

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: P386898

Luminaire Tested: **GPC-SA2C-760-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P386898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GPC-SA2C-760-U-T2-HSS
Description: GALLEON PEDESTRIAN LUMINAIRE
(2) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10501 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

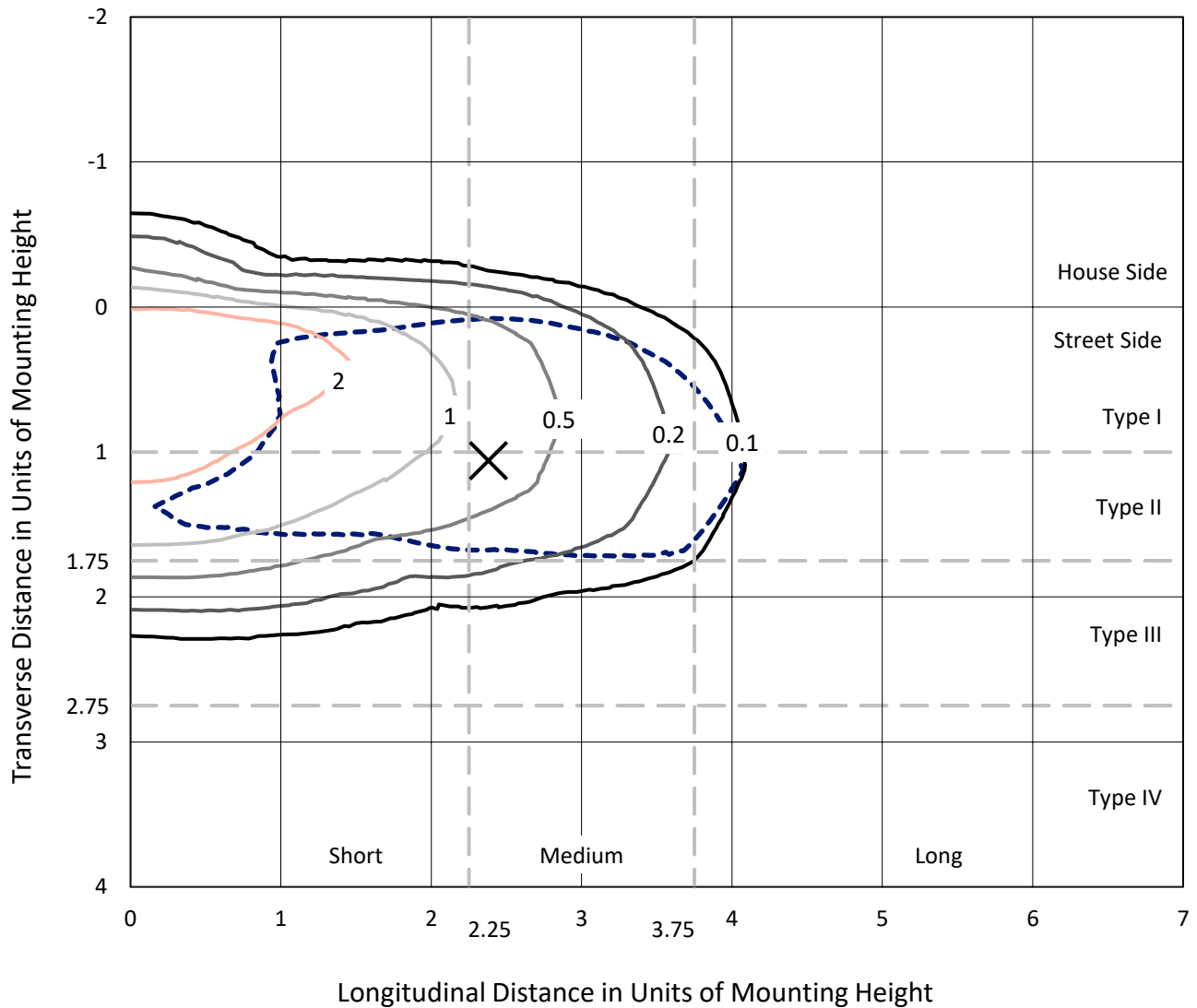
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

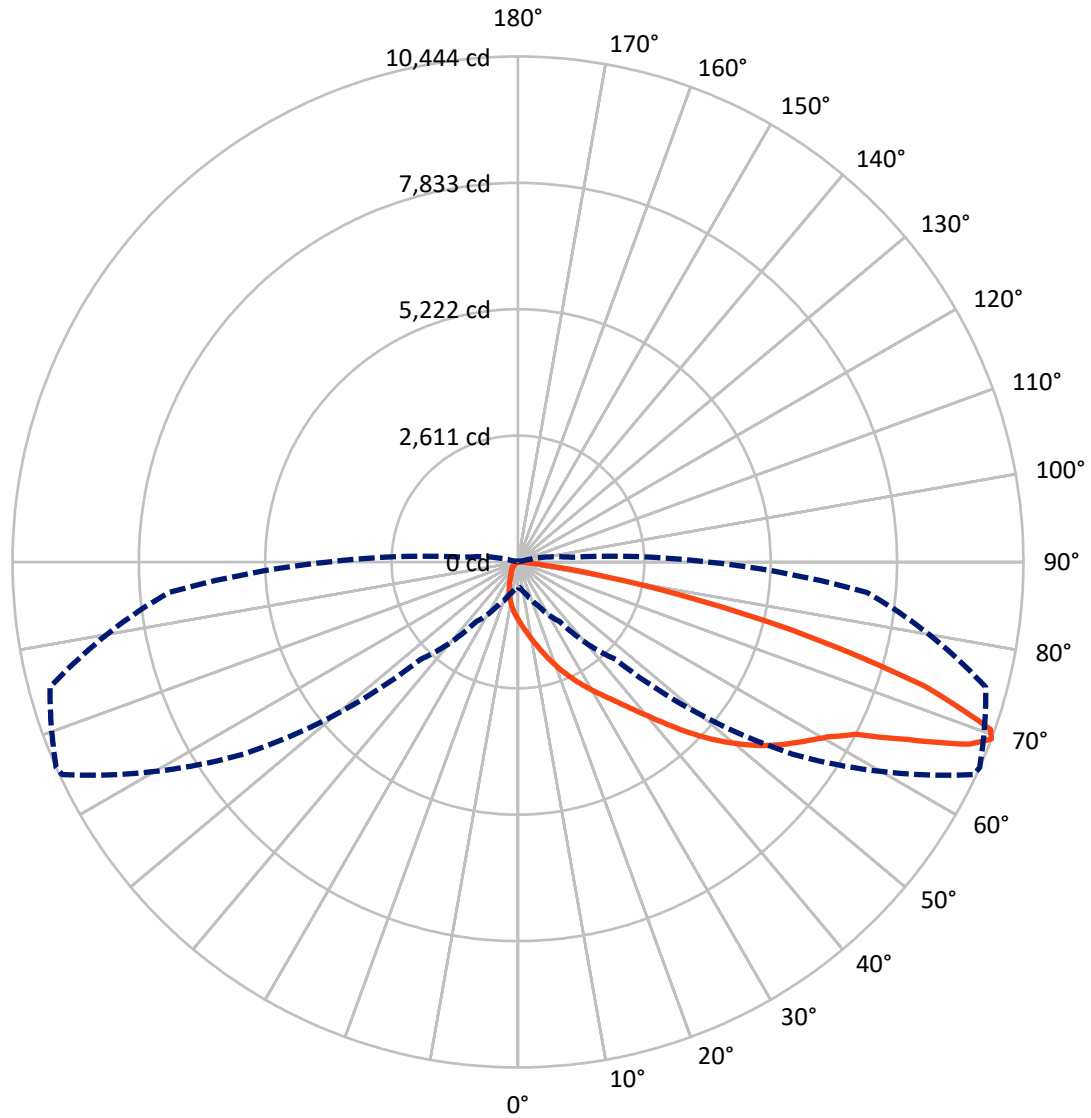
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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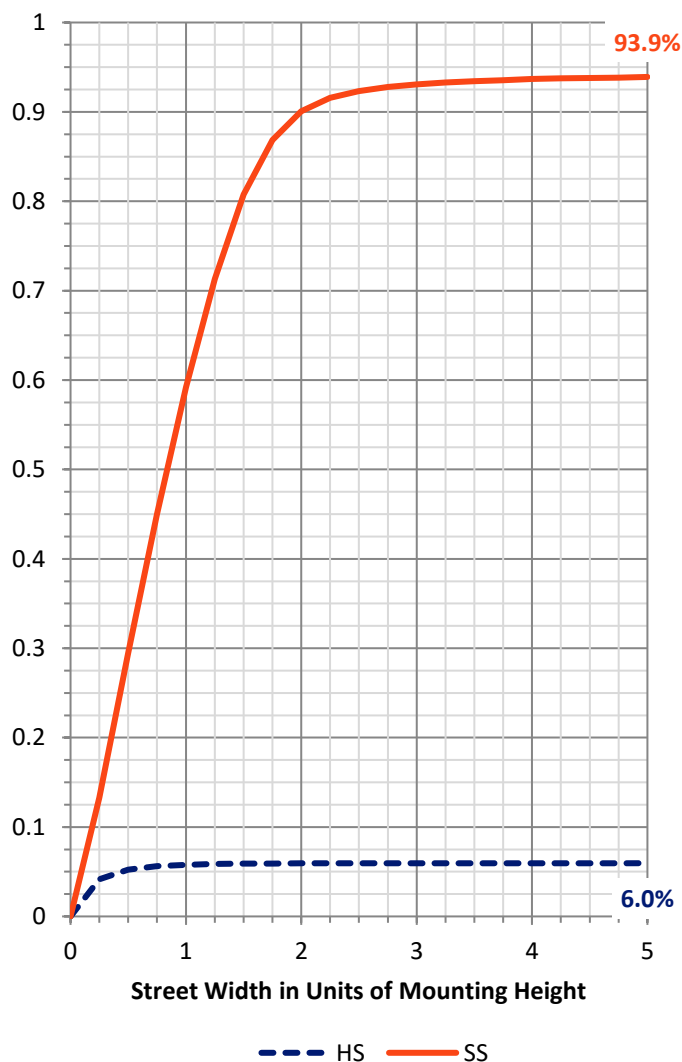
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 629.9 | 0.0 | 629.9 |
| | % Fixture | 6.0 | 0.0 | 6.0 |
| Street Side | Lumens | 9871.1 | 0.0 | 9871.1 |
| | % Fixture | 94.0 | 0.0 | 94.0 |
| Total | Lumens | 10501.0 | 0.0 | 10501.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 115.5 | 1.1 |
| 10°-20° | 343.8 | 3.3 |
| 20°-30° | 598.7 | 5.7 |
| 30°-40° | 1050.4 | 10.0 |
| 40°-50° | 1758.2 | 16.7 |
| 50°-60° | 2584.4 | 24.6 |
| 60°-70° | 2653.5 | 25.3 |
| 70°-80° | 1310.0 | 12.5 |
| 80°-90° | 86.6 | 0.8 |
| 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° | 10501.0 | 100.0 |
| 0°-180° | 10501.0 | 100.0 |

Coefficient of Utilization



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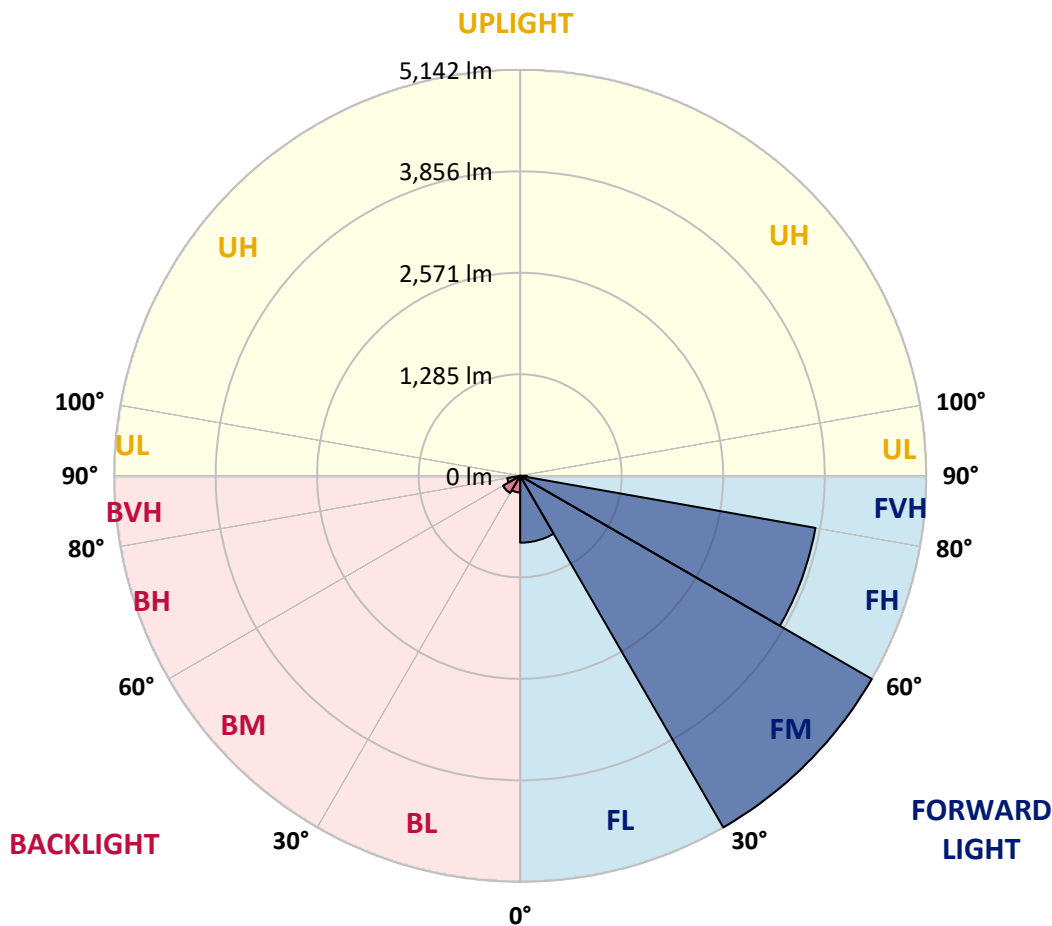
CATALOG NUMBER: GPC-SA2C-760-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 847.3 | 8.1 | | | |
| FM (30°-60°) | 5141.8 | 49.0 | | | |
| FH (60°-80°) | 3797.4 | 36.2 | | | G2/5000 |
| FVH (80°-90°) | 84.5 | 0.8 | | | G1/100 |
| BL (0°-30°) | 210.7 | 2.0 | B1/500 | | |
| BM (30°-60°) | 251.1 | 2.4 | B1/1000 | | |
| BH (60°-80°) | 166.0 | 1.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.1 | 0.0 | | | G0/10 |
| 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 Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0° | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 |
| 2.5° | 1406.5 | 1400.5 | 1398.0 | 1387.1 | 1368.1 | 1353.7 | 1325.7 | 1293.3 | 1287.3 | 1255.9 | 1217.5 |
| 5° | 1589.1 | 1584.1 | 1580.6 | 1565.1 | 1545.7 | 1509.3 | 1458.4 | 1398.0 | 1386.6 | 1326.7 | 1249.9 |
| 7.5° | 1716.3 | 1725.2 | 1725.2 | 1715.3 | 1690.8 | 1663.4 | 1601.0 | 1518.7 | 1504.3 | 1412.5 | 1293.3 |
| 10° | 1790.6 | 1801.5 | 1810.0 | 1818.5 | 1815.0 | 1804.0 | 1745.2 | 1652.4 | 1635.0 | 1513.3 | 1343.7 |
| 12.5° | 1797.6 | 1808.5 | 1832.5 | 1867.9 | 1902.3 | 1927.2 | 1890.3 | 1800.6 | 1780.6 | 1630.0 | 1403.5 |
| 15° | 1758.7 | 1770.1 | 1807.0 | 1875.9 | 1959.2 | 2032.0 | 2044.0 | 1964.6 | 1944.2 | 1769.1 | 1478.3 |
| 17.5° | 1690.8 | 1698.3 | 1751.2 | 1846.4 | 1977.1 | 2110.8 | 2183.1 | 2140.7 | 2121.8 | 1928.2 | 1561.6 |
| 20° | 1640.4 | 1645.9 | 1692.3 | 1794.6 | 1966.1 | 2160.2 | 2314.8 | 2327.7 | 2307.8 | 2098.8 | 1651.9 |
| 22.5° | 1726.7 | 1736.7 | 1738.2 | 1786.6 | 1936.2 | 2184.6 | 2430.5 | 2511.8 | 2496.8 | 2279.9 | 1740.7 |
| 25° | 1962.7 | 1974.1 | 1936.2 | 1906.3 | 1961.7 | 2195.6 | 2529.7 | 2700.3 | 2688.4 | 2474.9 | 1830.0 |
| 27.5° | 2274.4 | 2286.4 | 2237.5 | 2148.2 | 2094.8 | 2237.0 | 2618.0 | 2891.9 | 2891.4 | 2681.4 | 1926.2 |
| 30° | 2580.6 | 2592.6 | 2542.7 | 2453.4 | 2330.7 | 2354.2 | 2694.3 | 3092.4 | 3095.4 | 2894.3 | 2028.5 |
| 32.5° | 2901.8 | 2916.8 | 2865.4 | 2750.7 | 2622.5 | 2556.7 | 2801.6 | 3293.9 | 3310.8 | 3141.2 | 2143.7 |
| 35° | 3266.9 | 3268.9 | 3196.6 | 3076.4 | 2928.8 | 2827.5 | 2973.7 | 3519.8 | 3560.2 | 3447.0 | 2289.8 |
| 37.5° | 3625.0 | 3639.5 | 3580.2 | 3390.6 | 3255.0 | 3140.2 | 3229.5 | 3802.1 | 3859.5 | 3820.6 | 2480.9 |
| 40° | 3890.4 | 3920.8 | 3912.3 | 3707.8 | 3579.2 | 3497.4 | 3547.2 | 4137.8 | 4210.6 | 4255.5 | 2721.8 |
| 42.5° | 4057.0 | 4079.9 | 4118.8 | 3995.6 | 3878.9 | 3892.4 | 3922.3 | 4528.8 | 4618.6 | 4751.3 | 2998.6 |
| 45° | 4248.0 | 4259.0 | 4291.4 | 4237.0 | 4158.2 | 4293.9 | 4320.3 | 4969.2 | 5063.5 | 5284.4 | 3305.8 |
| 47.5° | 4481.4 | 4507.4 | 4516.3 | 4466.5 | 4430.6 | 4649.0 | 4703.9 | 5369.7 | 5501.9 | 5855.5 | 3631.0 |
| 50° | 4778.7 | 4785.7 | 4801.1 | 4768.7 | 4732.8 | 4954.3 | 5048.0 | 5790.2 | 5910.4 | 6428.6 | 3951.7 |
| 52.5° | 5069.5 | 5094.4 | 5148.3 | 5127.8 | 5113.4 | 5214.1 | 5354.8 | 6169.3 | 6303.4 | 6906.4 | 4271.9 |
| 55° | 5153.3 | 5174.7 | 5360.8 | 5487.9 | 5605.7 | 5534.3 | 5648.0 | 6508.9 | 6654.1 | 7333.4 | 4580.2 |
| 57.5° | 4818.6 | 4862.0 | 5184.2 | 5515.4 | 6003.7 | 6032.1 | 6051.1 | 6857.6 | 6987.7 | 7660.6 | 4900.9 |
| 60° | 3972.7 | 3981.2 | 4509.9 | 5078.0 | 5937.8 | 6466.5 | 6639.6 | 7232.1 | 7341.4 | 7965.3 | 5284.9 |
| 62.5° | 2526.8 | 2613.0 | 3193.1 | 3995.1 | 5241.6 | 6403.7 | 7351.3 | 7798.7 | 7838.6 | 8330.9 | 5835.6 |
| 65° | 1203.5 | 1259.4 | 1677.4 | 2468.4 | 3796.6 | 5599.2 | 7842.6 | 8823.7 | 8841.7 | 9055.6 | 6571.3 |
| 67.5° | 666.4 | 693.3 | 892.3 | 1328.7 | 2219.5 | 3959.7 | 7644.1 | 10037.7 | 10054.7 | 9795.8 | 7216.7 |
| 69° | 521.2 | 544.2 | 700.8 | 1001.5 | 1504.8 | 2846.0 | 6917.4 | 10393.3 | 10443.7 | 10007.8 | 7239.6 |
| 70° | 442.4 | 464.9 | 603.5 | 845.9 | 1210.0 | 2199.1 | 6157.3 | 10305.0 | 10358.4 | 9987.8 | 7068.5 |
| 72.5° | 270.8 | 283.8 | 402.0 | 595.5 | 811.0 | 1106.3 | 3797.1 | 8715.0 | 8805.2 | 9161.9 | 6075.0 |
| 75° | 182.5 | 189.5 | 251.4 | 411.0 | 580.1 | 569.6 | 1972.6 | 6142.8 | 6338.3 | 7126.9 | 4486.9 |
| 77.5° | 130.7 | 137.2 | 168.6 | 265.8 | 406.5 | 376.1 | 893.3 | 3817.6 | 3859.5 | 4274.4 | 2447.0 |
| 80° | 74.3 | 80.3 | 119.2 | 158.1 | 275.8 | 250.9 | 355.1 | 1823.5 | 1844.4 | 1833.0 | 817.0 |
| 82.5° | 38.9 | 43.9 | 65.3 | 104.2 | 177.1 | 164.1 | 147.6 | 610.5 | 613.5 | 510.2 | 179.1 |
| 85° | 7.5 | 9.0 | 32.4 | 71.3 | 91.3 | 71.3 | 60.4 | 143.1 | 146.1 | 129.2 | 44.4 |
| 87.5° | 0.0 | 0.5 | 13.0 | 16.0 | 18.0 | 18.5 | 19.5 | 27.9 | 29.9 | 40.4 | 12.0 |
| 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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 CATALOG NUMBER: GPC-SA2C-760-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 |
| 2.5° | 1200.5 | 1182.6 | 1148.2 | 1108.3 | 1077.3 | 1046.9 | 1023.0 | 998.0 | 989.1 | 984.6 | 984.1 |
| 5° | 1212.5 | 1174.6 | 1101.8 | 1027.0 | 965.6 | 907.8 | 866.4 | 827.0 | 808.5 | 800.0 | 796.5 |
| 7.5° | 1232.5 | 1171.6 | 1054.4 | 940.2 | 851.9 | 779.6 | 722.2 | 679.3 | 657.9 | 648.9 | 645.4 |
| 10° | 1255.9 | 1167.6 | 999.0 | 848.4 | 735.7 | 660.9 | 604.0 | 561.6 | 538.2 | 528.2 | 523.2 |
| 12.5° | 1283.3 | 1160.6 | 935.2 | 755.6 | 636.4 | 561.6 | 492.8 | 440.4 | 413.5 | 402.0 | 396.5 |
| 15° | 1317.2 | 1153.6 | 868.4 | 668.3 | 549.1 | 457.9 | 382.6 | 347.1 | 341.7 | 339.7 | 340.2 |
| 17.5° | 1350.7 | 1142.7 | 795.5 | 582.1 | 457.4 | 357.6 | 319.2 | 317.2 | 318.2 | 318.2 | 318.2 |
| 20° | 1380.6 | 1117.7 | 716.2 | 508.2 | 370.1 | 301.8 | 293.8 | 290.3 | 287.8 | 285.8 | 283.3 |
| 22.5° | 1404.0 | 1084.3 | 639.9 | 434.9 | 302.3 | 276.3 | 263.8 | 252.9 | 243.9 | 237.9 | 234.9 |
| 25° | 1420.0 | 1039.9 | 570.1 | 364.6 | 271.8 | 251.4 | 228.9 | 210.5 | 196.5 | 188.0 | 184.5 |
| 27.5° | 1432.0 | 992.0 | 507.7 | 305.2 | 250.9 | 222.5 | 193.0 | 171.1 | 156.6 | 149.1 | 146.1 |
| 30° | 1440.4 | 937.7 | 452.9 | 268.3 | 227.4 | 192.0 | 160.6 | 139.2 | 128.7 | 124.7 | 122.7 |
| 32.5° | 1448.4 | 877.3 | 401.0 | 250.9 | 205.5 | 164.1 | 134.7 | 118.2 | 111.7 | 106.7 | 105.2 |
| 35° | 1468.4 | 821.5 | 351.6 | 232.4 | 183.0 | 140.2 | 115.7 | 103.7 | 97.3 | 94.3 | 93.3 |
| 37.5° | 1515.8 | 780.1 | 304.2 | 213.5 | 160.6 | 121.2 | 101.2 | 92.8 | 86.8 | 83.8 | 82.8 |
| 40° | 1592.1 | 759.1 | 264.3 | 193.0 | 138.7 | 106.7 | 91.8 | 83.8 | 77.3 | 72.8 | 71.8 |
| 42.5° | 1704.3 | 762.1 | 236.4 | 172.6 | 121.2 | 95.3 | 82.8 | 73.3 | 66.3 | 62.3 | 61.3 |
| 45° | 1840.5 | 784.1 | 217.0 | 152.6 | 106.7 | 86.3 | 72.8 | 62.8 | 56.4 | 52.9 | 51.9 |
| 47.5° | 1988.1 | 819.5 | 201.0 | 134.7 | 95.3 | 77.8 | 62.8 | 52.4 | 46.9 | 43.9 | 43.4 |
| 50° | 2143.7 | 853.9 | 184.5 | 117.2 | 85.3 | 69.3 | 52.9 | 43.4 | 38.9 | 36.4 | 35.4 |
| 52.5° | 2301.3 | 893.8 | 169.6 | 101.2 | 76.8 | 59.4 | 43.9 | 35.4 | 31.9 | 29.9 | 28.9 |
| 55° | 2470.9 | 923.7 | 155.1 | 88.8 | 68.3 | 50.4 | 36.4 | 29.4 | 26.4 | 23.9 | 23.4 |
| 57.5° | 2670.4 | 970.1 | 140.2 | 76.8 | 58.4 | 41.9 | 29.9 | 23.4 | 20.9 | 18.5 | 18.0 |
| 60° | 2939.7 | 1024.5 | 124.2 | 67.8 | 47.9 | 34.4 | 24.4 | 19.0 | 16.0 | 14.0 | 13.5 |
| 62.5° | 3294.9 | 1084.8 | 104.2 | 59.4 | 38.9 | 27.9 | 19.5 | 15.0 | 11.5 | 9.0 | 9.0 |
| 65° | 3745.2 | 1183.1 | 85.3 | 49.9 | 31.9 | 22.9 | 15.0 | 11.0 | 6.5 | 4.0 | 4.0 |
| 67.5° | 4008.1 | 1200.0 | 68.8 | 40.9 | 25.9 | 19.5 | 12.5 | 7.5 | 2.0 | 0.5 | 0.0 |
| 69° | 3923.8 | 1101.8 | 58.4 | 34.9 | 22.4 | 18.5 | 11.5 | 5.5 | 1.0 | 0.0 | 0.0 |
| 70° | 3765.2 | 1007.5 | 51.4 | 30.9 | 20.4 | 17.5 | 11.0 | 4.0 | 1.0 | 0.0 | 0.0 |
| 72.5° | 3111.3 | 717.2 | 38.9 | 22.9 | 15.0 | 15.5 | 10.0 | 2.5 | 1.0 | 0.0 | 0.0 |
| 75° | 2266.4 | 435.9 | 27.9 | 16.0 | 9.5 | 11.5 | 7.0 | 1.0 | 0.5 | 0.0 | 0.0 |
| 77.5° | 1260.9 | 205.5 | 17.5 | 9.0 | 6.0 | 7.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 409.5 | 55.9 | 8.0 | 5.0 | 3.5 | 4.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 75.8 | 16.0 | 4.5 | 2.5 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 16.5 | 6.5 | 2.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.5 | 2.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |

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



Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-9-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-760-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): | 5474 | CRI (Ra): | 71.7 | R9: | -27.1 |
| CIE u': | 0.2052 | R1: | 70.6 | R10: | 40.8 |
| CIE v': | 0.4804 | R2: | 74.6 | R11: | 74.6 |
| Duv: | 0.0025 | R3: | 78.3 | R12: | 50.4 |
| CIE x: | 0.3330 | R4: | 73.8 | R13: | 70.0 |
| CIE y: | 0.3466 | R5: | 72.4 | R14: | 87.8 |
| CIE z: | 0.3204 | R6: | 67.5 | | |
| Peak Wavelength (nm): | 442 | R7: | 77.5 | | |
| Dominant Wavelength (nm): | 554 | R8: | 58.9 | | |
| Purity: | 4.1 | | | | |
| Rf: | 72.1 | | | | |
| Rg: | 97.2 | | | | |



Test Conditions

Stabilization Time: 240M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.6/31%
 Sphere Temperature (°C): 25.9

REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-9-R4

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 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

REPORT NUMBER: SP1-1908-441-9-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 13759.3 S/P: 1.85

| 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 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

REPORT NUMBER: SP1-1908-441-9-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 5527.6 M/P: 0.74

| 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 | 3540 | NR | 490 | 33363 | NR | 620 | 80193 | NR | 750 | 4663 | NR | 880 | 4678 | NR |
| 365 | 2862 | NR | 495 | 44177 | NR | 625 | 73091 | NR | 755 | 4147 | NR | 885 | 4128 | NR |
| 370 | 2865 | NR | 500 | 57019 | NR | 630 | 66269 | NR | 760 | 4040 | NR | 890 | 4504 | NR |
| 375 | 3254 | NR | 505 | 70030 | NR | 635 | 60012 | NR | 765 | 3474 | NR | 895 | 4371 | NR |
| 380 | 3076 | NR | 510 | 81972 | NR | 640 | 53914 | NR | 770 | 3469 | NR | 900 | 4082 | NR |
| 385 | 2904 | NR | 515 | 92590 | NR | 645 | 48385 | NR | 775 | 3181 | NR | 905 | 2982 | NR |
| 390 | 2689 | NR | 520 | 100305 | NR | 650 | 43219 | NR | 780 | 2969 | NR | 910 | 4351 | NR |
| 395 | 2619 | NR | 525 | 107452 | NR | 655 | 38562 | NR | 785 | 3132 | NR | 915 | 3365 | NR |
| 400 | 2679 | NR | 530 | 111373 | NR | 660 | 34110 | NR | 790 | 2507 | NR | 920 | 3430 | NR |
| 405 | 3515 | NR | 535 | 114505 | NR | 665 | 30085 | NR | 795 | 2968 | NR | 925 | 4264 | NR |
| 410 | 6934 | NR | 540 | 116408 | NR | 670 | 26205 | NR | 800 | 2758 | NR | 930 | 4095 | NR |
| 415 | 14943 | NR | 545 | 118700 | NR | 675 | 22906 | NR | 805 | 2872 | NR | 935 | 5048 | NR |
| 420 | 31939 | NR | 550 | 119209 | NR | 680 | 20058 | NR | 810 | 3094 | NR | 940 | 4074 | NR |
| 425 | 64701 | NR | 555 | 120742 | NR | 685 | 17413 | NR | 815 | 3222 | NR | 945 | 4949 | NR |
| 430 | 110939 | NR | 560 | 121594 | NR | 690 | 15447 | NR | 820 | 3238 | NR | 950 | 4387 | NR |
| 435 | 164597 | NR | 565 | 121913 | NR | 695 | 13398 | NR | 825 | 3524 | NR | 955 | 4978 | NR |
| 440 | 207696 | NR | 570 | 122147 | NR | 700 | 11777 | NR | 830 | 2921 | NR | 960 | 4706 | NR |
| 445 | 201830 | NR | 575 | 121605 | NR | 705 | 10412 | NR | 835 | 3595 | NR | 965 | 5083 | NR |
| 450 | 145410 | NR | 580 | 120248 | NR | 710 | 9544 | NR | 840 | 3016 | NR | 970 | 4522 | NR |
| 455 | 89594 | NR | 585 | 117717 | NR | 715 | 8940 | NR | 845 | 4032 | NR | 975 | 4740 | NR |
| 460 | 58321 | NR | 590 | 114359 | NR | 720 | 7897 | NR | 850 | 3579 | NR | 980 | 6122 | NR |
| 465 | 39318 | NR | 595 | 109974 | NR | 725 | 7045 | NR | 855 | 4571 | NR | 985 | 6450 | NR |
| 470 | 27693 | NR | 600 | 105269 | NR | 730 | 6483 | NR | 860 | 4485 | NR | 990 | 4875 | NR |
| 475 | 23081 | NR | 605 | 99453 | NR | 735 | 5838 | NR | 865 | 3978 | NR | 995 | 4764 | NR |
| 480 | 23002 | NR | 610 | 92921 | NR | 740 | 5261 | NR | 870 | 4298 | NR | 1000 | 3640 | NR |
| 485 | 26201 | NR | 615 | 86989 | NR | 745 | 4760 | NR | 875 | 4356 | NR | | | |

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Summary

$R_f = 72.1$
 $R_g = 97.2$
 CIE $R_a = 71.7$
 $R_g = -27.1$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 | |



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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)