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: P1461139

Luminaire Tested: PRV-PC1C-750-U-T2RE-HSS

Issue Date: 06/10/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1461139 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/10/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-PC1C-750-U-T2RE-HSS |
| Description: | PREVAIL DISCRETE LED 1 SQUARE AT 880MA 70CRI 5000K FIXTURE w/ TYPE II ROADWAY ILLUMINANCE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (40) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 12075 lumens |
| Efficiency: | N/A |
| Efficacy: | 108.8 lumens/watt |
| Luminous Opening: | Rectangular (W 0.67' x L: 0.67' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B1 - U0 - G2 |
| Input Watts (W): | 111 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 2.87% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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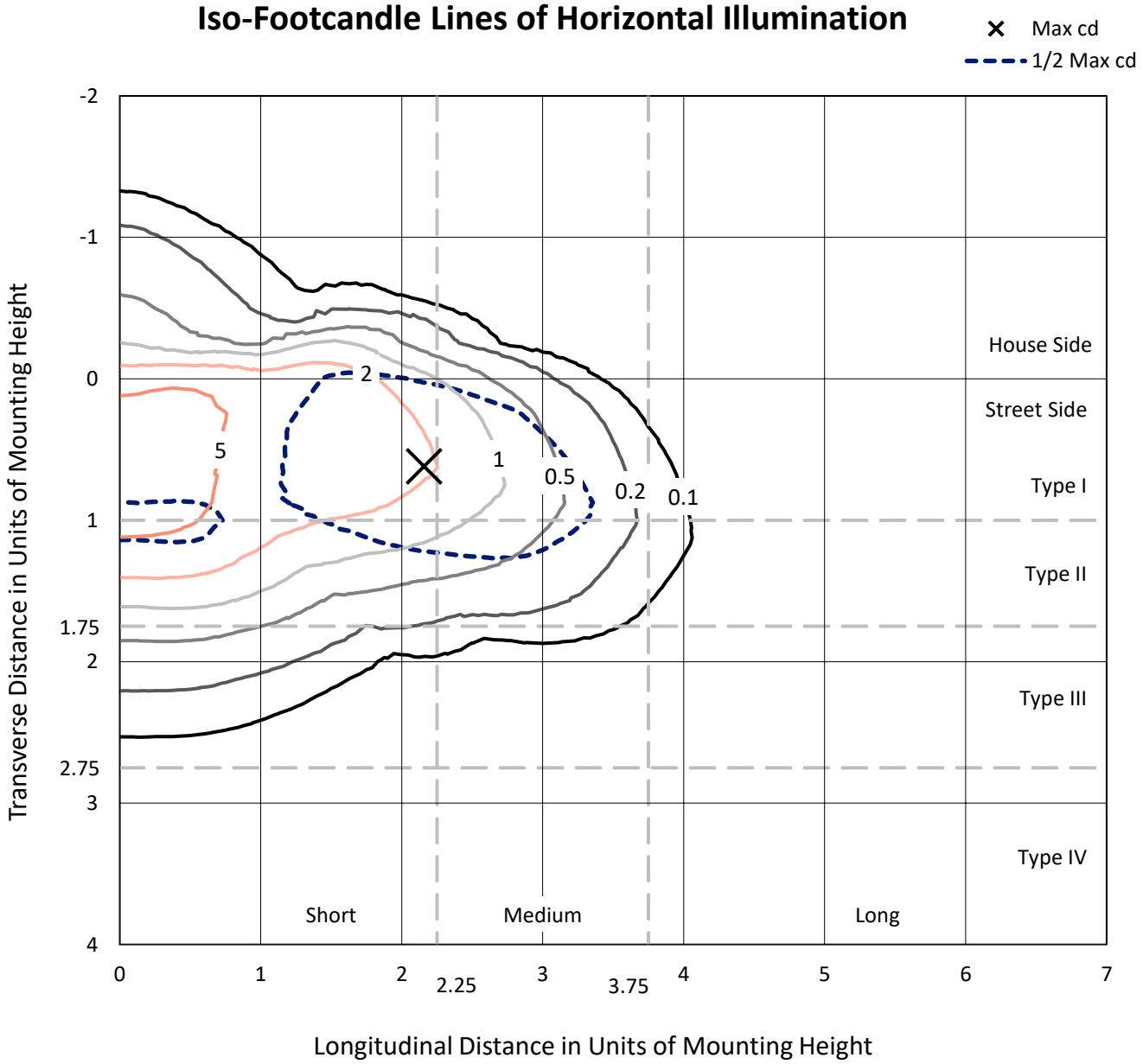
Scaled Data Report

REPORT NUMBER: P1461139
CATALOG NUMBER: PRV-PC1C-750-U-T2RE-HSS

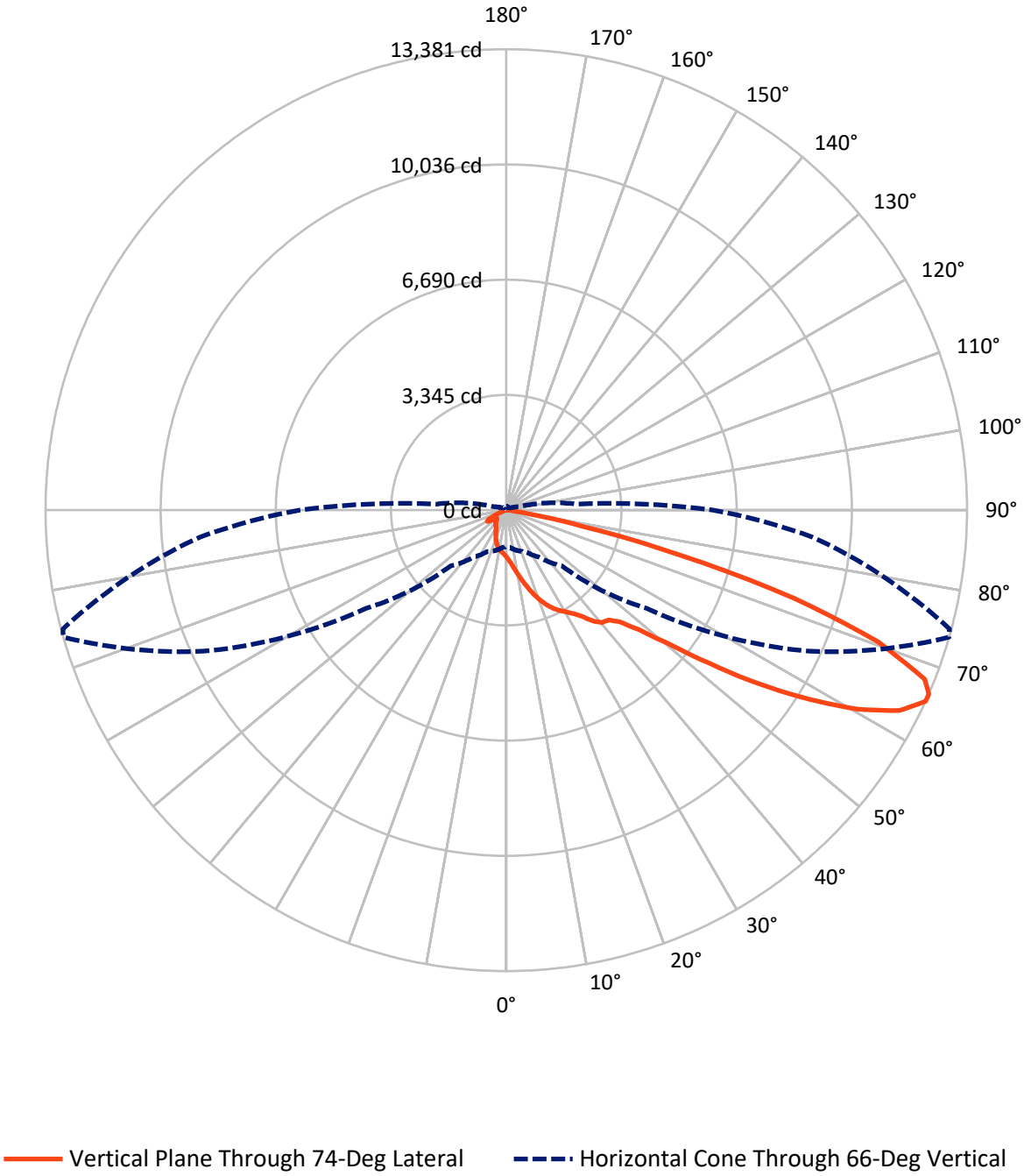
## Iso-Footcandle Lines of Horizontal Illumination




Based on 20 foot mounting height. Maximum calculated value = 7.1 fc
Type II - Short - N/A

REPORT NUMBER: P1461139
CATALOG NUMBER: PRV-PC1C-750-U-T2RE-HSS

## Luminous Intensity Polar Plot



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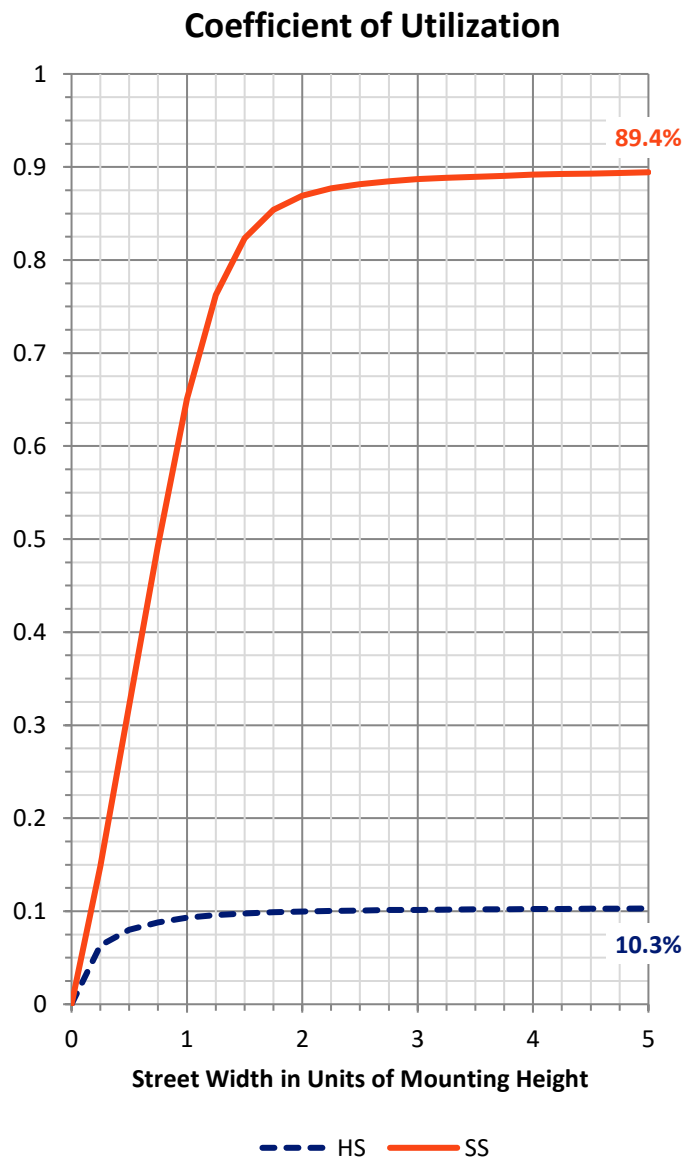
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1253.9 | 0.0 | 1253.9 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| **Street Side** | Lumens | 10821.1 | 0.0 | 10821.1 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| **Total** | Lumens | 12075.0 | 0.0 | 12075.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 134.0 | 1.1 |
| 10°-20° | 436.3 | 3.6 |
| 20°-30° | 831.5 | 6.9 |
| 30°-40° | 1462.1 | 12.1 |
| 40°-50° | 2376.8 | 19.7 |
| 50°-60° | 3068.2 | 25.4 |
| 60°-70° | 2726.6 | 22.6 |
| 70°-80° | 959.2 | 7.9 |
| 80°-90° | 80.3 | 0.7 |
| 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° | 12075.0 | 100.0 |
| 0°-180° | 12075.0 | 100.0 |



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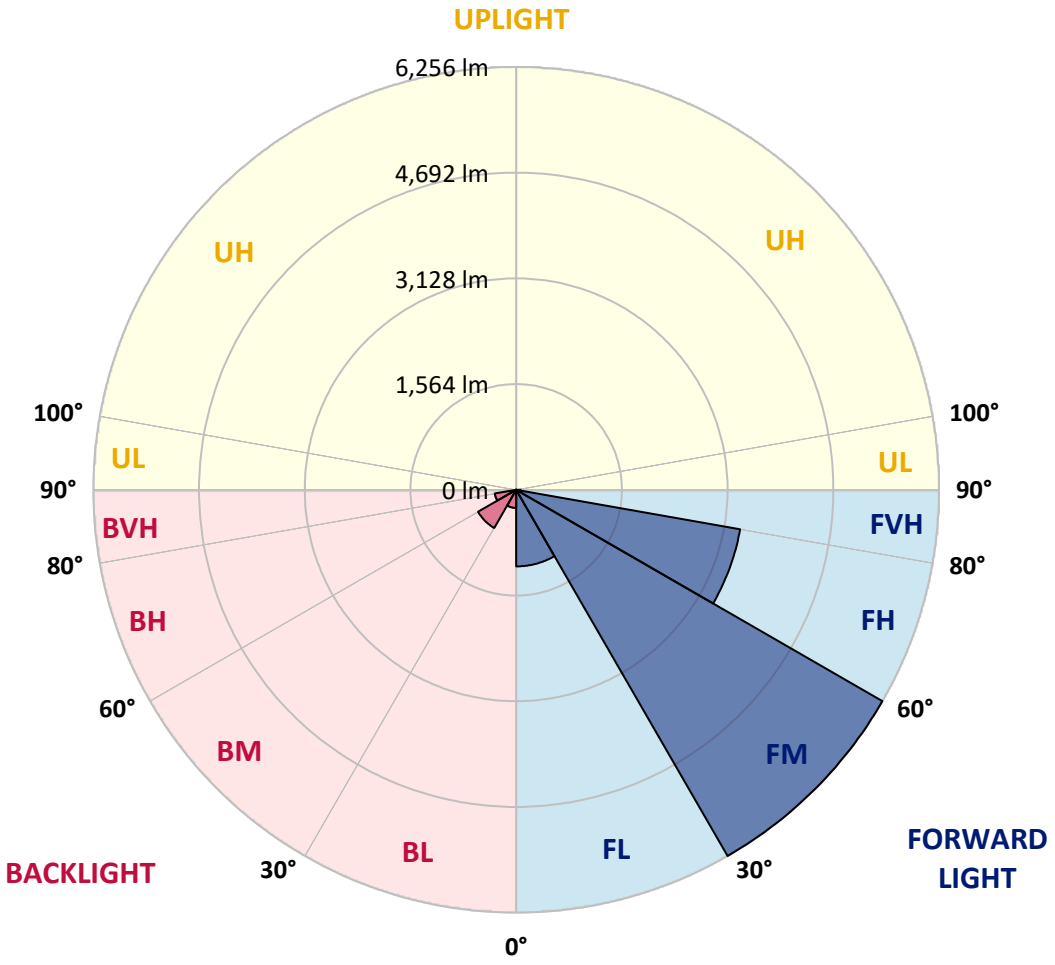
**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1133.4 | 9.4 | | | |
| FM | (30°-60°) | 6256.3 | 51.8 | | | |
| FH | (60°-80°) | 3364.3 | 27.9 | | | G2/5000 |
| FVH | (80°-90°) | 67.1 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 268.4 | 2.2 | B1/500 | | |
| BM | (30°-60°) | 650.8 | 5.4 | B1/1000 | | |
| BH | (60°-80°) | 321.6 | 2.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 13.2 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type II Short



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REPORT NUMBER: P1461139
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | *1362.8* | 1362.8 | 1362.8 |
| 2.5° | 1678.1 | 1681.3 | 1660.7 | 1644.9 | 1617.1 | 1586.2 | 1548.2 | 1498.3 | *1447.6* | 1448.4 | 1400.0 |
| 5° | 1992.7 | 1995.1 | 1980.0 | 1949.1 | 1914.2 | 1851.6 | 1770.8 | 1672.6 | *1569.6* | 1568.0 | 1459.5 |
| 7.5° | 2082.2 | 2071.1 | 2078.3 | 2088.6 | 2090.1 | 2068.7 | 2007.7 | 1865.1 | *1720.9* | 1701.9 | 1550.6 |
| 10° | 2122.6 | 2109.2 | 2107.6 | 2115.5 | 2143.2 | 2182.0 | 2180.5 | 2079.0 | *1904.7* | 1888.9 | 1658.3 |
| 12.5° | 2280.3 | 2277.1 | 2272.4 | 2254.9 | 2244.6 | 2255.7 | 2315.2 | 2283.5 | *2106.0* | 2090.9 | 1798.6 |
| 15° | 2475.2 | 2458.6 | 2457.8 | 2448.3 | 2425.3 | 2388.8 | 2418.9 | 2478.4 | *2325.5* | 2304.9 | 1942.0 |
| 17.5° | 2639.2 | 2616.2 | 2622.6 | 2634.5 | 2614.7 | 2580.6 | 2559.2 | 2634.5 | *2553.6* | 2533.8 | 2101.2 |
| 20° | 2763.6 | 2750.9 | 2775.5 | 2806.4 | 2808.8 | 2778.7 | 2738.3 | 2781.0 | *2777.1* | 2754.1 | 2277.9 |
| 22.5° | 2858.7 | 2842.8 | 2879.3 | 2942.7 | 2995.0 | 2983.9 | 2929.2 | 2911.8 | *2978.3* | 2971.2 | 2446.7 |
| 25° | 2915.7 | 2899.9 | 2955.3 | 3053.6 | 3164.5 | 3198.6 | 3140.8 | 3069.4 | *3152.6* | 3159.8 | 2600.4 |
| 27.5° | 3037.0 | 3025.9 | 3071.8 | 3169.3 | 3298.4 | 3396.7 | 3356.3 | 3227.1 | *3302.4* | 3313.5 | 2750.1 |
| 30° | 3393.5 | 3339.6 | 3374.5 | 3405.4 | 3473.5 | 3583.7 | 3566.2 | 3383.2 | *3426.0* | 3455.3 | 2895.9 |
| 32.5° | 3978.2 | 3914.8 | 3874.4 | 3825.3 | 3775.4 | 3808.7 | 3805.5 | 3573.4 | *3579.7* | 3606.6 | 3049.6 |
| 35° | 4757.1 | 4721.4 | 4559.0 | 4360.9 | 4203.3 | 4118.5 | 4105.8 | 3841.2 | *3785.7* | 3821.4 | 3220.0 |
| 37.5° | 5579.5 | 5540.7 | 5349.7 | 5021.7 | 4719.8 | 4469.5 | 4429.1 | 4214.3 | *4082.0* | 4108.2 | 3397.5 |
| 40° | 6371.0 | 6270.4 | 6104.8 | 5737.2 | 5240.4 | 4795.9 | 4616.0 | 4360.1 | *4286.4* | 4318.1 | 3526.6 |
| 42.5° | 6964.5 | 6909.8 | 6744.2 | 6392.4 | 5793.4 | 5116.8 | 4803.0 | 4433.8 | *4358.5* | 4419.6 | 3586.8 |
| 45° | 7278.2 | 7218.8 | 7151.5 | 6958.1 | 6255.4 | 5482.1 | 5089.9 | 4711.1 | *4626.4* | 4688.2 | 3769.9 |
| 47.5° | 7046.9 | 7031.0 | 7241.8 | 7294.1 | 6640.4 | 5798.2 | 5419.5 | 5154.0 | *5181.0* | 5204.0 | 4188.2 |
| 50° | 6171.4 | 6256.2 | 6703.8 | 7119.8 | 6821.1 | 6109.6 | 5829.1 | 5803.7 | *6057.3* | 6126.2 | 5058.2 |
| 52.5° | 5032.8 | 5041.5 | 5637.3 | 6454.2 | 6499.4 | 6217.3 | 6246.6 | 6649.9 | *7387.6* | 7385.2 | 6168.2 |
| 55° | 3771.4 | 3904.5 | 4551.1 | 5376.7 | 5626.3 | 5941.6 | 6648.3 | 7740.2 | *8893.8* | 8877.1 | 7286.2 |
| 57.5° | 2887.2 | 2902.3 | 3577.3 | 4366.5 | 4658.0 | 5277.6 | 6774.3 | 8934.2 | *10352.4* | 10323.9 | 8366.1 |
| 60° | 2220.9 | 2228.0 | 2719.2 | 3366.6 | 3933.9 | 4372.0 | 6573.1 | 9928.5 | *11727.1* | 11706.5 | 9031.6 |
| 62.5° | 1657.5 | 1681.3 | 1968.1 | 2310.4 | 3085.3 | 3619.3 | 6058.1 | 10367.5 | *12810.2* | 12760.3 | 9254.3 |
| 65° | 1228.1 | 1229.7 | 1380.2 | 1562.5 | 2046.6 | 2684.4 | 5314.1 | 10103.7 | *13379.9* | 13320.5 | 9083.1 |
| 66° | *1062.5* | *1082.3* | *1212.2* | *1330.3* | *1664.7* | *2286.6* | *4964.7* | *9693.2* | *13380.7* | *13326.8* | *8913.6* |
| 67.5° | 893.7 | 901.7 | 998.3 | 1081.5 | 1245.5 | 1621.1 | 4273.8 | 9045.1 | *13103.4* | 12981.4 | 8491.3 |
| 70° | 653.7 | 671.9 | 734.5 | 767.0 | 788.4 | 939.7 | 2792.1 | 7635.6 | *11459.3* | 11382.5 | 7263.2 |
| 72.5° | 476.2 | 482.5 | 540.4 | 561.8 | 565.7 | 610.9 | 1419.0 | 6055.7 | *8752.7* | 8716.3 | 4992.4 |
| 75° | 367.6 | 374.0 | 400.1 | 399.3 | 404.9 | 424.7 | 651.3 | 3714.4 | *5173.1* | 5202.4 | 2396.8 |
| 77.5° | 296.3 | 305.8 | 313.8 | 291.6 | 293.2 | 297.9 | 388.2 | 1587.0 | *2285.0* | 2162.2 | 651.3 |
| 80° | 221.8 | 223.4 | 236.9 | 215.5 | 205.2 | 201.2 | 245.6 | 549.1 | *644.9* | 612.5 | 237.7 |
| 82.5° | 172.7 | 165.6 | 169.6 | 156.9 | 142.6 | 136.3 | 165.6 | 231.4 | *256.7* | 254.3 | 164.8 |
| 85° | 115.7 | 113.3 | 104.6 | 99.0 | 88.7 | 82.4 | 108.5 | 130.7 | *158.5* | 164.0 | 122.8 |
| 87.5° | 52.3 | 52.3 | 53.9 | 49.1 | 45.2 | 41.2 | 53.9 | 70.5 | *81.6* | 81.6 | 46.7 |
| 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: P1461139
CATALOG NUMBER: PRV-PC1C-750-U-T2RE-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 | 1362.8 |
| 2.5° | 1377.1 | 1350.1 | 1303.4 | 1256.6 | 1215.4 | 1175.0 | 1130.6 | 1107.7 | 1088.6 | 1083.9 | 1072.0 |
| 5° | 1412.7 | 1361.2 | 1258.2 | 1155.2 | 1053.8 | 979.3 | 904.0 | 847.8 | 807.4 | 795.5 | 786.8 |
| 7.5° | 1469.0 | 1389.7 | 1222.5 | 1049.0 | 904.8 | 783.6 | 687.7 | 632.3 | 602.2 | 583.9 | 579.2 |
| 10° | 1548.2 | 1430.9 | 1181.3 | 941.3 | 747.2 | 613.3 | 545.9 | 514.2 | 493.6 | 488.9 | 489.7 |
| 12.5° | 1644.9 | 1484.0 | 1140.9 | 821.6 | 614.8 | 513.4 | 474.6 | 461.9 | 459.5 | 457.2 | 457.2 |
| 15° | 1752.6 | 1533.1 | 1086.3 | 710.7 | 511.8 | 450.0 | 438.9 | 435.8 | 433.4 | 433.4 | 434.2 |
| 17.5° | 1856.4 | 1575.1 | 1020.5 | 608.5 | 446.1 | 419.9 | 411.2 | 408.8 | 409.6 | 408.8 | 408.0 |
| 20° | 1966.5 | 1608.4 | 938.1 | 519.0 | 412.0 | 392.2 | 381.9 | 381.1 | 381.9 | 382.7 | 381.9 |
| 22.5° | 2062.4 | 1625.0 | 853.3 | 450.8 | 385.1 | 365.3 | 355.8 | 355.0 | 354.2 | 355.0 | 355.0 |
| 25° | 2151.9 | 1628.2 | 767.8 | 408.8 | 358.9 | 340.7 | 331.2 | 330.4 | 331.2 | 333.6 | 333.6 |
| 27.5° | 2234.3 | 1630.6 | 688.5 | 381.1 | 335.9 | 316.9 | 309.8 | 310.6 | 315.3 | 318.5 | 318.5 |
| 30° | 2316.7 | 1643.3 | 625.9 | 355.0 | 313.8 | 297.1 | 290.8 | 295.5 | 303.5 | 310.6 | 311.4 |
| 32.5° | 2408.6 | 1667.0 | 581.6 | 335.2 | 294.0 | 281.3 | 278.1 | 286.8 | 300.3 | 310.6 | 312.2 |
| 35° | 2517.2 | 1695.6 | 558.6 | 319.3 | 279.7 | 267.0 | 270.2 | 283.7 | 300.3 | 310.6 | 313.0 |
| 37.5° | 2618.6 | 1728.0 | 544.3 | 305.8 | 266.2 | 255.1 | 262.3 | 280.5 | 297.9 | 309.0 | 310.6 |
| 40° | 2686.0 | 1729.6 | 512.6 | 290.0 | 253.5 | 243.2 | 254.3 | 272.6 | 290.0 | 305.0 | 306.6 |
| 42.5° | 2722.4 | 1713.0 | 458.8 | 274.9 | 242.4 | 232.1 | 243.2 | 255.1 | 274.9 | 296.3 | 300.3 |
| 45° | 2910.2 | 1780.3 | 417.6 | 259.1 | 233.7 | 222.6 | 225.8 | 232.1 | 254.3 | 278.1 | 282.1 |
| 47.5° | 3380.0 | 2029.9 | 388.2 | 244.8 | 221.8 | 211.5 | 205.2 | 210.8 | 229.8 | 252.0 | 254.3 |
| 50° | 4230.2 | 2541.8 | 377.1 | 232.9 | 210.8 | 195.7 | 186.2 | 190.2 | 200.5 | 217.1 | 221.8 |
| 52.5° | 5458.3 | 3380.0 | 409.6 | 221.8 | 198.1 | 181.4 | 168.0 | 163.2 | 173.5 | 186.2 | 187.0 |
| 55° | 6647.6 | 4099.5 | 499.2 | 211.5 | 183.0 | 168.0 | 152.1 | 141.0 | 147.4 | 154.5 | 157.7 |
| 57.5° | 7607.8 | 4433.8 | 617.2 | 209.2 | 165.6 | 154.5 | 134.7 | 120.4 | 126.0 | 132.3 | 133.9 |
| 60° | 7637.2 | 4065.4 | 687.7 | 209.2 | 156.9 | 140.2 | 118.8 | 107.0 | 114.9 | 121.2 | 122.0 |
| 62.5° | 7042.1 | 3200.2 | 622.8 | 194.9 | 140.2 | 121.2 | 109.3 | 99.0 | 109.3 | 118.1 | 119.6 |
| 65° | 6263.3 | 2314.4 | 452.4 | 172.7 | 122.0 | 103.0 | 100.6 | 95.1 | 107.8 | 118.1 | 120.4 |
| 66° | *5996.3* | *2018.0* | *374.8* | *162.4* | *114.9* | *97.5* | *96.7* | *95.1* | *107.0* | *117.3* | *119.6* |
| 67.5° | 5379.8 | 1552.9 | 277.3 | 144.2 | 104.6 | 90.3 | 91.1 | 92.7 | 103.8 | 112.5 | 115.7 |
| 70° | 3897.4 | 916.7 | 178.3 | 110.9 | 92.7 | 82.4 | 81.6 | 85.6 | 93.5 | 99.0 | 99.8 |
| 72.5° | 2396.0 | 457.2 | 130.7 | 82.4 | 82.4 | 79.2 | 72.1 | 75.3 | 81.6 | 84.8 | 84.8 |
| 75° | 1074.4 | 229.8 | 95.9 | 64.2 | 71.3 | 73.7 | 61.8 | 65.8 | 68.9 | 72.1 | 72.1 |
| 77.5° | 290.8 | 140.2 | 74.5 | 53.1 | 63.4 | 65.0 | 52.3 | 56.3 | 58.6 | 63.4 | 62.6 |
| 80° | 160.8 | 110.1 | 53.9 | 43.6 | 49.1 | 56.3 | 45.2 | 49.1 | 46.0 | 42.8 | 49.9 |
| 82.5° | 133.1 | 75.3 | 36.4 | 34.1 | 36.4 | 45.2 | 36.4 | 34.1 | 28.5 | 16.6 | 19.0 |
| 85° | 91.9 | 41.2 | 19.0 | 18.2 | 19.8 | 26.9 | 23.0 | 17.4 | 11.9 | 3.2 | 5.5 |
| 87.5° | 26.9 | 11.1 | 7.9 | 7.1 | 7.9 | 9.5 | 7.1 | 7.1 | 4.0 | 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

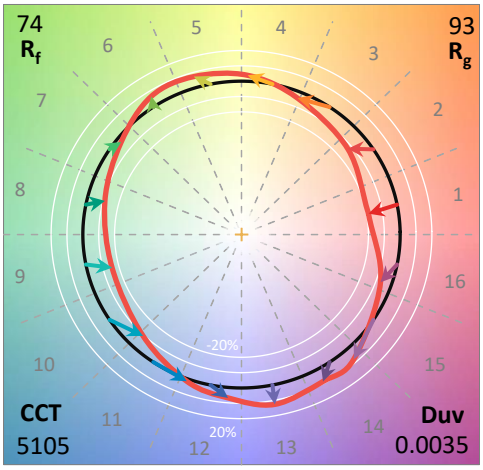
## Test Information

| | |
|---|---|
| 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 |



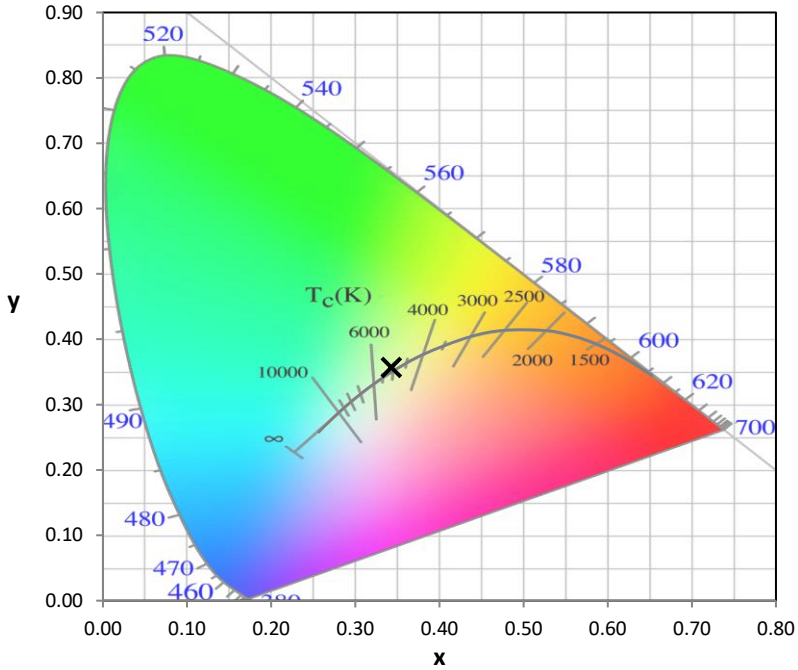

## Test Conditions

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

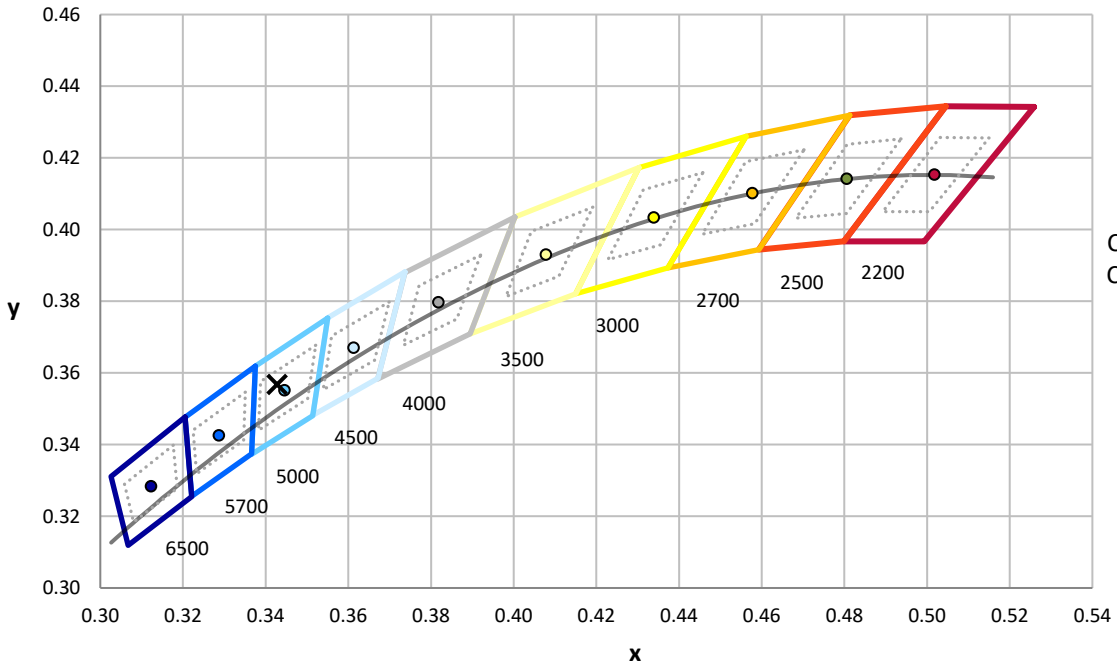
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power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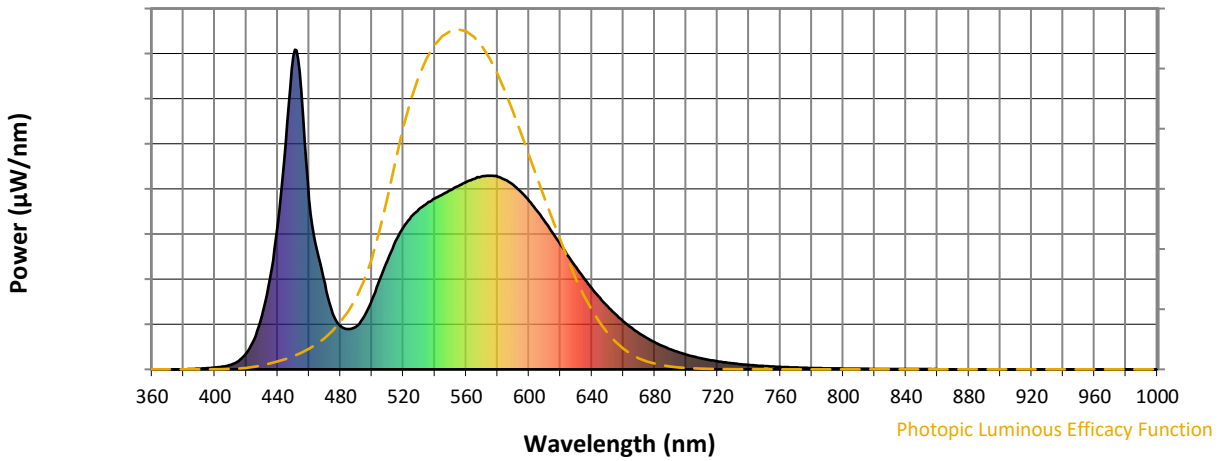
## Photopic Flux vs. Wavelength




**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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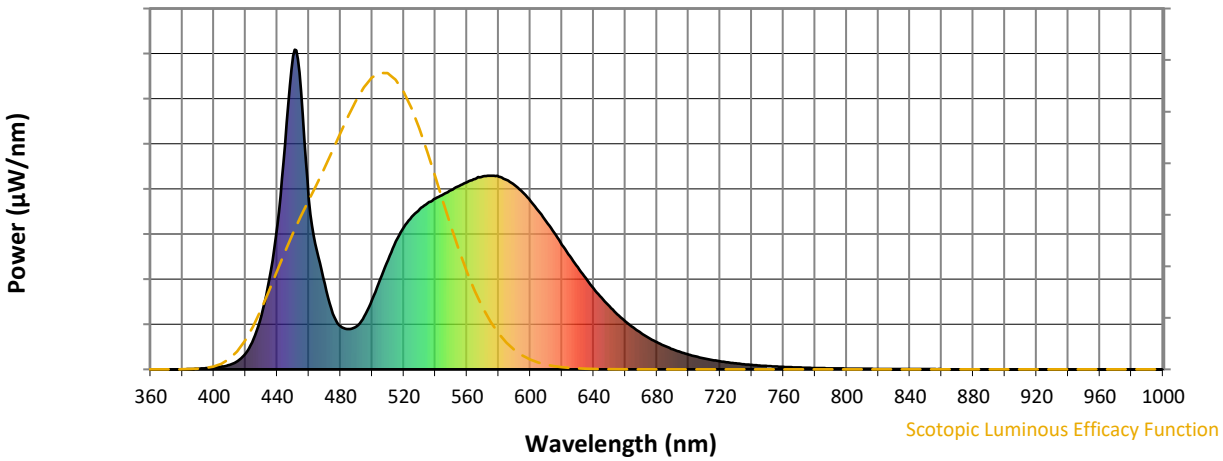
## Scotopic Flux vs. Wavelength




**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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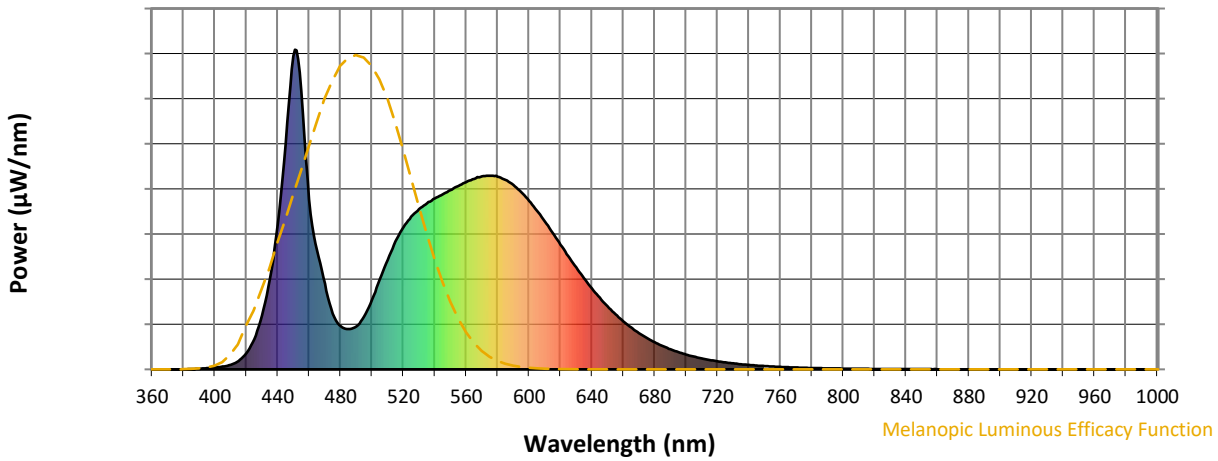
## Melanopic Flux vs. Wavelength




**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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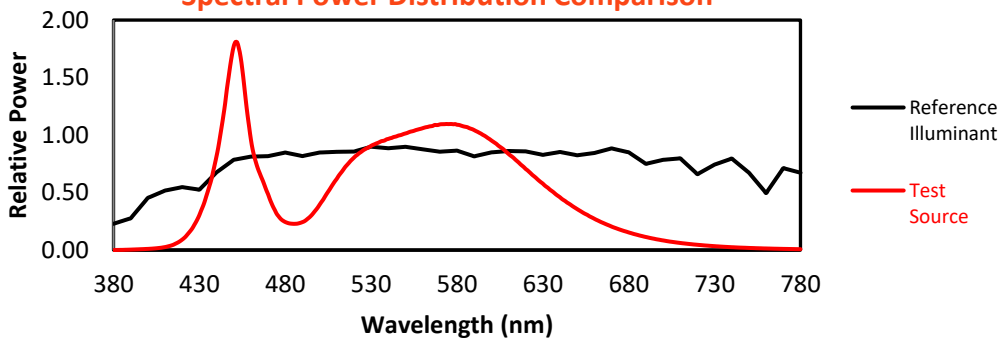
# TM-30-18

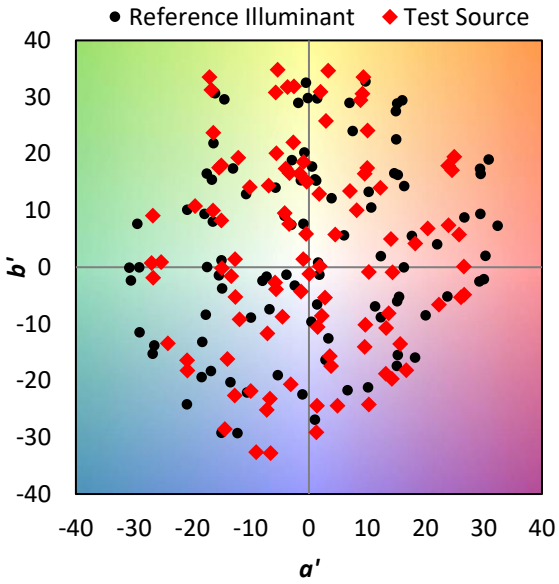
## Summary

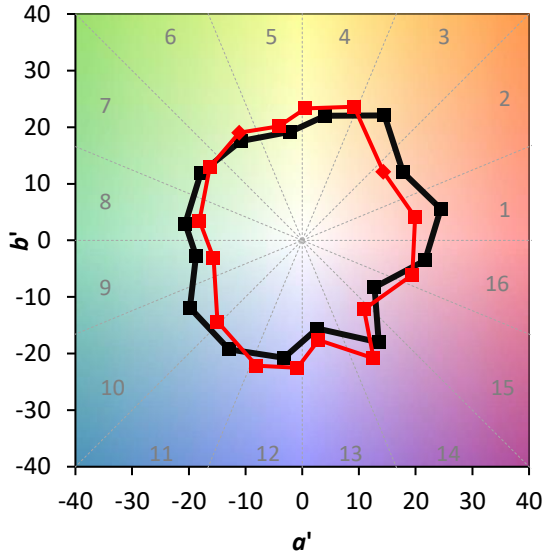
$R_f$ = 74.2
$R_g$ = 92.7
CIE $R_a$ = 72.2
$R_9$ = -38.2

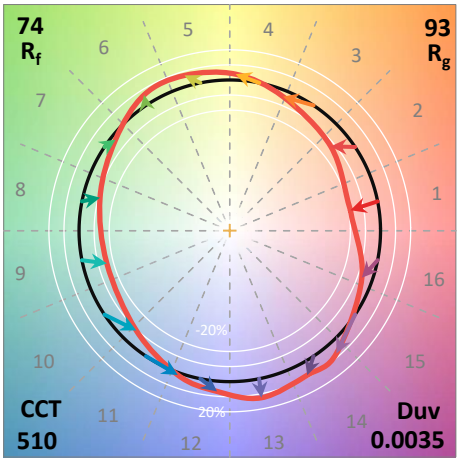
## Spectral Power Distribution Comparison

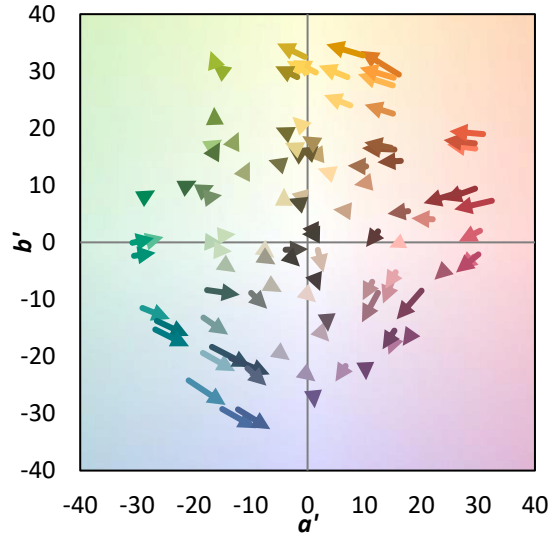



## Color Vector Graphics



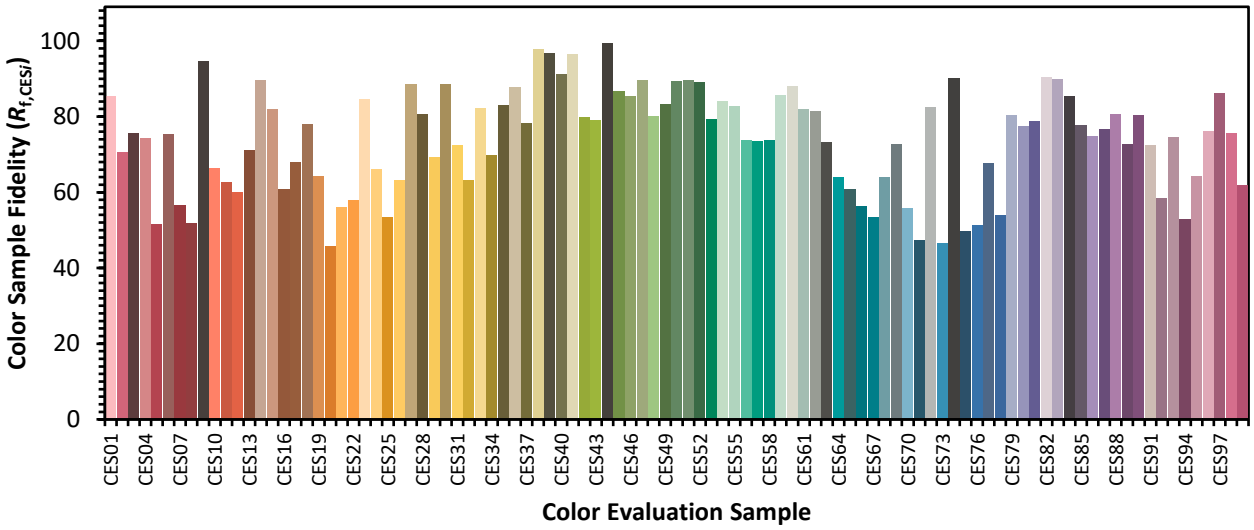



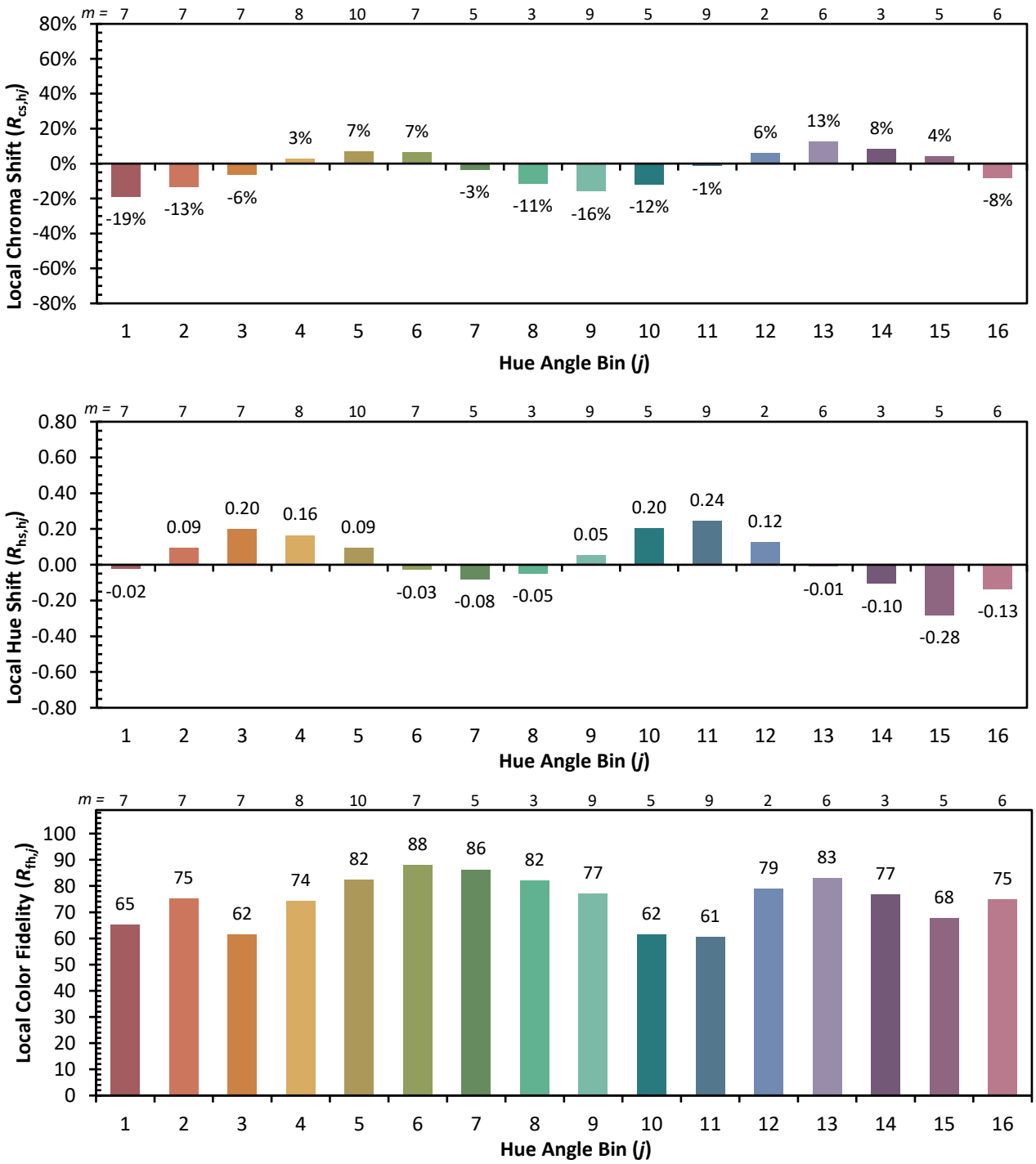



**Individual Sample Fidelity Index ($R_{f,i}$)**

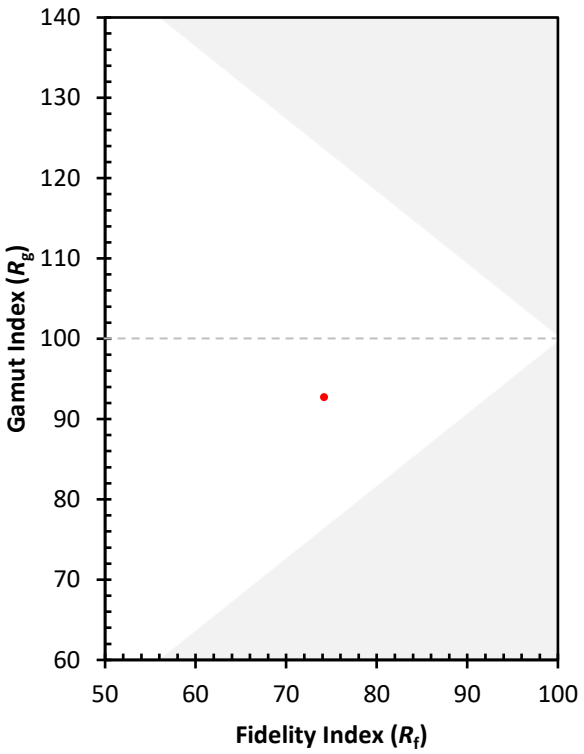
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 63 | CES51 = 89 | CES76 = 51 |
| CES02 = 59 | CES27 = 89 | CES52 = 89 | CES77 = 68 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 69 | CES54 = 84 | CES79 = 80 |
| CES05 = 46 | CES30 = 88 | CES55 = 83 | CES80 = 77 |
| CES06 = 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 | |

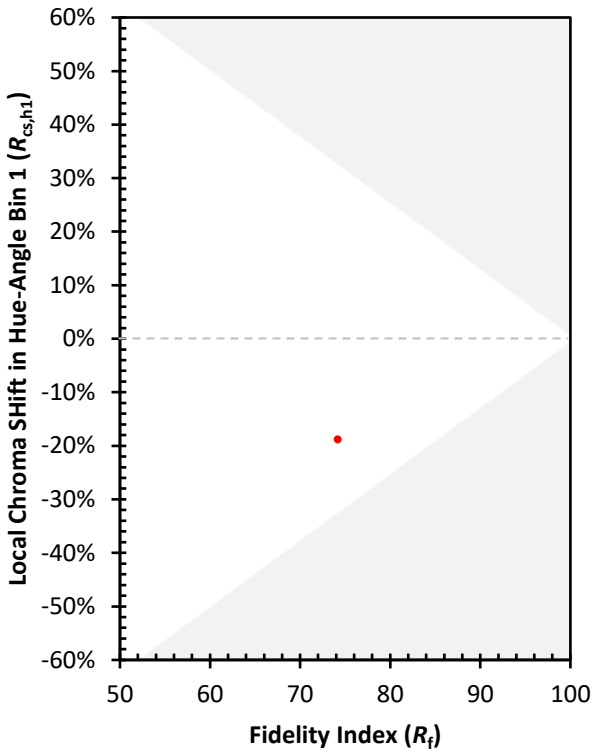


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)