

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P317007

Luminaire Tested: **GLEON-SA3C-722-U-5NQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P317007
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3C-722-U-5NQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2200K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16375 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G2

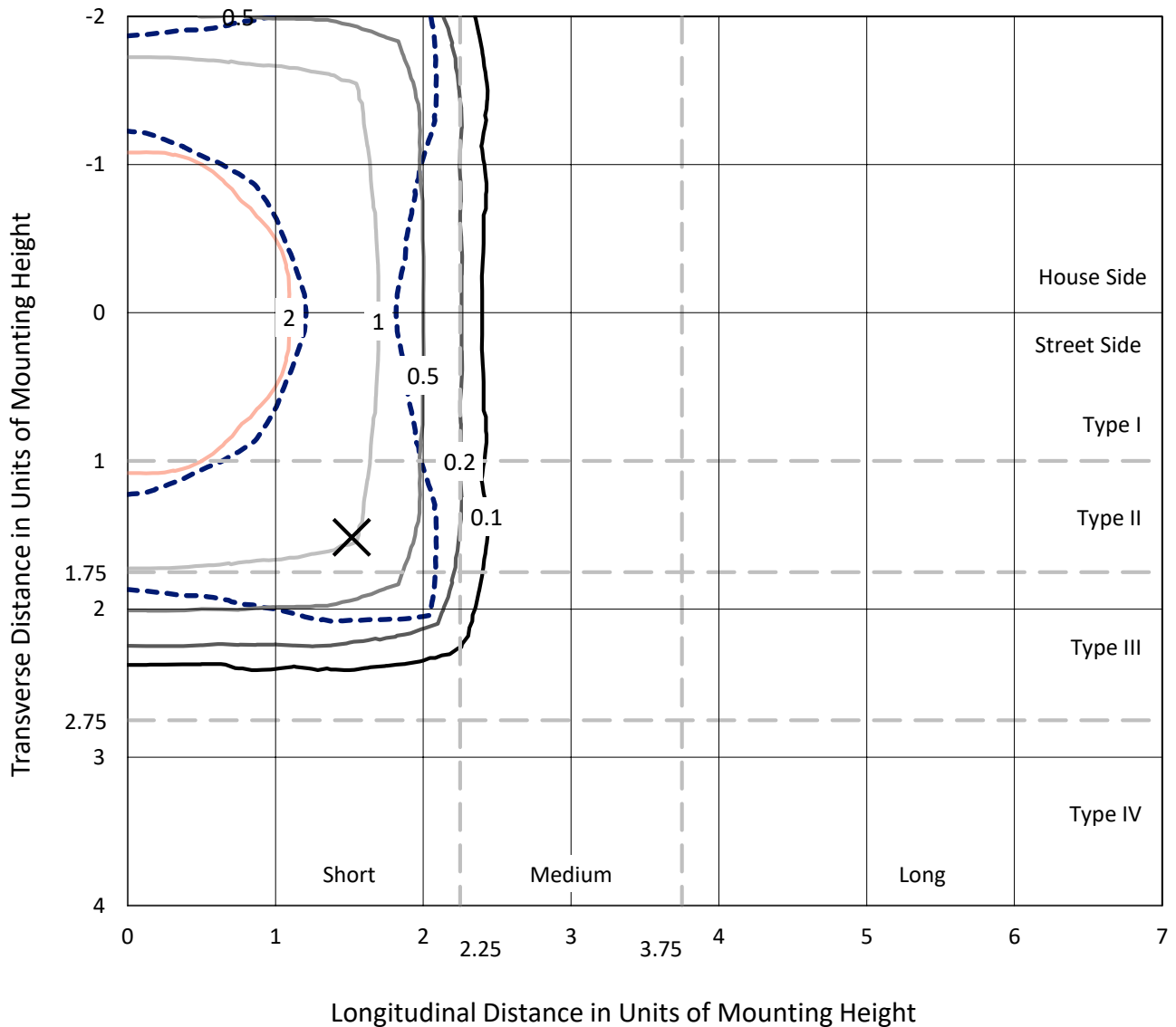
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P317007
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Iso-Footcandle Lines of Horizontal Illumination

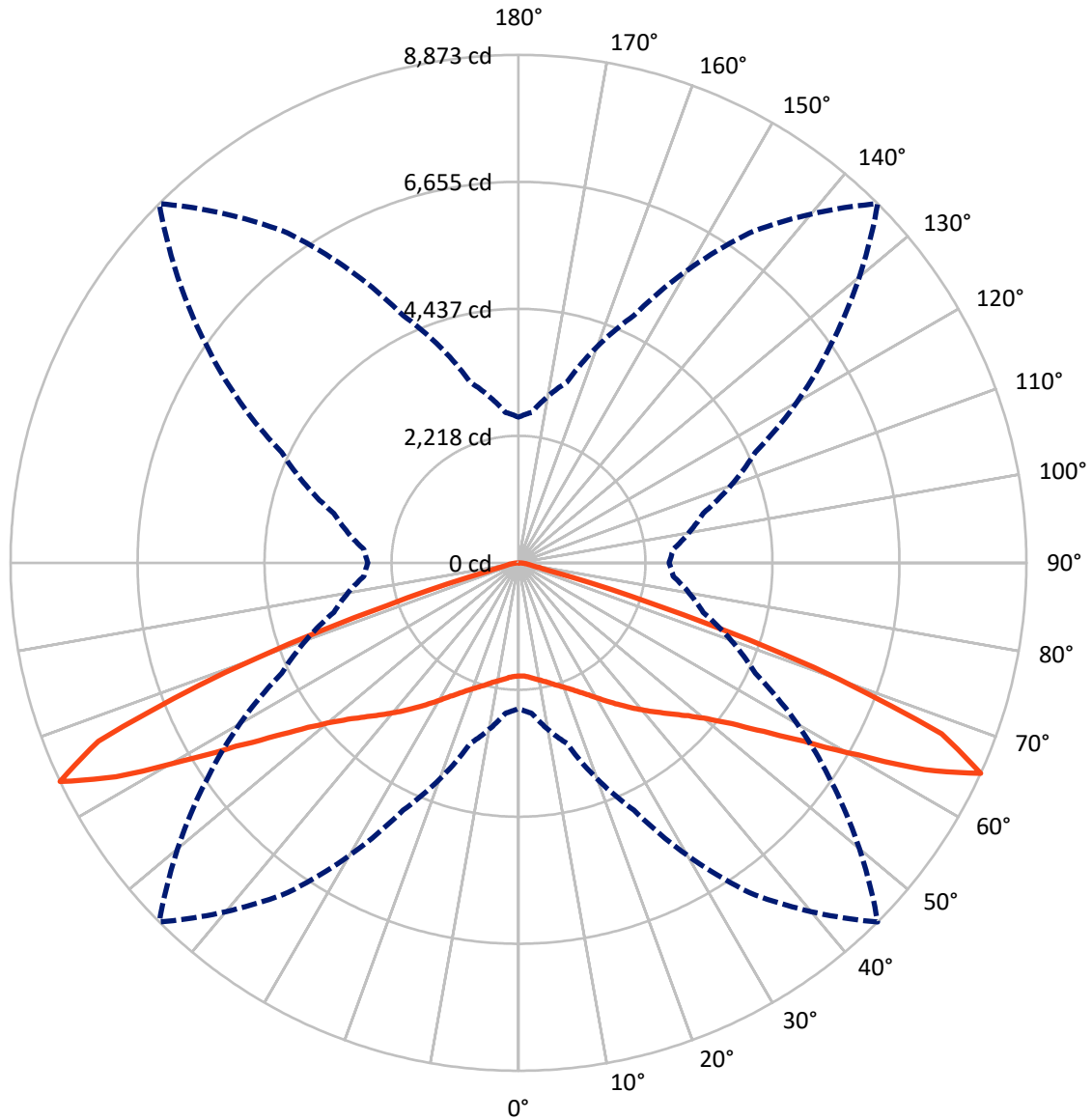
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type V - Short - N/A

REPORT NUMBER: P317007
CATALOG NUMBER: GLEON-SA3C-722-U-5NQ

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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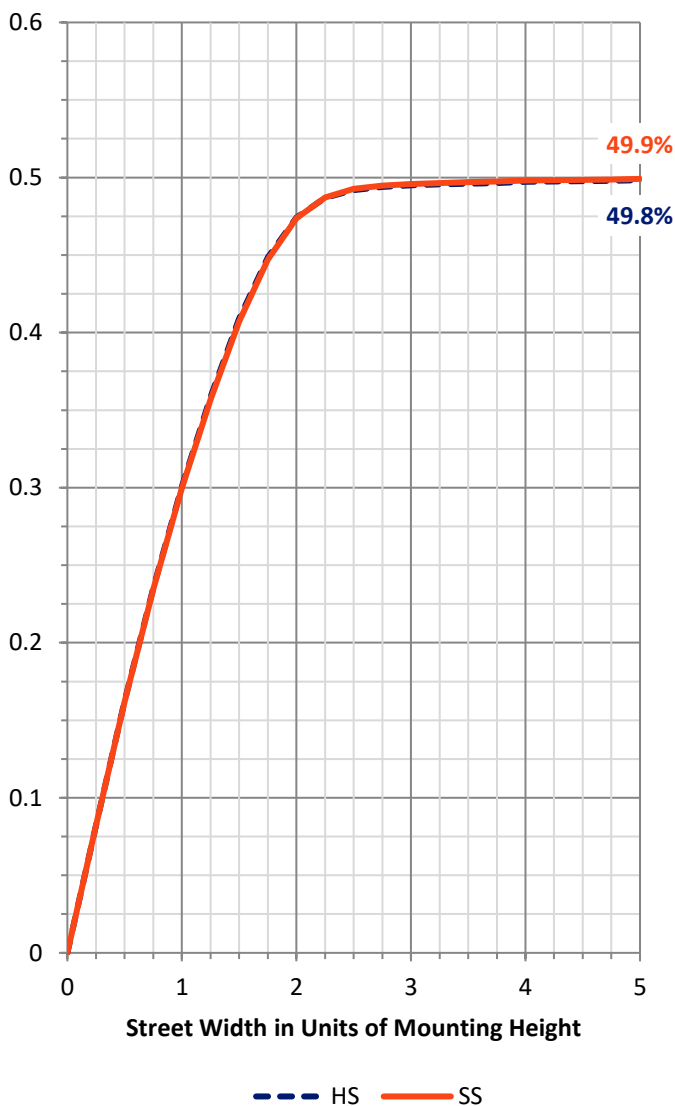
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8187.5 | 0.0 | 8187.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 8187.5 | 0.0 | 8187.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 16375.0 | 0.0 | 16375.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 194.0 | 1.2 |
| 10°-20° | 623.6 | 3.8 |
| 20°-30° | 1170.0 | 7.1 |
| 30°-40° | 1935.0 | 11.8 |
| 40°-50° | 2997.1 | 18.3 |
| 50°-60° | 4596.7 | 28.1 |
| 60°-70° | 4289.2 | 26.2 |
| 70°-80° | 499.2 | 3.0 |
| 80°-90° | 70.1 | 0.4 |
| 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° | 16375.0 | 100.0 |
| 0°-180° | 16375.0 | 100.0 |

Coefficient of Utilization

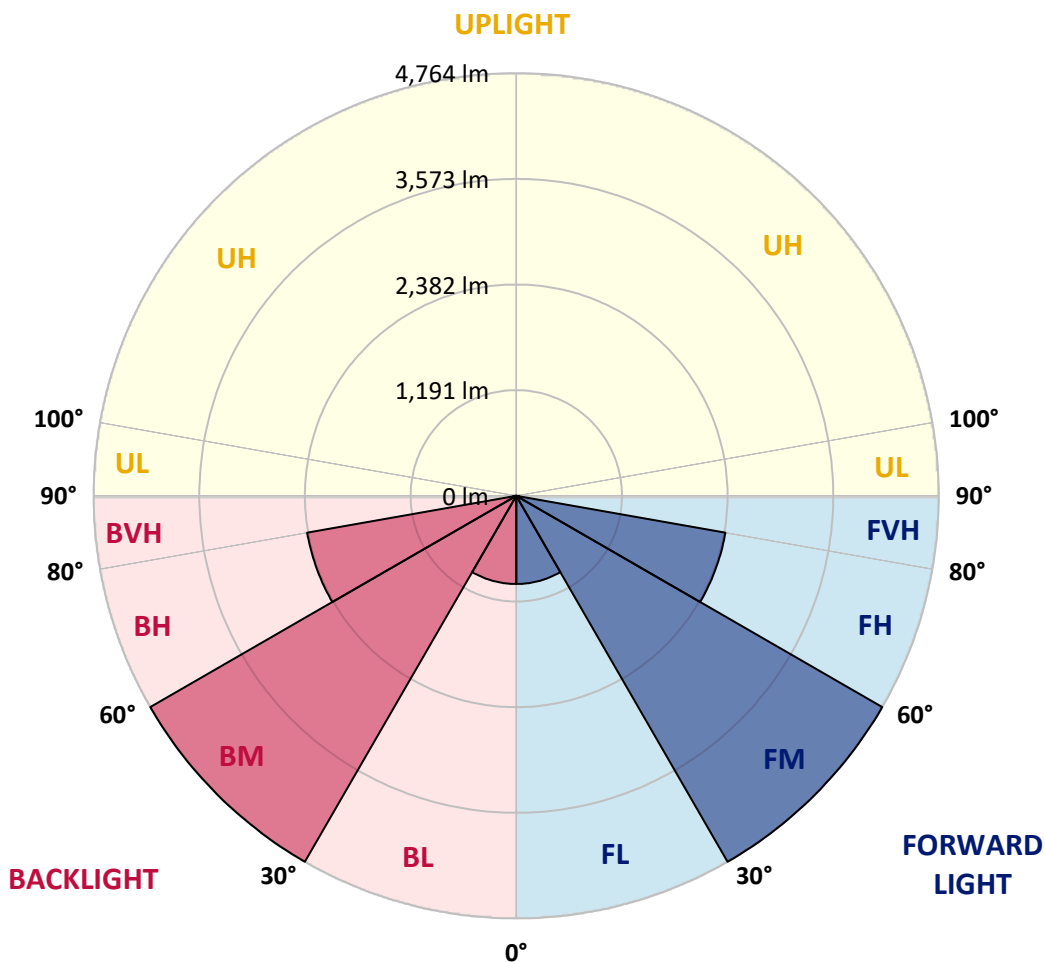


REPORT NUMBER: P317007
 CATALOG NUMBER: GLEON-SA3C-722-U-5NQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 993.8 | 6.1 | | | |
| FM (30°-60°) | 4764.4 | 29.1 | | | |
| FH (60°-80°) | 2394.2 | 14.6 | | | G2/5000 |
| FVH (80°-90°) | 35.1 | 0.2 | | | G1/100 |
| BL (0°-30°) | 993.8 | 6.1 | B2/1000 | | |
| BM (30°-60°) | 4764.4 | 29.1 | B3/5000 | | |
| BH (60°-80°) | 2394.2 | 14.6 | B3/2500 | | G2/5000 |
| BVH (80°-90°) | 35.1 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2
 Type V Short





REPORT NUMBER: P317007

CATALOG NUMBER: GLEON-SA3C-722-U-5NQ

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 |
| 2.5° | 1984.0 | 1982.9 | 1984.0 | 1984.6 | 1981.3 | 1982.9 | 1982.4 | 1985.1 | 1986.2 | 1985.1 | 1985.1 |
| 5° | 2006.8 | 2005.2 | 2007.4 | 2010.1 | 2005.8 | 2006.8 | 2005.2 | 2008.5 | 2009.6 | 2007.4 | 2009.0 |
| 7.5° | 2038.4 | 2038.9 | 2041.1 | 2046.0 | 2043.3 | 2045.4 | 2042.2 | 2042.7 | 2042.2 | 2038.9 | 2039.5 |
| 10° | 2072.6 | 2073.2 | 2077.0 | 2083.5 | 2084.6 | 2084.6 | 2082.4 | 2080.8 | 2078.6 | 2076.4 | 2077.0 |
| 12.5° | 2113.9 | 2116.6 | 2119.4 | 2127.5 | 2127.5 | 2131.9 | 2130.8 | 2126.4 | 2122.6 | 2119.4 | 2119.4 |
| 15° | 2169.9 | 2169.4 | 2172.6 | 2180.8 | 2184.6 | 2191.7 | 2191.7 | 2185.7 | 2180.8 | 2177.5 | 2176.4 |
| 17.5° | 2228.6 | 2230.2 | 2232.4 | 2242.2 | 2248.2 | 2256.3 | 2257.4 | 2252.5 | 2249.3 | 2244.9 | 2242.2 |
| 20° | 2297.1 | 2299.8 | 2308.5 | 2312.3 | 2317.8 | 2325.4 | 2328.1 | 2327.0 | 2323.7 | 2321.6 | 2322.1 |
| 22.5° | 2377.0 | 2384.1 | 2389.5 | 2394.9 | 2401.5 | 2406.9 | 2409.6 | 2413.4 | 2410.2 | 2408.5 | 2407.4 |
| 25° | 2473.8 | 2478.7 | 2489.5 | 2499.3 | 2503.7 | 2505.3 | 2508.6 | 2514.0 | 2513.4 | 2509.6 | 2509.6 |
| 27.5° | 2583.6 | 2592.8 | 2606.4 | 2620.5 | 2620.5 | 2615.1 | 2626.0 | 2635.2 | 2631.9 | 2627.0 | 2620.5 |
| 30° | 2716.7 | 2725.4 | 2741.2 | 2760.8 | 2751.0 | 2747.2 | 2761.9 | 2778.7 | 2773.8 | 2765.7 | 2764.6 |
| 32.5° | 2860.2 | 2868.4 | 2889.0 | 2910.2 | 2897.7 | 2892.3 | 2908.1 | 2932.5 | 2923.8 | 2907.5 | 2897.7 |
| 35° | 3015.7 | 3023.9 | 3053.2 | 3078.8 | 3057.6 | 3048.3 | 3061.4 | 3088.0 | 3072.8 | 3042.3 | 3034.7 |
| 37.5° | 3184.7 | 3189.1 | 3227.1 | 3253.2 | 3238.6 | 3214.1 | 3230.4 | 3250.0 | 3236.9 | 3200.0 | 3185.3 |
| 40° | 3360.3 | 3376.1 | 3420.1 | 3450.5 | 3425.0 | 3386.4 | 3413.6 | 3440.8 | 3421.2 | 3373.9 | 3348.9 |
| 42.5° | 3565.2 | 3577.2 | 3635.9 | 3663.1 | 3621.8 | 3567.4 | 3604.4 | 3641.3 | 3621.8 | 3576.1 | 3554.4 |
| 45° | 3778.3 | 3796.8 | 3866.9 | 3894.1 | 3834.3 | 3765.3 | 3810.4 | 3875.1 | 3873.4 | 3807.7 | 3784.8 |
| 47.5° | 4010.4 | 4028.9 | 4112.6 | 4148.5 | 4083.8 | 3991.4 | 4055.0 | 4146.3 | 4139.8 | 4067.5 | 4049.0 |
| 50° | 4278.4 | 4298.0 | 4402.3 | 4447.4 | 4387.1 | 4279.5 | 4375.2 | 4455.6 | 4443.6 | 4354.5 | 4356.1 |
| 52.5° | 4614.9 | 4613.8 | 4743.7 | 4822.0 | 4760.0 | 4664.9 | 4752.9 | 4831.2 | 4781.7 | 4658.4 | 4654.5 |
| 55° | 4909.5 | 4927.4 | 5088.3 | 5236.7 | 5232.9 | 5196.5 | 5231.8 | 5235.1 | 5093.7 | 4929.6 | 4909.5 |
| 57.5° | 5103.0 | 5137.2 | 5363.9 | 5632.4 | 5833.5 | 5881.9 | 5813.4 | 5605.8 | 5274.8 | 5012.2 | 4980.1 |
| 60° | 4983.9 | 5036.1 | 5392.2 | 5939.5 | 6532.0 | 6816.3 | 6429.8 | 5785.7 | 5134.0 | 4768.2 | 4724.7 |
| 62.5° | 4180.6 | 4268.6 | 4789.9 | 5791.1 | 7133.2 | 7964.3 | 6876.6 | 5497.1 | 4574.1 | 4070.2 | 3995.7 |
| 65° | 2546.1 | 2639.0 | 3267.4 | 4766.5 | 7035.9 | 8873.2 | 6672.8 | 4562.7 | 3338.6 | 2711.8 | 2631.4 |
| 67.5° | 848.5 | 875.7 | 1245.9 | 2634.7 | 5529.7 | 7972.5 | 5538.9 | 2731.4 | 1452.9 | 963.2 | 934.9 |
| 70° | 332.1 | 334.8 | 395.2 | 763.7 | 2611.3 | 5475.9 | 2881.4 | 777.3 | 413.1 | 326.7 | 333.7 |
| 72.5° | 244.1 | 245.1 | 262.0 | 319.1 | 680.5 | 2412.3 | 705.0 | 320.7 | 254.9 | 228.8 | 228.8 |
| 75° | 196.2 | 196.2 | 208.2 | 232.6 | 304.9 | 553.3 | 309.3 | 229.9 | 199.5 | 182.6 | 180.5 |
| 77.5° | 154.9 | 158.2 | 167.4 | 183.2 | 206.6 | 266.3 | 214.2 | 182.1 | 160.9 | 145.1 | 141.9 |
| 80° | 115.2 | 118.5 | 133.7 | 141.3 | 148.4 | 184.8 | 158.2 | 142.4 | 127.2 | 108.7 | 105.5 |
| 82.5° | 75.6 | 78.8 | 97.8 | 102.2 | 100.6 | 120.7 | 106.5 | 104.9 | 93.5 | 70.1 | 66.9 |
| 85° | 49.5 | 50.6 | 65.2 | 67.9 | 62.5 | 54.9 | 67.9 | 71.8 | 65.2 | 45.7 | 44.0 |
| 87.5° | 23.4 | 23.4 | 33.2 | 31.0 | 28.3 | 22.8 | 31.0 | 36.4 | 37.0 | 22.3 | 21.7 |
| 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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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-10-R4

Test Date: 10/25/2019

Luminaire Tested: SA1C-722-U-5WQ

Data in this report applies to families of products SA1C-722-U-5WQ.

Test Information

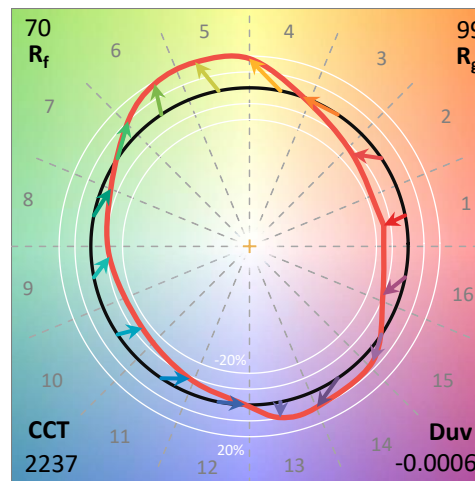
Test Method: LM-79-2008 Report
 Number: SP1-1908-441-10-R4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/28/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGRAW-EDISON
 Catalog Number: **SA1C-722-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K): 2237
 CIE u': 0.2876
 CIE v': 0.5346
 Duv: -0.0006
 CIE x: 0.5005
 CIE y: 0.4134
 CIE z: 0.0860
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 587
 Purity: 74.5
 Rf: 69.8
 Rg: 99.2

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 72.0 | | |
| R1: | 68.9 | R9: | -17.4 |
| R2: | 83.0 | R10: | 61.3 |
| R3: | 95.2 | R11: | 59.8 |
| R4: | 66.2 | R12: | 50.5 |
| R5: | 65.9 | R13: | 71.1 |
| R6: | 76.3 | R14: | 96.9 |
| R7: | 76.7 | | |
| R8: | 43.8 | | |



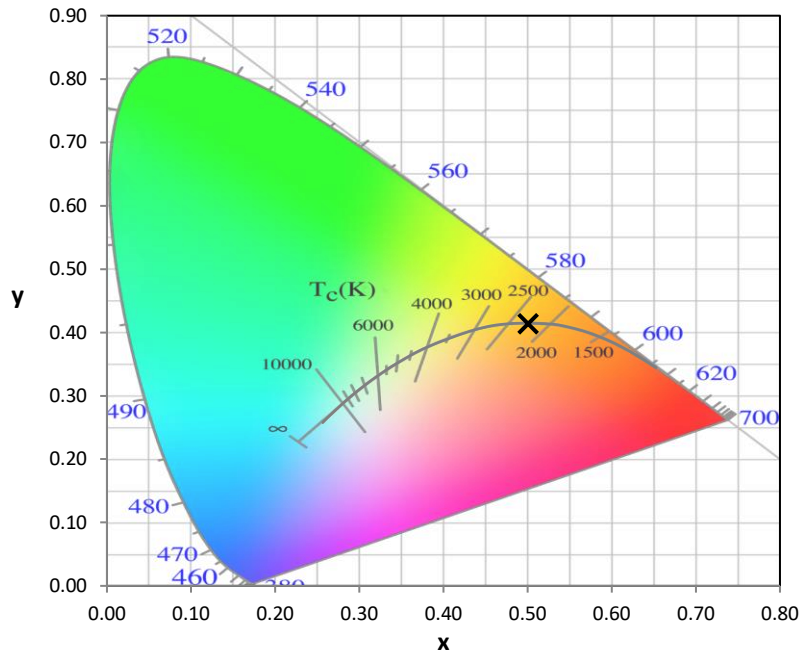
Test Conditions
 Stabilization Time: 71M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.7/41%
 Sphere Temperature (°C): 25.6

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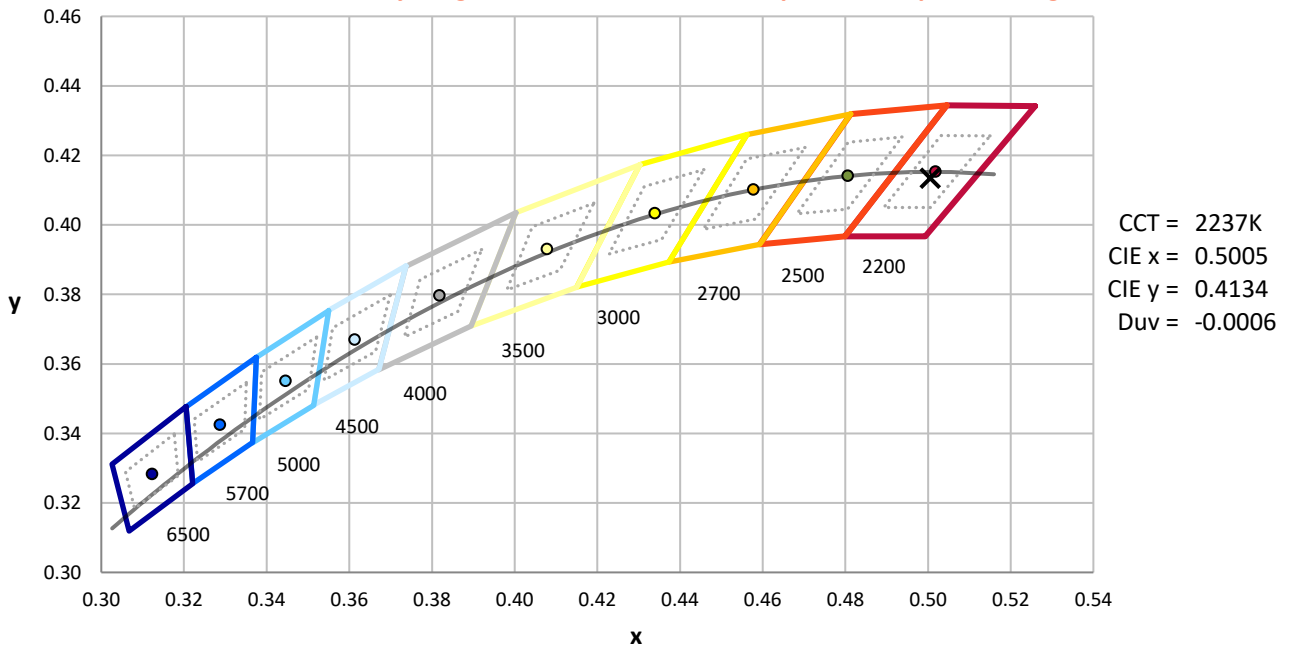
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

REPORT NUMBER: SP1-1908-441-10-R4

CIE 1931 Chromaticity Diagram



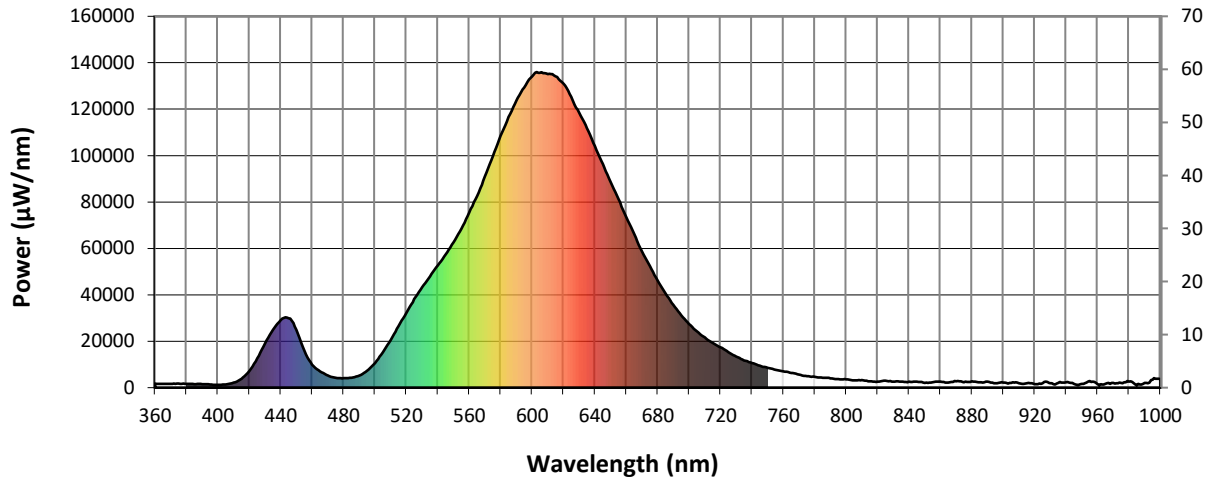
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2200K 4-step quadrangle

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Photopic Flux vs. Wavelength

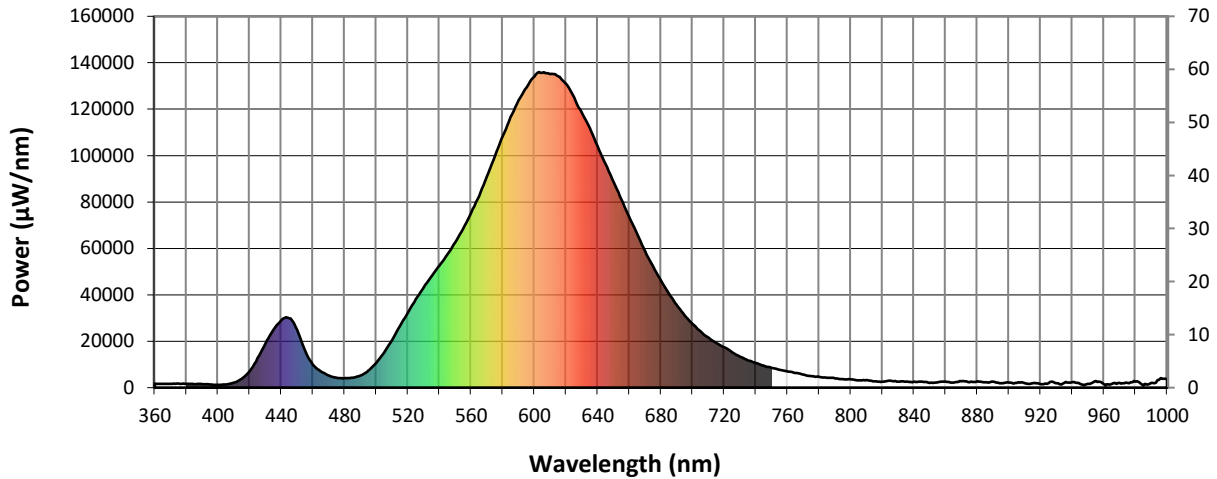


#####

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1768 | NR | 490 | 5206 | NR | 620 | 130919 | NR | 750 | 8553 | NR | 880 | 2713 | NR |
| 365 | 1569 | NR | 495 | 7286 | NR | 625 | 125335 | NR | 755 | 7696 | NR | 885 | 2316 | NR |
| 370 | 1594 | NR | 500 | 10654 | NR | 630 | 118388 | NR | 760 | 6978 | NR | 890 | 2539 | NR |
| 375 | 1744 | NR | 505 | 15189 | NR | 635 | 111855 | NR | 765 | 6377 | NR | 895 | 1933 | NR |
| 380 | 1659 | NR | 510 | 20541 | NR | 640 | 104062 | NR | 770 | 5600 | NR | 900 | 2216 | NR |
| 385 | 1504 | NR | 515 | 26492 | NR | 645 | 96365 | NR | 775 | 5000 | NR | 905 | 2067 | NR |
| 390 | 1541 | NR | 520 | 32294 | NR | 650 | 88651 | NR | 780 | 4709 | NR | 910 | 1959 | NR |
| 395 | 1355 | NR | 525 | 38123 | NR | 655 | 81152 | NR | 785 | 4305 | NR | 915 | 1874 | NR |
| 400 | 1243 | NR | 530 | 43232 | NR | 660 | 73523 | NR | 790 | 4040 | NR | 920 | 1484 | NR |
| 405 | 1417 | NR | 535 | 48012 | NR | 665 | 66123 | NR | 795 | 3642 | NR | 925 | 1914 | NR |
| 410 | 2147 | NR | 540 | 52623 | NR | 670 | 58677 | NR | 800 | 3594 | NR | 930 | 1948 | NR |
| 415 | 3837 | NR | 545 | 57516 | NR | 675 | 52349 | NR | 805 | 3190 | NR | 935 | 2079 | NR |
| 420 | 7159 | NR | 550 | 62613 | NR | 680 | 46159 | NR | 810 | 3241 | NR | 940 | 2263 | NR |
| 425 | 12599 | NR | 555 | 68554 | NR | 685 | 40525 | NR | 815 | 2732 | NR | 945 | 1688 | NR |
| 430 | 19019 | NR | 560 | 75325 | NR | 690 | 35615 | NR | 820 | 2612 | NR | 950 | 1560 | NR |
| 435 | 24875 | NR | 565 | 82533 | NR | 695 | 31158 | NR | 825 | 2966 | NR | 955 | 2826 | NR |
| 440 | 29103 | NR | 570 | 90909 | NR | 700 | 27409 | NR | 830 | 2574 | NR | 960 | 1477 | NR |
| 445 | 29901 | NR | 575 | 99621 | NR | 705 | 24204 | NR | 835 | 2633 | NR | 965 | 1568 | NR |
| 450 | 24862 | NR | 580 | 108484 | NR | 710 | 21558 | NR | 840 | 2526 | NR | 970 | 2030 | NR |
| 455 | 15942 | NR | 585 | 116679 | NR | 715 | 19222 | NR | 845 | 2631 | NR | 975 | 1986 | NR |
| 460 | 9916 | NR | 590 | 123752 | NR | 720 | 17310 | NR | 850 | 2079 | NR | 980 | 2540 | NR |
| 465 | 7051 | NR | 595 | 129324 | NR | 725 | 15280 | NR | 855 | 2309 | NR | 985 | 1139 | NR |
| 470 | 5227 | NR | 600 | 134082 | NR | 730 | 13282 | NR | 860 | 2528 | NR | 990 | 2018 | NR |
| 475 | 4257 | NR | 605 | 135698 | NR | 735 | 11753 | NR | 865 | 2121 | NR | 995 | 3445 | NR |
| 480 | 4052 | NR | 610 | 135144 | NR | 740 | 10654 | NR | 870 | 2751 | NR | 1000 | 3704 | NR |
| 485 | 4298 | NR | 615 | 134180 | NR | 745 | 9451 | NR | 875 | 2317 | NR | | | |

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Scotopic Flux vs. Wavelength



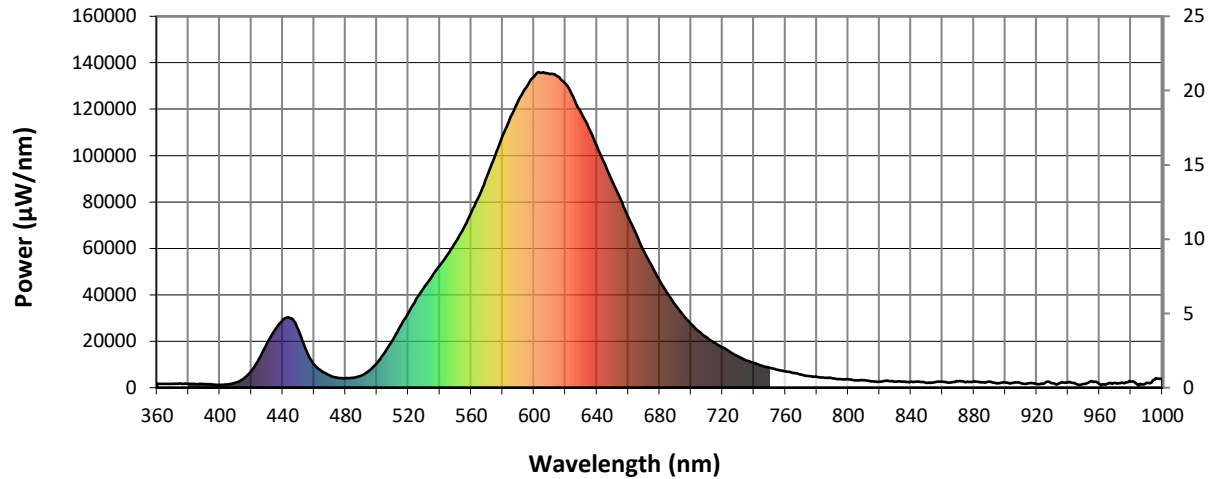
Scotopic Lumens: 4696.9

S/P: 0.85

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1768 | NR | 490 | 5206 | NR | 620 | 130919 | NR | 750 | 8553 | NR | 880 | 2713 | NR |
| 365 | 1569 | NR | 495 | 7286 | NR | 625 | 125335 | NR | 755 | 7696 | NR | 885 | 2316 | NR |
| 370 | 1594 | NR | 500 | 10654 | NR | 630 | 118388 | NR | 760 | 6978 | NR | 890 | 2539 | NR |
| 375 | 1744 | NR | 505 | 15189 | NR | 635 | 111855 | NR | 765 | 6377 | NR | 895 | 1933 | NR |
| 380 | 1659 | NR | 510 | 20541 | NR | 640 | 104062 | NR | 770 | 5600 | NR | 900 | 2216 | NR |
| 385 | 1504 | NR | 515 | 26492 | NR | 645 | 96365 | NR | 775 | 5000 | NR | 905 | 2067 | NR |
| 390 | 1541 | NR | 520 | 32294 | NR | 650 | 88651 | NR | 780 | 4709 | NR | 910 | 1959 | NR |
| 395 | 1355 | NR | 525 | 38123 | NR | 655 | 81152 | NR | 785 | 4305 | NR | 915 | 1874 | NR |
| 400 | 1243 | NR | 530 | 43232 | NR | 660 | 73523 | NR | 790 | 4040 | NR | 920 | 1484 | NR |
| 405 | 1417 | NR | 535 | 48012 | NR | 665 | 66123 | NR | 795 | 3642 | NR | 925 | 1914 | NR |
| 410 | 2147 | NR | 540 | 52623 | NR | 670 | 58677 | NR | 800 | 3594 | NR | 930 | 1948 | NR |
| 415 | 3837 | NR | 545 | 57516 | NR | 675 | 52349 | NR | 805 | 3190 | NR | 935 | 2079 | NR |
| 420 | 7159 | NR | 550 | 62613 | NR | 680 | 46159 | NR | 810 | 3241 | NR | 940 | 2263 | NR |
| 425 | 12599 | NR | 555 | 68554 | NR | 685 | 40525 | NR | 815 | 2732 | NR | 945 | 1688 | NR |
| 430 | 19019 | NR | 560 | 75325 | NR | 690 | 35615 | NR | 820 | 2612 | NR | 950 | 1560 | NR |
| 435 | 24875 | NR | 565 | 82533 | NR | 695 | 31158 | NR | 825 | 2966 | NR | 955 | 2826 | NR |
| 440 | 29103 | NR | 570 | 90909 | NR | 700 | 27409 | NR | 830 | 2574 | NR | 960 | 1477 | NR |
| 445 | 29901 | NR | 575 | 99621 | NR | 705 | 24204 | NR | 835 | 2633 | NR | 965 | 1568 | NR |
| 450 | 24862 | NR | 580 | 108484 | NR | 710 | 21558 | NR | 840 | 2526 | NR | 970 | 2030 | NR |
| 455 | 15942 | NR | 585 | 116679 | NR | 715 | 19222 | NR | 845 | 2631 | NR | 975 | 1986 | NR |
| 460 | 9916 | NR | 590 | 123752 | NR | 720 | 17310 | NR | 850 | 2079 | NR | 980 | 2540 | NR |
| 465 | 7051 | NR | 595 | 129324 | NR | 725 | 15280 | NR | 855 | 2309 | NR | 985 | 1139 | NR |
| 470 | 5227 | NR | 600 | 134082 | NR | 730 | 13282 | NR | 860 | 2528 | NR | 990 | 2018 | NR |
| 475 | 4257 | NR | 605 | 135698 | NR | 735 | 11753 | NR | 865 | 2121 | NR | 995 | 3445 | NR |
| 480 | 4052 | NR | 610 | 135144 | NR | 740 | 10654 | NR | 870 | 2751 | NR | 1000 | 3704 | NR |
| 485 | 4298 | NR | 615 | 134180 | NR | 745 | 9451 | NR | 875 | 2317 | NR | | | |

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Melanopic Flux vs. Wavelength



Melanopic Lumens: 1470.8 M/P: 0.27

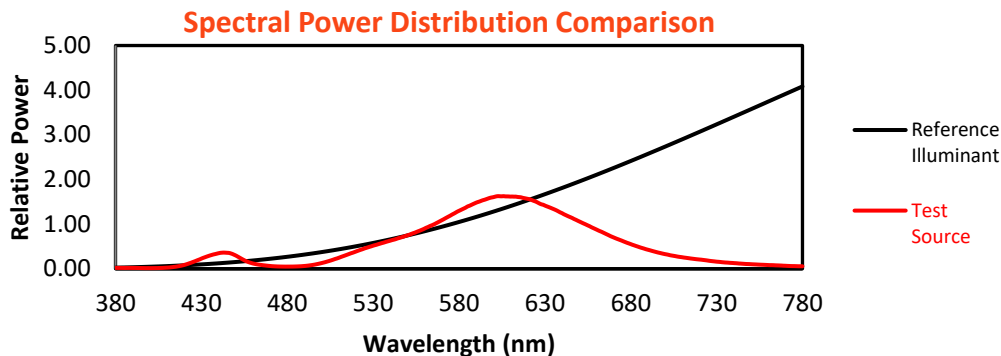
| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 1768 | NR | 490 | 5206 | NR | 620 | 130919 | NR | 750 | 8553 | NR | 880 | 2713 | NR |
| 365 | 1569 | NR | 495 | 7286 | NR | 625 | 125335 | NR | 755 | 7696 | NR | 885 | 2316 | NR |
| 370 | 1594 | NR | 500 | 10654 | NR | 630 | 118388 | NR | 760 | 6978 | NR | 890 | 2539 | NR |
| 375 | 1744 | NR | 505 | 15189 | NR | 635 | 111855 | NR | 765 | 6377 | NR | 895 | 1933 | NR |
| 380 | 1659 | NR | 510 | 20541 | NR | 640 | 104062 | NR | 770 | 5600 | NR | 900 | 2216 | NR |
| 385 | 1504 | NR | 515 | 26492 | NR | 645 | 96365 | NR | 775 | 5000 | NR | 905 | 2067 | NR |
| 390 | 1541 | NR | 520 | 32294 | NR | 650 | 88651 | NR | 780 | 4709 | NR | 910 | 1959 | NR |
| 395 | 1355 | NR | 525 | 38123 | NR | 655 | 81152 | NR | 785 | 4305 | NR | 915 | 1874 | NR |
| 400 | 1243 | NR | 530 | 43232 | NR | 660 | 73523 | NR | 790 | 4040 | NR | 920 | 1484 | NR |
| 405 | 1417 | NR | 535 | 48012 | NR | 665 | 66123 | NR | 795 | 3642 | NR | 925 | 1914 | NR |
| 410 | 2147 | NR | 540 | 52623 | NR | 670 | 58677 | NR | 800 | 3594 | NR | 930 | 1948 | NR |
| 415 | 3837 | NR | 545 | 57516 | NR | 675 | 52349 | NR | 805 | 3190 | NR | 935 | 2079 | NR |
| 420 | 7159 | NR | 550 | 62613 | NR | 680 | 46159 | NR | 810 | 3241 | NR | 940 | 2263 | NR |
| 425 | 12599 | NR | 555 | 68554 | NR | 685 | 40525 | NR | 815 | 2732 | NR | 945 | 1688 | NR |
| 430 | 19019 | NR | 560 | 75325 | NR | 690 | 35615 | NR | 820 | 2612 | NR | 950 | 1560 | NR |
| 435 | 24875 | NR | 565 | 82533 | NR | 695 | 31158 | NR | 825 | 2966 | NR | 955 | 2826 | NR |
| 440 | 29103 | NR | 570 | 90909 | NR | 700 | 27409 | NR | 830 | 2574 | NR | 960 | 1477 | NR |
| 445 | 29901 | NR | 575 | 99621 | NR | 705 | 24204 | NR | 835 | 2633 | NR | 965 | 1568 | NR |
| 450 | 24862 | NR | 580 | 108484 | NR | 710 | 21558 | NR | 840 | 2526 | NR | 970 | 2030 | NR |
| 455 | 15942 | NR | 585 | 116679 | NR | 715 | 19222 | NR | 845 | 2631 | NR | 975 | 1986 | NR |
| 460 | 9916 | NR | 590 | 123752 | NR | 720 | 17310 | NR | 850 | 2079 | NR | 980 | 2540 | NR |
| 465 | 7051 | NR | 595 | 129324 | NR | 725 | 15280 | NR | 855 | 2309 | NR | 985 | 1139 | NR |
| 470 | 5227 | NR | 600 | 134082 | NR | 730 | 13282 | NR | 860 | 2528 | NR | 990 | 2018 | NR |
| 475 | 4257 | NR | 605 | 135698 | NR | 735 | 11753 | NR | 865 | 2121 | NR | 995 | 3445 | NR |
| 480 | 4052 | NR | 610 | 135144 | NR | 740 | 10654 | NR | 870 | 2751 | NR | 1000 | 3704 | NR |
| 485 | 4298 | NR | 615 | 134180 | NR | 745 | 9451 | NR | 875 | 2317 | NR | | | |

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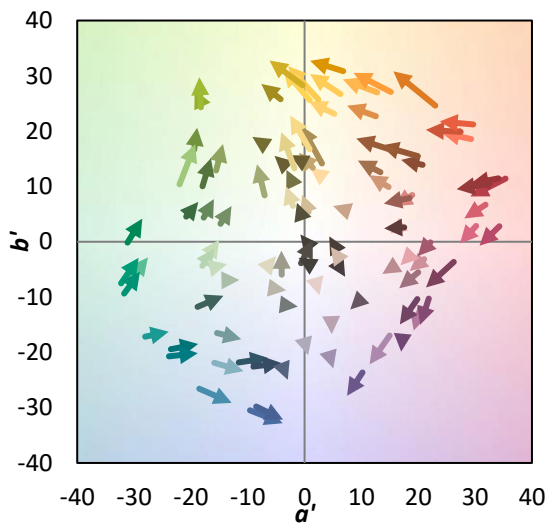
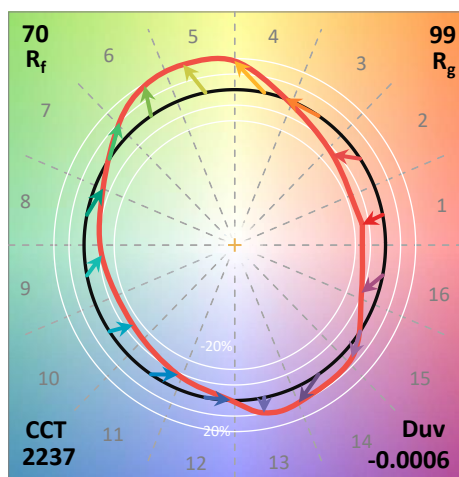
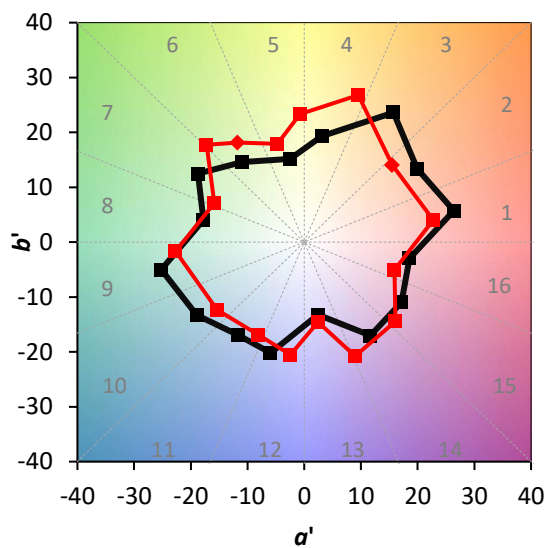
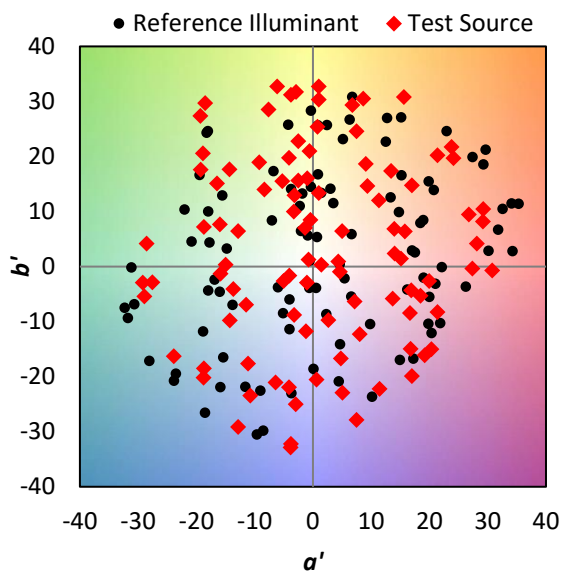
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Summary

$R_f = 69.8$
 $R_g = 99.2$
 $CIE R_a = 72.0$
 $R_g = -17.4$



Color Vector Graphics

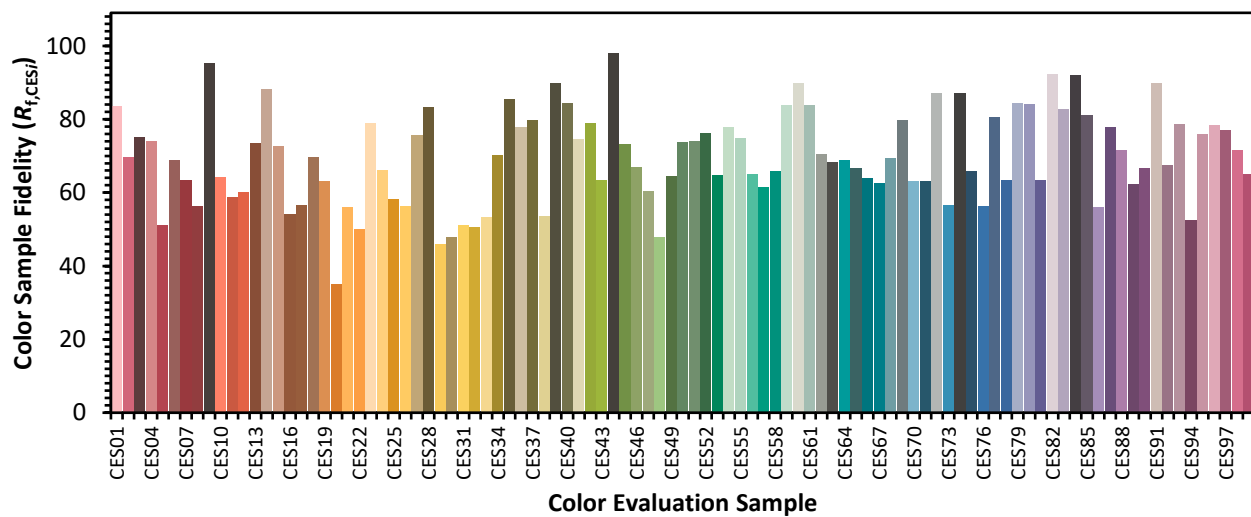


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Individual Sample Fidelity Index ($R_{f,i}$)

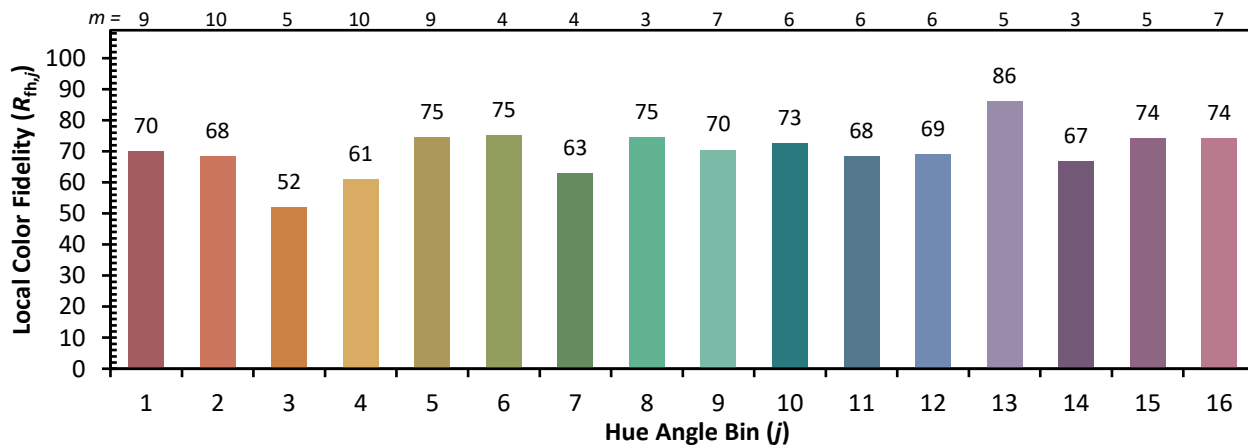
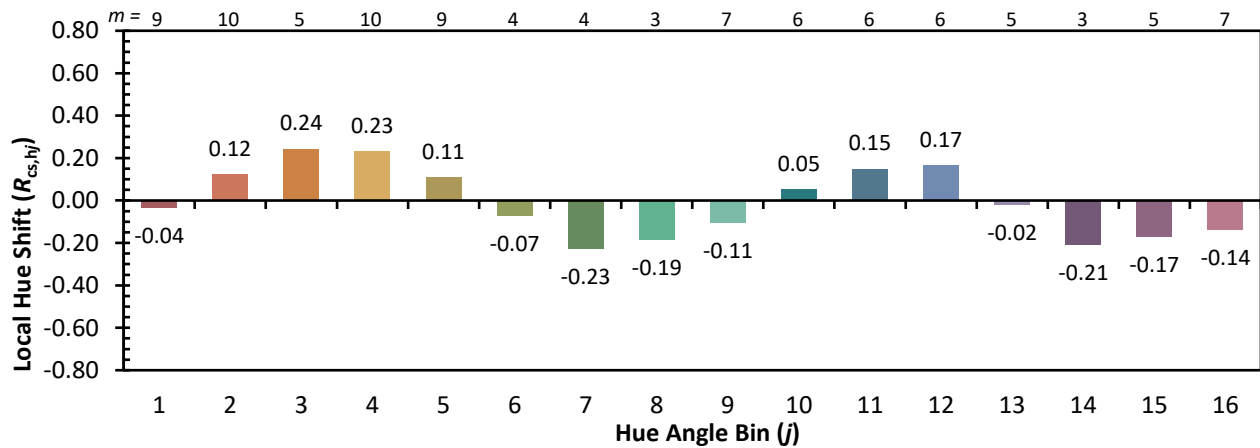
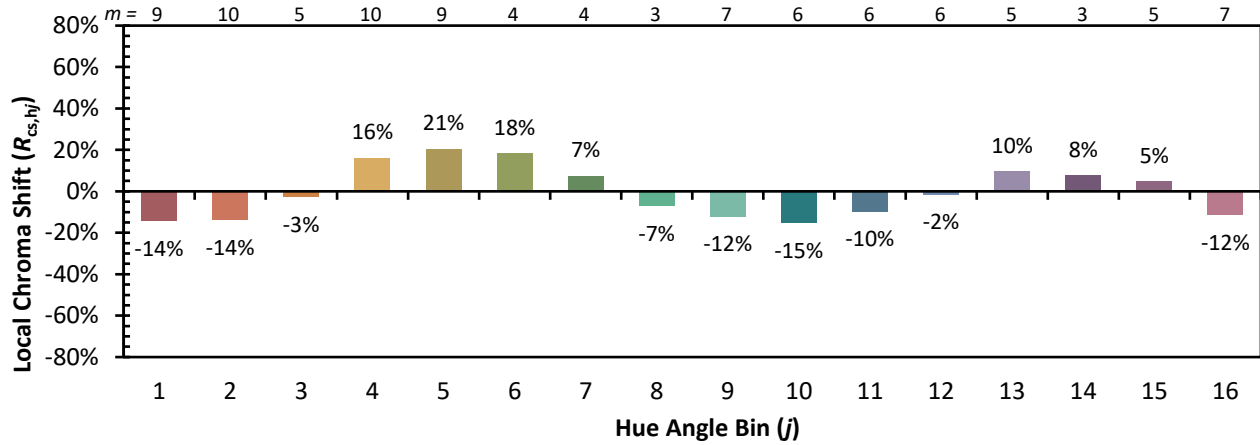
| | | | |
|------------|------------|------------|------------|
| CES01 = 87 | CES26 = 56 | CES51 = 74 | CES76 = 56 |
| CES02 = 65 | CES27 = 76 | CES52 = 76 | CES77 = 81 |
| CES03 = 32 | CES28 = 83 | CES53 = 65 | CES78 = 63 |
| CES04 = 72 | CES29 = 46 | CES54 = 78 | CES79 = 84 |
| CES05 = 52 | CES30 = 48 | CES55 = 75 | CES80 = 84 |
| CES06 = 52 | CES31 = 51 | CES56 = 65 | CES81 = 63 |
| CES07 = 44 | CES32 = 51 | CES57 = 62 | CES82 = 92 |
| CES08 = 42 | CES33 = 53 | CES58 = 66 | CES83 = 83 |
| CES09 = 29 | CES34 = 70 | CES59 = 84 | CES84 = 92 |
| CES10 = 78 | CES35 = 85 | CES60 = 90 | CES85 = 81 |
| CES11 = 61 | CES36 = 78 | CES61 = 84 | CES86 = 56 |
| CES12 = 68 | CES37 = 80 | CES62 = 70 | CES87 = 78 |
| CES13 = 45 | CES38 = 53 | CES63 = 68 | CES88 = 72 |
| CES14 = 75 | CES39 = 90 | CES64 = 69 | CES89 = 62 |
| CES15 = 72 | CES40 = 84 | CES65 = 67 | CES90 = 67 |
| CES16 = 49 | CES41 = 75 | CES66 = 64 | CES91 = 90 |
| CES17 = 51 | CES42 = 79 | CES67 = 63 | CES92 = 67 |
| CES18 = 57 | CES43 = 64 | CES68 = 69 | CES93 = 79 |
| CES19 = 74 | CES44 = 98 | CES69 = 80 | CES94 = 52 |
| CES20 = 68 | CES45 = 73 | CES70 = 63 | CES95 = 76 |
| CES21 = 89 | CES46 = 67 | CES71 = 63 | CES96 = 78 |
| CES22 = 81 | CES47 = 60 | CES72 = 87 | CES97 = 77 |
| CES23 = 92 | CES48 = 48 | CES73 = 56 | CES98 = 71 |
| CES24 = 92 | CES49 = 64 | CES74 = 87 | CES99 = 65 |
| CES25 = 74 | CES50 = 74 | CES75 = 66 | |



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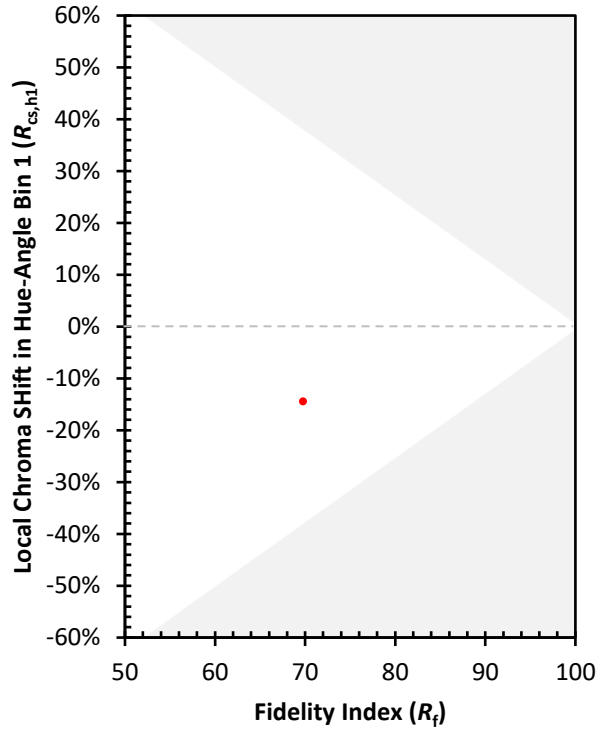
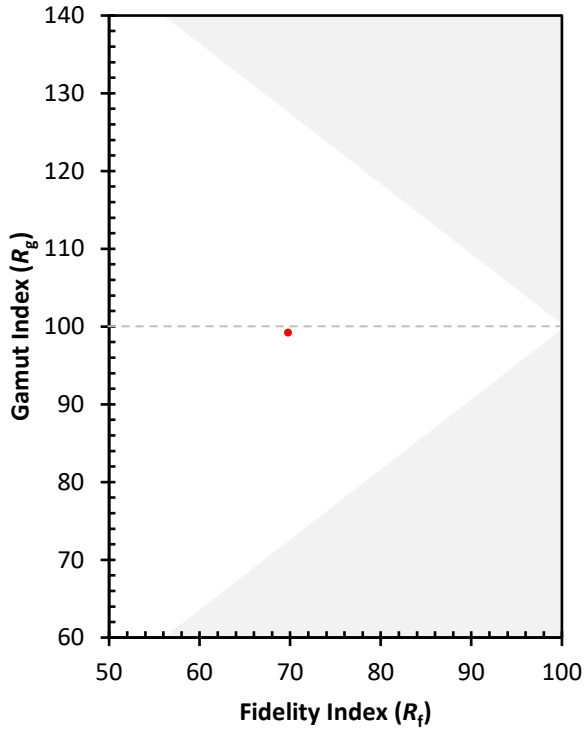
Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)