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

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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: P1460860

Luminaire Tested: PRV-PC1D-740-U-T3R

Issue Date: 06/10/2026

**Test Information**

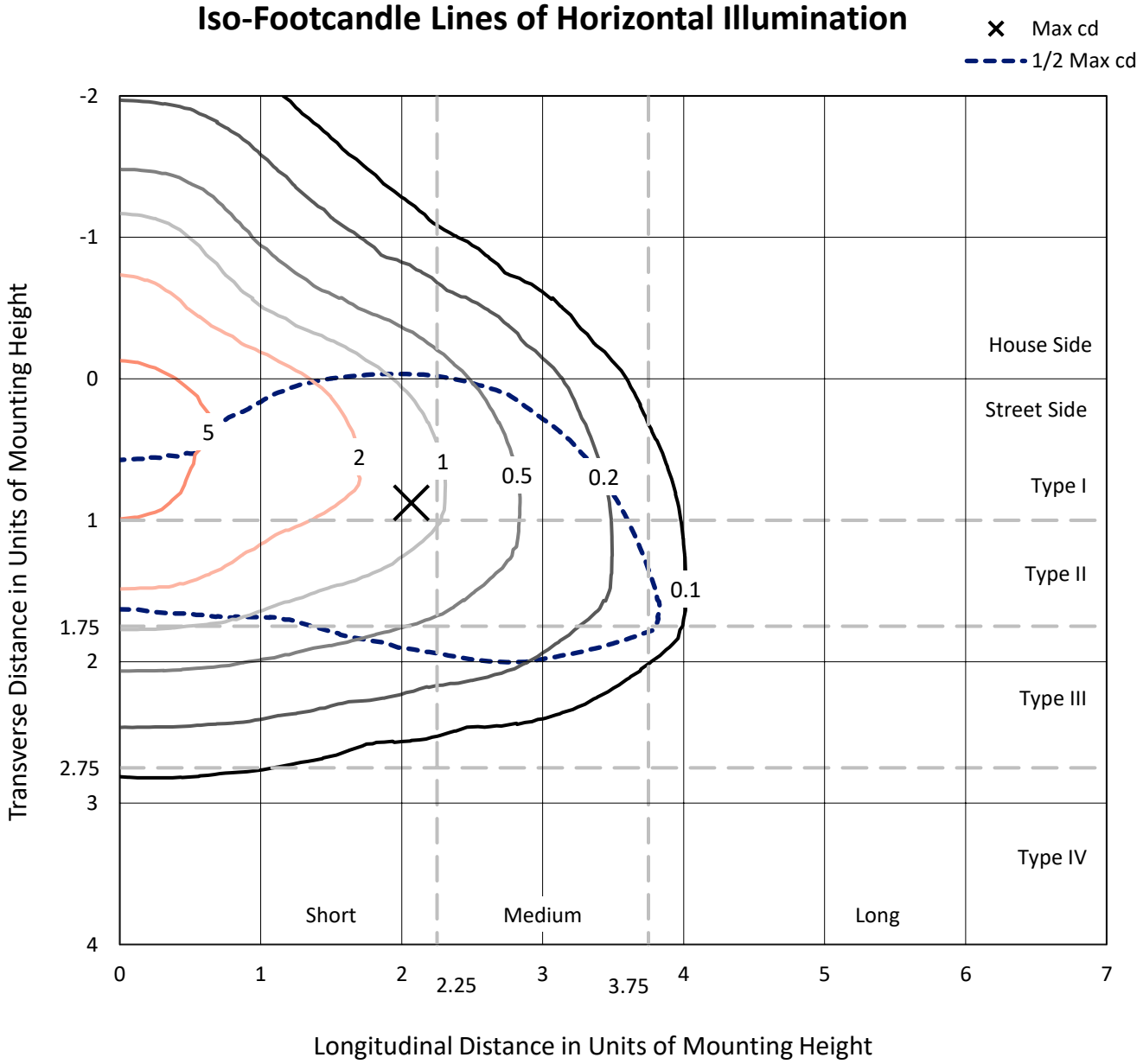
| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1460860 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/10/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-PC1D-740-U-T3R |
| Description: | PREVAIL DISCRETE LED 1 SQUARE AT 1170MA 70CRI 4000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC |
| Light Source: | (40) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 21517.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 141.6 lumens/watt |
| Luminous Opening: | Rectangular (W 0.67' x L: 0.67' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G3 |
| Input Watts (W): | 152 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 2.75% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

REPORT NUMBER: P1460860
CATALOG NUMBER: PRV-PC1D-740-U-T3R

## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
Type III - Short - N/A

REPORT NUMBER: P1460860
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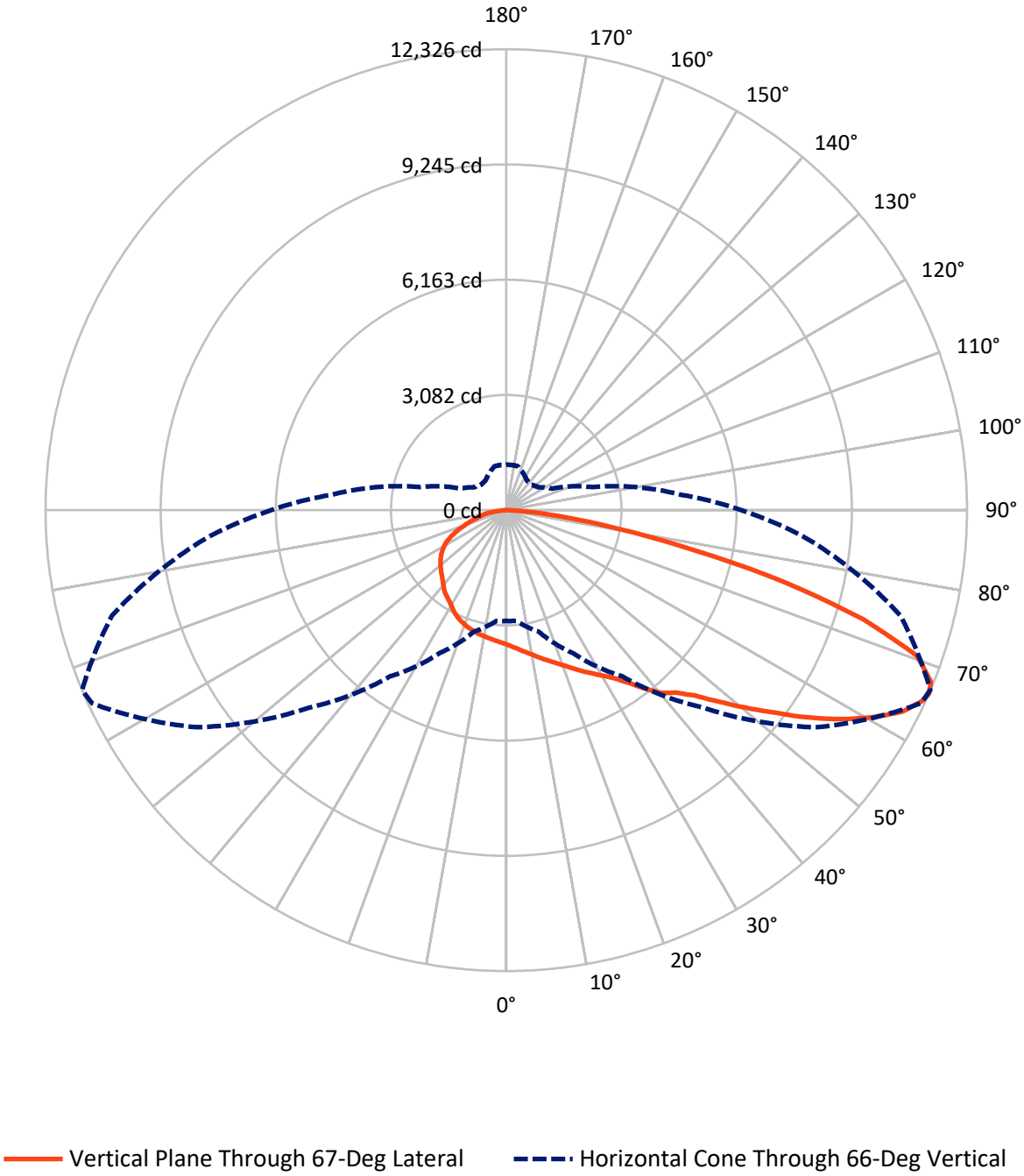
## Luminous Intensity Polar Plot



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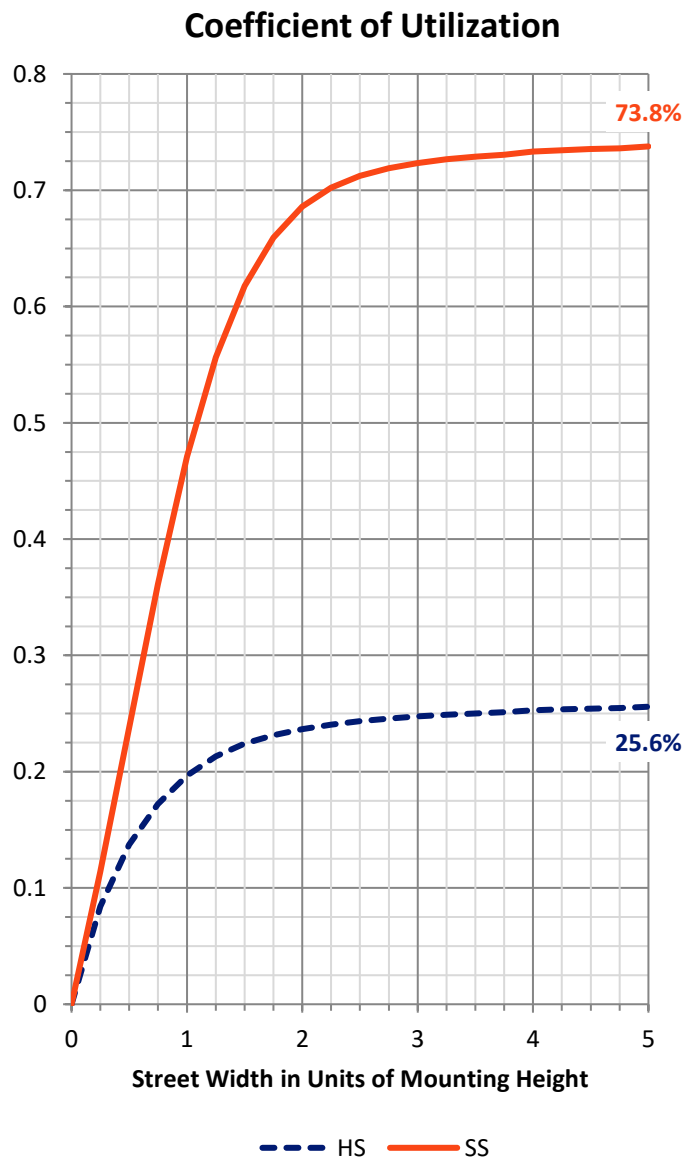
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5576.6 | 0.0 | 5576.6 |
| | % Fixture | 25.9 | 0.0 | 25.9 |
| **Street Side** | Lumens | 15941.0 | 0.0 | 15941.0 |
| | % Fixture | 74.1 | 0.0 | 74.1 |
| **Total** | Lumens | 21517.6 | 0.0 | 21517.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 346.5 | 1.6 |
| 10°-20° | 1042.9 | 4.8 |
| 20°-30° | 1775.0 | 8.2 |
| 30°-40° | 2774.8 | 12.9 |
| 40°-50° | 3837.1 | 17.8 |
| 50°-60° | 4601.4 | 21.4 |
| 60°-70° | 4440.3 | 20.6 |
| 70°-80° | 2291.6 | 10.6 |
| 80°-90° | 408.0 | 1.9 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 21517.6 | 100.0 |
| 0°-180° | 21517.6 | 100.0 |

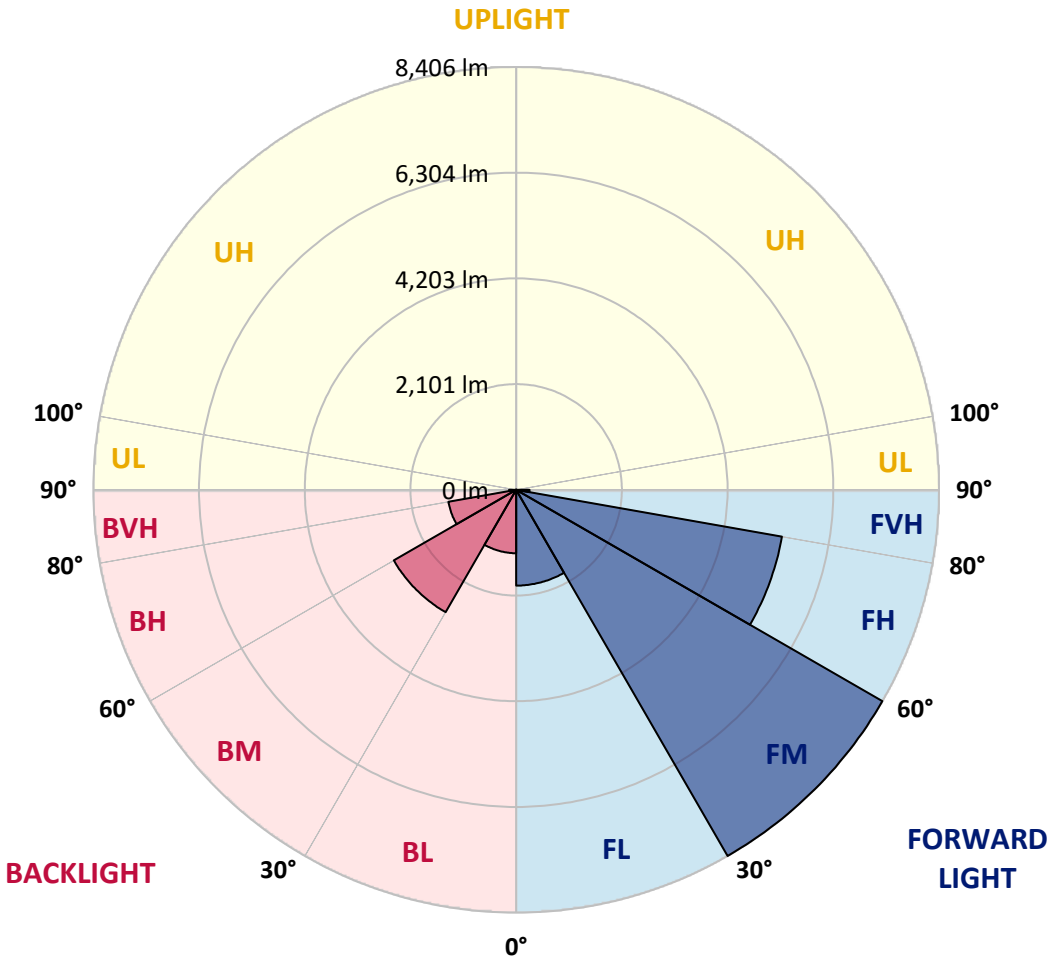


REPORT NUMBER: P1460860
CATALOG NUMBER: PRV-PC1D-740-U-T3R

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

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1904.2 | 8.8 | | | |
| FM | (30°-60°) | 8405.6 | 39.1 | | | |
| FH | (60°-80°) | 5364.7 | 24.9 | | | G3/7500 |
| FVH | (80°-90°) | 266.5 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1260.1 | 5.9 | B3/2500 | | |
| BM | (30°-60°) | 2807.8 | 13.0 | B3/5000 | | |
| BH | (60°-80°) | 1367.1 | 6.4 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 141.6 | 0.7 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type III Short



REPORT NUMBER: P1460860
CATALOG NUMBER: PRV-PC1D-740-U-T3R

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | *3596* | 3596 | 3596 |
| 2.5° | 3742 | 3745 | 3747 | 3741 | 3722 | 3709 | 3699 | 3667 | *3668* | 3648 | 3611 |
| 5° | 3885 | 3900 | 3896 | 3885 | 3862 | 3830 | 3795 | 3744 | *3748* | 3705 | 3641 |
| 7.5° | 4021 | 4040 | 4033 | 4024 | 3998 | 3957 | 3916 | 3842 | *3839* | 3774 | 3677 |
| 10° | 4129 | 4149 | 4149 | 4143 | 4132 | 4085 | 4032 | 3952 | *3936* | 3845 | 3729 |
| 12.5° | 4218 | 4236 | 4248 | 4243 | 4247 | 4215 | 4157 | 4070 | *4054* | 3933 | 3787 |
| 15° | 4271 | 4305 | 4314 | 4330 | 4351 | 4338 | 4298 | 4181 | *4171* | 4035 | 3848 |
| 17.5° | 4325 | 4344 | 4366 | 4406 | 4440 | 4460 | 4420 | 4322 | *4296* | 4132 | 3912 |
| 20° | 4388 | 4423 | 4447 | 4489 | 4537 | 4586 | 4577 | 4461 | *4435* | 4253 | 3990 |
| 22.5° | 4555 | 4580 | 4591 | 4620 | 4677 | 4726 | 4732 | 4630 | *4598* | 4400 | 4083 |
| 25° | 4891 | 4919 | 4877 | 4845 | 4829 | 4872 | 4902 | 4808 | *4773* | 4546 | 4174 |
| 27.5° | 5489 | 5488 | 5366 | 5236 | 5097 | 5046 | 5067 | 4987 | *4949* | 4688 | 4280 |
| 30° | 6168 | 6201 | 6098 | 5783 | 5456 | 5250 | 5263 | 5173 | *5144* | 4860 | 4403 |
| 32.5° | 6878 | 6897 | 6774 | 6471 | 5944 | 5565 | 5488 | 5413 | *5371* | 5089 | 4562 |
| 35° | 7223 | 7261 | 7195 | 6905 | 6374 | 5951 | 5819 | 5739 | *5682* | 5360 | 4767 |
| 37.5° | 7669 | 7724 | 7711 | 7299 | 6642 | 6260 | 6167 | 6089 | *6064* | 5699 | 5027 |
| 40° | 8326 | 8324 | 8353 | 7695 | 6927 | 6474 | 6477 | 6480 | *6431* | 5978 | 5220 |
| 42.5° | 8644 | 8635 | 8538 | 7914 | 7259 | 6685 | 6723 | 6719 | *6668* | 6190 | 5373 |
| 45° | 8741 | 8730 | 8499 | 8082 | 7779 | 6923 | 7032 | 7114 | *7072* | 6576 | 5678 |
| 47.5° | 8673 | 8651 | 8524 | 8182 | 8064 | 7342 | 7386 | 7654 | *7646* | 7057 | 6032 |
| 50° | 8504 | 8443 | 8405 | 8218 | 7981 | 7529 | 7824 | 8321 | *8302* | 7647 | 6410 |
| 52.5° | 8131 | 8123 | 8171 | 8048 | 7809 | 7613 | 8303 | 8990 | *8994* | 8247 | 6791 |
| 55° | 7667 | 7638 | 7789 | 7779 | 7629 | 7780 | 8774 | 9758 | *9786* | 8867 | 7200 |
| 57.5° | 6553 | 6586 | 7231 | 7412 | 7441 | 7951 | 9277 | 10483 | *10541* | 9495 | 7550 |
| 60° | 5464 | 5528 | 5992 | 6809 | 7147 | 8040 | 9748 | 11221 | *11245* | 10124 | 7868 |
| 62.5° | 4530 | 4511 | 4935 | 5857 | 6674 | 8005 | 10081 | 11792 | *11879* | 10625 | 8050 |
| 65° | 3360 | 3405 | 3865 | 4682 | 5873 | 7674 | 10186 | 12187 | *12259* | 10903 | 8043 |
| 66° | *2963* | *2971* | *3366* | *4218* | *5427* | *7469* | *10119* | *12224* | *12326* | *10923* | *7958* |
| 67.5° | 2449 | 2460 | 2774 | 3471 | 4724 | 7023 | 9863 | 12156 | *12254* | 10812 | 7691 |
| 70° | 1739 | 1798 | 1966 | 2435 | 3330 | 5713 | 9040 | 11420 | *11644* | 10108 | 6912 |
| 72.5° | 1259 | 1275 | 1411 | 1654 | 2093 | 3809 | 7481 | 9835 | *9979* | 8453 | 5510 |
| 75° | 898 | 918 | 1033 | 1130 | 1385 | 2350 | 5275 | 7704 | *7670* | 6048 | 3754 |
| 77.5° | 698 | 713 | 755 | 807 | 930 | 1344 | 3175 | 5206 | *5132* | 3791 | 2340 |
| 80° | 567 | 571 | 558 | 579 | 641 | 847 | 1817 | 3109 | *3043* | 2139 | 1417 |
| 82.5° | 442 | 447 | 437 | 423 | 454 | 572 | 1061 | 1644 | *1635* | 1240 | 768 |
| 85° | 283 | 294 | 282 | 262 | 283 | 348 | 559 | 701 | *674* | 561 | 292 |
| 87.5° | 158 | 156 | 143 | 115 | 100 | 126 | 156 | 157 | *151* | 132 | 80 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *0* | 0 | 0 |

REPORT NUMBER: P1460860
CATALOG NUMBER: PRV-PC1D-740-U-T3R

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 | 3596 |
| 2.5° | 3603 | 3596 | 3567 | 3541 | 3514 | 3498 | 3474 | 3463 | 3450 | 3439 | 3429 |
| 5° | 3623 | 3599 | 3544 | 3493 | 3444 | 3412 | 3369 | 3348 | 3324 | 3315 | 3303 |
| 7.5° | 3647 | 3601 | 3527 | 3448 | 3382 | 3323 | 3268 | 3235 | 3208 | 3200 | 3199 |
| 10° | 3678 | 3622 | 3512 | 3409 | 3317 | 3237 | 3167 | 3117 | 3087 | 3076 | 3071 |
| 12.5° | 3715 | 3641 | 3502 | 3371 | 3251 | 3153 | 3066 | 3003 | 2974 | 2956 | 2958 |
| 15° | 3759 | 3665 | 3491 | 3327 | 3175 | 3058 | 2952 | 2880 | 2846 | 2833 | 2831 |
| 17.5° | 3805 | 3687 | 3479 | 3275 | 3091 | 2947 | 2836 | 2755 | 2712 | 2709 | 2717 |
| 20° | 3858 | 3720 | 3465 | 3216 | 3003 | 2838 | 2715 | 2644 | 2601 | 2597 | 2613 |
| 22.5° | 3920 | 3752 | 3444 | 3148 | 2905 | 2725 | 2604 | 2536 | 2502 | 2506 | 2519 |
| 25° | 3990 | 3787 | 3417 | 3072 | 2796 | 2607 | 2495 | 2447 | 2426 | 2434 | 2452 |
| 27.5° | 4059 | 3826 | 3376 | 2978 | 2679 | 2499 | 2419 | 2384 | 2378 | 2393 | 2414 |
| 30° | 4144 | 3864 | 3327 | 2867 | 2553 | 2405 | 2348 | 2340 | 2346 | 2359 | 2383 |
| 32.5° | 4262 | 3941 | 3293 | 2765 | 2442 | 2312 | 2302 | 2315 | 2331 | 2348 | 2375 |
| 35° | 4421 | 4039 | 3284 | 2681 | 2341 | 2238 | 2263 | 2315 | 2342 | 2362 | 2388 |
| 37.5° | 4621 | 4159 | 3271 | 2603 | 2246 | 2164 | 2236 | 2329 | 2365 | 2375 | 2395 |
| 40° | 4733 | 4194 | 3178 | 2501 | 2155 | 2099 | 2208 | 2332 | 2363 | 2378 | 2395 |
| 42.5° | 4836 | 4211 | 3091 | 2398 | 2084 | 2032 | 2160 | 2296 | 2347 | 2412 | 2434 |
| 45° | 5035 | 4322 | 3056 | 2306 | 2010 | 1957 | 2067 | 2211 | 2340 | 2412 | 2430 |
| 47.5° | 5293 | 4446 | 3022 | 2221 | 1927 | 1856 | 1925 | 2147 | 2291 | 2346 | 2353 |
| 50° | 5561 | 4557 | 2977 | 2140 | 1824 | 1719 | 1805 | 2054 | 2207 | 2233 | 2239 |
| 52.5° | 5803 | 4659 | 2933 | 2055 | 1716 | 1584 | 1681 | 1924 | 2062 | 2069 | 2084 |
| 55° | 6045 | 4757 | 2879 | 1966 | 1587 | 1445 | 1540 | 1754 | 1863 | 1852 | 1852 |
| 57.5° | 6235 | 4845 | 2830 | 1856 | 1466 | 1325 | 1394 | 1562 | 1665 | 1655 | 1646 |
| 60° | 6395 | 4902 | 2772 | 1728 | 1344 | 1209 | 1252 | 1401 | 1501 | 1479 | 1479 |
| 62.5° | 6459 | 4903 | 2677 | 1592 | 1219 | 1097 | 1125 | 1258 | 1371 | 1358 | 1366 |
| 65° | 6386 | 4810 | 2479 | 1425 | 1101 | 990 | 1013 | 1127 | 1260 | 1256 | 1264 |
| 66° | *6285* | *4702* | *2373* | *1357* | *1059* | *957* | *965* | *1082* | *1214* | *1216* | *1215* |
| 67.5° | 6065 | 4508 | 2183 | 1260 | 991 | 894 | 904 | 1021 | 1152 | 1142 | 1146 |
| 70° | 5501 | 3879 | 1793 | 1088 | 889 | 792 | 808 | 929 | 1026 | 1016 | 1014 |
| 72.5° | 4397 | 2927 | 1448 | 929 | 786 | 702 | 726 | 810 | 930 | 925 | 928 |
| 75° | 2916 | 1913 | 1139 | 782 | 678 | 631 | 633 | 705 | 821 | 836 | 845 |
| 77.5° | 1816 | 1309 | 916 | 657 | 569 | 528 | 532 | 608 | 703 | 710 | 718 |
| 80° | 1165 | 965 | 722 | 533 | 435 | 426 | 439 | 509 | 588 | 594 | 590 |
| 82.5° | 703 | 625 | 540 | 381 | 336 | 336 | 354 | 409 | 438 | 340 | 318 |
| 85° | 280 | 325 | 294 | 210 | 216 | 221 | 232 | 277 | 292 | 154 | 121 |
| 87.5° | 65 | 89 | 87 | 61 | 67 | 73 | 72 | 117 | 146 | 66 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP2-2501-321-1

Test Date: 04/09/2025

Luminaire Tested: GKO-PB1E-740-U-T4W

Data in this report applies to families of products including GKO-PB1E-740-U-T4W

Report Generated By FNC07603 / LDUCLS01DT447
Version: v7.04

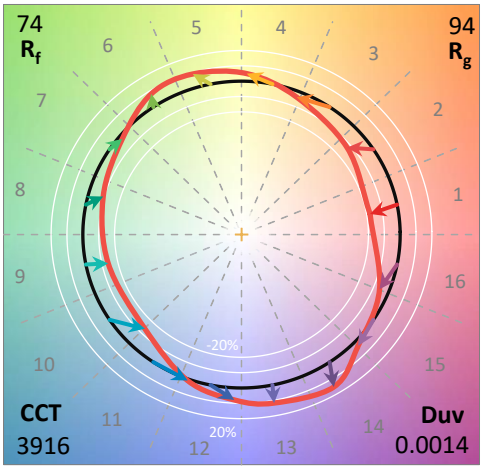
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP2-2501-321-1 |
| 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-740-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCT (K): | 3916 | CRI (Ra): | | 71.0 | | | |
| CIE u': | 0.2259 | R1: | | 67.4 | R9: | | -37.9 |
| CIE v': | 0.5049 | R2: | | 78.3 | R10: | | 48.9 |
| Duv: | 0.0014 | R3: | | 87.2 | R11: | | 64.6 |
| CIE x: | 0.3853 | R4: | | 69.5 | R12: | | 40.9 |
| CIE y: | 0.3827 | R5: | | 67.2 | R13: | | 69.2 |
| CIE z: | 0.2321 | R6: | | 69.3 | R14: | | 92.7 |
| Peak Wavelength (nm): | 449 | R7: | | 79.9 | R15: | | 59.8 |
| Dominant Wavelength (nm): | 578 | R8: | | 48.9 | | | |
| Purity: | 30.46652 | | | | | | |

| | |
|---|---|
| Rf: | 73.5 |
| Rg: | 93.5 |



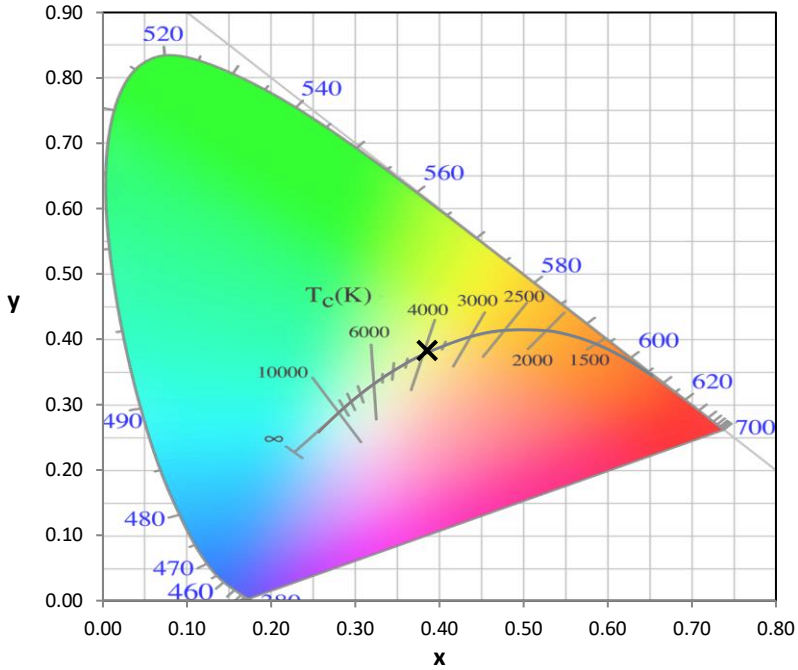

## Test Conditions

| | |
|---|---|
| Stabilization Time: | 33M |
| Operation Time: | 1H 33M |
| Sphere Temperature (°C): | 25.0 |

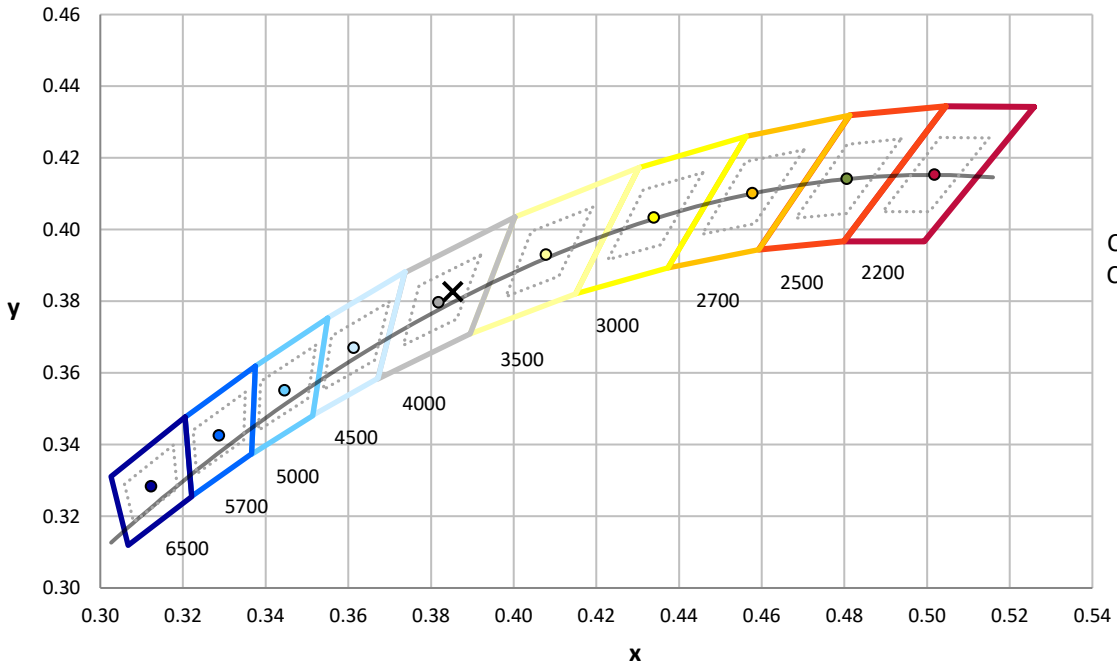
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power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

## CIE 1931 Chromaticity Diagram




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

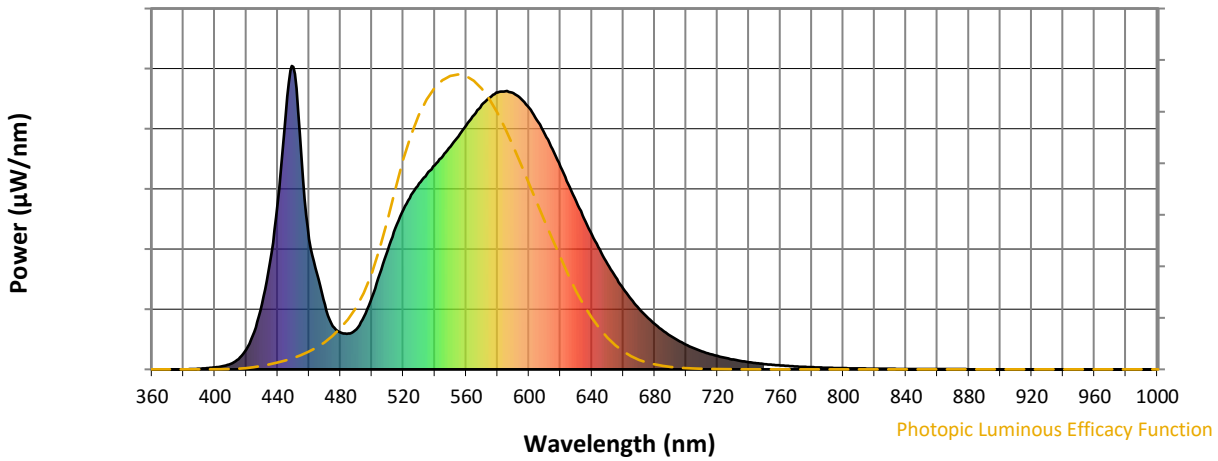



CCT = 3916K
CIE x = 0.3853
CIE y = 0.3827
Duv = 0.0014

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP2-2501-321-1

## 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 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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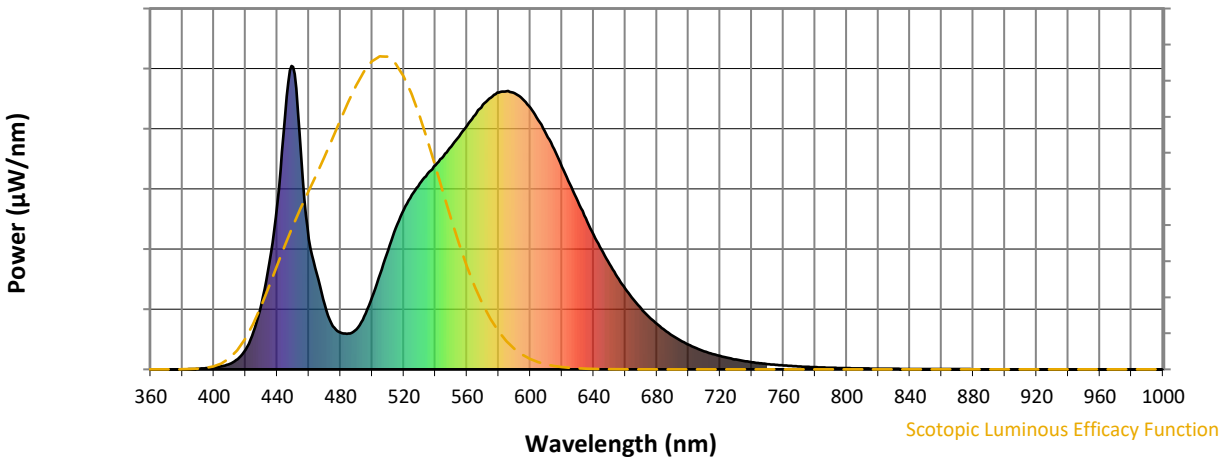
## Scotopic Flux vs. Wavelength

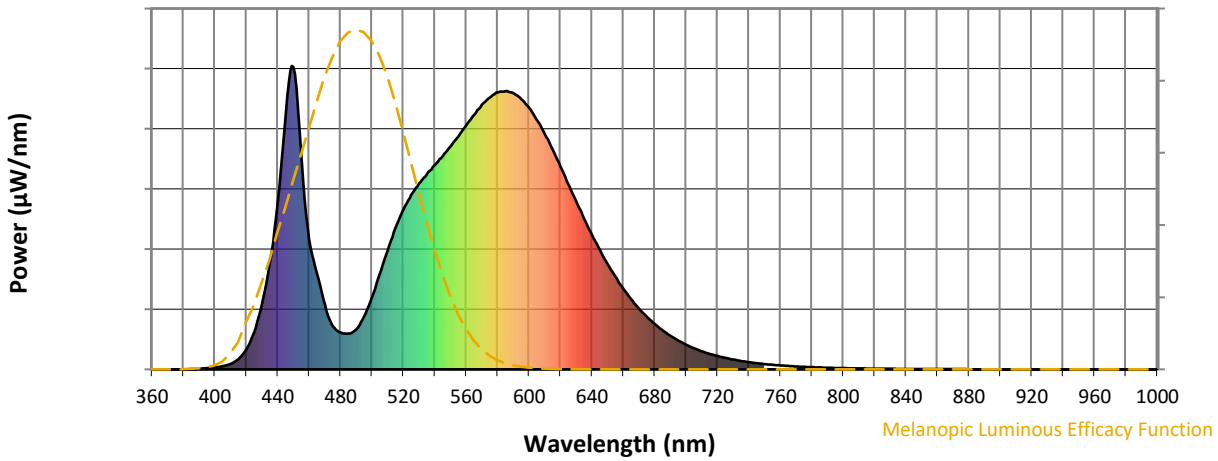



**Scotopic Lumens: NR** **S/P: 1.49**

| 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 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP2-2501-321-1

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.88**

| 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 | 132 | NR | 620 | 668 | NR | 750 | 17 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 174 | NR | 625 | 611 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 238 | NR | 630 | 554 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 314 | NR | 635 | 498 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 392 | NR | 640 | 445 | NR | 770 | 10 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 467 | NR | 645 | 394 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 526 | NR | 650 | 347 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 575 | NR | 655 | 305 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 613 | NR | 660 | 266 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 644 | NR | 665 | 231 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 673 | NR | 670 | 200 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 703 | NR | 675 | 174 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 66 | NR | 550 | 734 | NR | 680 | 150 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 124 | NR | 555 | 768 | NR | 685 | 129 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 216 | NR | 560 | 804 | NR | 690 | 111 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 352 | NR | 565 | 838 | NR | 695 | 95 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 548 | NR | 570 | 872 | NR | 700 | 81 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 836 | NR | 575 | 896 | NR | 705 | 69 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 997 | NR | 580 | 913 | NR | 710 | 60 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 705 | NR | 585 | 917 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 429 | NR | 590 | 911 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 316 | NR | 595 | 891 | NR | 725 | 38 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 213 | NR | 600 | 862 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 143 | NR | 605 | 822 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 121 | NR | 610 | 776 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 118 | NR | 615 | 725 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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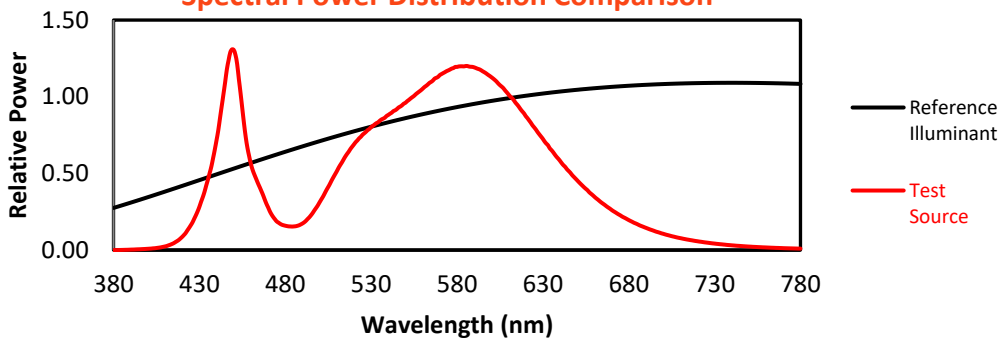
# TM-30-18

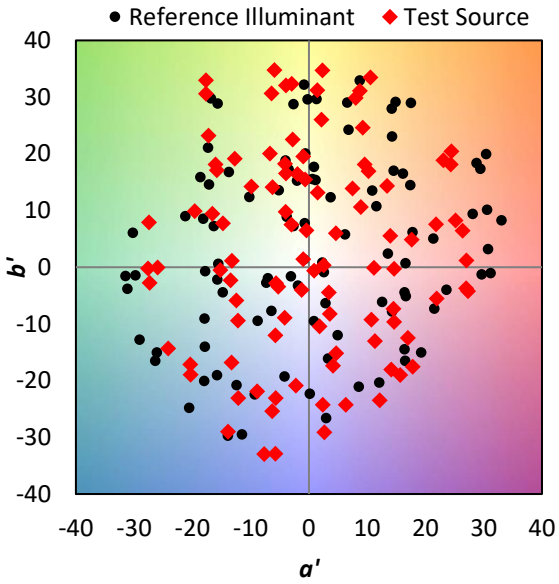
## Summary

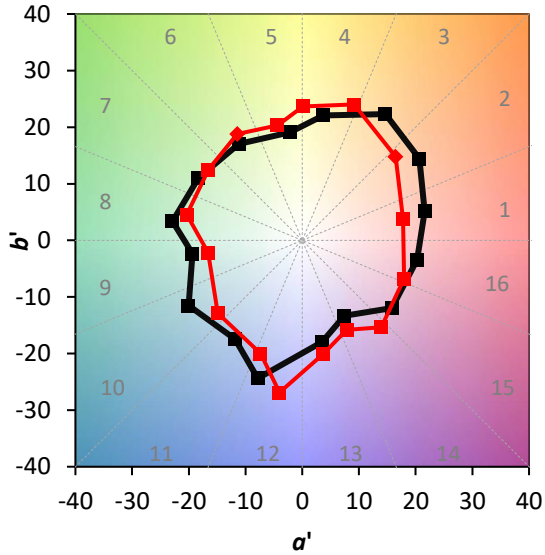
$R_f$ = 73.5
$R_g$ = 93.5
CIE $R_a$ = 71.0
$R_9$ = -37.9

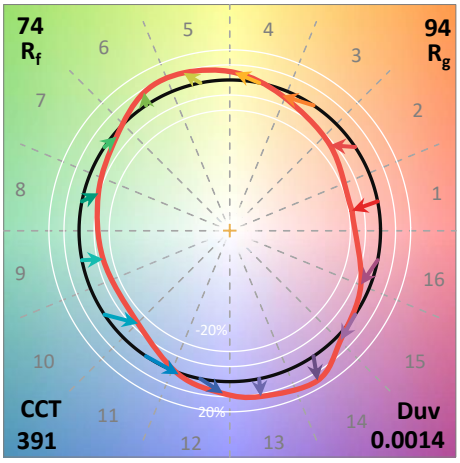
## Spectral Power Distribution Comparison

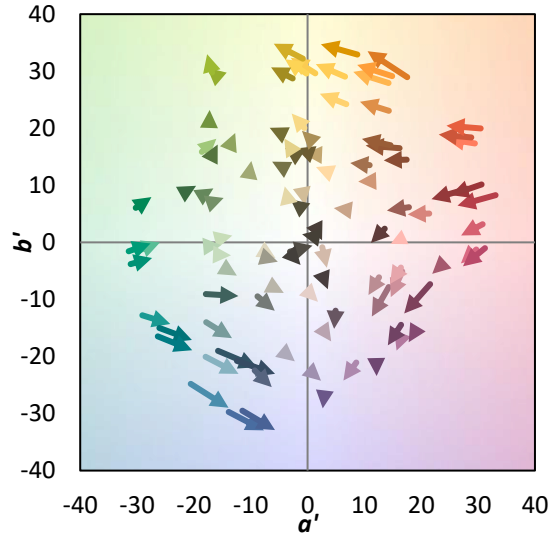



## Color Vector Graphics



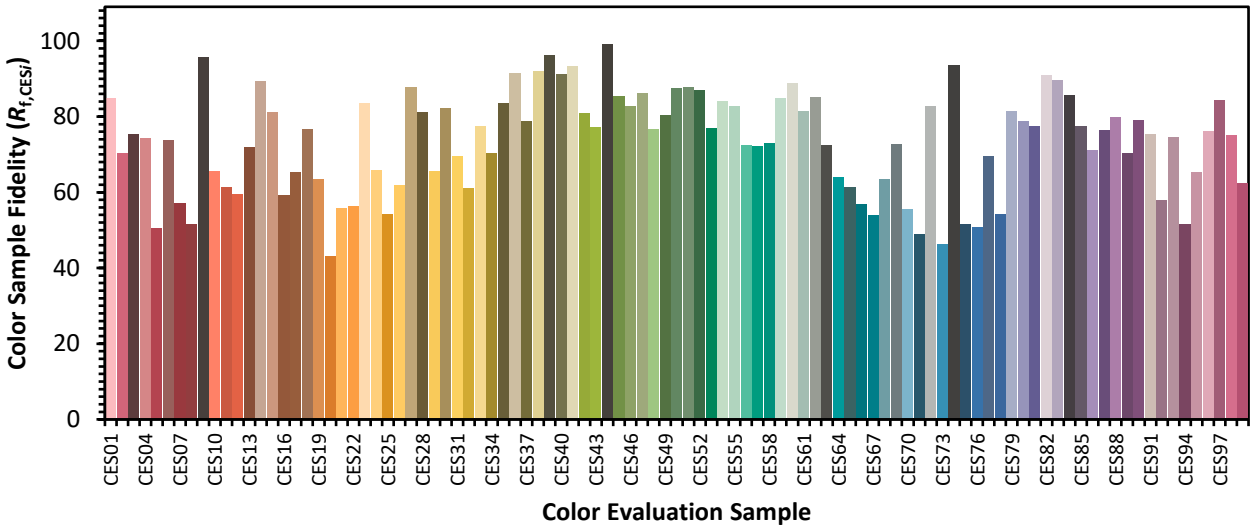



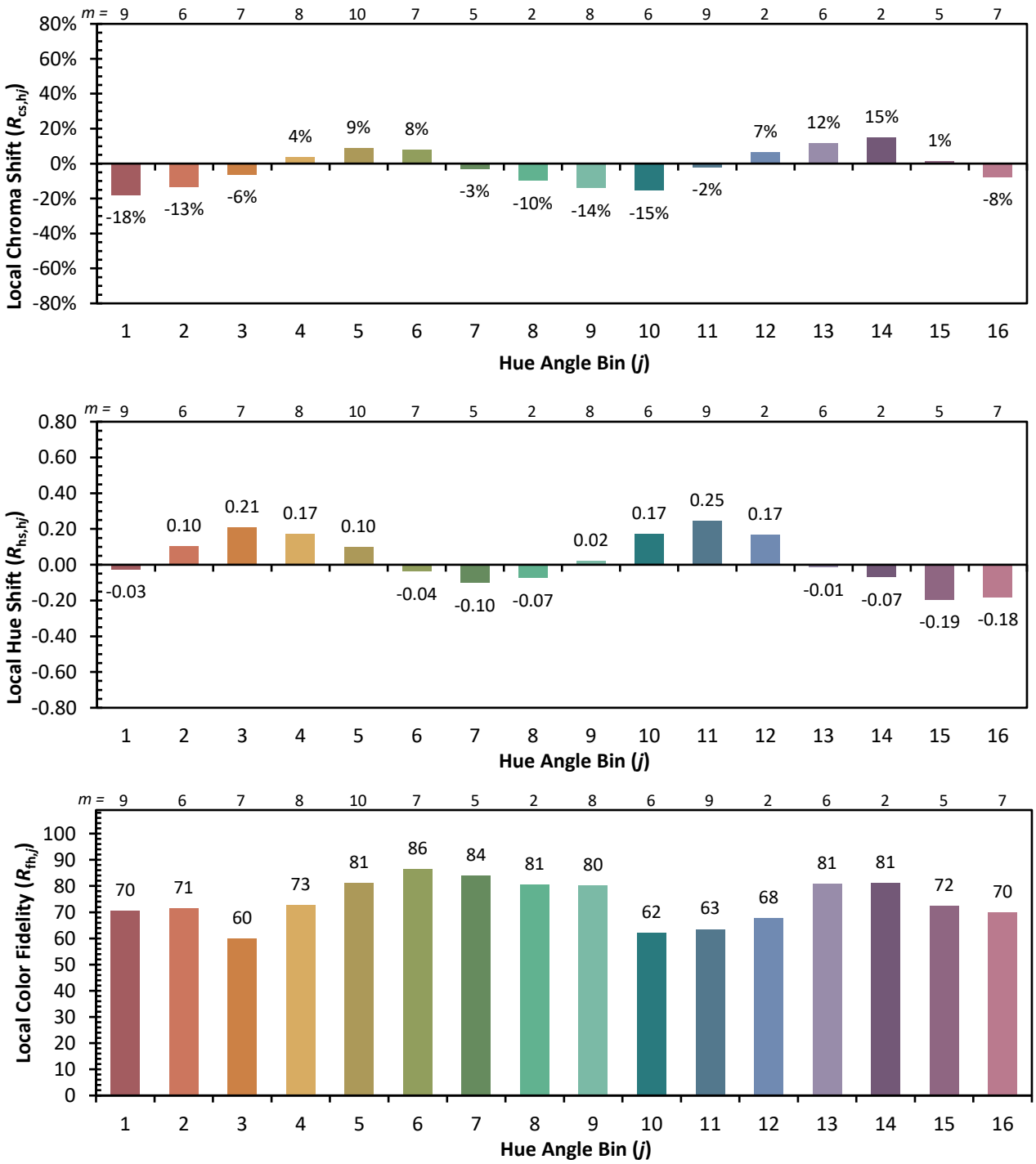



**Individual Sample Fidelity Index ($R_{f,i}$)**

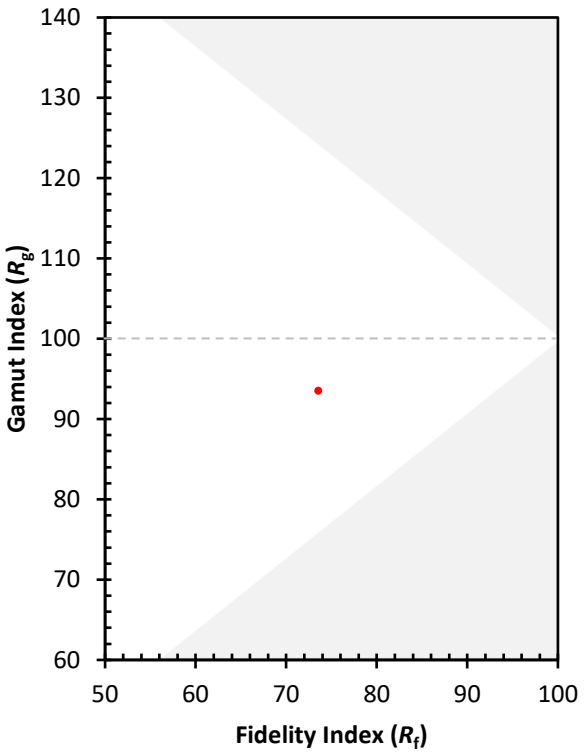
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 62 | CES51 = 88 | CES76 = 51 |
| CES02 = 61 | CES27 = 88 | CES52 = 87 | CES77 = 70 |
| CES03 = 30 | CES28 = 81 | CES53 = 77 | CES78 = 54 |
| CES04 = 70 | CES29 = 66 | CES54 = 84 | CES79 = 81 |
| CES05 = 47 | CES30 = 82 | CES55 = 83 | CES80 = 79 |
| CES06 = 50 | CES31 = 69 | CES56 = 73 | CES81 = 77 |
| CES07 = 40 | CES32 = 61 | CES57 = 72 | CES82 = 91 |
| CES08 = 39 | CES33 = 77 | CES58 = 73 | CES83 = 90 |
| CES09 = 29 | CES34 = 70 | CES59 = 85 | CES84 = 86 |
| CES10 = 74 | CES35 = 84 | CES60 = 89 | CES85 = 77 |
| CES11 = 57 | CES36 = 91 | CES61 = 81 | CES86 = 71 |
| CES12 = 63 | CES37 = 79 | CES62 = 85 | CES87 = 76 |
| CES13 = 42 | CES38 = 92 | CES63 = 72 | CES88 = 80 |
| CES14 = 74 | CES39 = 96 | CES64 = 64 | CES89 = 70 |
| CES15 = 71 | CES40 = 91 | CES65 = 61 | CES90 = 79 |
| CES16 = 46 | CES41 = 93 | CES66 = 57 | CES91 = 75 |
| CES17 = 49 | CES42 = 81 | CES67 = 54 | CES92 = 58 |
| CES18 = 56 | CES43 = 77 | CES68 = 63 | CES93 = 75 |
| CES19 = 72 | CES44 = 99 | CES69 = 73 | CES94 = 52 |
| CES20 = 65 | CES45 = 85 | CES70 = 56 | CES95 = 65 |
| CES21 = 86 | CES46 = 83 | CES71 = 49 | CES96 = 76 |
| CES22 = 78 | CES47 = 86 | CES72 = 83 | CES97 = 84 |
| CES23 = 92 | CES48 = 77 | CES73 = 46 | CES98 = 75 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 62 |
| CES25 = 72 | CES50 = 87 | CES75 = 52 | |

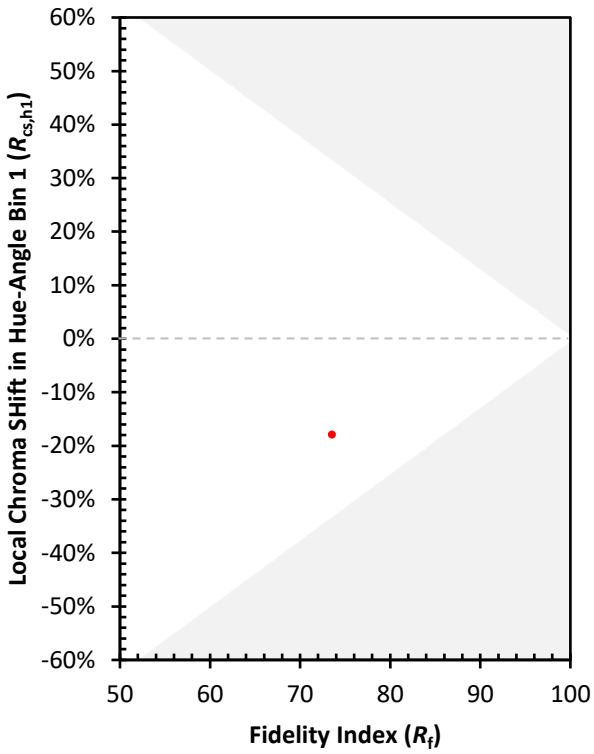


## Color Rendition by Hue-Angle Bin



## Measure Comparisons




(END OF REPORT)