

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

Cooper Lighting Solutions Photometric Lab  
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: STREETWORKS

Report Number: P1462116

Luminaire Tested: PRV-P-90-727-U-T2U

Issue Date: 06/10/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1462116  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 6/11/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: STREETWORKS  
Catalog Number: PRV-P-90-727-U-T2U  
Description: PREVAIL PETITE DISCRETE LED 2 SQUARES 90W 70CRI 2700K FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (20) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11214.7 lumens  
Efficiency: N/A  
Efficacy: 118.7 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 94.5  
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

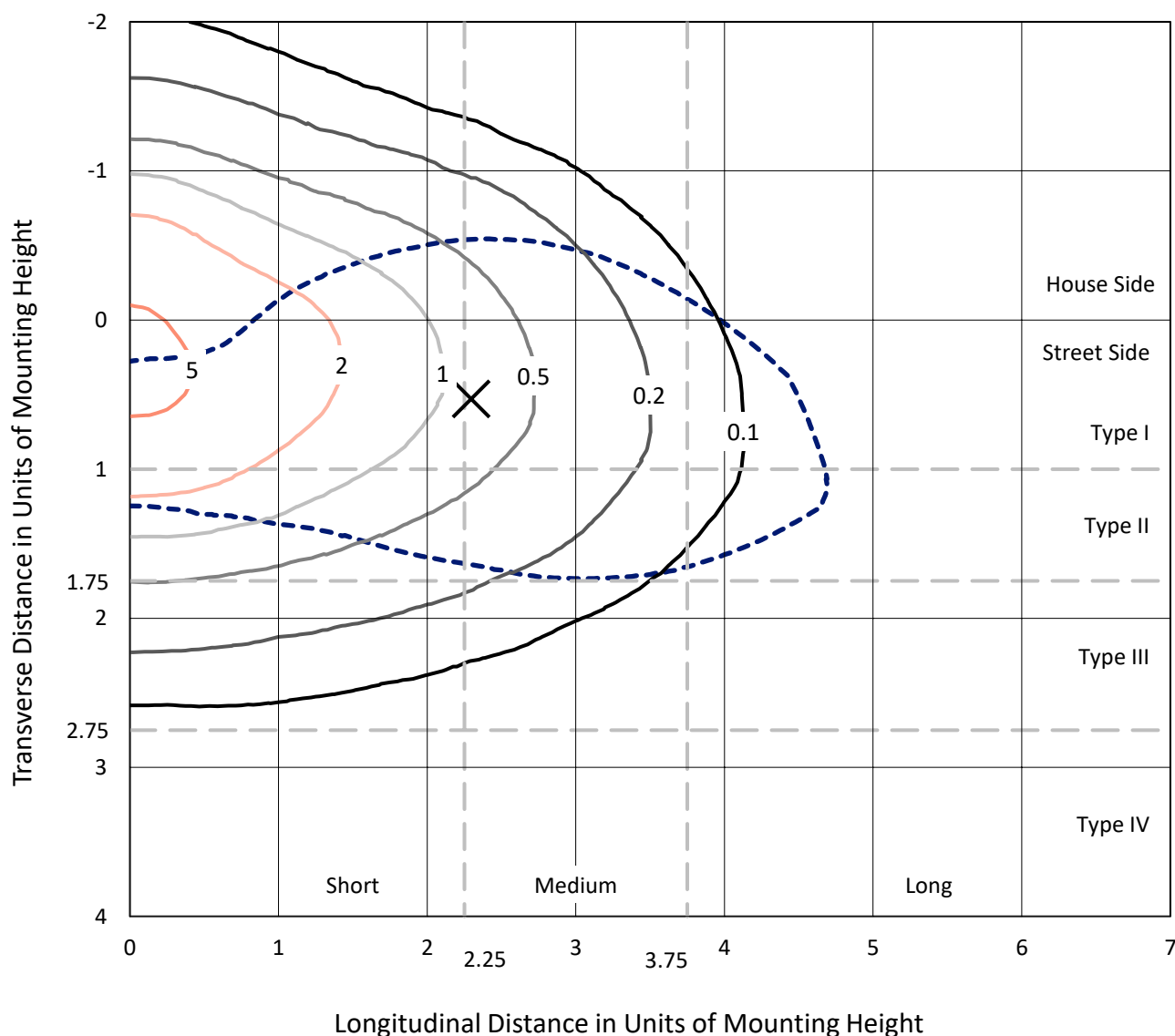
REPORT NUMBER: P1462116

CATALOG NUMBER: PRV-P-90-727-U-T2U

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

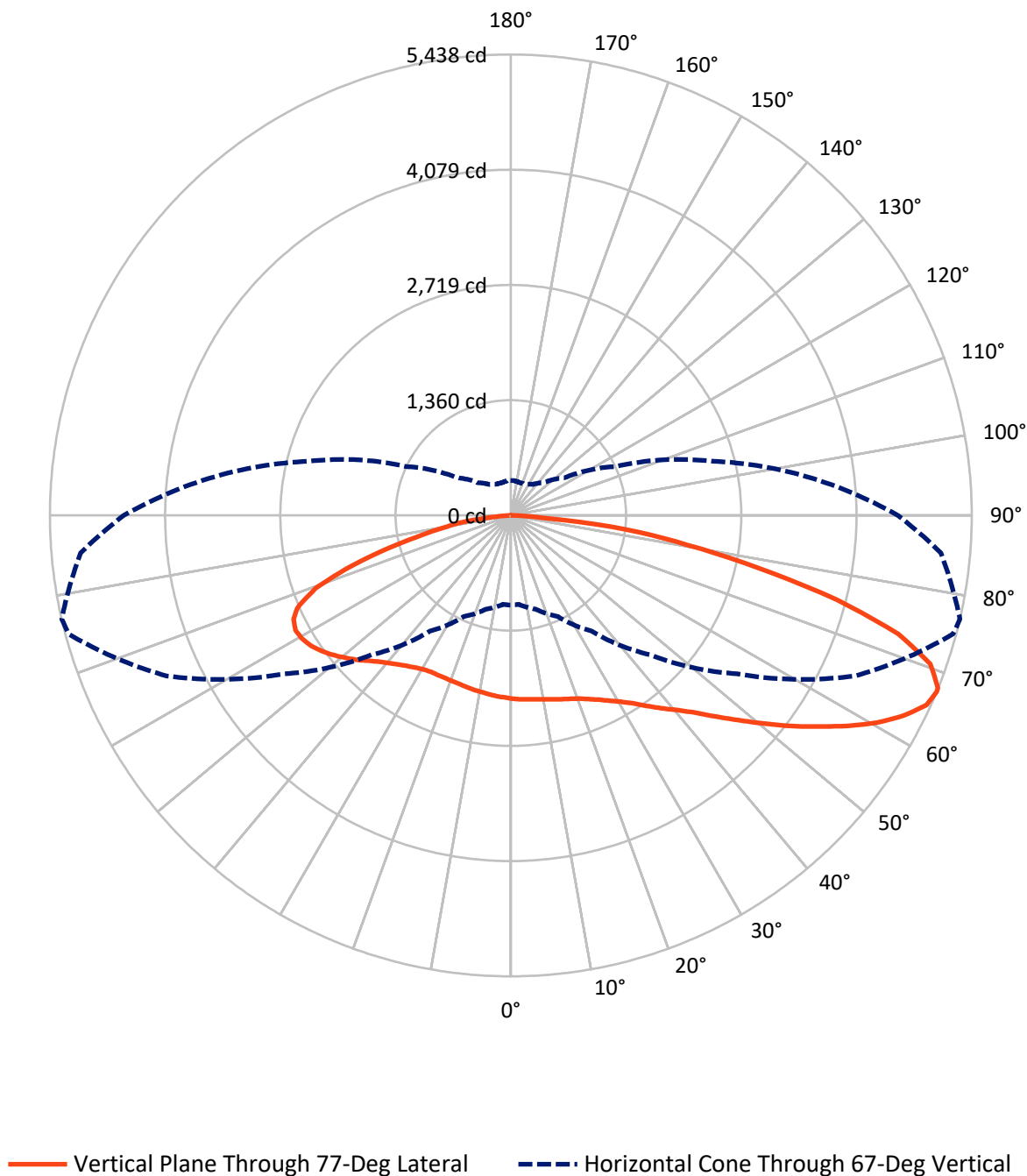


Based on 20 foot mounting height. Maximum calculated value = 6.1 fc  
 Type II - Medium - N/A

REPORT NUMBER: P1462116

CATALOG NUMBER: PRV-P-90-727-U-T2U

## Luminous Intensity Polar Plot



REPORT NUMBER: P1462116

CATALOG NUMBER: PRV-P-90-727-U-T2U

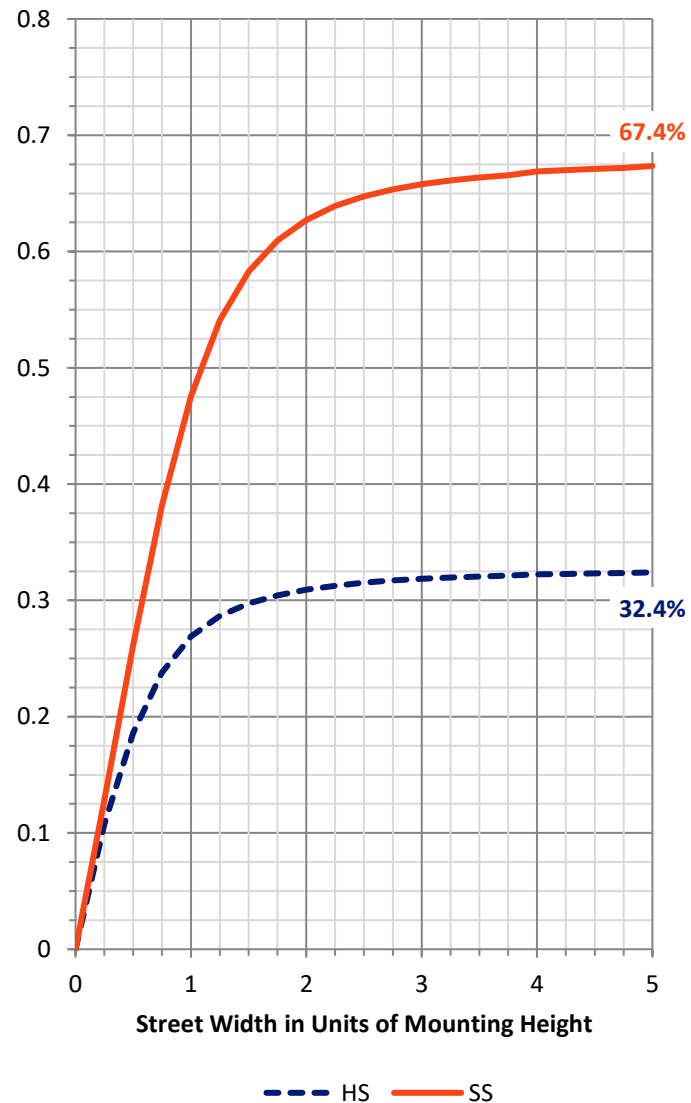
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3654.4   | 0.0    | 3654.4  |
|                    | % Fixture | 32.6     | 0.0    | 32.6    |
| <b>Street Side</b> | Lumens    | 7560.4   | 0.0    | 7560.4  |
|                    | % Fixture | 67.4     | 0.0    | 67.4    |
| <b>Total</b>       | Lumens    | 11214.7  | 0.0    | 11214.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 207.9   | 1.9       |
| 10°-20°   | 632.9   | 5.6       |
| 20°-30°   | 1077.1  | 9.6       |
| 30°-40°   | 1544.9  | 13.8      |
| 40°-50°   | 1961.7  | 17.5      |
| 50°-60°   | 2158.1  | 19.2      |
| 60°-70°   | 2084.5  | 18.6      |
| 70°-80°   | 1311.2  | 11.7      |
| 80°-90°   | 236.5   | 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°    | 11214.7 | 100.0     |
| 0°-180°   | 11214.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P1462116

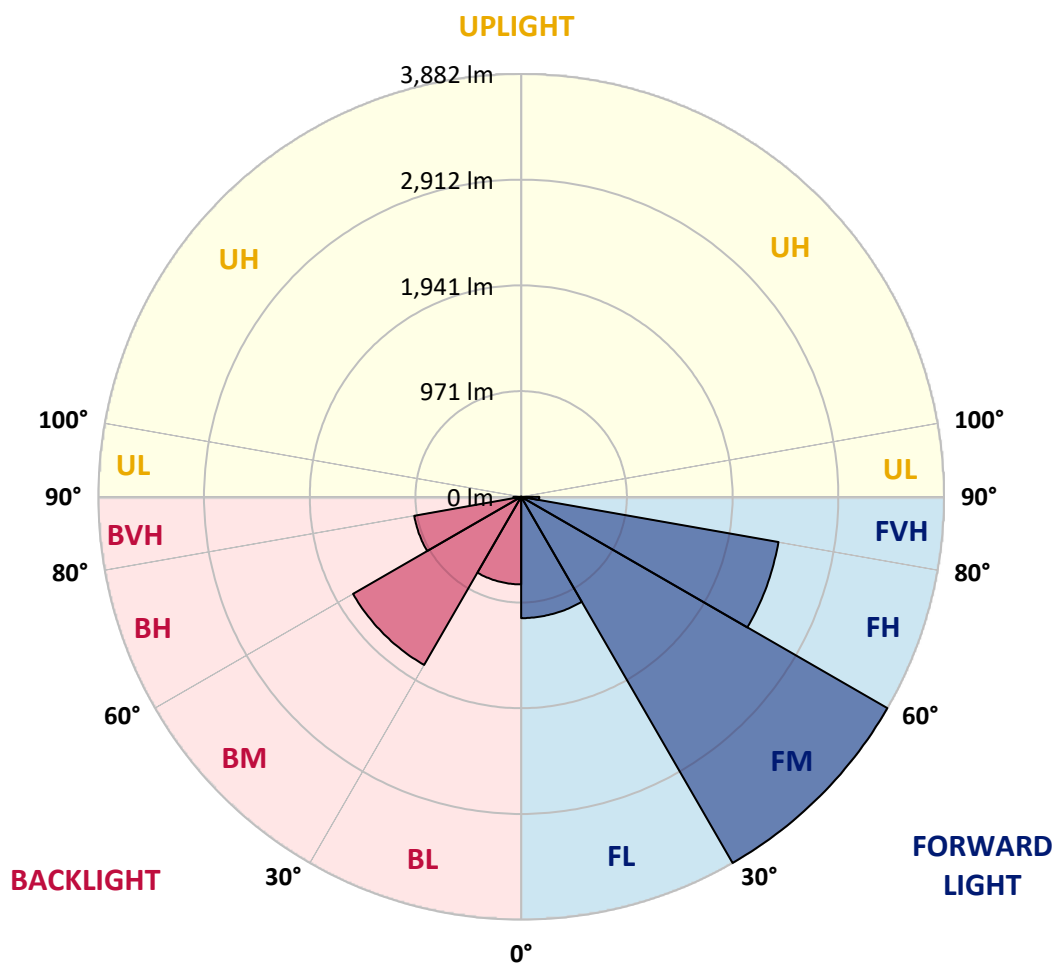
CATALOG NUMBER: PRV-P-90-727-U-T2U

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1113.7 | 9.9       |                         |      |         |
| FM   | (30°-60°)   | 3882.2 | 34.6      |                         |      |         |
| FH   | (60°-80°)   | 2398.8 | 21.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 165.6  | 1.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 804.2  | 7.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1782.4 | 15.9      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 996.9  | 8.9       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 70.9   | 0.6       |                         |      | 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 Medium



REPORT NUMBER: P1462116

CATALOG NUMBER: PRV-P-90-727-U-T2U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 |
| 2.5°  | 2199.6 | 2208.2 | 2211.7 | 2213.4 | 2213.4 | 2201.3 | 2197.9 | 2178.8 | 2175.3 | 2171.9 | 2154.6 |
| 5°    | 2284.4 | 2279.3 | 2287.9 | 2277.5 | 2275.8 | 2249.8 | 2229.0 | 2203.0 | 2178.8 | 2178.8 | 2159.7 |
| 7.5°  | 2378.0 | 2374.5 | 2381.4 | 2371.0 | 2334.7 | 2307.0 | 2279.3 | 2230.8 | 2199.6 | 2190.9 | 2166.7 |
| 10°   | 2497.5 | 2485.4 | 2492.3 | 2454.2 | 2426.5 | 2367.6 | 2320.8 | 2261.9 | 2213.4 | 2206.5 | 2173.6 |
| 12.5° | 2594.5 | 2596.2 | 2601.4 | 2565.0 | 2516.5 | 2454.2 | 2384.9 | 2301.8 | 2246.3 | 2225.6 | 2180.5 |
| 15°   | 2689.7 | 2708.8 | 2700.1 | 2667.2 | 2617.0 | 2532.1 | 2442.1 | 2345.1 | 2265.4 | 2249.8 | 2196.1 |
| 17.5° | 2786.7 | 2783.3 | 2783.3 | 2752.1 | 2691.5 | 2613.5 | 2506.1 | 2388.4 | 2293.1 | 2275.8 | 2211.7 |
| 20°   | 2876.8 | 2868.1 | 2869.8 | 2849.1 | 2788.4 | 2703.6 | 2577.1 | 2450.7 | 2338.1 | 2307.0 | 2232.5 |
| 22.5° | 2951.3 | 2965.1 | 2975.5 | 2946.1 | 2885.4 | 2788.4 | 2668.9 | 2516.5 | 2374.5 | 2353.7 | 2260.2 |
| 25°   | 3041.3 | 3048.2 | 3065.6 | 3051.7 | 2999.7 | 2908.0 | 2765.9 | 2601.4 | 2438.6 | 2409.1 | 2300.0 |
| 27.5° | 3138.3 | 3140.0 | 3164.3 | 3162.5 | 3089.8 | 3004.9 | 2862.9 | 2684.5 | 2509.6 | 2475.0 | 2343.3 |
| 30°   | 3263.0 | 3257.8 | 3282.1 | 3271.7 | 3193.7 | 3101.9 | 2958.2 | 2774.6 | 2580.6 | 2549.4 | 2405.7 |
| 32.5° | 3365.2 | 3375.6 | 3380.8 | 3386.0 | 3308.0 | 3211.0 | 3065.6 | 2885.4 | 2679.3 | 2643.0 | 2487.1 |
| 35°   | 3463.9 | 3463.9 | 3483.0 | 3481.2 | 3413.7 | 3332.3 | 3190.3 | 3003.2 | 2802.3 | 2760.7 | 2597.9 |
| 37.5° | 3533.2 | 3547.0 | 3562.6 | 3567.8 | 3498.5 | 3422.3 | 3311.5 | 3136.6 | 2933.9 | 2887.2 | 2714.0 |
| 40°   | 3545.3 | 3567.8 | 3630.2 | 3645.8 | 3578.2 | 3512.4 | 3431.0 | 3278.6 | 3063.8 | 3020.5 | 2845.6 |
| 42.5° | 3573.0 | 3609.4 | 3656.2 | 3690.8 | 3631.9 | 3573.0 | 3538.4 | 3413.7 | 3219.7 | 3178.1 | 3006.7 |
| 45°   | 3446.6 | 3450.1 | 3531.5 | 3621.5 | 3623.2 | 3607.7 | 3640.6 | 3580.0 | 3413.7 | 3384.2 | 3198.9 |
| 47.5° | 3297.6 | 3269.9 | 3335.7 | 3476.0 | 3562.6 | 3628.4 | 3732.4 | 3744.5 | 3631.9 | 3607.7 | 3413.7 |
| 50°   | 2914.9 | 2937.4 | 3114.1 | 3290.7 | 3446.6 | 3607.7 | 3812.0 | 3943.7 | 3891.7 | 3857.1 | 3645.8 |
| 52.5° | 2502.7 | 2513.1 | 2710.5 | 3082.9 | 3301.1 | 3576.5 | 3862.3 | 4139.4 | 4135.9 | 4129.0 | 3895.2 |
| 55°   | 2236.0 | 2239.4 | 2450.7 | 2752.1 | 3121.0 | 3458.7 | 3890.0 | 4326.4 | 4418.2 | 4395.7 | 4163.6 |
| 57.5° | 1955.4 | 1971.0 | 2137.2 | 2364.1 | 2887.2 | 3297.6 | 3876.1 | 4473.6 | 4700.5 | 4684.9 | 4419.9 |
| 60°   | 1681.7 | 1721.6 | 1813.4 | 2047.2 | 2585.8 | 3089.8 | 3798.2 | 4600.1 | 4970.7 | 4963.8 | 4693.6 |
| 62.5° | 1432.3 | 1453.1 | 1541.4 | 1771.8 | 2222.1 | 2857.7 | 3666.5 | 4652.0 | 5195.9 | 5202.8 | 4898.0 |
| 65°   | 1233.2 | 1238.3 | 1318.0 | 1513.7 | 1900.0 | 2582.3 | 3458.7 | 4603.5 | 5365.6 | 5391.6 | 5057.3 |
| 67°   | 1058.2 | 1053.0 | 1146.6 | 1318.0 | 1667.9 | 2326.0 | 3256.1 | 4480.6 | 5402.0 | 5438.3 | 5093.7 |
| 67.5° | 992.4  | 1002.8 | 1110.2 | 1271.3 | 1622.8 | 2260.2 | 3188.5 | 4435.5 | 5393.3 | 5434.9 | 5072.9 |
| 70°   | 717.0  | 725.7  | 885.0  | 1065.2 | 1354.4 | 1919.0 | 2828.3 | 4123.8 | 5211.5 | 5251.3 | 4818.3 |
| 72.5° | 543.8  | 549.0  | 699.7  | 878.1  | 1125.8 | 1583.0 | 2405.7 | 3704.7 | 4717.8 | 4780.2 | 4312.6 |
| 75°   | 434.7  | 429.5  | 540.4  | 711.8  | 905.8  | 1274.7 | 1891.3 | 2977.2 | 3881.3 | 3973.1 | 3502.0 |
| 77.5° | 336.0  | 332.5  | 384.5  | 557.7  | 724.0  | 969.9  | 1389.0 | 2258.5 | 2998.0 | 2979.0 | 2653.4 |
| 80°   | 211.3  | 216.5  | 230.4  | 367.2  | 514.4  | 673.7  | 930.1  | 1449.6 | 2061.0 | 2113.0 | 1879.2 |
| 82.5° | 109.1  | 119.5  | 128.2  | 199.2  | 273.6  | 374.1  | 588.9  | 914.5  | 1364.8 | 1394.2 | 1264.3 |
| 85°   | 22.5   | 20.8   | 29.4   | 50.2   | 77.9   | 123.0  | 176.7  | 294.4  | 396.6  | 438.2  | 388.0  |
| 87.5° | 1.7    | 1.7    | 3.5    | 3.5    | 3.5    | 5.2    | 10.4   | 10.4   | 8.7    | 8.7    | 8.7    |
| 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: P1462116

CATALOG NUMBER: PRV-P-90-727-U-T2U

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 | 2163.2 |
| 2.5°  | 2161.5 | 2152.8 | 2147.6 | 2139.0 | 2137.2 | 2140.7 | 2130.3 | 2126.8 | 2116.4 | 2109.5 | 2111.3 |
| 5°    | 2161.5 | 2151.1 | 2135.5 | 2113.0 | 2107.8 | 2106.1 | 2093.9 | 2078.3 | 2066.2 | 2062.8 | 2054.1 |
| 7.5°  | 2156.3 | 2145.9 | 2119.9 | 2095.7 | 2073.2 | 2061.0 | 2050.6 | 2036.8 | 2012.5 | 1996.9 | 1998.7 |
| 10°   | 2156.3 | 2139.0 | 2104.3 | 2071.4 | 2042.0 | 2016.0 | 1996.9 | 1979.6 | 1962.3 | 1941.5 | 1945.0 |
| 12.5° | 2161.5 | 2140.7 | 2093.9 | 2047.2 | 2007.3 | 1977.9 | 1951.9 | 1931.1 | 1917.3 | 1893.0 | 1893.0 |
| 15°   | 2168.4 | 2137.2 | 2078.3 | 2022.9 | 1976.2 | 1938.1 | 1903.4 | 1884.4 | 1868.8 | 1856.7 | 1854.9 |
| 17.5° | 2173.6 | 2139.0 | 2064.5 | 1993.5 | 1932.9 | 1887.8 | 1858.4 | 1844.5 | 1835.9 | 1827.2 | 1823.7 |
| 20°   | 2185.7 | 2145.9 | 2055.8 | 1969.2 | 1898.2 | 1844.5 | 1820.3 | 1811.6 | 1813.4 | 1803.0 | 1801.2 |
| 22.5° | 2213.4 | 2154.6 | 2047.2 | 1943.3 | 1853.2 | 1808.2 | 1783.9 | 1771.8 | 1775.3 | 1768.3 | 1768.3 |
| 25°   | 2234.2 | 2175.3 | 2045.4 | 1920.7 | 1823.7 | 1766.6 | 1740.6 | 1732.0 | 1732.0 | 1725.0 | 1719.8 |
| 27.5° | 2267.1 | 2199.6 | 2040.2 | 1900.0 | 1785.6 | 1725.0 | 1692.1 | 1681.7 | 1673.1 | 1671.3 | 1669.6 |
| 30°   | 2326.0 | 2239.4 | 2050.6 | 1868.8 | 1745.8 | 1673.1 | 1631.5 | 1617.6 | 1614.2 | 1614.2 | 1610.7 |
| 32.5° | 2388.4 | 2298.3 | 2071.4 | 1858.4 | 1707.7 | 1612.5 | 1569.2 | 1551.8 | 1553.6 | 1544.9 | 1544.9 |
| 35°   | 2488.8 | 2369.3 | 2102.6 | 1860.1 | 1669.6 | 1550.1 | 1503.3 | 1491.2 | 1479.1 | 1470.4 | 1470.4 |
| 37.5° | 2585.8 | 2457.6 | 2139.0 | 1853.2 | 1638.4 | 1499.9 | 1439.3 | 1402.9 | 1394.2 | 1385.6 | 1383.8 |
| 40°   | 2705.3 | 2552.9 | 2184.0 | 1835.9 | 1596.9 | 1435.8 | 1354.4 | 1304.2 | 1304.2 | 1300.7 | 1297.2 |
| 42.5° | 2850.8 | 2674.1 | 2232.5 | 1834.1 | 1551.8 | 1371.7 | 1253.9 | 1202.0 | 1193.3 | 1191.6 | 1200.2 |
| 45°   | 3020.5 | 2826.6 | 2298.3 | 1832.4 | 1512.0 | 1299.0 | 1155.2 | 1080.7 | 1075.5 | 1058.2 | 1061.7 |
| 47.5° | 3216.2 | 2989.4 | 2372.8 | 1825.5 | 1461.8 | 1212.4 | 1042.6 | 961.2  | 935.3  | 924.9  | 917.9  |
| 50°   | 3429.3 | 3160.8 | 2438.6 | 1816.8 | 1396.0 | 1108.5 | 928.3  | 840.0  | 807.1  | 789.8  | 781.1  |
| 52.5° | 3666.5 | 3330.5 | 2506.1 | 1799.5 | 1316.3 | 1008.0 | 824.4  | 736.1  | 698.0  | 682.4  | 677.2  |
| 55°   | 3891.7 | 3503.7 | 2559.8 | 1775.3 | 1236.6 | 902.3  | 727.4  | 647.8  | 616.6  | 609.6  | 607.9  |
| 57.5° | 4104.7 | 3663.1 | 2606.6 | 1735.4 | 1146.6 | 814.0  | 652.9  | 585.4  | 561.2  | 568.1  | 566.3  |
| 60°   | 4298.7 | 3801.6 | 2627.4 | 1674.8 | 1054.8 | 727.4  | 592.3  | 536.9  | 523.1  | 536.9  | 535.2  |
| 62.5° | 4485.8 | 3903.8 | 2622.2 | 1598.6 | 959.5  | 659.9  | 536.9  | 493.6  | 490.1  | 519.6  | 521.3  |
| 65°   | 4568.9 | 3924.6 | 2568.5 | 1486.0 | 859.0  | 590.6  | 484.9  | 438.2  | 438.2  | 457.2  | 460.7  |
| 67°   | 4565.4 | 3865.7 | 2466.3 | 1364.8 | 774.2  | 543.8  | 446.8  | 405.3  | 400.1  | 412.2  | 410.5  |
| 67.5° | 4534.3 | 3831.1 | 2424.7 | 1331.9 | 755.1  | 531.7  | 436.5  | 396.6  | 393.2  | 403.5  | 400.1  |
| 70°   | 4253.7 | 3555.7 | 2184.0 | 1141.4 | 656.4  | 472.8  | 388.0  | 355.1  | 342.9  | 349.9  | 346.4  |
| 72.5° | 3722.0 | 3070.8 | 1792.6 | 928.3  | 568.1  | 408.7  | 339.5  | 303.1  | 289.2  | 278.8  | 271.9  |
| 75°   | 2958.2 | 2416.1 | 1373.4 | 736.1  | 464.2  | 344.7  | 284.0  | 240.7  | 209.6  | 213.0  | 209.6  |
| 77.5° | 2222.1 | 1775.3 | 988.9  | 562.9  | 358.5  | 275.4  | 214.8  | 173.2  | 150.7  | 162.8  | 157.6  |
| 80°   | 1584.7 | 1245.3 | 711.8  | 410.5  | 254.6  | 183.6  | 148.9  | 116.0  | 123.0  | 123.0  | 67.5   |
| 82.5° | 1099.8 | 874.6  | 507.5  | 270.2  | 150.7  | 107.4  | 79.7   | 72.7   | 93.5   | 38.1   | 1.7    |
| 85°   | 336.0  | 284.0  | 197.4  | 97.0   | 48.5   | 29.4   | 17.3   | 29.4   | 10.4   | 1.7    | 0.0    |
| 87.5° | 8.7    | 8.7    | 6.9    | 6.9    | 3.5    | 1.7    | 1.7    | 1.7    | 1.7    | 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    |

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

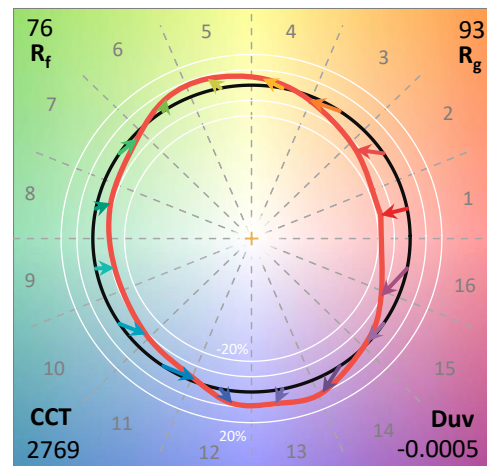
Data in this report applies to families of products including GKO-PB1E-727-U-T4W

### Test Information

Test Method: LM-79-2019  
 Report Number: SP2-2501-321-3  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP2 - 165CM SPHERE  
 Measurement Geometry:  $4\pi$   
 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

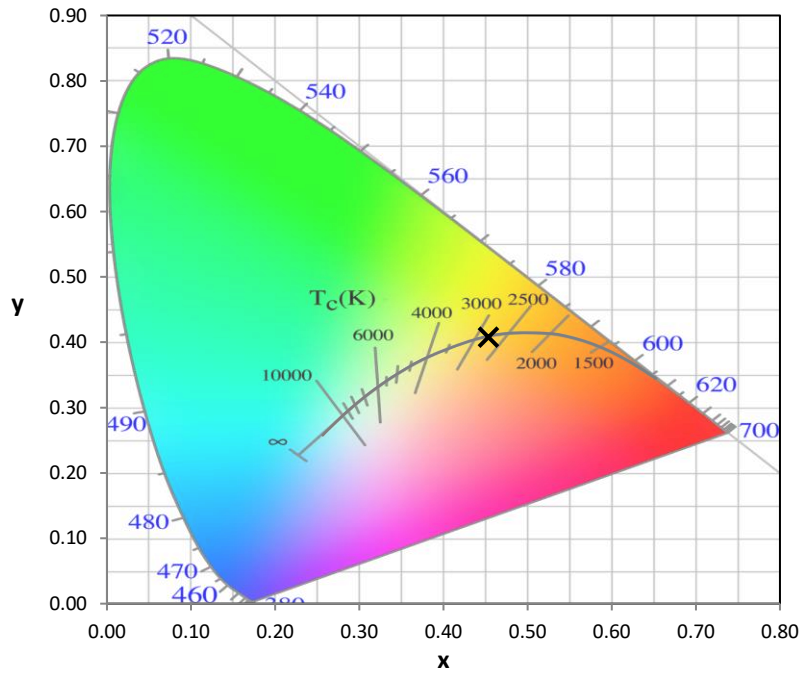
Stabilization Time: 36M  
 Operation Time: 1H 36M  
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP2-2501-321-3

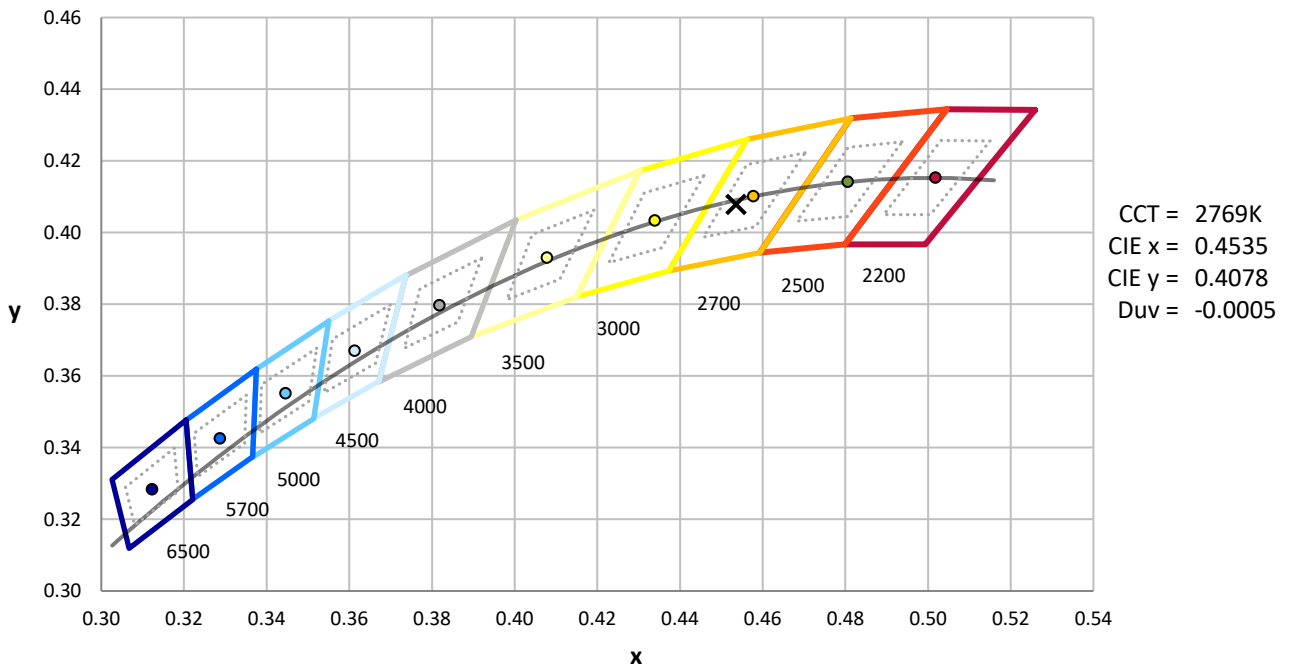
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| 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**



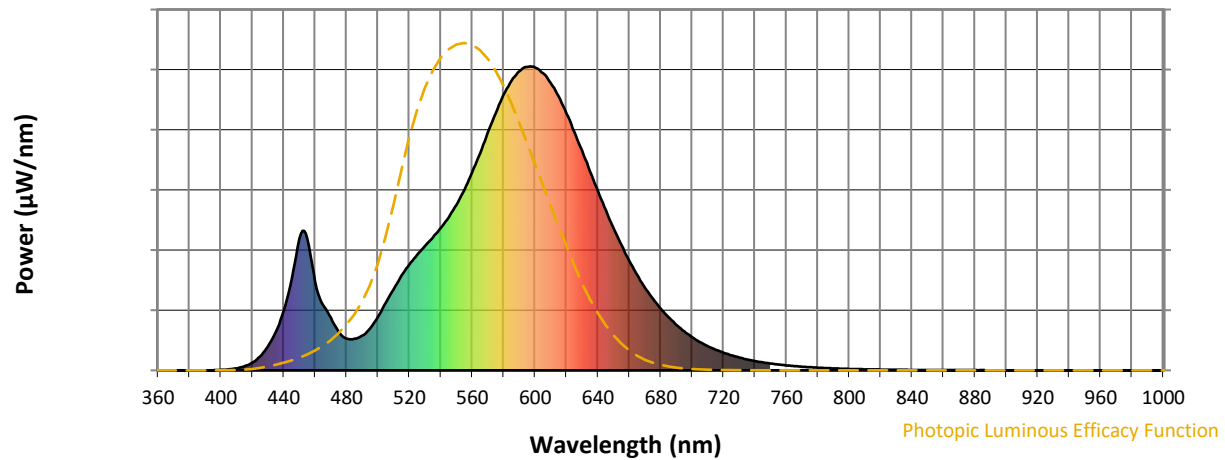
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP2-2501-321-3

### Photopic Flux vs. Wavelength

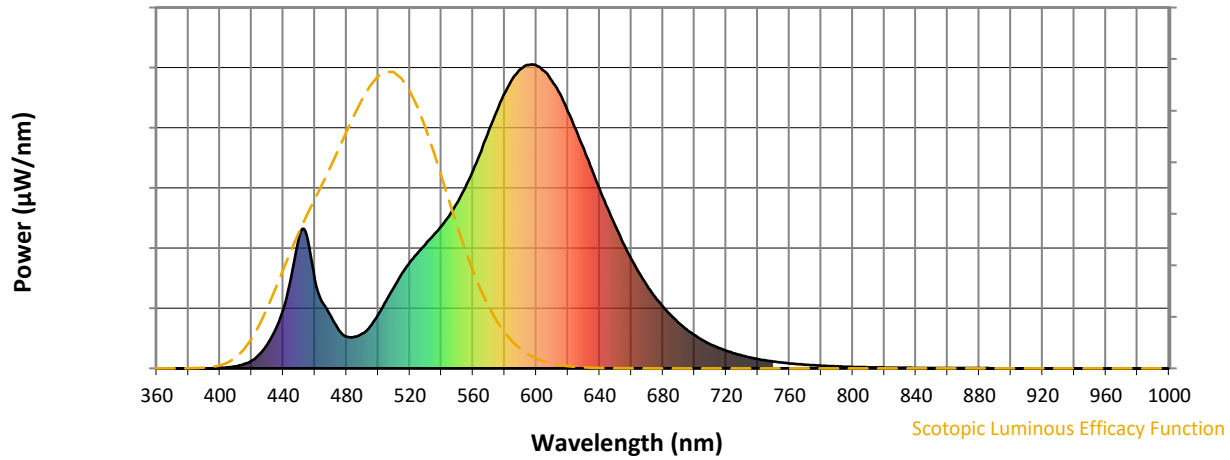


### Photopic Lumens: NR

| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360               | 0                                    | NR                             | 490               | 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



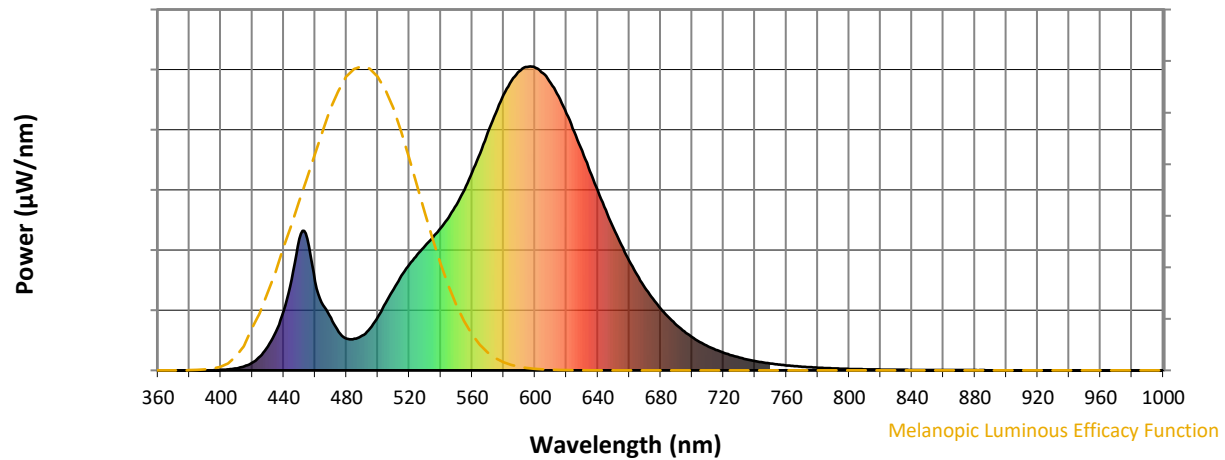
Scotopic Lumens: NR

S/P: 1.14

| λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(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 Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.08

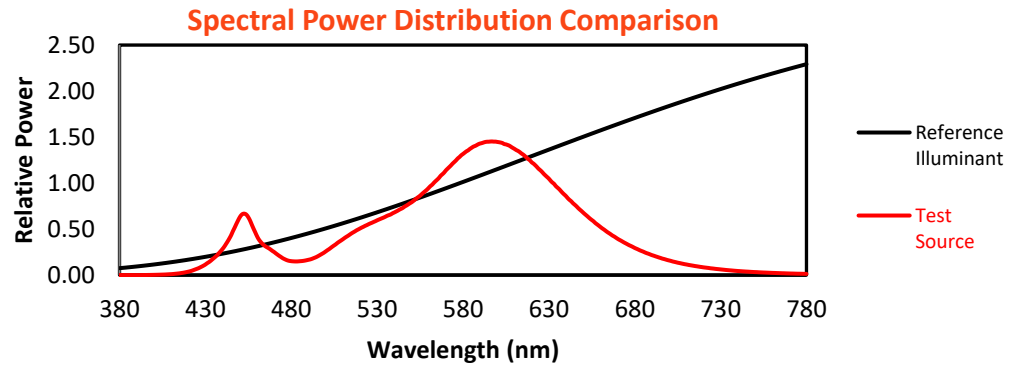
| $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|----------------------------------------|--------------------------------|-------------------|----------------------------------------|--------------------------------|-------------------|----------------------------------------|--------------------------------|-------------------|----------------------------------------|--------------------------------|-------------------|----------------------------------------|--------------------------------|
| 360               | 0                                      | NR                             | 490               | 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

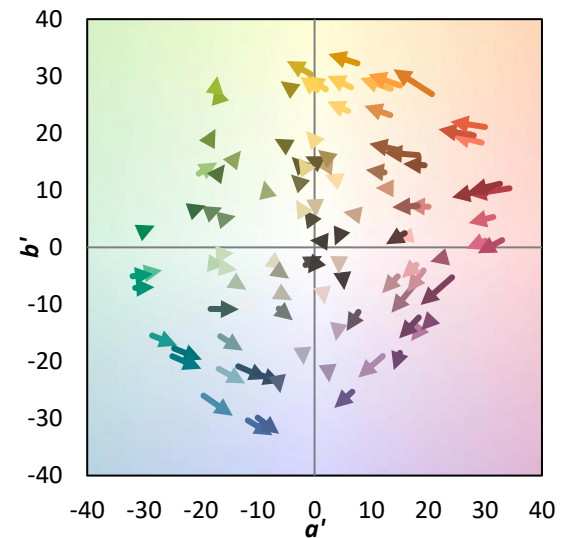
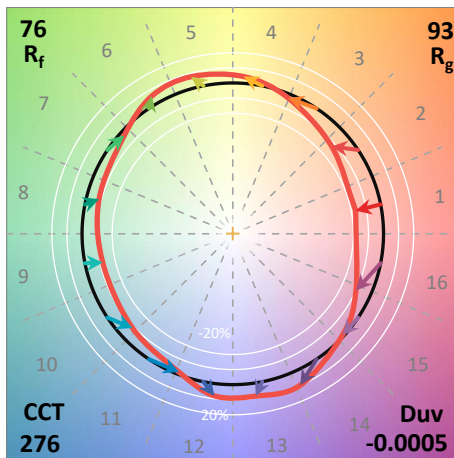
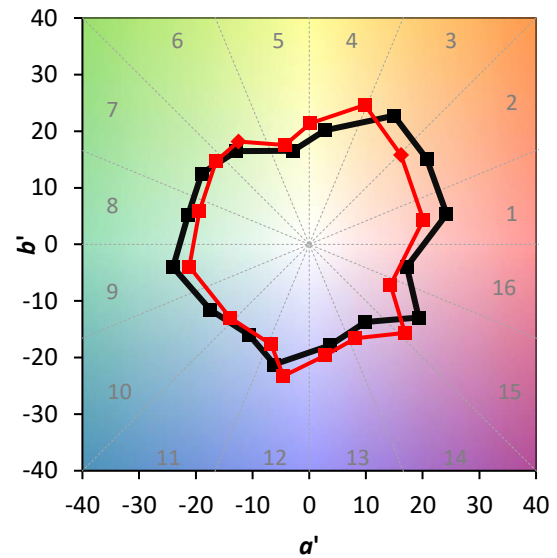
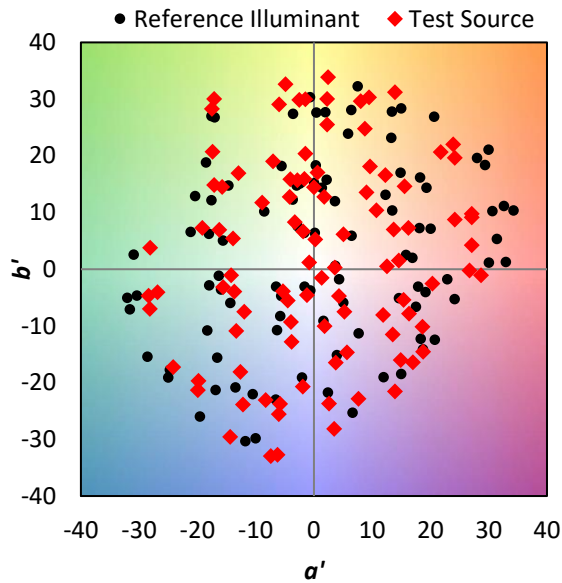
TM-30-18

### Summary

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

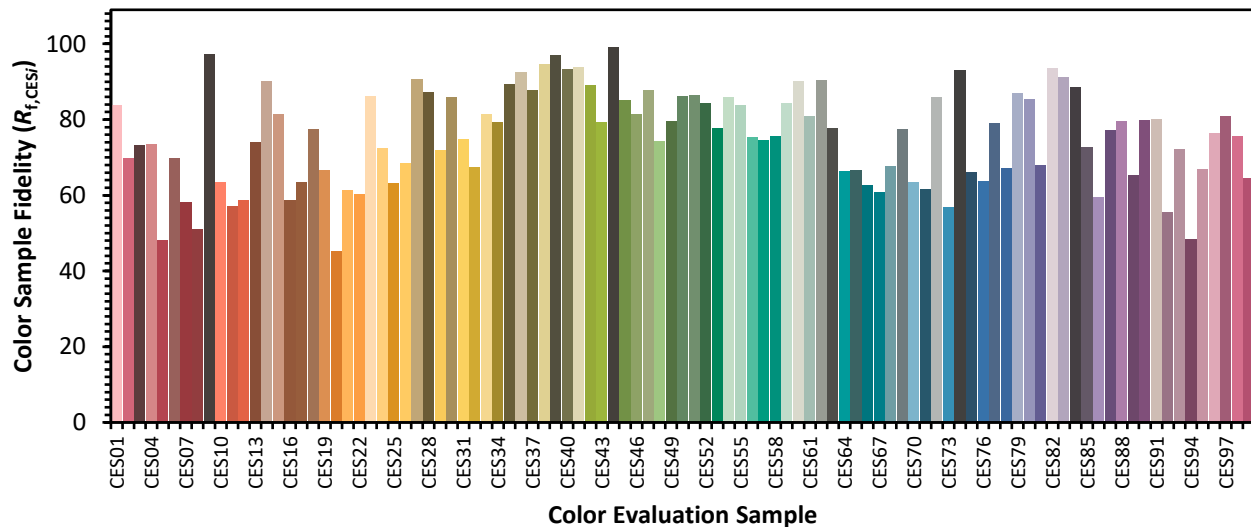


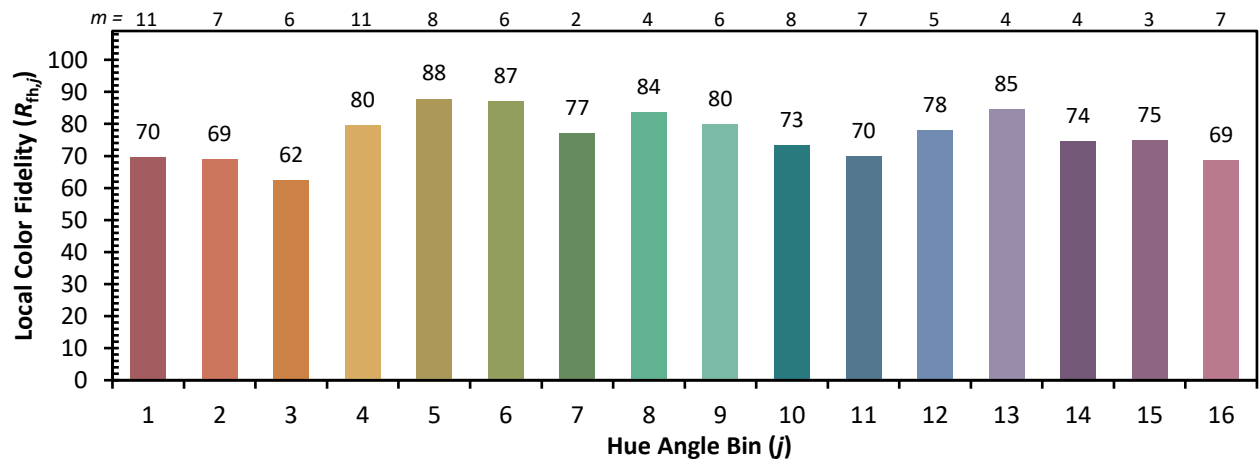
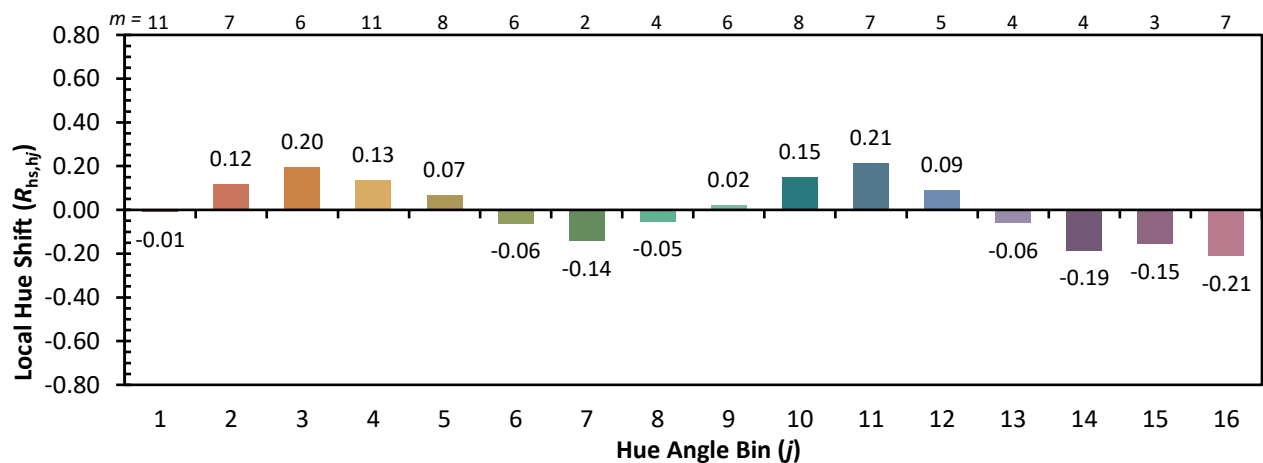
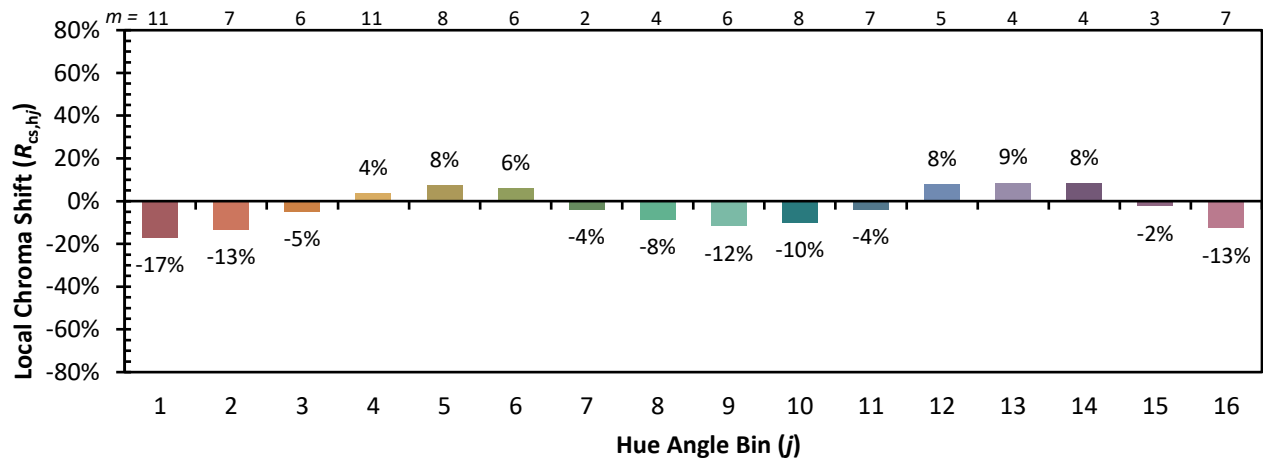
### Color Vector Graphics



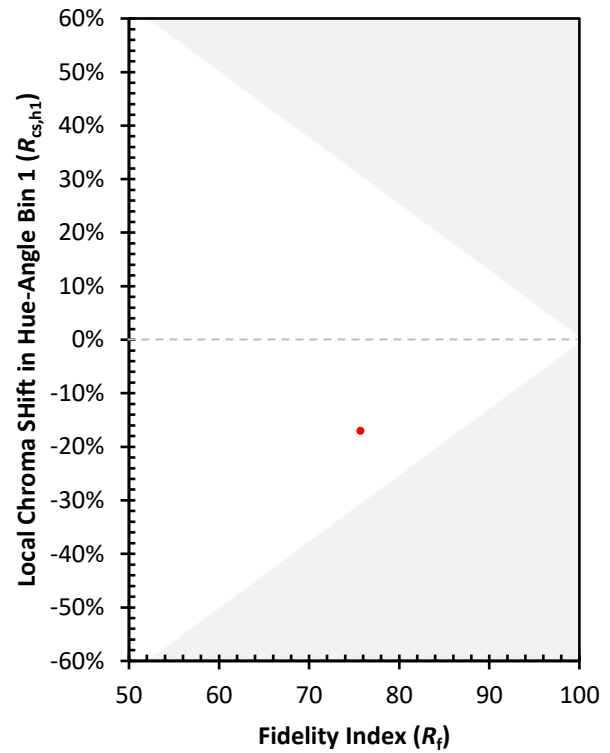
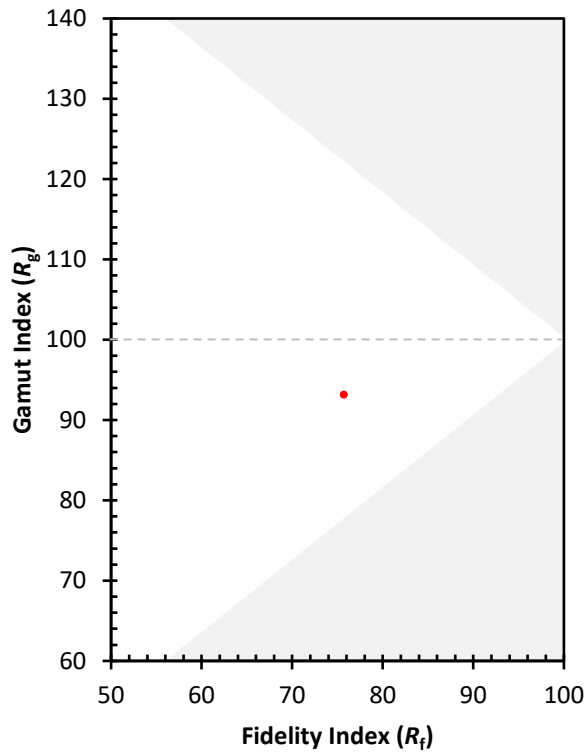
**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| 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**


**Measure Comparisons**



(END OF REPORT)