

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: P385507

Luminaire Tested: **GPC-SA1A-740-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P385507
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GPC-SA1A-740-U-T4FT
Description: GALLEON PEDESTRIAN LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5008 lumens
Efficiency: N/A
Efficacy: 147.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

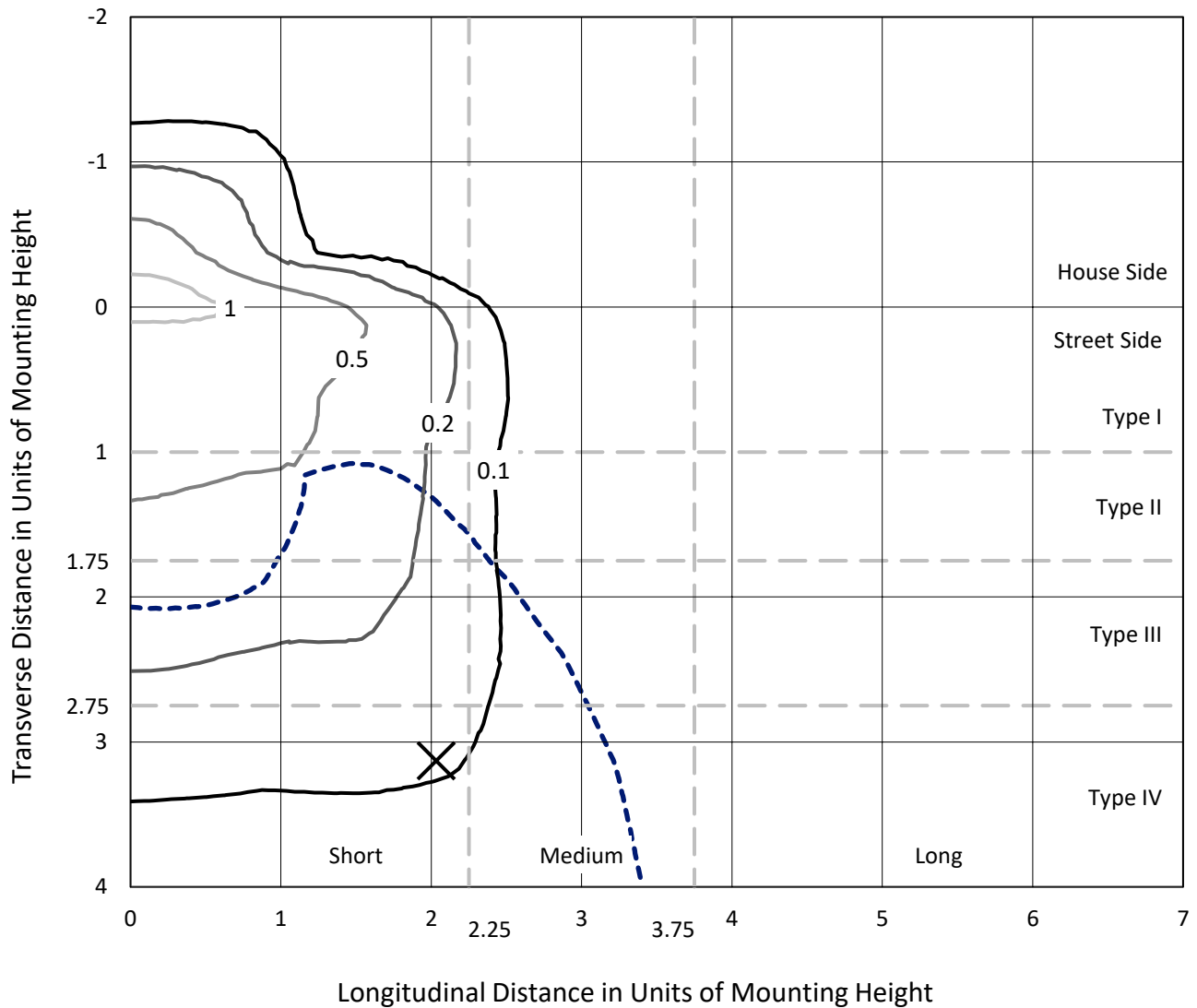
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P385507
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Iso-Footcandle Lines of Horizontal Illumination

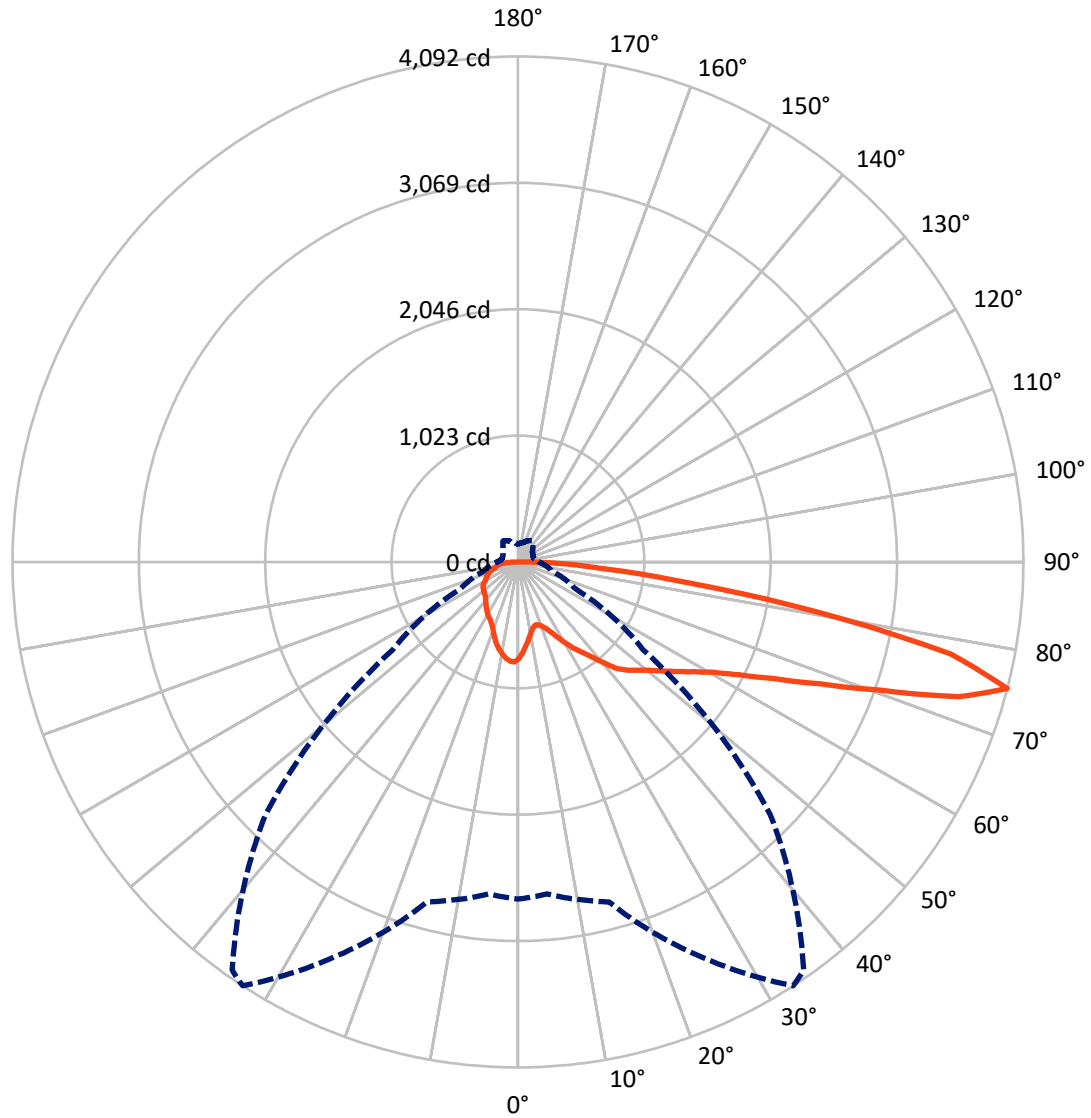
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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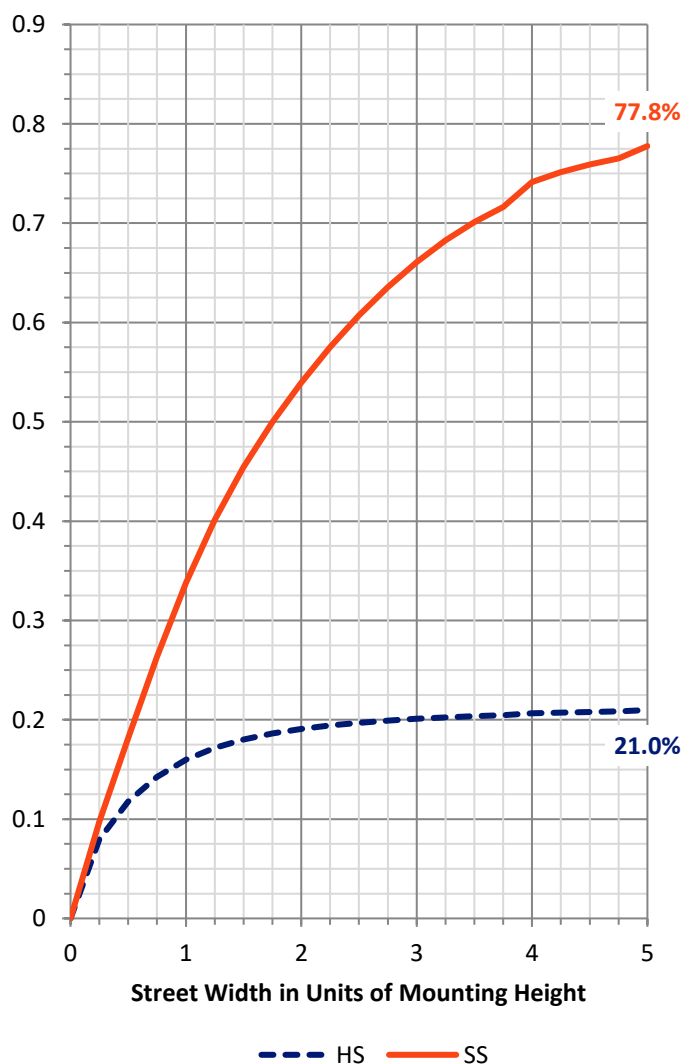
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1075.4 | 0.0 | 1075.4 |
| | % Fixture | 21.5 | 0.0 | 21.5 |
| Street Side | Lumens | 3932.6 | 0.0 | 3932.6 |
| | % Fixture | 78.5 | 0.0 | 78.5 |
| Total | Lumens | 5008.0 | 0.0 | 5008.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 70.8 | 1.4 |
| 10°-20° | 191.7 | 3.8 |
| 20°-30° | 313.1 | 6.3 |
| 30°-40° | 466.3 | 9.3 |
| 40°-50° | 668.8 | 13.4 |
| 50°-60° | 918.2 | 18.3 |
| 60°-70° | 1149.6 | 23.0 |
| 70°-80° | 1040.0 | 20.8 |
| 80°-90° | 189.4 | 3.8 |
| 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° | 5008.0 | 100.0 |
| 0°-180° | 5008.0 | 100.0 |

Coefficient of Utilization



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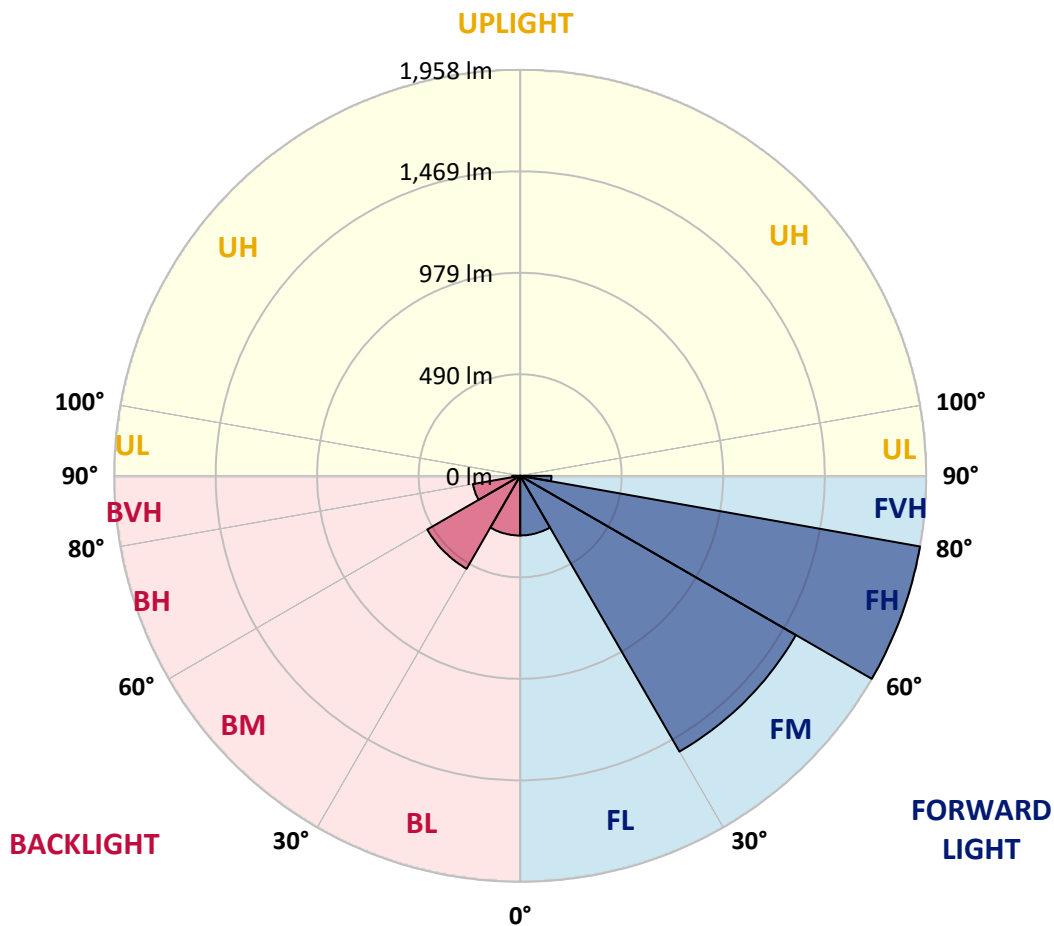
CATALOG NUMBER: GPC-SA1A-740-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 287.6 | 5.7 | | | |
| FM (30°-60°) | 1535.9 | 30.7 | | | |
| FH (60°-80°) | 1958.3 | 39.1 | | | G2/5000 |
| FVH (80°-90°) | 150.9 | 3.0 | | | G2/225 |
| BL (0°-30°) | 288.0 | 5.8 | B1/500 | | |
| BM (30°-60°) | 517.5 | 10.3 | B1/1000 | | |
| BH (60°-80°) | 231.2 | 4.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 38.6 | 0.8 | | | 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 IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 33° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 |
| 2.5° | 726.9 | 724.1 | 729.3 | 730.0 | 734.5 | 736.2 | 742.5 | 752.2 | 760.1 | 769.3 | 777.6 |
| 5° | 661.0 | 659.1 | 666.4 | 671.5 | 681.4 | 685.6 | 700.3 | 720.8 | 739.2 | 759.9 | 778.8 |
| 7.5° | 598.4 | 597.3 | 605.5 | 617.2 | 628.6 | 634.4 | 659.8 | 689.7 | 720.3 | 753.9 | 782.8 |
| 10° | 545.6 | 545.3 | 553.0 | 564.6 | 581.4 | 587.8 | 620.7 | 660.1 | 703.0 | 749.2 | 789.5 |
| 12.5° | 516.0 | 517.2 | 520.9 | 530.6 | 546.1 | 552.5 | 589.0 | 635.4 | 688.5 | 747.7 | 799.4 |
| 15° | 523.3 | 525.2 | 519.0 | 518.6 | 529.7 | 534.7 | 569.0 | 617.7 | 678.1 | 750.3 | 813.7 |
| 17.5° | 554.3 | 554.6 | 538.2 | 527.8 | 534.5 | 537.1 | 562.7 | 607.7 | 672.1 | 756.1 | 831.7 |
| 20° | 597.9 | 597.0 | 567.9 | 550.6 | 554.3 | 555.0 | 571.6 | 607.9 | 671.5 | 766.3 | 855.1 |
| 22.5° | 655.6 | 649.2 | 610.1 | 586.6 | 585.7 | 584.7 | 594.2 | 620.7 | 679.2 | 783.0 | 882.9 |
| 25° | 731.1 | 725.0 | 671.2 | 639.0 | 632.1 | 629.5 | 630.9 | 648.0 | 694.2 | 800.8 | 914.1 |
| 27.5° | 815.0 | 804.4 | 752.5 | 707.0 | 692.7 | 689.0 | 680.7 | 686.6 | 710.6 | 817.9 | 951.1 |
| 30° | 885.2 | 879.5 | 834.2 | 780.2 | 763.2 | 758.0 | 736.2 | 729.8 | 734.3 | 841.2 | 997.8 |
| 32.5° | 924.5 | 920.7 | 893.1 | 849.6 | 833.8 | 826.5 | 795.8 | 783.0 | 772.4 | 878.1 | 1061.1 |
| 35° | 972.0 | 969.6 | 953.0 | 921.3 | 898.0 | 890.4 | 866.5 | 853.2 | 826.0 | 928.8 | 1142.9 |
| 37.5° | 1032.6 | 1030.0 | 1030.3 | 1004.7 | 976.9 | 969.8 | 954.0 | 940.0 | 895.6 | 995.4 | 1231.9 |
| 40° | 1101.1 | 1096.1 | 1094.2 | 1092.9 | 1075.3 | 1071.3 | 1063.0 | 1044.0 | 982.8 | 1075.0 | 1319.6 |
| 42.5° | 1204.2 | 1186.4 | 1148.3 | 1162.7 | 1180.1 | 1178.1 | 1184.8 | 1157.5 | 1079.6 | 1169.1 | 1405.2 |
| 45° | 1303.7 | 1274.4 | 1208.7 | 1211.8 | 1250.0 | 1261.6 | 1312.1 | 1292.8 | 1184.6 | 1272.2 | 1493.8 |
| 47.5° | 1349.0 | 1326.8 | 1271.0 | 1271.1 | 1309.0 | 1333.1 | 1443.8 | 1429.9 | 1295.0 | 1389.3 | 1601.9 |
| 50° | 1399.7 | 1377.5 | 1327.4 | 1346.2 | 1379.2 | 1404.8 | 1570.9 | 1563.8 | 1400.0 | 1517.5 | 1731.5 |
| 52.5° | 1455.0 | 1417.5 | 1385.6 | 1419.4 | 1465.7 | 1495.5 | 1698.2 | 1678.9 | 1496.4 | 1646.5 | 1880.4 |
| 55° | 1455.7 | 1445.5 | 1469.7 | 1494.5 | 1563.8 | 1600.3 | 1831.6 | 1780.4 | 1574.9 | 1773.3 | 2001.7 |
| 57.5° | 1538.6 | 1522.0 | 1573.3 | 1584.8 | 1675.4 | 1716.6 | 1964.3 | 1868.8 | 1654.8 | 1870.5 | 2067.1 |
| 60° | 1648.2 | 1634.1 | 1676.1 | 1706.2 | 1813.5 | 1868.5 | 2106.0 | 1959.6 | 1717.6 | 1943.9 | 2063.9 |
| 62.5° | 1837.7 | 1821.6 | 1821.1 | 1863.3 | 2007.7 | 2071.7 | 2265.0 | 2048.7 | 1742.5 | 1958.4 | 1975.9 |
| 65° | 2115.0 | 2089.4 | 2041.1 | 2061.2 | 2276.0 | 2339.9 | 2442.6 | 2113.2 | 1709.7 | 1880.6 | 1749.1 |
| 67.5° | 2384.8 | 2384.0 | 2324.6 | 2365.8 | 2630.3 | 2681.5 | 2645.0 | 2119.6 | 1607.1 | 1609.5 | 1346.7 |
| 70° | 2653.8 | 2657.3 | 2647.3 | 2790.5 | 3109.0 | 3162.3 | 2860.6 | 2033.7 | 1376.5 | 1162.3 | 806.8 |
| 72.5° | 2867.0 | 2866.1 | 2916.6 | 3285.9 | 3730.2 | 3718.2 | 3042.2 | 1773.1 | 988.3 | 627.4 | 385.6 |
| 75° | 2728.9 | 2698.8 | 2849.3 | 3531.2 | 4092.2 | 4033.9 | 2887.7 | 1236.9 | 512.9 | 285.6 | 207.6 |
| 77.5° | 1779.9 | 1808.4 | 2029.3 | 2917.1 | 3579.5 | 3508.6 | 2118.6 | 577.1 | 241.7 | 187.3 | 150.5 |
| 80° | 644.6 | 674.7 | 950.2 | 1652.4 | 2466.1 | 2454.6 | 1043.3 | 237.2 | 163.5 | 141.5 | 109.7 |
| 82.5° | 221.8 | 232.8 | 374.9 | 733.8 | 1392.4 | 1444.3 | 392.5 | 134.8 | 118.8 | 100.3 | 75.1 |
| 85° | 87.0 | 99.6 | 171.4 | 353.1 | 702.3 | 707.5 | 159.0 | 80.6 | 82.7 | 65.7 | 41.2 |
| 87.5° | 33.0 | 40.1 | 82.0 | 164.0 | 320.7 | 294.6 | 56.9 | 38.4 | 47.1 | 39.1 | 19.5 |
| 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-SA1A-740-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 | 782.8 |
| 2.5° | 784.0 | 787.6 | 795.2 | 800.4 | 806.0 | 807.5 | 808.2 | 809.6 | 811.0 | 810.5 | 810.6 |
| 5° | 788.8 | 795.9 | 808.2 | 813.4 | 815.8 | 813.1 | 807.7 | 803.4 | 800.3 | 798.5 | 798.0 |
| 7.5° | 796.8 | 806.8 | 820.0 | 819.1 | 813.6 | 801.3 | 787.4 | 777.1 | 768.4 | 765.3 | 763.6 |
| 10° | 807.3 | 819.1 | 828.3 | 818.4 | 802.3 | 781.0 | 760.3 | 744.2 | 731.2 | 726.2 | 725.3 |
| 12.5° | 820.8 | 832.8 | 834.5 | 813.6 | 786.9 | 757.9 | 729.7 | 708.4 | 689.0 | 682.8 | 681.4 |
| 15° | 838.3 | 849.6 | 838.8 | 805.1 | 767.9 | 728.8 | 692.3 | 663.4 | 643.0 | 635.4 | 632.6 |
| 17.5° | 856.6 | 867.4 | 839.7 | 791.1 | 743.0 | 694.4 | 648.5 | 619.0 | 595.6 | 586.8 | 585.7 |
| 20° | 878.6 | 883.5 | 836.1 | 771.0 | 708.7 | 649.7 | 601.5 | 573.6 | 561.2 | 555.0 | 554.3 |
| 22.5° | 905.8 | 900.6 | 827.8 | 743.9 | 665.3 | 598.2 | 558.9 | 546.0 | 542.8 | 541.5 | 542.0 |
| 25° | 934.5 | 918.6 | 815.5 | 708.4 | 610.5 | 546.6 | 527.8 | 531.4 | 535.6 | 535.1 | 535.1 |
| 27.5° | 966.1 | 936.9 | 796.6 | 661.3 | 549.8 | 504.4 | 506.7 | 520.0 | 526.2 | 526.1 | 525.9 |
| 30° | 1006.8 | 957.7 | 772.6 | 604.8 | 493.0 | 474.7 | 488.3 | 504.6 | 513.1 | 512.7 | 512.9 |
| 32.5° | 1056.8 | 980.5 | 739.9 | 541.6 | 452.0 | 452.7 | 468.5 | 484.5 | 494.4 | 493.5 | 493.7 |
| 35° | 1115.3 | 1006.1 | 695.6 | 479.4 | 424.9 | 435.2 | 447.7 | 458.9 | 468.3 | 467.1 | 465.9 |
| 37.5° | 1178.9 | 1031.2 | 636.8 | 423.7 | 402.7 | 419.0 | 429.4 | 431.3 | 435.6 | 432.5 | 430.2 |
| 40° | 1239.5 | 1050.4 | 561.0 | 378.0 | 380.4 | 405.1 | 411.9 | 404.3 | 396.5 | 395.5 | 392.3 |
| 42.5° | 1292.2 | 1056.8 | 484.4 | 341.5 | 356.9 | 390.6 | 394.8 | 378.8 | 364.8 | 358.3 | 355.5 |
| 45° | 1347.9 | 1059.0 | 412.9 | 310.9 | 334.2 | 377.6 | 382.1 | 360.9 | 341.1 | 327.0 | 322.3 |
| 47.5° | 1420.8 | 1075.3 | 357.4 | 288.2 | 316.9 | 369.0 | 375.4 | 346.5 | 320.9 | 300.7 | 296.3 |
| 50° | 1516.1 | 1107.5 | 312.2 | 270.9 | 305.7 | 363.3 | 370.5 | 332.5 | 304.3 | 279.9 | 275.6 |
| 52.5° | 1622.0 | 1137.1 | 275.7 | 256.9 | 294.8 | 353.2 | 364.3 | 322.5 | 288.7 | 260.7 | 256.0 |
| 55° | 1696.0 | 1114.4 | 246.3 | 242.4 | 280.6 | 338.9 | 355.7 | 314.0 | 266.4 | 242.0 | 237.9 |
| 57.5° | 1710.2 | 1036.9 | 224.0 | 227.3 | 263.5 | 320.9 | 342.3 | 295.1 | 254.3 | 233.9 | 229.6 |
| 60° | 1671.4 | 929.0 | 207.4 | 213.5 | 245.1 | 298.2 | 317.4 | 281.8 | 242.7 | 225.2 | 221.6 |
| 62.5° | 1574.0 | 818.4 | 195.1 | 201.0 | 228.0 | 275.2 | 301.9 | 267.8 | 230.9 | 215.4 | 211.7 |
| 65° | 1377.3 | 687.1 | 183.4 | 189.9 | 212.1 | 255.3 | 287.9 | 254.8 | 219.4 | 207.4 | 204.0 |
| 67.5° | 1039.7 | 514.6 | 172.3 | 178.2 | 197.9 | 238.0 | 272.6 | 242.0 | 208.1 | 200.5 | 196.3 |
| 70° | 612.2 | 322.3 | 159.7 | 165.9 | 183.0 | 220.0 | 256.4 | 228.0 | 194.1 | 190.6 | 185.3 |
| 72.5° | 284.9 | 193.9 | 145.3 | 151.4 | 164.3 | 196.0 | 235.4 | 209.7 | 177.5 | 169.9 | 162.6 |
| 75° | 170.0 | 141.9 | 128.4 | 133.7 | 142.9 | 170.4 | 209.1 | 191.0 | 161.7 | 151.7 | 144.1 |
| 77.5° | 127.1 | 108.5 | 109.7 | 115.4 | 122.8 | 149.1 | 185.3 | 176.3 | 149.6 | 141.9 | 136.7 |
| 80° | 91.5 | 82.3 | 89.4 | 95.7 | 103.4 | 135.6 | 177.5 | 163.0 | 135.3 | 124.9 | 120.1 |
| 82.5° | 61.1 | 59.2 | 67.3 | 73.7 | 81.3 | 118.7 | 166.8 | 142.7 | 115.6 | 102.4 | 91.7 |
| 85° | 33.7 | 35.6 | 45.3 | 48.1 | 54.7 | 83.6 | 136.7 | 114.7 | 87.0 | 70.1 | 66.9 |
| 87.5° | 14.0 | 16.4 | 24.4 | 23.5 | 29.1 | 49.8 | 90.0 | 69.2 | 55.4 | 41.3 | 32.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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



Test Information

Test Method: LM-79-08
 Report Number: SP1-2101-121-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1
 Measurement Geometry: 4π
 Issue Date: 03/05/2021
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: STREETWORKS
 Catalog Number: **IFLD-S-SA2A-740-U-T3R-HSS**
 Description: STREETWORKS INF FLOOD

SHIELD, DRIVER PROGRAMMED @ 615mA.

Spectral Parameters

| | | | | | |
|---------------------------|---------|-----------|------|------|-------|
| CCT (K): | 3905 | CRI (Ra): | 71.2 | R9: | -29.7 |
| CIE u': | 0.2273 | R1: | 68.9 | R10: | 46.2 |
| CIE v': | 0.5024 | R2: | 77.0 | R11: | 68.8 |
| Duv: | -0.0008 | R3: | 84.0 | R12: | 45.6 |
| CIE x: | 0.3841 | R4: | 71.6 | R13: | 69.5 |
| CIE y: | 0.3774 | R5: | 68.9 | R14: | 90.7 |
| CIE z: | 0.2385 | R6: | 68.3 | | |
| Peak Wavelength (nm): | 443 | R7: | 78.7 | | |
| Dominant Wavelength (nm): | 579 | R8: | 52.2 | | |
| Purity: | 28.7 | | | | |
| Rf: | 71.7 | | | | |
| Rg: | 96.9 | | | | |



Test Conditions

Stabilization Time: 211M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.8/312%
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2101-121-2

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 1/31/2021 | 7/31/2021 |
| Power Meter | IN0071 | 12/1/2020 | 12/1/2021 |
| AC Power Source | IN0063 | 12/1/2020 | 12/1/2021 |
| DC Power Source | IN0208 | 12/1/2020 | 12/1/2021 |
| Sphere Thermometer | IN0085 | 12/1/2020 | 12/1/2021 |
| Room Thermometer | IN0046 | 12/1/2020 | 12/1/2021 |

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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 4000K 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 | 2304 | 0.0 | 490 | 19043 | 2.7 | 620 | 97577 | 25.4 | 750 | 4830 | 0.0 | 880 | 3505 | 0.0 |
| 365 | 2150 | 0.0 | 495 | 26606 | 4.8 | 625 | 90158 | 19.9 | 755 | 4664 | 0.0 | 885 | 2991 | 0.0 |
| 370 | 2146 | 0.0 | 500 | 36376 | 8.0 | 630 | 82240 | 14.9 | 760 | 4006 | 0.0 | 890 | 2327 | 0.0 |
| 375 | 2332 | 0.0 | 505 | 47714 | 13.3 | 635 | 74361 | 11.2 | 765 | 3715 | 0.0 | 895 | 2775 | 0.0 |
| 380 | 2527 | 0.0 | 510 | 58741 | 20.2 | 640 | 66994 | 8.0 | 770 | 3696 | 0.0 | 900 | 2141 | 0.0 |
| 385 | 2304 | 0.0 | 515 | 68716 | 28.5 | 645 | 60405 | 5.8 | 775 | 3117 | 0.0 | 905 | 2421 | 0.0 |
| 390 | 2064 | 0.0 | 520 | 77136 | 37.4 | 650 | 53806 | 3.9 | 780 | 3062 | 0.0 | 910 | 2200 | 0.0 |
| 395 | 1856 | 0.0 | 525 | 83567 | 44.9 | 655 | 47610 | 2.7 | 785 | 2907 | 0.0 | 915 | 2716 | 0.0 |
| 400 | 1856 | 0.0 | 530 | 89283 | 52.6 | 660 | 42018 | 1.8 | 790 | 2655 | 0.0 | 920 | 2656 | 0.0 |
| 405 | 2374 | 0.0 | 535 | 94097 | 58.4 | 665 | 36742 | 1.2 | 795 | 2467 | 0.0 | 925 | 2671 | 0.0 |
| 410 | 4084 | 0.0 | 540 | 96845 | 63.1 | 670 | 32105 | 0.7 | 800 | 2609 | 0.0 | 930 | 3292 | 0.0 |
| 415 | 8543 | 0.0 | 545 | 100829 | 67.1 | 675 | 27946 | 0.5 | 805 | 2293 | 0.0 | 935 | 3188 | 0.0 |
| 420 | 18394 | 0.1 | 550 | 105648 | 71.8 | 680 | 24146 | 0.3 | 810 | 2188 | 0.0 | 940 | 1997 | 0.0 |
| 425 | 37987 | 0.2 | 555 | 110017 | 75.1 | 685 | 21191 | 0.2 | 815 | 2386 | 0.0 | 945 | 2623 | 0.0 |
| 430 | 67605 | 0.5 | 560 | 114586 | 77.9 | 690 | 18544 | 0.1 | 820 | 2712 | 0.0 | 950 | 2969 | 0.0 |
| 435 | 102160 | 1.2 | 565 | 118987 | 79.1 | 695 | 16058 | 0.1 | 825 | 2473 | 0.0 | 955 | 2277 | 0.0 |
| 440 | 135103 | 2.1 | 570 | 122326 | 79.5 | 700 | 14133 | 0.0 | 830 | 1969 | 0.0 | 960 | 4267 | 0.0 |
| 445 | 140126 | 2.9 | 575 | 125968 | 78.4 | 705 | 12309 | 0.0 | 835 | 1917 | 0.0 | 965 | 2034 | 0.0 |
| 450 | 102339 | 2.7 | 580 | 127613 | 75.8 | 710 | 11142 | 0.0 | 840 | 2248 | 0.0 | 970 | 3586 | 0.0 |
| 455 | 58751 | 2.0 | 585 | 129466 | 71.9 | 715 | 10143 | 0.0 | 845 | 2266 | 0.0 | 975 | 2505 | 0.0 |
| 460 | 36892 | 1.5 | 590 | 128813 | 66.6 | 720 | 9072 | 0.0 | 850 | 2558 | 0.0 | 980 | 2666 | 0.0 |
| 465 | 24637 | 1.3 | 595 | 126387 | 59.9 | 725 | 8130 | 0.0 | 855 | 2767 | 0.0 | 985 | 2934 | 0.0 |
| 470 | 16738 | 1.0 | 600 | 123477 | 53.2 | 730 | 7149 | 0.0 | 860 | 2826 | 0.0 | 990 | 4120 | 0.0 |
| 475 | 13456 | 1.1 | 605 | 118718 | 46.0 | 735 | 6311 | 0.0 | 865 | 2385 | 0.0 | 995 | 3858 | 0.0 |
| 480 | 13081 | 1.2 | 610 | 112091 | 38.5 | 740 | 5711 | 0.0 | 870 | 3194 | 0.0 | 1000 | 3405 | 0.0 |
| 485 | 14734 | 1.7 | 615 | 105039 | 31.7 | 745 | 5111 | 0.0 | 875 | 3189 | 0.0 | | | |

REPORT NUMBER: SP1-2101-121-2

Scotopic Flux vs. Wavelength



Scotopic Lumens: 10425.8 S/P: 1.47

| 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 | 2304 | 0.0 | 490 | 19043 | 29.3 | 620 | 97577 | 1.2 | 750 | 4830 | 0.0 | 880 | 3505 | 0.0 |
| 365 | 2150 | 0.0 | 495 | 26606 | 43.0 | 625 | 90158 | 0.8 | 755 | 4664 | 0.0 | 885 | 2991 | 0.0 |
| 370 | 2146 | 0.0 | 500 | 36376 | 60.8 | 630 | 82240 | 0.5 | 760 | 4006 | 0.0 | 890 | 2327 | 0.0 |
| 375 | 2332 | 0.0 | 505 | 47714 | 81.1 | 635 | 74361 | 0.3 | 765 | 3715 | 0.0 | 895 | 2775 | 0.0 |
| 380 | 2527 | 0.0 | 510 | 58741 | 99.6 | 640 | 66994 | 0.2 | 770 | 3696 | 0.0 | 900 | 2141 | 0.0 |
| 385 | 2304 | 0.0 | 515 | 68716 | 113.9 | 645 | 60405 | 0.1 | 775 | 3117 | 0.0 | 905 | 2421 | 0.0 |
| 390 | 2064 | 0.0 | 520 | 77136 | 122.6 | 650 | 53806 | 0.1 | 780 | 3062 | 0.0 | 910 | 2200 | 0.0 |
| 395 | 1856 | 0.0 | 525 | 83567 | 125.0 | 655 | 47610 | 0.0 | 785 | 2907 | 0.0 | 915 | 2716 | 0.0 |
| 400 | 1856 | 0.0 | 530 | 89283 | 123.1 | 660 | 42018 | 0.0 | 790 | 2655 | 0.0 | 920 | 2656 | 0.0 |
| 405 | 2374 | 0.1 | 535 | 94097 | 117.3 | 665 | 36742 | 0.0 | 795 | 2467 | 0.0 | 925 | 2671 | 0.0 |
| 410 | 4084 | 0.2 | 540 | 96845 | 107.0 | 670 | 32105 | 0.0 | 800 | 2609 | 0.0 | 930 | 3292 | 0.0 |
| 415 | 8543 | 0.9 | 545 | 100829 | 96.7 | 675 | 27946 | 0.0 | 805 | 2293 | 0.0 | 935 | 3188 | 0.0 |
| 420 | 18394 | 3.0 | 550 | 105648 | 86.4 | 680 | 24146 | 0.0 | 810 | 2188 | 0.0 | 940 | 1997 | 0.0 |
| 425 | 37987 | 9.3 | 555 | 110017 | 75.2 | 685 | 21191 | 0.0 | 815 | 2386 | 0.0 | 945 | 2623 | 0.0 |
| 430 | 67605 | 23.0 | 560 | 114586 | 64.0 | 690 | 18544 | 0.0 | 820 | 2712 | 0.0 | 950 | 2969 | 0.0 |
| 435 | 102160 | 45.7 | 565 | 118987 | 53.4 | 695 | 16058 | 0.0 | 825 | 2473 | 0.0 | 955 | 2277 | 0.0 |
| 440 | 135103 | 75.5 | 570 | 122326 | 43.2 | 700 | 14133 | 0.0 | 830 | 1969 | 0.0 | 960 | 4267 | 0.0 |
| 445 | 140126 | 93.8 | 575 | 125968 | 34.3 | 705 | 12309 | 0.0 | 835 | 1917 | 0.0 | 965 | 2034 | 0.0 |
| 450 | 102339 | 79.3 | 580 | 127613 | 26.3 | 710 | 11142 | 0.0 | 840 | 2248 | 0.0 | 970 | 3586 | 0.0 |
| 455 | 58751 | 51.3 | 585 | 129466 | 19.8 | 715 | 10143 | 0.0 | 845 | 2266 | 0.0 | 975 | 2505 | 0.0 |
| 460 | 36892 | 35.6 | 590 | 128813 | 14.3 | 720 | 9072 | 0.0 | 850 | 2558 | 0.0 | 980 | 2666 | 0.0 |
| 465 | 24637 | 26.0 | 595 | 126387 | 10.1 | 725 | 8130 | 0.0 | 855 | 2767 | 0.0 | 985 | 2934 | 0.0 |
| 470 | 16738 | 19.3 | 600 | 123477 | 7.0 | 730 | 7149 | 0.0 | 860 | 2826 | 0.0 | 990 | 4120 | 0.0 |
| 475 | 13456 | 16.8 | 605 | 118718 | 4.7 | 735 | 6311 | 0.0 | 865 | 2385 | 0.0 | 995 | 3858 | 0.0 |
| 480 | 13081 | 17.7 | 610 | 112091 | 3.0 | 740 | 5711 | 0.0 | 870 | 3194 | 0.0 | 1000 | 3405 | 0.0 |
| 485 | 14734 | 21.4 | 615 | 105039 | 1.9 | 745 | 5111 | 0.0 | 875 | 3189 | 0.0 | | | |

REPORT NUMBER: SP1-2101-121-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3927.2 M/P: 0.55

| 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 | 2304 | 0.0 | 490 | 19043 | 15.8 | 620 | 97577 | 0.1 | 750 | 4830 | 0.0 | 880 | 3505 | 0.0 |
| 365 | 2150 | 0.0 | 495 | 26606 | 22.0 | 625 | 90158 | 0.0 | 755 | 4664 | 0.0 | 885 | 2991 | 0.0 |
| 370 | 2146 | 0.0 | 500 | 36376 | 29.2 | 630 | 82240 | 0.0 | 760 | 4006 | 0.0 | 890 | 2327 | 0.0 |
| 375 | 2332 | 0.0 | 505 | 47714 | 36.6 | 635 | 74361 | 0.0 | 765 | 3715 | 0.0 | 895 | 2775 | 0.0 |
| 380 | 2527 | 0.0 | 510 | 58741 | 42.2 | 640 | 66994 | 0.0 | 770 | 3696 | 0.0 | 900 | 2141 | 0.0 |
| 385 | 2304 | 0.0 | 515 | 68716 | 44.9 | 645 | 60405 | 0.0 | 775 | 3117 | 0.0 | 905 | 2421 | 0.0 |
| 390 | 2064 | 0.0 | 520 | 77136 | 44.9 | 650 | 53806 | 0.0 | 780 | 3062 | 0.0 | 910 | 2200 | 0.0 |
| 395 | 1856 | 0.0 | 525 | 83567 | 42.4 | 655 | 47610 | 0.0 | 785 | 2907 | 0.0 | 915 | 2716 | 0.0 |
| 400 | 1856 | 0.0 | 530 | 89283 | 38.6 | 660 | 42018 | 0.0 | 790 | 2655 | 0.0 | 920 | 2656 | 0.0 |
| 405 | 2374 | 0.0 | 535 | 94097 | 33.9 | 665 | 36742 | 0.0 | 795 | 2467 | 0.0 | 925 | 2671 | 0.0 |
| 410 | 4084 | 0.2 | 540 | 96845 | 28.3 | 670 | 32105 | 0.0 | 800 | 2609 | 0.0 | 930 | 3292 | 0.0 |
| 415 | 8543 | 0.6 | 545 | 100829 | 23.4 | 675 | 27946 | 0.0 | 805 | 2293 | 0.0 | 935 | 3188 | 0.0 |
| 420 | 18394 | 2.1 | 550 | 105648 | 19.0 | 680 | 24146 | 0.0 | 810 | 2188 | 0.0 | 940 | 1997 | 0.0 |
| 425 | 37987 | 5.9 | 555 | 110017 | 14.8 | 685 | 21191 | 0.0 | 815 | 2386 | 0.0 | 945 | 2623 | 0.0 |
| 430 | 67605 | 14.3 | 560 | 114586 | 11.3 | 690 | 18544 | 0.0 | 820 | 2712 | 0.0 | 950 | 2969 | 0.0 |
| 435 | 102160 | 27.3 | 565 | 118987 | 8.4 | 695 | 16058 | 0.0 | 825 | 2473 | 0.0 | 955 | 2277 | 0.0 |
| 440 | 135103 | 45.1 | 570 | 122326 | 6.0 | 700 | 14133 | 0.0 | 830 | 1969 | 0.0 | 960 | 4267 | 0.0 |
| 445 | 140126 | 55.3 | 575 | 125968 | 4.2 | 705 | 12309 | 0.0 | 835 | 1917 | 0.0 | 965 | 2034 | 0.0 |
| 450 | 102339 | 47.2 | 580 | 127613 | 2.9 | 710 | 11142 | 0.0 | 840 | 2248 | 0.0 | 970 | 3586 | 0.0 |
| 455 | 58751 | 30.8 | 585 | 129466 | 1.9 | 715 | 10143 | 0.0 | 845 | 2266 | 0.0 | 975 | 2505 | 0.0 |
| 460 | 36892 | 21.7 | 590 | 128813 | 1.3 | 720 | 9072 | 0.0 | 850 | 2558 | 0.0 | 980 | 2666 | 0.0 |
| 465 | 24637 | 16.1 | 595 | 126387 | 0.8 | 725 | 8130 | 0.0 | 855 | 2767 | 0.0 | 985 | 2934 | 0.0 |
| 470 | 16738 | 12.0 | 600 | 123477 | 0.5 | 730 | 7149 | 0.0 | 860 | 2826 | 0.0 | 990 | 4120 | 0.0 |
| 475 | 13456 | 10.3 | 605 | 118718 | 0.3 | 735 | 6311 | 0.0 | 865 | 2385 | 0.0 | 995 | 3858 | 0.0 |
| 480 | 13081 | 10.5 | 610 | 112091 | 0.2 | 740 | 5711 | 0.0 | 870 | 3194 | 0.0 | 1000 | 3405 | 0.0 |
| 485 | 14734 | 12.1 | 615 | 105039 | 0.1 | 745 | 5111 | 0.0 | 875 | 3189 | 0.0 | | | |

Summary

$R_f = 71.7$
 $R_g = 96.9$
 CIE $R_a = 71.2$
 $R_g = -29.7$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 55 | CES51 = 86 | CES76 = 45 |
| CES02 = 61 | CES27 = 80 | CES52 = 87 | CES77 = 68 |
| CES03 = 30 | CES28 = 79 | CES53 = 74 | CES78 = 49 |
| CES04 = 70 | CES29 = 51 | CES54 = 81 | CES79 = 77 |
| CES05 = 47 | CES30 = 60 | CES55 = 80 | CES80 = 75 |
| CES06 = 50 | CES31 = 56 | CES56 = 69 | CES81 = 75 |
| CES07 = 40 | CES32 = 52 | CES57 = 67 | CES82 = 90 |
| CES08 = 39 | CES33 = 62 | CES58 = 69 | CES83 = 85 |
| CES09 = 29 | CES34 = 65 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 81 | CES60 = 91 | CES85 = 83 |
| CES11 = 57 | CES36 = 92 | CES61 = 85 | CES86 = 72 |
| CES12 = 63 | CES37 = 74 | CES62 = 81 | CES87 = 77 |
| CES13 = 42 | CES38 = 69 | CES63 = 72 | CES88 = 77 |
| CES14 = 74 | CES39 = 92 | CES64 = 69 | CES89 = 72 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 75 |
| CES16 = 46 | CES41 = 84 | CES66 = 63 | CES91 = 91 |
| CES17 = 49 | CES42 = 75 | CES67 = 60 | CES92 = 66 |
| CES18 = 56 | CES43 = 70 | CES68 = 67 | CES93 = 80 |
| CES19 = 72 | CES44 = 98 | CES69 = 77 | CES94 = 56 |
| CES20 = 65 | CES45 = 80 | CES70 = 57 | CES95 = 72 |
| CES21 = 86 | CES46 = 77 | CES71 = 53 | CES96 = 78 |
| CES22 = 78 | CES47 = 74 | CES72 = 84 | CES97 = 83 |
| CES23 = 92 | CES48 = 66 | CES73 = 47 | CES98 = 73 |
| CES24 = 91 | CES49 = 76 | CES74 = 96 | CES99 = 63 |
| CES25 = 72 | CES50 = 85 | CES75 = 52 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)