

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: P437822

Luminaire Tested: **ISC-SA1F-730-U-SL4-HSS**

Issue Date: 12/9/2020

Test Information

Test Method: LM-79-08
Report Number: P437822
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/9/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-SA1F-730-U-SL4-HSS
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5830 lumens
Efficiency: N/A
Efficacy: 88.3 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

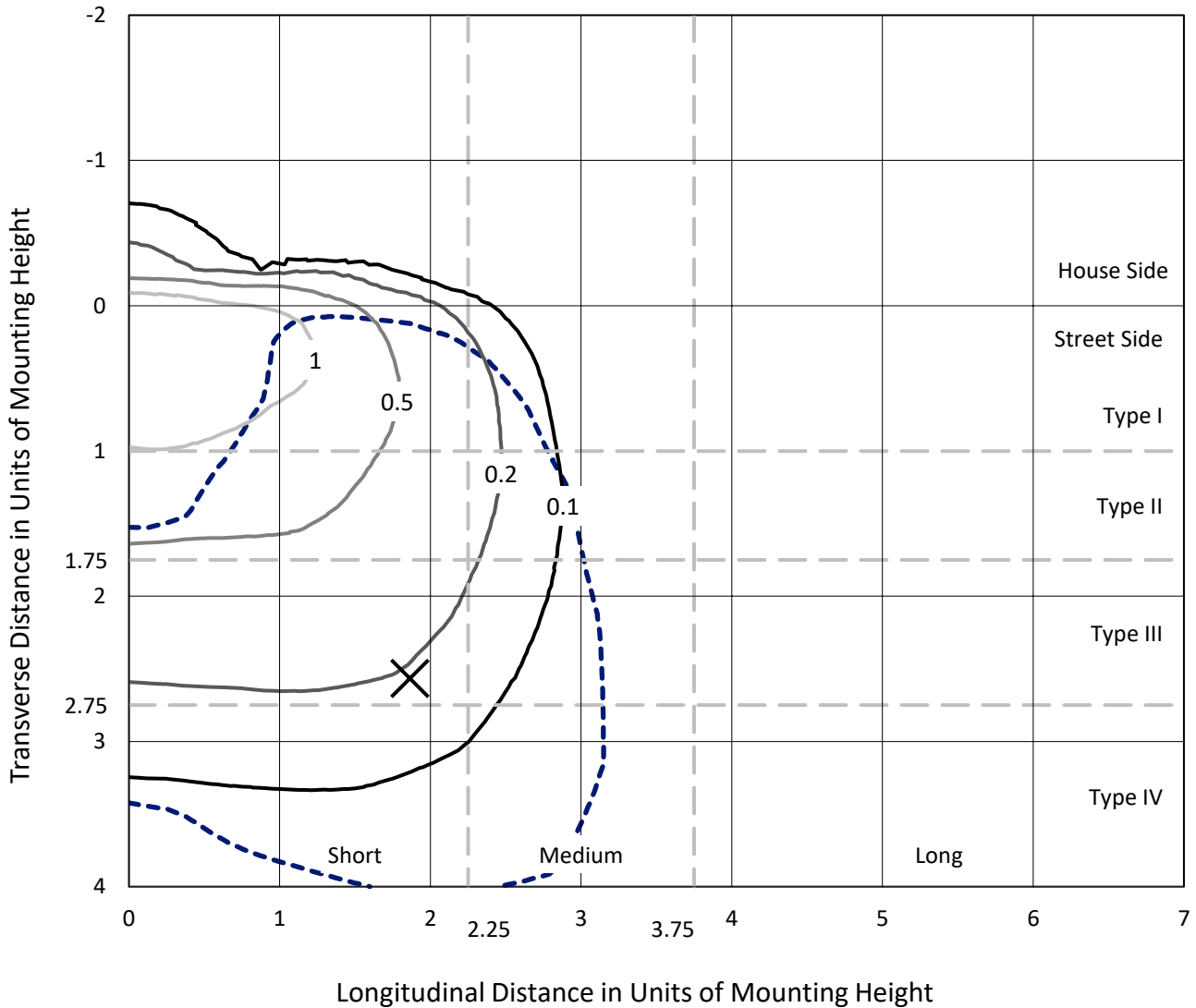
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

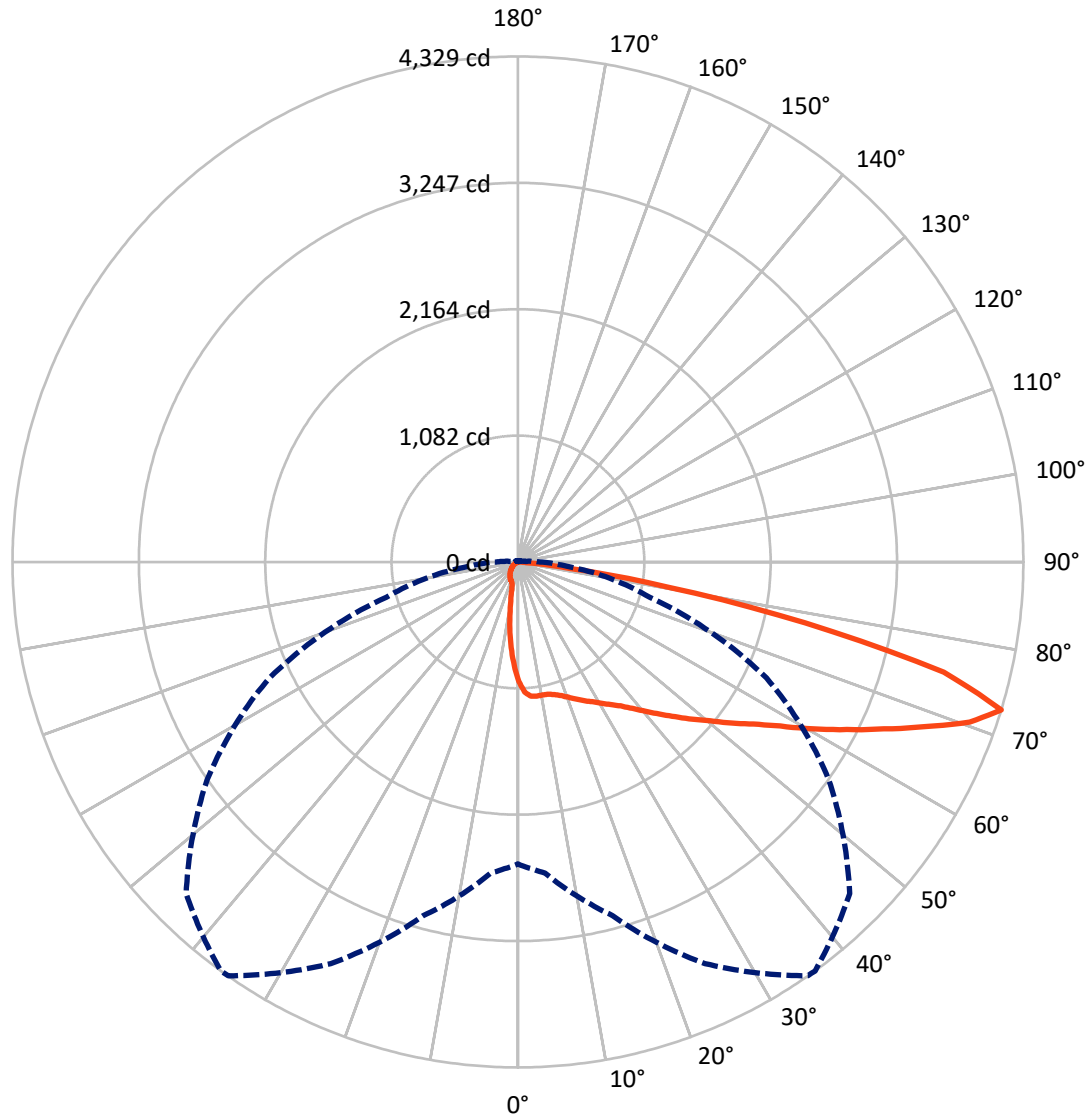
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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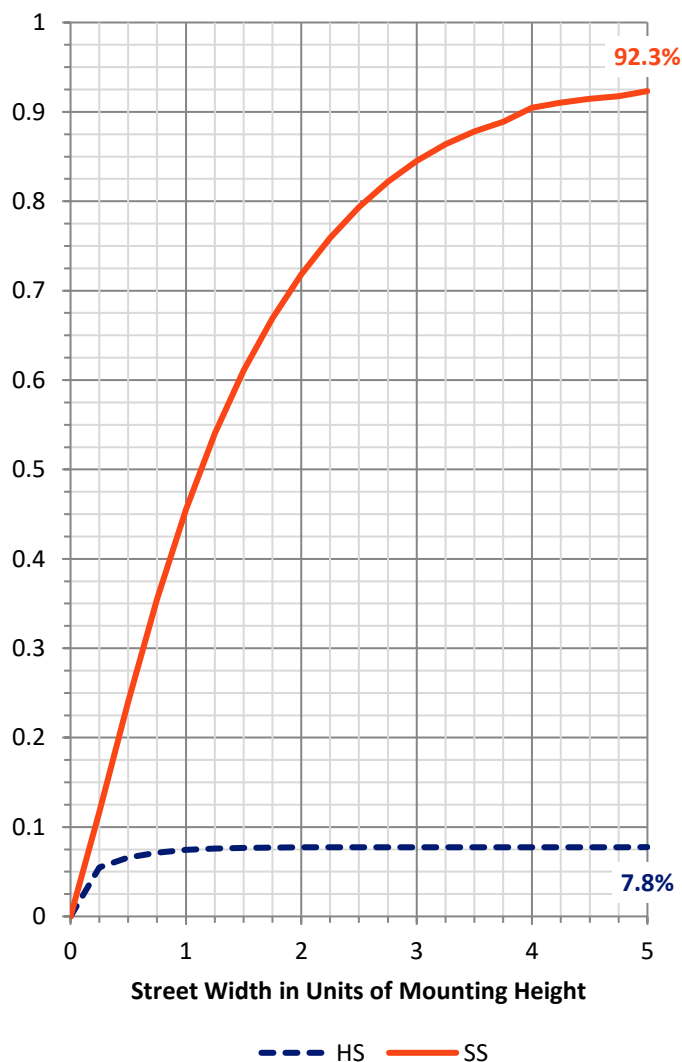
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 454.9 | 0.0 | 454.9 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| Street Side | Lumens | 5375.1 | 0.0 | 5375.1 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| Total | Lumens | 5830.0 | 0.0 | 5830.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.5 | 1.5 |
| 10°-20° | 219.5 | 3.8 |
| 20°-30° | 358.5 | 6.1 |
| 30°-40° | 545.0 | 9.3 |
| 40°-50° | 833.5 | 14.3 |
| 50°-60° | 1185.1 | 20.3 |
| 60°-70° | 1502.9 | 25.8 |
| 70°-80° | 1029.0 | 17.7 |
| 80°-90° | 68.9 | 1.2 |
| 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° | 5830.0 | 100.0 |
| 0°-180° | 5830.0 | 100.0 |

Coefficient of Utilization



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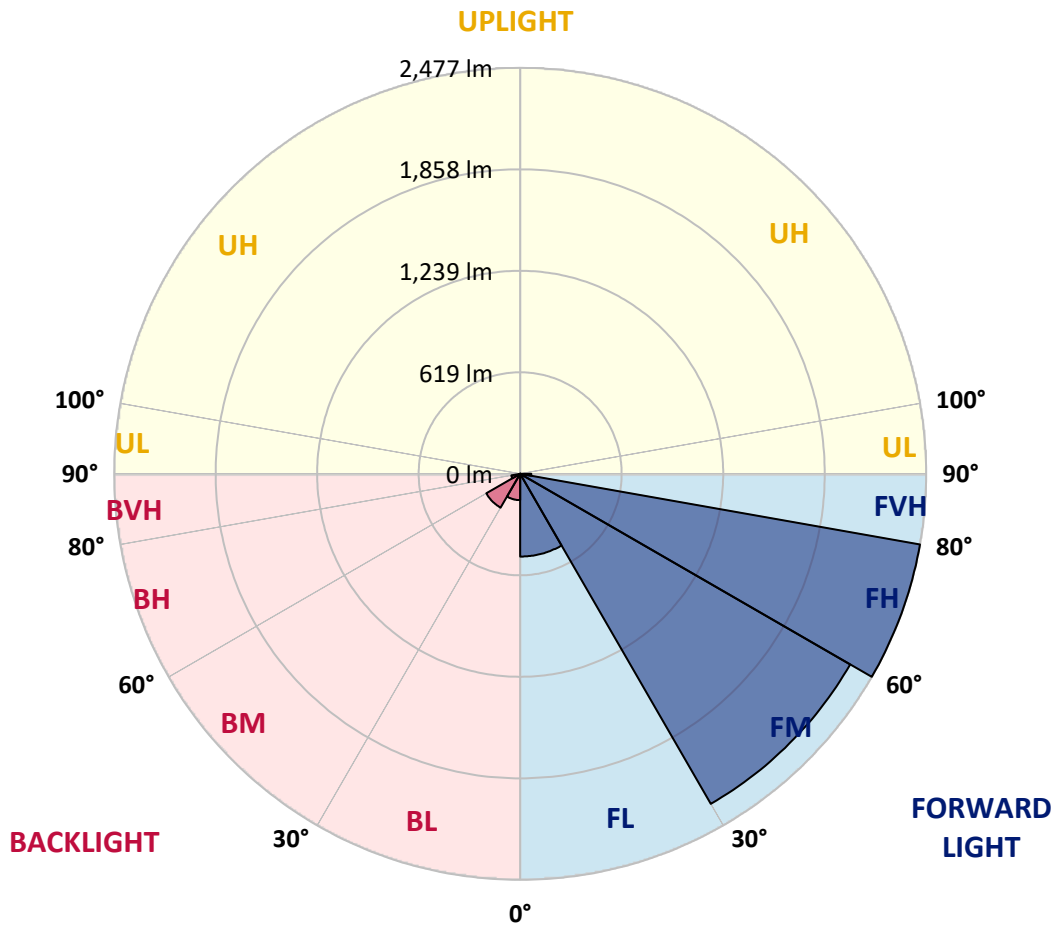
CATALOG NUMBER: ISC-SA1F-730-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 505.0 | 8.7 | | | |
| FM (30°-60°) | 2325.1 | 39.9 | | | |
| FH (60°-80°) | 2477.1 | 42.5 | | | G2/5000 |
| FVH (80°-90°) | 67.9 | 1.2 | | | G1/100 |
| BL (0°-30°) | 160.5 | 2.8 | B1/500 | | |
| BM (30°-60°) | 238.5 | 4.1 | B1/1000 | | |
| BH (60°-80°) | 54.8 | 0.9 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 |
| 2.5° | 1147.0 | 1139.3 | 1134.2 | 1129.0 | 1113.6 | 1116.2 | 1100.8 | 1085.4 | 1062.3 | 1052.1 | 1036.7 |
| 5° | 1175.2 | 1172.7 | 1170.1 | 1162.4 | 1149.6 | 1154.7 | 1139.3 | 1123.9 | 1090.6 | 1059.8 | 1026.4 |
| 7.5° | 1170.1 | 1175.2 | 1172.7 | 1167.5 | 1157.3 | 1159.8 | 1147.0 | 1131.6 | 1103.4 | 1062.3 | 1016.1 |
| 10° | 1159.8 | 1162.4 | 1162.4 | 1159.8 | 1157.3 | 1157.3 | 1147.0 | 1134.2 | 1108.5 | 1072.6 | 1013.6 |
| 12.5° | 1139.3 | 1144.4 | 1152.1 | 1157.3 | 1159.8 | 1162.4 | 1154.7 | 1144.4 | 1121.3 | 1082.9 | 1021.3 |
| 15° | 1131.6 | 1136.7 | 1152.1 | 1167.5 | 1175.2 | 1177.8 | 1170.1 | 1157.3 | 1136.7 | 1103.4 | 1034.1 |
| 17.5° | 1131.6 | 1136.7 | 1162.4 | 1185.5 | 1200.9 | 1203.5 | 1193.2 | 1180.4 | 1154.7 | 1121.3 | 1049.5 |
| 20° | 1147.0 | 1152.1 | 1182.9 | 1224.0 | 1231.7 | 1236.8 | 1221.4 | 1203.5 | 1175.2 | 1141.9 | 1067.5 |
| 22.5° | 1172.7 | 1180.4 | 1218.9 | 1257.3 | 1272.7 | 1275.3 | 1257.3 | 1224.0 | 1198.3 | 1165.0 | 1082.9 |
| 25° | 1216.3 | 1234.2 | 1270.2 | 1311.2 | 1313.8 | 1316.4 | 1288.1 | 1254.8 | 1224.0 | 1190.6 | 1100.8 |
| 27.5° | 1277.9 | 1293.3 | 1324.1 | 1370.2 | 1354.8 | 1354.8 | 1331.8 | 1288.1 | 1257.3 | 1226.5 | 1131.6 |
| 30° | 1357.4 | 1367.7 | 1403.6 | 1421.6 | 1401.0 | 1403.6 | 1375.4 | 1334.3 | 1308.7 | 1277.9 | 1177.8 |
| 32.5° | 1431.8 | 1439.5 | 1478.0 | 1480.6 | 1457.5 | 1454.9 | 1434.4 | 1385.6 | 1365.1 | 1354.8 | 1241.9 |
| 35° | 1501.1 | 1511.4 | 1542.2 | 1539.6 | 1516.5 | 1513.9 | 1503.7 | 1460.1 | 1460.1 | 1470.3 | 1336.9 |
| 37.5° | 1552.4 | 1578.1 | 1616.6 | 1606.3 | 1590.9 | 1590.9 | 1583.2 | 1549.9 | 1575.5 | 1614.0 | 1462.6 |
| 40° | 1619.1 | 1634.5 | 1685.9 | 1678.2 | 1680.7 | 1680.7 | 1683.3 | 1662.8 | 1709.0 | 1773.1 | 1608.9 |
| 42.5° | 1655.1 | 1685.9 | 1747.4 | 1757.7 | 1780.8 | 1780.8 | 1801.3 | 1796.2 | 1883.4 | 1965.6 | 1778.2 |
| 45° | 1711.5 | 1744.9 | 1811.6 | 1850.1 | 1878.3 | 1891.1 | 1927.1 | 1955.3 | 2078.5 | 2181.1 | 1957.9 |
| 47.5° | 1783.4 | 1811.6 | 1868.0 | 1939.9 | 1991.2 | 2011.7 | 2083.6 | 2129.8 | 2294.0 | 2399.2 | 2127.2 |
| 50° | 1880.9 | 1886.0 | 1927.1 | 2034.8 | 2124.6 | 2137.5 | 2250.4 | 2327.4 | 2512.1 | 2609.6 | 2247.8 |
| 52.5° | 1986.1 | 1975.8 | 1998.9 | 2145.2 | 2270.9 | 2294.0 | 2422.3 | 2540.3 | 2725.1 | 2745.6 | 2296.6 |
| 55° | 2068.2 | 2068.2 | 2086.2 | 2265.8 | 2435.1 | 2448.0 | 2627.6 | 2753.3 | 2920.1 | 2825.2 | 2327.4 |
| 57.5° | 2173.4 | 2163.1 | 2191.4 | 2388.9 | 2640.4 | 2650.7 | 2858.5 | 2956.0 | 3027.9 | 2876.5 | 2322.2 |
| 60° | 2250.4 | 2263.2 | 2306.8 | 2548.0 | 2853.4 | 2899.6 | 3074.1 | 3104.9 | 3140.8 | 2894.5 | 2306.8 |
| 62.5° | 2358.2 | 2355.6 | 2440.3 | 2725.1 | 3130.5 | 3161.3 | 3281.9 | 3230.6 | 3228.0 | 2925.2 | 2286.3 |
| 65° | 2448.0 | 2468.5 | 2596.8 | 2938.1 | 3425.6 | 3446.1 | 3487.2 | 3420.5 | 3348.6 | 2958.6 | 2106.7 |
| 67.5° | 2586.5 | 2627.6 | 2789.2 | 3217.8 | 3741.2 | 3764.3 | 3800.2 | 3654.0 | 3382.0 | 2722.5 | 1755.1 |
| 70° | 2743.1 | 2796.9 | 3058.7 | 3589.8 | 4079.9 | 4105.6 | 4113.3 | 3677.1 | 3063.8 | 2137.5 | 1190.6 |
| 72.5° | 2586.5 | 2673.8 | 3135.7 | 3795.1 | 4326.3 | 4328.8 | 4018.4 | 3248.6 | 2347.9 | 1167.5 | 420.8 |
| 75° | 1665.3 | 1775.7 | 2596.8 | 3366.6 | 3725.8 | 3766.9 | 3151.1 | 2270.9 | 1095.7 | 261.7 | 118.0 |
| 77.5° | 564.5 | 603.0 | 1275.3 | 2124.6 | 2499.3 | 2514.7 | 2073.3 | 1149.6 | 346.4 | 105.2 | 64.2 |
| 80° | 325.9 | 323.3 | 446.5 | 928.9 | 1247.1 | 1295.8 | 1044.4 | 459.3 | 161.7 | 53.9 | 43.6 |
| 82.5° | 77.0 | 79.5 | 233.5 | 338.7 | 495.2 | 446.5 | 220.7 | 277.1 | 74.4 | 30.8 | 38.5 |
| 85° | 0.0 | 0.0 | 38.5 | 82.1 | 59.0 | 69.3 | 20.5 | 84.7 | 12.8 | 12.8 | 25.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| 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: ISC-SA1F-730-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 |
| 2.5° | 1021.3 | 1008.4 | 982.8 | 962.3 | 934.0 | 910.9 | 887.8 | 877.6 | 859.6 | 854.5 | 857.0 |
| 5° | 1005.9 | 985.3 | 936.6 | 887.8 | 834.0 | 782.6 | 728.7 | 698.0 | 685.1 | 662.0 | 656.9 |
| 7.5° | 987.9 | 957.1 | 887.8 | 808.3 | 715.9 | 641.5 | 567.1 | 515.8 | 469.6 | 451.6 | 443.9 |
| 10° | 980.2 | 941.7 | 844.2 | 723.6 | 597.9 | 477.3 | 384.9 | 318.2 | 277.1 | 261.7 | 256.6 |
| 12.5° | 980.2 | 934.0 | 803.2 | 641.5 | 474.7 | 336.1 | 251.5 | 213.0 | 200.1 | 197.6 | 195.0 |
| 15° | 990.5 | 931.5 | 764.7 | 554.3 | 359.2 | 233.5 | 192.5 | 187.3 | 184.8 | 184.8 | 187.3 |
| 17.5° | 995.6 | 926.3 | 723.6 | 469.6 | 264.3 | 187.3 | 179.6 | 179.6 | 179.6 | 179.6 | 179.6 |
| 20° | 1008.4 | 923.8 | 677.4 | 379.8 | 200.1 | 174.5 | 171.9 | 171.9 | 171.9 | 171.9 | 174.5 |
| 22.5° | 1011.0 | 923.8 | 621.0 | 292.5 | 177.1 | 166.8 | 164.2 | 164.2 | 164.2 | 166.8 | 166.8 |
| 25° | 1026.4 | 918.6 | 567.1 | 223.2 | 166.8 | 156.5 | 156.5 | 154.0 | 156.5 | 156.5 | 156.5 |
| 27.5° | 1046.9 | 921.2 | 500.4 | 184.8 | 156.5 | 148.8 | 146.3 | 146.3 | 146.3 | 146.3 | 146.3 |
| 30° | 1070.0 | 926.3 | 431.1 | 164.2 | 146.3 | 141.1 | 138.6 | 136.0 | 136.0 | 136.0 | 136.0 |
| 32.5° | 1113.6 | 931.5 | 356.7 | 148.8 | 136.0 | 130.9 | 128.3 | 125.7 | 125.7 | 125.7 | 125.7 |
| 35° | 1180.4 | 959.7 | 292.5 | 138.6 | 125.7 | 120.6 | 118.0 | 115.5 | 115.5 | 115.5 | 112.9 |
| 37.5° | 1270.2 | 1003.3 | 230.9 | 128.3 | 115.5 | 110.3 | 107.8 | 105.2 | 102.6 | 102.6 | 102.6 |
| 40° | 1377.9 | 1049.5 | 192.5 | 115.5 | 105.2 | 100.1 | 97.5 | 94.9 | 92.4 | 89.8 | 89.8 |
| 42.5° | 1506.2 | 1105.9 | 154.0 | 105.2 | 94.9 | 89.8 | 87.2 | 84.7 | 79.5 | 77.0 | 79.5 |
| 45° | 1649.9 | 1159.8 | 130.9 | 97.5 | 87.2 | 82.1 | 79.5 | 74.4 | 69.3 | 66.7 | 66.7 |
| 47.5° | 1775.7 | 1172.7 | 115.5 | 87.2 | 79.5 | 74.4 | 71.8 | 64.2 | 59.0 | 53.9 | 53.9 |
| 50° | 1860.4 | 1149.6 | 102.6 | 79.5 | 71.8 | 69.3 | 64.2 | 53.9 | 46.2 | 43.6 | 41.1 |
| 52.5° | 1870.6 | 1088.0 | 89.8 | 71.8 | 66.7 | 61.6 | 53.9 | 46.2 | 38.5 | 33.4 | 33.4 |
| 55° | 1860.4 | 985.3 | 79.5 | 66.7 | 59.0 | 53.9 | 46.2 | 35.9 | 28.2 | 25.7 | 23.1 |
| 57.5° | 1827.0 | 877.6 | 71.8 | 59.0 | 53.9 | 46.2 | 35.9 | 28.2 | 20.5 | 18.0 | 15.4 |
| 60° | 1765.4 | 746.7 | 64.2 | 53.9 | 46.2 | 38.5 | 28.2 | 20.5 | 12.8 | 10.3 | 10.3 |
| 62.5° | 1649.9 | 603.0 | 56.5 | 46.2 | 38.5 | 30.8 | 23.1 | 12.8 | 7.7 | 5.1 | 5.1 |
| 65° | 1421.6 | 451.6 | 48.8 | 38.5 | 30.8 | 25.7 | 15.4 | 7.7 | 2.6 | 0.0 | 0.0 |
| 67.5° | 1105.9 | 305.4 | 38.5 | 30.8 | 25.7 | 20.5 | 12.8 | 2.6 | 0.0 | 0.0 | 0.0 |
| 70° | 651.8 | 161.7 | 30.8 | 23.1 | 20.5 | 15.4 | 7.7 | 2.6 | 0.0 | 0.0 | 0.0 |
| 72.5° | 187.3 | 64.2 | 23.1 | 18.0 | 15.4 | 10.3 | 5.1 | 2.6 | 0.0 | 0.0 | 0.0 |
| 75° | 77.0 | 38.5 | 15.4 | 12.8 | 12.8 | 7.7 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 |
| 77.5° | 51.3 | 28.2 | 10.3 | 7.7 | 7.7 | 5.1 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 41.1 | 15.4 | 5.1 | 5.1 | 5.1 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 35.9 | 10.3 | 2.6 | 2.6 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 18.0 | 5.1 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.6 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-2-R4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/28/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGRAW-EDISON
 Catalog Number: **SA1C-730-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

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

Spectral Parameters

| | | | | | |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K): | 2993 | CRI (Ra): | 71.8 | R9: | -38.3 |
| CIE u': | 0.2508 | R1: | 67.5 | R10: | 62.5 |
| CIE v': | 0.5215 | R2: | 82.9 | R11: | 63.7 |
| Duv: | 0.0000 | R3: | 94.7 | R12: | 57.8 |
| CIE x: | 0.4374 | R4: | 67.7 | R13: | 70.4 |
| CIE y: | 0.4043 | R5: | 67.9 | R14: | 97.3 |
| CIE z: | 0.1583 | R6: | 77.6 | | |
| Peak Wavelength (nm): | 593 | R7: | 76.0 | | |
| Dominant Wavelength (nm): | 582 | R8: | 40.5 | | |
| Purity: | 53 | | | | |
| Rf: | 75.7 | | | | |
| Rg: | 93.9 | | | | |



Test Conditions

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

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| 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 |

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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 3000K 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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Scotopic Flux vs. Wavelength



Scotopic Lumens: 8494.8

S/P: 1.23

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3101.5 M/P: 0.45

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)