

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: P438372

Luminaire Tested: **IST-SA1C-740-U-SL3**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438372
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: IST-SA1C-740-U-SL3
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4472 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

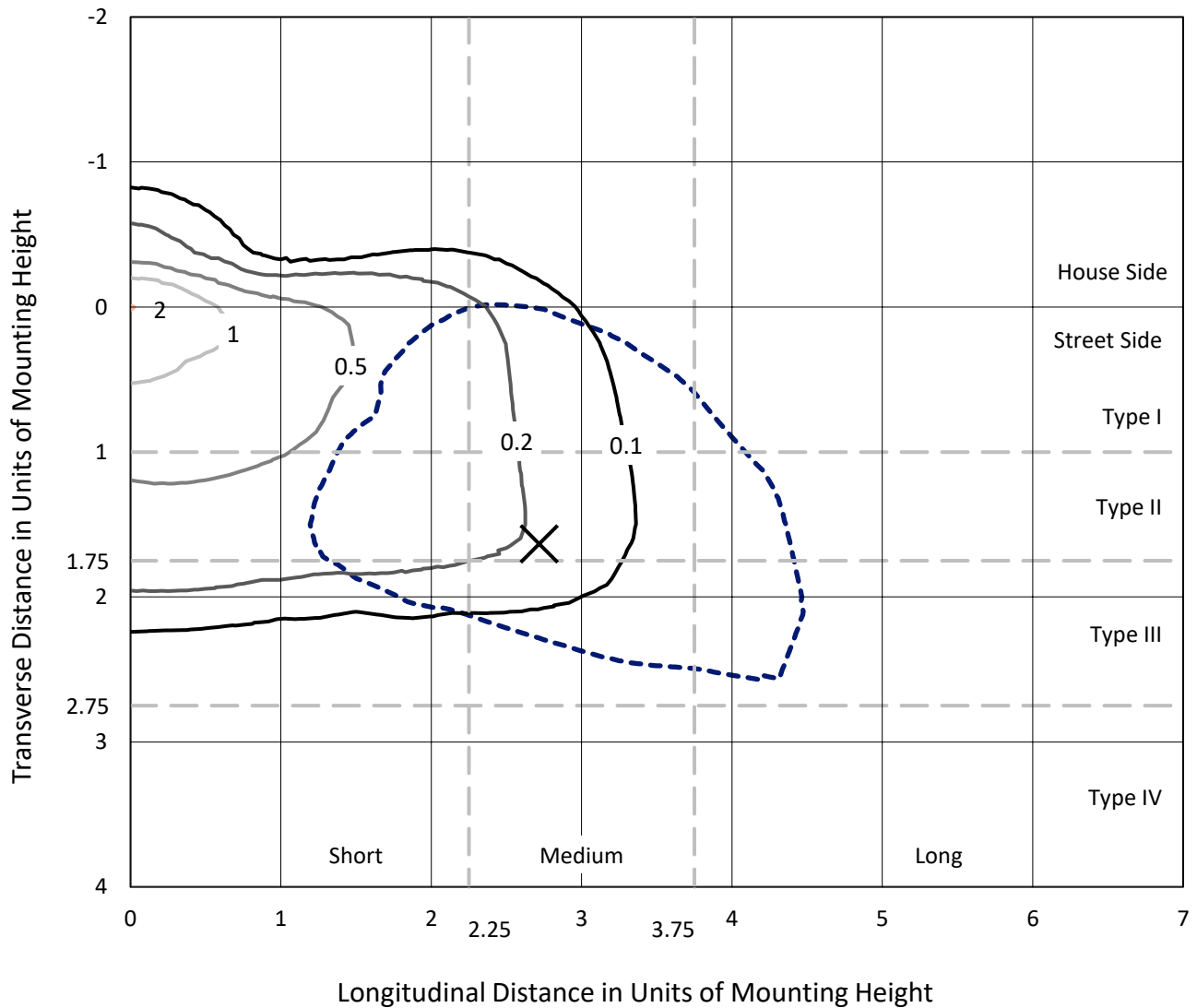
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P438372
 CATALOG NUMBER: IST-SA1C-740-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

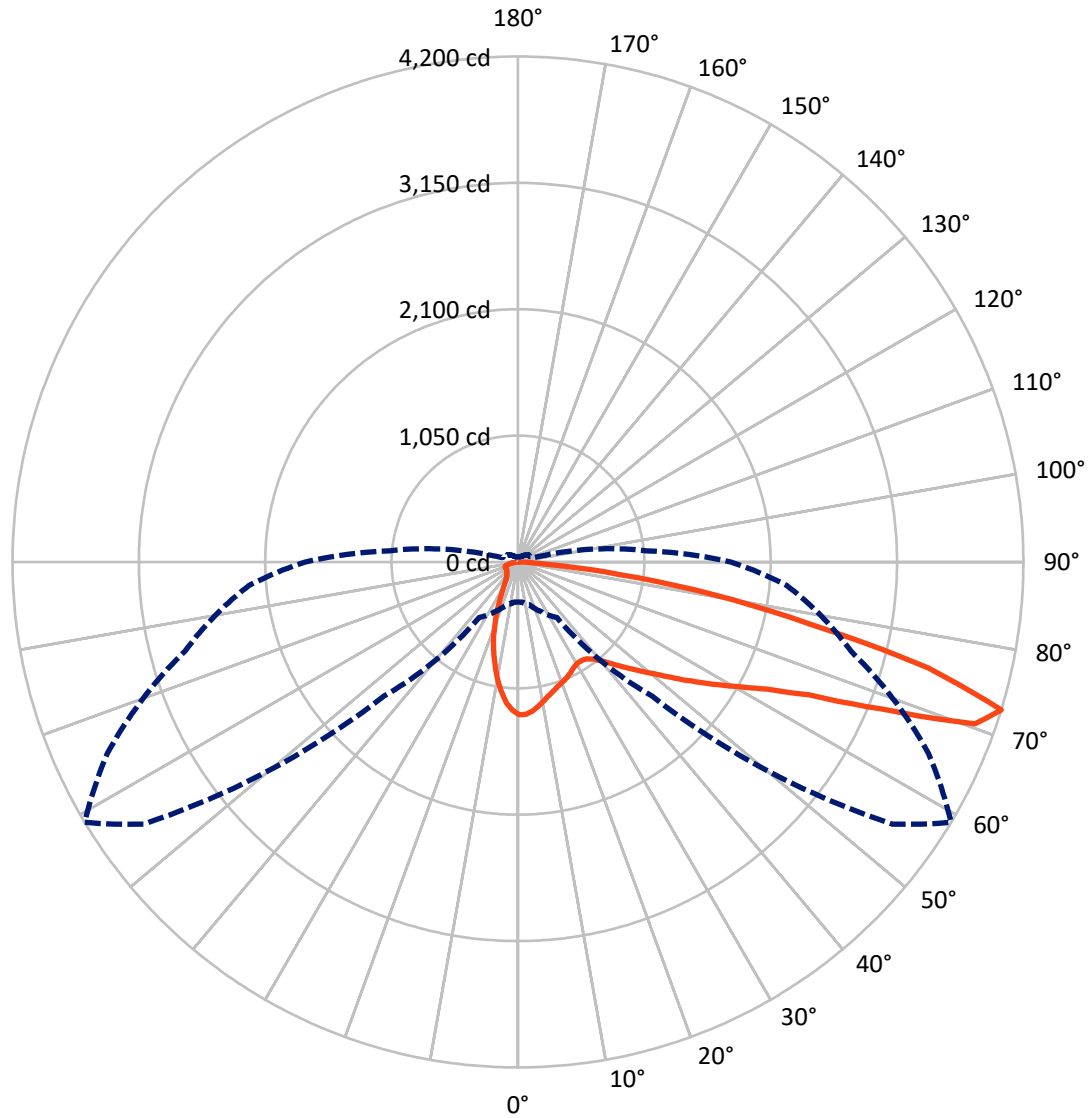
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type III - Medium - N/A

REPORT NUMBER: P438372
CATALOG NUMBER: IST-SA1C-740-U-SL3

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P438372
 CATALOG NUMBER: IST-SA1C-740-U-SL3

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 729.9 | 0.0 | 729.9 |
| | % Fixture | 16.3 | 0.0 | 16.3 |
| Street Side | Lumens | 3742.1 | 0.0 | 3742.1 |
| | % Fixture | 83.7 | 0.0 | 83.7 |
| Total | Lumens | 4472.0 | 0.0 | 4472.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 108.9 | 2.4 |
| 10°-20° | 244.8 | 5.5 |
| 20°-30° | 315.4 | 7.1 |
| 30°-40° | 403.5 | 9.0 |
| 40°-50° | 559.9 | 12.5 |
| 50°-60° | 825.3 | 18.5 |
| 60°-70° | 1110.4 | 24.8 |
| 70°-80° | 807.8 | 18.1 |
| 80°-90° | 96.1 | 2.1 |
| 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° | 4472.0 | 100.0 |
| 0°-180° | 4472.0 | 100.0 |

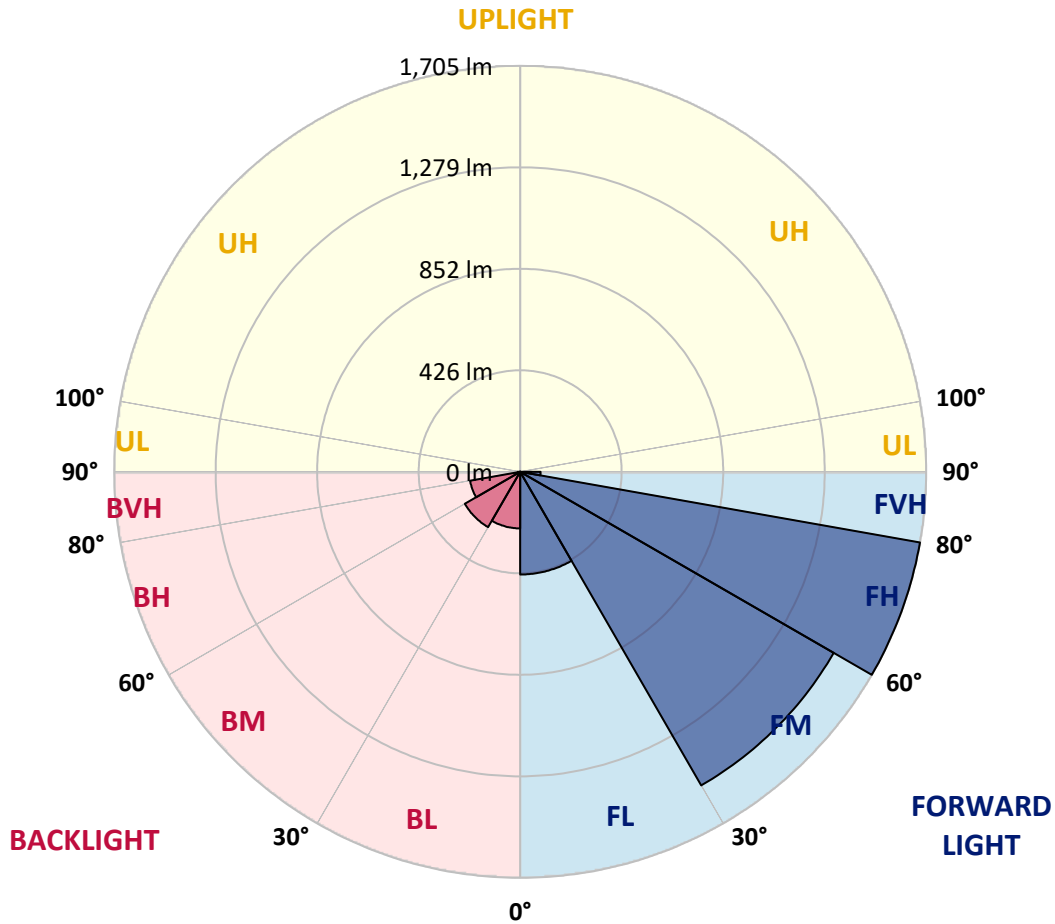


REPORT NUMBER: P438372
 CATALOG NUMBER: IST-SA1C-740-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 431.3 | 9.6 | | | |
| FM (30°-60°) | 1520.3 | 34.0 | | | |
| FH (60°-80°) | 1704.7 | 38.1 | | | G1/1800 |
| FVH (80°-90°) | 85.7 | 1.9 | | | G1/100 |
| BL (0°-30°) | 237.7 | 5.3 | B1/500 | | |
| BM (30°-60°) | 268.3 | 6.0 | B1/1000 | | |
| BH (60°-80°) | 213.5 | 4.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 10.4 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type III Medium





REPORT NUMBER: P438372

CATALOG NUMBER: IST-SA1C-740-U-SL3

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 |
| 2.5° | 1262.7 | 1262.7 | 1267.6 | 1270.9 | 1266.0 | 1270.9 | 1269.2 | 1267.6 | 1269.2 | 1269.2 | 1266.0 |
| 5° | 1210.6 | 1217.1 | 1217.1 | 1218.7 | 1230.1 | 1238.3 | 1241.5 | 1244.8 | 1246.4 | 1248.0 | 1244.8 |
| 7.5° | 1147.0 | 1150.3 | 1153.5 | 1168.2 | 1174.7 | 1192.7 | 1204.1 | 1210.6 | 1217.1 | 1220.4 | 1210.6 |
| 10° | 1077.0 | 1081.9 | 1091.6 | 1103.0 | 1119.3 | 1143.8 | 1163.3 | 1174.7 | 1184.5 | 1189.4 | 1178.0 |
| 12.5° | 1018.3 | 1019.9 | 1029.7 | 1047.6 | 1067.2 | 1101.4 | 1125.9 | 1138.9 | 1151.9 | 1161.7 | 1148.7 |
| 15° | 964.5 | 966.2 | 974.3 | 995.5 | 1018.3 | 1055.8 | 1091.6 | 1111.2 | 1129.1 | 1145.4 | 1127.5 |
| 17.5° | 922.2 | 927.1 | 930.3 | 948.3 | 976.0 | 1016.7 | 1063.9 | 1083.5 | 1111.2 | 1135.6 | 1112.8 |
| 20° | 897.7 | 896.1 | 897.7 | 909.2 | 938.5 | 979.2 | 1034.6 | 1062.3 | 1094.9 | 1129.1 | 1098.2 |
| 22.5° | 883.1 | 886.3 | 884.7 | 889.6 | 907.5 | 948.3 | 1003.7 | 1042.8 | 1080.2 | 1124.2 | 1085.1 |
| 25° | 883.1 | 888.0 | 886.3 | 884.7 | 891.2 | 918.9 | 977.6 | 1016.7 | 1063.9 | 1124.2 | 1070.5 |
| 27.5° | 899.4 | 901.0 | 897.7 | 892.9 | 892.9 | 902.6 | 954.8 | 990.6 | 1055.8 | 1122.6 | 1062.3 |
| 30° | 914.0 | 917.3 | 917.3 | 914.0 | 909.2 | 904.3 | 938.5 | 976.0 | 1047.6 | 1132.4 | 1055.8 |
| 32.5° | 933.6 | 936.9 | 943.4 | 946.6 | 940.1 | 925.4 | 943.4 | 974.3 | 1049.3 | 1153.5 | 1057.4 |
| 35° | 958.0 | 961.3 | 971.1 | 987.4 | 982.5 | 958.0 | 961.3 | 989.0 | 1062.3 | 1176.4 | 1063.9 |
| 37.5° | 977.6 | 982.5 | 1003.7 | 1031.4 | 1033.0 | 1006.9 | 1005.3 | 1024.8 | 1086.7 | 1212.2 | 1086.7 |
| 40° | 997.1 | 1003.7 | 1034.6 | 1080.2 | 1090.0 | 1075.3 | 1065.6 | 1080.2 | 1130.7 | 1264.3 | 1124.2 |
| 42.5° | 1023.2 | 1029.7 | 1070.5 | 1127.5 | 1151.9 | 1145.4 | 1138.9 | 1160.1 | 1197.5 | 1334.4 | 1182.9 |
| 45° | 1050.9 | 1063.9 | 1116.1 | 1179.6 | 1223.6 | 1228.5 | 1235.0 | 1248.0 | 1277.4 | 1432.2 | 1266.0 |
| 47.5° | 1101.4 | 1112.8 | 1173.1 | 1238.3 | 1295.3 | 1321.4 | 1332.8 | 1349.1 | 1367.0 | 1521.8 | 1367.0 |
| 50° | 1169.8 | 1192.7 | 1246.4 | 1310.0 | 1376.8 | 1427.3 | 1456.6 | 1456.6 | 1476.2 | 1629.3 | 1477.8 |
| 52.5° | 1272.5 | 1293.7 | 1326.3 | 1386.5 | 1466.4 | 1546.2 | 1586.9 | 1593.5 | 1586.9 | 1732.0 | 1590.2 |
| 55° | 1358.8 | 1380.0 | 1411.0 | 1455.0 | 1556.0 | 1679.8 | 1749.9 | 1745.0 | 1722.2 | 1841.1 | 1701.0 |
| 57.5° | 1455.0 | 1471.3 | 1499.0 | 1534.8 | 1647.2 | 1818.3 | 1921.0 | 1916.1 | 1873.7 | 1951.9 | 1821.6 |
| 60° | 1495.7 | 1518.5 | 1569.0 | 1642.3 | 1789.0 | 1995.9 | 2116.5 | 2101.8 | 2007.3 | 2070.8 | 1929.1 |
| 62.5° | 1373.5 | 1415.9 | 1518.5 | 1666.8 | 1953.5 | 2292.4 | 2372.3 | 2325.0 | 2196.3 | 2201.2 | 2074.1 |
| 65° | 1098.2 | 1075.3 | 1231.8 | 1477.8 | 1966.6 | 2659.0 | 2763.3 | 2660.7 | 2432.6 | 2367.4 | 2238.7 |
| 67.5° | 627.3 | 637.1 | 712.0 | 977.6 | 1619.5 | 2808.9 | 3441.1 | 3260.2 | 2802.4 | 2626.4 | 2437.4 |
| 70° | 425.2 | 435.0 | 467.6 | 580.0 | 930.3 | 2510.8 | 3993.4 | 4029.3 | 3374.3 | 2856.2 | 2444.0 |
| 72.5° | 332.4 | 334.0 | 368.2 | 456.2 | 563.7 | 1577.2 | 3796.3 | 4200.4 | 3765.3 | 2864.3 | 2241.9 |
| 75° | 254.2 | 255.8 | 286.8 | 389.4 | 506.7 | 764.1 | 2890.4 | 3522.6 | 3532.3 | 2634.6 | 1831.3 |
| 77.5° | 161.3 | 169.4 | 205.3 | 311.2 | 475.8 | 506.7 | 1841.1 | 2481.4 | 2546.6 | 1951.9 | 958.0 |
| 80° | 78.2 | 81.5 | 102.6 | 198.8 | 418.7 | 448.1 | 1096.5 | 1650.5 | 1430.5 | 760.9 | 291.6 |
| 82.5° | 32.6 | 34.2 | 48.9 | 86.4 | 267.2 | 379.6 | 549.1 | 848.9 | 552.3 | 206.9 | 94.5 |
| 85° | 6.5 | 8.1 | 11.4 | 21.2 | 86.4 | 185.7 | 224.8 | 220.0 | 133.6 | 63.5 | 35.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| 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: P438372
 CATALOG NUMBER: IST-SA1C-740-U-SL3

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 | 1269.2 |
| 2.5° | 1264.3 | 1264.3 | 1251.3 | 1241.5 | 1230.1 | 1222.0 | 1213.8 | 1204.1 | 1202.4 | 1207.3 | 1212.2 |
| 5° | 1238.3 | 1231.8 | 1210.6 | 1191.0 | 1168.2 | 1142.1 | 1125.9 | 1104.7 | 1093.3 | 1098.2 | 1094.9 |
| 7.5° | 1204.1 | 1194.3 | 1155.2 | 1122.6 | 1077.0 | 1036.2 | 1008.5 | 977.6 | 956.4 | 948.3 | 943.4 |
| 10° | 1168.2 | 1148.7 | 1096.5 | 1037.9 | 977.6 | 917.3 | 866.8 | 817.9 | 793.5 | 791.8 | 765.8 |
| 12.5° | 1134.0 | 1107.9 | 1034.6 | 949.9 | 866.8 | 785.3 | 710.4 | 656.6 | 589.8 | 570.3 | 576.8 |
| 15° | 1106.3 | 1070.5 | 967.8 | 860.3 | 752.7 | 650.1 | 552.3 | 472.5 | 413.8 | 392.7 | 384.5 |
| 17.5° | 1080.2 | 1029.7 | 905.9 | 777.2 | 641.9 | 513.2 | 394.3 | 334.0 | 298.2 | 285.1 | 285.1 |
| 20° | 1050.9 | 992.2 | 839.1 | 684.3 | 519.7 | 381.3 | 291.6 | 262.3 | 250.9 | 249.3 | 247.7 |
| 22.5° | 1028.1 | 954.8 | 770.7 | 586.6 | 405.7 | 290.0 | 241.1 | 228.1 | 228.1 | 229.7 | 229.7 |
| 25° | 1000.4 | 912.4 | 697.3 | 482.3 | 312.8 | 233.0 | 213.4 | 208.6 | 213.4 | 218.3 | 218.3 |
| 27.5° | 980.8 | 874.9 | 630.5 | 384.5 | 242.8 | 202.0 | 192.3 | 193.9 | 200.4 | 206.9 | 206.9 |
| 30° | 964.5 | 839.1 | 560.5 | 303.1 | 202.0 | 179.2 | 177.6 | 180.9 | 187.4 | 193.9 | 192.3 |
| 32.5° | 948.3 | 811.4 | 483.9 | 239.5 | 174.3 | 164.6 | 162.9 | 167.8 | 172.7 | 174.3 | 177.6 |
| 35° | 941.7 | 788.6 | 407.3 | 197.1 | 158.0 | 153.2 | 153.2 | 154.8 | 156.4 | 158.0 | 158.0 |
| 37.5° | 946.6 | 770.7 | 338.9 | 167.8 | 148.3 | 146.6 | 145.0 | 143.4 | 143.4 | 143.4 | 145.0 |
| 40° | 966.2 | 764.1 | 280.2 | 151.5 | 140.1 | 140.1 | 136.9 | 132.0 | 130.3 | 132.0 | 130.3 |
| 42.5° | 1005.3 | 777.2 | 231.4 | 141.7 | 133.6 | 132.0 | 127.1 | 123.8 | 122.2 | 122.2 | 120.6 |
| 45° | 1067.2 | 800.0 | 198.8 | 135.2 | 128.7 | 123.8 | 118.9 | 115.7 | 114.1 | 115.7 | 115.7 |
| 47.5° | 1148.7 | 842.4 | 176.0 | 128.7 | 123.8 | 115.7 | 109.2 | 107.5 | 107.5 | 110.8 | 110.8 |
| 50° | 1246.4 | 899.4 | 162.9 | 125.5 | 118.9 | 109.2 | 102.6 | 101.0 | 102.6 | 105.9 | 107.5 |
| 52.5° | 1350.7 | 971.1 | 159.7 | 123.8 | 114.1 | 102.6 | 97.8 | 96.1 | 97.8 | 101.0 | 102.6 |
| 55° | 1455.0 | 1049.3 | 167.8 | 123.8 | 109.2 | 97.8 | 94.5 | 89.6 | 91.2 | 94.5 | 96.1 |
| 57.5° | 1565.8 | 1134.0 | 192.3 | 120.6 | 105.9 | 94.5 | 89.6 | 84.7 | 84.7 | 88.0 | 88.0 |
| 60° | 1684.7 | 1230.1 | 237.9 | 120.6 | 102.6 | 91.2 | 83.1 | 78.2 | 78.2 | 78.2 | 79.8 |
| 62.5° | 1816.7 | 1345.8 | 291.6 | 122.2 | 104.3 | 88.0 | 76.6 | 70.1 | 70.1 | 71.7 | 70.1 |
| 65° | 2012.2 | 1518.5 | 306.3 | 123.8 | 107.5 | 84.7 | 71.7 | 65.2 | 63.5 | 63.5 | 63.5 |
| 67.5° | 2132.8 | 1538.1 | 237.9 | 120.6 | 112.4 | 84.7 | 66.8 | 58.7 | 57.0 | 55.4 | 55.4 |
| 70° | 2044.8 | 1350.7 | 169.4 | 115.7 | 112.4 | 84.7 | 63.5 | 53.8 | 50.5 | 47.2 | 47.2 |
| 72.5° | 1769.4 | 1072.1 | 138.5 | 109.2 | 104.3 | 79.8 | 58.7 | 48.9 | 44.0 | 40.7 | 40.7 |
| 75° | 1417.5 | 760.9 | 117.3 | 101.0 | 88.0 | 63.5 | 48.9 | 40.7 | 37.5 | 35.8 | 35.8 |
| 77.5° | 690.8 | 374.7 | 91.2 | 88.0 | 70.1 | 47.2 | 39.1 | 34.2 | 32.6 | 29.3 | 29.3 |
| 80° | 202.0 | 138.5 | 68.4 | 70.1 | 44.0 | 32.6 | 29.3 | 27.7 | 26.1 | 22.8 | 24.4 |
| 82.5° | 92.9 | 78.2 | 48.9 | 44.0 | 27.7 | 19.6 | 19.6 | 17.9 | 16.3 | 14.7 | 14.7 |
| 85° | 37.5 | 39.1 | 26.1 | 21.2 | 13.0 | 9.8 | 8.1 | 8.1 | 6.5 | 6.5 | 6.5 |
| 87.5° | 3.3 | 4.9 | 4.9 | 3.3 | 3.3 | 1.6 | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 |
| 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

REPORT NUMBER: SP1-2101-121-2

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)