

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: P385405

Luminaire Tested: **GPC-SA1A-722-U-SL2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P385405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-20)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GPC-SA1A-722-U-SL2
Description: GALLEON PEDESTRIAN LUMINAIRE
(1) 70 CRI, 2200K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3583 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

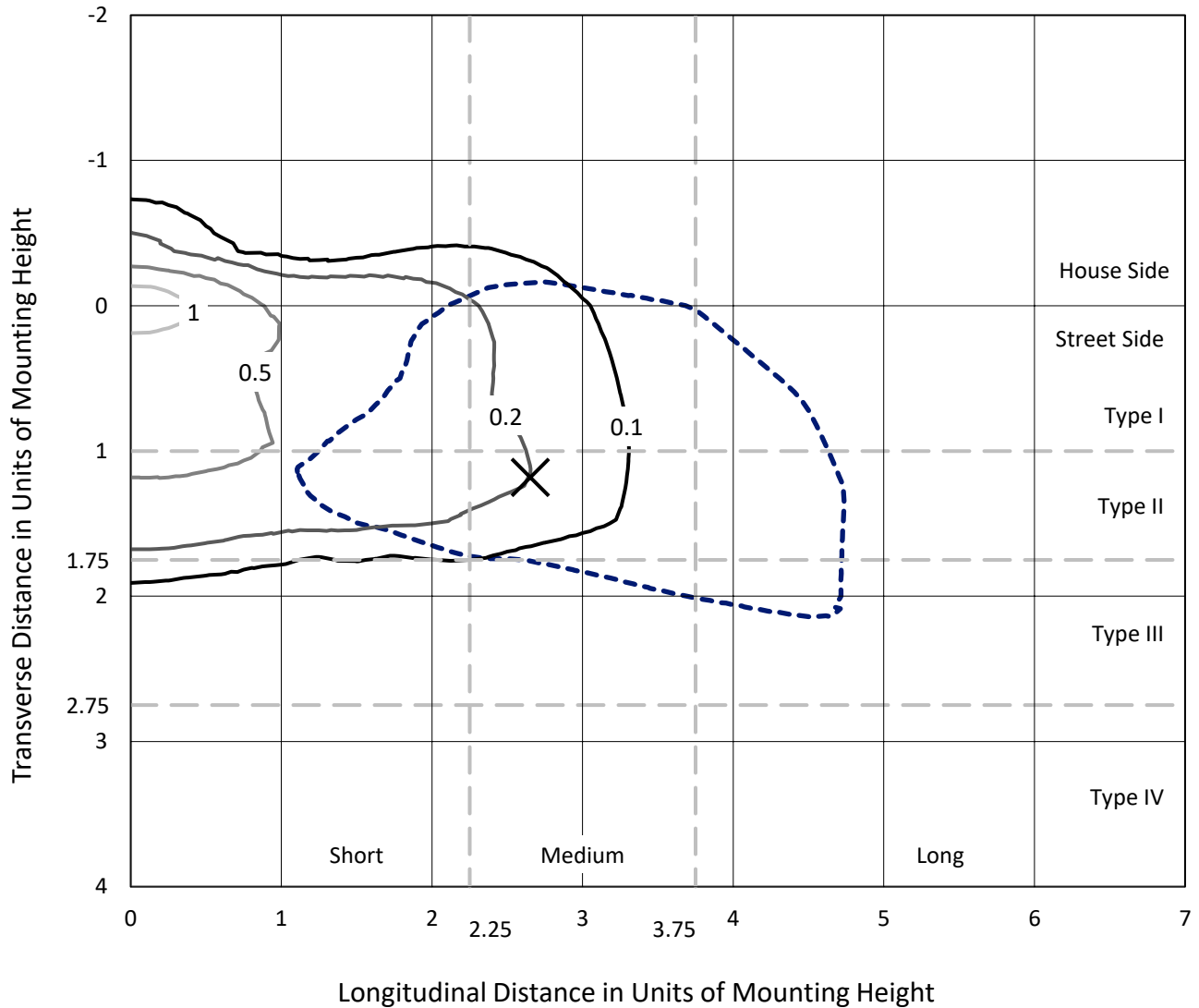
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P385405
 CATALOG NUMBER: GPC-SA1A-722-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

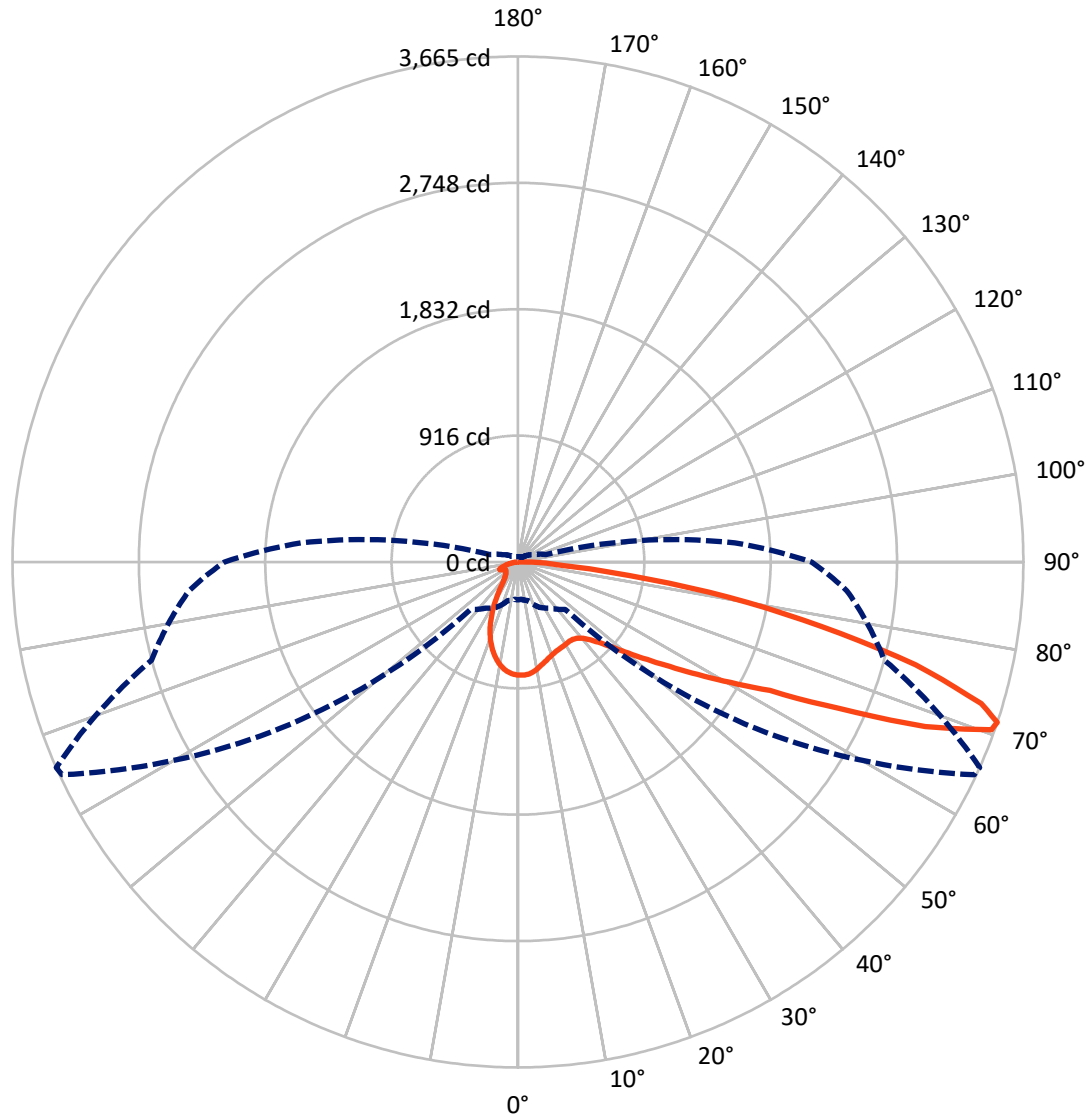
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Medium - N/A

REPORT NUMBER: P385405
CATALOG NUMBER: GPC-SA1A-722-U-SL2

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P385405
 CATALOG NUMBER: GPC-SA1A-722-U-SL2

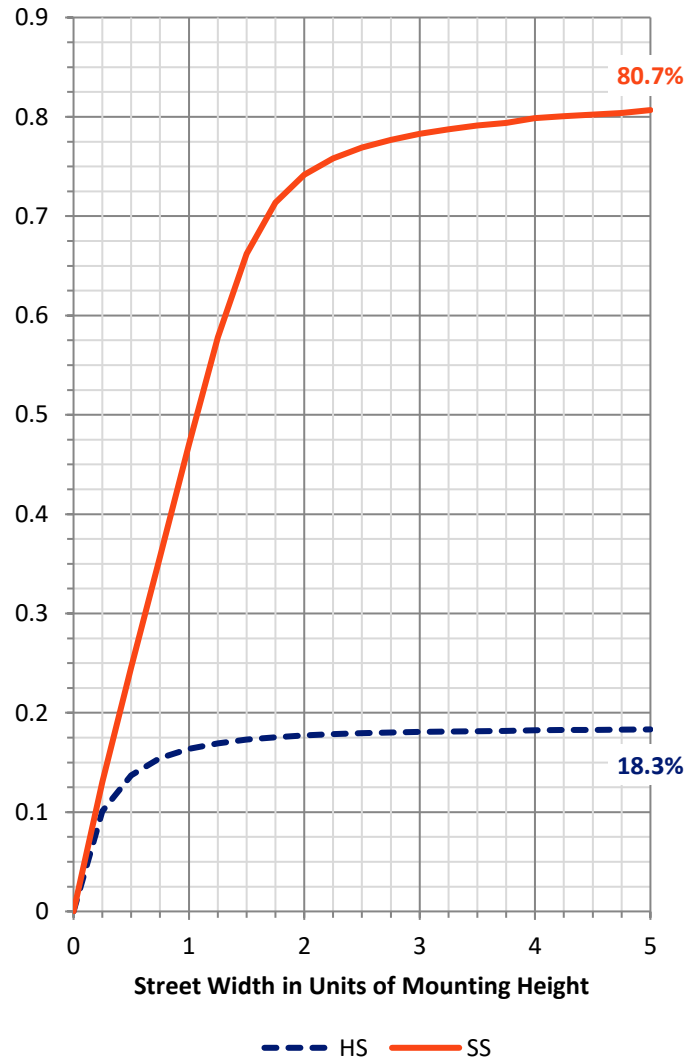
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 664.0 | 0.0 | 664.0 |
| | % Fixture | 18.5 | 0.0 | 18.5 |
| Street Side | Lumens | 2919.0 | 0.0 | 2919.0 |
| | % Fixture | 81.5 | 0.0 | 81.5 |
| Total | Lumens | 3583.0 | 0.0 | 3583.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 72.2 | 2.0 |
| 10°-20° | 173.3 | 4.8 |
| 20°-30° | 232.8 | 6.5 |
| 30°-40° | 306.2 | 8.5 |
| 40°-50° | 445.4 | 12.4 |
| 50°-60° | 695.8 | 19.4 |
| 60°-70° | 871.6 | 24.3 |
| 70°-80° | 664.9 | 18.6 |
| 80°-90° | 120.7 | 3.4 |
| 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° | 3583.0 | 100.0 |
| 0°-180° | 3583.0 | 100.0 |

Coefficient of Utilization

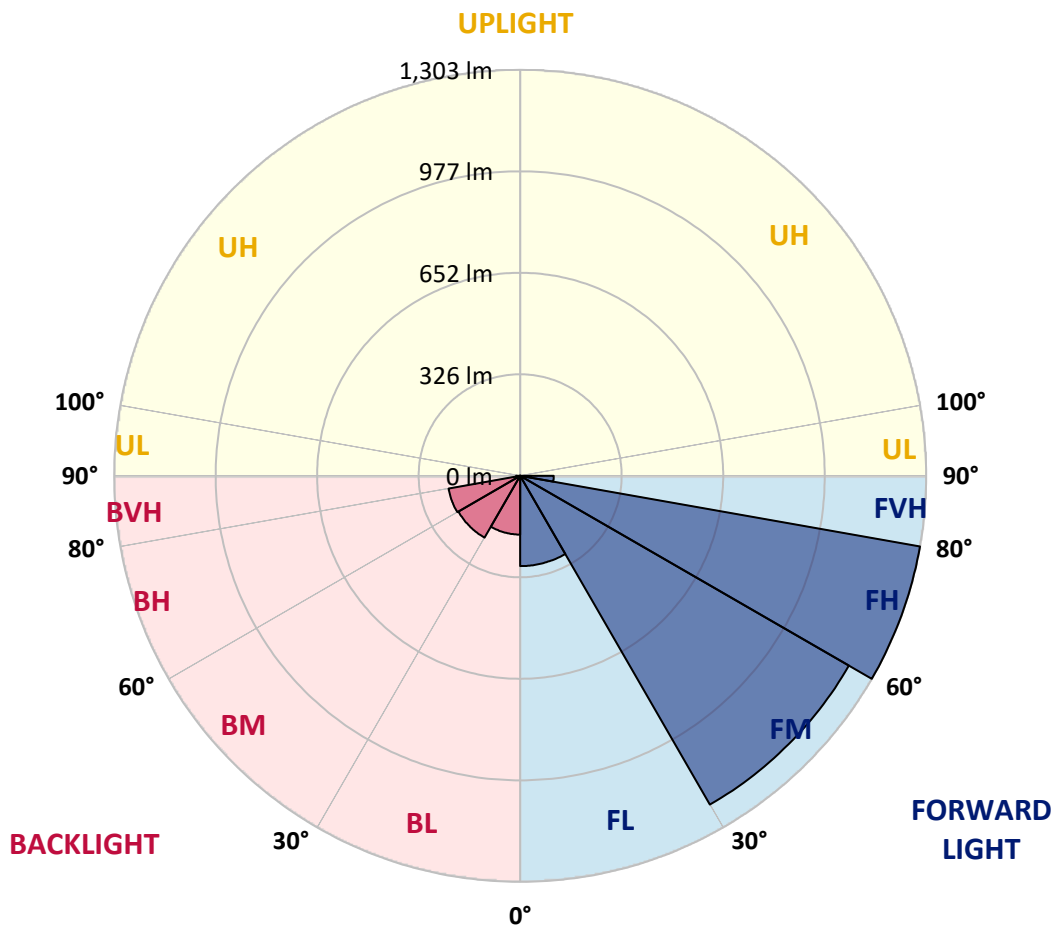


REPORT NUMBER: P385405
 CATALOG NUMBER: GPC-SA1A-722-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 289.7 | 8.1 | | | |
| FM (30°-60°) | 1218.4 | 34.0 | | | |
| FH (60°-80°) | 1303.2 | 36.4 | | | G1/1800 |
| FVH (80°-90°) | 107.7 | 3.0 | | | G2/225 |
| BL (0°-30°) | 188.6 | 5.3 | B1/500 | | |
| BM (30°-60°) | 229.1 | 6.4 | B1/1000 | | |
| BH (60°-80°) | 233.3 | 6.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 13.1 | 0.4 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type III Medium





REPORT NUMBER: P385405

CATALOG NUMBER: GPC-SA1A-722-U-SL2

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 |
| 2.5° | 805.6 | 804.3 | 808.1 | 811.9 | 813.4 | 815.8 | 819.6 | 821.7 | 821.5 | 821.9 | 820.7 |
| 5° | 752.1 | 750.5 | 758.0 | 764.0 | 775.6 | 788.8 | 804.7 | 816.1 | 816.3 | 822.8 | 824.5 |
| 7.5° | 701.5 | 700.4 | 709.0 | 718.7 | 732.2 | 752.3 | 778.1 | 802.6 | 804.1 | 821.5 | 827.6 |
| 10° | 661.0 | 660.7 | 669.0 | 679.6 | 695.4 | 717.7 | 747.4 | 783.3 | 785.5 | 815.6 | 828.1 |
| 12.5° | 629.3 | 629.8 | 637.0 | 649.1 | 665.7 | 689.0 | 721.2 | 761.7 | 765.3 | 806.2 | 825.2 |
| 15° | 605.9 | 607.9 | 613.7 | 626.0 | 642.3 | 666.0 | 699.1 | 741.6 | 747.1 | 795.7 | 823.6 |
| 17.5° | 592.6 | 594.8 | 598.9 | 609.0 | 624.3 | 647.2 | 678.5 | 725.2 | 730.1 | 787.6 | 823.8 |
| 20° | 588.6 | 590.5 | 592.8 | 599.0 | 612.0 | 632.8 | 662.3 | 710.3 | 715.6 | 781.2 | 825.0 |
| 22.5° | 596.4 | 597.8 | 598.0 | 597.5 | 605.4 | 622.4 | 650.6 | 699.4 | 705.1 | 777.0 | 825.9 |
| 25° | 613.1 | 614.9 | 613.6 | 609.0 | 606.4 | 616.8 | 644.5 | 692.3 | 698.0 | 773.9 | 824.1 |
| 27.5° | 638.2 | 638.5 | 637.3 | 631.4 | 619.2 | 617.4 | 642.7 | 688.1 | 693.5 | 770.3 | 820.5 |
| 30° | 672.3 | 674.0 | 672.0 | 663.9 | 643.9 | 627.3 | 644.9 | 684.0 | 688.9 | 765.7 | 814.7 |
| 32.5° | 712.3 | 716.3 | 716.1 | 707.7 | 679.0 | 649.5 | 654.0 | 681.5 | 685.3 | 760.9 | 807.7 |
| 35° | 753.7 | 759.2 | 769.3 | 765.7 | 730.2 | 684.5 | 671.6 | 685.5 | 688.1 | 760.3 | 802.7 |
| 37.5° | 796.8 | 802.2 | 823.1 | 832.8 | 791.2 | 734.6 | 699.3 | 699.4 | 700.7 | 767.8 | 802.4 |
| 40° | 841.8 | 847.6 | 879.1 | 904.2 | 870.3 | 798.0 | 744.0 | 728.6 | 727.3 | 786.4 | 809.7 |
| 42.5° | 904.9 | 910.1 | 947.8 | 979.9 | 958.0 | 879.3 | 805.7 | 773.7 | 770.8 | 822.8 | 833.0 |
| 45° | 984.7 | 989.2 | 1029.2 | 1063.5 | 1052.3 | 972.1 | 883.3 | 835.6 | 835.1 | 883.4 | 880.4 |
| 47.5° | 1079.6 | 1083.1 | 1119.1 | 1152.2 | 1156.3 | 1078.8 | 980.7 | 931.3 | 923.2 | 966.5 | 953.8 |
| 50° | 1178.4 | 1182.3 | 1206.8 | 1242.4 | 1272.7 | 1221.7 | 1106.2 | 1048.4 | 1037.7 | 1076.3 | 1057.7 |
| 52.5° | 1243.9 | 1248.9 | 1270.2 | 1315.4 | 1403.6 | 1378.3 | 1254.5 | 1190.4 | 1174.1 | 1209.2 | 1195.0 |
| 55° | 1214.7 | 1226.1 | 1258.6 | 1331.0 | 1508.2 | 1617.6 | 1437.5 | 1356.1 | 1337.6 | 1366.8 | 1358.4 |
| 57.5° | 1081.9 | 1097.5 | 1141.9 | 1253.6 | 1523.0 | 1828.4 | 1714.1 | 1551.2 | 1538.2 | 1529.8 | 1533.6 |
| 60° | 839.4 | 854.3 | 909.4 | 1055.0 | 1420.4 | 1982.3 | 2130.4 | 1791.6 | 1772.8 | 1693.3 | 1696.8 |
| 62.5° | 594.0 | 586.5 | 624.2 | 730.7 | 1154.2 | 2000.3 | 2604.0 | 2113.3 | 2051.4 | 1866.0 | 1850.8 |
| 65° | 453.0 | 451.3 | 468.2 | 502.1 | 699.1 | 1784.2 | 2886.2 | 2653.9 | 2557.3 | 2069.1 | 2033.2 |
| 67.5° | 372.2 | 369.1 | 385.8 | 435.2 | 450.2 | 1151.1 | 2892.4 | 3281.1 | 3186.2 | 2322.0 | 2244.3 |
| 70° | 306.1 | 302.6 | 318.2 | 381.9 | 416.0 | 583.8 | 2434.3 | 3648.4 | 3643.3 | 2642.1 | 2403.6 |
| 71° | 274.4 | 271.9 | 290.6 | 361.3 | 408.7 | 486.5 | 2101.8 | 3649.4 | 3664.6 | 2750.5 | 2394.2 |
| 72.5° | 223.4 | 224.3 | 244.1 | 321.6 | 403.3 | 429.6 | 1544.7 | 3479.3 | 3511.4 | 2853.8 | 2308.7 |
| 75° | 148.4 | 149.2 | 175.2 | 247.4 | 391.0 | 420.4 | 849.0 | 2919.5 | 2978.6 | 2791.9 | 2106.7 |
| 77.5° | 99.7 | 99.5 | 117.2 | 169.7 | 340.7 | 420.4 | 497.8 | 2183.6 | 2248.5 | 2221.5 | 1624.1 |
| 80° | 68.7 | 68.2 | 80.7 | 117.2 | 257.9 | 425.4 | 384.9 | 1530.3 | 1549.9 | 1199.7 | 660.1 |
| 82.5° | 42.1 | 42.4 | 52.7 | 82.8 | 175.5 | 382.9 | 363.3 | 834.4 | 813.0 | 336.5 | 164.9 |
| 85° | 24.1 | 24.0 | 33.6 | 56.0 | 112.7 | 323.1 | 354.3 | 359.1 | 329.4 | 101.3 | 59.6 |
| 87.5° | 8.7 | 9.3 | 18.1 | 31.1 | 64.6 | 225.0 | 300.6 | 186.8 | 168.4 | 45.8 | 27.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P385405
 CATALOG NUMBER: GPC-SA1A-722-U-SL2

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 | 820.8 |
| 2.5° | 819.8 | 820.5 | 819.7 | 814.7 | 810.5 | 803.7 | 799.9 | 794.6 | 793.0 | 792.2 | 794.2 |
| 5° | 822.9 | 823.1 | 815.8 | 802.9 | 788.3 | 771.1 | 758.7 | 743.5 | 736.3 | 733.2 | 735.2 |
| 7.5° | 825.7 | 824.6 | 808.7 | 783.8 | 756.8 | 726.9 | 700.3 | 675.9 | 661.7 | 655.9 | 656.4 |
| 10° | 826.1 | 821.4 | 795.8 | 757.3 | 715.5 | 671.6 | 630.8 | 593.2 | 569.4 | 554.0 | 558.7 |
| 12.5° | 822.3 | 814.4 | 776.9 | 723.1 | 665.0 | 605.2 | 550.0 | 493.6 | 459.7 | 444.0 | 444.5 |
| 15° | 819.3 | 805.0 | 753.6 | 682.7 | 604.8 | 525.5 | 450.2 | 383.9 | 347.7 | 331.7 | 324.1 |
| 17.5° | 816.8 | 794.8 | 726.7 | 637.3 | 533.7 | 433.1 | 342.5 | 283.4 | 263.6 | 258.9 | 256.9 |
| 20° | 813.4 | 784.1 | 696.6 | 584.8 | 452.6 | 329.7 | 250.1 | 220.9 | 221.1 | 226.5 | 227.2 |
| 22.5° | 808.5 | 771.8 | 664.6 | 525.8 | 365.7 | 240.1 | 196.1 | 187.7 | 196.2 | 206.6 | 208.4 |
| 25° | 801.4 | 757.3 | 628.9 | 460.6 | 278.8 | 184.6 | 167.5 | 167.1 | 177.5 | 188.4 | 190.0 |
| 27.5° | 791.2 | 738.4 | 589.3 | 390.5 | 205.5 | 156.9 | 150.1 | 152.7 | 160.3 | 168.2 | 168.9 |
| 30° | 777.6 | 716.4 | 545.7 | 316.7 | 161.1 | 139.7 | 138.9 | 141.3 | 146.0 | 151.5 | 152.0 |
| 32.5° | 762.7 | 694.0 | 499.0 | 245.2 | 137.9 | 130.4 | 131.1 | 132.2 | 134.5 | 136.7 | 137.2 |
| 35° | 749.0 | 671.1 | 451.3 | 186.3 | 126.9 | 124.3 | 123.8 | 123.6 | 123.8 | 123.1 | 123.2 |
| 37.5° | 740.3 | 652.2 | 401.6 | 148.3 | 120.6 | 119.0 | 117.5 | 115.7 | 113.6 | 112.3 | 112.6 |
| 40° | 737.0 | 638.1 | 351.2 | 128.2 | 115.4 | 114.3 | 111.5 | 107.5 | 105.0 | 104.3 | 104.3 |
| 42.5° | 745.7 | 630.8 | 302.6 | 118.0 | 111.1 | 109.2 | 104.5 | 100.0 | 98.1 | 98.0 | 97.9 |
| 45° | 772.2 | 633.8 | 256.3 | 112.4 | 107.1 | 103.5 | 97.4 | 93.5 | 92.3 | 92.5 | 92.4 |
| 47.5° | 819.7 | 652.4 | 216.7 | 108.7 | 103.2 | 98.5 | 91.5 | 88.5 | 87.0 | 87.0 | 87.1 |
| 50° | 900.5 | 696.1 | 185.2 | 105.6 | 99.8 | 93.8 | 87.3 | 83.5 | 81.5 | 81.4 | 81.4 |
| 52.5° | 1018.1 | 774.3 | 165.5 | 103.0 | 96.1 | 89.6 | 83.1 | 78.3 | 76.0 | 75.5 | 75.2 |
| 55° | 1165.6 | 886.4 | 160.1 | 101.3 | 91.2 | 85.0 | 78.1 | 73.2 | 70.6 | 69.5 | 69.4 |
| 57.5° | 1330.5 | 1022.7 | 170.8 | 99.2 | 86.1 | 79.5 | 72.5 | 67.9 | 65.2 | 63.8 | 63.7 |
| 60° | 1497.3 | 1171.5 | 214.8 | 96.2 | 81.9 | 73.6 | 66.8 | 62.6 | 59.9 | 58.4 | 58.1 |
| 62.5° | 1664.5 | 1328.4 | 304.4 | 96.0 | 78.9 | 67.9 | 61.0 | 57.4 | 54.8 | 53.2 | 52.8 |
| 65° | 1853.0 | 1500.1 | 406.4 | 102.6 | 77.9 | 62.7 | 55.0 | 52.2 | 50.0 | 48.5 | 48.4 |
| 67.5° | 2069.5 | 1693.9 | 396.6 | 116.0 | 81.3 | 58.0 | 49.5 | 47.3 | 45.6 | 44.4 | 44.3 |
| 70° | 2171.1 | 1663.6 | 246.5 | 125.6 | 86.0 | 53.4 | 44.2 | 42.6 | 41.3 | 40.5 | 40.1 |
| 71° | 2128.5 | 1579.6 | 206.7 | 124.4 | 85.5 | 51.5 | 42.1 | 40.8 | 39.6 | 38.8 | 38.5 |
| 72.5° | 2012.5 | 1440.6 | 172.4 | 115.8 | 79.9 | 47.9 | 39.3 | 38.1 | 37.0 | 36.1 | 35.9 |
| 75° | 1805.9 | 1286.6 | 138.1 | 92.5 | 63.7 | 40.5 | 34.5 | 33.2 | 32.3 | 31.8 | 31.3 |
| 77.5° | 1327.5 | 918.2 | 106.8 | 73.1 | 46.9 | 33.0 | 29.4 | 28.5 | 27.6 | 26.8 | 26.5 |
| 80° | 508.6 | 355.7 | 71.9 | 54.6 | 34.4 | 26.1 | 23.8 | 23.3 | 22.4 | 21.9 | 21.9 |
| 82.5° | 136.9 | 106.3 | 38.3 | 33.0 | 23.0 | 19.1 | 18.2 | 17.9 | 17.2 | 16.2 | 16.3 |
| 85° | 55.4 | 46.9 | 21.5 | 18.2 | 14.1 | 11.3 | 12.2 | 12.4 | 11.5 | 10.3 | 10.4 |
| 87.5° | 24.4 | 19.9 | 12.0 | 8.0 | 6.2 | 4.3 | 5.6 | 5.6 | 5.1 | 4.2 | 3.8 |
| 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



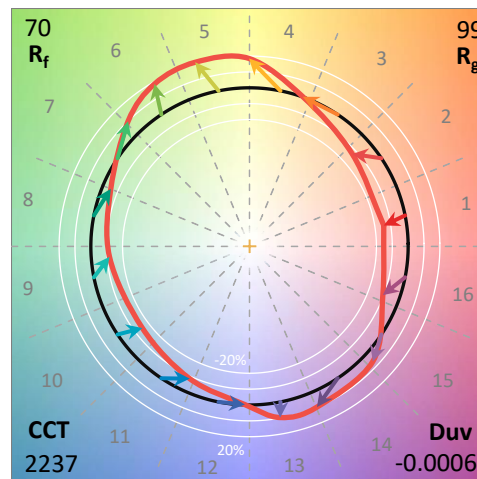
Test Information

Test Method: LM-79-2008 Report
 Number: SP1-1908-441-10-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 | CRI (Ra): | 72.0 | R9: | -17.4 |
| CIE u': | 0.2876 | R1: | 68.9 | R10: | 61.3 |
| CIE v': | 0.5346 | R2: | 83.0 | R11: | 59.8 |
| Duv: | -0.0006 | R3: | 95.2 | R12: | 50.5 |
| CIE x: | 0.5005 | R4: | 66.2 | R13: | 71.1 |
| CIE y: | 0.4134 | R5: | 65.9 | R14: | 96.9 |
| CIE z: | 0.0860 | R6: | 76.3 | | |
| Peak Wavelength (nm): | 603 | R7: | 76.7 | | |
| Dominant Wavelength (nm): | 587 | R8: | 43.8 | | |
| Purity: | 74.5 | | | | |
| Rf: | 69.8 | | | | |
| Rg: | 99.2 | | | | |



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

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

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

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

Scotopic Flux vs. Wavelength



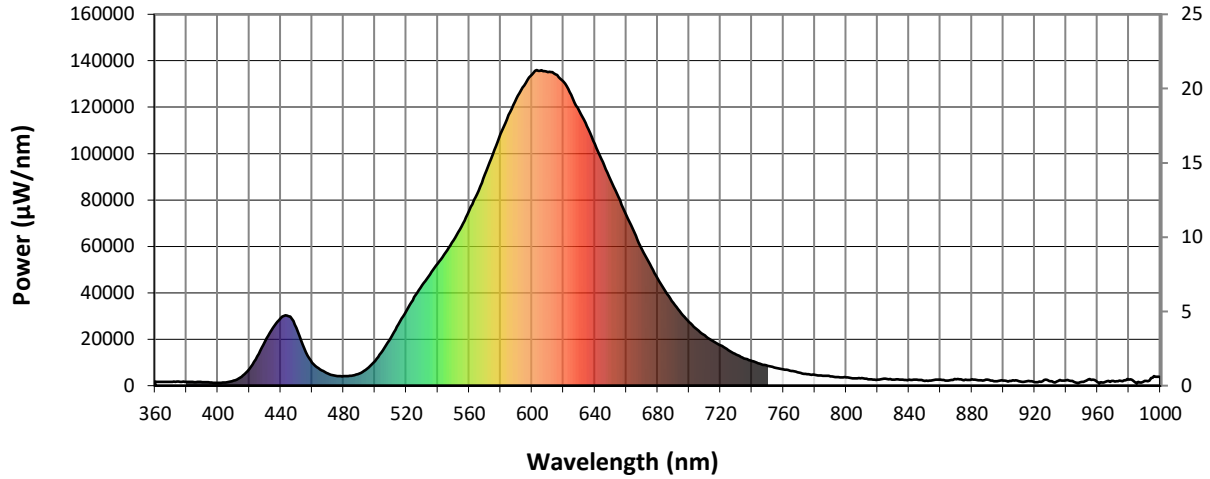
Scotopic Lumens: 4696.9

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 | | | |

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

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 | | | |

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

TM-30-18

Summary

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



Color Vector Graphics



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

TM-30-18

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 | |



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

TM-30-18

Color Rendition by Hue-Angle Bin



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

TM-30-18

Measure Comparisons



(END OF REPORT)