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: P1460658

Luminaire Tested: PRV-PC1B-727-U-T2U

Issue Date: 06/10/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1460658 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/10/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-PC1B-727-U-T2U |
| Description: | PREVAIL DISCRETE LED 1 SQUARE AT 585MA 70CRI 2700K FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC |
| Light Source: | (40) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

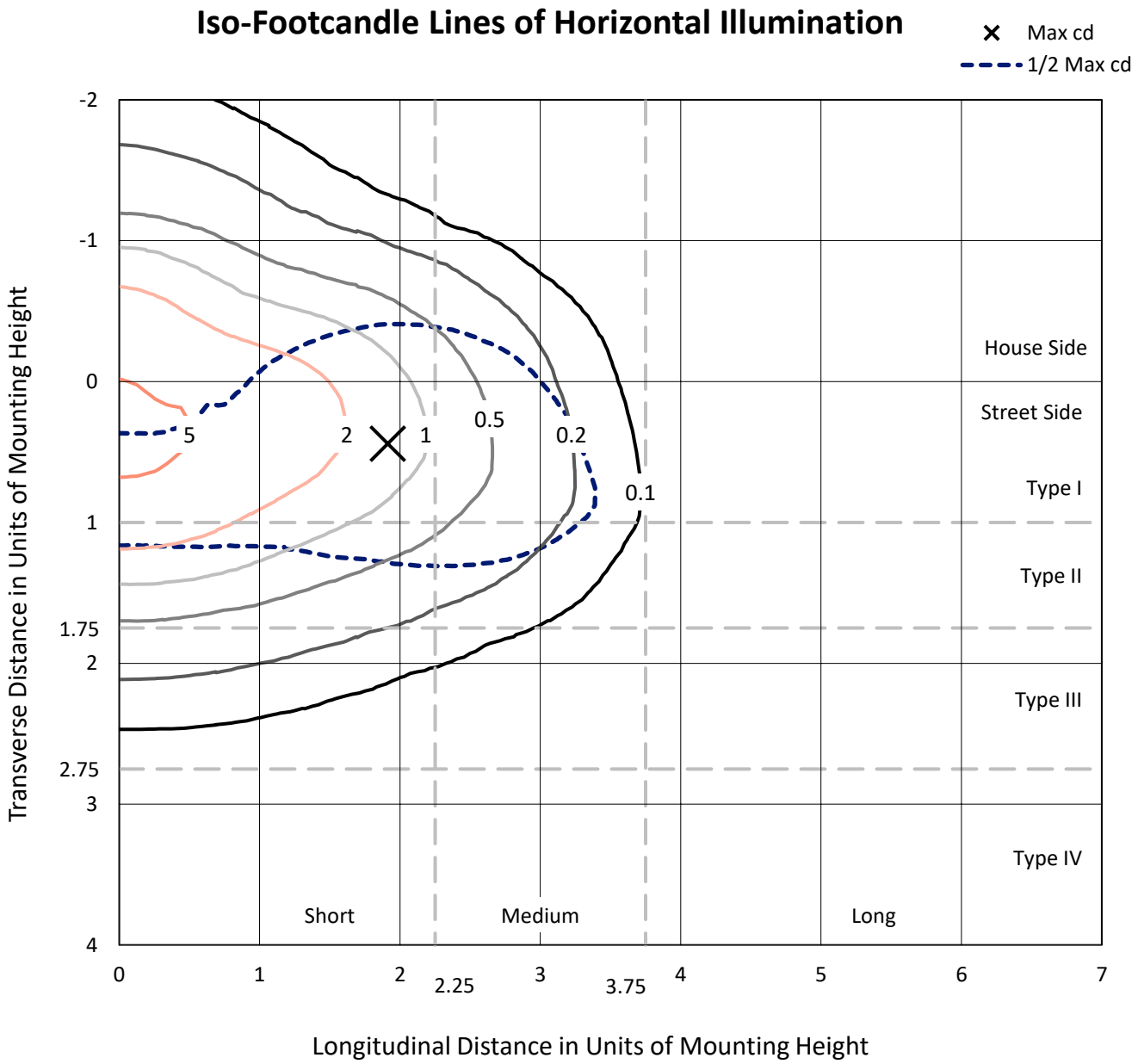
**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10888.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 149.2 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): | 73 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 2.73% |
| 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
Peachtree City, GA 30269

Scaled Data Report

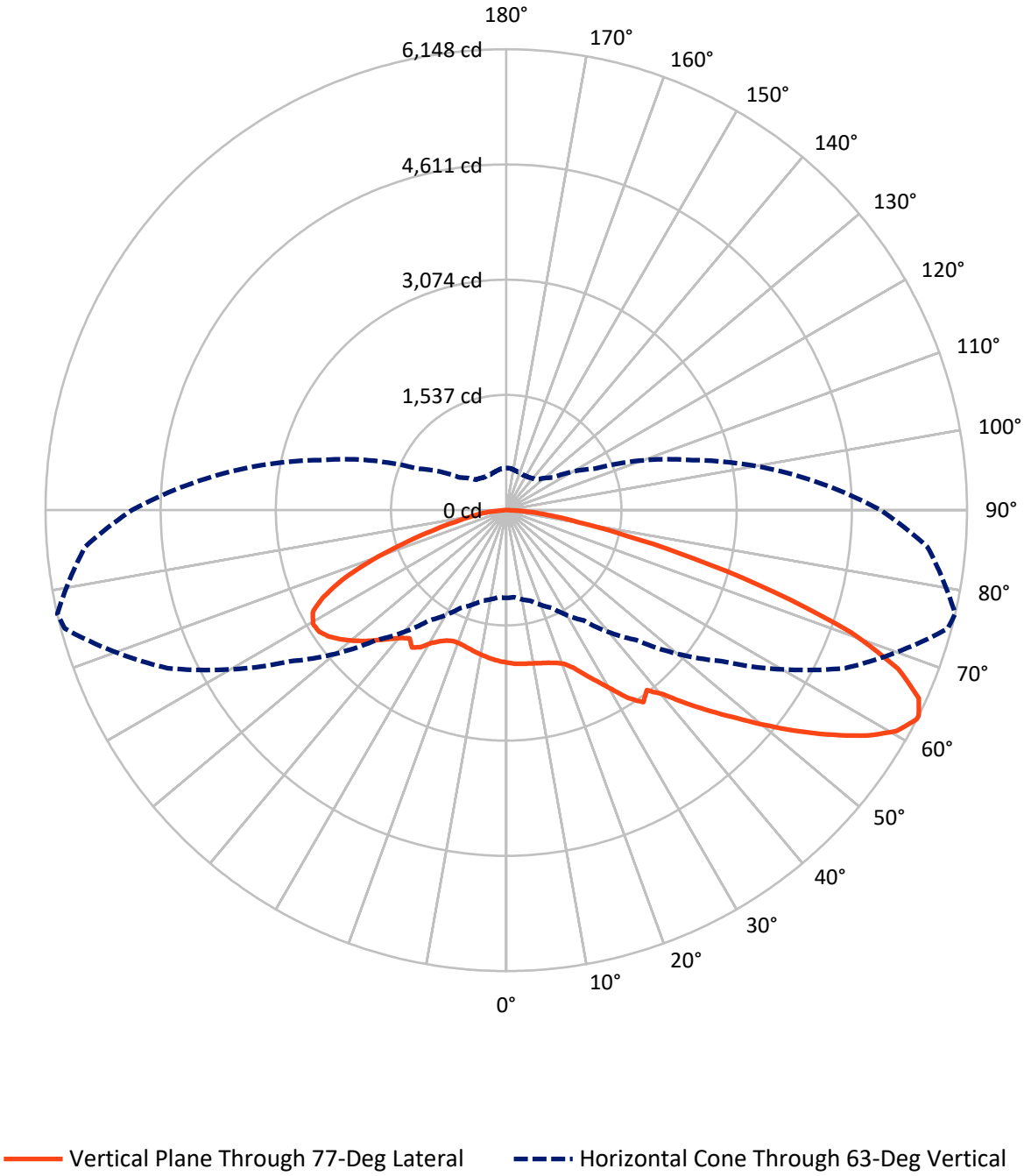
REPORT NUMBER: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U




Based on 20 foot mounting height. Maximum calculated value = 6.3 fc
Type II - Short - N/A

REPORT NUMBER: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U

## Luminous Intensity Polar Plot



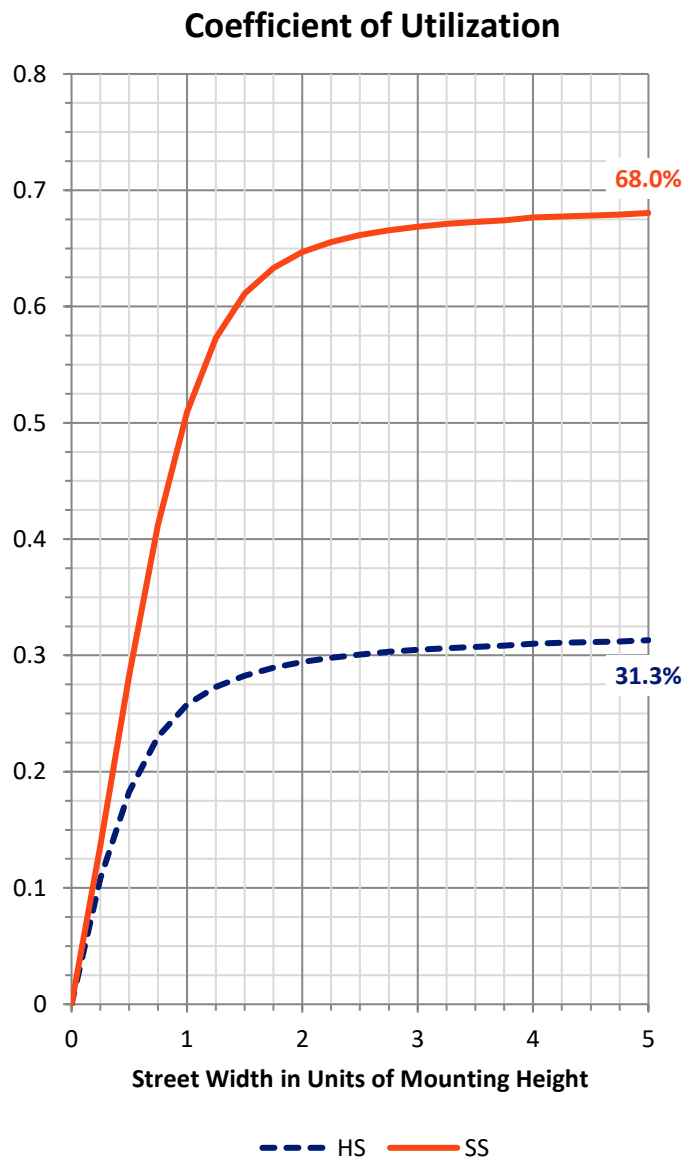
REPORT NUMBER: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3453.4 | 0.0 | 3453.4 |
| | % Fixture | 31.7 | 0.0 | 31.7 |
| **Street Side** | Lumens | 7434.8 | 0.0 | 7434.8 |
| | % Fixture | 68.3 | 0.0 | 68.3 |
| **Total** | Lumens | 10888.2 | 0.0 | 10888.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 194.3 | 1.8 |
| 10°-20° | 596.2 | 5.5 |
| 20°-30° | 1058.6 | 9.7 |
| 30°-40° | 1577.1 | 14.5 |
| 40°-50° | 2021.6 | 18.6 |
| 50°-60° | 2271.1 | 20.9 |
| 60°-70° | 2005.4 | 18.4 |
| 70°-80° | 958.8 | 8.8 |
| 80°-90° | 205.1 | 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° | 10888.2 | 100.0 |
| 0°-180° | 10888.2 | 100.0 |

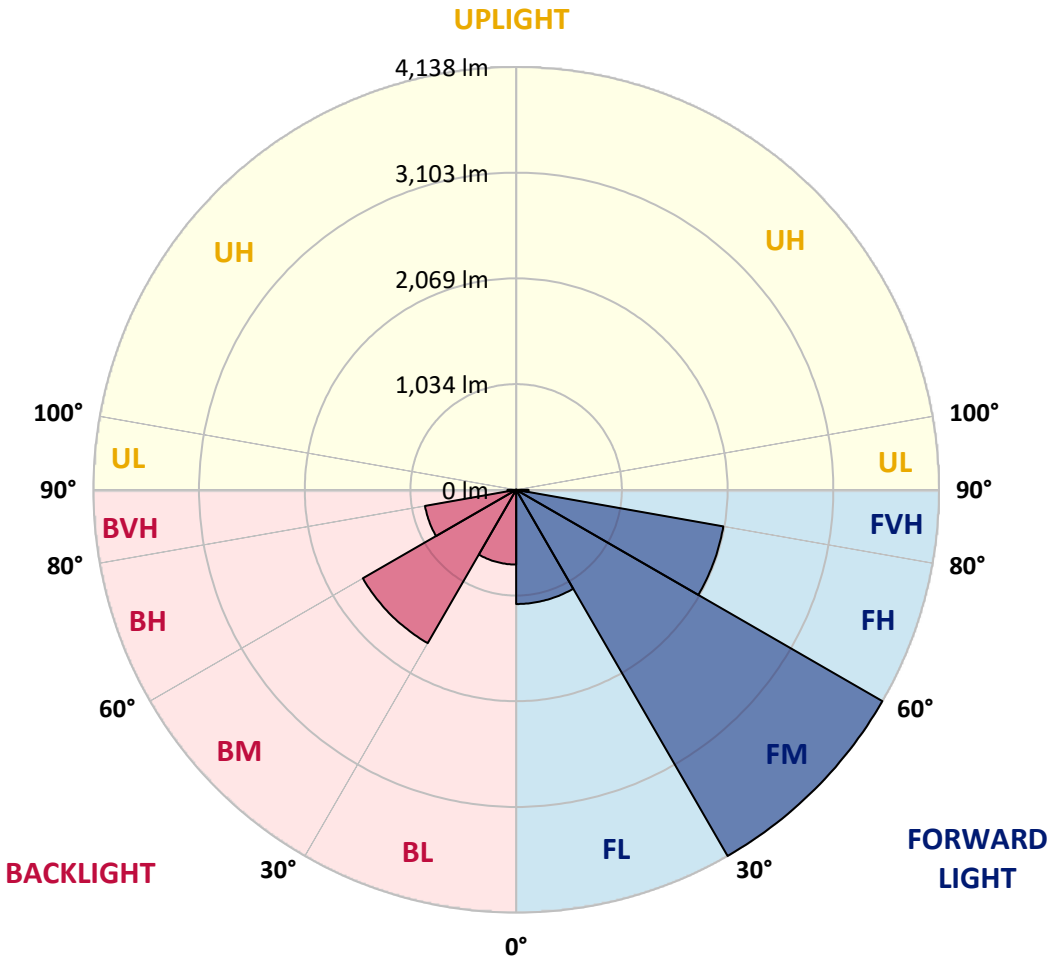


REPORT NUMBER: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1117.6 | 10.3 | | | |
| FM | (30°-60°) | 4137.9 | 38.0 | | | |
| FH | (60°-80°) | 2058.7 | 18.9 | | | G2/5000 |
| FVH | (80°-90°) | 120.6 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 731.6 | 6.7 | B2/1000 | | |
| BM | (30°-60°) | 1731.9 | 15.9 | B2/2500 | | |
| BH | (60°-80°) | 905.4 | 8.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 84.5 | 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: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | *2032.8* | 2032.8 |
| 2.5° | 2081.9 | 2091.0 | 2082.4 | 2081.4 | 2077.9 | 2067.7 | 2068.3 | 2055.1 | 2045.5 | *2050.0* | 2037.4 |
| 5° | 2160.4 | 2161.4 | 2156.8 | 2149.2 | 2136.1 | 2115.8 | 2097.6 | 2078.4 | 2055.6 | *2057.6* | 2037.9 |
| 7.5° | 2264.6 | 2267.1 | 2249.9 | 2234.7 | 2208.4 | 2171.5 | 2140.1 | 2099.6 | 2065.2 | *2066.2* | 2033.8 |
| 10° | 2380.5 | 2383.0 | 2368.3 | 2342.0 | 2299.5 | 2245.4 | 2187.2 | 2132.5 | 2079.9 | *2077.4* | 2030.3 |
| 12.5° | 2511.6 | 2514.6 | 2503.5 | 2457.9 | 2402.3 | 2327.9 | 2250.4 | 2169.5 | 2100.1 | *2093.0* | 2035.9 |
| 15° | 2658.3 | 2663.9 | 2637.1 | 2592.0 | 2519.7 | 2420.5 | 2321.3 | 2216.0 | 2123.4 | *2112.3* | 2041.4 |
| 17.5° | 2870.4 | 2852.1 | 2832.9 | 2771.2 | 2662.4 | 2539.9 | 2400.2 | 2272.2 | 2153.8 | *2141.6* | 2051.0 |
| 20° | 3085.4 | 3086.9 | 3067.2 | 3028.7 | 2896.2 | 2738.3 | 2524.7 | 2353.7 | 2201.9 | *2185.2* | 2081.4 |
| 22.5° | 3069.2 | 3069.7 | 3078.8 | 3096.6 | 3081.9 | 2998.9 | 2803.0 | 2536.4 | 2311.2 | *2278.8* | 2140.1 |
| 25° | 3122.9 | 3132.0 | 3125.9 | 3112.8 | 3048.5 | 3005.5 | 2963.0 | 2765.1 | 2472.1 | *2428.1* | 2250.4 |
| 27.5° | 3250.4 | 3265.6 | 3256.0 | 3244.3 | 3171.0 | 3089.0 | 2964.5 | 2866.8 | 2636.6 | *2583.4* | 2374.4 |
| 30° | 3387.5 | 3393.1 | 3379.4 | 3361.2 | 3308.1 | 3236.7 | 3118.3 | 2947.3 | 2804.6 | *2767.6* | 2550.5 |
| 32.5° | 3490.3 | 3491.8 | 3485.2 | 3489.3 | 3435.1 | 3387.0 | 3304.0 | 3132.5 | 2998.9 | *2986.2* | 2840.0 |
| 35° | 3566.2 | 3582.9 | 3577.8 | 3595.5 | 3563.1 | 3538.9 | 3494.3 | 3409.8 | 3197.3 | *3147.2* | 2924.5 |
| 37.5° | 3640.6 | 3659.3 | 3674.5 | 3683.6 | 3653.2 | 3650.7 | 3642.6 | 3506.0 | 3114.3 | *3046.5* | 2792.4 |
| 40° | 3663.8 | 3674.5 | 3737.7 | 3774.2 | 3727.6 | 3725.1 | 3708.4 | 3535.3 | 3276.2 | *3229.7* | 2970.6 |
| 42.5° | 3639.6 | 3637.5 | 3712.9 | 3740.8 | 3766.1 | 3791.9 | 3824.3 | 3758.5 | 3549.5 | *3521.6* | 3238.8 |
| 45° | 3485.7 | 3462.4 | 3502.9 | 3647.1 | 3734.7 | 3834.4 | 3971.5 | 4001.4 | 3864.8 | *3824.3* | 3533.8 |
| 47.5° | 3288.9 | 3273.7 | 3324.3 | 3494.8 | 3650.2 | 3848.6 | 4089.4 | 4265.0 | 4182.1 | *4144.1* | 3874.4 |
| 50° | 2979.2 | 2996.9 | 3102.1 | 3289.4 | 3512.5 | 3826.3 | 4184.6 | 4519.6 | 4543.4 | *4515.5* | 4217.5 |
| 52.5° | 2574.3 | 2587.0 | 2811.7 | 3051.5 | 3322.8 | 3684.1 | 4226.1 | 4782.2 | 4919.4 | *4903.7* | 4568.2 |
| 55° | 2140.6 | 2178.6 | 2340.0 | 2710.4 | 3036.3 | 3506.5 | 4197.2 | 4994.3 | 5316.6 | *5289.8* | 4936.6 |
| 57.5° | 1771.7 | 1811.2 | 1922.5 | 2258.0 | 2697.8 | 3237.7 | 4089.9 | 5144.6 | 5671.4 | *5673.9* | 5280.7 |
| 60° | 1439.7 | 1474.6 | 1556.6 | 1827.4 | 2300.5 | 2917.4 | 3875.4 | 5174.9 | 5957.8 | *5981.6* | 5530.2 |
| 62.5° | 1205.9 | 1220.1 | 1297.5 | 1490.8 | 1901.3 | 2534.3 | 3574.8 | 5037.8 | 6099.0 | *6145.6* | 5644.6 |
| 63° | *1171.5* | *1164.9* | *1252.0* | *1437.2* | *1795.5* | *2449.3* | *3512.5* | *4985.2* | *6099.5* | *6147.6* | *5644.0* |
| 65° | 994.4 | 1004.0 | 1060.2 | 1217.1 | 1511.6 | 2094.6 | 3155.3 | 4708.3 | 5979.6 | *6048.9* | 5517.0 |
| 67.5° | 779.8 | 788.9 | 865.9 | 993.4 | 1202.9 | 1698.3 | 2684.1 | 4219.5 | 5573.2 | *5635.4* | 5085.4 |
| 70° | 618.4 | 622.4 | 671.5 | 787.4 | 977.2 | 1323.3 | 2109.2 | 3536.3 | 4829.8 | *4878.4* | 4308.1 |
| 72.5° | 501.5 | 514.7 | 547.0 | 617.4 | 740.4 | 1005.5 | 1591.5 | 2788.9 | 3813.6 | *3740.8* | 3167.4 |
| 75° | 420.5 | 424.6 | 457.0 | 491.9 | 555.7 | 724.2 | 1148.2 | 2056.1 | 2600.1 | *2594.6* | 2064.2 |
| 77.5° | 355.3 | 363.3 | 370.9 | 387.6 | 424.1 | 515.2 | 806.7 | 1428.1 | 1655.8 | *1627.5* | 1190.2 |
| 80° | 299.6 | 302.6 | 299.6 | 302.6 | 316.3 | 348.7 | 523.8 | 935.2 | 1055.6 | *981.7* | 724.2 |
| 82.5° | 209.0 | 224.2 | 226.2 | 236.3 | 241.4 | 255.1 | 350.2 | 609.3 | 672.0 | *604.2* | 426.6 |
| 85° | 124.0 | 122.5 | 128.5 | 145.7 | 162.4 | 160.9 | 222.2 | 304.6 | 362.3 | *337.0* | 205.0 |
| 87.5° | 44.0 | 41.5 | 41.5 | 51.1 | 55.2 | 59.7 | 72.9 | 95.1 | 90.1 | *90.6* | 51.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 |

REPORT NUMBER: P1460658
CATALOG NUMBER: PRV-PC1B-727-U-T2U

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 | 2032.8 |
| 2.5° | 2030.8 | 2022.2 | 2018.2 | 2011.1 | 1999.9 | 1993.9 | 1988.3 | 1980.7 | 1978.2 | 1971.6 | 1970.6 |
| 5° | 2023.7 | 2015.1 | 1998.4 | 1980.2 | 1965.0 | 1953.4 | 1932.1 | 1919.5 | 1907.8 | 1905.8 | 1908.8 |
| 7.5° | 2012.6 | 2002.0 | 1975.6 | 1949.3 | 1919.5 | 1899.7 | 1872.4 | 1854.7 | 1844.6 | 1842.6 | 1846.6 |
| 10° | 2008.0 | 1988.8 | 1950.3 | 1912.9 | 1875.4 | 1844.6 | 1814.7 | 1792.5 | 1777.8 | 1775.8 | 1771.2 |
| 12.5° | 2003.5 | 1979.2 | 1926.6 | 1879.5 | 1825.9 | 1789.9 | 1757.5 | 1739.3 | 1724.1 | 1722.1 | 1721.1 |
| 15° | 2001.5 | 1970.6 | 1902.3 | 1839.0 | 1779.8 | 1736.8 | 1704.4 | 1689.7 | 1685.2 | 1682.1 | 1683.7 |
| 17.5° | 2004.5 | 1964.5 | 1881.0 | 1798.0 | 1730.2 | 1686.7 | 1661.4 | 1651.8 | 1650.3 | 1651.3 | 1654.8 |
| 20° | 2020.7 | 1969.1 | 1863.3 | 1763.6 | 1686.7 | 1642.2 | 1623.4 | 1618.4 | 1618.4 | 1623.9 | 1627.5 |
| 22.5° | 2057.1 | 1993.4 | 1854.2 | 1735.8 | 1650.3 | 1608.8 | 1587.0 | 1580.9 | 1587.5 | 1597.6 | 1600.2 |
| 25° | 2153.3 | 2063.7 | 1872.4 | 1720.1 | 1621.9 | 1572.3 | 1549.0 | 1548.0 | 1555.1 | 1564.2 | 1565.2 |
| 27.5° | 2263.1 | 2151.8 | 1914.9 | 1717.6 | 1595.6 | 1534.9 | 1510.1 | 1507.0 | 1510.6 | 1519.7 | 1519.7 |
| 30° | 2413.9 | 2269.2 | 1979.2 | 1735.8 | 1577.4 | 1493.9 | 1464.5 | 1454.9 | 1459.0 | 1470.6 | 1467.1 |
| 32.5° | 2652.7 | 2456.4 | 2078.9 | 1767.7 | 1560.7 | 1452.9 | 1413.9 | 1405.8 | 1405.8 | 1414.9 | 1419.0 |
| 35° | 2768.1 | 2595.1 | 2129.0 | 1755.5 | 1523.2 | 1405.3 | 1358.8 | 1347.1 | 1362.3 | 1379.5 | 1382.0 |
| 37.5° | 2650.7 | 2474.1 | 2058.6 | 1702.4 | 1470.1 | 1349.1 | 1304.6 | 1295.0 | 1308.2 | 1324.9 | 1326.9 |
| 40° | 2791.4 | 2586.5 | 2112.8 | 1703.9 | 1436.7 | 1296.5 | 1244.4 | 1213.5 | 1215.5 | 1228.7 | 1225.7 |
| 42.5° | 3027.7 | 2778.8 | 2192.7 | 1711.0 | 1396.2 | 1239.3 | 1161.9 | 1108.3 | 1100.7 | 1102.7 | 1105.7 |
| 45° | 3298.5 | 2995.3 | 2287.4 | 1712.5 | 1344.6 | 1169.0 | 1060.7 | 994.4 | 975.7 | 964.5 | 961.5 |
| 47.5° | 3587.9 | 3227.1 | 2390.6 | 1709.0 | 1278.3 | 1078.4 | 958.0 | 891.7 | 855.7 | 839.0 | 840.6 |
| 50° | 3901.7 | 3467.0 | 2482.7 | 1692.3 | 1207.5 | 982.3 | 860.8 | 796.0 | 755.5 | 745.9 | 741.4 |
| 52.5° | 4198.8 | 3702.3 | 2571.3 | 1668.0 | 1128.0 | 884.1 | 769.2 | 713.5 | 679.6 | 670.5 | 668.5 |
| 55° | 4513.0 | 3936.1 | 2645.7 | 1626.0 | 1038.4 | 791.5 | 688.7 | 651.3 | 627.5 | 621.4 | 622.4 |
| 57.5° | 4782.2 | 4142.1 | 2685.6 | 1564.7 | 952.4 | 709.5 | 630.0 | 605.2 | 590.6 | 593.6 | 595.6 |
| 60° | 4982.6 | 4245.8 | 2677.5 | 1476.7 | 864.9 | 642.7 | 582.0 | 568.8 | 568.8 | 593.6 | 601.2 |
| 62.5° | 5013.5 | 4225.1 | 2596.1 | 1350.2 | 769.7 | 586.5 | 540.5 | 527.8 | 540.5 | 570.8 | 576.9 |
| 63° | *4995.3* | *4190.7* | *2574.8* | *1309.2* | *755.0* | *574.4* | *531.4* | *519.2* | *536.4* | *560.7* | *560.7* |
| 65° | 4815.6 | 4007.5 | 2386.1 | 1172.5 | 677.6 | 534.4 | 499.5 | 493.4 | 517.2 | 533.4 | 535.9 |
| 67.5° | 4375.9 | 3632.5 | 2063.2 | 970.6 | 596.6 | 488.9 | 457.5 | 468.1 | 485.8 | 498.5 | 502.5 |
| 70° | 3678.0 | 3009.0 | 1650.8 | 780.8 | 520.2 | 441.3 | 423.6 | 430.1 | 446.3 | 457.5 | 461.5 |
| 72.5° | 2676.5 | 2267.6 | 1238.3 | 623.5 | 452.9 | 395.2 | 385.6 | 385.1 | 395.7 | 399.8 | 405.9 |
| 75° | 1735.3 | 1517.7 | 904.3 | 503.0 | 386.6 | 348.2 | 337.5 | 334.5 | 354.7 | 362.8 | 370.9 |
| 77.5° | 1034.4 | 940.3 | 645.7 | 413.4 | 329.4 | 285.9 | 292.0 | 292.0 | 312.7 | 338.0 | 349.7 |
| 80° | 625.5 | 574.9 | 478.7 | 343.1 | 259.1 | 233.8 | 239.9 | 243.4 | 294.0 | 342.6 | 347.2 |
| 82.5° | 377.0 | 370.4 | 355.3 | 265.7 | 200.9 | 178.6 | 190.8 | 214.1 | 276.8 | 212.0 | 244.4 |
| 85° | 185.7 | 199.9 | 228.2 | 148.3 | 125.0 | 122.0 | 128.0 | 189.3 | 183.2 | 84.5 | 79.5 |
| 87.5° | 47.6 | 56.7 | 53.6 | 39.5 | 33.9 | 31.4 | 42.5 | 70.8 | 58.2 | 20.2 | 12.1 |
| 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: SP2-2501-321-3

Test Date: 04/09/2025

Luminaire Tested: GKO-PB1E-727-U-T4W

Data in this report applies to families of products including GKO-PB1E-727-U-T4W

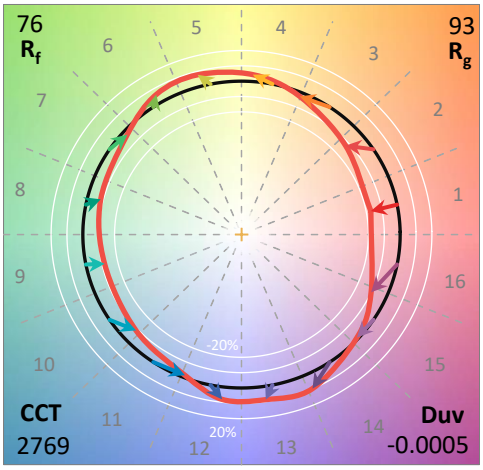
Report Generated By FNC07603 / LDUCLS01DT447
Version: v7.04

## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP2-2501-321-3 |
| 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-727-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCT (K): | 2769 | CRI (Ra): | | 71.7 | | | |
| CIE u': | 0.2596 | R1: | | 68.0 | R9: | | -34.5 |
| CIE v': | 0.5253 | R2: | | 84.0 | R10: | | 64.3 |
| Duv: | -0.0005 | R3: | | 94.6 | R11: | | 60.9 |
| CIE x: | 0.4535 | R4: | | 65.9 | R12: | | 54.4 |
| CIE y: | 0.4078 | R5: | | 67.3 | R13: | | 71.2 |
| CIE z: | 0.1387 | R6: | | 78.7 | R14: | | 97.6 |
| Peak Wavelength (nm): | 597 | R7: | | 75.2 | R15: | | 59.5 |
| Dominant Wavelength (nm): | 584 | R8: | | 39.8 | | | |
| Purity: | 58.54014 | | | | | | |
| Rf: | 75.7 | | | | | | |
| Rg: | 93.2 | | | | | | |



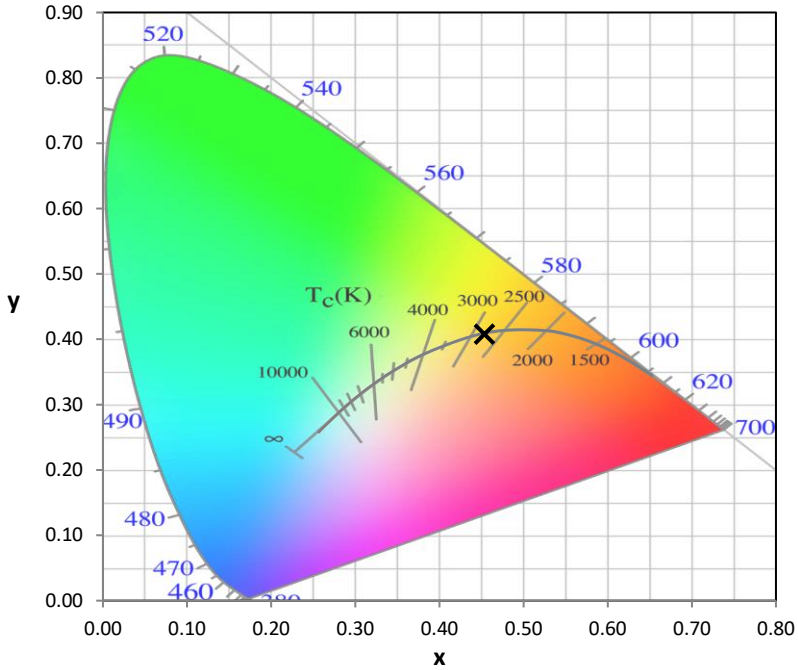

## Test Conditions

| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.0 |

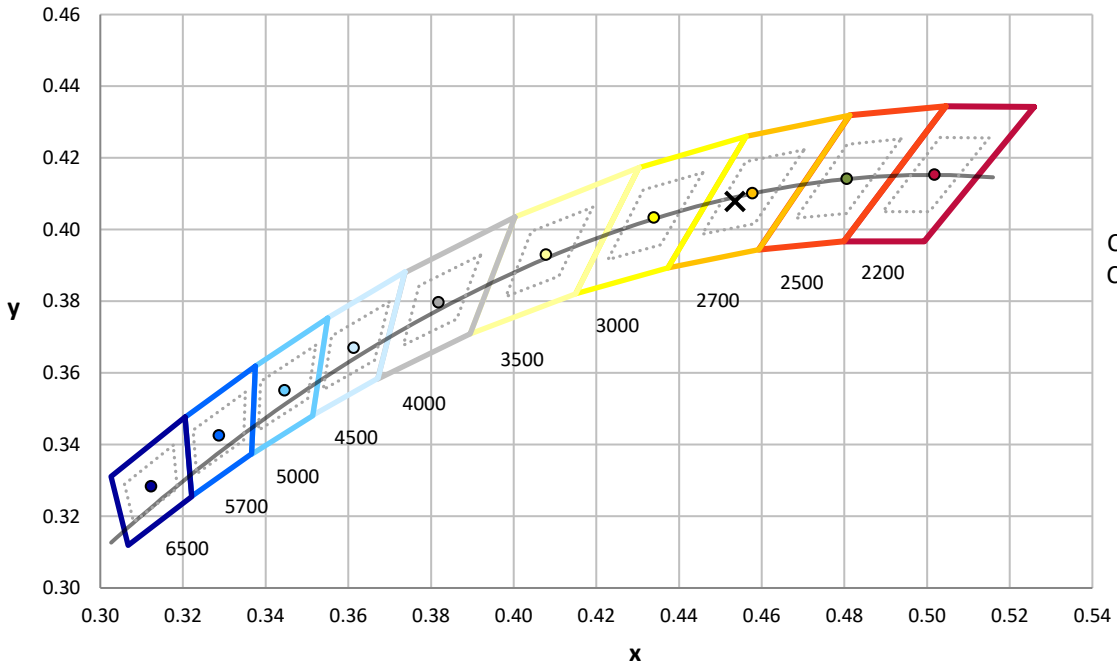
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power 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: SP2-2501-321-3

**CIE 1931 Chromaticity Diagram**




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

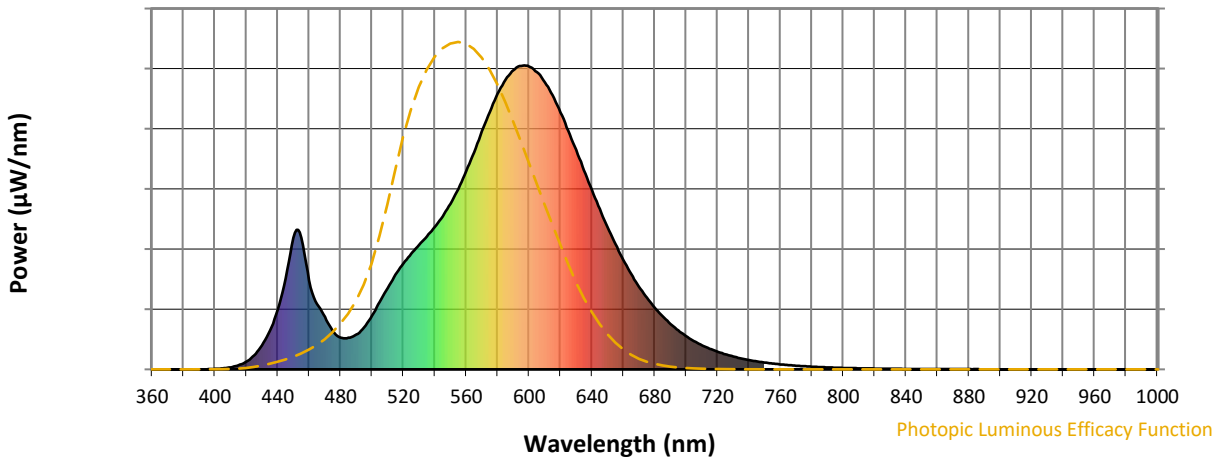



CCT = 2769K
CIE x = 0.4535
CIE y = 0.4078
Duv = -0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP2-2501-321-3

## Photopic Flux vs. Wavelength

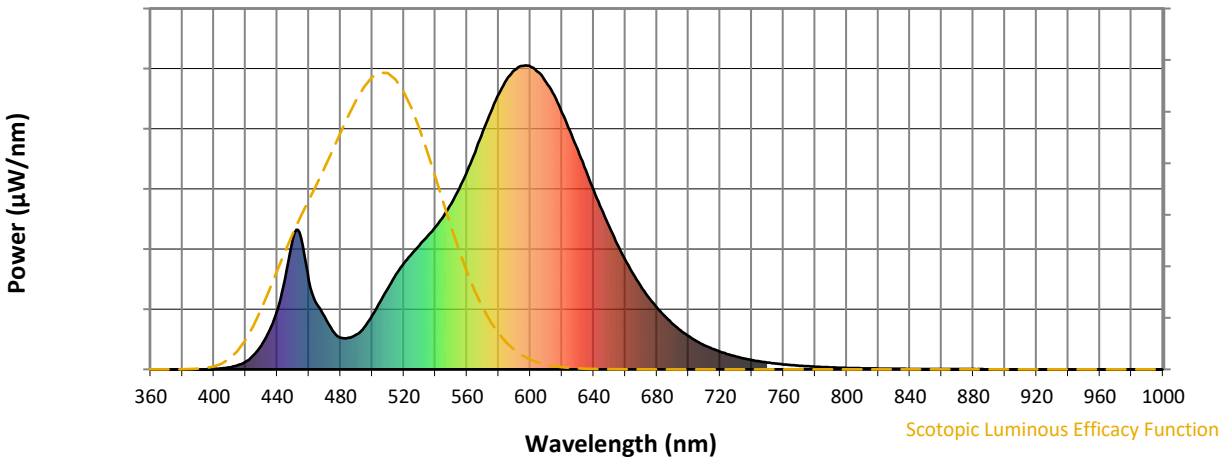



**Photopic Lumens: NR**

| 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 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP2-2501-321-3

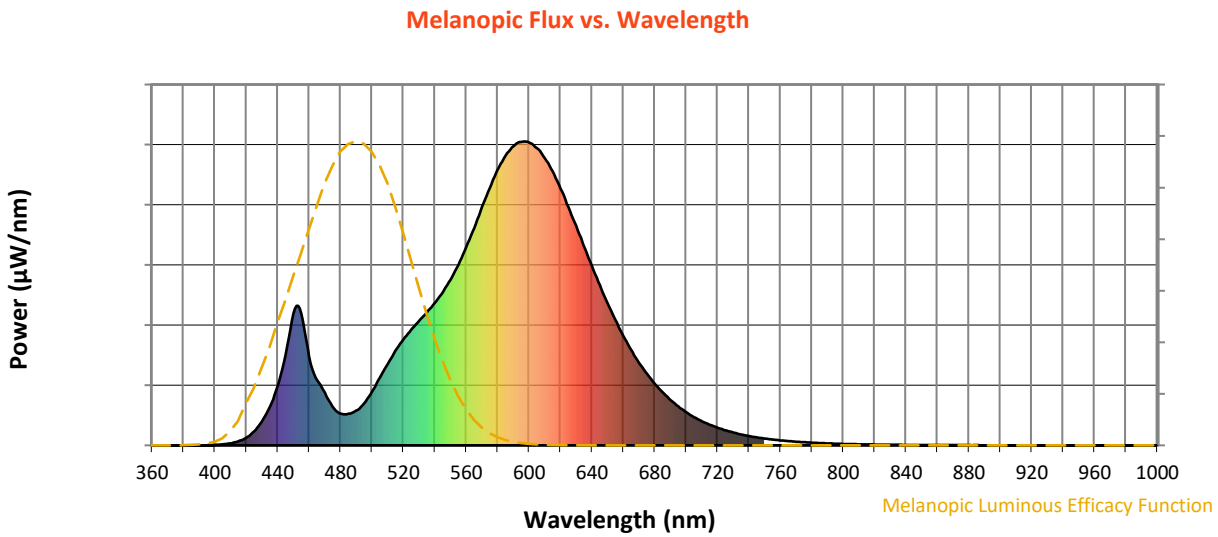
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.14**

| 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 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP2-2501-321-3




**Melanopic Lumens: NR** **M/P: 2.08**

| 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 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

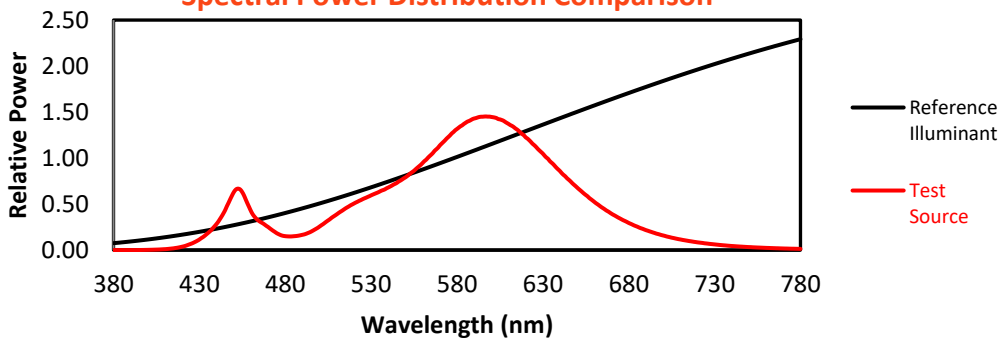
REPORT NUMBER: SP2-2501-321-3

# TM-30-18

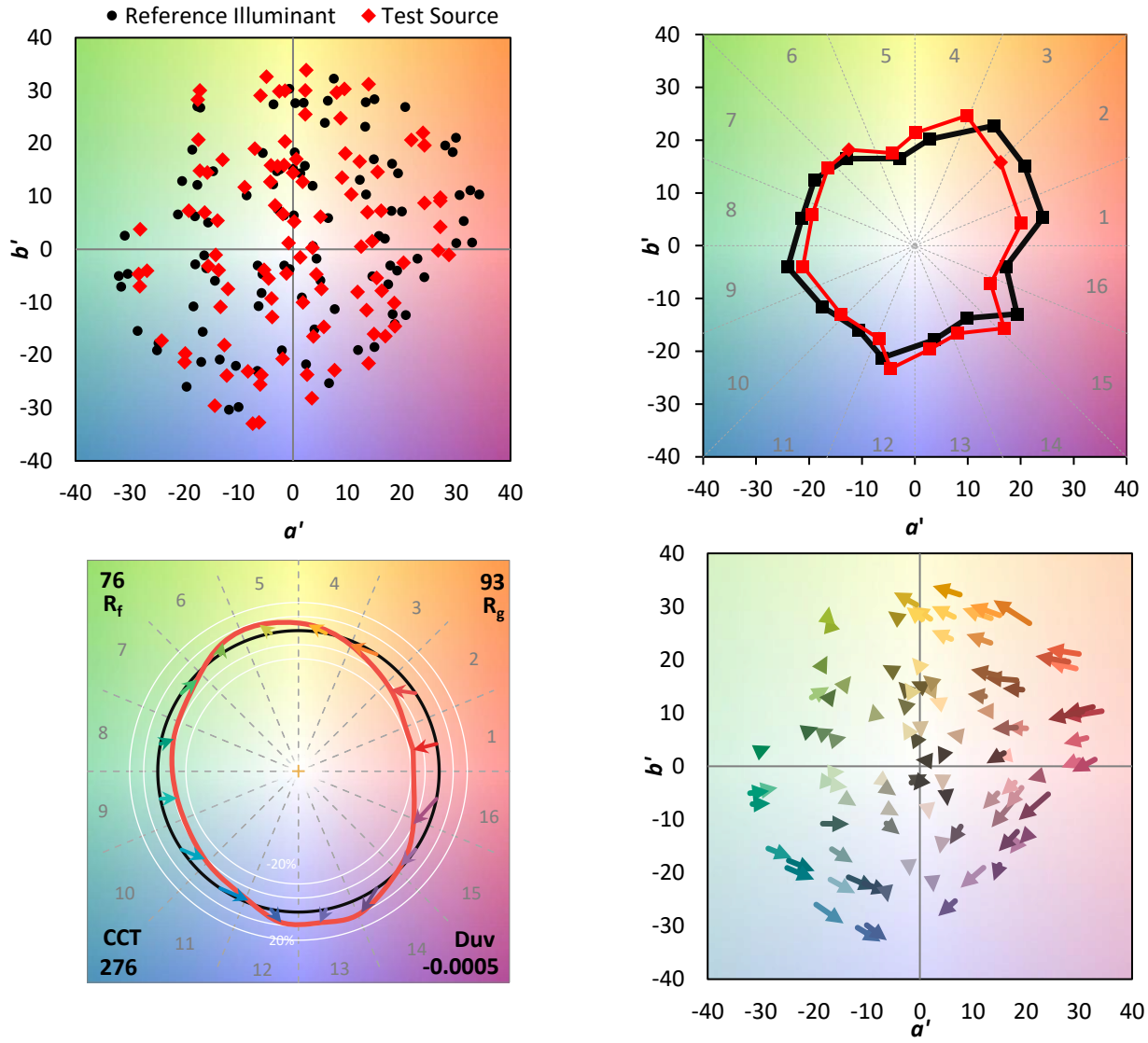
## Summary

$R_f$ = 75.7
$R_g$ = 93.2
CIE $R_a$ = 71.7
$R_9$ = -34.5

## Spectral Power Distribution Comparison

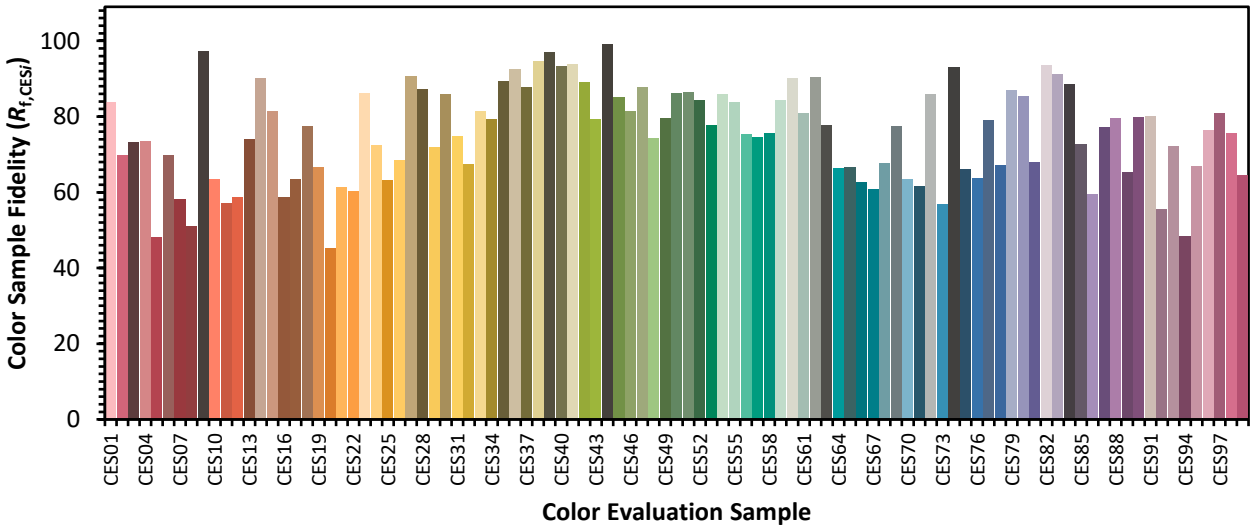



## Color Vector Graphics

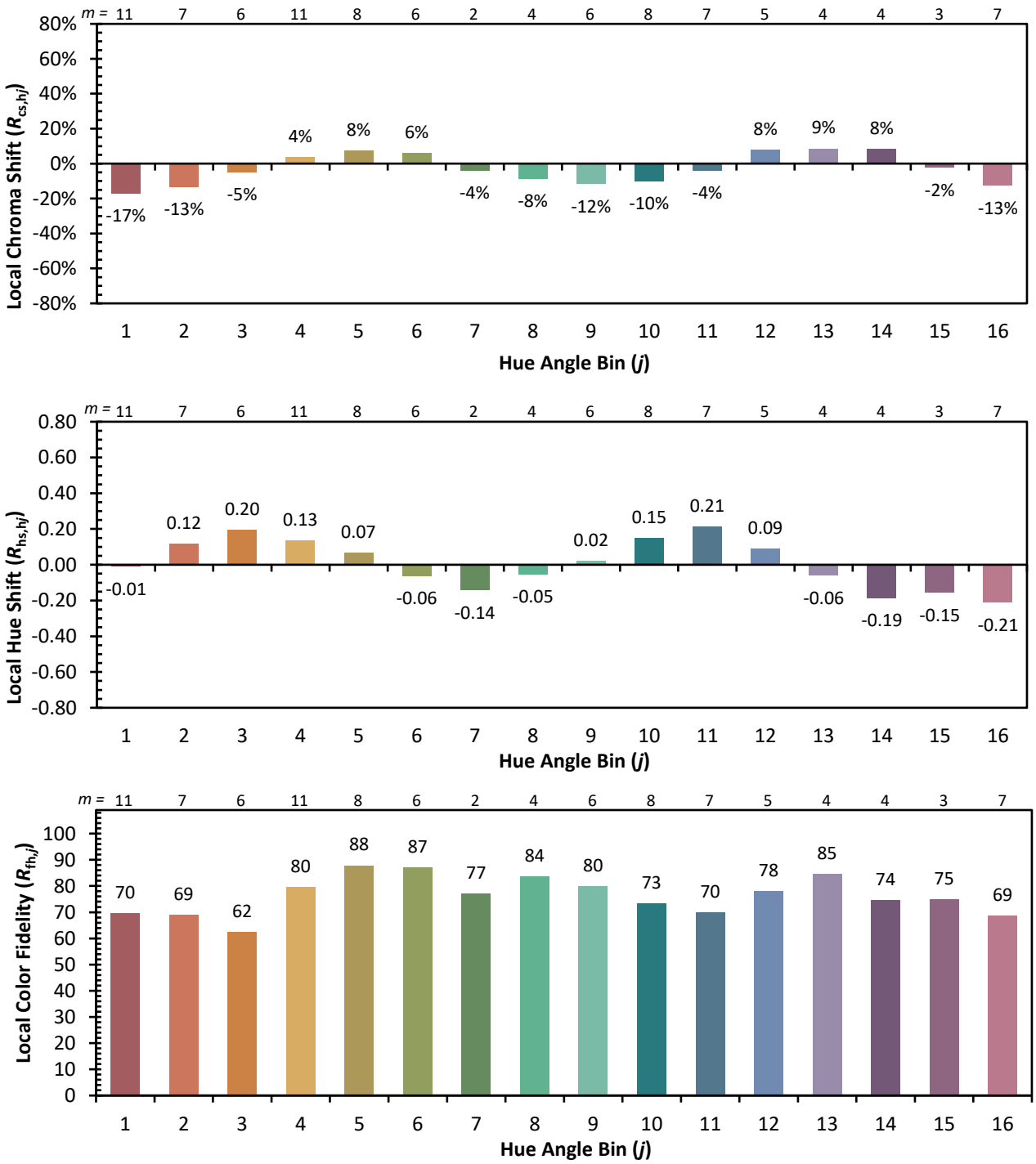


**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 68 | CES51 = 87 | CES76 = 64 |
| CES02 = 63 | CES27 = 91 | CES52 = 84 | CES77 = 79 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 72 | CES54 = 86 | CES79 = 87 |
| CES05 = 50 | CES30 = 86 | CES55 = 84 | CES80 = 85 |
| CES06 = 52 | CES31 = 75 | CES56 = 75 | CES81 = 68 |
| CES07 = 42 | CES32 = 67 | CES57 = 74 | CES82 = 94 |
| CES08 = 41 | CES33 = 81 | CES58 = 76 | CES83 = 91 |
| CES09 = 29 | CES34 = 79 | CES59 = 84 | CES84 = 89 |
| CES10 = 77 | CES35 = 89 | CES60 = 90 | CES85 = 73 |
| CES11 = 60 | CES36 = 92 | CES61 = 81 | CES86 = 59 |
| CES12 = 66 | CES37 = 88 | CES62 = 90 | CES87 = 77 |
| CES13 = 43 | CES38 = 95 | CES63 = 78 | CES88 = 79 |
| CES14 = 74 | CES39 = 97 | CES64 = 66 | CES89 = 65 |
| CES15 = 72 | CES40 = 93 | CES65 = 67 | CES90 = 80 |
| CES16 = 48 | CES41 = 94 | CES66 = 63 | CES91 = 80 |
| CES17 = 50 | CES42 = 89 | CES67 = 61 | CES92 = 55 |
| CES18 = 57 | CES43 = 79 | CES68 = 68 | CES93 = 72 |
| CES19 = 73 | CES44 = 99 | CES69 = 77 | CES94 = 48 |
| CES20 = 67 | CES45 = 85 | CES70 = 63 | CES95 = 67 |
| CES21 = 87 | CES46 = 81 | CES71 = 62 | CES96 = 76 |
| CES22 = 80 | CES47 = 88 | CES72 = 86 | CES97 = 81 |
| CES23 = 92 | CES48 = 74 | CES73 = 57 | CES98 = 76 |
| CES24 = 91 | CES49 = 80 | CES74 = 93 | CES99 = 64 |
| CES25 = 73 | CES50 = 86 | CES75 = 66 | |

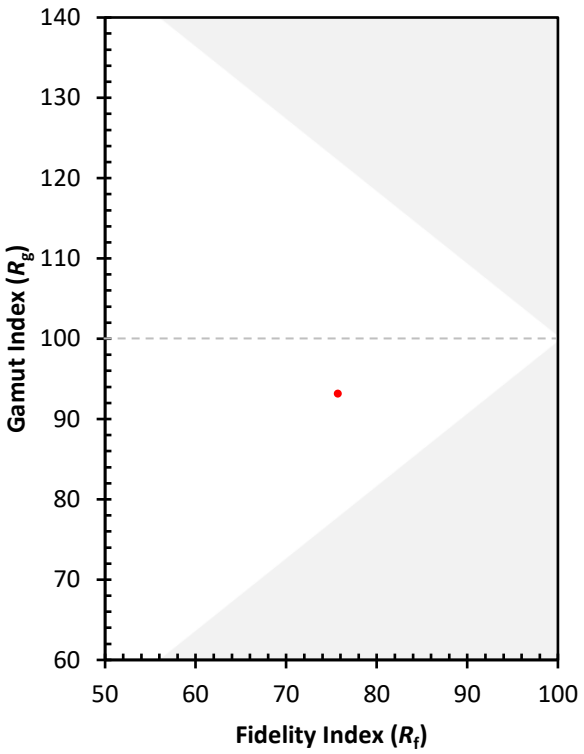


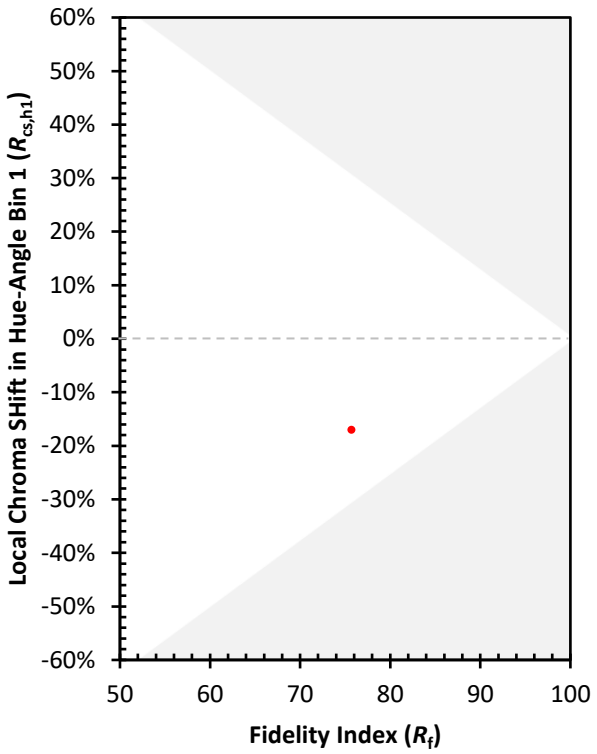
## Color Rendition by Hue-Angle Bin



## TM-30-18

### Measure Comparisons




(END OF REPORT)