

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: P438945

Luminaire Tested: **IST-SA1F-827-U-SLL-HSS**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: IST-SA1F-827-U-SLL-HSS
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4294 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

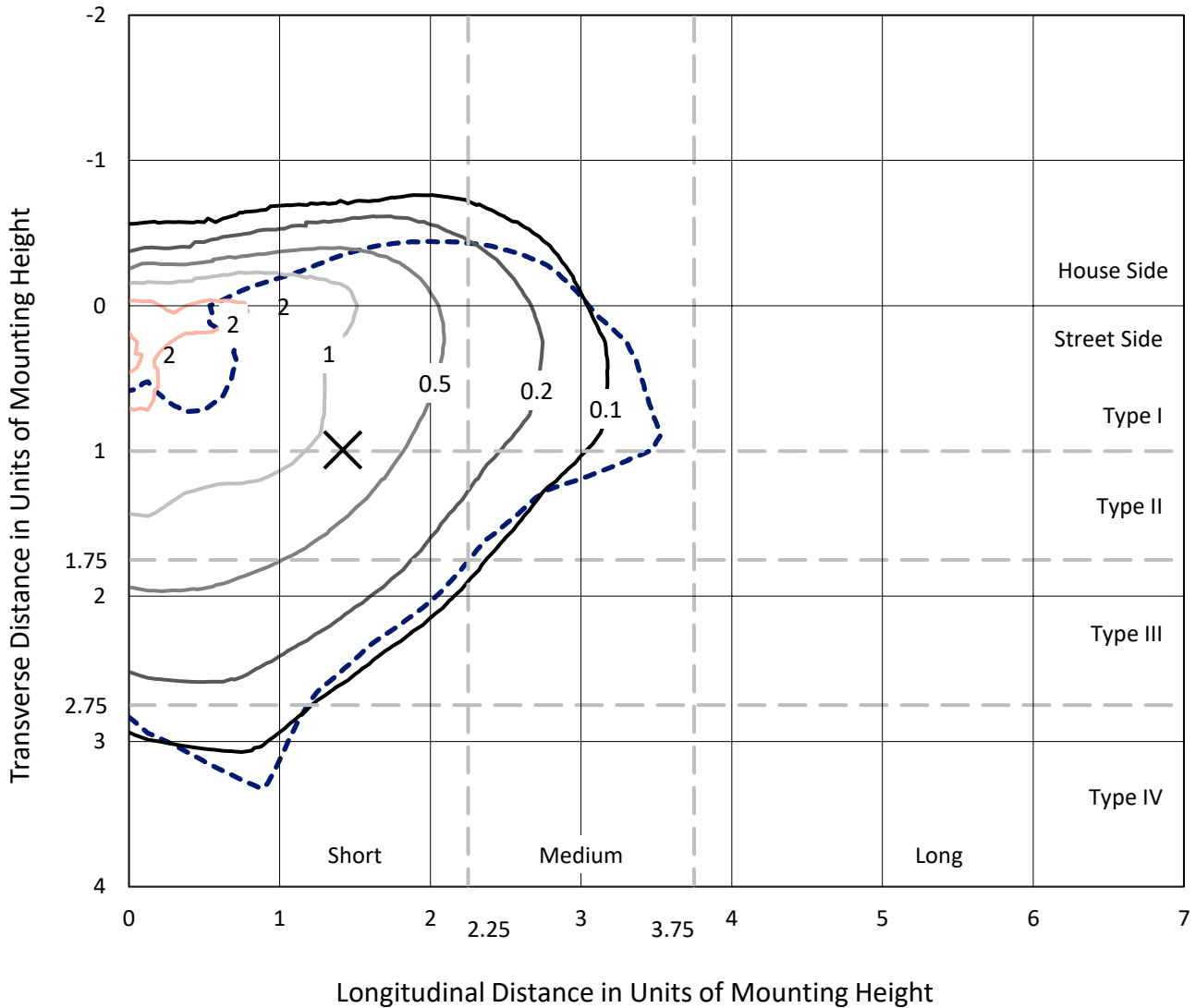
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

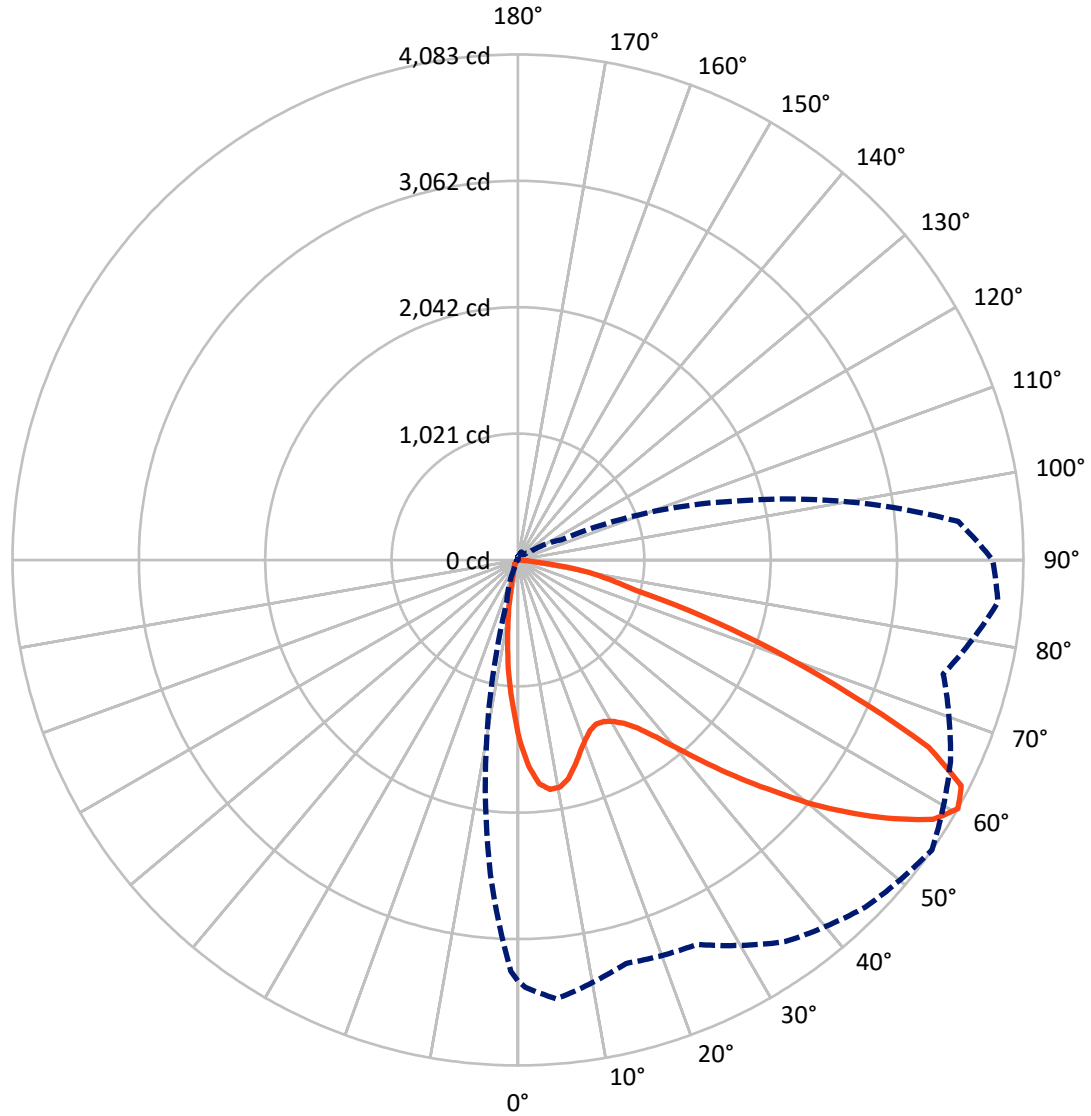
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P438945
CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

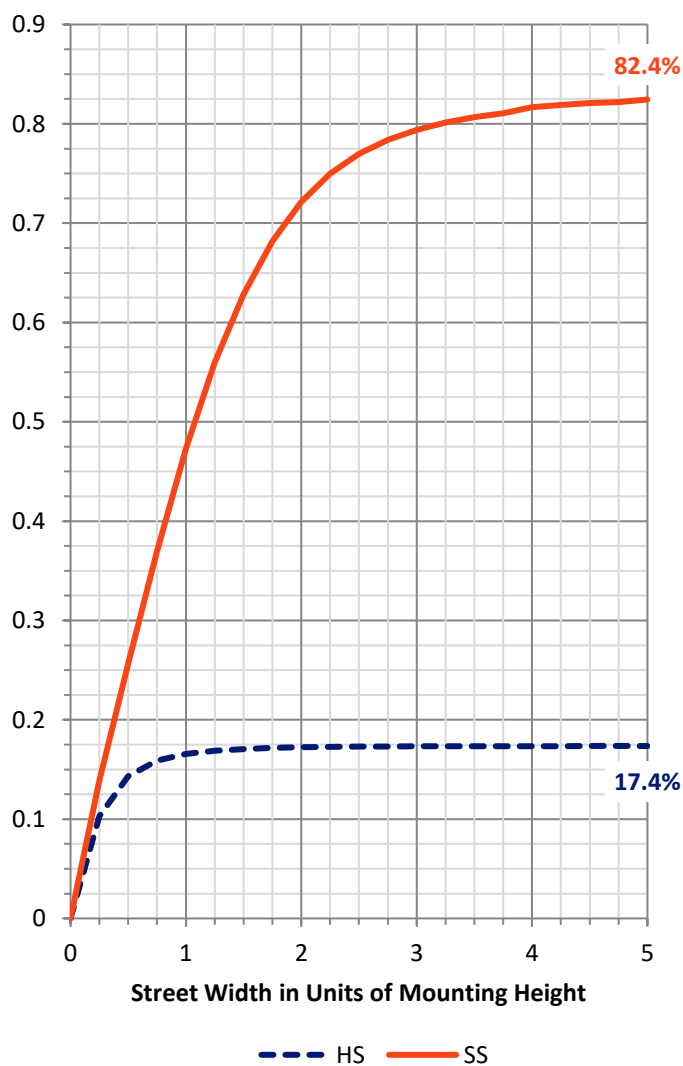
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 752.2 | 0.0 | 752.2 |
| | % Fixture | 17.5 | 0.0 | 17.5 |
| Street Side | Lumens | 3541.8 | 0.0 | 3541.8 |
| | % Fixture | 82.5 | 0.0 | 82.5 |
| Total | Lumens | 4294.0 | 0.0 | 4294.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 108.0 | 2.5 |
| 10°-20° | 211.5 | 4.9 |
| 20°-30° | 310.9 | 7.2 |
| 30°-40° | 464.9 | 10.8 |
| 40°-50° | 687.8 | 16.0 |
| 50°-60° | 988.6 | 23.0 |
| 60°-70° | 1059.7 | 24.7 |
| 70°-80° | 428.1 | 10.0 |
| 80°-90° | 34.7 | 0.8 |
| 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° | 4294.0 | 100.0 |
| 0°-180° | 4294.0 | 100.0 |

Coefficient of Utilization

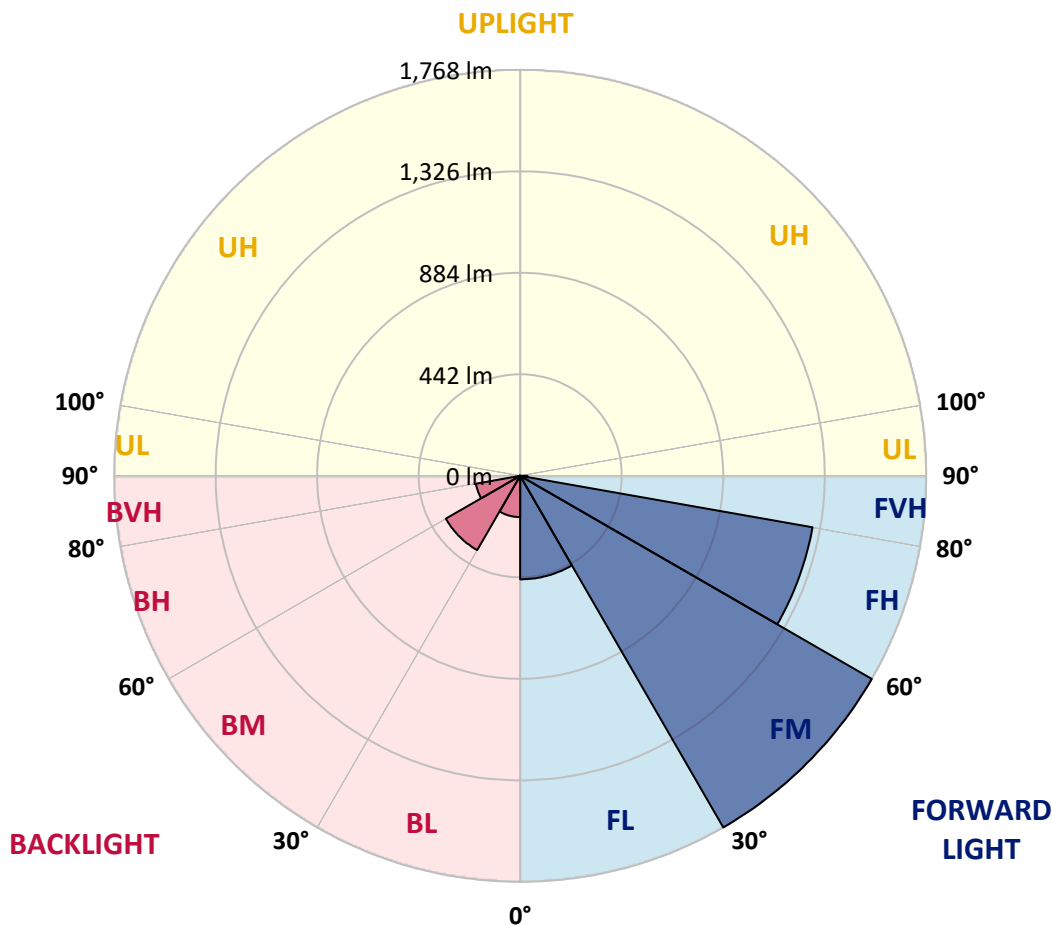


REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 450.7 | 10.5 | | | |
| FM (30°-60°) | 1767.5 | 41.2 | | | |
| FH (60°-80°) | 1292.1 | 30.1 | | | G1/1800 |
| FVH (80°-90°) | 31.5 | 0.7 | | | G1/100 |
| BL (0°-30°) | 179.7 | 4.2 | B1/500 | | |
| BM (30°-60°) | 373.7 | 8.7 | B1/1000 | | |
| BH (60°-80°) | 195.6 | 4.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.2 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type IV Short





REPORT NUMBER: P438945

CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 |
| 2.5° | 1556.6 | 1556.6 | 1569.1 | 1606.4 | 1647.8 | 1668.6 | 1691.4 | 1668.6 | 1664.4 | 1631.2 | 1606.4 |
| 5° | 1509.0 | 1519.3 | 1558.7 | 1658.2 | 1763.9 | 1817.8 | 1846.8 | 1815.7 | 1759.8 | 1687.2 | 1596.0 |
| 7.5° | 1401.2 | 1413.6 | 1459.2 | 1620.9 | 1766.0 | 1873.8 | 1925.6 | 1871.7 | 1776.3 | 1643.7 | 1511.0 |
| 10° | 1285.1 | 1307.9 | 1368.0 | 1552.5 | 1720.4 | 1848.9 | 1921.4 | 1865.5 | 1747.3 | 1577.4 | 1413.6 |
| 12.5° | 1208.4 | 1225.0 | 1305.8 | 1490.3 | 1670.6 | 1784.6 | 1824.0 | 1811.6 | 1703.8 | 1546.3 | 1374.2 |
| 15° | 1196.0 | 1216.7 | 1301.7 | 1486.2 | 1623.0 | 1691.4 | 1705.9 | 1722.4 | 1685.1 | 1550.4 | 1386.7 |
| 17.5° | 1249.9 | 1272.7 | 1368.0 | 1517.2 | 1579.4 | 1579.4 | 1593.9 | 1627.1 | 1662.3 | 1591.9 | 1461.3 |
| 20° | 1359.7 | 1390.8 | 1496.5 | 1598.1 | 1556.6 | 1506.9 | 1509.0 | 1552.5 | 1647.8 | 1685.1 | 1593.9 |
| 22.5° | 1506.9 | 1548.3 | 1676.8 | 1724.5 | 1581.5 | 1467.5 | 1457.1 | 1494.4 | 1649.9 | 1780.5 | 1776.3 |
| 25° | 1701.7 | 1751.5 | 1875.8 | 1873.8 | 1641.6 | 1450.9 | 1440.6 | 1467.5 | 1668.6 | 1884.1 | 1935.9 |
| 27.5° | 1877.9 | 1919.4 | 2043.7 | 1991.9 | 1701.7 | 1471.6 | 1448.8 | 1477.9 | 1683.1 | 1960.8 | 2079.0 |
| 30° | 2027.1 | 2062.4 | 2172.2 | 2076.9 | 1753.5 | 1506.9 | 1467.5 | 1513.1 | 1714.2 | 2002.3 | 2207.5 |
| 32.5° | 2141.1 | 2193.0 | 2294.5 | 2143.2 | 1815.7 | 1552.5 | 1511.0 | 1573.2 | 1766.0 | 2056.2 | 2319.4 |
| 35° | 2294.5 | 2321.5 | 2441.7 | 2209.5 | 1898.6 | 1649.9 | 1583.6 | 1666.5 | 1851.0 | 2126.6 | 2443.8 |
| 37.5° | 2427.2 | 2497.7 | 2576.4 | 2277.9 | 2000.2 | 1770.1 | 1697.6 | 1815.7 | 1967.0 | 2207.5 | 2588.9 |
| 40° | 2584.7 | 2665.5 | 2750.5 | 2375.4 | 2093.5 | 1927.7 | 1896.6 | 2012.6 | 2141.1 | 2325.6 | 2731.9 |
| 42.5° | 2729.8 | 2804.4 | 2862.5 | 2489.4 | 2207.5 | 2105.9 | 2128.7 | 2251.0 | 2319.4 | 2447.9 | 2854.2 |
| 45° | 2845.9 | 2912.2 | 2999.3 | 2568.1 | 2333.9 | 2304.9 | 2421.0 | 2516.3 | 2495.6 | 2553.6 | 2964.0 |
| 47.5° | 2966.1 | 3046.9 | 3082.2 | 2651.0 | 2497.7 | 2566.1 | 2773.3 | 2794.1 | 2680.1 | 2651.0 | 3059.4 |
| 50° | 3049.0 | 3109.1 | 3131.9 | 2752.6 | 2698.7 | 2910.1 | 3075.9 | 3111.2 | 2881.1 | 2727.7 | 3183.7 |
| 52.5° | 3150.6 | 3208.6 | 3235.6 | 2872.8 | 2914.3 | 3219.0 | 3411.7 | 3403.4 | 3075.9 | 2854.2 | 3306.0 |
| 55° | 3330.9 | 3384.8 | 3411.7 | 3020.0 | 3067.7 | 3484.3 | 3697.8 | 3689.5 | 3308.1 | 3036.6 | 3488.4 |
| 57.5° | 3459.4 | 3505.0 | 3548.5 | 3185.8 | 3258.4 | 3654.2 | 3892.6 | 3954.8 | 3587.9 | 3266.6 | 3687.4 |
| 60° | 3401.4 | 3453.2 | 3558.9 | 3374.4 | 3426.2 | 3764.1 | 3967.2 | 4083.3 | 3855.3 | 3556.8 | 3892.6 |
| 62.5° | 3237.6 | 3314.3 | 3424.2 | 3523.7 | 3556.8 | 3782.8 | 3863.6 | 4019.0 | 3998.3 | 3849.1 | 3985.9 |
| 65° | 3030.3 | 3109.1 | 3214.8 | 3544.4 | 3527.8 | 3505.0 | 3552.7 | 3646.0 | 3791.0 | 3990.0 | 3940.3 |
| 67.5° | 2657.3 | 2771.3 | 2903.9 | 3301.9 | 3067.7 | 2937.1 | 2949.5 | 2897.7 | 3190.0 | 3786.9 | 3708.1 |
| 70° | 2163.9 | 2280.0 | 2423.0 | 2800.3 | 2365.0 | 2193.0 | 2236.5 | 2203.3 | 2433.4 | 3250.1 | 3177.5 |
| 72.5° | 1523.5 | 1647.8 | 1824.0 | 2333.9 | 1647.8 | 1370.1 | 1473.7 | 1560.8 | 1834.4 | 2607.5 | 2333.9 |
| 75° | 1009.4 | 1098.6 | 1225.0 | 1757.7 | 1175.2 | 920.3 | 943.1 | 978.3 | 1227.1 | 1971.2 | 1473.7 |
| 77.5° | 522.3 | 611.5 | 667.4 | 941.0 | 727.5 | 725.5 | 708.9 | 754.5 | 766.9 | 1183.5 | 769.0 |
| 80° | 292.3 | 321.3 | 350.3 | 458.1 | 364.8 | 431.1 | 445.6 | 545.1 | 505.7 | 592.8 | 321.3 |
| 82.5° | 143.0 | 180.3 | 196.9 | 281.9 | 234.2 | 172.0 | 85.0 | 178.3 | 300.5 | 321.3 | 149.2 |
| 85° | 2.1 | 4.1 | 10.4 | 22.8 | 6.2 | 6.2 | 0.0 | 6.2 | 31.1 | 39.4 | 51.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 |
| 2.5° | 1579.4 | 1562.8 | 1515.2 | 1473.7 | 1409.5 | 1382.5 | 1339.0 | 1328.6 | 1293.4 | 1258.2 | 1237.4 |
| 5° | 1550.4 | 1502.7 | 1405.3 | 1310.0 | 1222.9 | 1142.1 | 1082.0 | 1032.2 | 976.3 | 953.5 | 968.0 |
| 7.5° | 1434.3 | 1368.0 | 1227.1 | 1115.1 | 990.8 | 897.5 | 812.5 | 769.0 | 717.2 | 696.4 | 681.9 |
| 10° | 1339.0 | 1258.2 | 1096.5 | 949.3 | 831.2 | 758.6 | 706.8 | 644.6 | 584.5 | 536.8 | 530.6 |
| 12.5° | 1278.9 | 1191.8 | 1011.5 | 856.0 | 769.0 | 698.5 | 638.4 | 557.6 | 489.2 | 443.6 | 422.8 |
| 15° | 1276.8 | 1169.0 | 984.6 | 820.8 | 719.2 | 630.1 | 553.4 | 462.2 | 391.7 | 333.7 | 313.0 |
| 17.5° | 1351.4 | 1220.8 | 997.0 | 783.5 | 648.8 | 532.7 | 433.2 | 337.9 | 269.5 | 230.1 | 209.3 |
| 20° | 1482.0 | 1339.0 | 1019.8 | 746.2 | 580.4 | 433.2 | 304.7 | 230.1 | 184.5 | 165.8 | 157.5 |
| 22.5° | 1639.5 | 1469.6 | 1061.2 | 717.2 | 509.9 | 327.5 | 215.6 | 165.8 | 145.1 | 132.7 | 130.6 |
| 25° | 1830.2 | 1635.4 | 1119.3 | 696.4 | 445.6 | 252.9 | 167.9 | 136.8 | 124.4 | 116.1 | 111.9 |
| 27.5° | 1998.1 | 1795.0 | 1206.3 | 679.9 | 383.5 | 207.3 | 143.0 | 120.2 | 107.8 | 101.6 | 99.5 |
| 30° | 2122.5 | 1925.6 | 1305.8 | 642.6 | 333.7 | 180.3 | 134.7 | 114.0 | 99.5 | 91.2 | 89.1 |
| 32.5° | 2265.5 | 2025.1 | 1353.5 | 605.2 | 304.7 | 159.6 | 118.1 | 101.6 | 91.2 | 82.9 | 80.8 |
| 35° | 2423.0 | 2163.9 | 1401.2 | 576.2 | 286.0 | 143.0 | 107.8 | 89.1 | 76.7 | 68.4 | 66.3 |
| 37.5° | 2605.4 | 2317.3 | 1444.7 | 551.3 | 275.7 | 132.7 | 101.6 | 82.9 | 70.5 | 62.2 | 58.0 |
| 40° | 2808.6 | 2437.5 | 1473.7 | 534.8 | 261.2 | 126.4 | 97.4 | 78.8 | 66.3 | 56.0 | 53.9 |
| 42.5° | 2970.2 | 2576.4 | 1482.0 | 528.5 | 246.7 | 124.4 | 93.3 | 76.7 | 62.2 | 53.9 | 49.7 |
| 45° | 3086.3 | 2698.7 | 1511.0 | 522.3 | 236.3 | 116.1 | 91.2 | 74.6 | 58.0 | 49.7 | 45.6 |
| 47.5° | 3171.3 | 2829.3 | 1538.0 | 516.1 | 225.9 | 105.7 | 97.4 | 74.6 | 56.0 | 45.6 | 41.5 |
| 50° | 3328.8 | 2982.7 | 1589.8 | 499.5 | 211.4 | 95.3 | 97.4 | 72.5 | 53.9 | 43.5 | 39.4 |
| 52.5° | 3498.8 | 3181.7 | 1705.9 | 480.9 | 192.8 | 85.0 | 89.1 | 72.5 | 51.8 | 41.5 | 37.3 |
| 55° | 3660.5 | 3424.2 | 1813.6 | 456.0 | 161.7 | 76.7 | 82.9 | 72.5 | 47.7 | 39.4 | 35.2 |
| 57.5° | 3778.6 | 3585.8 | 1871.7 | 424.9 | 128.5 | 68.4 | 68.4 | 68.4 | 41.5 | 33.2 | 31.1 |
| 60° | 3834.6 | 3569.3 | 1844.7 | 385.5 | 103.6 | 60.1 | 56.0 | 70.5 | 37.3 | 29.0 | 26.9 |
| 62.5° | 3791.0 | 3397.2 | 1726.6 | 344.1 | 91.2 | 51.8 | 45.6 | 62.2 | 33.2 | 24.9 | 22.8 |
| 65° | 3656.3 | 3107.0 | 1529.7 | 310.9 | 89.1 | 43.5 | 37.3 | 37.3 | 26.9 | 20.7 | 18.7 |
| 67.5° | 3322.6 | 2725.7 | 1295.5 | 279.8 | 91.2 | 37.3 | 31.1 | 29.0 | 22.8 | 16.6 | 14.5 |
| 70° | 2763.0 | 2190.9 | 980.4 | 265.3 | 91.2 | 31.1 | 26.9 | 22.8 | 16.6 | 14.5 | 12.4 |
| 72.5° | 1755.6 | 1359.7 | 679.9 | 234.2 | 91.2 | 24.9 | 22.8 | 20.7 | 12.4 | 10.4 | 6.2 |
| 75° | 1040.5 | 827.0 | 319.2 | 180.3 | 76.7 | 20.7 | 16.6 | 12.4 | 6.2 | 4.1 | 4.1 |
| 77.5° | 611.5 | 530.6 | 138.9 | 99.5 | 33.2 | 12.4 | 8.3 | 4.1 | 2.1 | 0.0 | 0.0 |
| 80° | 250.8 | 217.6 | 51.8 | 29.0 | 14.5 | 6.2 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 147.2 | 153.4 | 18.7 | 12.4 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 45.6 | 70.5 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 |
| 2.5° | 1235.4 | 1214.6 | 1206.3 | 1193.9 | 1183.5 | 1171.1 | 1187.7 | 1202.2 | 1185.6 | 1204.3 | 1233.3 |
| 5° | 953.5 | 922.4 | 963.8 | 936.9 | 951.4 | 934.8 | 912.0 | 916.2 | 920.3 | 912.0 | 934.8 |
| 7.5° | 661.2 | 675.7 | 686.1 | 684.0 | 696.4 | 673.6 | 673.6 | 659.1 | 638.4 | 646.7 | 642.6 |
| 10° | 501.6 | 472.6 | 482.9 | 480.9 | 503.7 | 472.6 | 451.9 | 429.1 | 427.0 | 431.1 | 427.0 |
| 12.5° | 400.0 | 364.8 | 342.0 | 329.6 | 327.5 | 313.0 | 294.3 | 271.5 | 257.0 | 254.9 | 267.4 |
| 15° | 300.5 | 273.6 | 252.9 | 234.2 | 232.1 | 203.1 | 178.3 | 161.7 | 147.2 | 149.2 | 157.5 |
| 17.5° | 207.3 | 199.0 | 192.8 | 176.2 | 165.8 | 140.9 | 120.2 | 109.9 | 105.7 | 105.7 | 107.8 |
| 20° | 151.3 | 147.2 | 143.0 | 136.8 | 126.4 | 107.8 | 95.3 | 91.2 | 89.1 | 89.1 | 91.2 |
| 22.5° | 126.4 | 120.2 | 116.1 | 114.0 | 105.7 | 91.2 | 82.9 | 78.8 | 78.8 | 78.8 | 78.8 |
| 25° | 107.8 | 103.6 | 101.6 | 97.4 | 91.2 | 78.8 | 72.5 | 70.5 | 68.4 | 68.4 | 70.5 |
| 27.5° | 97.4 | 89.1 | 85.0 | 85.0 | 78.8 | 70.5 | 64.3 | 62.2 | 60.1 | 60.1 | 62.2 |
| 30° | 87.1 | 80.8 | 76.7 | 72.5 | 68.4 | 60.1 | 56.0 | 53.9 | 53.9 | 53.9 | 53.9 |
| 32.5° | 76.7 | 72.5 | 68.4 | 64.3 | 58.0 | 53.9 | 49.7 | 47.7 | 45.6 | 45.6 | 45.6 |
| 35° | 62.2 | 58.0 | 58.0 | 56.0 | 49.7 | 45.6 | 41.5 | 39.4 | 37.3 | 39.4 | 39.4 |
| 37.5° | 53.9 | 47.7 | 47.7 | 47.7 | 43.5 | 39.4 | 35.2 | 33.2 | 31.1 | 31.1 | 33.2 |
| 40° | 49.7 | 41.5 | 39.4 | 39.4 | 39.4 | 33.2 | 29.0 | 26.9 | 24.9 | 24.9 | 26.9 |
| 42.5° | 43.5 | 37.3 | 33.2 | 31.1 | 33.2 | 29.0 | 22.8 | 20.7 | 20.7 | 20.7 | 20.7 |
| 45° | 41.5 | 33.2 | 29.0 | 24.9 | 26.9 | 24.9 | 18.7 | 16.6 | 16.6 | 16.6 | 16.6 |
| 47.5° | 37.3 | 29.0 | 24.9 | 18.7 | 18.7 | 18.7 | 14.5 | 12.4 | 12.4 | 12.4 | 12.4 |
| 50° | 35.2 | 26.9 | 18.7 | 16.6 | 14.5 | 14.5 | 12.4 | 10.4 | 8.3 | 8.3 | 10.4 |
| 52.5° | 33.2 | 24.9 | 16.6 | 12.4 | 10.4 | 10.4 | 8.3 | 8.3 | 6.2 | 6.2 | 6.2 |
| 55° | 31.1 | 20.7 | 14.5 | 10.4 | 8.3 | 6.2 | 6.2 | 6.2 | 6.2 | 4.1 | 6.2 |
| 57.5° | 26.9 | 18.7 | 10.4 | 8.3 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 60° | 24.9 | 14.5 | 8.3 | 4.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 62.5° | 20.7 | 12.4 | 6.2 | 4.1 | 2.1 | 0.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 65° | 16.6 | 10.4 | 4.1 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 12.4 | 8.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 10.4 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 6.2 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P438945
 CATALOG NUMBER: IST-SA1F-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 | 1448.8 |
| 2.5° | 1231.2 | 1243.6 | 1289.2 | 1330.7 | 1376.3 | 1426.0 | 1467.5 | 1527.6 | 1546.3 | 1556.6 |
| 5° | 930.7 | 976.3 | 1032.2 | 1082.0 | 1171.1 | 1254.0 | 1351.4 | 1457.1 | 1500.7 | 1509.0 |
| 7.5° | 671.6 | 702.7 | 762.8 | 862.3 | 943.1 | 1067.5 | 1193.9 | 1334.8 | 1401.2 | 1401.2 |
| 10° | 462.2 | 514.0 | 590.7 | 684.0 | 791.8 | 901.6 | 1048.8 | 1208.4 | 1270.6 | 1285.1 |
| 12.5° | 294.3 | 352.4 | 456.0 | 557.6 | 681.9 | 789.7 | 936.9 | 1117.2 | 1187.7 | 1208.4 |
| 15° | 170.0 | 209.3 | 304.7 | 416.6 | 565.9 | 702.7 | 868.5 | 1088.2 | 1175.2 | 1196.0 |
| 17.5° | 114.0 | 128.5 | 180.3 | 277.7 | 443.6 | 626.0 | 847.8 | 1119.3 | 1225.0 | 1249.9 |
| 20° | 95.3 | 101.6 | 120.2 | 172.0 | 313.0 | 545.1 | 839.5 | 1187.7 | 1316.2 | 1359.7 |
| 22.5° | 82.9 | 89.1 | 101.6 | 126.4 | 223.9 | 460.1 | 833.2 | 1287.2 | 1461.3 | 1506.9 |
| 25° | 72.5 | 78.8 | 89.1 | 107.8 | 157.5 | 375.2 | 843.6 | 1428.1 | 1647.8 | 1701.7 |
| 27.5° | 64.3 | 70.5 | 80.8 | 93.3 | 126.4 | 290.2 | 845.7 | 1560.8 | 1821.9 | 1877.9 |
| 30° | 56.0 | 62.2 | 70.5 | 80.8 | 101.6 | 223.9 | 808.4 | 1695.5 | 1962.9 | 2027.1 |
| 32.5° | 49.7 | 53.9 | 62.2 | 70.5 | 85.0 | 174.1 | 731.7 | 1799.1 | 2079.0 | 2141.1 |
| 35° | 41.5 | 45.6 | 53.9 | 60.1 | 74.6 | 140.9 | 646.7 | 1894.5 | 2217.8 | 2294.5 |
| 37.5° | 35.2 | 39.4 | 45.6 | 53.9 | 66.3 | 109.9 | 561.7 | 1977.4 | 2352.6 | 2427.2 |
| 40° | 29.0 | 35.2 | 41.5 | 47.7 | 60.1 | 85.0 | 468.4 | 2066.5 | 2505.9 | 2584.7 |
| 42.5° | 24.9 | 29.0 | 35.2 | 43.5 | 51.8 | 68.4 | 385.5 | 2122.5 | 2636.5 | 2729.8 |
| 45° | 18.7 | 24.9 | 33.2 | 43.5 | 43.5 | 53.9 | 331.6 | 2163.9 | 2729.8 | 2845.9 |
| 47.5° | 14.5 | 20.7 | 29.0 | 41.5 | 39.4 | 45.6 | 304.7 | 2236.5 | 2858.3 | 2966.1 |
| 50° | 12.4 | 16.6 | 29.0 | 35.2 | 33.2 | 39.4 | 313.0 | 2300.7 | 2955.7 | 3049.0 |
| 52.5° | 10.4 | 14.5 | 24.9 | 26.9 | 29.0 | 35.2 | 329.6 | 2418.9 | 3078.0 | 3150.6 |
| 55° | 8.3 | 12.4 | 18.7 | 22.8 | 24.9 | 33.2 | 356.5 | 2566.1 | 3237.6 | 3330.9 |
| 57.5° | 6.2 | 10.4 | 14.5 | 18.7 | 22.8 | 31.1 | 375.2 | 2659.3 | 3386.9 | 3459.4 |
| 60° | 6.2 | 8.3 | 12.4 | 16.6 | 20.7 | 29.0 | 348.2 | 2549.5 | 3322.6 | 3401.4 |
| 62.5° | 4.1 | 8.3 | 10.4 | 14.5 | 16.6 | 22.8 | 257.0 | 2309.0 | 3129.8 | 3237.6 |
| 65° | 2.1 | 6.2 | 8.3 | 10.4 | 12.4 | 16.6 | 147.2 | 2018.9 | 2901.8 | 3030.3 |
| 67.5° | 0.0 | 4.1 | 6.2 | 8.3 | 8.3 | 12.4 | 68.4 | 1629.2 | 2526.7 | 2657.3 |
| 70° | 0.0 | 2.1 | 4.1 | 4.1 | 6.2 | 10.4 | 35.2 | 1150.4 | 1987.8 | 2163.9 |
| 72.5° | 2.1 | 2.1 | 4.1 | 4.1 | 4.1 | 8.3 | 22.8 | 696.4 | 1336.9 | 1523.5 |
| 75° | 2.1 | 2.1 | 2.1 | 2.1 | 4.1 | 6.2 | 14.5 | 447.7 | 841.5 | 1009.4 |
| 77.5° | 2.1 | 4.1 | 2.1 | 2.1 | 2.1 | 4.1 | 8.3 | 248.7 | 460.1 | 522.3 |
| 80° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 4.1 | 4.1 | 22.8 | 217.6 | 292.3 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 2.1 | 2.1 | 2.1 | 111.9 | 143.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 2.1 | 2.1 |
| 87.5° | 0.0 | 0.0 | 0.0 | 2.1 | 2.1 | 2.1 | 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 |

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



Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-157-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/03/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Invue
 Catalog Number: **EMM2-HTN-SA1A-827-U-5WQ**
 Description: Epic Modern Light Square 40W 5WQ Optic

Spectral Parameters

CCT (K): 2764
 CIE u': 0.2591
 CIE v': 0.5290
 Duv: 0.0020
 CIE x: 0.4581
 CIE y: 0.4156
 CIE z: 0.1263
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 583
 Purity: 62.2537
 Rf: 84.7
 Rg: 94.6

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 80.9 | | |
| R1: | 78.8 | R9: | -1.5 |
| R2: | 89.9 | R10: | 77.9 |
| R3: | 96.2 | R11: | 78.9 |
| R4: | 79.1 | R12: | 71.6 |
| R5: | 79.1 | R13: | 81.2 |
| R6: | 88.8 | R14: | 98.5 |
| R7: | 81.3 | R15: | 69.9 |
| R8: | 54.3 | | |



Test Conditions

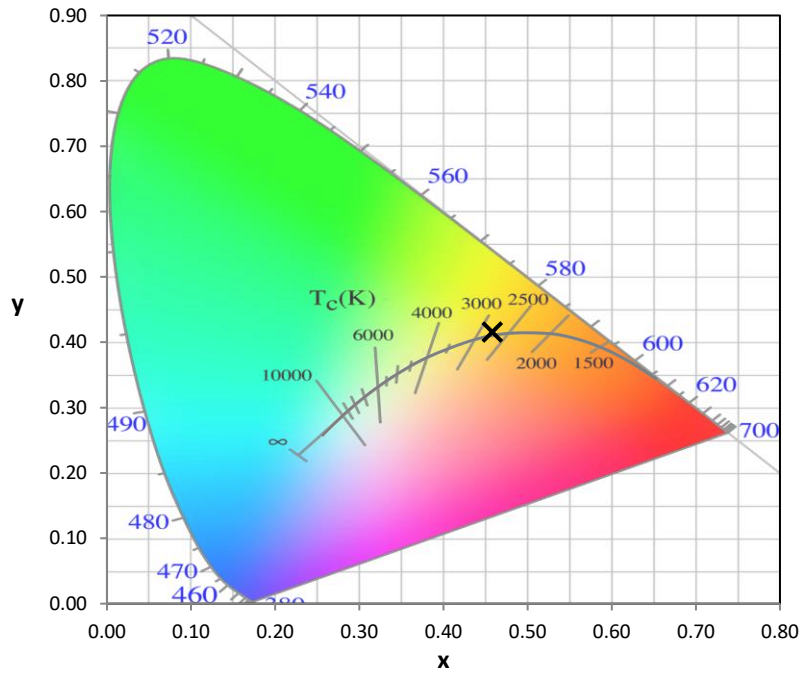
Stabilization Time: 81M
 Operation Time: 2H 21M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-157-9

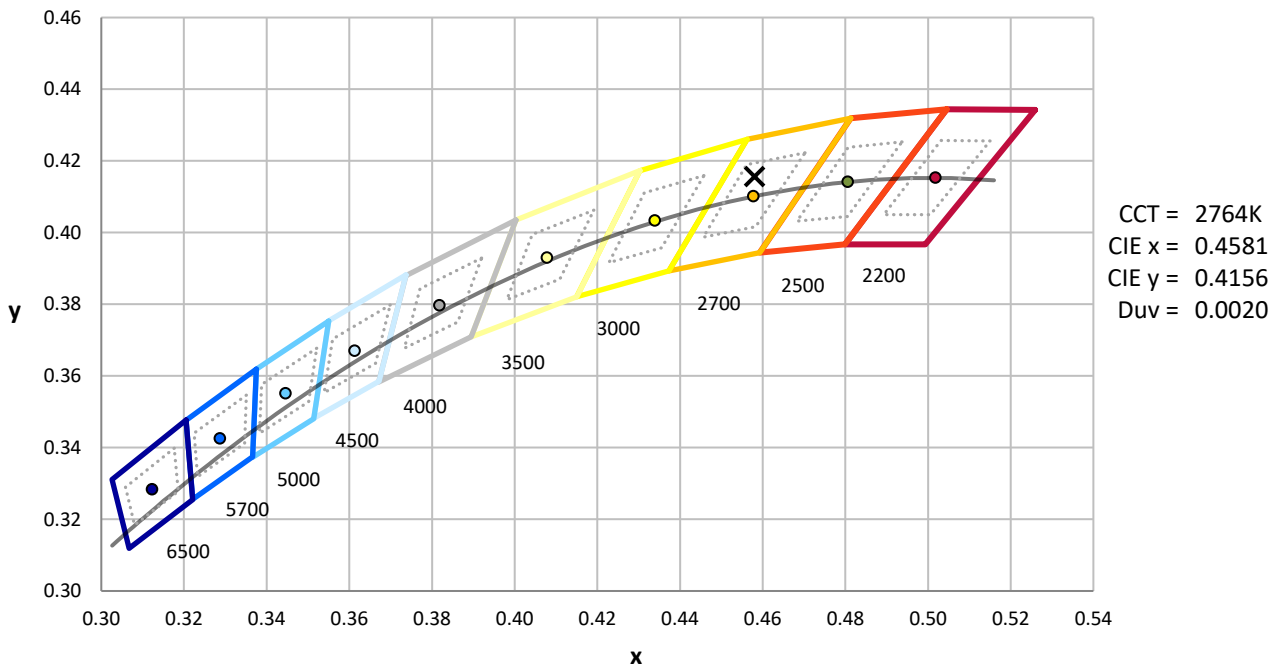
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

REPORT NUMBER: SP1-2407-157-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-9

Photopic Flux vs. Wavelength



Photopic Lumens: 4337.9

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360 | 0 | 0.0 | 490 | 18018 | 2.6 | 620 | 87426 | 22.8 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 3.9 | 625 | 83013 | 18.2 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 5.8 | 630 | 78077 | 14.1 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 8.5 | 635 | 72080 | 10.7 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 11.5 | 640 | 66249 | 7.9 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 15.2 | 645 | 59973 | 5.7 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 18.7 | 650 | 53972 | 3.9 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 21.9 | 655 | 48369 | 2.7 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 24.9 | 660 | 42641 | 1.8 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 27.6 | 665 | 37602 | 1.1 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.0 | 540 | 46032 | 30.0 | 670 | 32798 | 0.7 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.0 | 545 | 48553 | 32.5 | 675 | 28558 | 0.5 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 0.0 | 550 | 51408 | 34.9 | 680 | 24782 | 0.3 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 0.0 | 555 | 54711 | 37.4 | 685 | 21386 | 0.2 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 0.0 | 560 | 58847 | 40.0 | 690 | 18413 | 0.1 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 0.1 | 565 | 63386 | 42.4 | 695 | 15721 | 0.1 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 0.2 | 570 | 68196 | 44.3 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 0.6 | 575 | 73613 | 46.0 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 0.9 | 580 | 79207 | 47.1 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 0.9 | 585 | 84248 | 47.0 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 0.9 | 590 | 88397 | 45.7 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 1.0 | 595 | 91428 | 43.4 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 0.9 | 600 | 93452 | 40.3 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 1.0 | 605 | 93959 | 36.4 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 1.3 | 610 | 93079 | 32.0 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 1.8 | 615 | 90707 | 27.3 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

REPORT NUMBER: SP1-2407-157-9

Scotopic Flux vs. Wavelength



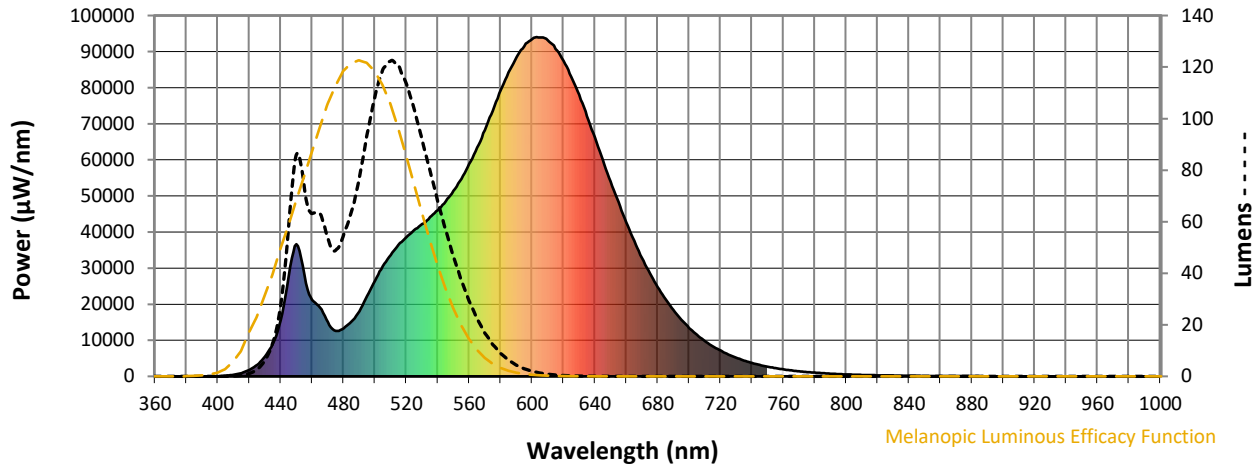
Scotopic Lumens: 5286.7

S/P: 1.22

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360 | 0 | 0.0 | 490 | 18018 | 75.9 | 620 | 87426 | 0.4 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 93.2 | 625 | 83013 | 0.2 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 107.8 | 630 | 78077 | 0.1 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 118.7 | 635 | 72080 | 0.1 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 122.2 | 640 | 66249 | 0.1 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 120.8 | 645 | 59973 | 0.0 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 113.9 | 650 | 53972 | 0.0 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 104.1 | 655 | 48369 | 0.0 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 92.4 | 660 | 42641 | 0.0 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 80.5 | 665 | 37602 | 0.0 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.1 | 540 | 46032 | 68.2 | 670 | 32798 | 0.0 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.3 | 545 | 48553 | 57.1 | 675 | 28558 | 0.0 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 1.1 | 550 | 51408 | 46.7 | 680 | 24782 | 0.0 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 2.5 | 555 | 54711 | 37.4 | 685 | 21386 | 0.0 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 5.9 | 560 | 58847 | 29.4 | 690 | 18413 | 0.0 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 12.5 | 565 | 63386 | 22.5 | 695 | 15721 | 0.0 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 26.3 | 570 | 68196 | 16.9 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 55.2 | 575 | 73613 | 12.4 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 85.4 | 580 | 79207 | 9.0 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 75.1 | 585 | 84248 | 6.3 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 63.2 | 590 | 88397 | 4.4 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 63.2 | 595 | 91428 | 3.0 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 54.2 | 600 | 93452 | 2.0 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 48.8 | 605 | 93959 | 1.3 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 54.2 | 610 | 93079 | 0.9 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 63.3 | 615 | 90707 | 0.5 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

REPORT NUMBER: SP1-2407-157-9

Melanopic Flux vs. Wavelength



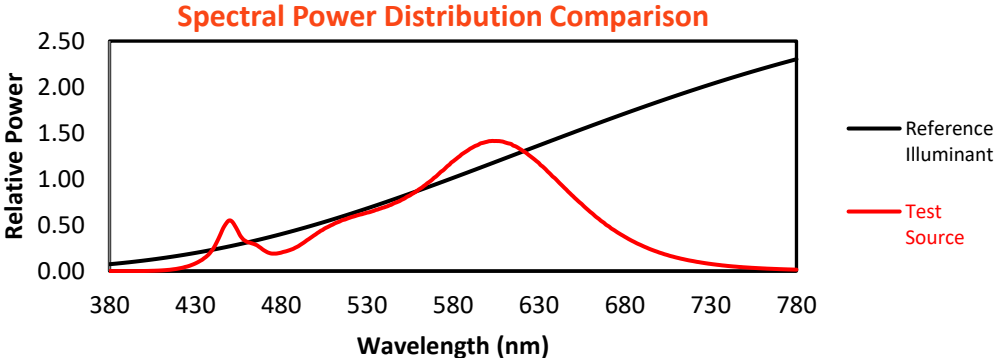
Melanopic Lumens: 9797

M/P: 2.26

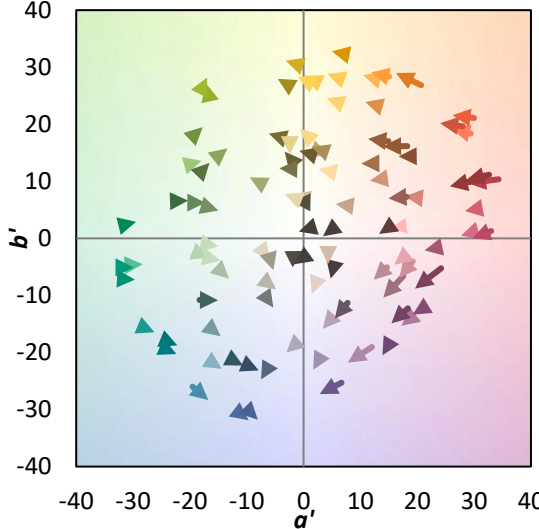
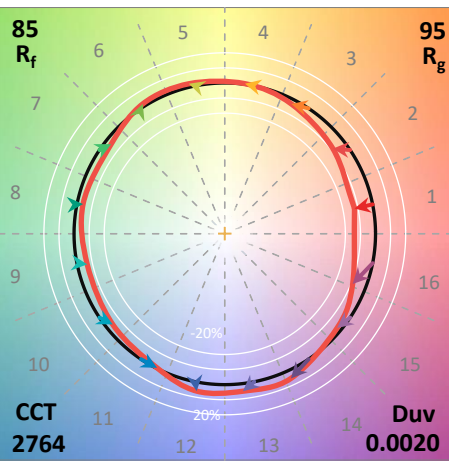
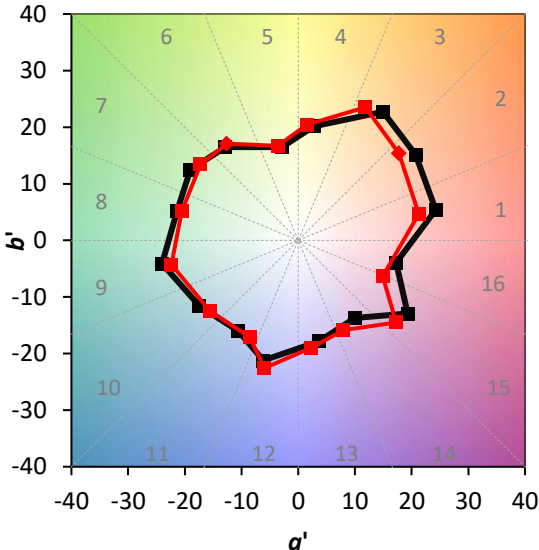
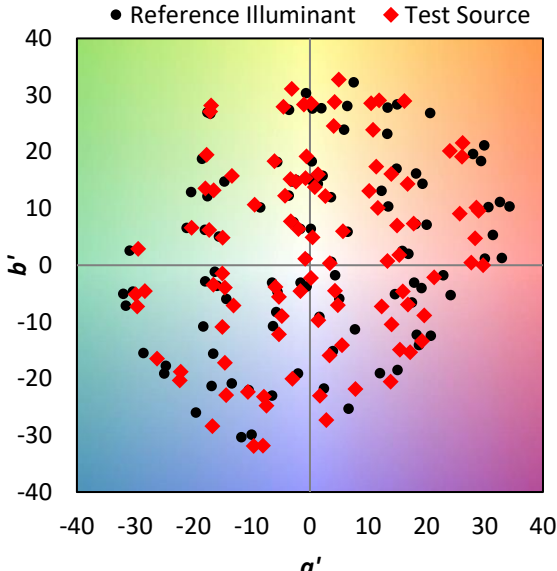
| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 0 | 0.0 | 490 | 18018 | 27.7 | 620 | 87426 | 1.1 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 36.0 | 625 | 83013 | 0.7 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 44.2 | 630 | 78077 | 0.4 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 51.8 | 635 | 72080 | 0.3 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 57.0 | 640 | 66249 | 0.2 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 60.5 | 645 | 59973 | 0.1 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 61.4 | 650 | 53972 | 0.1 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 60.6 | 655 | 48369 | 0.0 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 58.2 | 660 | 42641 | 0.0 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 55.0 | 665 | 37602 | 0.0 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.0 | 540 | 46032 | 50.9 | 670 | 32798 | 0.0 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.1 | 545 | 48553 | 46.6 | 675 | 28558 | 0.0 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 0.3 | 550 | 51408 | 42.0 | 680 | 24782 | 0.0 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 0.8 | 555 | 54711 | 37.4 | 685 | 21386 | 0.0 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 1.9 | 560 | 58847 | 32.9 | 690 | 18413 | 0.0 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 4.1 | 565 | 63386 | 28.4 | 695 | 15721 | 0.0 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 8.7 | 570 | 68196 | 24.1 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 18.5 | 575 | 73613 | 20.0 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 28.3 | 580 | 79207 | 16.3 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 24.7 | 585 | 84248 | 12.9 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 20.4 | 590 | 88397 | 9.8 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 20.1 | 595 | 91428 | 7.3 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 17.2 | 600 | 93452 | 5.3 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 15.7 | 605 | 93959 | 3.7 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 18.0 | 610 | 93079 | 2.5 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 21.9 | 615 | 90707 | 1.7 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

Summary

$R_f = 84.7$
 $R_g = 94.6$
 CIE $R_a = 80.9$
 $R_g = -1.5$

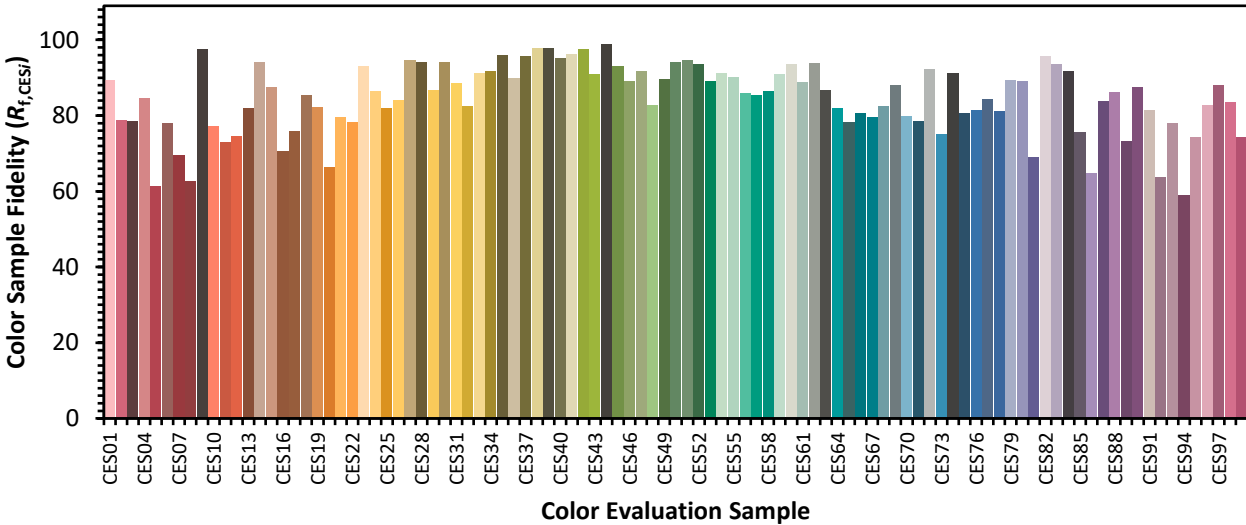


Color Vector Graphics

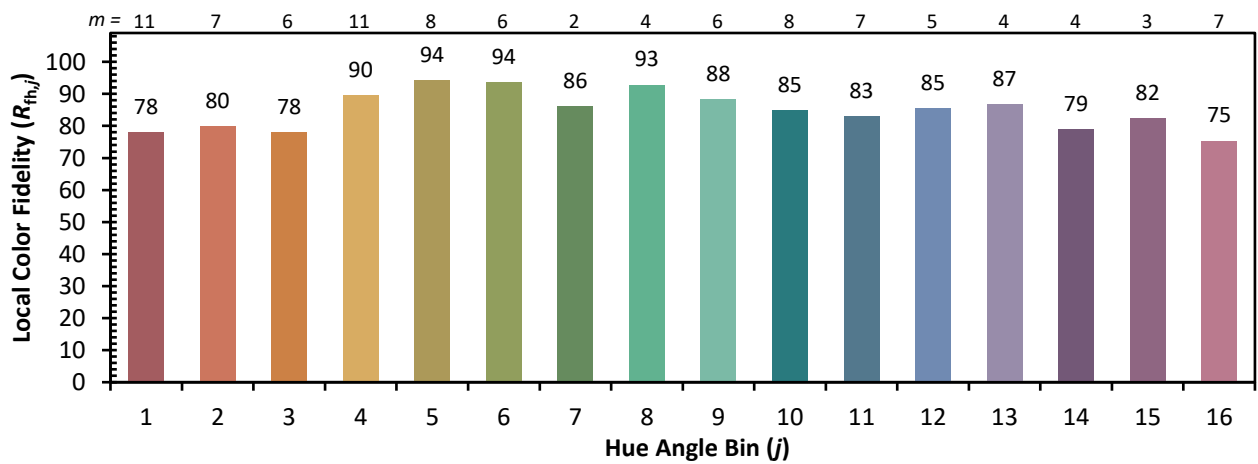
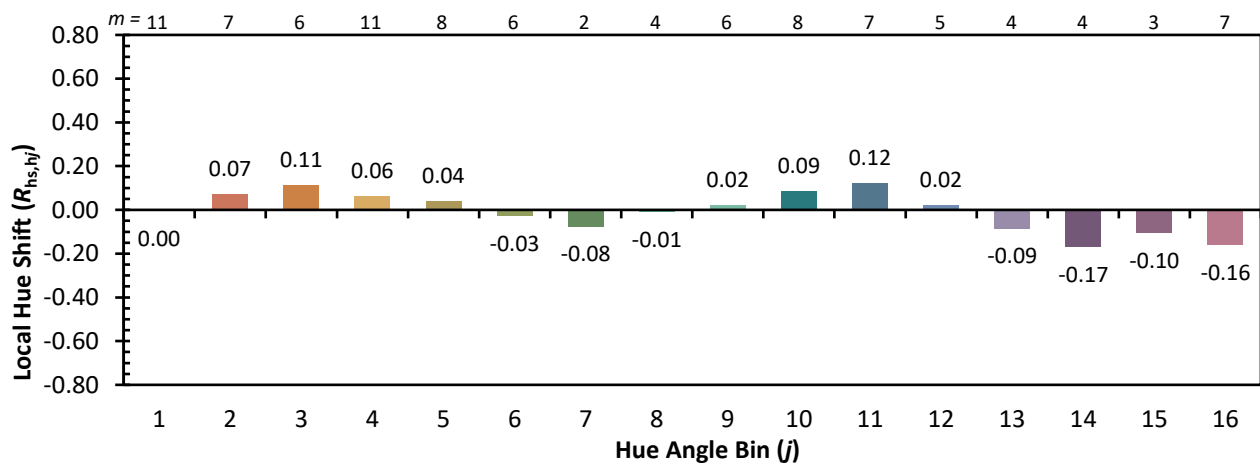
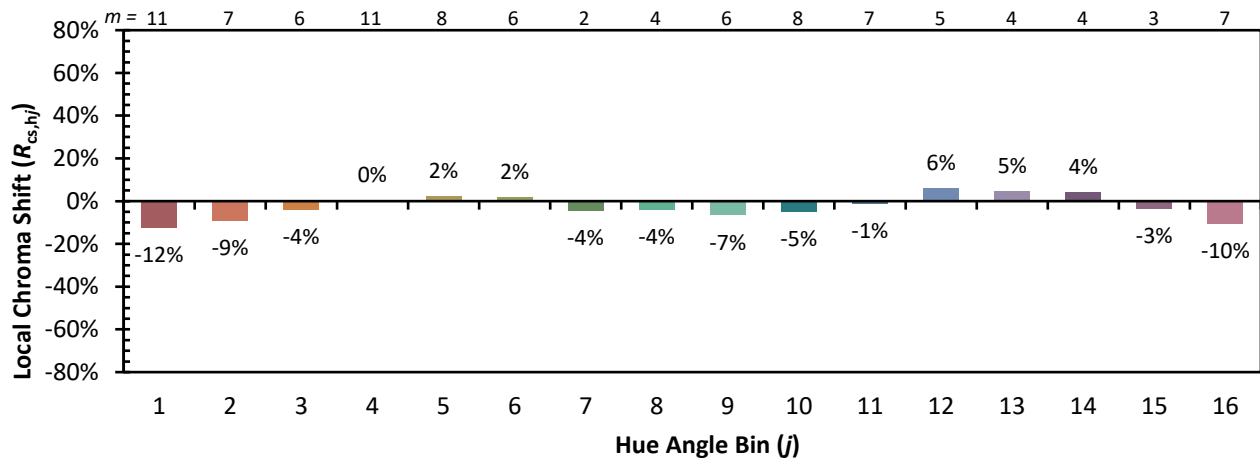


Individual Sample Fidelity Index ($R_{f,i}$)

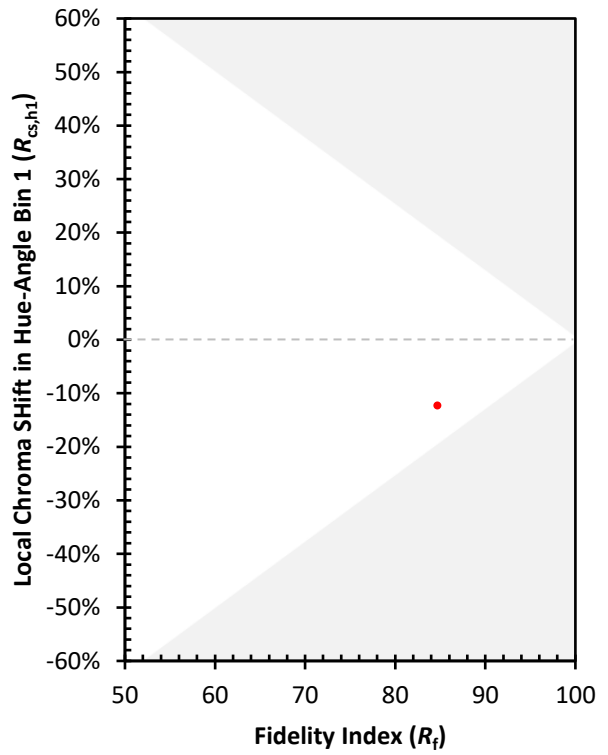
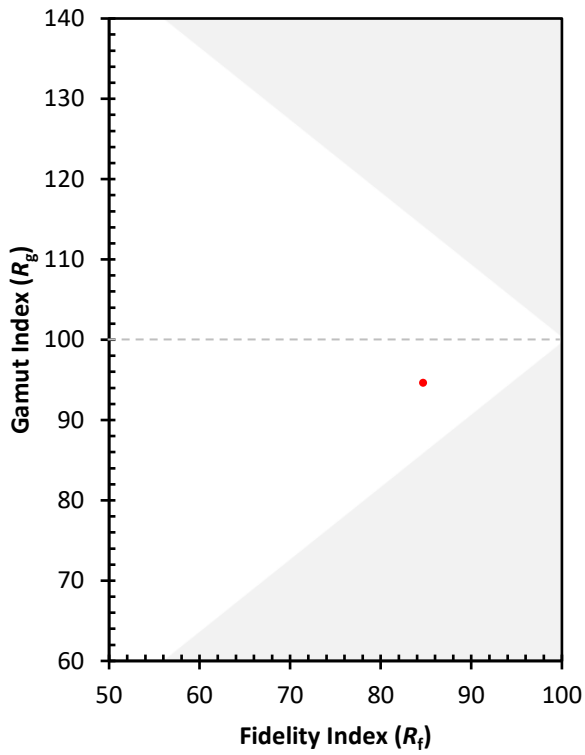
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 84 | CES51 = 95 | CES76 = 81 |
| CES02 = 63 | CES27 = 95 | CES52 = 94 | CES77 = 84 |
| CES03 = 31 | CES28 = 94 | CES53 = 89 | CES78 = 81 |
| CES04 = 71 | CES29 = 87 | CES54 = 91 | CES79 = 89 |
| CES05 = 50 | CES30 = 94 | CES55 = 90 | CES80 = 89 |
| CES06 = 52 | CES31 = 89 | CES56 = 86 | CES81 = 69 |
| CES07 = 43 | CES32 = 82 | CES57 = 85 | CES82 = 96 |
| CES08 = 41 | CES33 = 91 | CES58 = 86 | CES83 = 93 |
| CES09 = 29 | CES34 = 92 | CES59 = 91 | CES84 = 92 |
| CES10 = 77 | CES35 = 96 | CES60 = 94 | CES85 = 76 |
| CES11 = 60 | CES36 = 90 | CES61 = 89 | CES86 = 65 |
| CES12 = 66 | CES37 = 96 | CES62 = 94 | CES87 = 84 |
| CES13 = 44 | CES38 = 98 | CES63 = 87 | CES88 = 86 |
| CES14 = 74 | CES39 = 98 | CES64 = 82 | CES89 = 73 |
| CES15 = 72 | CES40 = 95 | CES65 = 78 | CES90 = 88 |
| CES16 = 48 | CES41 = 96 | CES66 = 81 | CES91 = 82 |
| CES17 = 50 | CES42 = 97 | CES67 = 80 | CES92 = 64 |
| CES18 = 57 | CES43 = 91 | CES68 = 83 | CES93 = 78 |
| CES19 = 73 | CES44 = 99 | CES69 = 88 | CES94 = 59 |
| CES20 = 67 | CES45 = 93 | CES70 = 80 | CES95 = 74 |
| CES21 = 87 | CES46 = 89 | CES71 = 79 | CES96 = 83 |
| CES22 = 79 | CES47 = 92 | CES72 = 92 | CES97 = 88 |
| CES23 = 92 | CES48 = 83 | CES73 = 75 | CES98 = 83 |
| CES24 = 91 | CES49 = 90 | CES74 = 91 | CES99 = 74 |
| CES25 = 72 | CES50 = 94 | CES75 = 81 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)