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

Cooper Lighting Solutions Photometric Lab
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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: P1461334

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

Issue Date: 06/09/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1461334 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/9/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-P-PB1B-750-U-T2R |
| Description: | PREVAIL PETITE DISCRETE LED 1 SQUARE AT 1470MA 70CRI 5000K FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC |
| Light Source: | (10) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 6504.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 123.9 lumens/watt |
| Luminous Opening: | Rectangular (W 0.33' x L: 0.33' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B2 - U0 - G2 |
| Input Watts (W): | 52.5 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | 6.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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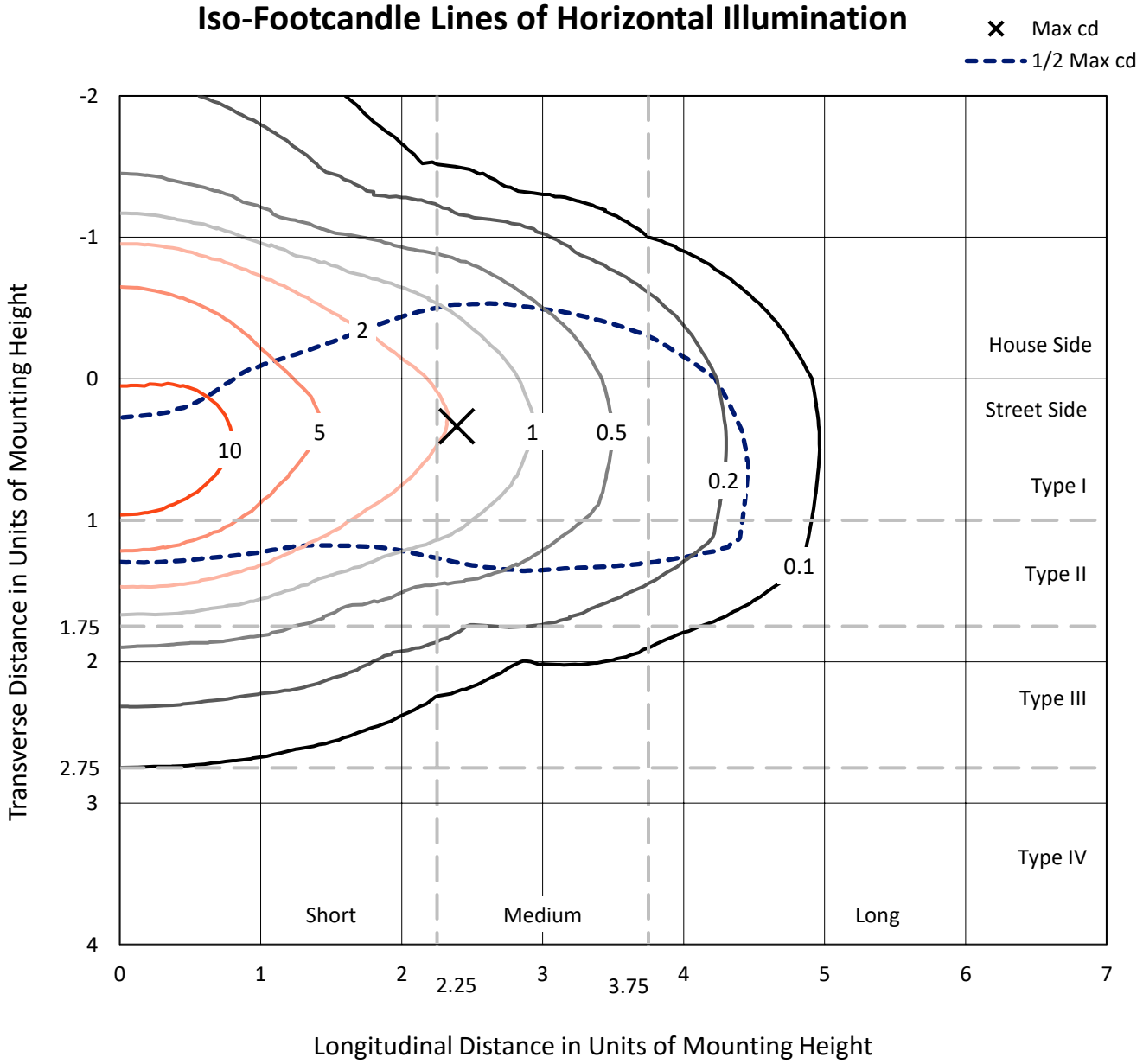
Scaled Data Report

REPORT NUMBER: P1461334
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R

## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 17.7 fc
Type II - Medium - N/A

REPORT NUMBER: P1461334
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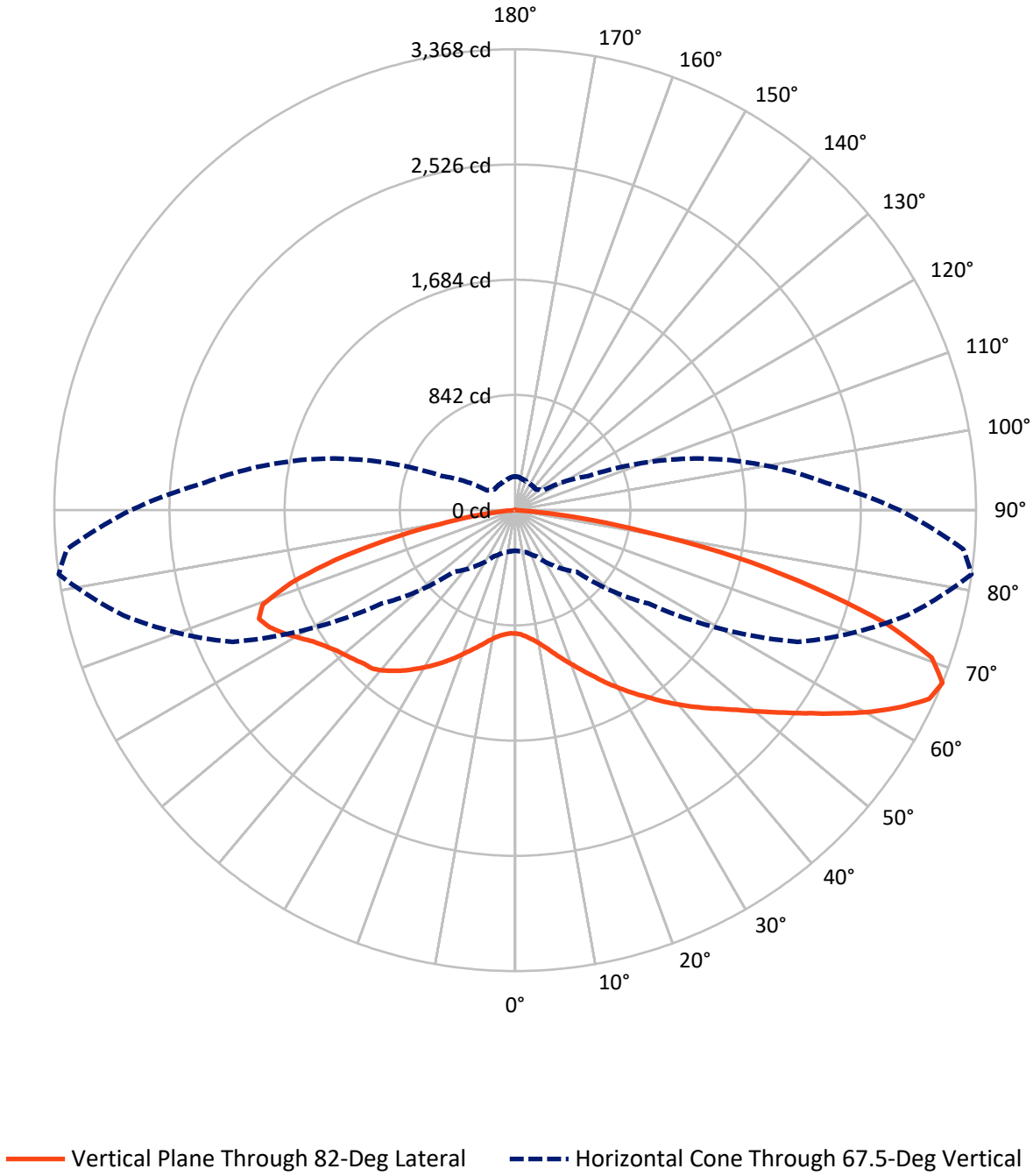
## Luminous Intensity Polar Plot



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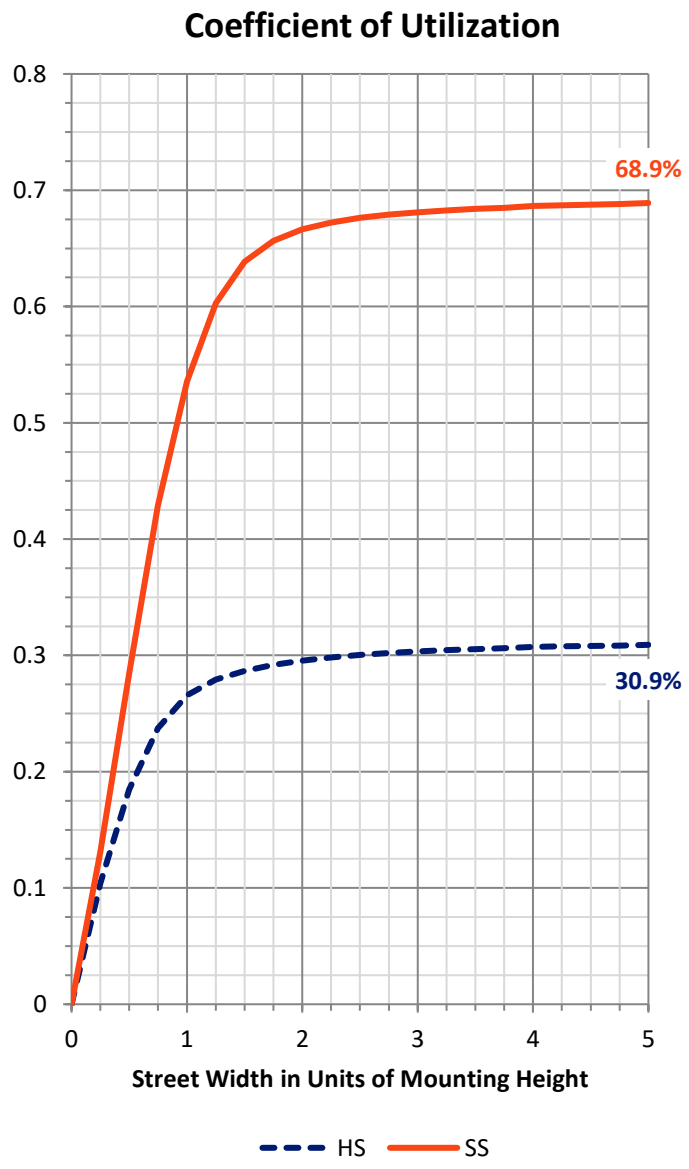
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2020.0 | 0.0 | 2020.0 |
| | % Fixture | 31.1 | 0.0 | 31.1 |
| **Street Side** | Lumens | 4484.2 | 0.0 | 4484.2 |
| | % Fixture | 68.9 | 0.0 | 68.9 |
| **Total** | Lumens | 6504.3 | 0.0 | 6504.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 93.8 | 1.4 |
| 10°-20° | 342.0 | 5.3 |
| 20°-30° | 693.0 | 10.7 |
| 30°-40° | 1084.9 | 16.7 |
| 40°-50° | 1310.6 | 20.1 |
| 50°-60° | 1234.6 | 19.0 |
| 60°-70° | 1035.6 | 15.9 |
| 70°-80° | 622.9 | 9.6 |
| 80°-90° | 86.8 | 1.3 |
| 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° | 6504.3 | 100.0 |
| 0°-180° | 6504.3 | 100.0 |

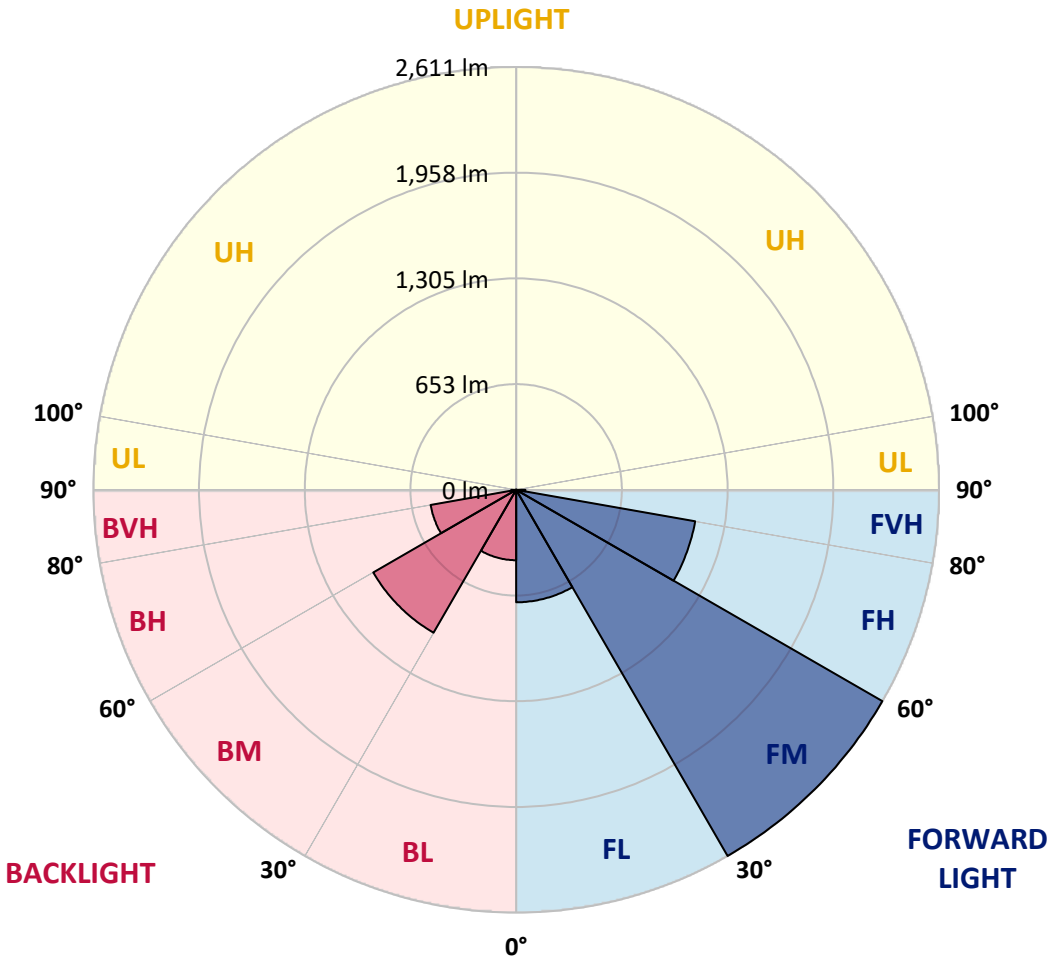


REPORT NUMBER: P1461334
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 694.2 | 10.7 | | | |
| FM | (30°-60°) | 2611.0 | 40.1 | | | |
| FH | (60°-80°) | 1122.1 | 17.3 | | | G1/1800 |
| FVH | (80°-90°) | 57.0 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 434.7 | 6.7 | B1/500 | | |
| BM | (30°-60°) | 1019.1 | 15.7 | B2/2500 | | |
| BH | (60°-80°) | 536.5 | 8.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 29.8 | 0.5 | | | 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



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Scaled Data Report

REPORT NUMBER: P1461334
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 | *901* | 901 |
| 2.5° | 960 | 959 | 960 | 965 | 955 | 950 | 940 | 927 | 917 | *910* | 908 |
| 5° | 1056 | 1062 | 1059 | 1052 | 1036 | 1015 | 989 | 960 | 944 | *932* | 927 |
| 7.5° | 1187 | 1178 | 1184 | 1163 | 1135 | 1099 | 1049 | 1014 | 977 | *957* | 951 |
| 10° | 1329 | 1328 | 1316 | 1294 | 1252 | 1197 | 1136 | 1075 | 1026 | *992* | 979 |
| 12.5° | 1482 | 1481 | 1475 | 1434 | 1381 | 1302 | 1229 | 1150 | 1073 | *1037* | 1022 |
| 15° | 1633 | 1641 | 1630 | 1582 | 1514 | 1416 | 1324 | 1228 | 1141 | *1089* | 1070 |
| 17.5° | 1795 | 1794 | 1773 | 1725 | 1647 | 1546 | 1432 | 1305 | 1204 | *1147* | 1123 |
| 20° | 1944 | 1961 | 1935 | 1885 | 1788 | 1678 | 1545 | 1399 | 1277 | *1208* | 1182 |
| 22.5° | 2138 | 2136 | 2112 | 2036 | 1934 | 1802 | 1656 | 1500 | 1359 | *1275* | 1243 |
| 25° | 2341 | 2346 | 2313 | 2221 | 2080 | 1938 | 1770 | 1610 | 1454 | *1349* | 1315 |
| 27.5° | 2556 | 2560 | 2518 | 2407 | 2260 | 2077 | 1902 | 1717 | 1539 | *1431* | 1381 |
| 30° | 2737 | 2740 | 2699 | 2586 | 2417 | 2225 | 2013 | 1825 | 1626 | *1511* | 1459 |
| 32.5° | 2889 | 2881 | 2837 | 2733 | 2575 | 2369 | 2142 | 1928 | 1729 | *1596* | 1538 |
| 35° | 2963 | 2972 | 2940 | 2845 | 2699 | 2504 | 2282 | 2050 | 1824 | *1680* | 1622 |
| 37.5° | 2962 | 2971 | 2960 | 2898 | 2777 | 2610 | 2400 | 2177 | 1943 | *1777* | 1706 |
| 40° | 2892 | 2904 | 2910 | 2878 | 2798 | 2679 | 2495 | 2290 | 2051 | *1873* | 1797 |
| 42.5° | 2760 | 2769 | 2788 | 2772 | 2759 | 2691 | 2569 | 2401 | 2161 | *1970* | 1883 |
| 45° | 2587 | 2593 | 2612 | 2629 | 2652 | 2645 | 2601 | 2500 | 2287 | *2070* | 1969 |
| 47.5° | 2344 | 2365 | 2411 | 2470 | 2511 | 2559 | 2590 | 2565 | 2404 | *2180* | 2068 |
| 50° | 2050 | 2048 | 2132 | 2229 | 2351 | 2423 | 2523 | 2609 | 2536 | *2311* | 2186 |
| 52.5° | 1619 | 1643 | 1749 | 1940 | 2142 | 2275 | 2418 | 2608 | 2661 | *2458* | 2322 |
| 55° | 1199 | 1254 | 1386 | 1579 | 1863 | 2108 | 2288 | 2556 | 2776 | *2620* | 2473 |
| 57.5° | 872 | 872 | 1013 | 1197 | 1542 | 1898 | 2166 | 2467 | 2862 | *2802* | 2651 |
| 60° | 635 | 631 | 733 | 891 | 1167 | 1569 | 2044 | 2386 | 2936 | *2991* | 2844 |
| 62.5° | 467 | 464 | 518 | 650 | 865 | 1223 | 1840 | 2348 | 2974 | *3166* | 3044 |
| 65° | 365 | 368 | 399 | 480 | 650 | 881 | 1554 | 2347 | 2979 | *3326* | 3211 |
| 67.5° | *296* | *300* | *318* | *373* | *496* | *637* | *1190* | *2278* | *2967* | *3368* | *3289* |
| 70° | 250 | 251 | 268 | 307 | 376 | 479 | 837 | 2074 | 2904 | *3230* | 3171 |
| 72.5° | 207 | 210 | 228 | 253 | 303 | 369 | 562 | 1699 | 2690 | *2841* | 2796 |
| 75° | 170 | 168 | 182 | 213 | 246 | 288 | 396 | 1205 | 2284 | *2254* | 2200 |
| 77.5° | 135 | 134 | 147 | 176 | 196 | 226 | 285 | 764 | 1679 | *1651* | 1608 |
| 80° | 97 | 92 | 100 | 127 | 148 | 168 | 197 | 408 | 986 | *958* | 972 |
| 82.5° | 56 | 56 | 59 | 80 | 95 | 109 | 126 | 217 | 472 | *487* | 470 |
| 85° | 13 | 14 | 16 | 20 | 28 | 40 | 46 | 70 | 118 | *127* | 126 |
| 87.5° | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 4 | *4* | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *0* | 0 |

REPORT NUMBER: P1461334
CATALOG NUMBER: PRV-P-PB1B-750-U-T2R

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 | 901 |
| 2.5° | 904 | 903 | 894 | 889 | 890 | 886 | 881 | 881 | 878 | 875 | 874 |
| 5° | 918 | 912 | 902 | 893 | 893 | 889 | 887 | 882 | 881 | 878 | 879 |
| 7.5° | 937 | 928 | 914 | 905 | 905 | 902 | 902 | 898 | 897 | 893 | 891 |
| 10° | 967 | 954 | 938 | 928 | 927 | 926 | 925 | 924 | 919 | 915 | 913 |
| 12.5° | 1003 | 987 | 968 | 961 | 959 | 957 | 955 | 949 | 945 | 940 | 937 |
| 15° | 1045 | 1029 | 1008 | 999 | 995 | 991 | 981 | 975 | 968 | 960 | 958 |
| 17.5° | 1094 | 1071 | 1046 | 1036 | 1028 | 1019 | 1010 | 996 | 985 | 976 | 974 |
| 20° | 1147 | 1119 | 1090 | 1075 | 1064 | 1048 | 1030 | 1012 | 999 | 988 | 986 |
| 22.5° | 1199 | 1172 | 1137 | 1116 | 1094 | 1069 | 1041 | 1017 | 1001 | 990 | 988 |
| 25° | 1260 | 1226 | 1182 | 1149 | 1117 | 1082 | 1044 | 1013 | 992 | 981 | 977 |
| 27.5° | 1325 | 1282 | 1223 | 1181 | 1134 | 1081 | 1030 | 995 | 969 | 954 | 952 |
| 30° | 1388 | 1338 | 1265 | 1199 | 1138 | 1069 | 1005 | 959 | 928 | 908 | 906 |
| 32.5° | 1462 | 1397 | 1298 | 1216 | 1134 | 1049 | 969 | 913 | 877 | 857 | 857 |
| 35° | 1534 | 1459 | 1334 | 1229 | 1123 | 1017 | 925 | 860 | 818 | 795 | 793 |
| 37.5° | 1608 | 1517 | 1361 | 1230 | 1103 | 974 | 873 | 803 | 758 | 731 | 726 |
| 40° | 1685 | 1577 | 1381 | 1221 | 1071 | 925 | 817 | 740 | 679 | 644 | 636 |
| 42.5° | 1753 | 1629 | 1392 | 1209 | 1032 | 869 | 750 | 657 | 592 | 560 | 554 |
| 45° | 1811 | 1655 | 1385 | 1185 | 982 | 806 | 664 | 568 | 513 | 481 | 474 |
| 47.5° | 1882 | 1697 | 1380 | 1158 | 923 | 726 | 572 | 482 | 434 | 410 | 408 |
| 50° | 1964 | 1739 | 1377 | 1123 | 852 | 632 | 481 | 402 | 364 | 345 | 343 |
| 52.5° | 2050 | 1784 | 1379 | 1080 | 765 | 527 | 400 | 340 | 308 | 298 | 296 |
| 55° | 2169 | 1845 | 1387 | 1024 | 666 | 435 | 337 | 292 | 274 | 269 | 269 |
| 57.5° | 2296 | 1915 | 1402 | 957 | 564 | 354 | 288 | 266 | 263 | 264 | 265 |
| 60° | 2454 | 2012 | 1424 | 885 | 463 | 296 | 260 | 255 | 258 | 267 | 269 |
| 62.5° | 2606 | 2110 | 1462 | 802 | 372 | 255 | 245 | 246 | 250 | 262 | 263 |
| 65° | 2747 | 2203 | 1485 | 704 | 306 | 232 | 234 | 234 | 244 | 261 | 262 |
| 67.5° | *2808* | *2281* | *1454* | *588* | *251* | *214* | *218* | *222* | *231* | *244* | *246* |
| 70° | 2749 | 2258 | 1295 | 449 | 209 | 196 | 199 | 203 | 214 | 227 | 233 |
| 72.5° | 2466 | 2033 | 995 | 322 | 179 | 175 | 178 | 185 | 193 | 208 | 217 |
| 75° | 2025 | 1652 | 700 | 219 | 154 | 152 | 160 | 165 | 161 | 164 | 169 |
| 77.5° | 1475 | 1168 | 427 | 163 | 128 | 131 | 135 | 129 | 111 | 96 | 101 |
| 80° | 920 | 687 | 247 | 121 | 99 | 97 | 95 | 86 | 63 | 43 | 19 |
| 82.5° | 473 | 359 | 155 | 85 | 62 | 59 | 59 | 46 | 32 | 13 | 0 |
| 85° | 113 | 102 | 61 | 35 | 23 | 22 | 15 | 6 | 2 | 0 | 0 |
| 87.5° | 4 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 |
| 90° | 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

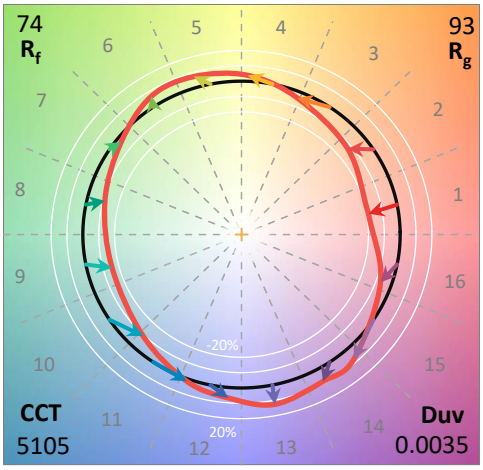
## Test Information

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

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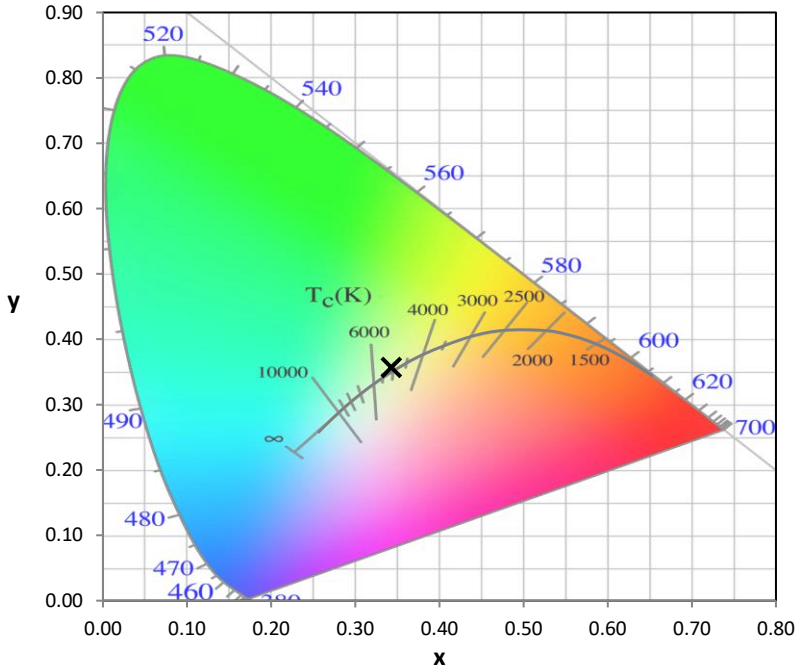
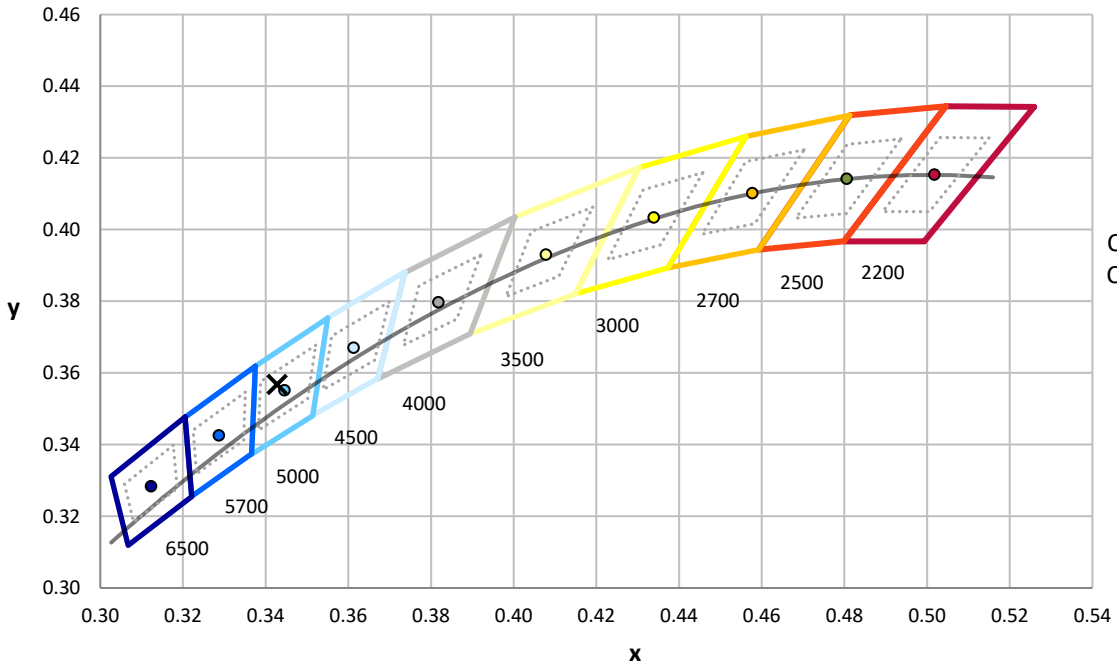
**CIE 1931 Chromaticity Diagram**




**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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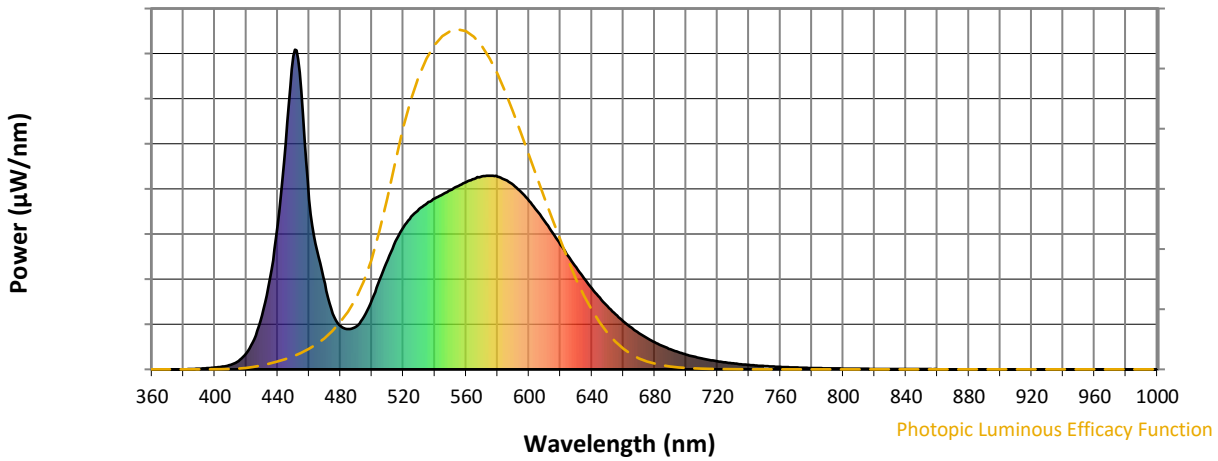
## Photopic Flux vs. Wavelength

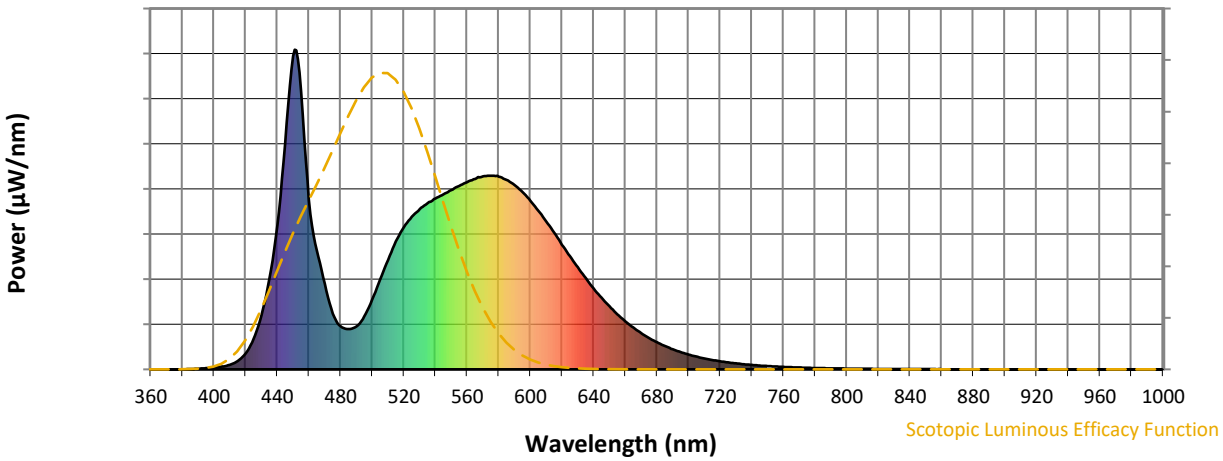



**Photopic Lumens: NR**

| 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 | | | |

REPORT NUMBER: SP2-2501-321-5

## Scotopic Flux vs. Wavelength

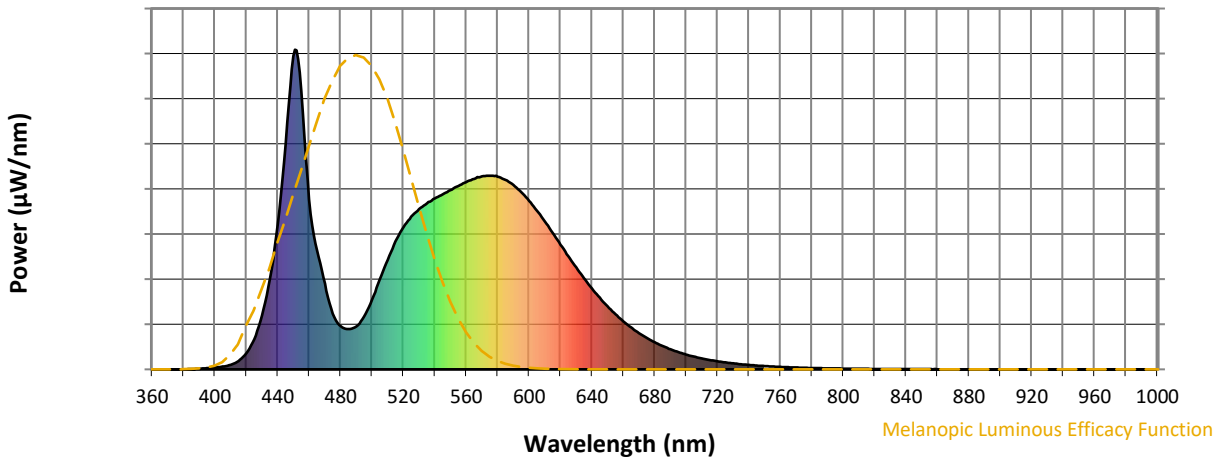



**Scotopic Lumens: NR** **S/P: 1.82**

| 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 | | | |

REPORT NUMBER: SP2-2501-321-5

## 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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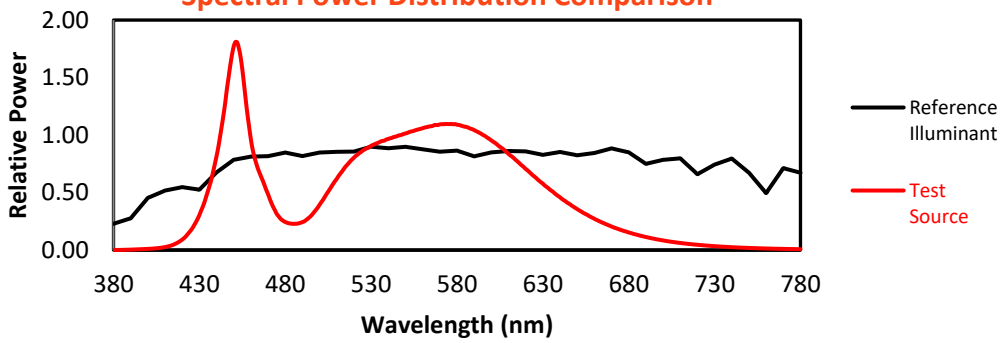
# TM-30-18

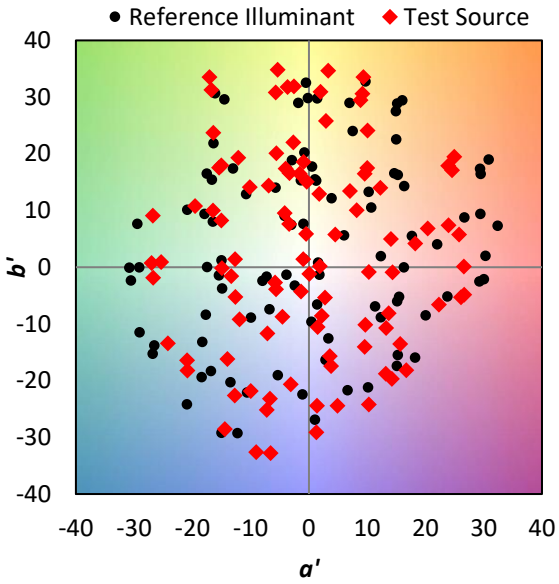
## Summary

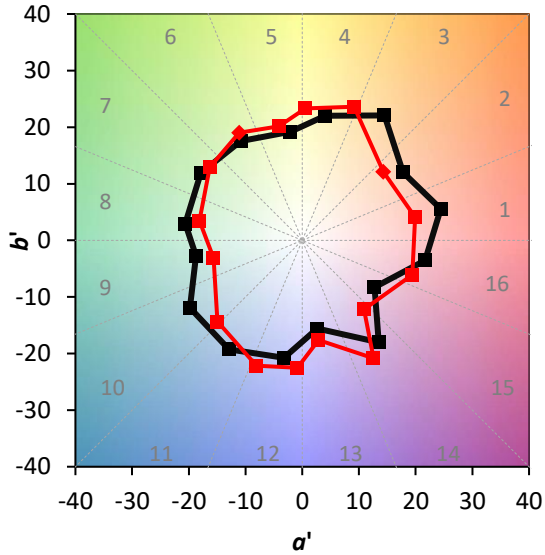
$R_f$ = 74.2
$R_g$ = 92.7
CIE $R_a$ = 72.2
$R_9$ = -38.2

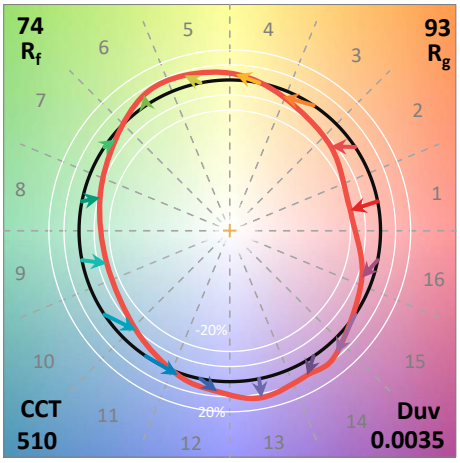
## Spectral Power Distribution Comparison

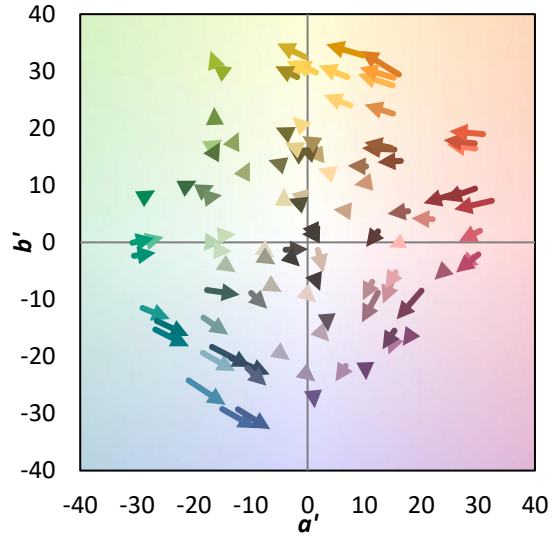



## Color Vector Graphics



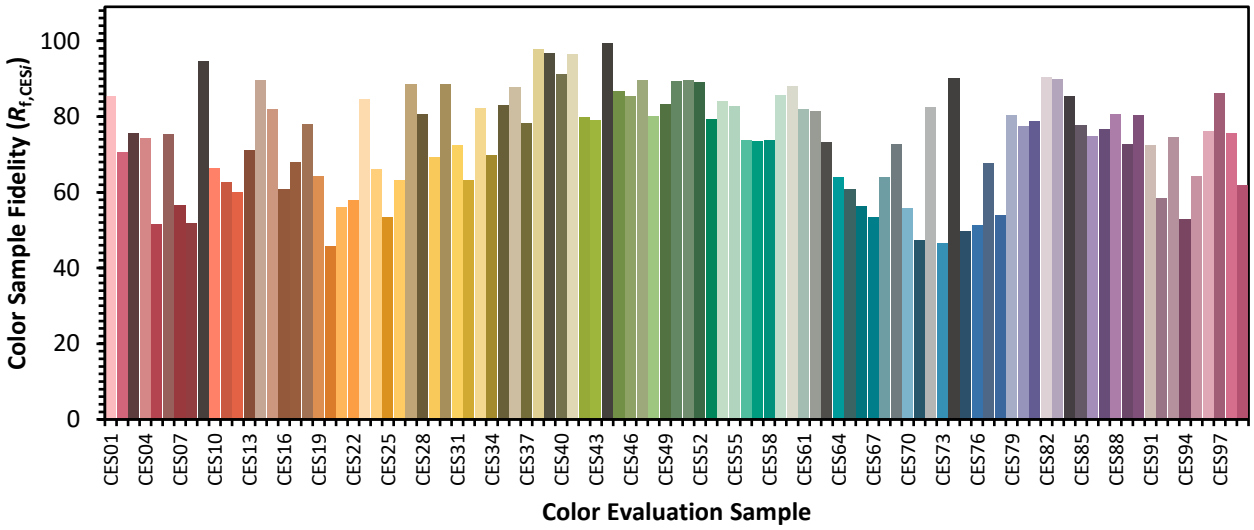



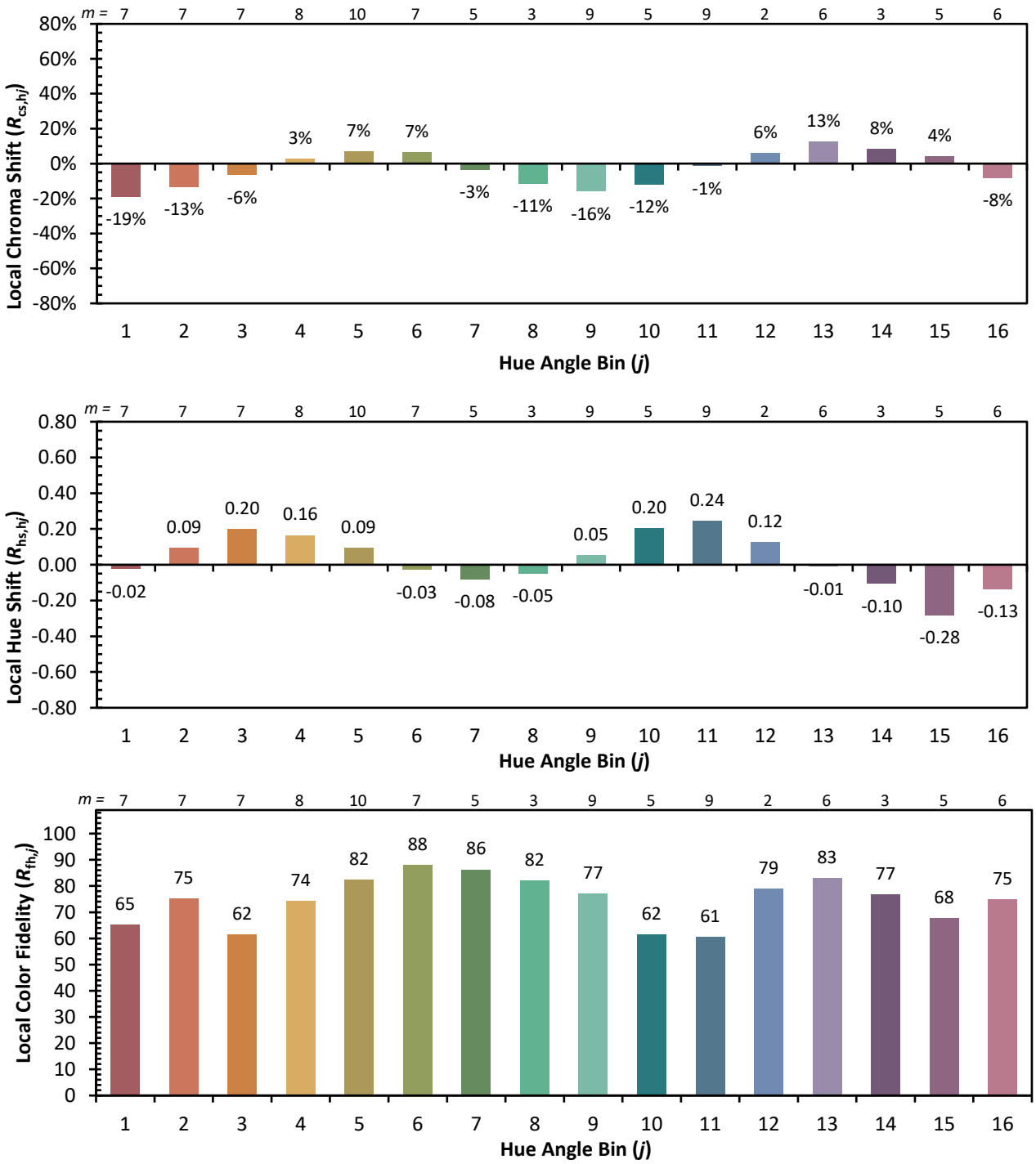



**Individual Sample Fidelity Index ($R_{f,i}$)**

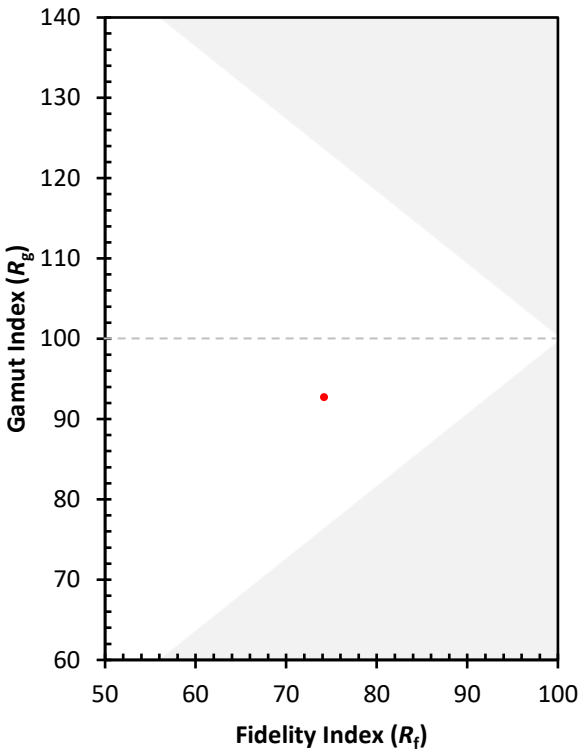
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 63 | CES51 = 89 | CES76 = 51 |
| CES02 = 59 | CES27 = 89 | CES52 = 89 | CES77 = 68 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 69 | CES54 = 84 | CES79 = 80 |
| CES05 = 46 | CES30 = 88 | CES55 = 83 | CES80 = 77 |
| CES06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

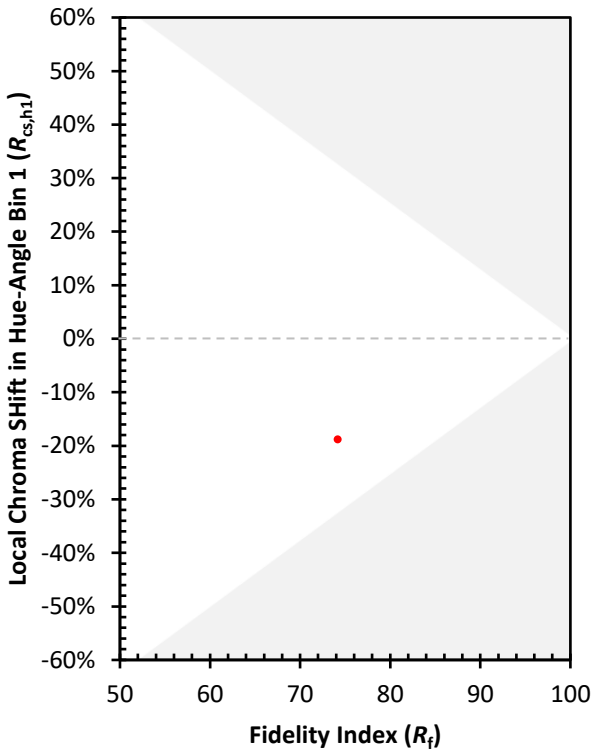


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)