

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: P386814

Luminaire Tested: **GPC-SA2C-730-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P386814
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-730-U-T2-HSS
Description: GALLEON PEDESTRIAN LUMINAIRE
(2) 70 CRI, 3000K, 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: 9563 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

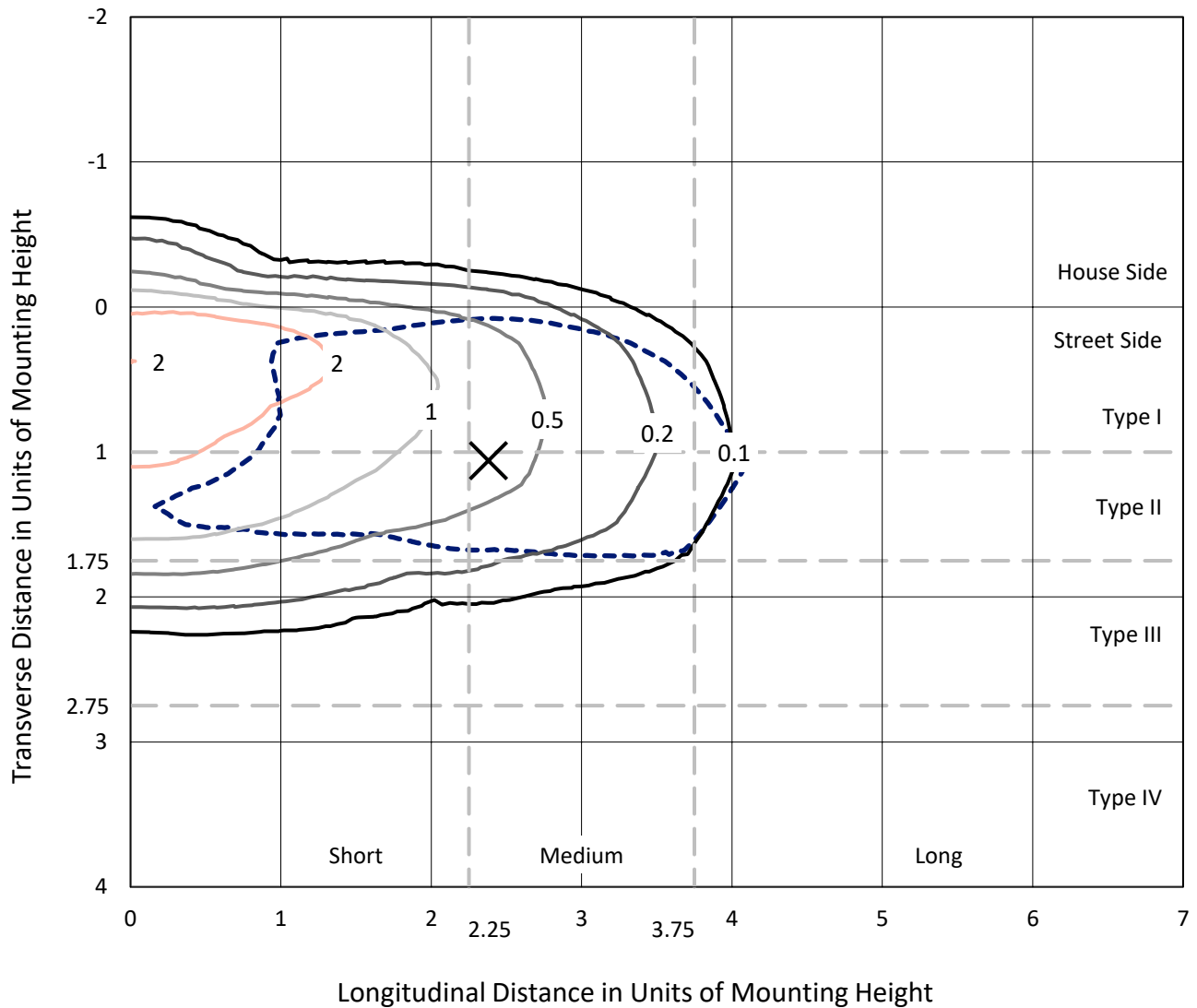
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

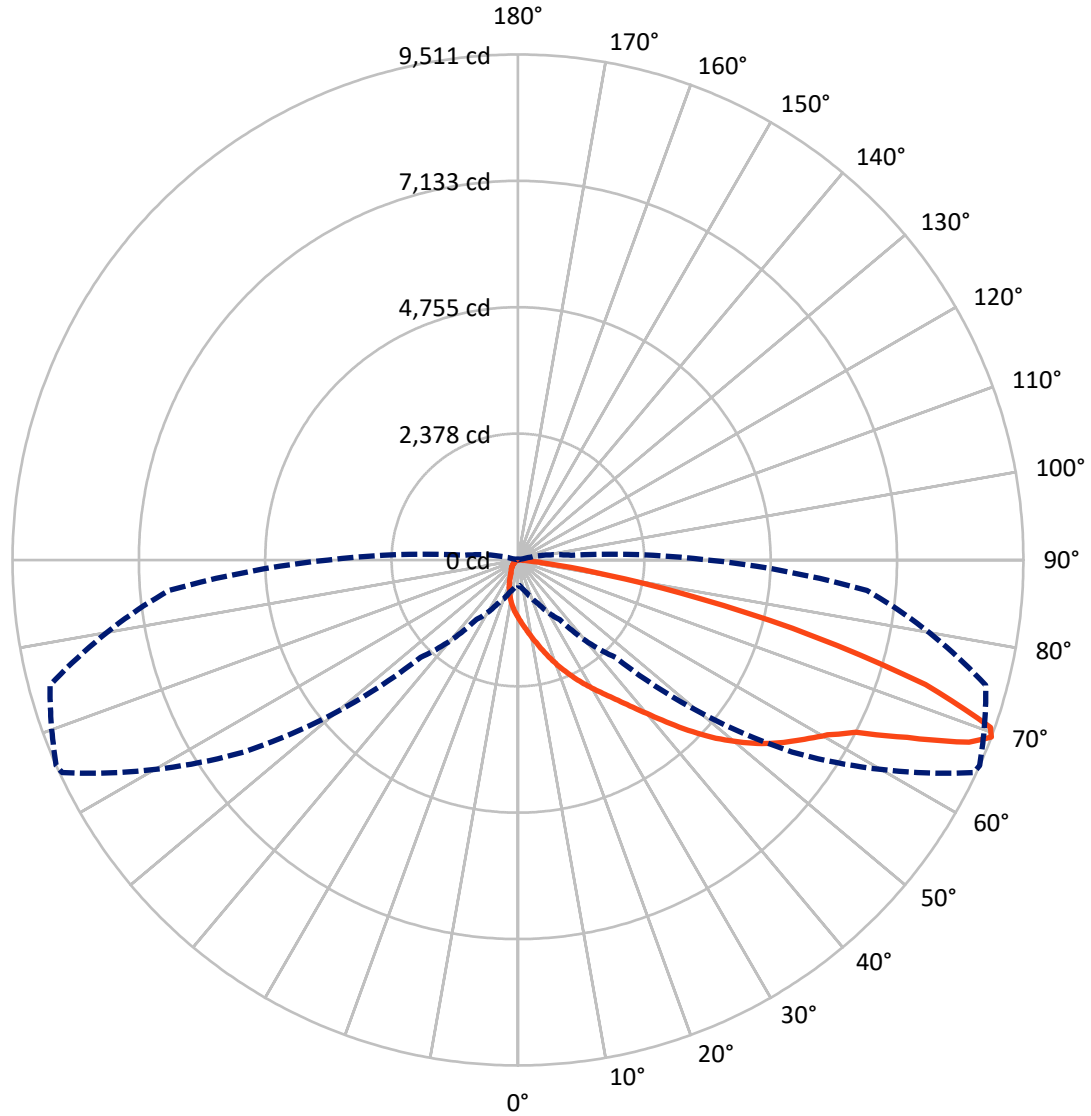
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type II - Medium - N/A

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CATALOG NUMBER: GPC-SA2C-730-U-T2-HSS

Luminous Intensity Polar Plot



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

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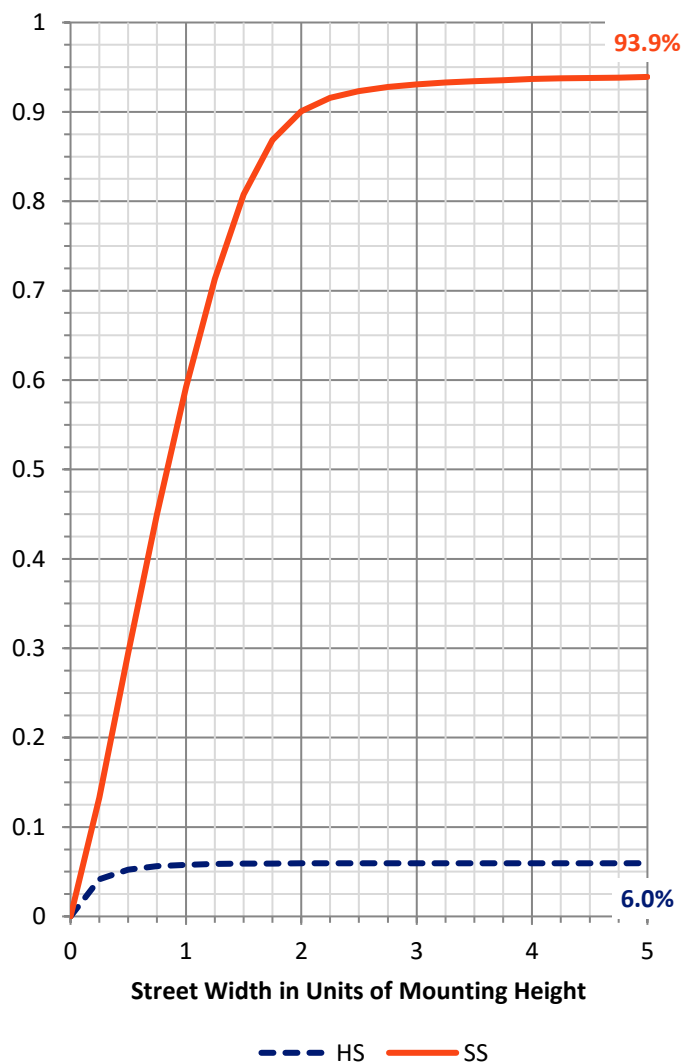
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 573.6 | 0.0 | 573.6 |
| | % Fixture | 6.0 | 0.0 | 6.0 |
| Street Side | Lumens | 8989.3 | 0.0 | 8989.3 |
| | % Fixture | 94.0 | 0.0 | 94.0 |
| Total | Lumens | 9563.0 | 0.0 | 9563.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 105.2 | 1.1 |
| 10°-20° | 313.1 | 3.3 |
| 20°-30° | 545.2 | 5.7 |
| 30°-40° | 956.6 | 10.0 |
| 40°-50° | 1601.1 | 16.7 |
| 50°-60° | 2353.5 | 24.6 |
| 60°-70° | 2416.5 | 25.3 |
| 70°-80° | 1192.9 | 12.5 |
| 80°-90° | 78.9 | 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° | 9563.0 | 100.0 |
| 0°-180° | 9563.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P386814

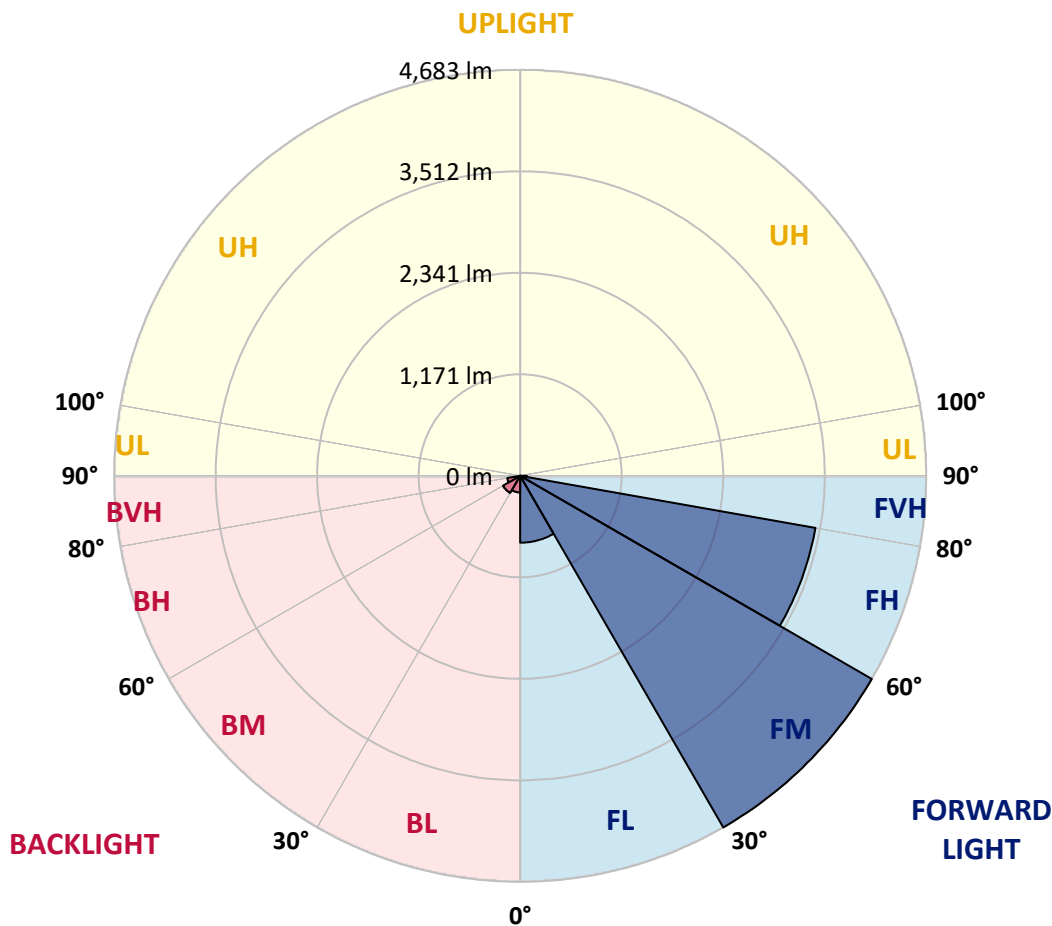
CATALOG NUMBER: GPC-SA2C-730-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 771.6 | 8.1 | | | |
| FM (30°-60°) | 4682.5 | 49.0 | | | |
| FH (60°-80°) | 3458.2 | 36.2 | | | G2/5000 |
| FVH (80°-90°) | 77.0 | 0.8 | | | G1/100 |
| BL (0°-30°) | 191.9 | 2.0 | B1/500 | | |
| BM (30°-60°) | 228.7 | 2.4 | B1/1000 | | |
| BH (60°-80°) | 151.2 | 1.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.9 | 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





REPORT NUMBER: P386814

CATALOG NUMBER: GPC-SA2C-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 |
| 2.5° | 1280.9 | 1275.4 | 1273.2 | 1263.2 | 1245.9 | 1232.7 | 1207.3 | 1177.8 | 1172.3 | 1143.7 | 1108.7 |
| 5° | 1447.1 | 1442.6 | 1439.4 | 1425.3 | 1407.6 | 1374.5 | 1328.1 | 1273.2 | 1262.7 | 1208.2 | 1138.3 |
| 7.5° | 1563.0 | 1571.1 | 1571.1 | 1562.0 | 1539.8 | 1514.8 | 1458.0 | 1383.1 | 1369.9 | 1286.3 | 1177.8 |
| 10° | 1630.6 | 1640.6 | 1648.3 | 1656.1 | 1652.9 | 1642.9 | 1589.3 | 1504.8 | 1488.9 | 1378.1 | 1223.7 |
| 12.5° | 1637.0 | 1647.0 | 1668.8 | 1701.0 | 1732.4 | 1755.1 | 1721.5 | 1639.7 | 1621.5 | 1484.4 | 1278.2 |
| 15° | 1601.6 | 1612.0 | 1645.6 | 1708.3 | 1784.2 | 1850.5 | 1861.4 | 1789.2 | 1770.5 | 1611.1 | 1346.3 |
| 17.5° | 1539.8 | 1546.6 | 1594.8 | 1681.5 | 1800.5 | 1922.2 | 1988.1 | 1949.5 | 1932.2 | 1756.0 | 1422.1 |
| 20° | 1493.9 | 1498.9 | 1541.2 | 1634.3 | 1790.5 | 1967.2 | 2108.0 | 2119.8 | 2101.7 | 1911.3 | 1504.4 |
| 22.5° | 1572.5 | 1581.6 | 1582.9 | 1627.0 | 1763.3 | 1989.5 | 2213.4 | 2287.4 | 2273.8 | 2076.2 | 1585.2 |
| 25° | 1787.3 | 1797.8 | 1763.3 | 1736.0 | 1786.4 | 1999.5 | 2303.8 | 2459.1 | 2448.2 | 2253.8 | 1666.5 |
| 27.5° | 2071.2 | 2082.1 | 2037.6 | 1956.3 | 1907.7 | 2037.2 | 2384.2 | 2633.5 | 2633.1 | 2441.9 | 1754.2 |
| 30° | 2350.1 | 2361.0 | 2315.6 | 2234.3 | 2122.5 | 2143.9 | 2453.7 | 2816.1 | 2818.9 | 2635.8 | 1847.3 |
| 32.5° | 2642.6 | 2656.3 | 2609.5 | 2505.0 | 2388.3 | 2328.3 | 2551.3 | 2999.6 | 3015.1 | 2860.6 | 1952.2 |
| 35° | 2975.1 | 2976.9 | 2911.1 | 2801.6 | 2667.2 | 2574.9 | 2708.0 | 3205.4 | 3242.2 | 3139.1 | 2085.3 |
| 37.5° | 3301.2 | 3314.4 | 3260.4 | 3087.8 | 2964.2 | 2859.7 | 2941.0 | 3462.5 | 3514.7 | 3479.3 | 2259.3 |
| 40° | 3542.9 | 3570.6 | 3562.9 | 3376.6 | 3259.4 | 3185.0 | 3230.4 | 3768.2 | 3834.5 | 3875.4 | 2478.7 |
| 42.5° | 3694.6 | 3715.5 | 3750.9 | 3638.7 | 3532.4 | 3544.7 | 3571.9 | 4124.3 | 4206.0 | 4326.9 | 2730.7 |
| 45° | 3868.6 | 3878.5 | 3908.1 | 3858.6 | 3786.8 | 3910.3 | 3934.4 | 4525.3 | 4611.2 | 4812.4 | 3010.5 |
| 47.5° | 4081.1 | 4104.7 | 4112.9 | 4067.5 | 4034.8 | 4233.7 | 4283.7 | 4890.1 | 5010.5 | 5332.5 | 3306.7 |
| 50° | 4351.8 | 4358.2 | 4372.3 | 4342.8 | 4310.0 | 4511.7 | 4597.1 | 5273.0 | 5382.5 | 5854.4 | 3598.7 |
| 52.5° | 4616.6 | 4639.4 | 4688.4 | 4669.8 | 4656.6 | 4748.4 | 4876.5 | 5618.2 | 5740.4 | 6289.5 | 3890.4 |
| 55° | 4693.0 | 4712.5 | 4881.9 | 4997.7 | 5104.9 | 5040.0 | 5143.5 | 5927.5 | 6059.7 | 6678.3 | 4171.1 |
| 57.5° | 4388.2 | 4427.7 | 4721.1 | 5022.7 | 5467.4 | 5493.3 | 5510.5 | 6245.0 | 6363.6 | 6976.3 | 4463.1 |
| 60° | 3617.8 | 3625.5 | 4107.0 | 4624.4 | 5407.4 | 5888.9 | 6046.5 | 6586.1 | 6685.6 | 7253.8 | 4812.9 |
| 62.5° | 2301.1 | 2379.6 | 2907.9 | 3638.3 | 4773.3 | 5831.7 | 6694.7 | 7102.1 | 7138.4 | 7586.8 | 5314.3 |
| 65° | 1096.0 | 1146.9 | 1527.5 | 2247.9 | 3457.5 | 5099.0 | 7142.1 | 8035.5 | 8051.9 | 8246.7 | 5984.3 |
| 67.5° | 606.8 | 631.4 | 812.6 | 1210.0 | 2021.3 | 3606.0 | 6961.3 | 9141.1 | 9156.5 | 8920.8 | 6572.0 |
| 69° | 474.7 | 495.5 | 638.2 | 912.1 | 1370.4 | 2591.8 | 6299.5 | 9464.9 | 9510.8 | 9113.8 | 6592.9 |
| 70° | 402.9 | 423.3 | 549.6 | 770.3 | 1101.9 | 2002.6 | 5607.3 | 9384.5 | 9433.1 | 9095.7 | 6437.1 |
| 72.5° | 246.6 | 258.4 | 366.1 | 542.3 | 738.6 | 1007.4 | 3457.9 | 7936.5 | 8018.7 | 8343.5 | 5532.3 |
| 75° | 166.2 | 172.6 | 228.9 | 374.3 | 528.3 | 518.7 | 1796.4 | 5594.1 | 5772.2 | 6490.3 | 4086.1 |
| 77.5° | 119.0 | 124.9 | 153.5 | 242.1 | 370.2 | 342.5 | 813.5 | 3476.6 | 3514.7 | 3892.6 | 2228.4 |
| 80° | 67.7 | 73.1 | 108.6 | 144.0 | 251.2 | 228.5 | 323.4 | 1660.6 | 1679.7 | 1669.2 | 744.0 |
| 82.5° | 35.4 | 40.0 | 59.5 | 94.9 | 161.2 | 149.4 | 134.4 | 556.0 | 558.7 | 464.7 | 163.1 |
| 85° | 6.8 | 8.2 | 29.5 | 65.0 | 83.1 | 65.0 | 55.0 | 130.4 | 133.1 | 117.6 | 40.4 |
| 87.5° | 0.0 | 0.5 | 11.8 | 14.5 | 16.4 | 16.8 | 17.7 | 25.4 | 27.3 | 36.8 | 10.9 |
| 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-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 |
| 2.5° | 1093.3 | 1076.9 | 1045.6 | 1009.3 | 981.1 | 953.4 | 931.6 | 908.9 | 900.7 | 896.6 | 896.2 |
| 5° | 1104.2 | 1069.7 | 1003.4 | 935.2 | 879.4 | 826.7 | 789.0 | 753.1 | 736.3 | 728.6 | 725.4 |
| 7.5° | 1122.4 | 1067.0 | 960.2 | 856.2 | 775.8 | 709.9 | 657.7 | 618.6 | 599.1 | 590.9 | 587.8 |
| 10° | 1143.7 | 1063.3 | 909.8 | 772.6 | 670.0 | 601.8 | 550.1 | 511.4 | 490.1 | 481.0 | 476.5 |
| 12.5° | 1168.7 | 1057.0 | 851.7 | 688.1 | 579.6 | 511.4 | 448.8 | 401.1 | 376.5 | 366.1 | 361.1 |
| 15° | 1199.6 | 1050.6 | 790.8 | 608.6 | 500.1 | 417.0 | 348.4 | 316.1 | 311.1 | 309.3 | 309.8 |
| 17.5° | 1230.0 | 1040.6 | 724.5 | 530.1 | 416.5 | 325.7 | 290.7 | 288.9 | 289.8 | 289.8 | 289.8 |
| 20° | 1257.3 | 1017.9 | 652.3 | 462.8 | 337.0 | 274.8 | 267.5 | 264.4 | 262.1 | 260.3 | 258.0 |
| 22.5° | 1278.6 | 987.5 | 582.8 | 396.1 | 275.3 | 251.6 | 240.3 | 230.3 | 222.1 | 216.7 | 213.9 |
| 25° | 1293.2 | 947.0 | 519.2 | 332.0 | 247.5 | 228.9 | 208.5 | 191.7 | 179.0 | 171.2 | 168.1 |
| 27.5° | 1304.1 | 903.4 | 462.4 | 278.0 | 228.5 | 202.6 | 175.8 | 155.8 | 142.6 | 135.8 | 133.1 |
| 30° | 1311.8 | 853.9 | 412.4 | 244.4 | 207.1 | 174.9 | 146.3 | 126.7 | 117.2 | 113.6 | 111.7 |
| 32.5° | 1319.0 | 799.0 | 365.2 | 228.5 | 187.1 | 149.4 | 122.6 | 107.6 | 101.7 | 97.2 | 95.8 |
| 35° | 1337.2 | 748.1 | 320.2 | 211.7 | 166.7 | 127.6 | 105.4 | 94.5 | 88.6 | 85.8 | 84.9 |
| 37.5° | 1380.4 | 710.4 | 277.1 | 194.4 | 146.3 | 110.4 | 92.2 | 84.5 | 79.0 | 76.3 | 75.4 |
| 40° | 1449.9 | 691.3 | 240.7 | 175.8 | 126.3 | 97.2 | 83.6 | 76.3 | 70.4 | 66.3 | 65.4 |
| 42.5° | 1552.1 | 694.0 | 215.3 | 157.2 | 110.4 | 86.8 | 75.4 | 66.8 | 60.4 | 56.8 | 55.9 |
| 45° | 1676.1 | 714.0 | 197.6 | 139.0 | 97.2 | 78.6 | 66.3 | 57.2 | 51.3 | 48.1 | 47.2 |
| 47.5° | 1810.5 | 746.3 | 183.0 | 122.6 | 86.8 | 70.9 | 57.2 | 47.7 | 42.7 | 40.0 | 39.5 |
| 50° | 1952.2 | 777.6 | 168.1 | 106.7 | 77.7 | 63.1 | 48.1 | 39.5 | 35.4 | 33.2 | 32.2 |
| 52.5° | 2095.7 | 814.0 | 154.4 | 92.2 | 69.9 | 54.1 | 40.0 | 32.2 | 29.1 | 27.3 | 26.3 |
| 55° | 2250.2 | 841.2 | 141.3 | 80.9 | 62.2 | 45.9 | 33.2 | 26.8 | 24.1 | 21.8 | 21.3 |
| 57.5° | 2431.9 | 883.4 | 127.6 | 69.9 | 53.1 | 38.2 | 27.3 | 21.3 | 19.1 | 16.8 | 16.4 |
| 60° | 2677.1 | 933.0 | 113.1 | 61.8 | 43.6 | 31.3 | 22.3 | 17.3 | 14.5 | 12.7 | 12.3 |
| 62.5° | 3000.5 | 987.9 | 94.9 | 54.1 | 35.4 | 25.4 | 17.7 | 13.6 | 10.4 | 8.2 | 8.2 |
| 65° | 3410.7 | 1077.4 | 77.7 | 45.4 | 29.1 | 20.9 | 13.6 | 10.0 | 5.9 | 3.6 | 3.6 |
| 67.5° | 3650.1 | 1092.8 | 62.7 | 37.2 | 23.6 | 17.7 | 11.4 | 6.8 | 1.8 | 0.5 | 0.0 |
| 69° | 3573.3 | 1003.4 | 53.1 | 31.8 | 20.4 | 16.8 | 10.4 | 5.0 | 0.9 | 0.0 | 0.0 |
| 70° | 3428.9 | 917.5 | 46.8 | 28.2 | 18.6 | 15.9 | 10.0 | 3.6 | 0.9 | 0.0 | 0.0 |
| 72.5° | 2833.4 | 653.2 | 35.4 | 20.9 | 13.6 | 14.1 | 9.1 | 2.3 | 0.9 | 0.0 | 0.0 |
| 75° | 2064.0 | 397.0 | 25.4 | 14.5 | 8.6 | 10.4 | 6.4 | 0.9 | 0.5 | 0.0 | 0.0 |
| 77.5° | 1148.3 | 187.1 | 15.9 | 8.2 | 5.5 | 6.4 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 372.9 | 50.9 | 7.3 | 4.5 | 3.2 | 3.6 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 69.0 | 14.5 | 4.1 | 2.3 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 15.0 | 5.9 | 2.3 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.0 | 1.8 | 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: SP1-1908-441-2-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-730-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K): 2993
 CIE u': 0.2508
 CIE v': 0.5215
 Duv: 0.0000
 CIE x: 0.4374
 CIE y: 0.4043
 CIE z: 0.1583
 Peak Wavelength (nm): 593
 Dominant Wavelength (nm): 582
 Purity: 53

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 71.8 | | |
| R1: | 67.5 | R9: | -38.3 |
| R2: | 82.9 | R10: | 62.5 |
| R3: | 94.7 | R11: | 63.7 |
| R4: | 67.7 | R12: | 57.8 |
| R5: | 67.9 | R13: | 70.4 |
| R6: | 77.6 | R14: | 97.3 |
| R7: | 76.0 | | |
| R8: | 40.5 | | |

Rf: 75.7
 Rg: 93.9



Test Conditions

Stabilization Time: 53M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0./44%
 Sphere Temperature (°C): 25.7

REPORT NUMBER: SP1-1908-441-2-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 |

REPORT NUMBER: SP1-1908-441-2-R4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-2-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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 8494.8

S/P: 1.23

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3101.5 M/P: 0.45

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

Summary

$R_f = 75.7$
 $R_g = 93.9$
 CIE $R_a = 71.8$
 $R_9 = -38.3$



Color Vector Graphics



REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 | |



REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

Measure Comparisons



(END OF REPORT)