

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: P436874

Luminaire Tested: **TT-D5-740-U-RW-PM-HSS**

Issue Date: 12/2/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P436874  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-D5-740-U-RW-PM-HSS  
Description: TOPTIER LED SITE LUMINAIRE  
4000K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6012 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U2 - G3

Input Watts (W): 74.7  
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

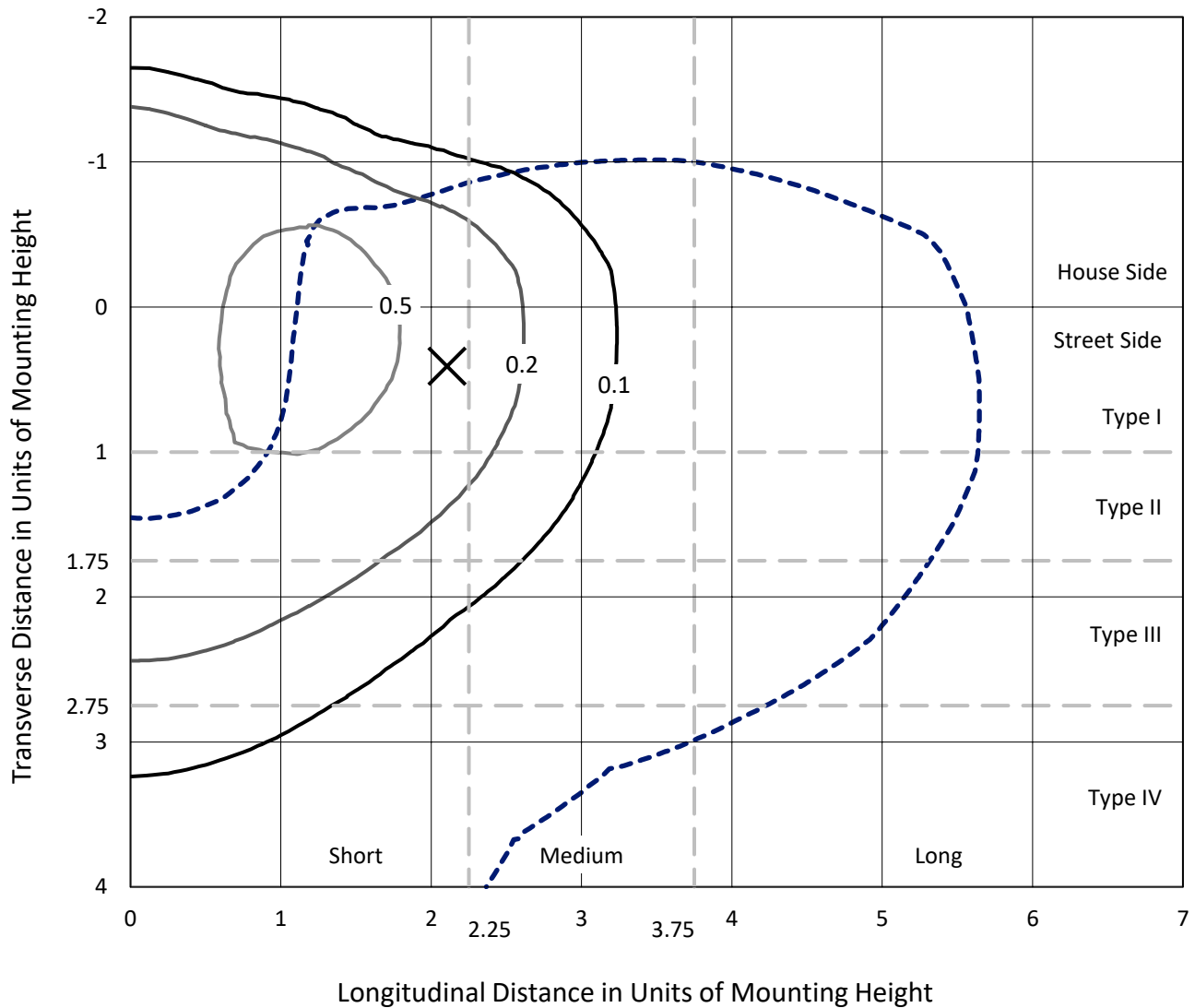


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

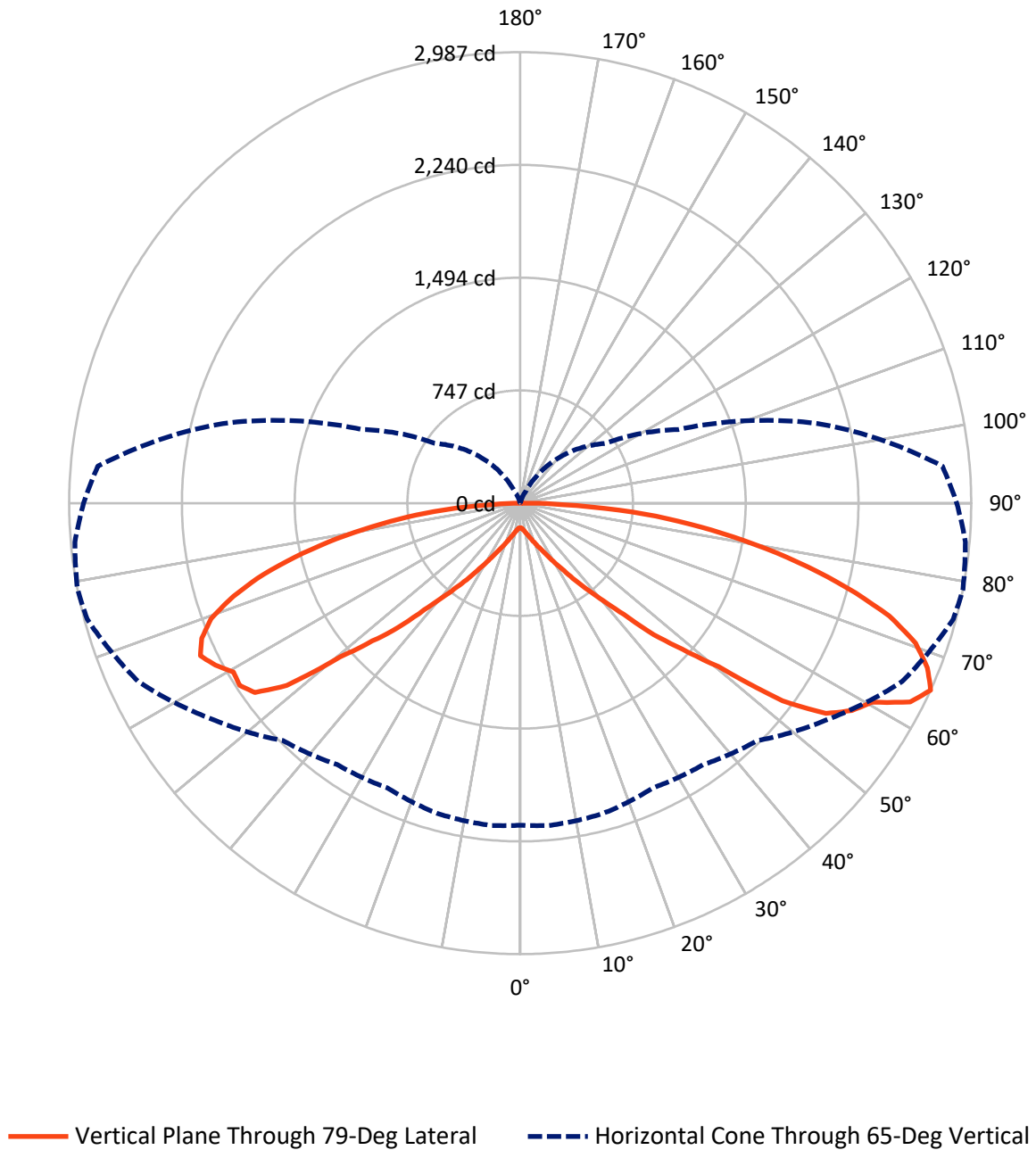


Based on 25 foot mounting height. Maximum calculated value = 0.8 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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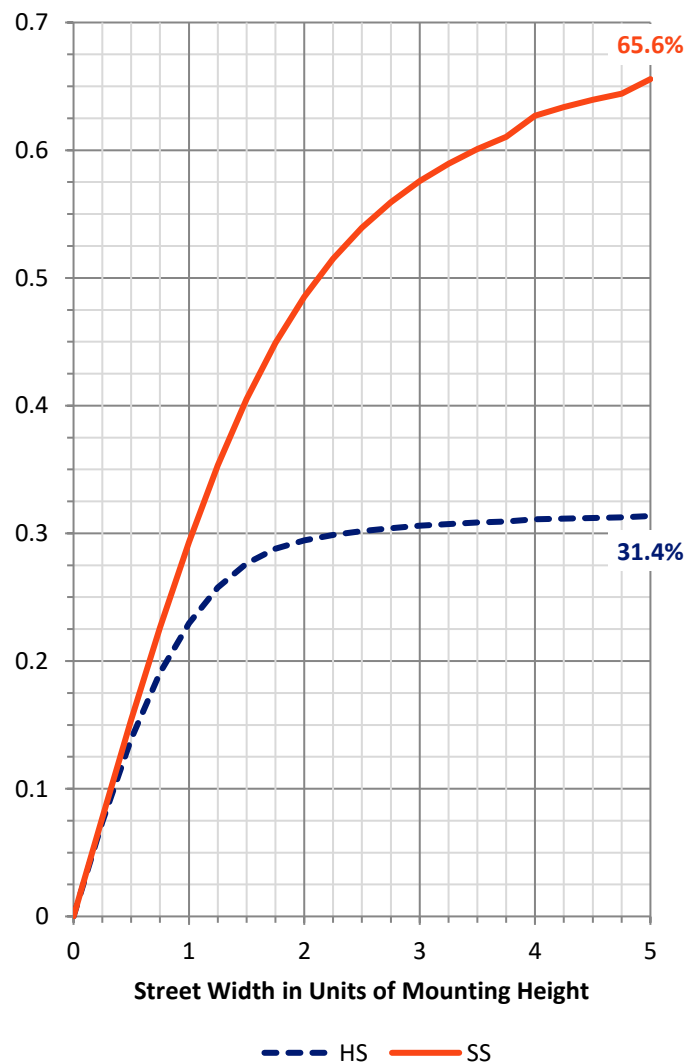
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1898.5   | 2.4    | 1900.9 |
|                    | % Fixture | 31.6     | 0.0    | 31.6   |
| <b>Street Side</b> | Lumens    | 4084.6   | 26.5   | 4111.1 |
|                    | % Fixture | 67.9     | 0.4    | 68.4   |
| <b>Total</b>       | Lumens    | 5983.1   | 28.9   | 6012.0 |
|                    | % Fixture | 99.5     | 0.5    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 17.1   | 0.3       |
| 10°-20°   | 64.8   | 1.1       |
| 20°-30°   | 149.4  | 2.5       |
| 30°-40°   | 320.0  | 5.3       |
| 40°-50°   | 685.4  | 11.4      |
| 50°-60°   | 1294.5 | 21.5      |
| 60°-70°   | 1608.8 | 26.8      |
| 70°-80°   | 1377.2 | 22.9      |
| 80°-90°   | 465.9  | 7.7       |
| 90°-100°  | 20.1   | 0.3       |
| 100°-110° | 5.8    | 0.1       |
| 110°-120° | 1.3    | 0.0       |
| 120°-130° | 0.7    | 0.0       |
| 130°-140° | 0.4    | 0.0       |
| 140°-150° | 0.3    | 0.0       |
| 150°-160° | 0.1    | 0.0       |
| 160°-170° | 0.1    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 5983.1 | 99.5      |
| 0°-180°   | 6012.0 | 100.0     |

**Coefficient of Utilization**



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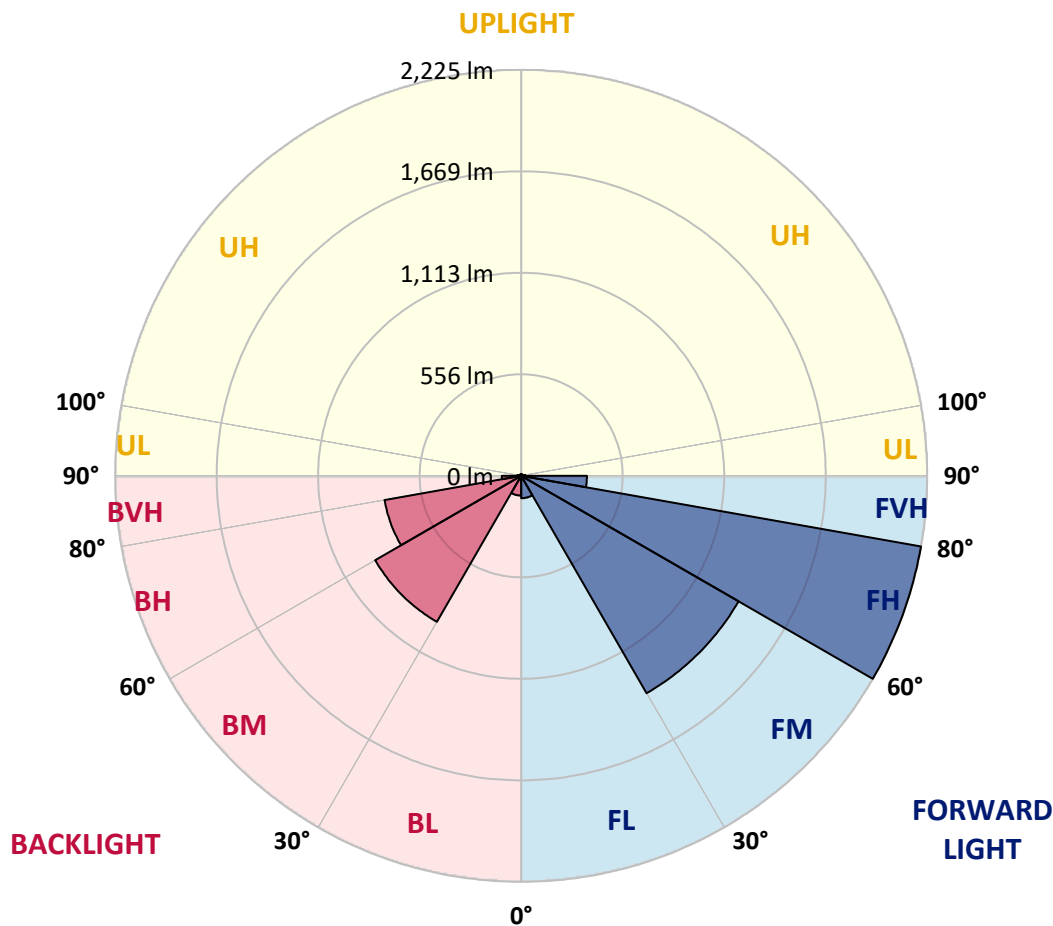
CATALOG NUMBER: TT-D5-740-U-RW-PM-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |       |         |
|------|-------------|--------|-----------|-------------------------|-------|---------|
|      |             |        |           | B                       | U     | G       |
| FL   | (0°-30°)    | 122.9  | 2.0       |                         |       |         |
| FM   | (30°-60°)   | 1375.8 | 22.9      |                         |       |         |
| FH   | (60°-80°)   | 2225.4 | 37.0      |                         |       | G2/5000 |
| FVH  | (80°-90°)   | 360.4  | 6.0       |                         |       | G3/500  |
| BL   | (0°-30°)    | 108.3  | 1.8       | B0/110                  |       |         |
| BM   | (30°-60°)   | 924.1  | 15.4      | B1/1000                 |       |         |
| BH   | (60°-80°)   | 760.6  | 12.7      | B2/1000                 |       | G2/1000 |
| BVH  | (80°-90°)   | 105.5  | 1.8       |                         |       | G2/225  |
| UL   | (90°-100°)  | 20.1   | 0.3       |                         | U2/50 |         |
| UH   | (100°-180°) | 8.8    | 0.1       |                         | U1/10 |         |

**BUG Rating: B2-U2-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 79°    | 85°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  |
| 2.5°   | 172.3  | 172.3  | 172.3  | 170.8  | 170.8  | 170.8  | 169.3  | 167.8  | 166.3  | 166.3  | 166.3  |
| 5°     | 181.3  | 181.3  | 181.3  | 181.3  | 179.8  | 178.3  | 176.8  | 175.3  | 173.8  | 173.8  | 172.3  |
| 7.5°   | 193.3  | 191.8  | 193.3  | 191.8  | 191.8  | 190.3  | 188.8  | 187.3  | 184.3  | 184.3  | 182.8  |
| 10°    | 205.2  | 205.2  | 205.2  | 205.2  | 205.2  | 203.7  | 202.2  | 200.7  | 199.2  | 197.7  | 196.2  |
| 12.5°  | 220.2  | 220.2  | 220.2  | 218.7  | 220.2  | 218.7  | 217.2  | 217.2  | 215.7  | 212.7  | 212.7  |
| 15°    | 235.2  | 235.2  | 235.2  | 235.2  | 236.7  | 236.7  | 236.7  | 235.2  | 235.2  | 233.7  | 232.2  |
| 17.5°  | 253.2  | 251.7  | 253.2  | 253.2  | 254.7  | 256.2  | 257.7  | 259.2  | 259.2  | 257.7  | 257.7  |
| 20°    | 272.7  | 271.2  | 272.7  | 272.7  | 275.6  | 278.6  | 283.1  | 286.1  | 287.6  | 284.6  | 284.6  |
| 22.5°  | 293.6  | 292.1  | 295.1  | 295.1  | 299.6  | 304.1  | 311.6  | 314.6  | 319.1  | 317.6  | 317.6  |
| 25°    | 319.1  | 317.6  | 319.1  | 320.6  | 326.6  | 334.1  | 343.1  | 350.6  | 355.0  | 355.0  | 356.5  |
| 27.5°  | 347.6  | 347.6  | 349.1  | 350.6  | 356.5  | 368.5  | 382.0  | 395.5  | 406.0  | 404.5  | 406.0  |
| 30°    | 386.5  | 386.5  | 389.5  | 391.0  | 398.5  | 412.0  | 429.9  | 447.9  | 462.9  | 462.9  | 465.9  |
| 32.5°  | 429.9  | 428.5  | 432.9  | 434.4  | 441.9  | 459.9  | 485.4  | 513.8  | 533.3  | 533.3  | 536.3  |
| 35°    | 482.4  | 480.9  | 485.4  | 485.4  | 494.4  | 519.8  | 552.8  | 591.7  | 624.7  | 626.2  | 630.7  |
| 37.5°  | 548.3  | 545.3  | 545.3  | 549.8  | 560.3  | 593.2  | 638.2  | 692.1  | 726.6  | 729.6  | 737.1  |
| 40°    | 626.2  | 624.7  | 627.7  | 626.2  | 639.7  | 680.1  | 737.1  | 800.0  | 840.4  | 847.9  | 856.9  |
| 42.5°  | 722.1  | 725.1  | 720.6  | 720.6  | 737.1  | 783.5  | 850.9  | 924.3  | 997.7  | 1006.7 | 1011.2 |
| 45°    | 838.9  | 844.9  | 838.9  | 837.4  | 852.4  | 906.3  | 999.2  | 1128.1 | 1213.4 | 1243.4 | 1252.4 |
| 47.5°  | 979.7  | 982.7  | 975.2  | 972.3  | 988.7  | 1057.6 | 1177.5 | 1321.3 | 1421.7 | 1444.1 | 1468.1 |
| 50°    | 1137.0 | 1132.5 | 1126.6 | 1122.1 | 1153.5 | 1238.9 | 1378.2 | 1526.5 | 1698.8 | 1701.8 | 1710.8 |
| 52.5°  | 1298.8 | 1285.4 | 1286.8 | 1285.4 | 1328.8 | 1421.7 | 1607.4 | 1859.1 | 2121.3 | 2175.2 | 2181.2 |
| 55°    | 1460.6 | 1444.1 | 1442.6 | 1457.6 | 1519.1 | 1652.4 | 1886.1 | 2212.7 | 2425.4 | 2458.3 | 2453.9 |
| 57.5°  | 1622.4 | 1614.9 | 1611.9 | 1625.4 | 1715.3 | 1874.1 | 2137.8 | 2413.4 | 2594.7 | 2591.7 | 2560.2 |
| 60°    | 1790.2 | 1796.2 | 1785.7 | 1811.2 | 1904.1 | 2062.9 | 2254.6 | 2522.8 | 2690.5 | 2677.1 | 2645.6 |
| 62.5°  | 1962.5 | 1977.5 | 1967.0 | 1970.0 | 2029.9 | 2146.7 | 2335.5 | 2647.1 | 2879.3 | 2898.8 | 2862.8 |
| 65°    | 2133.3 | 2143.8 | 2127.3 | 2080.8 | 2113.8 | 2223.1 | 2492.8 | 2792.4 | 2969.2 | 2987.2 | 2960.2 |
| 67.5°  | 2277.1 | 2287.6 | 2230.6 | 2157.2 | 2161.7 | 2241.1 | 2477.8 | 2764.0 | 2921.3 | 2909.3 | 2865.8 |
| 70°    | 2399.9 | 2380.4 | 2287.6 | 2161.7 | 2109.3 | 2146.7 | 2370.0 | 2623.1 | 2783.4 | 2777.4 | 2726.5 |
| 72.5°  | 2440.4 | 2414.9 | 2257.6 | 2062.9 | 1959.5 | 1973.0 | 2190.2 | 2416.4 | 2546.7 | 2557.2 | 2495.8 |
| 75°    | 2376.0 | 2332.5 | 2116.8 | 1872.6 | 1739.3 | 1748.3 | 1934.0 | 2142.3 | 2247.1 | 2235.1 | 2187.2 |
| 77.5°  | 2143.8 | 2100.3 | 1866.6 | 1605.9 | 1475.6 | 1489.1 | 1635.9 | 1799.2 | 1886.1 | 1881.6 | 1848.6 |
| 80°    | 1779.7 | 1740.8 | 1535.5 | 1292.8 | 1174.5 | 1182.0 | 1294.3 | 1423.2 | 1490.6 | 1505.6 | 1487.6 |
| 82.5°  | 1315.3 | 1288.3 | 1143.0 | 946.8  | 850.9  | 849.4  | 934.8  | 1033.7 | 1099.6 | 1131.0 | 1119.1 |
| 85°    | 813.5  | 800.0  | 719.1  | 591.7  | 524.3  | 522.8  | 573.8  | 647.2  | 707.1  | 749.0  | 722.1  |
| 87.5°  | 323.6  | 319.1  | 295.1  | 238.2  | 208.2  | 197.7  | 185.8  | 232.2  | 236.7  | 280.1  | 278.6  |
| 90°    | 79.4   | 77.9   | 76.4   | 71.9   | 64.4   | 55.4   | 44.9   | 33.0   | 21.0   | 16.5   | 9.0    |
| 92.5°  | 70.4   | 70.4   | 68.9   | 64.4   | 58.4   | 49.4   | 40.4   | 30.0   | 19.5   | 15.0   | 7.5    |
| 95°    | 56.9   | 56.9   | 55.4   | 52.4   | 46.4   | 40.4   | 31.5   | 24.0   | 15.0   | 12.0   | 6.0    |
| 97.5°  | 43.4   | 41.9   | 41.9   | 39.0   | 36.0   | 30.0   | 24.0   | 18.0   | 12.0   | 9.0    | 4.5    |
| 100°   | 31.5   | 31.5   | 30.0   | 28.5   | 25.5   | 22.5   | 18.0   | 13.5   | 7.5    | 6.0    | 3.0    |
| 102.5° | 22.5   | 21.0   | 21.0   | 21.0   | 18.0   | 15.0   | 12.0   | 9.0    | 6.0    | 4.5    | 1.5    |
| 105°   | 15.0   | 13.5   | 13.5   | 13.5   | 12.0   | 10.5   | 7.5    | 6.0    | 3.0    | 3.0    | 1.5    |
| 107.5° | 9.0    | 9.0    | 9.0    | 9.0    | 7.5    | 6.0    | 4.5    | 3.0    | 1.5    | 1.5    | 1.5    |
| 110°   | 4.5    | 4.5    | 4.5    | 6.0    | 4.5    | 4.5    | 3.0    | 1.5    | 1.5    | 1.5    | 1.5    |

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CATALOG NUMBER: TT-D5-740-U-RW-PM-HSS

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 112.5° | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 115°   | 1.5 | 1.5 | 1.5 | 3.0 | 3.0 | 1.5 | 1.5 | 0.0 | 0.0 | 1.5 | 1.5 |
| 117.5° | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 120°   | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 122.5° | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 125°   | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 127.5° | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 130°   | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 132.5° | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| 135°   | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145°   | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180°   | 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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**CANDELA DISTRIBUTION (continued):**

|        | 90°    | 95°    | 105°   | 115°   | 125°   | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 0°     | 163.3  | 163.3  | 163.3  | 163.3  | 163.3  | 163.3 | 163.3 | 163.3 | 163.3 | 163.3 | 163.3 |
| 2.5°   | 164.8  | 164.8  | 164.8  | 163.3  | 163.3  | 163.3 | 161.8 | 161.8 | 160.3 | 160.3 | 160.3 |
| 5°     | 170.8  | 170.8  | 169.3  | 169.3  | 167.8  | 166.3 | 166.3 | 164.8 | 164.8 | 163.3 | 163.3 |
| 7.5°   | 181.3  | 181.3  | 179.8  | 178.3  | 175.3  | 173.8 | 172.3 | 170.8 | 170.8 | 169.3 | 169.3 |
| 10°    | 194.8  | 194.8  | 191.8  | 188.8  | 185.8  | 182.8 | 181.3 | 178.3 | 176.8 | 176.8 | 176.8 |
| 12.5°  | 211.2  | 209.7  | 206.7  | 202.2  | 199.2  | 194.8 | 191.8 | 188.8 | 185.8 | 185.8 | 185.8 |
| 15°    | 230.7  | 230.7  | 224.7  | 220.2  | 214.2  | 208.2 | 203.7 | 199.2 | 196.2 | 194.8 | 194.8 |
| 17.5°  | 254.7  | 254.7  | 247.2  | 239.7  | 232.2  | 224.7 | 218.7 | 212.7 | 209.7 | 208.2 | 208.2 |
| 20°    | 281.6  | 281.6  | 274.1  | 265.2  | 254.7  | 244.2 | 235.2 | 227.7 | 223.2 | 221.7 | 221.7 |
| 22.5°  | 314.6  | 314.6  | 304.1  | 292.1  | 278.6  | 263.7 | 251.7 | 242.7 | 238.2 | 235.2 | 235.2 |
| 25°    | 352.0  | 349.1  | 338.6  | 323.6  | 304.1  | 286.1 | 269.7 | 260.7 | 254.7 | 250.2 | 251.7 |
| 27.5°  | 403.0  | 398.5  | 385.0  | 359.5  | 335.6  | 311.6 | 292.1 | 280.1 | 272.7 | 269.7 | 271.2 |
| 30°    | 461.4  | 456.9  | 437.4  | 409.0  | 373.0  | 341.6 | 317.6 | 304.1 | 296.6 | 292.1 | 293.6 |
| 32.5°  | 531.8  | 525.8  | 501.9  | 462.9  | 421.0  | 376.0 | 346.1 | 329.6 | 322.1 | 317.6 | 316.1 |
| 35°    | 624.7  | 617.2  | 587.2  | 533.3  | 474.9  | 421.0 | 379.0 | 358.0 | 350.6 | 346.1 | 347.6 |
| 37.5°  | 729.6  | 719.1  | 678.6  | 612.7  | 539.3  | 470.4 | 422.5 | 395.5 | 386.5 | 379.0 | 379.0 |
| 40°    | 849.4  | 837.4  | 785.0  | 698.1  | 609.7  | 524.3 | 462.9 | 432.9 | 422.5 | 422.5 | 422.5 |
| 42.5°  | 999.2  | 987.2  | 927.3  | 800.0  | 683.1  | 582.8 | 509.3 | 474.9 | 464.4 | 467.4 | 467.4 |
| 45°    | 1231.4 | 1214.9 | 1119.1 | 951.3  | 779.0  | 642.7 | 557.3 | 518.3 | 510.8 | 518.3 | 518.3 |
| 47.5°  | 1444.1 | 1423.2 | 1282.4 | 1092.1 | 873.4  | 702.6 | 605.2 | 560.3 | 557.3 | 573.8 | 573.8 |
| 50°    | 1682.3 | 1655.4 | 1507.1 | 1206.0 | 949.8  | 768.5 | 648.7 | 594.7 | 596.2 | 620.2 | 627.7 |
| 52.5°  | 2143.8 | 2115.3 | 1859.1 | 1412.7 | 1032.2 | 792.5 | 666.6 | 602.2 | 602.2 | 629.2 | 639.7 |
| 55°    | 2417.9 | 2359.5 | 2025.4 | 1547.5 | 1066.6 | 820.9 | 659.2 | 572.3 | 569.3 | 599.2 | 608.2 |
| 57.5°  | 2507.8 | 2447.9 | 2059.9 | 1508.6 | 1044.2 | 785.0 | 615.7 | 491.4 | 485.4 | 524.3 | 521.3 |
| 60°    | 2581.2 | 2501.8 | 2004.4 | 1378.2 | 916.8  | 708.6 | 531.8 | 365.5 | 340.1 | 374.5 | 373.0 |
| 62.5°  | 2787.9 | 2702.5 | 2007.4 | 1225.4 | 767.0  | 591.7 | 400.0 | 205.2 | 152.8 | 179.8 | 167.8 |
| 65°    | 2891.3 | 2807.4 | 2038.9 | 1153.5 | 690.6  | 489.9 | 286.1 | 83.9  | 6.0   | 6.0   | 3.0   |
| 67.5°  | 2802.9 | 2728.0 | 1998.4 | 1135.5 | 680.1  | 486.9 | 290.6 | 82.4  | 0.0   | 0.0   | 0.0   |
| 70°    | 2674.1 | 2602.2 | 1905.6 | 1072.6 | 645.7  | 468.9 | 284.6 | 82.4  | 0.0   | 0.0   | 0.0   |
| 72.5°  | 2447.9 | 2374.5 | 1745.3 | 982.7  | 593.2  | 429.9 | 263.7 | 77.9  | 0.0   | 0.0   | 0.0   |
| 75°    | 2149.7 | 2094.3 | 1541.5 | 865.9  | 522.8  | 379.0 | 233.7 | 68.9  | 0.0   | 0.0   | 0.0   |
| 77.5°  | 1820.2 | 1754.3 | 1292.8 | 720.6  | 437.4  | 314.6 | 197.7 | 56.9  | 0.0   | 0.0   | 0.0   |
| 80°    | 1460.6 | 1412.7 | 1018.7 | 564.8  | 338.6  | 245.7 | 154.3 | 43.4  | 0.0   | 0.0   | 0.0   |
| 82.5°  | 1086.1 | 1045.7 | 753.5  | 404.5  | 241.2  | 170.8 | 106.4 | 28.5  | 0.0   | 0.0   | 0.0   |
| 85°    | 713.1  | 702.6  | 483.9  | 245.7  | 143.8  | 94.4  | 56.9  | 13.5  | 0.0   | 0.0   | 0.0   |
| 87.5°  | 257.7  | 266.7  | 176.8  | 70.4   | 39.0   | 16.5  | 7.5   | 1.5   | 0.0   | 0.0   | 0.0   |
| 90°    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 92.5°  | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 95°    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 97.5°  | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 100°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 102.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 105°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 107.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 110°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

REPORT NUMBER: P436874

CATALOG NUMBER: TT-D5-740-U-RW-PM-HSS

**CANDELA DISTRIBUTION (continued):**

|        | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|--------|-----|-----|------|------|------|------|------|------|------|------|------|
| 112.5° | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 115°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 117.5° | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 120°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 122.5° | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 125°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 127.5° | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 130°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 132.5° | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 135°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137.5° | 0.0 | 1.5 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140°   | 0.0 | 1.5 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145°   | 1.5 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147.5° | 0.0 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150°   | 0.0 | 1.5 | 1.5  | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155°   | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160°   | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0 | 0.0 | 1.5  | 1.5  | 1.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

McGRAW-EDISON

Report Number: SP1-2006-844-6

Luminaire Tested: TT-D2-740-U-RW

Test Date: 06/30/2020

Data applicable to product families TT-x-740 and TTN-x-740

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2006-844-6  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 06/30/2020  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: MCGRAW-EDISON  
 Catalog Number: **TT-D2-740-U-RW**  
 Description: MCGRAW EDISON

### RECTANGULAR DISTRIBUTION

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 3623   | CRI (Ra): | 72.6 |      |       |
| CIE u':                   | 0.2297 | R1:       | 69.4 | R9:  | -22.4 |
| CIE v':                   | 0.5166 | R2:       | 78.4 | R10: | 49.0  |
| Duv:                      | 0.0060 | R3:       | 86.1 | R11: | 67.4  |
| CIE x:                    | 0.4044 | R4:       | 72.3 | R12: | 39.3  |
| CIE y:                    | 0.4042 | R5:       | 68.2 | R13: | 70.5  |
| CIE z:                    | 0.1914 | R6:       | 69.2 | R14: | 91.9  |
| Peak Wavelength (nm):     | 588    | R7:       | 83.0 |      |       |
| Dominant Wavelength (nm): | 578    | R8:       | 54.2 |      |       |
| Purity:                   | 42.8   |           |      |      |       |
| Rf:                       | 76.2   |           |      |      |       |
| Rg:                       | 94.3   |           |      |      |       |



### Test Conditions

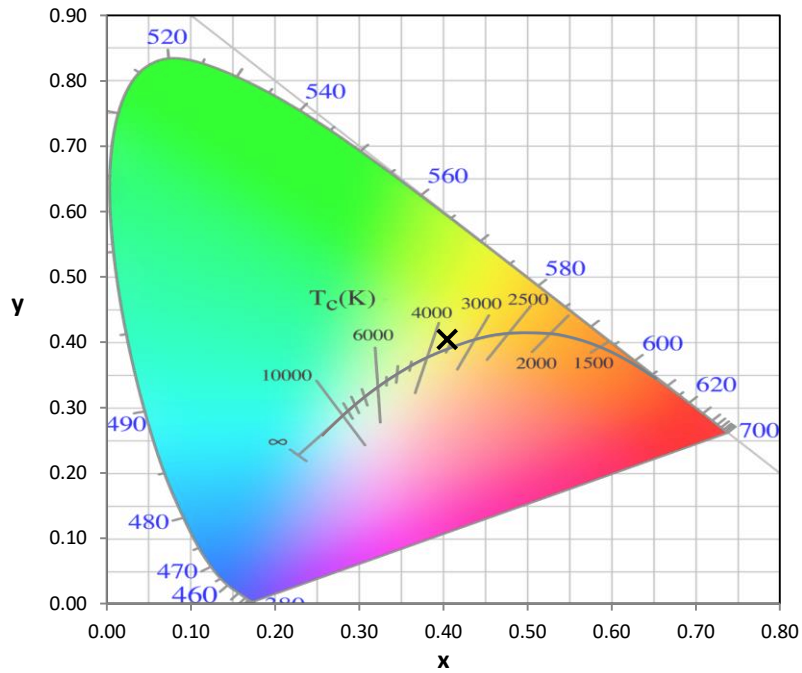
Stabilization Time: 207M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.9/42%  
 Sphere Temperature (°C): 25.8

REPORT NUMBER: SP1-2006-844-6

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 7/29/2020        | 1/29/2021            |
| Power Meter                    | IN0071                | 12/3/2019        | 12/3/2020            |
| AC Power Source                | IN0063                | 12/3/2019        | 12/3/2020            |
| DC Power Source                | IN0208                | 12/3/2019        | 12/3/2020            |
| Sphere Thermometer             | IN0085                | 12/3/2019        | 12/3/2020            |
| Room Thermometer               | IN0046                | 12/3/2019        | 12/3/2020            |

REPORT NUMBER: SP1-2006-844-6

**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2006-844-6

### Photopic Flux vs. Wavelength



#####

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 1254             | 0.0              | 490       | 9219             | 1.3              | 620       | 54761            | 14.3             | 750       | 2901             | 0.0              | 880       | 1835             | 0.0              |
| 365       | 1158             | 0.0              | 495       | 12322            | 2.2              | 625       | 51064            | 11.3             | 755       | 2733             | 0.0              | 885       | 1690             | 0.0              |
| 370       | 1131             | 0.0              | 500       | 17160            | 3.8              | 630       | 47879            | 8.7              | 760       | 2503             | 0.0              | 890       | 1819             | 0.0              |
| 375       | 1414             | 0.0              | 505       | 23071            | 6.5              | 635       | 44248            | 6.6              | 765       | 2289             | 0.0              | 895       | 1314             | 0.0              |
| 380       | 1275             | 0.0              | 510       | 29162            | 10.0             | 640       | 41034            | 4.9              | 770       | 2078             | 0.0              | 900       | 1547             | 0.0              |
| 385       | 1122             | 0.0              | 515       | 34992            | 14.5             | 645       | 37515            | 3.6              | 775       | 1927             | 0.0              | 905       | 1281             | 0.0              |
| 390       | 1074             | 0.0              | 520       | 40102            | 19.4             | 650       | 33900            | 2.5              | 780       | 1724             | 0.0              | 910       | 1345             | 0.0              |
| 395       | 1058             | 0.0              | 525       | 44194            | 23.7             | 655       | 30384            | 1.7              | 785       | 1617             | 0.0              | 915       | 1561             | 0.0              |
| 400       | 885              | 0.0              | 530       | 48014            | 28.3             | 660       | 26883            | 1.1              | 790       | 1709             | 0.0              | 920       | 1368             | 0.0              |
| 405       | 912              | 0.0              | 535       | 51019            | 31.6             | 665       | 23703            | 0.8              | 795       | 1561             | 0.0              | 925       | 1730             | 0.0              |
| 410       | 1108             | 0.0              | 540       | 53190            | 34.7             | 670       | 20603            | 0.5              | 800       | 1525             | 0.0              | 930       | 1629             | 0.0              |
| 415       | 1763             | 0.0              | 545       | 55452            | 36.9             | 675       | 18039            | 0.3              | 805       | 1332             | 0.0              | 935       | 1796             | 0.0              |
| 420       | 3421             | 0.0              | 550       | 57280            | 38.9             | 680       | 15849            | 0.2              | 810       | 1269             | 0.0              | 940       | 1595             | 0.0              |
| 425       | 6610             | 0.0              | 555       | 59041            | 40.3             | 685       | 13806            | 0.1              | 815       | 1261             | 0.0              | 945       | 1410             | 0.0              |
| 430       | 12444            | 0.1              | 560       | 60976            | 41.4             | 690       | 12093            | 0.1              | 820       | 1551             | 0.0              | 950       | 1937             | 0.0              |
| 435       | 21116            | 0.2              | 565       | 62904            | 41.8             | 695       | 10566            | 0.0              | 825       | 1708             | 0.0              | 955       | 2186             | 0.0              |
| 440       | 33463            | 0.5              | 570       | 64555            | 42.0             | 700       | 9300             | 0.0              | 830       | 1592             | 0.0              | 960       | 1583             | 0.0              |
| 445       | 49089            | 1.0              | 575       | 65785            | 40.9             | 705       | 8110             | 0.0              | 835       | 1642             | 0.0              | 965       | 1953             | 0.0              |
| 450       | 57374            | 1.5              | 580       | 66948            | 39.8             | 710       | 7052             | 0.0              | 840       | 1514             | 0.0              | 970       | 1519             | 0.0              |
| 455       | 42663            | 1.4              | 585       | 67963            | 37.8             | 715       | 6233             | 0.0              | 845       | 1376             | 0.0              | 975       | 1168             | 0.0              |
| 460       | 25334            | 1.0              | 590       | 68001            | 35.2             | 720       | 5362             | 0.0              | 850       | 1592             | 0.0              | 980       | 1593             | 0.0              |
| 465       | 17751            | 0.9              | 595       | 67308            | 31.9             | 725       | 4563             | 0.0              | 855       | 1667             | 0.0              | 985       | 1722             | 0.0              |
| 470       | 12447            | 0.8              | 600       | 66343            | 28.6             | 730       | 3976             | 0.0              | 860       | 1662             | 0.0              | 990       | 1648             | 0.0              |
| 475       | 8641             | 0.7              | 605       | 64393            | 24.9             | 735       | 3424             | 0.0              | 865       | 1916             | 0.0              | 995       | 2495             | 0.0              |
| 480       | 7423             | 0.7              | 610       | 61634            | 21.2             | 740       | 3222             | 0.0              | 870       | 1655             | 0.0              | 1000      | 2643             | 0.0              |
| 485       | 7759             | 0.9              | 615       | 58349            | 17.6             | 745       | 3060             | 0.0              | 875       | 2036             | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2006-844-6

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 1941.7

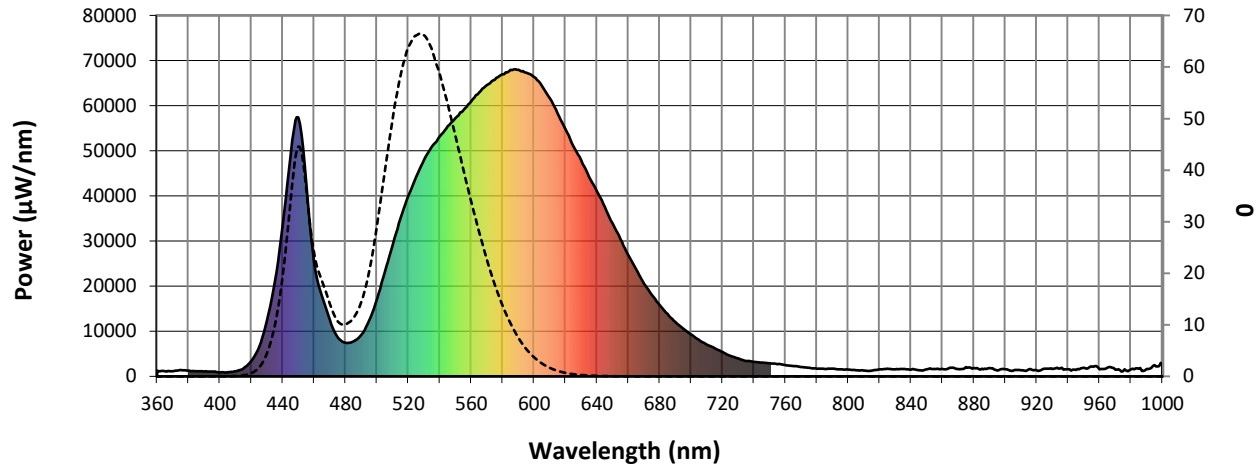
S/P: 0.51

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 1254             | 0.0              | 490       | 9219             | 14.2             | 620       | 54761            | 0.7              | 750       | 2901             | 0.0              | 880       | 1835             | 0.0              |
| 365       | 1158             | 0.0              | 495       | 12322            | 19.9             | 625       | 51064            | 0.4              | 755       | 2733             | 0.0              | 885       | 1690             | 0.0              |
| 370       | 1131             | 0.0              | 500       | 17160            | 28.7             | 630       | 47879            | 0.3              | 760       | 2503             | 0.0              | 890       | 1819             | 0.0              |
| 375       | 1414             | 0.0              | 505       | 23071            | 39.2             | 635       | 44248            | 0.2              | 765       | 2289             | 0.0              | 895       | 1314             | 0.0              |
| 380       | 1275             | 0.0              | 510       | 29162            | 49.4             | 640       | 41034            | 0.1              | 770       | 2078             | 0.0              | 900       | 1547             | 0.0              |
| 385       | 1122             | 0.0              | 515       | 34992            | 58.0             | 645       | 37515            | 0.1              | 775       | 1927             | 0.0              | 905       | 1281             | 0.0              |
| 390       | 1074             | 0.0              | 520       | 40102            | 63.7             | 650       | 33900            | 0.0              | 780       | 1724             | 0.0              | 910       | 1345             | 0.0              |
| 395       | 1058             | 0.0              | 525       | 44194            | 66.1             | 655       | 30384            | 0.0              | 785       | 1617             | 0.0              | 915       | 1561             | 0.0              |
| 400       | 885              | 0.0              | 530       | 48014            | 66.2             | 660       | 26883            | 0.0              | 790       | 1709             | 0.0              | 920       | 1368             | 0.0              |
| 405       | 912              | 0.0              | 535       | 51019            | 63.6             | 665       | 23703            | 0.0              | 795       | 1561             | 0.0              | 925       | 1730             | 0.0              |
| 410       | 1108             | 0.1              | 540       | 53190            | 58.8             | 670       | 20603            | 0.0              | 800       | 1525             | 0.0              | 930       | 1629             | 0.0              |
| 415       | 1763             | 0.2              | 545       | 55452            | 53.2             | 675       | 18039            | 0.0              | 805       | 1332             | 0.0              | 935       | 1796             | 0.0              |
| 420       | 3421             | 0.6              | 550       | 57280            | 46.8             | 680       | 15849            | 0.0              | 810       | 1269             | 0.0              | 940       | 1595             | 0.0              |
| 425       | 6610             | 1.6              | 555       | 59041            | 40.3             | 685       | 13806            | 0.0              | 815       | 1261             | 0.0              | 945       | 1410             | 0.0              |
| 430       | 12444            | 4.2              | 560       | 60976            | 34.1             | 690       | 12093            | 0.0              | 820       | 1551             | 0.0              | 950       | 1937             | 0.0              |
| 435       | 21116            | 9.4              | 565       | 62904            | 28.2             | 695       | 10566            | 0.0              | 825       | 1708             | 0.0              | 955       | 2186             | 0.0              |
| 440       | 33463            | 18.7             | 570       | 64555            | 22.8             | 700       | 9300             | 0.0              | 830       | 1592             | 0.0              | 960       | 1583             | 0.0              |
| 445       | 49089            | 32.9             | 575       | 65785            | 17.9             | 705       | 8110             | 0.0              | 835       | 1642             | 0.0              | 965       | 1953             | 0.0              |
| 450       | 57374            | 44.5             | 580       | 66948            | 13.8             | 710       | 7052             | 0.0              | 840       | 1514             | 0.0              | 970       | 1519             | 0.0              |
| 455       | 42663            | 37.3             | 585       | 67963            | 10.4             | 715       | 6233             | 0.0              | 845       | 1376             | 0.0              | 975       | 1168             | 0.0              |
| 460       | 25334            | 24.5             | 590       | 68001            | 7.6              | 720       | 5362             | 0.0              | 850       | 1592             | 0.0              | 980       | 1593             | 0.0              |
| 465       | 17751            | 18.7             | 595       | 67308            | 5.4              | 725       | 4563             | 0.0              | 855       | 1667             | 0.0              | 985       | 1722             | 0.0              |
| 470       | 12447            | 14.3             | 600       | 66343            | 3.7              | 730       | 3976             | 0.0              | 860       | 1662             | 0.0              | 990       | 1648             | 0.0              |
| 475       | 8641             | 10.8             | 605       | 64393            | 2.5              | 735       | 3424             | 0.0              | 865       | 1916             | 0.0              | 995       | 2495             | 0.0              |
| 480       | 7423             | 10.0             | 610       | 61634            | 1.7              | 740       | 3222             | 0.0              | 870       | 1655             | 0.0              | 1000      | 2643             | 0.0              |
| 485       | 7759             | 11.2             | 615       | 58349            | 1.1              | 745       | 3060             | 0.0              | 875       | 2036             | 0.0              |           |                  |                  |



REPORT NUMBER: SP1-2006-844-6

### Melanopic Flux vs. Wavelength



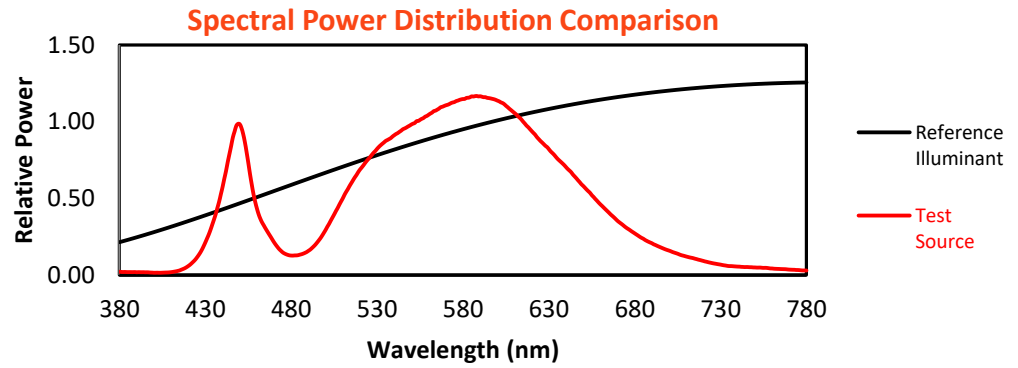
Melanopic Lumens: 5289.9

S/P: 1.39

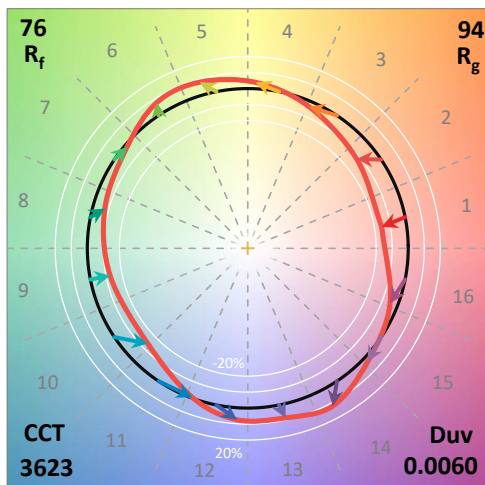
| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 1254             | 0.0              | 490       | 9219             | 7.7              | 620       | 54761            | 0.0              | 750       | 2901             | 0.0              | 880       | 1835             | 0.0              |
| 365       | 1158             | 0.0              | 495       | 12322            | 10.2             | 625       | 51064            | 0.0              | 755       | 2733             | 0.0              | 885       | 1690             | 0.0              |
| 370       | 1131             | 0.0              | 500       | 17160            | 13.8             | 630       | 47879            | 0.0              | 760       | 2503             | 0.0              | 890       | 1819             | 0.0              |
| 375       | 1414             | 0.0              | 505       | 23071            | 17.7             | 635       | 44248            | 0.0              | 765       | 2289             | 0.0              | 895       | 1314             | 0.0              |
| 380       | 1275             | 0.0              | 510       | 29162            | 20.9             | 640       | 41034            | 0.0              | 770       | 2078             | 0.0              | 900       | 1547             | 0.0              |
| 385       | 1122             | 0.0              | 515       | 34992            | 22.9             | 645       | 37515            | 0.0              | 775       | 1927             | 0.0              | 905       | 1281             | 0.0              |
| 390       | 1074             | 0.0              | 520       | 40102            | 23.3             | 650       | 33900            | 0.0              | 780       | 1724             | 0.0              | 910       | 1345             | 0.0              |
| 395       | 1058             | 0.0              | 525       | 44194            | 22.4             | 655       | 30384            | 0.0              | 785       | 1617             | 0.0              | 915       | 1561             | 0.0              |
| 400       | 885              | 0.0              | 530       | 48014            | 20.7             | 660       | 26883            | 0.0              | 790       | 1709             | 0.0              | 920       | 1368             | 0.0              |
| 405       | 912              | 0.0              | 535       | 51019            | 18.4             | 665       | 23703            | 0.0              | 795       | 1561             | 0.0              | 925       | 1730             | 0.0              |
| 410       | 1108             | 0.0              | 540       | 53190            | 15.6             | 670       | 20603            | 0.0              | 800       | 1525             | 0.0              | 930       | 1629             | 0.0              |
| 415       | 1763             | 0.1              | 545       | 55452            | 12.9             | 675       | 18039            | 0.0              | 805       | 1332             | 0.0              | 935       | 1796             | 0.0              |
| 420       | 3421             | 0.4              | 550       | 57280            | 10.3             | 680       | 15849            | 0.0              | 810       | 1269             | 0.0              | 940       | 1595             | 0.0              |
| 425       | 6610             | 1.0              | 555       | 59041            | 8.0              | 685       | 13806            | 0.0              | 815       | 1261             | 0.0              | 945       | 1410             | 0.0              |
| 430       | 12444            | 2.6              | 560       | 60976            | 6.0              | 690       | 12093            | 0.0              | 820       | 1551             | 0.0              | 950       | 1937             | 0.0              |
| 435       | 21116            | 5.6              | 565       | 62904            | 4.4              | 695       | 10566            | 0.0              | 825       | 1708             | 0.0              | 955       | 2186             | 0.0              |
| 440       | 33463            | 11.2             | 570       | 64555            | 3.2              | 700       | 9300             | 0.0              | 830       | 1592             | 0.0              | 960       | 1583             | 0.0              |
| 445       | 49089            | 19.4             | 575       | 65785            | 2.2              | 705       | 8110             | 0.0              | 835       | 1642             | 0.0              | 965       | 1953             | 0.0              |
| 450       | 57374            | 26.4             | 580       | 66948            | 1.5              | 710       | 7052             | 0.0              | 840       | 1514             | 0.0              | 970       | 1519             | 0.0              |
| 455       | 42663            | 22.4             | 585       | 67963            | 1.0              | 715       | 6233             | 0.0              | 845       | 1376             | 0.0              | 975       | 1168             | 0.0              |
| 460       | 25334            | 14.9             | 590       | 68001            | 0.7              | 720       | 5362             | 0.0              | 850       | 1592             | 0.0              | 980       | 1593             | 0.0              |
| 465       | 17751            | 11.6             | 595       | 67308            | 0.4              | 725       | 4563             | 0.0              | 855       | 1667             | 0.0              | 985       | 1722             | 0.0              |
| 470       | 12447            | 8.9              | 600       | 66343            | 0.3              | 730       | 3976             | 0.0              | 860       | 1662             | 0.0              | 990       | 1648             | 0.0              |
| 475       | 8641             | 6.6              | 605       | 64393            | 0.2              | 735       | 3424             | 0.0              | 865       | 1916             | 0.0              | 995       | 2495             | 0.0              |
| 480       | 7423             | 6.0              | 610       | 61634            | 0.1              | 740       | 3222             | 0.0              | 870       | 1655             | 0.0              | 1000      | 2643             | 0.0              |
| 485       | 7759             | 6.4              | 615       | 58349            | 0.1              | 745       | 3060             | 0.0              | 875       | 2036             | 0.0              |           |                  |                  |

### Summary

$R_f = 76.2$   
 $R_g = 94.3$   
 CIE  $R_a = 72.6$   
 $R_g = -22.4$



### Color Vector Graphics

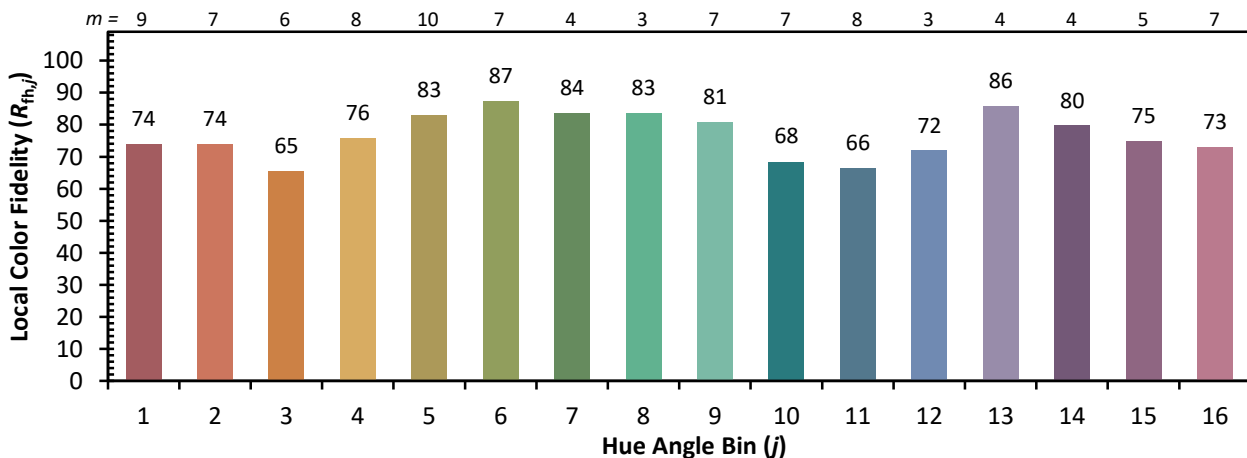
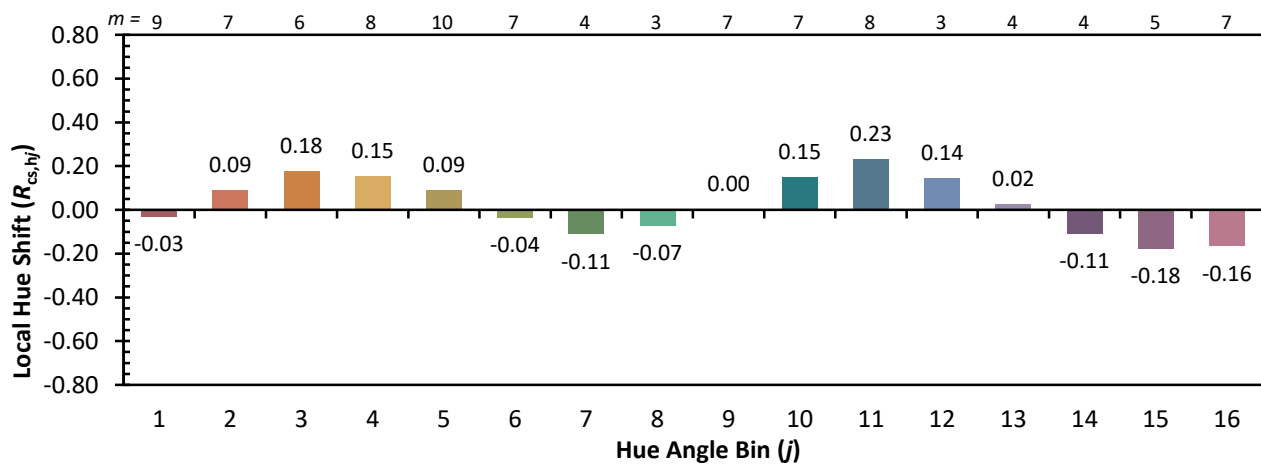


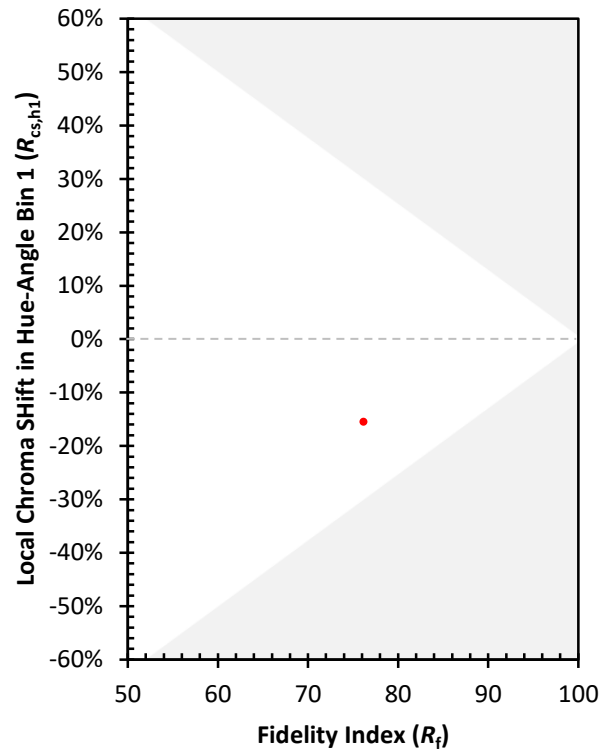
**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 66 | CES51 = 88 | CES76 = 55 |
| CES02 = 61 | CES27 = 89 | CES52 = 88 | CES77 = 73 |
| CES03 = 31 | CES28 = 83 | CES53 = 78 | CES78 = 59 |
| CES04 = 70 | CES29 = 69 | CES54 = 85 | CES79 = 84 |
| CES05 = 48 | CES30 = 83 | CES55 = 84 | CES80 = 81 |
| CES06 = 51 | CES31 = 73 | CES56 = 74 | CES81 = 79 |
| CES07 = 40 | CES32 = 65 | CES57 = 73 | CES82 = 92 |
| CES08 = 39 | CES33 = 79 | CES58 = 74 | CES83 = 90 |
| CES09 = 29 | CES34 = 74 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 85 | CES60 = 90 | CES85 = 79 |
| CES11 = 57 | CES36 = 92 | CES61 = 84 | CES86 = 73 |
| CES12 = 63 | CES37 = 80 | CES62 = 87 | CES87 = 78 |
| CES13 = 42 | CES38 = 92 | CES63 = 73 | CES88 = 81 |
| CES14 = 74 | CES39 = 97 | CES64 = 68 | CES89 = 72 |
| CES15 = 71 | CES40 = 92 | CES65 = 65 | CES90 = 80 |
| CES16 = 47 | CES41 = 93 | CES66 = 61 | CES91 = 78 |
| CES17 = 49 | CES42 = 82 | CES67 = 58 | CES92 = 63 |
| CES18 = 56 | CES43 = 80 | CES68 = 68 | CES93 = 77 |
| CES19 = 72 | CES44 = 99 | CES69 = 76 | CES94 = 57 |
| CES20 = 65 | CES45 = 86 | CES70 = 60 | CES95 = 69 |
| CES21 = 86 | CES46 = 83 | CES71 = 54 | CES96 = 78 |
| CES22 = 78 | CES47 = 86 | CES72 = 85 | CES97 = 85 |
| CES23 = 92 | CES48 = 77 | CES73 = 52 | CES98 = 77 |
| CES24 = 91 | CES49 = 81 | CES74 = 95 | CES99 = 67 |
| CES25 = 72 | CES50 = 88 | CES75 = 56 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**


(END OF REPORT)