

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: P386837

Luminaire Tested: **GPC-SA2C-740-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P386837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GPC-SA2C-740-U-SL4
Description: GALLEON PEDESTRIAN LUMINAIRE
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14025 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

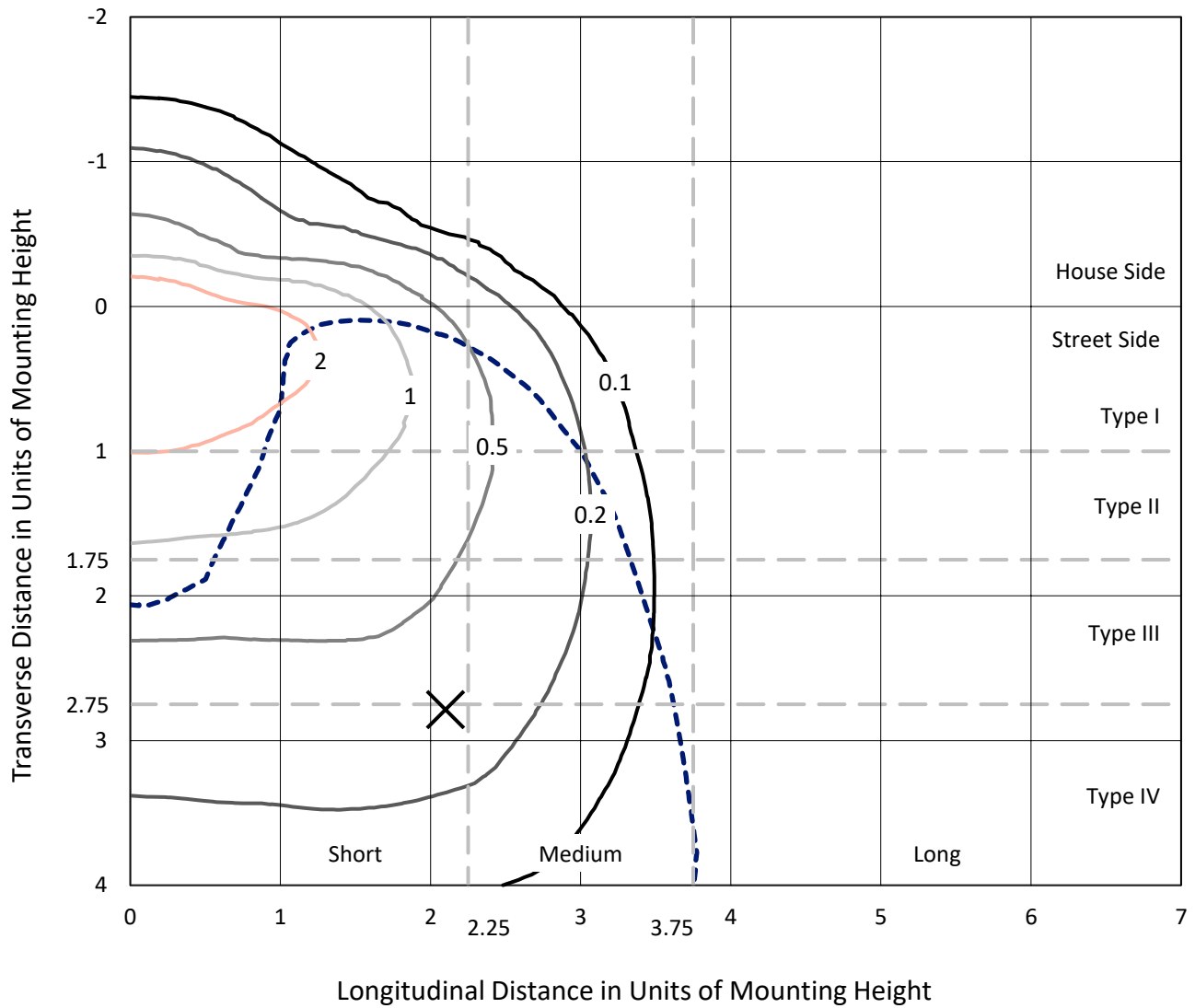
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P386837
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Iso-Footcandle Lines of Horizontal Illumination

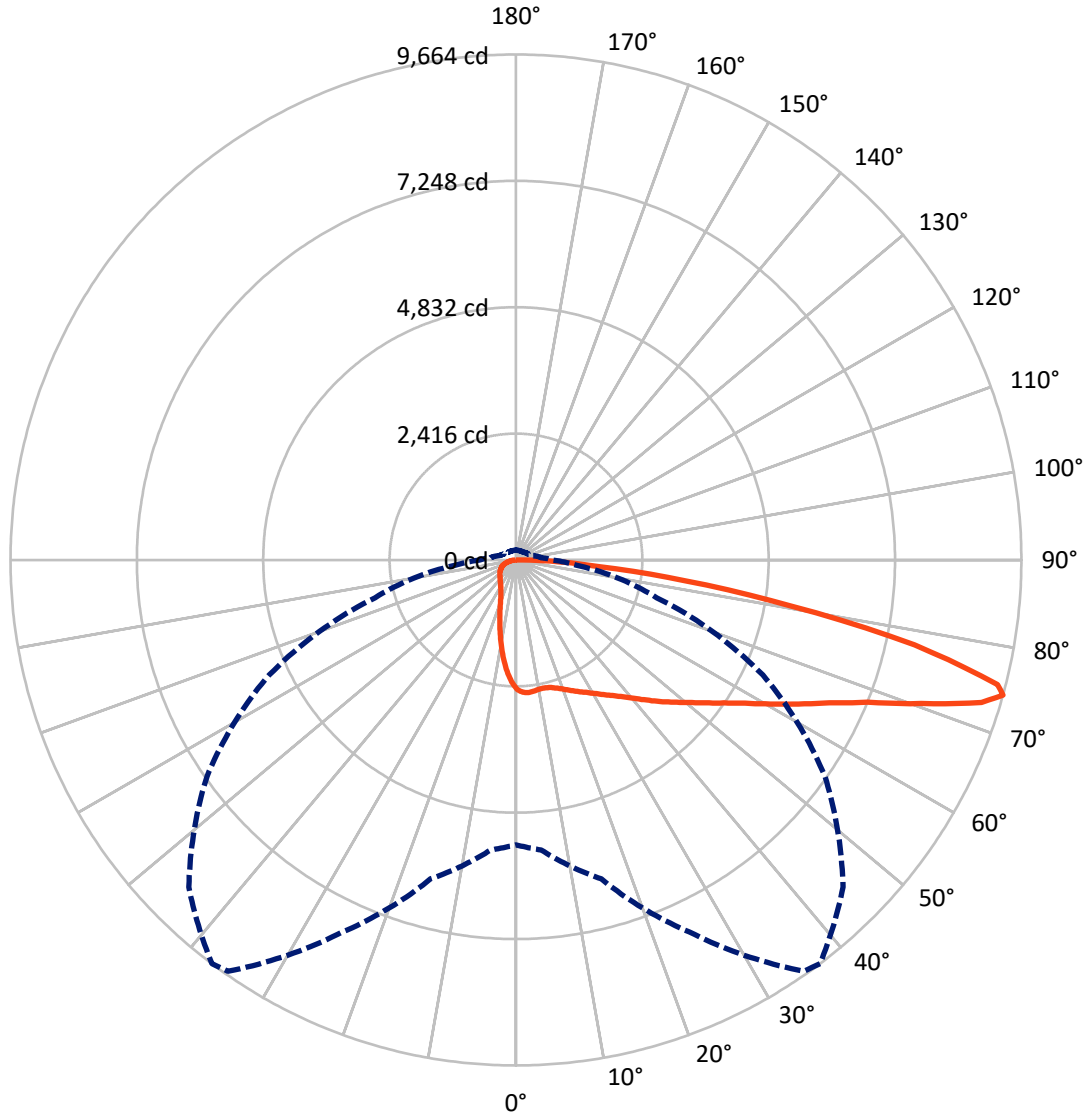
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - N/A

REPORT NUMBER: P386837
CATALOG NUMBER: GPC-SA2C-740-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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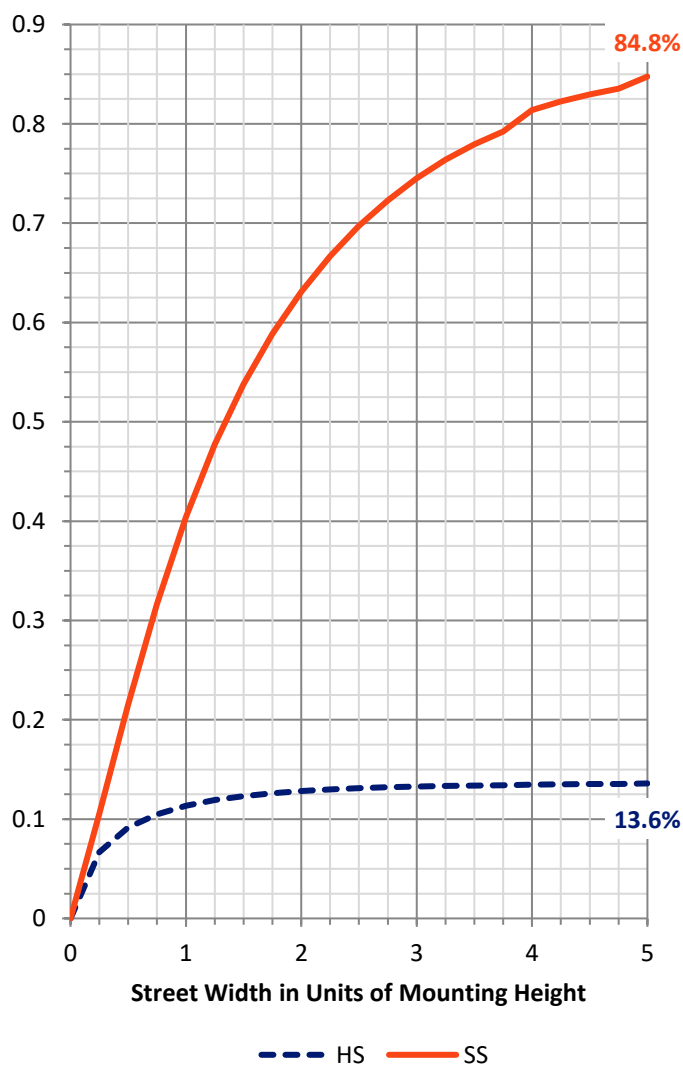
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1929.7 | 0.0 | 1929.7 |
| | % Fixture | 13.8 | 0.0 | 13.8 |
| Street Side | Lumens | 12095.3 | 0.0 | 12095.3 |
| | % Fixture | 86.2 | 0.0 | 86.2 |
| Total | Lumens | 14025.0 | 0.0 | 14025.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 217.6 | 1.6 |
| 10°-20° | 557.8 | 4.0 |
| 20°-30° | 859.5 | 6.1 |
| 30°-40° | 1249.8 | 8.9 |
| 40°-50° | 1839.5 | 13.1 |
| 50°-60° | 2583.2 | 18.4 |
| 60°-70° | 3269.5 | 23.3 |
| 70°-80° | 2878.9 | 20.5 |
| 80°-90° | 569.2 | 4.1 |
| 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° | 14025.0 | 100.0 |
| 0°-180° | 14025.0 | 100.0 |

Coefficient of Utilization

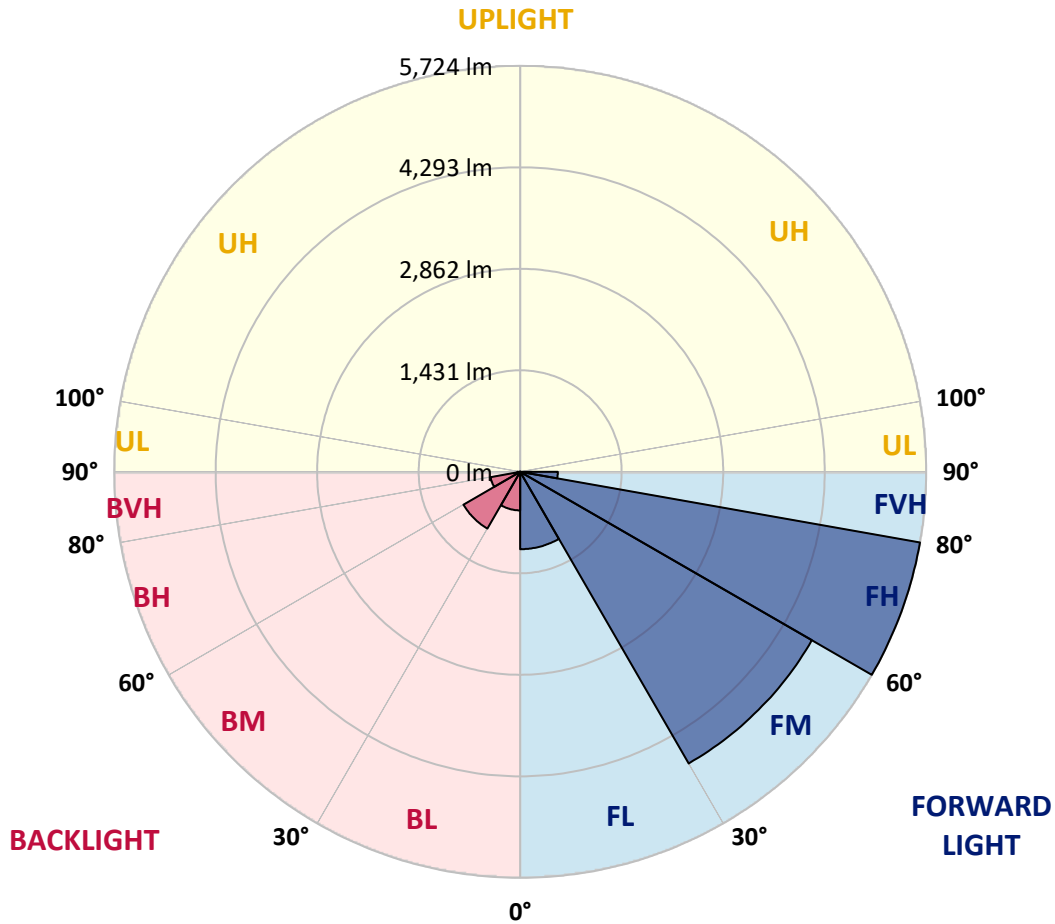


REPORT NUMBER: P386837
 CATALOG NUMBER: GPC-SA2C-740-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1091.3 | 7.8 | | | |
| FM (30°-60°) | 4749.0 | 33.9 | | | |
| FH (60°-80°) | 5724.3 | 40.8 | | | G3/7500 |
| FVH (80°-90°) | 530.7 | 3.8 | | | G4/750 |
| BL (0°-30°) | 543.6 | 3.9 | B2/1000 | | |
| BM (30°-60°) | 923.5 | 6.6 | B1/1000 | | |
| BH (60°-80°) | 424.2 | 3.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 38.5 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4
 Type IV Short





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CATALOG NUMBER: GPC-SA2C-740-U-SL4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 |
| 2.5° | 2555.6 | 2556.1 | 2555.6 | 2551.7 | 2542.3 | 2534.4 | 2528.0 | 2518.6 | 2497.8 | 2482.0 | 2458.3 |
| 5° | 2579.8 | 2576.9 | 2574.9 | 2567.5 | 2552.7 | 2543.8 | 2531.4 | 2513.6 | 2479.5 | 2447.9 | 2409.4 |
| 7.5° | 2568.5 | 2565.0 | 2560.6 | 2551.7 | 2534.9 | 2527.5 | 2510.2 | 2487.0 | 2446.0 | 2404.5 | 2349.1 |
| 10° | 2533.4 | 2532.4 | 2530.4 | 2528.5 | 2514.1 | 2508.2 | 2492.4 | 2467.7 | 2427.2 | 2376.8 | 2312.1 |
| 12.5° | 2494.4 | 2496.8 | 2504.7 | 2515.1 | 2508.7 | 2505.7 | 2495.9 | 2479.1 | 2437.6 | 2383.2 | 2305.2 |
| 15° | 2469.7 | 2476.6 | 2497.8 | 2525.0 | 2530.4 | 2529.4 | 2527.0 | 2516.1 | 2472.1 | 2411.9 | 2321.0 |
| 17.5° | 2461.3 | 2472.6 | 2513.1 | 2558.1 | 2573.9 | 2577.4 | 2578.4 | 2559.6 | 2510.7 | 2446.9 | 2337.3 |
| 20° | 2476.6 | 2490.9 | 2550.2 | 2611.9 | 2637.1 | 2639.1 | 2634.7 | 2602.1 | 2547.2 | 2477.1 | 2346.2 |
| 22.5° | 2523.0 | 2535.9 | 2610.0 | 2679.6 | 2708.3 | 2711.3 | 2697.9 | 2648.5 | 2585.8 | 2512.6 | 2358.5 |
| 25° | 2612.4 | 2628.3 | 2702.4 | 2772.0 | 2786.8 | 2787.3 | 2768.1 | 2706.8 | 2636.2 | 2562.5 | 2385.2 |
| 27.5° | 2729.0 | 2744.8 | 2811.5 | 2879.7 | 2871.8 | 2867.4 | 2841.2 | 2779.9 | 2701.9 | 2631.2 | 2432.6 |
| 30° | 2859.0 | 2876.3 | 2939.5 | 2987.9 | 2969.1 | 2960.2 | 2939.0 | 2860.0 | 2793.3 | 2725.1 | 2505.2 |
| 32.5° | 2993.3 | 3009.2 | 3064.5 | 3097.6 | 3073.9 | 3069.9 | 3037.8 | 2965.7 | 2912.3 | 2868.4 | 2622.8 |
| 35° | 3131.2 | 3142.5 | 3196.9 | 3215.7 | 3184.0 | 3183.1 | 3174.2 | 3108.0 | 3074.4 | 3095.1 | 2793.8 |
| 37.5° | 3272.0 | 3274.9 | 3321.4 | 3322.4 | 3313.0 | 3316.9 | 3326.3 | 3284.8 | 3294.2 | 3358.9 | 3016.1 |
| 40° | 3397.5 | 3405.4 | 3439.0 | 3449.3 | 3465.6 | 3479.5 | 3526.4 | 3499.2 | 3571.9 | 3686.5 | 3292.7 |
| 42.5° | 3490.3 | 3505.7 | 3559.5 | 3586.2 | 3639.0 | 3660.8 | 3727.0 | 3752.2 | 3898.4 | 4070.3 | 3621.8 |
| 45° | 3568.9 | 3592.6 | 3679.1 | 3733.9 | 3823.3 | 3861.4 | 3956.2 | 4040.7 | 4267.5 | 4486.8 | 3968.1 |
| 47.5° | 3653.9 | 3684.0 | 3792.2 | 3896.9 | 4018.5 | 4061.4 | 4233.9 | 4360.3 | 4661.2 | 4905.7 | 4294.6 |
| 50° | 3778.9 | 3802.1 | 3907.8 | 4072.3 | 4224.0 | 4279.3 | 4517.9 | 4699.2 | 5061.4 | 5304.9 | 4577.7 |
| 52.5° | 3953.2 | 3944.4 | 4033.8 | 4264.5 | 4468.0 | 4536.2 | 4821.3 | 5059.9 | 5467.0 | 5666.1 | 4816.8 |
| 55° | 4128.6 | 4113.8 | 4176.6 | 4465.6 | 4752.6 | 4824.2 | 5155.2 | 5422.0 | 5852.8 | 5991.1 | 5000.1 |
| 57.5° | 4323.8 | 4295.6 | 4348.5 | 4692.3 | 5076.7 | 5162.1 | 5529.2 | 5806.9 | 6232.2 | 6254.0 | 5116.7 |
| 60° | 4524.8 | 4486.8 | 4546.1 | 4973.4 | 5488.2 | 5589.0 | 5966.9 | 6182.3 | 6589.9 | 6464.4 | 5154.2 |
| 62.5° | 4700.7 | 4674.0 | 4765.4 | 5287.1 | 5952.1 | 6062.8 | 6396.7 | 6581.5 | 6942.6 | 6551.9 | 5018.9 |
| 65° | 4854.4 | 4858.8 | 5016.9 | 5639.9 | 6469.4 | 6587.4 | 6889.8 | 7073.6 | 7220.3 | 6500.0 | 4702.2 |
| 67.5° | 5037.6 | 5062.8 | 5332.6 | 6104.3 | 7120.5 | 7249.9 | 7607.1 | 7610.1 | 7375.4 | 6195.7 | 4078.7 |
| 70° | 5304.9 | 5356.8 | 5766.8 | 6748.5 | 8046.3 | 8224.2 | 8499.8 | 7925.3 | 7157.5 | 5370.6 | 3209.2 |
| 72.5° | 5542.1 | 5638.9 | 6228.8 | 7485.6 | 9174.7 | 9309.5 | 9022.0 | 7743.5 | 6247.0 | 4024.9 | 1999.3 |
| 74° | 5445.7 | 5565.8 | 6312.7 | 7848.7 | 9599.5 | 9664.3 | 8845.7 | 7212.9 | 5208.6 | 2787.3 | 1162.0 |
| 75° | 5238.2 | 5368.7 | 6190.2 | 7845.2 | 9545.7 | 9509.6 | 8419.8 | 6606.7 | 4289.7 | 1901.0 | 773.2 |
| 77.5° | 4227.4 | 4365.3 | 5216.0 | 6723.8 | 7827.0 | 7792.9 | 6467.9 | 4432.0 | 1878.8 | 623.5 | 392.8 |
| 80° | 2457.8 | 2563.0 | 3237.9 | 4269.9 | 5277.7 | 5339.5 | 4253.6 | 2193.0 | 739.1 | 350.3 | 266.3 |
| 82.5° | 1091.8 | 1164.4 | 1564.1 | 2179.7 | 3185.0 | 3264.6 | 2227.6 | 1149.1 | 456.5 | 212.9 | 160.1 |
| 85° | 716.3 | 770.2 | 949.5 | 1038.0 | 1516.7 | 1571.0 | 1090.3 | 894.7 | 301.4 | 117.1 | 117.6 |
| 87.5° | 515.3 | 567.1 | 705.5 | 616.1 | 696.1 | 659.0 | 593.3 | 828.0 | 121.0 | 66.7 | 39.5 |
| 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-SA2C-740-U-SL4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 | 2471.2 |
| 2.5° | 2447.9 | 2440.0 | 2422.2 | 2388.6 | 2369.9 | 2354.1 | 2327.9 | 2312.6 | 2305.6 | 2305.2 | 2308.1 |
| 5° | 2387.2 | 2368.9 | 2322.9 | 2266.6 | 2221.7 | 2180.7 | 2129.8 | 2099.1 | 2077.4 | 2064.6 | 2068.0 |
| 7.5° | 2316.5 | 2287.9 | 2215.7 | 2125.8 | 2053.7 | 1974.2 | 1895.6 | 1848.7 | 1812.1 | 1784.9 | 1789.9 |
| 10° | 2268.1 | 2228.6 | 2123.4 | 1993.9 | 1873.9 | 1758.3 | 1650.1 | 1585.4 | 1534.0 | 1494.4 | 1497.4 |
| 12.5° | 2251.8 | 2198.4 | 2052.7 | 1879.8 | 1711.3 | 1553.2 | 1411.9 | 1312.6 | 1259.8 | 1214.8 | 1218.3 |
| 15° | 2254.3 | 2182.6 | 1993.4 | 1777.0 | 1565.1 | 1366.0 | 1194.6 | 1078.5 | 1006.8 | 975.7 | 976.2 |
| 17.5° | 2256.2 | 2164.4 | 1931.2 | 1666.9 | 1420.3 | 1191.1 | 1004.9 | 887.3 | 819.6 | 790.9 | 791.4 |
| 20° | 2249.8 | 2134.7 | 1854.1 | 1540.4 | 1269.2 | 1030.6 | 850.2 | 750.4 | 699.1 | 676.8 | 676.8 |
| 22.5° | 2241.4 | 2099.6 | 1767.2 | 1413.4 | 1120.0 | 891.2 | 739.6 | 663.5 | 633.8 | 619.0 | 618.5 |
| 25° | 2245.4 | 2073.5 | 1678.2 | 1283.0 | 982.6 | 780.1 | 666.0 | 615.6 | 595.8 | 586.4 | 585.9 |
| 27.5° | 2266.6 | 2061.1 | 1596.2 | 1153.1 | 862.6 | 696.6 | 616.6 | 581.0 | 568.1 | 562.2 | 562.2 |
| 30° | 2305.2 | 2061.1 | 1510.8 | 1042.4 | 762.8 | 634.8 | 578.5 | 554.3 | 545.4 | 541.5 | 541.5 |
| 32.5° | 2372.3 | 2072.5 | 1428.2 | 932.7 | 683.2 | 586.4 | 546.9 | 530.6 | 523.7 | 521.7 | 521.7 |
| 35° | 2487.9 | 2111.0 | 1347.7 | 829.0 | 619.0 | 546.9 | 516.8 | 507.4 | 502.4 | 501.9 | 503.4 |
| 37.5° | 2650.5 | 2189.6 | 1272.1 | 752.4 | 573.6 | 514.8 | 491.6 | 484.2 | 481.2 | 483.7 | 485.6 |
| 40° | 2855.0 | 2296.3 | 1203.5 | 683.2 | 539.0 | 489.1 | 468.3 | 463.4 | 461.9 | 465.4 | 468.3 |
| 42.5° | 3102.0 | 2440.5 | 1147.1 | 633.3 | 512.3 | 467.4 | 448.6 | 442.7 | 441.2 | 445.1 | 449.1 |
| 45° | 3369.3 | 2595.6 | 1107.6 | 596.3 | 491.6 | 451.1 | 431.3 | 424.9 | 421.9 | 423.9 | 428.3 |
| 47.5° | 3612.4 | 2742.4 | 1091.8 | 570.1 | 471.8 | 437.2 | 416.0 | 408.1 | 403.1 | 402.1 | 405.6 |
| 50° | 3817.4 | 2851.6 | 1099.2 | 554.3 | 456.0 | 421.9 | 401.2 | 392.3 | 384.9 | 380.4 | 382.9 |
| 52.5° | 3966.6 | 2920.2 | 1106.1 | 547.4 | 443.6 | 405.1 | 384.9 | 376.5 | 366.6 | 359.2 | 359.2 |
| 55° | 4074.8 | 2936.0 | 1090.8 | 542.0 | 434.3 | 386.8 | 366.6 | 358.7 | 348.8 | 340.4 | 339.4 |
| 57.5° | 4117.3 | 2891.6 | 1034.0 | 534.0 | 427.8 | 369.5 | 347.3 | 341.4 | 333.0 | 323.1 | 322.6 |
| 60° | 4060.0 | 2754.2 | 924.3 | 517.3 | 419.4 | 355.2 | 328.0 | 324.1 | 320.1 | 310.7 | 310.3 |
| 62.5° | 3829.7 | 2452.9 | 782.5 | 483.2 | 402.6 | 339.9 | 310.3 | 312.2 | 312.7 | 306.3 | 305.3 |
| 65° | 3412.3 | 2038.9 | 644.2 | 438.7 | 377.4 | 321.6 | 292.0 | 301.4 | 306.8 | 305.8 | 304.3 |
| 67.5° | 2805.6 | 1586.8 | 545.9 | 391.8 | 344.3 | 296.4 | 272.2 | 283.1 | 287.5 | 291.0 | 290.0 |
| 70° | 2082.3 | 1119.0 | 451.5 | 342.4 | 304.3 | 266.8 | 246.5 | 252.0 | 249.0 | 252.9 | 254.4 |
| 72.5° | 1161.0 | 671.4 | 368.1 | 293.0 | 262.8 | 232.2 | 217.9 | 216.9 | 210.5 | 210.5 | 210.5 |
| 74° | 696.6 | 492.6 | 323.6 | 262.3 | 237.6 | 209.5 | 197.1 | 192.7 | 186.7 | 187.2 | 186.7 |
| 75° | 560.2 | 423.4 | 296.9 | 242.1 | 219.8 | 196.1 | 183.8 | 177.9 | 173.4 | 173.4 | 172.9 |
| 77.5° | 353.7 | 321.6 | 239.1 | 192.7 | 175.9 | 161.5 | 153.2 | 145.2 | 145.2 | 144.8 | 144.3 |
| 80° | 267.3 | 255.9 | 186.3 | 145.7 | 134.9 | 124.0 | 118.6 | 115.1 | 115.1 | 116.6 | 116.1 |
| 82.5° | 183.3 | 192.7 | 130.9 | 101.8 | 96.3 | 88.4 | 87.4 | 87.9 | 86.5 | 84.5 | 84.0 |
| 85° | 133.9 | 144.8 | 88.4 | 64.2 | 58.8 | 53.8 | 57.8 | 59.8 | 57.3 | 52.9 | 50.9 |
| 87.5° | 51.4 | 94.9 | 47.4 | 26.7 | 24.7 | 21.2 | 24.7 | 25.7 | 27.7 | 21.7 | 22.2 |
| 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 |

REPORT NUMBER: SP1-2101-121-2

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)