556.1* | 2505.1 | 2359.1 | 2181.1 | 2001.1 | 1843.1 | 1688.1 | 1463.1 | 1125.1 |
| 32.5° | 2770.1 | 2763.1 | *2766.1* | 2716.1 | 2563.1 | 2355.1 | 2145.1 | 1955.1 | 1789.1 | 1571.1 | 1208.1 |
| 35° | 2908.1 | 2901.1 | *2905.1* | 2863.1 | 2733.1 | 2543.1 | 2296.1 | 2067.1 | 1895.1 | 1684.1 | 1296.1 |
| 37° | *2936.1* | *2932.1* | *2937.1* | *2916.1* | *2824.1* | *2657.1* | *2426.1* | *2180.1* | *1990.1* | *1767.1* | *1374.1* |
| 37.5° | 2931.1 | 2927.1 | *2932.1* | 2917.1 | 2834.1 | 2666.1 | 2441.1 | 2201.1 | 2013.1 | 1794.1 | 1391.1 |
| 40° | 2849.1 | 2846.1 | *2855.1* | 2865.1 | 2830.1 | 2743.1 | 2561.1 | 2326.1 | 2136.1 | 1916.1 | 1490.1 |
| 42.5° | 2713.1 | 2718.1 | *2723.1* | 2746.1 | 2739.1 | 2714.1 | 2619.1 | 2434.1 | 2246.1 | 2036.1 | 1576.1 |
| 45° | 2536.1 | 2533.1 | *2546.1* | 2577.1 | 2589.1 | 2602.1 | 2605.1 | 2505.1 | 2356.1 | 2157.1 | 1663.1 |
| 47.5° | 2314.1 | 2318.1 | *2312.1* | 2363.1 | 2411.1 | 2462.1 | 2518.1 | 2519.1 | 2438.1 | 2290.1 | 1765.1 |
| 50° | 1959.1 | 1941.1 | *1958.1* | 2065.1 | 2204.1 | 2301.1 | 2377.1 | 2471.1 | 2500.1 | 2426.1 | 1871.1 |
| 52.5° | 1481.1 | 1482.1 | *1485.1* | 1652.1 | 1879.1 | 2103.1 | 2234.1 | 2371.1 | 2514.1 | 2545.1 | 1990.1 |
| 55° | 1030.0 | 996.0 | *992.0* | 1195.1 | 1505.1 | 1837.1 | 2069.1 | 2236.1 | 2474.1 | 2656.1 | 2115.1 |
| 57.5° | 636.0 | 620.0 | *635.0* | 781.0 | 1137.1 | 1487.1 | 1838.1 | 2113.1 | 2399.1 | 2739.1 | 2249.1 |
| 60° | 431.0 | 435.0 | *443.0* | 528.0 | 795.0 | 1142.1 | 1538.1 | 1984.1 | 2317.1 | 2792.1 | 2374.1 |
| 62.5° | 329.0 | 330.0 | *332.0* | 374.0 | 553.0 | 833.0 | 1175.1 | 1744.1 | 2260.1 | 2766.1 | 2446.1 |
| 65° | 266.0 | 268.0 | *269.0* | 290.0 | 386.0 | 618.0 | 845.0 | 1398.1 | 2185.1 | 2645.1 | 2466.1 |
| 67.5° | 221.0 | 219.0 | *221.0* | 240.0 | 296.0 | 466.0 | 609.0 | 1014.0 | 2019.1 | 2536.1 | 2426.1 |
| 70° | 183.0 | 183.0 | *183.0* | 203.0 | 242.0 | 361.0 | 442.0 | 686.0 | 1711.1 | 2455.1 | 2295.1 |
| 72.5° | 157.0 | 157.0 | *158.0* | 172.0 | 204.0 | 285.0 | 334.0 | 454.0 | 1331.1 | 2302.1 | 2024.1 |
| 75° | 130.0 | 130.0 | *131.0* | 145.0 | 172.0 | 223.0 | 259.0 | 318.0 | 928.0 | 1981.1 | 1637.1 |
| 77.5° | 93.0 | 93.0 | *92.0* | 111.0 | 137.0 | 164.0 | 190.0 | 224.0 | 573.0 | 1471.1 | 1229.1 |
| 80° | 53.0 | 56.0 | *57.0* | 65.0 | 96.0 | 116.0 | 131.0 | 152.0 | 301.0 | 847.0 | 710.0 |
| 82.5° | 26.0 | 31.0 | *31.0* | 41.0 | 58.0 | 70.0 | 79.0 | 92.0 | 134.0 | 343.0 | 311.0 |
| 85° | 10.0 | 11.0 | *13.0* | 15.0 | 21.0 | 28.0 | 33.0 | 34.0 | 42.0 | 86.0 | 84.0 |
| 87.5° | 1.0 | 1.0 | *1.0* | 2.0 | 3.0 | 5.0 | 5.0 | 5.0 | 7.0 | 6.0 | 4.0 |
| 90° | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

REPORT NUMBER: P1460996
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 | 595.0 |
| 2.5° | 599.0 | 586.0 | 562.0 | 538.0 | 517.0 | 498.0 | 485.0 | 468.0 | 461.0 | 455.0 | 452.0 |
| 5° | 602.0 | 578.0 | 531.0 | 485.0 | 446.0 | 412.0 | 380.0 | 365.0 | 343.0 | 338.0 | 332.0 |
| 7.5° | 610.0 | 573.0 | 502.0 | 436.0 | 377.0 | 326.0 | 284.0 | 256.0 | 234.0 | 223.0 | 225.0 |
| 10° | 624.0 | 574.0 | 475.0 | 385.0 | 311.0 | 249.0 | 202.0 | 179.0 | 165.0 | 159.0 | 160.0 |
| 12.5° | 638.0 | 574.0 | 452.0 | 342.0 | 251.0 | 187.0 | 157.0 | 143.0 | 137.0 | 133.0 | 132.0 |
| 15° | 660.0 | 579.0 | 430.0 | 295.0 | 198.0 | 152.0 | 132.0 | 123.0 | 118.0 | 115.0 | 116.0 |
| 17.5° | 685.0 | 585.0 | 409.0 | 252.0 | 162.0 | 131.0 | 118.0 | 110.0 | 105.0 | 103.0 | 102.0 |
| 20° | 713.0 | 598.0 | 387.0 | 214.0 | 139.0 | 117.0 | 106.0 | 99.0 | 93.0 | 92.0 | 92.0 |
| 22.5° | 751.0 | 614.0 | 369.0 | 187.0 | 124.0 | 106.0 | 96.0 | 90.0 | 85.0 | 83.0 | 83.0 |
| 25° | 797.0 | 636.0 | 357.0 | 167.0 | 114.0 | 97.0 | 87.0 | 81.0 | 77.0 | 75.0 | 75.0 |
| 27.5° | 849.0 | 665.0 | 348.0 | 158.0 | 108.0 | 90.0 | 81.0 | 75.0 | 71.0 | 69.0 | 69.0 |
| 30° | 903.0 | 698.0 | 342.0 | 157.0 | 106.0 | 84.0 | 75.0 | 69.0 | 65.0 | 63.0 | 63.0 |
| 32.5° | 962.0 | 731.0 | 341.0 | 162.0 | 109.0 | 80.0 | 70.0 | 64.0 | 60.0 | 57.0 | 58.0 |
| 35° | 1020.0 | 767.0 | 341.0 | 170.0 | 115.0 | 79.0 | 65.0 | 59.0 | 55.0 | 53.0 | 53.0 |
| 37° | *1075.1* | *797.0* | *339.0* | *177.0* | *121.0* | *79.0* | *62.0* | *56.0* | *52.0* | *50.0* | *50.0* |
| 37.5° | 1086.1 | 804.0 | 338.0 | 178.0 | 122.0 | 80.0 | 61.0 | 55.0 | 51.0 | 50.0 | 49.0 |
| 40° | 1158.1 | 847.0 | 339.0 | 183.0 | 127.0 | 80.0 | 57.0 | 51.0 | 48.0 | 46.0 | 46.0 |
| 42.5° | 1225.1 | 886.0 | 342.0 | 186.0 | 129.0 | 79.0 | 53.0 | 48.0 | 45.0 | 43.0 | 43.0 |
| 45° | 1276.1 | 909.0 | 340.0 | 186.0 | 128.0 | 76.0 | 50.0 | 45.0 | 43.0 | 41.0 | 41.0 |
| 47.5° | 1338.1 | 941.0 | 338.0 | 186.0 | 123.0 | 72.0 | 47.0 | 43.0 | 41.0 | 39.0 | 39.0 |
| 50° | 1401.1 | 979.0 | 343.0 | 185.0 | 114.0 | 66.0 | 44.0 | 41.0 | 39.0 | 38.0 | 37.0 |
| 52.5° | 1475.1 | 1019.0 | 349.0 | 183.0 | 105.0 | 59.0 | 42.0 | 39.0 | 37.0 | 35.0 | 35.0 |
| 55° | 1558.1 | 1061.0 | 359.0 | 178.0 | 93.0 | 52.0 | 40.0 | 38.0 | 34.0 | 32.0 | 32.0 |
| 57.5° | 1646.1 | 1107.1 | 368.0 | 167.0 | 81.0 | 46.0 | 39.0 | 35.0 | 30.0 | 26.0 | 26.0 |
| 60° | 1736.1 | 1165.1 | 374.0 | 146.0 | 70.0 | 42.0 | 37.0 | 32.0 | 25.0 | 22.0 | 22.0 |
| 62.5° | 1803.1 | 1226.1 | 375.0 | 108.0 | 58.0 | 39.0 | 35.0 | 28.0 | 22.0 | 20.0 | 19.0 |
| 65° | 1852.1 | 1278.1 | 361.0 | 74.0 | 47.0 | 36.0 | 33.0 | 25.0 | 19.0 | 16.0 | 16.0 |
| 67.5° | 1856.1 | 1308.1 | 320.0 | 51.0 | 39.0 | 34.0 | 30.0 | 22.0 | 12.0 | 10.0 | 9.0 |
| 70° | 1796.1 | 1275.1 | 245.0 | 42.0 | 34.0 | 30.0 | 24.0 | 16.0 | 10.0 | 8.0 | 8.0 |
| 72.5° | 1612.1 | 1144.1 | 158.0 | 37.0 | 30.0 | 26.0 | 21.0 | 14.0 | 9.0 | 6.0 | 6.0 |
| 75° | 1318.1 | 927.0 | 104.0 | 33.0 | 25.0 | 21.0 | 17.0 | 11.0 | 7.0 | 4.0 | 4.0 |
| 77.5° | 976.0 | 611.0 | 67.0 | 28.0 | 20.0 | 17.0 | 13.0 | 8.0 | 5.0 | 3.0 | 2.0 |
| 80° | 574.0 | 338.0 | 43.0 | 22.0 | 16.0 | 13.0 | 9.0 | 5.0 | 3.0 | 1.0 | 1.0 |
| 82.5° | 253.0 | 137.0 | 27.0 | 15.0 | 9.0 | 8.0 | 4.0 | 2.0 | 1.0 | 0.0 | 0.0 |
| 85° | 62.0 | 31.0 | 10.0 | 4.0 | 3.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.0 | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP2-2501-321-5

Test Date: 04/10/2025

Luminaire Tested: GKO-PB1E-750-U-T4W

Data in this report applies to families of products including GKO-PB1E-750-U-T4W

Report Generated By FNC07603 / LDUCLS01DT447
Version: v7.04

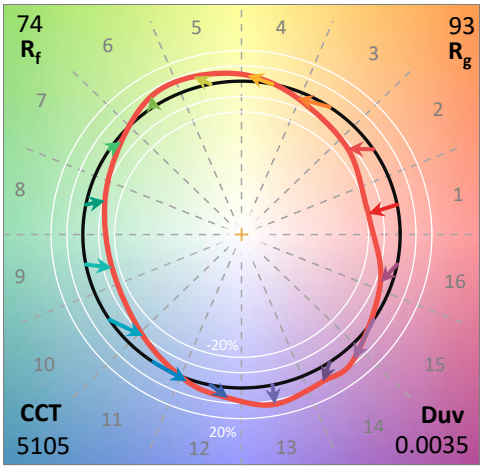
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP2-2501-321-5 |
| 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-750-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCT (K): | 5105 | CRI (Ra): | | 72.2 | | | |
| CIE u': | 0.2079 | R1: | | 68.8 | R9: | | -38.2 |
| CIE v': | 0.4868 | R2: | | 78.3 | R10: | | 48.2 |
| Duv: | 0.0035 | R3: | | 84.9 | R11: | | 68.1 |
| CIE x: | 0.3428 | R4: | | 71.7 | R12: | | 42.9 |
| CIE y: | 0.3567 | R5: | | 69.8 | R13: | | 70.6 |
| CIE z: | 0.3005 | R6: | | 69.8 | R14: | | 91.6 |
| Peak Wavelength (nm): | 451 | R7: | | 81.2 | R15: | | 61.7 |
| Dominant Wavelength (nm): | 567 | R8: | | 53.5 | | | |
| Purity: | 9.884628 | | | | | | |

| | |
|---|---|
| Rf: | 74.2 |
| Rg: | 92.7 |



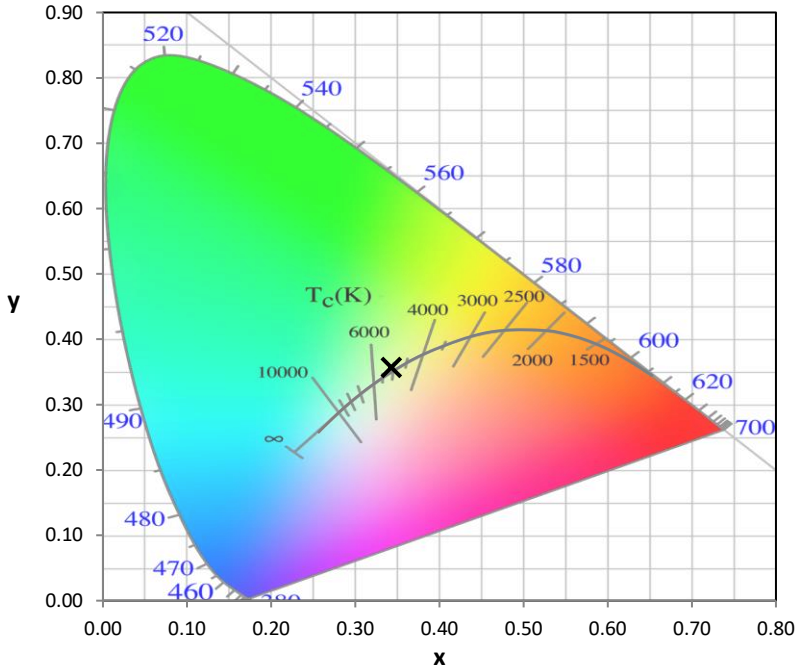

## Test Conditions

| | |
|---|---|
| Stabilization Time: | 30M |
| Operation Time: | 1H 30M |
| Sphere Temperature (°C): | 25.0 |

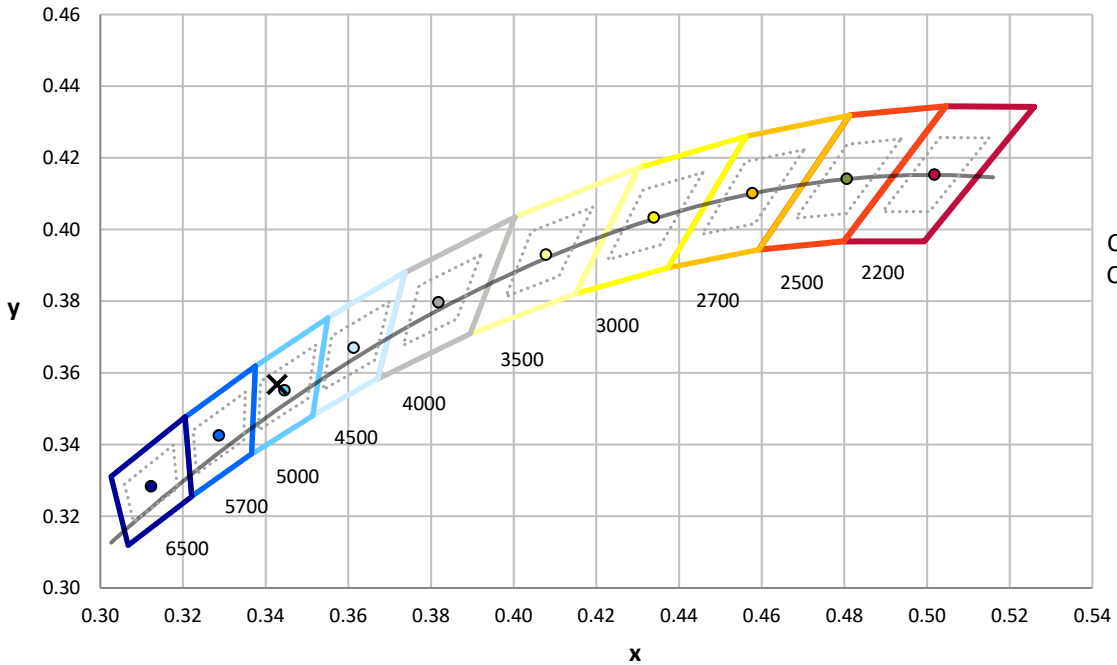
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power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

REPORT NUMBER: SP2-2501-321-5

**CIE 1931 Chromaticity Diagram**




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




CCT = 5105K
CIE x = 0.3428
CIE y = 0.3567
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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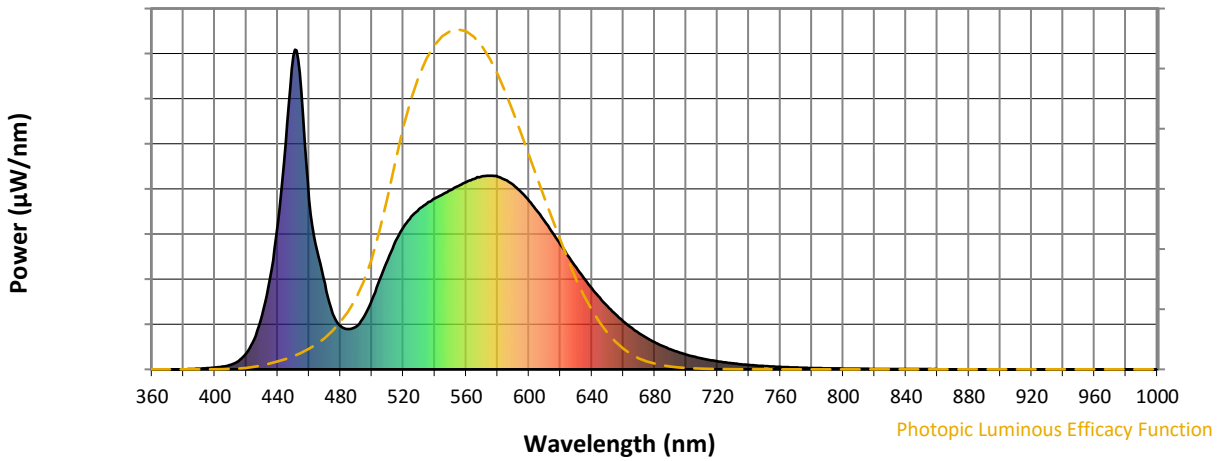
## Photopic Flux vs. Wavelength




**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 | 134 | NR | 620 | 390 | NR | 750 | 10 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 354 | NR | 755 | 9 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 218 | NR | 630 | 319 | NR | 760 | 8 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 281 | NR | 635 | 285 | NR | 765 | 7 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 343 | NR | 640 | 254 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 400 | NR | 645 | 224 | NR | 775 | 5 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 444 | NR | 650 | 197 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 477 | NR | 655 | 173 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 501 | NR | 660 | 150 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 9 | NR | 535 | 520 | NR | 665 | 131 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 14 | NR | 540 | 534 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 547 | NR | 675 | 98 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 50 | NR | 550 | 561 | NR | 680 | 85 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 574 | NR | 685 | 73 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 168 | NR | 560 | 586 | NR | 690 | 63 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 284 | NR | 565 | 596 | NR | 695 | 54 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 452 | NR | 570 | 604 | NR | 700 | 46 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 705 | NR | 575 | 606 | NR | 705 | 40 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 980 | NR | 580 | 603 | NR | 710 | 34 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 869 | NR | 585 | 592 | NR | 715 | 29 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 531 | NR | 590 | 577 | NR | 720 | 25 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 372 | NR | 595 | 554 | NR | 725 | 22 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 268 | NR | 600 | 527 | NR | 730 | 19 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 174 | NR | 605 | 497 | NR | 735 | 16 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 135 | NR | 610 | 462 | NR | 740 | 14 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 126 | NR | 615 | 428 | NR | 745 | 12 | NR | 875 | 0 | NR | | | |

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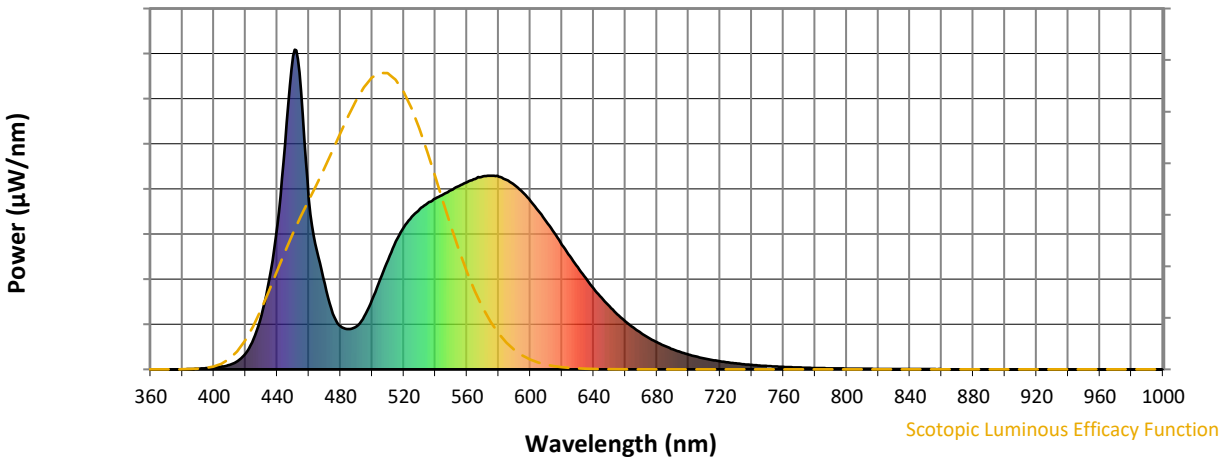
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.82**

| 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 | 134 | NR | 620 | 390 | NR | 750 | 10 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 354 | NR | 755 | 9 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 218 | NR | 630 | 319 | NR | 760 | 8 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 281 | NR | 635 | 285 | NR | 765 | 7 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 343 | NR | 640 | 254 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 400 | NR | 645 | 224 | NR | 775 | 5 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 444 | NR | 650 | 197 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 477 | NR | 655 | 173 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 501 | NR | 660 | 150 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 9 | NR | 535 | 520 | NR | 665 | 131 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 14 | NR | 540 | 534 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 547 | NR | 675 | 98 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 50 | NR | 550 | 561 | NR | 680 | 85 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 574 | NR | 685 | 73 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 168 | NR | 560 | 586 | NR | 690 | 63 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 284 | NR | 565 | 596 | NR | 695 | 54 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 452 | NR | 570 | 604 | NR | 700 | 46 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 705 | NR | 575 | 606 | NR | 705 | 40 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 980 | NR | 580 | 603 | NR | 710 | 34 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 869 | NR | 585 | 592 | NR | 715 | 29 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 531 | NR | 590 | 577 | NR | 720 | 25 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 372 | NR | 595 | 554 | NR | 725 | 22 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 268 | NR | 600 | 527 | NR | 730 | 19 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 174 | NR | 605 | 497 | NR | 735 | 16 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 135 | NR | 610 | 462 | NR | 740 | 14 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 126 | NR | 615 | 428 | NR | 745 | 12 | NR | 875 | 0 | NR | | | |

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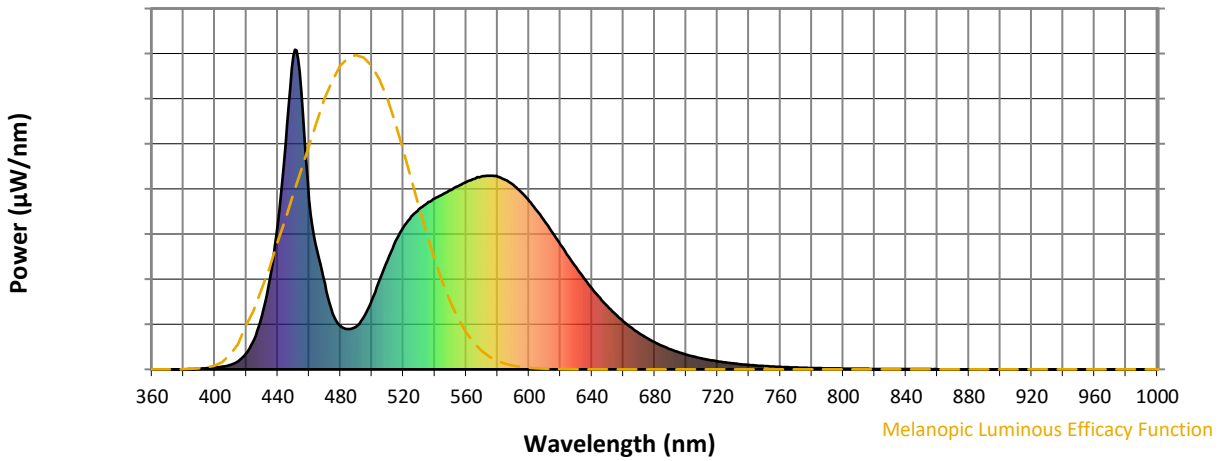
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.75**

| 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 | 134 | NR | 620 | 390 | NR | 750 | 10 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 165 | NR | 625 | 354 | NR | 755 | 9 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 218 | NR | 630 | 319 | NR | 760 | 8 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 281 | NR | 635 | 285 | NR | 765 | 7 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 343 | NR | 640 | 254 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 400 | NR | 645 | 224 | NR | 775 | 5 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 444 | NR | 650 | 197 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 477 | NR | 655 | 173 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 501 | NR | 660 | 150 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 9 | NR | 535 | 520 | NR | 665 | 131 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 14 | NR | 540 | 534 | NR | 670 | 113 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 547 | NR | 675 | 98 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 50 | NR | 550 | 561 | NR | 680 | 85 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 574 | NR | 685 | 73 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 168 | NR | 560 | 586 | NR | 690 | 63 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 284 | NR | 565 | 596 | NR | 695 | 54 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 452 | NR | 570 | 604 | NR | 700 | 46 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 705 | NR | 575 | 606 | NR | 705 | 40 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 980 | NR | 580 | 603 | NR | 710 | 34 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 869 | NR | 585 | 592 | NR | 715 | 29 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 531 | NR | 590 | 577 | NR | 720 | 25 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 372 | NR | 595 | 554 | NR | 725 | 22 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 268 | NR | 600 | 527 | NR | 730 | 19 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 174 | NR | 605 | 497 | NR | 735 | 16 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 135 | NR | 610 | 462 | NR | 740 | 14 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 126 | NR | 615 | 428 | NR | 745 | 12 | NR | 875 | 0 | NR | | | |

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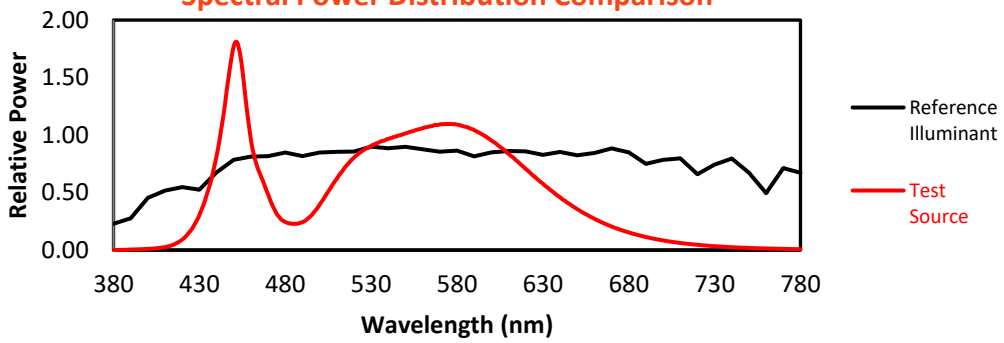
# TM-30-18

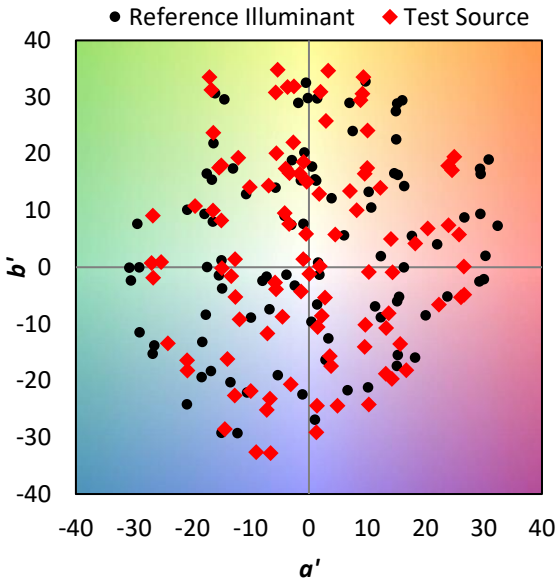
## Summary

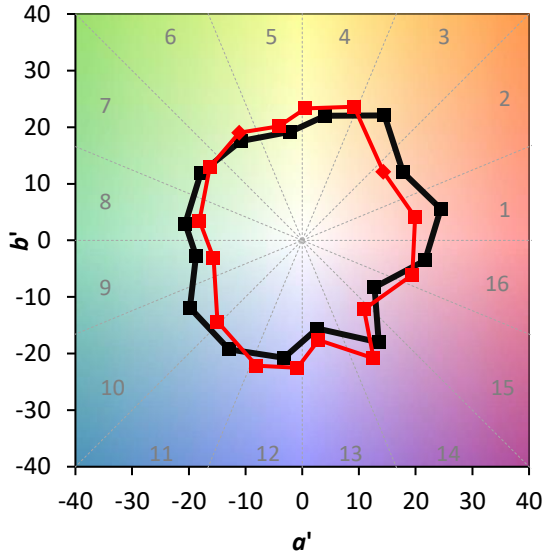
$R_f$ = 74.2
$R_g$ = 92.7
CIE $R_a$ = 72.2
$R_9$ = -38.2

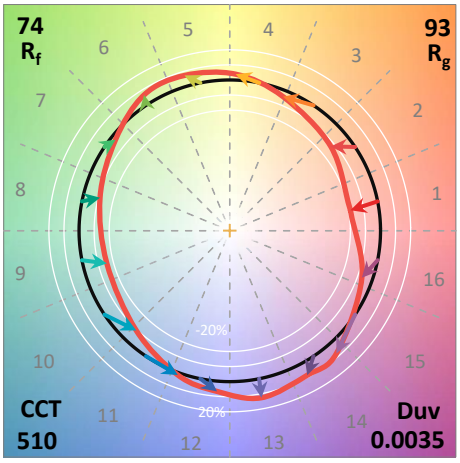
## Spectral Power Distribution Comparison

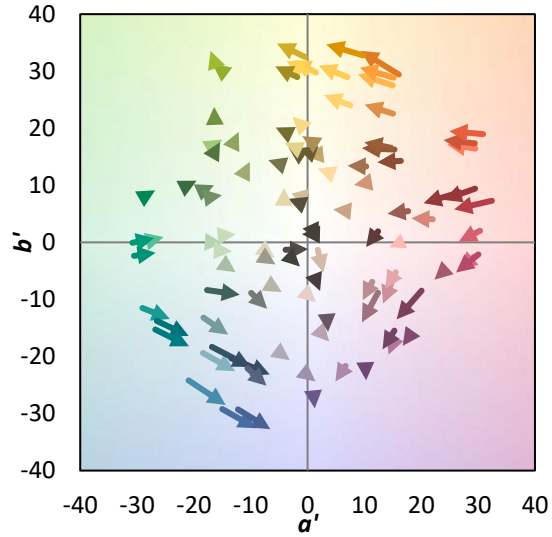



## Color Vector Graphics



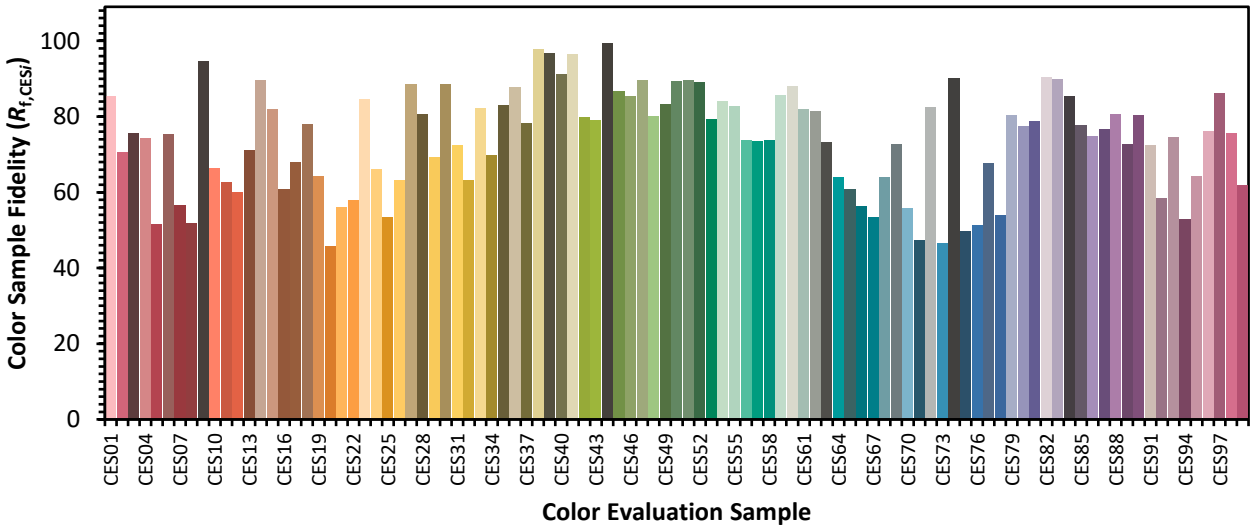



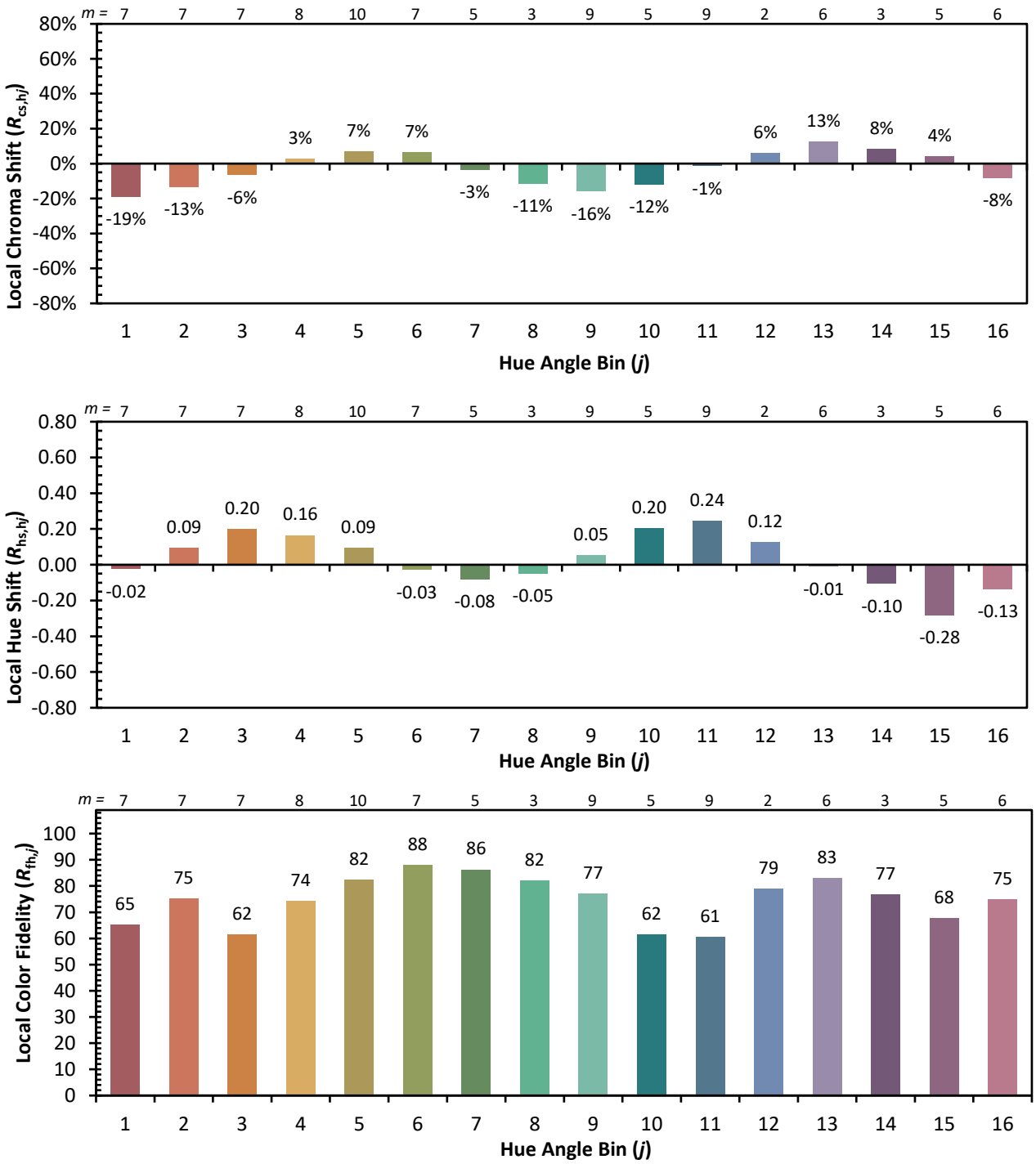



**Individual Sample Fidelity Index ($R_{f,i}$)**

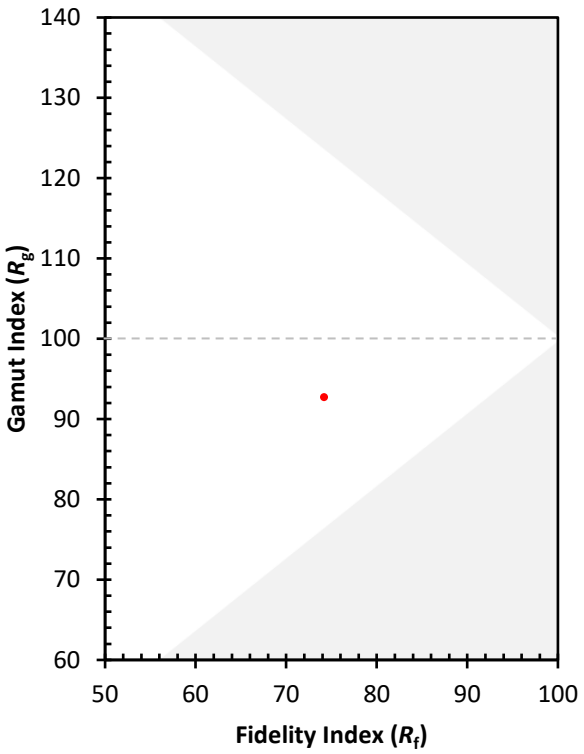
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 63 | CES51 = 89 | CES76 = 51 |
| CES02 = 59 | CES27 = 89 | CES52 = 89 | CES77 = 68 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 69 | CES54 = 84 | CES79 = 80 |
| CES05 = 46 | CES30 = 88 | CES55 = 83 | CES80 = 77 |
| CES06 = 50 | CES31 = 72 | CES56 = 74 | CES81 = 79 |
| CES07 = 38 | CES32 = 63 | CES57 = 73 | CES82 = 91 |
| CES08 = 38 | CES33 = 82 | CES58 = 74 | CES83 = 90 |
| CES09 = 29 | CES34 = 70 | CES59 = 86 | CES84 = 85 |
| CES10 = 72 | CES35 = 83 | CES60 = 88 | CES85 = 78 |
| CES11 = 56 | CES36 = 88 | CES61 = 82 | CES86 = 75 |
| CES12 = 61 | CES37 = 78 | CES62 = 81 | CES87 = 77 |
| CES13 = 41 | CES38 = 98 | CES63 = 73 | CES88 = 81 |
| CES14 = 74 | CES39 = 97 | CES64 = 64 | CES89 = 73 |
| CES15 = 70 | CES40 = 91 | CES65 = 61 | CES90 = 80 |
| CES16 = 46 | CES41 = 96 | CES66 = 56 | CES91 = 72 |
| CES17 = 49 | CES42 = 80 | CES67 = 54 | CES92 = 58 |
| CES18 = 55 | CES43 = 79 | CES68 = 64 | CES93 = 75 |
| CES19 = 71 | CES44 = 99 | CES69 = 73 | CES94 = 53 |
| CES20 = 63 | CES45 = 87 | CES70 = 56 | CES95 = 64 |
| CES21 = 85 | CES46 = 85 | CES71 = 47 | CES96 = 76 |
| CES22 = 77 | CES47 = 90 | CES72 = 82 | CES97 = 86 |
| CES23 = 91 | CES48 = 80 | CES73 = 47 | CES98 = 76 |
| CES24 = 90 | CES49 = 83 | CES74 = 90 | CES99 = 62 |
| CES25 = 71 | CES50 = 89 | CES75 = 50 | |

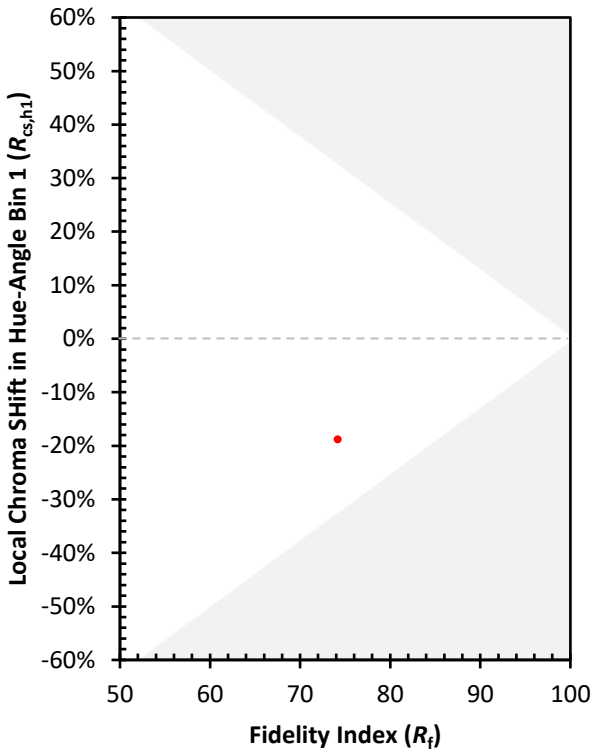


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)