

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: STREETWORKS

Report Number: P1066755

Luminaire Tested: **NVN-SA4C-730-U-LBC**

Issue Date: 08/07/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P1066755  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/07/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SA4C-730-U-LBC  
Description: Navion AREA AND ROADWAY LUMINAIRE 1050mA 4xLight Square PACKAGE  
70CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL  
Light Source: (56) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17289.1 lumens  
Efficiency: N/A  
Efficacy: 90.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G3

Input Watts (W): 190.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.97  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



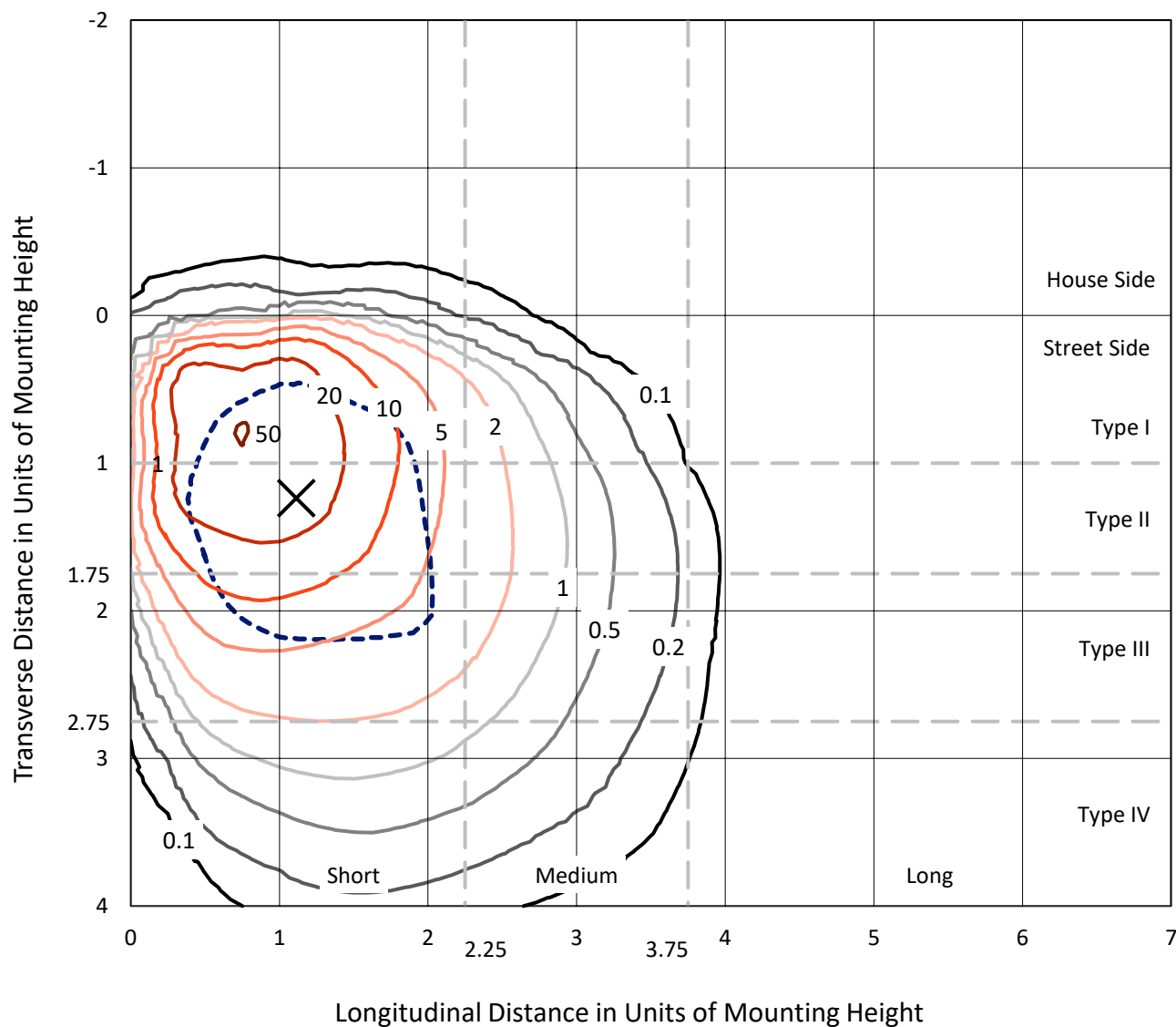
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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

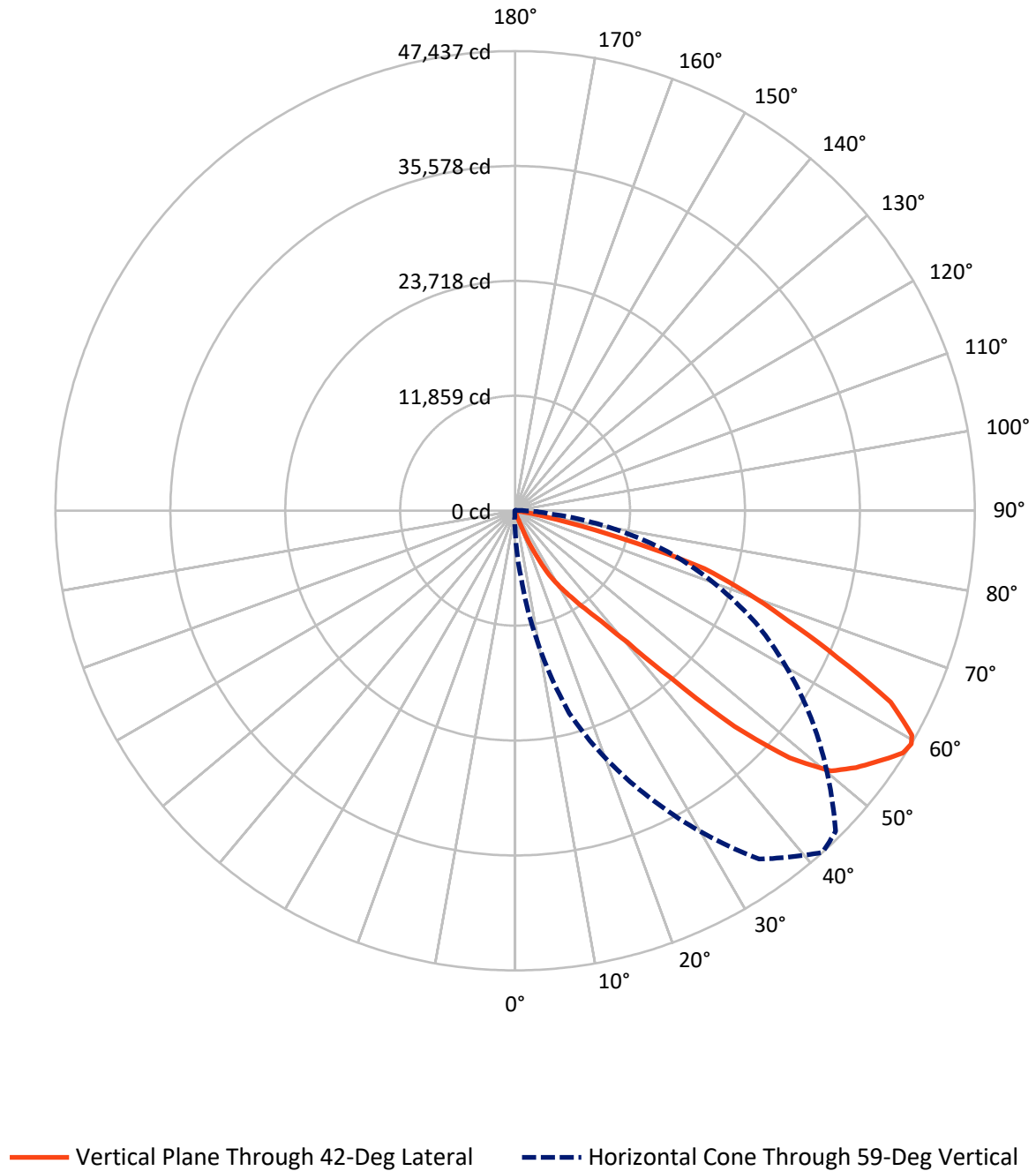


Based on 15 foot mounting height. Maximum calculated value = 51.4 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 83.3     | 0.0    | 83.3    |
|                    | % Fixture | 0.5      | 0.0    | 0.5     |
| <b>Street Side</b> | Lumens    | 17205.8  | 0.0    | 17205.8 |
|                    | % Fixture | 99.5     | 0.0    | 99.5    |
| <b>Total</b>       | Lumens    | 17289.1  | 0.0    | 17289.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 5.1     | 0.0       |
| 10°-20°   | 25.2    | 0.1       |
| 20°-30°   | 322.5   | 1.9       |
| 30°-40°   | 1087.3  | 6.3       |
| 40°-50°   | 3284.0  | 19.0      |
| 50°-60°   | 5797.1  | 33.5      |
| 60°-70°   | 5104.4  | 29.5      |
| 70°-80°   | 1624.7  | 9.4       |
| 80°-90°   | 38.9    | 0.2       |
| 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°    | 17289.1 | 100.0     |
| 0°-180°   | 17289.1 | 100.0     |



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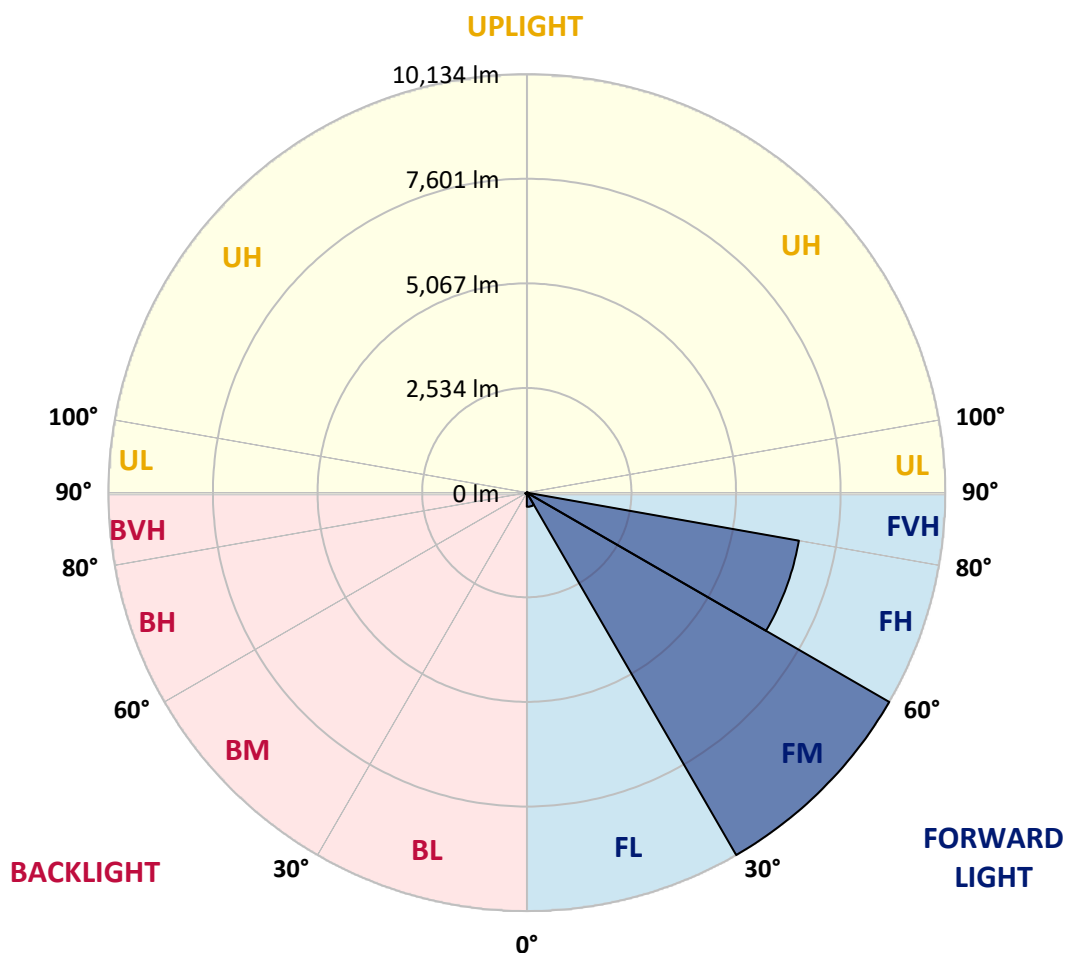
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 343.5   | 2.0       |                         |      |         |
| FM   | (30°-60°)   | 10134.3 | 58.6      |                         |      |         |
| FH   | (60°-80°)   | 6691.1  | 38.7      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 37.0    | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 9.3     | 0.1       | B0/110                  |      |         |
| BM   | (30°-60°)   | 34.0    | 0.2       | B0/220                  |      |         |
| BH   | (60°-80°)   | 38.1    | 0.2       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.9     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°     | 42°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 48.8   | 48.8   | 48.8    | 48.8    | 48.8    | 48.8    | 48.8    | 48.8    | 48.8    | 48.8    | 48.8   |
| 2.5°  | 75.9   | 75.9   | 70.5    | 65.0    | 59.6    | 54.2    | 54.2    | 54.2    | 48.8    | 48.8    | 43.4   |
| 5°    | 86.7   | 86.7   | 81.3    | 75.9    | 75.9    | 70.5    | 70.5    | 65.0    | 59.6    | 59.6    | 54.2   |
| 7.5°  | 92.2   | 92.2   | 92.2    | 92.2    | 86.7    | 86.7    | 86.7    | 81.3    | 75.9    | 70.5    | 65.0   |
| 10°   | 97.6   | 103.0  | 108.4   | 108.4   | 108.4   | 108.4   | 108.4   | 103.0   | 92.2    | 86.7    | 75.9   |
| 12.5° | 108.4  | 113.8  | 124.7   | 135.5   | 135.5   | 140.9   | 135.5   | 130.1   | 119.3   | 103.0   | 86.7   |
| 15°   | 119.3  | 130.1  | 146.4   | 168.0   | 189.7   | 195.1   | 195.1   | 178.9   | 157.2   | 124.7   | 103.0  |
| 17.5° | 135.5  | 151.8  | 195.1   | 265.6   | 341.5   | 401.1   | 401.1   | 357.8   | 249.4   | 162.6   | 119.3  |
| 20°   | 146.4  | 178.9  | 314.4   | 639.6   | 975.7   | 1225.1  | 1176.3  | 1040.8  | 558.3   | 254.8   | 130.1  |
| 22.5° | 162.6  | 227.7  | 666.7   | 1680.4  | 2601.9  | 3057.3  | 2948.9  | 2238.8  | 1252.2  | 455.3   | 157.2  |
| 25°   | 184.3  | 330.7  | 1322.7  | 3149.4  | 4835.3  | 5328.6  | 5258.1  | 4179.4  | 2282.1  | 764.3   | 200.6  |
| 27.5° | 227.7  | 487.9  | 2119.5  | 4775.7  | 7133.7  | 7556.5  | 7529.4  | 6120.0  | 3648.1  | 1230.5  | 260.2  |
| 30°   | 287.3  | 710.1  | 3144.0  | 6488.6  | 8656.9  | 9085.1  | 8949.6  | 7540.2  | 4922.0  | 1881.0  | 336.1  |
| 32.5° | 357.8  | 992.0  | 4071.0  | 7751.6  | 10060.9 | 10624.6 | 10462.0 | 8776.2  | 5946.5  | 2433.9  | 498.7  |
| 35°   | 466.2  | 1268.4 | 4987.1  | 8868.3  | 11681.7 | 12397.2 | 12126.2 | 10050.0 | 6830.1  | 3057.3  | 601.7  |
| 37.5° | 520.4  | 1431.1 | 5827.3  | 10082.5 | 13503.0 | 14478.8 | 14272.8 | 11660.0 | 7730.0  | 3854.1  | 737.2  |
| 40°   | 525.8  | 1626.2 | 6700.0  | 11665.4 | 16077.9 | 17817.9 | 17449.3 | 14424.6 | 9405.0  | 4878.7  | 948.6  |
| 42.5° | 542.1  | 1918.9 | 7832.9  | 14364.9 | 21135.4 | 23634.4 | 23217.0 | 19509.2 | 13204.9 | 6933.1  | 1344.3 |
| 45°   | 618.0  | 2471.9 | 10142.2 | 19411.6 | 28079.4 | 31743.8 | 31261.3 | 26594.1 | 18511.8 | 10798.1 | 2293.0 |
| 47.5° | 883.6  | 3718.6 | 14191.5 | 24859.4 | 35180.5 | 38102.3 | 37983.0 | 32177.4 | 23320.0 | 14760.6 | 3886.7 |
| 50°   | 1420.2 | 5708.0 | 18799.1 | 29440.0 | 39701.4 | 42211.2 | 41913.1 | 34508.3 | 26062.8 | 17465.6 | 4981.6 |
| 52.5° | 1897.3 | 7610.7 | 21693.7 | 31125.8 | 41051.2 | 44043.4 | 43680.2 | 35359.4 | 26783.8 | 18262.4 | 5285.2 |
| 55°   | 2016.5 | 8299.1 | 22555.6 | 31646.2 | 41945.6 | 45593.7 | 45067.9 | 35928.6 | 26876.0 | 17693.2 | 4781.1 |
| 57.5° | 1956.9 | 7648.6 | 21997.3 | 32155.7 | 43192.3 | 47187.4 | 46488.1 | 37039.8 | 27184.9 | 16728.4 | 3978.8 |
| 59°   | 1853.9 | 6846.4 | 21650.4 | 32562.3 | 43880.8 | 47436.8 | 46780.9 | 37283.8 | 27390.9 | 16289.3 | 3490.9 |
| 60°   | 1734.6 | 6304.3 | 21379.3 | 32827.9 | 43837.4 | 47046.5 | 46368.9 | 37169.9 | 27472.2 | 15909.8 | 3257.9 |
| 62.5° | 1338.9 | 5030.4 | 20989.0 | 32638.2 | 41099.9 | 43485.1 | 43100.2 | 34383.7 | 26279.7 | 14695.6 | 2569.4 |
| 65°   | 1040.8 | 3848.7 | 19558.0 | 29109.3 | 34974.5 | 36579.1 | 36459.8 | 29114.7 | 22116.6 | 12668.2 | 1853.9 |
| 67.5° | 824.0  | 2807.9 | 16538.6 | 23574.7 | 28139.0 | 30421.1 | 30334.4 | 23634.4 | 16788.0 | 9681.4  | 1333.5 |
| 70°   | 672.2  | 2000.2 | 11340.2 | 17774.6 | 22506.9 | 25379.8 | 25255.2 | 19021.3 | 12440.6 | 6141.7  | 970.3  |
| 72.5° | 569.2  | 1279.3 | 6878.9  | 13400.0 | 18782.8 | 20425.3 | 20062.1 | 15346.1 | 9047.2  | 3344.6  | 769.7  |
| 75°   | 482.4  | 786.0  | 3409.6  | 8353.3  | 11188.4 | 11177.5 | 10814.3 | 8125.7  | 4857.0  | 1637.1  | 612.5  |
| 77.5° | 390.3  | 552.9  | 1338.9  | 2293.0  | 3528.9  | 4369.1  | 4298.6  | 2878.4  | 1452.8  | 477.0   | 379.5  |
| 80°   | 254.8  | 260.2  | 357.8   | 628.8   | 970.3   | 1073.3  | 1219.7  | 878.2   | 422.8   | 227.7   | 157.2  |
| 82.5° | 113.8  | 124.7  | 162.6   | 206.0   | 206.0   | 189.7   | 168.0   | 124.7   | 92.2    | 75.9    | 37.9   |
| 85°   | 27.1   | 37.9   | 27.1    | 32.5    | 27.1    | 21.7    | 21.7    | 10.8    | 0.0     | 0.0     | 0.0    |
| 87.5° | 5.4    | 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    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|------|------|------|------|------|------|------|
| 0°    | 48.8   | 48.8  | 48.8  | 48.8  | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 |
| 2.5°  | 43.4   | 43.4  | 43.4  | 37.9  | 37.9 | 37.9 | 32.5 | 32.5 | 32.5 | 27.1 | 27.1 |
| 5°    | 54.2   | 48.8  | 43.4  | 43.4  | 37.9 | 37.9 | 32.5 | 27.1 | 27.1 | 27.1 | 21.7 |
| 7.5°  | 59.6   | 54.2  | 48.8  | 43.4  | 37.9 | 32.5 | 32.5 | 27.1 | 21.7 | 21.7 | 21.7 |
| 10°   | 70.5   | 65.0  | 54.2  | 43.4  | 37.9 | 32.5 | 27.1 | 27.1 | 21.7 | 16.3 | 16.3 |
| 12.5° | 81.3   | 70.5  | 59.6  | 48.8  | 37.9 | 32.5 | 27.1 | 27.1 | 21.7 | 16.3 | 10.8 |
| 15°   | 92.2   | 81.3  | 65.0  | 48.8  | 37.9 | 32.5 | 27.1 | 27.1 | 16.3 | 10.8 | 5.4  |
| 17.5° | 103.0  | 86.7  | 65.0  | 54.2  | 37.9 | 32.5 | 27.1 | 21.7 | 10.8 | 5.4  | 0.0  |
| 20°   | 108.4  | 92.2  | 70.5  | 54.2  | 37.9 | 32.5 | 27.1 | 16.3 | 5.4  | 0.0  | 0.0  |
| 22.5° | 119.3  | 103.0 | 75.9  | 54.2  | 37.9 | 27.1 | 16.3 | 5.4  | 0.0  | 0.0  | 0.0  |
| 25°   | 140.9  | 108.4 | 75.9  | 54.2  | 37.9 | 27.1 | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  |
| 27.5° | 157.2  | 119.3 | 75.9  | 54.2  | 37.9 | 21.7 | 5.4  | 0.0  | 0.0  | 0.0  | 0.0  |
| 30°   | 184.3  | 130.1 | 81.3  | 54.2  | 37.9 | 16.3 | 5.4  | 0.0  | 0.0  | 0.0  | 0.0  |
| 32.5° | 227.7  | 140.9 | 81.3  | 54.2  | 32.5 | 16.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 35°   | 276.5  | 162.6 | 81.3  | 54.2  | 32.5 | 16.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 37.5° | 281.9  | 173.5 | 81.3  | 54.2  | 32.5 | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 40°   | 292.7  | 162.6 | 86.7  | 54.2  | 32.5 | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 42.5° | 336.1  | 151.8 | 92.2  | 54.2  | 32.5 | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 45°   | 498.7  | 157.2 | 92.2  | 59.6  | 32.5 | 16.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 47.5° | 867.3  | 162.6 | 86.7  | 59.6  | 32.5 | 16.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 50°   | 1111.2 | 189.7 | 86.7  | 65.0  | 37.9 | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 52.5° | 1181.7 | 222.2 | 86.7  | 70.5  | 48.8 | 5.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 55°   | 1149.2 | 260.2 | 92.2  | 75.9  | 59.6 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 57.5° | 1062.5 | 281.9 | 97.6  | 81.3  | 65.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 59°   | 970.3  | 298.1 | 113.8 | 86.7  | 65.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 60°   | 894.4  | 314.4 | 119.3 | 92.2  | 65.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 62.5° | 721.0  | 336.1 | 130.1 | 108.4 | 54.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 65°   | 628.8  | 352.3 | 135.5 | 119.3 | 48.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 67.5° | 574.6  | 363.2 | 146.4 | 124.7 | 43.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 70°   | 531.2  | 357.8 | 157.2 | 119.3 | 37.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 72.5° | 482.4  | 341.5 | 189.7 | 108.4 | 32.5 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 75°   | 433.7  | 309.0 | 206.0 | 97.6  | 21.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 77.5° | 314.4  | 260.2 | 189.7 | 86.7  | 10.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 80°   | 135.5  | 140.9 | 135.5 | 65.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 82.5° | 27.1   | 32.5  | 27.1  | 16.3  | 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  |

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**CANDELA DISTRIBUTION (continued):**

|       | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0°    | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 |
| 2.5°  | 27.1 | 27.1 | 27.1 | 27.1 | 32.5 | 32.5 | 43.4 | 54.2 | 65.0 | 70.5 | 70.5 |
| 5°    | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 27.1 | 32.5 | 43.4 | 59.6 | 65.0 | 65.0 |
| 7.5°  | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 27.1 | 37.9 | 54.2 | 59.6 | 65.0 |
| 10°   | 16.3 | 10.8 | 10.8 | 5.4  | 5.4  | 10.8 | 16.3 | 32.5 | 48.8 | 54.2 | 59.6 |
| 12.5° | 10.8 | 5.4  | 5.4  | 0.0  | 0.0  | 5.4  | 10.8 | 27.1 | 43.4 | 48.8 | 54.2 |
| 15°   | 5.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 21.7 | 37.9 | 43.4 | 54.2 |
| 17.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 16.3 | 32.5 | 43.4 | 48.8 |
| 20°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 10.8 | 27.1 | 37.9 | 43.4 |
| 22.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 21.7 | 32.5 | 37.9 |
| 25°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 16.3 | 21.7 | 27.1 |
| 27.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 10.8 | 16.3 | 21.7 |
| 30°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 10.8 | 16.3 | 21.7 |
| 32.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 | 16.3 |
| 35°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 | 16.3 |
| 37.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 | 10.8 |
| 40°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 42.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 45°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 47.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 50°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 52.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 55°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 57.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 59°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 60°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 62.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 65°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 67.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 70°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 72.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  |
| 75°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 77.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 80°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 10.8 |
| 82.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 85°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 87.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 5.4  | 5.4  |
| 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: P1066755

CATALOG NUMBER: NVN-SA4C-730-U-LBC

**CANDELA DISTRIBUTION (continued):**

|       | 285° | 295° | 305° | 315° | 318° | 325° | 335°  | 345°  | 355°  | 360°   |
|-------|------|------|------|------|------|------|-------|-------|-------|--------|
| 0°    | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8 | 48.8  | 48.8  | 48.8  | 48.8   |
| 2.5°  | 75.9 | 75.9 | 70.5 | 65.0 | 65.0 | 65.0 | 70.5  | 75.9  | 75.9  | 75.9   |
| 5°    | 70.5 | 70.5 | 65.0 | 65.0 | 65.0 | 65.0 | 70.5  | 81.3  | 86.7  | 86.7   |
| 7.5°  | 70.5 | 70.5 | 65.0 | 65.0 | 65.0 | 65.0 | 70.5  | 81.3  | 86.7  | 92.2   |
| 10°   | 65.0 | 65.0 | 65.0 | 65.0 | 59.6 | 65.0 | 70.5  | 81.3  | 97.6  | 97.6   |
| 12.5° | 65.0 | 65.0 | 65.0 | 65.0 | 59.6 | 65.0 | 75.9  | 86.7  | 103.0 | 108.4  |
| 15°   | 65.0 | 65.0 | 65.0 | 59.6 | 59.6 | 65.0 | 75.9  | 92.2  | 108.4 | 119.3  |
| 17.5° | 59.6 | 65.0 | 65.0 | 59.6 | 59.6 | 65.0 | 75.9  | 92.2  | 119.3 | 135.5  |
| 20°   | 54.2 | 59.6 | 65.0 | 59.6 | 59.6 | 59.6 | 75.9  | 92.2  | 124.7 | 146.4  |
| 22.5° | 48.8 | 54.2 | 59.6 | 59.6 | 54.2 | 59.6 | 75.9  | 97.6  | 135.5 | 162.6  |
| 25°   | 43.4 | 48.8 | 48.8 | 54.2 | 54.2 | 59.6 | 75.9  | 97.6  | 140.9 | 184.3  |
| 27.5° | 32.5 | 37.9 | 43.4 | 48.8 | 48.8 | 59.6 | 75.9  | 103.0 | 151.8 | 227.7  |
| 30°   | 27.1 | 32.5 | 37.9 | 43.4 | 48.8 | 59.6 | 75.9  | 103.0 | 162.6 | 287.3  |
| 32.5° | 27.1 | 32.5 | 37.9 | 43.4 | 48.8 | 54.2 | 75.9  | 108.4 | 178.9 | 357.8  |
| 35°   | 21.7 | 27.1 | 32.5 | 43.4 | 43.4 | 54.2 | 75.9  | 108.4 | 195.1 | 466.2  |
| 37.5° | 21.7 | 27.1 | 32.5 | 43.4 | 43.4 | 54.2 | 75.9  | 108.4 | 238.5 | 520.4  |
| 40°   | 16.3 | 21.7 | 27.1 | 43.4 | 43.4 | 54.2 | 81.3  | 113.8 | 243.9 | 525.8  |
| 42.5° | 16.3 | 21.7 | 27.1 | 37.9 | 43.4 | 54.2 | 81.3  | 113.8 | 227.7 | 542.1  |
| 45°   | 16.3 | 21.7 | 27.1 | 43.4 | 48.8 | 59.6 | 81.3  | 119.3 | 222.2 | 618.0  |
| 47.5° | 16.3 | 21.7 | 27.1 | 43.4 | 54.2 | 59.6 | 81.3  | 119.3 | 227.7 | 883.6  |
| 50°   | 16.3 | 21.7 | 27.1 | 43.4 | 59.6 | 59.6 | 81.3  | 119.3 | 249.4 | 1420.2 |
| 52.5° | 10.8 | 16.3 | 21.7 | 37.9 | 48.8 | 65.0 | 86.7  | 113.8 | 265.6 | 1897.3 |
| 55°   | 10.8 | 10.8 | 16.3 | 32.5 | 43.4 | 70.5 | 92.2  | 113.8 | 309.0 | 2016.5 |
| 57.5° | 10.8 | 10.8 | 16.3 | 27.1 | 37.9 | 75.9 | 97.6  | 113.8 | 357.8 | 1956.9 |
| 59°   | 10.8 | 10.8 | 10.8 | 27.1 | 32.5 | 75.9 | 97.6  | 119.3 | 363.2 | 1853.9 |
| 60°   | 10.8 | 10.8 | 10.8 | 21.7 | 32.5 | 75.9 | 103.0 | 124.7 | 368.6 | 1734.6 |
| 62.5° | 5.4  | 5.4  | 5.4  | 21.7 | 27.1 | 75.9 | 113.8 | 151.8 | 379.5 | 1338.9 |
| 65°   | 10.8 | 10.8 | 5.4  | 16.3 | 27.1 | 65.0 | 130.1 | 162.6 | 384.9 | 1040.8 |
| 67.5° | 10.8 | 10.8 | 10.8 | 21.7 | 27.1 | 65.0 | 135.5 | 168.0 | 384.9 | 824.0  |
| 70°   | 10.8 | 10.8 | 10.8 | 21.7 | 32.5 | 65.0 | 135.5 | 173.5 | 379.5 | 672.2  |
| 72.5° | 10.8 | 10.8 | 10.8 | 21.7 | 32.5 | 59.6 | 124.7 | 178.9 | 363.2 | 569.2  |
| 75°   | 10.8 | 10.8 | 10.8 | 16.3 | 27.1 | 54.2 | 119.3 | 195.1 | 330.7 | 482.4  |
| 77.5° | 10.8 | 10.8 | 10.8 | 10.8 | 21.7 | 43.4 | 108.4 | 216.8 | 292.7 | 390.3  |
| 80°   | 16.3 | 10.8 | 10.8 | 10.8 | 16.3 | 37.9 | 103.0 | 211.4 | 243.9 | 254.8  |
| 82.5° | 16.3 | 10.8 | 10.8 | 5.4  | 10.8 | 27.1 | 81.3  | 162.6 | 124.7 | 113.8  |
| 85°   | 10.8 | 10.8 | 10.8 | 5.4  | 5.4  | 16.3 | 37.9  | 48.8  | 37.9  | 27.1   |
| 87.5° | 10.8 | 10.8 | 10.8 | 5.4  | 5.4  | 5.4  | 5.4   | 5.4   | 5.4   | 5.4    |
| 90°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0    |

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

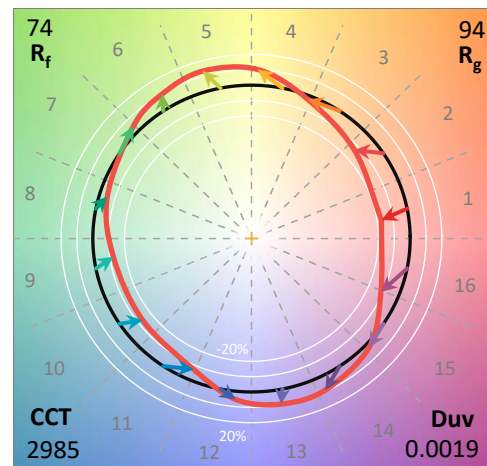
### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-4  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 10/15/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGraw-Edison  
 Catalog Number: **GSS-SB1A-730-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI  
 3000K CCT 26 LEDS

### Spectral Parameters

CCT (K): 2985  
 CIE  $u'$ : 0.2504  
 CIE  $v'$ : 0.5243  
 Duv: 0.0019  
 CIE x: 0.4408  
 CIE y: 0.4101  
 CIE z: 0.1491  
 Peak Wavelength (nm): 595  
 Dominant Wavelength (nm): 582  
 Purity: 55.41818  
 R<sub>f</sub>: 73.8  
 R<sub>g</sub>: 94.4

CRI (Ra): 70.8  
 R1: 66.3  
 R2: 80.6  
 R3: 94.5  
 R4: 68.2  
 R5: 66.5  
 R6: 74.7  
 R7: 76.2  
 R8: 39.6  
 R9: -43.2  
 R10: 57.6  
 R11: 64.8  
 R12: 53.5  
 R13: 68.7  
 R14: 97.0  
 R15: 56.4



### Test Conditions

Stabilization Time: 36M  
 Operation Time: 1H 36M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-4

| 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: SP1-2407-184-4

**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

REPORT NUMBER: SP1-2407-184-4

### Photopic Flux vs. Wavelength

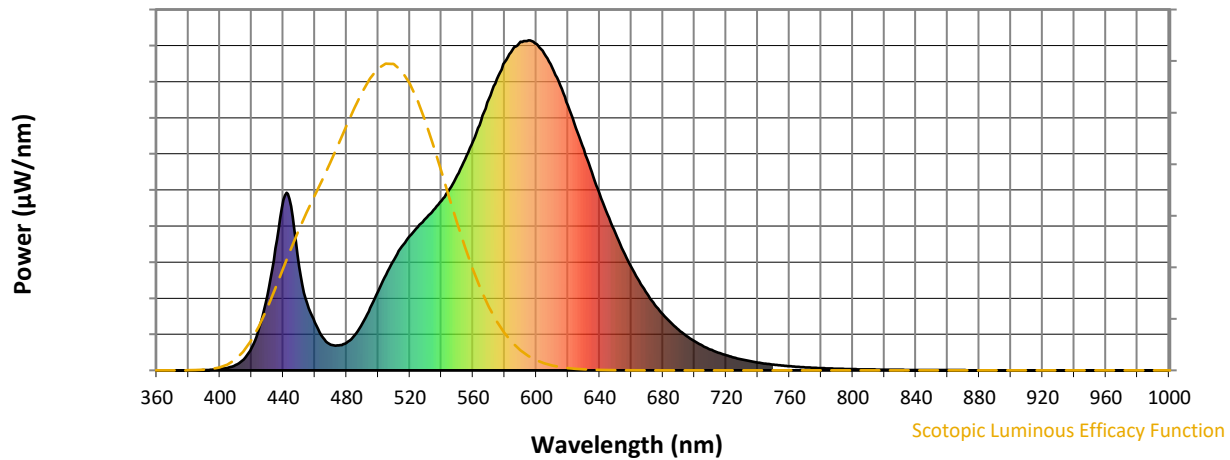


### Photopic Lumens: NR

| λ<br>(nm) | Power<br>W <sup>λ</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>λ</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>λ</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>λ</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>λ</sup> /nm | Lumens<br>(φ/nm) |
|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|
| 360       | 0                           | NR               | 490       | 142                         | NR               | 620       | 803                         | NR               | 750       | 17                          | NR               | 880       | 0                           | NR               |
| 365       | 0                           | NR               | 495       | 189                         | NR               | 625       | 734                         | NR               | 755       | 15                          | NR               | 885       | 0                           | NR               |
| 370       | 0                           | NR               | 500       | 240                         | NR               | 630       | 670                         | NR               | 760       | 13                          | NR               | 890       | 0                           | NR               |
| 375       | 0                           | NR               | 505       | 290                         | NR               | 635       | 600                         | NR               | 765       | 11                          | NR               | 895       | 0                           | NR               |
| 380       | 0                           | NR               | 510       | 335                         | NR               | 640       | 535                         | NR               | 770       | 9                           | NR               | 900       | 0                           | NR               |
| 385       | 0                           | NR               | 515       | 375                         | NR               | 645       | 473                         | NR               | 775       | 8                           | NR               | 905       | 0                           | NR               |
| 390       | 1                           | NR               | 520       | 408                         | NR               | 650       | 415                         | NR               | 780       | 7                           | NR               | 910       | 0                           | NR               |
| 395       | 2                           | NR               | 525       | 434                         | NR               | 655       | 362                         | NR               | 785       | 6                           | NR               | 915       | 0                           | NR               |
| 400       | 4                           | NR               | 530       | 461                         | NR               | 660       | 313                         | NR               | 790       | 5                           | NR               | 920       | 0                           | NR               |
| 405       | 8                           | NR               | 535       | 486                         | NR               | 665       | 271                         | NR               | 795       | 4                           | NR               | 925       | 0                           | NR               |
| 410       | 16                          | NR               | 540       | 514                         | NR               | 670       | 231                         | NR               | 800       | 4                           | NR               | 930       | 0                           | NR               |
| 415       | 33                          | NR               | 545       | 549                         | NR               | 675       | 198                         | NR               | 805       | 3                           | NR               | 935       | 0                           | NR               |
| 420       | 69                          | NR               | 550       | 591                         | NR               | 680       | 169                         | NR               | 810       | 3                           | NR               | 940       | 0                           | NR               |
| 425       | 131                         | NR               | 555       | 640                         | NR               | 685       | 144                         | NR               | 815       | 2                           | NR               | 945       | 0                           | NR               |
| 430       | 227                         | NR               | 560       | 695                         | NR               | 690       | 123                         | NR               | 820       | 2                           | NR               | 950       | 0                           | NR               |
| 435       | 369                         | NR               | 565       | 757                         | NR               | 695       | 104                         | NR               | 825       | 2                           | NR               | 955       | 0                           | NR               |
| 440       | 517                         | NR               | 570       | 822                         | NR               | 700       | 88                          | NR               | 830       | 2                           | NR               | 960       | 0                           | NR               |
| 445       | 498                         | NR               | 575       | 882                         | NR               | 705       | 75                          | NR               | 835       | 1                           | NR               | 965       | 0                           | NR               |
| 450       | 315                         | NR               | 580       | 935                         | NR               | 710       | 63                          | NR               | 840       | 1                           | NR               | 970       | 0                           | NR               |
| 455       | 204                         | NR               | 585       | 972                         | NR               | 715       | 54                          | NR               | 845       | 1                           | NR               | 975       | 0                           | NR               |
| 460       | 145                         | NR               | 590       | 996                         | NR               | 720       | 46                          | NR               | 850       | 1                           | NR               | 980       | 0                           | NR               |
| 465       | 100                         | NR               | 595       | 1000                        | NR               | 725       | 39                          | NR               | 855       | 1                           | NR               | 985       | 0                           | NR               |
| 470       | 78                          | NR               | 600       | 989                         | NR               | 730       | 33                          | NR               | 860       | 1                           | NR               | 990       | 0                           | NR               |
| 475       | 76                          | NR               | 605       | 960                         | NR               | 735       | 28                          | NR               | 865       | 1                           | NR               | 995       | 0                           | NR               |
| 480       | 83                          | NR               | 610       | 918                         | NR               | 740       | 24                          | NR               | 870       | 1                           | NR               | 1000      | 0                           | NR               |
| 485       | 105                         | NR               | 615       | 864                         | NR               | 745       | 20                          | NR               | 875       | 1                           | NR               |           |                             |                  |

REPORT NUMBER: SP1-2407-184-4

### Scotopic Flux vs. Wavelength



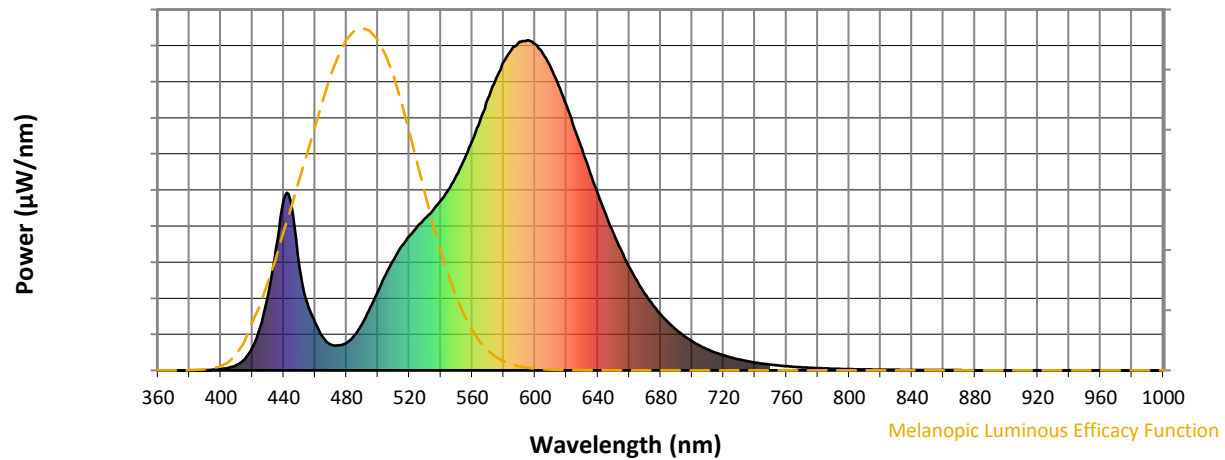
Scotopic Lumens: NR

S/P: 1.19

| λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) |
|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|-----------|-----------------------------|------------------|
| 360       | 0                           | NR               | 490       | 142                         | NR               | 620       | 803                         | NR               | 750       | 17                          | NR               | 880       | 0                           | NR               |
| 365       | 0                           | NR               | 495       | 189                         | NR               | 625       | 734                         | NR               | 755       | 15                          | NR               | 885       | 0                           | NR               |
| 370       | 0                           | NR               | 500       | 240                         | NR               | 630       | 670                         | NR               | 760       | 13                          | NR               | 890       | 0                           | NR               |
| 375       | 0                           | NR               | 505       | 290                         | NR               | 635       | 600                         | NR               | 765       | 11                          | NR               | 895       | 0                           | NR               |
| 380       | 0                           | NR               | 510       | 335                         | NR               | 640       | 535                         | NR               | 770       | 9                           | NR               | 900       | 0                           | NR               |
| 385       | 0                           | NR               | 515       | 375                         | NR               | 645       | 473                         | NR               | 775       | 8                           | NR               | 905       | 0                           | NR               |
| 390       | 1                           | NR               | 520       | 408                         | NR               | 650       | 415                         | NR               | 780       | 7                           | NR               | 910       | 0                           | NR               |
| 395       | 2                           | NR               | 525       | 434                         | NR               | 655       | 362                         | NR               | 785       | 6                           | NR               | 915       | 0                           | NR               |
| 400       | 4                           | NR               | 530       | 461                         | NR               | 660       | 313                         | NR               | 790       | 5                           | NR               | 920       | 0                           | NR               |
| 405       | 8                           | NR               | 535       | 486                         | NR               | 665       | 271                         | NR               | 795       | 4                           | NR               | 925       | 0                           | NR               |
| 410       | 16                          | NR               | 540       | 514                         | NR               | 670       | 231                         | NR               | 800       | 4                           | NR               | 930       | 0                           | NR               |
| 415       | 33                          | NR               | 545       | 549                         | NR               | 675       | 198                         | NR               | 805       | 3                           | NR               | 935       | 0                           | NR               |
| 420       | 69                          | NR               | 550       | 591                         | NR               | 680       | 169                         | NR               | 810       | 3                           | NR               | 940       | 0                           | NR               |
| 425       | 131                         | NR               | 555       | 640                         | NR               | 685       | 144                         | NR               | 815       | 2                           | NR               | 945       | 0                           | NR               |
| 430       | 227                         | NR               | 560       | 695                         | NR               | 690       | 123                         | NR               | 820       | 2                           | NR               | 950       | 0                           | NR               |
| 435       | 369                         | NR               | 565       | 757                         | NR               | 695       | 104                         | NR               | 825       | 2                           | NR               | 955       | 0                           | NR               |
| 440       | 517                         | NR               | 570       | 822                         | NR               | 700       | 88                          | NR               | 830       | 2                           | NR               | 960       | 0                           | NR               |
| 445       | 498                         | NR               | 575       | 882                         | NR               | 705       | 75                          | NR               | 835       | 1                           | NR               | 965       | 0                           | NR               |
| 450       | 315                         | NR               | 580       | 935                         | NR               | 710       | 63                          | NR               | 840       | 1                           | NR               | 970       | 0                           | NR               |
| 455       | 204                         | NR               | 585       | 972                         | NR               | 715       | 54                          | NR               | 845       | 1                           | NR               | 975       | 0                           | NR               |
| 460       | 145                         | NR               | 590       | 996                         | NR               | 720       | 46                          | NR               | 850       | 1                           | NR               | 980       | 0                           | NR               |
| 465       | 100                         | NR               | 595       | 1000                        | NR               | 725       | 39                          | NR               | 855       | 1                           | NR               | 985       | 0                           | NR               |
| 470       | 78                          | NR               | 600       | 989                         | NR               | 730       | 33                          | NR               | 860       | 1                           | NR               | 990       | 0                           | NR               |
| 475       | 76                          | NR               | 605       | 960                         | NR               | 735       | 28                          | NR               | 865       | 1                           | NR               | 995       | 0                           | NR               |
| 480       | 83                          | NR               | 610       | 918                         | NR               | 740       | 24                          | NR               | 870       | 1                           | NR               | 1000      | 0                           | NR               |
| 485       | 105                         | NR               | 615       | 864                         | NR               | 745       | 20                          | NR               | 875       | 1                           | NR               |           |                             |                  |

REPORT NUMBER: SP1-2407-184-4

### Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.13

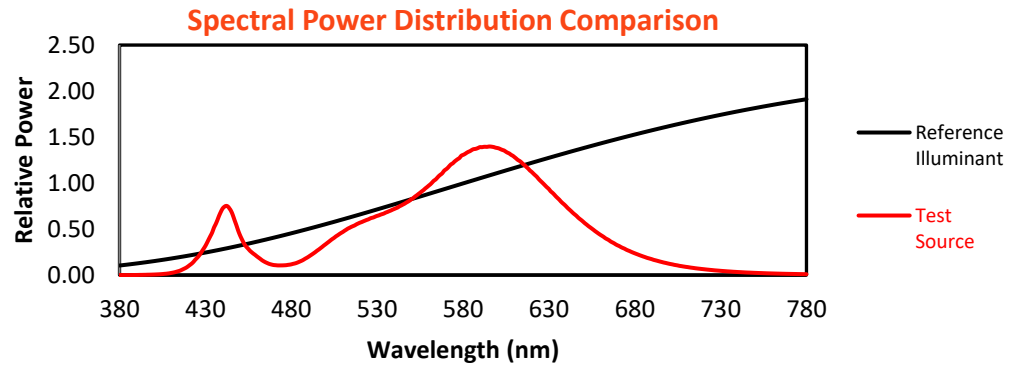
| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360               | 0                                    | NR                             | 490               | 142                                  | NR                             | 620               | 803                                  | NR                             | 750               | 17                                   | NR                             | 880               | 0                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 189                                  | NR                             | 625               | 734                                  | NR                             | 755               | 15                                   | NR                             | 885               | 0                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 240                                  | NR                             | 630               | 670                                  | NR                             | 760               | 13                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 290                                  | NR                             | 635               | 600                                  | NR                             | 765               | 11                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 335                                  | NR                             | 640               | 535                                  | NR                             | 770               | 9                                    | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 375                                  | NR                             | 645               | 473                                  | NR                             | 775               | 8                                    | NR                             | 905               | 0                                    | NR                             |
| 390               | 1                                    | NR                             | 520               | 408                                  | NR                             | 650               | 415                                  | NR                             | 780               | 7                                    | NR                             | 910               | 0                                    | NR                             |
| 395               | 2                                    | NR                             | 525               | 434                                  | NR                             | 655               | 362                                  | NR                             | 785               | 6                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 4                                    | NR                             | 530               | 461                                  | NR                             | 660               | 313                                  | NR                             | 790               | 5                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 8                                    | NR                             | 535               | 486                                  | NR                             | 665               | 271                                  | NR                             | 795               | 4                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 16                                   | NR                             | 540               | 514                                  | NR                             | 670               | 231                                  | NR                             | 800               | 4                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 33                                   | NR                             | 545               | 549                                  | NR                             | 675               | 198                                  | NR                             | 805               | 3                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 69                                   | NR                             | 550               | 591                                  | NR                             | 680               | 169                                  | NR                             | 810               | 3                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 131                                  | NR                             | 555               | 640                                  | NR                             | 685               | 144                                  | NR                             | 815               | 2                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 227                                  | NR                             | 560               | 695                                  | NR                             | 690               | 123                                  | NR                             | 820               | 2                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 369                                  | NR                             | 565               | 757                                  | NR                             | 695               | 104                                  | NR                             | 825               | 2                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 517                                  | NR                             | 570               | 822                                  | NR                             | 700               | 88                                   | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 498                                  | NR                             | 575               | 882                                  | NR                             | 705               | 75                                   | NR                             | 835               | 1                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 315                                  | NR                             | 580               | 935                                  | NR                             | 710               | 63                                   | NR                             | 840               | 1                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 204                                  | NR                             | 585               | 972                                  | NR                             | 715               | 54                                   | NR                             | 845               | 1                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 145                                  | NR                             | 590               | 996                                  | NR                             | 720               | 46                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 100                                  | NR                             | 595               | 1000                                 | NR                             | 725               | 39                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 78                                   | NR                             | 600               | 989                                  | NR                             | 730               | 33                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 76                                   | NR                             | 605               | 960                                  | NR                             | 735               | 28                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 83                                   | NR                             | 610               | 918                                  | NR                             | 740               | 24                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 105                                  | NR                             | 615               | 864                                  | NR                             | 745               | 20                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

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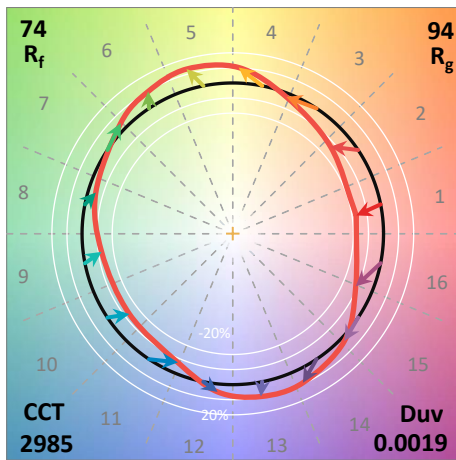
TM-30-18

### Summary

$R_f = 73.8$   
 $R_g = 94.4$   
 $CIE R_a = 70.8$   
 $R_g = -43.2$

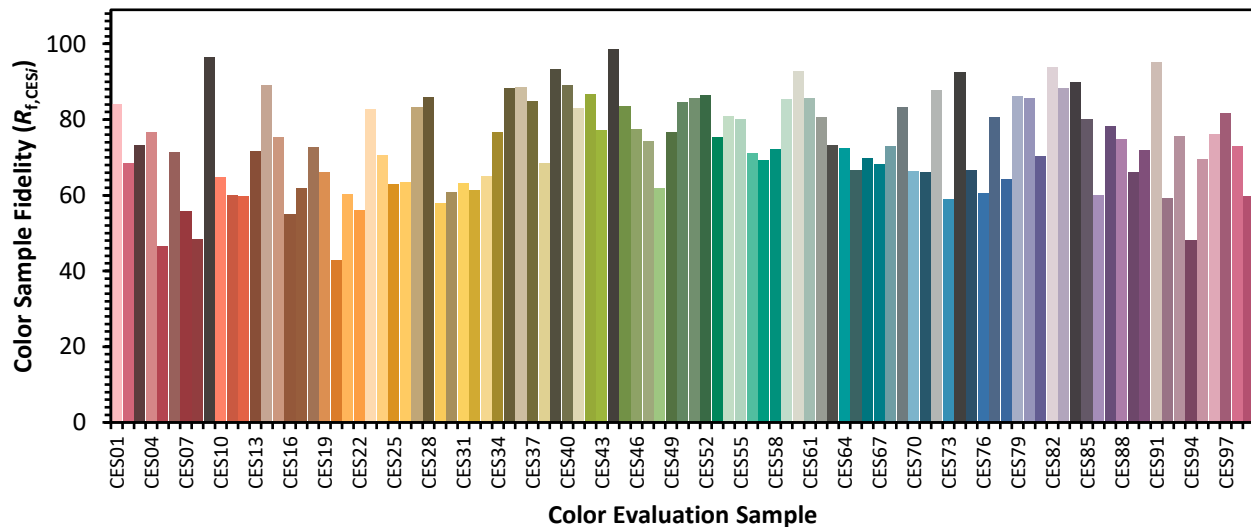


### Color Vector Graphics



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

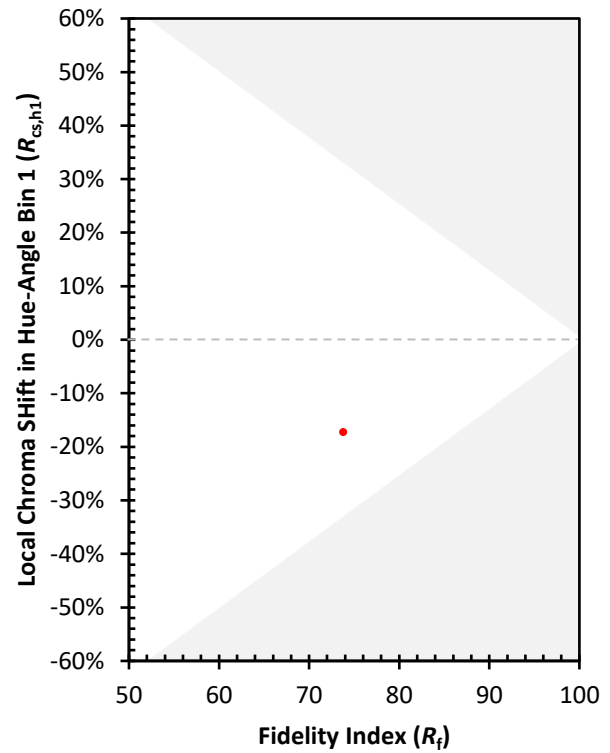
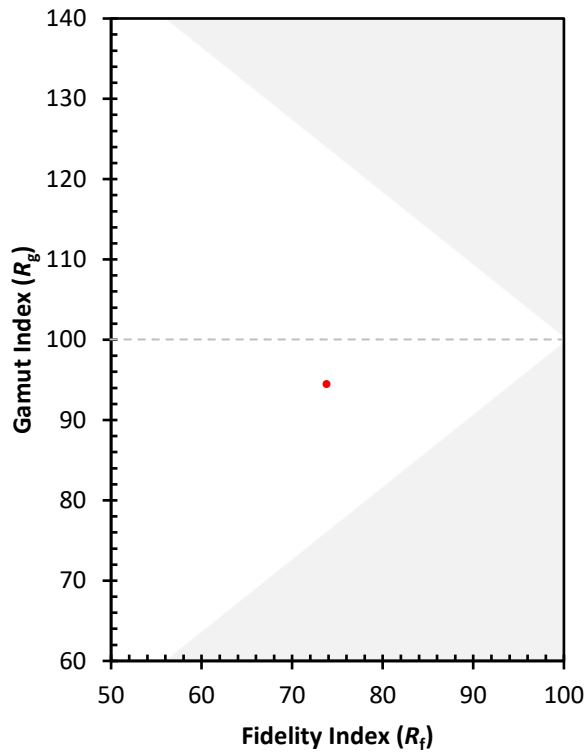
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)