

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: LUMARK

Report Number: P979154

Luminaire Tested: **WPMLED26S-70W-3500K**

Issue Date: 03/31/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P979154  
Test Lab: Cooper Lighting Solutions  
Issue Date: 03/31/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: WPMLD26S-70W-3500K  
Description: LUMARK WALL PACK LED MEDIUM 80CRI CCT AND LUMEN SELECTIVE FIXTURE  
OPERATING @70W-3500K  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

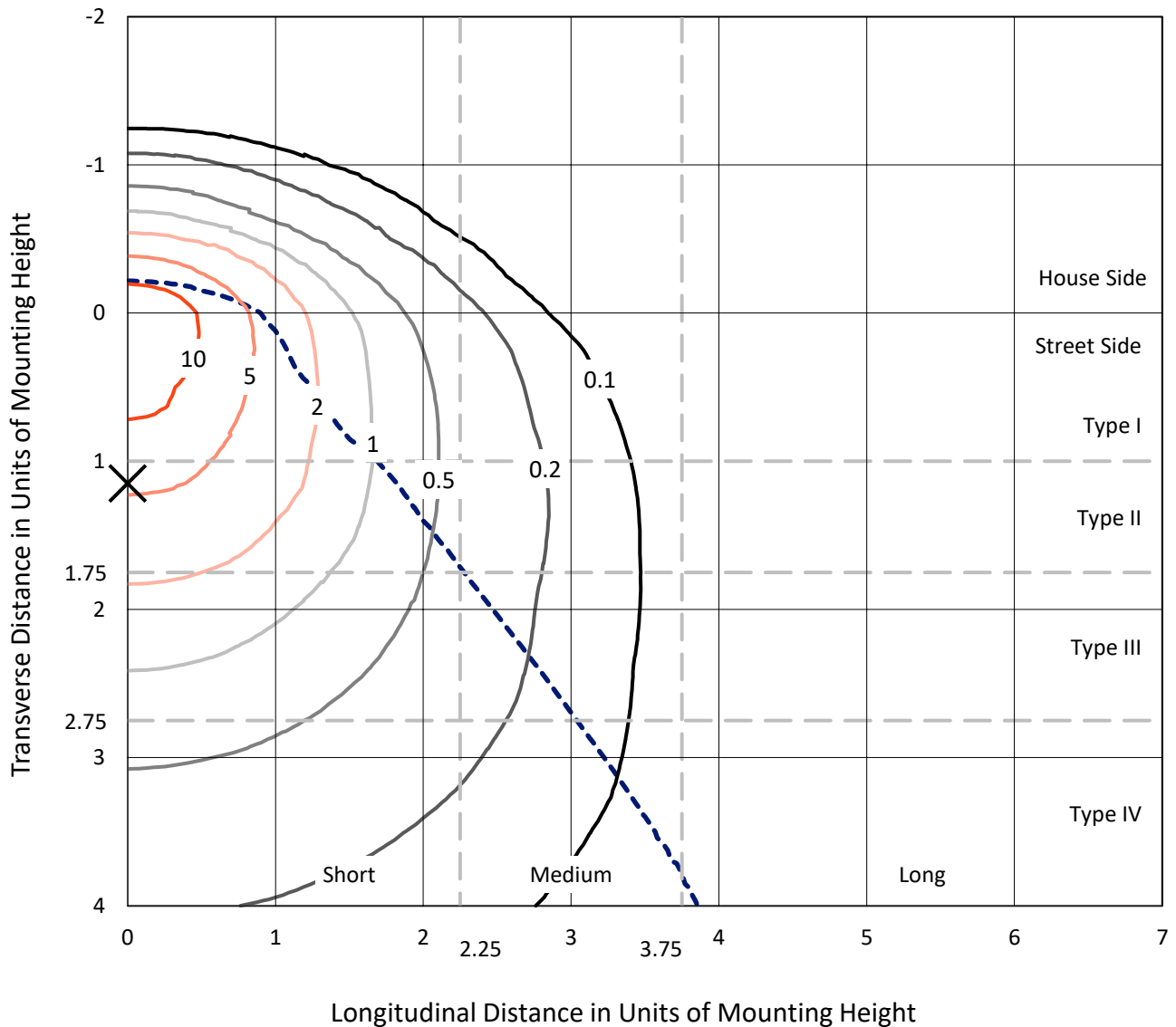
Lumens per Lamp: N/A  
Luminaire Lumens: 11273.6 lumens  
Efficiency: N/A  
Efficacy: 155.1 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.86' x L: 0.17' x H: 0.58')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U3 - G5

Input Watts (W): 72.7  
Input Voltage (V): 120  
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

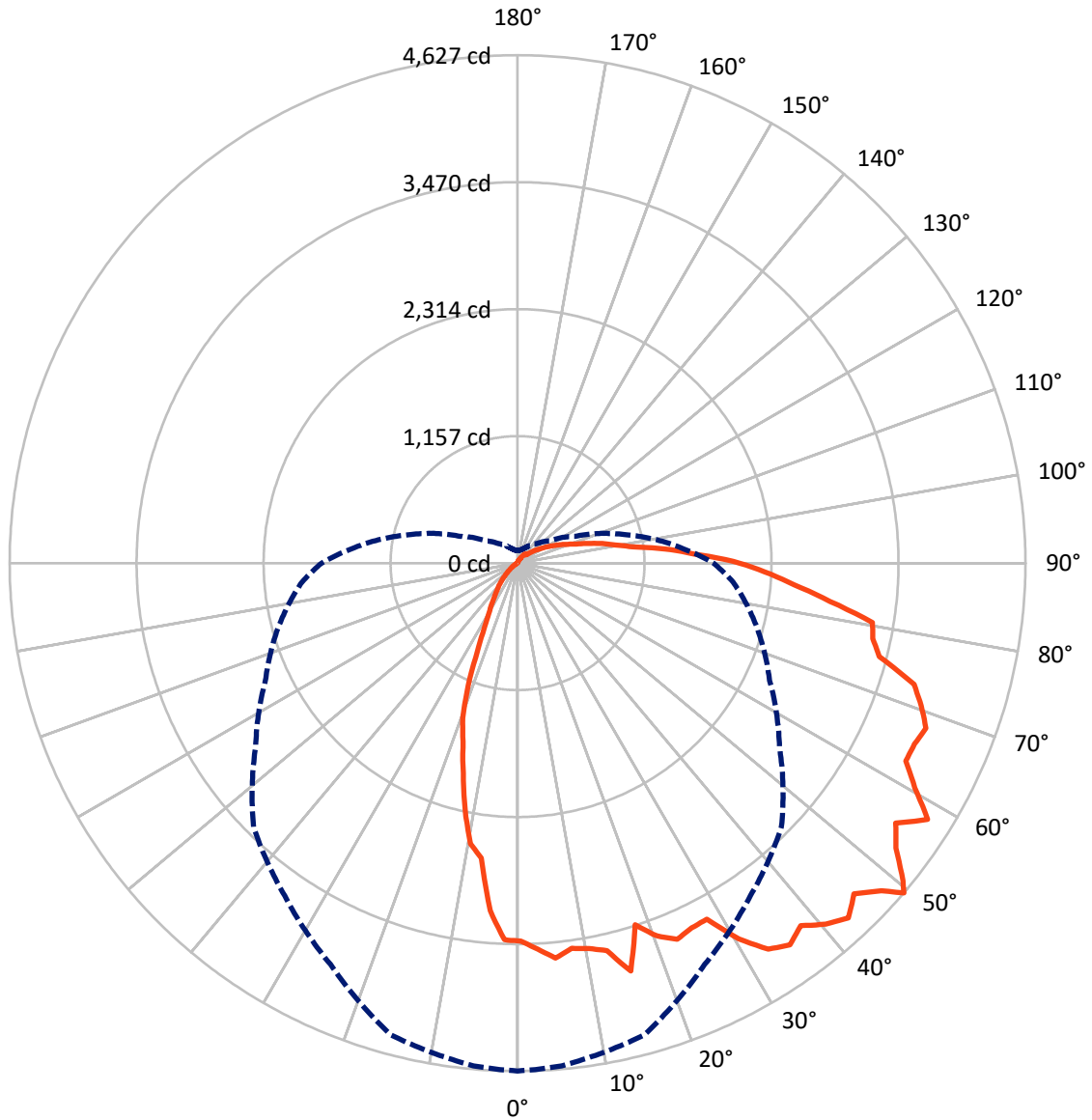
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 15.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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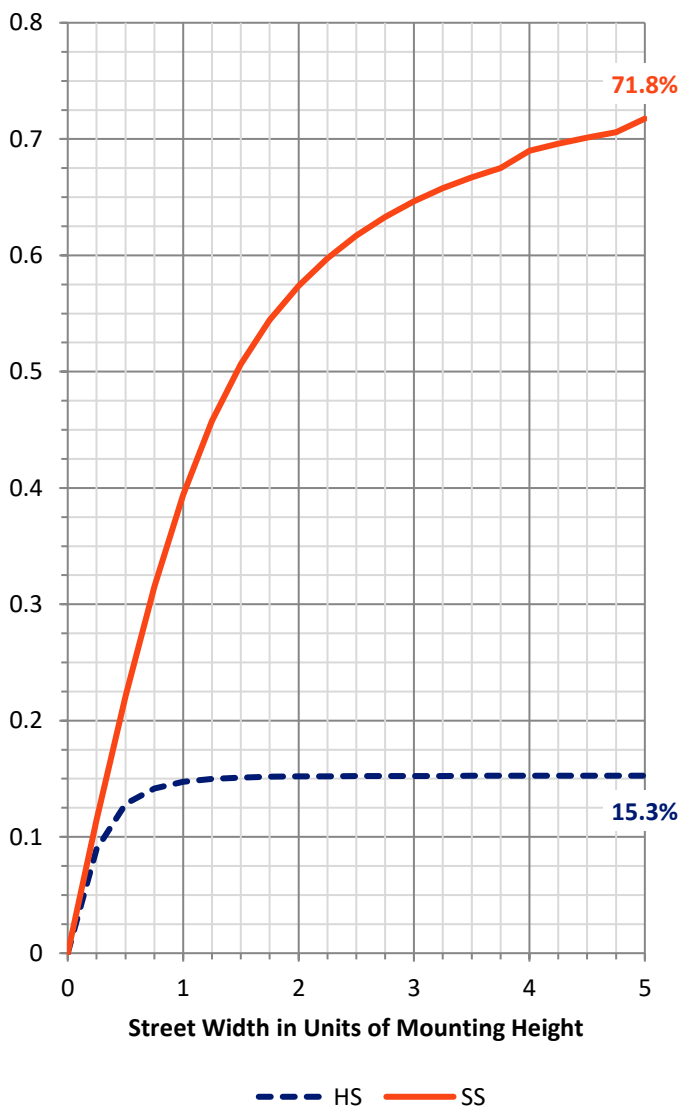
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1741.2   | 15.6   | 1756.7  |
|                    | % Fixture | 15.4     | 0.1    | 15.6    |
| <b>Street Side</b> | Lumens    | 8684.6   | 832.3  | 9516.9  |
|                    | % Fixture | 77.0     | 7.4    | 84.4    |
| <b>Total</b>       | Lumens    | 10425.8  | 847.8  | 11273.6 |
|                    | % Fixture | 92.5     | 7.5    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 320.0   | 2.8       |
| 10°-20°   | 852.4   | 7.6       |
| 20°-30°   | 1184.3  | 10.5      |
| 30°-40°   | 1408.1  | 12.5      |
| 40°-50°   | 1544.4  | 13.7      |
| 50°-60°   | 1557.9  | 13.8      |
| 60°-70°   | 1457.0  | 12.9      |
| 70°-80°   | 1244.1  | 11.0      |
| 80°-90°   | 857.5   | 7.6       |
| 90°-100°  | 433.0   | 3.8       |
| 100°-110° | 206.6   | 1.8       |
| 110°-120° | 106.0   | 0.9       |
| 120°-130° | 53.9    | 0.5       |
| 130°-140° | 28.6    | 0.3       |
| 140°-150° | 14.1    | 0.1       |
| 150°-160° | 4.4     | 0.0       |
| 160°-170° | 0.9     | 0.0       |
| 170°-180° | 0.1     | 0.0       |
| 0°-90°    | 10425.8 | 92.5      |
| 0°-180°   | 11273.6 | 100.0     |



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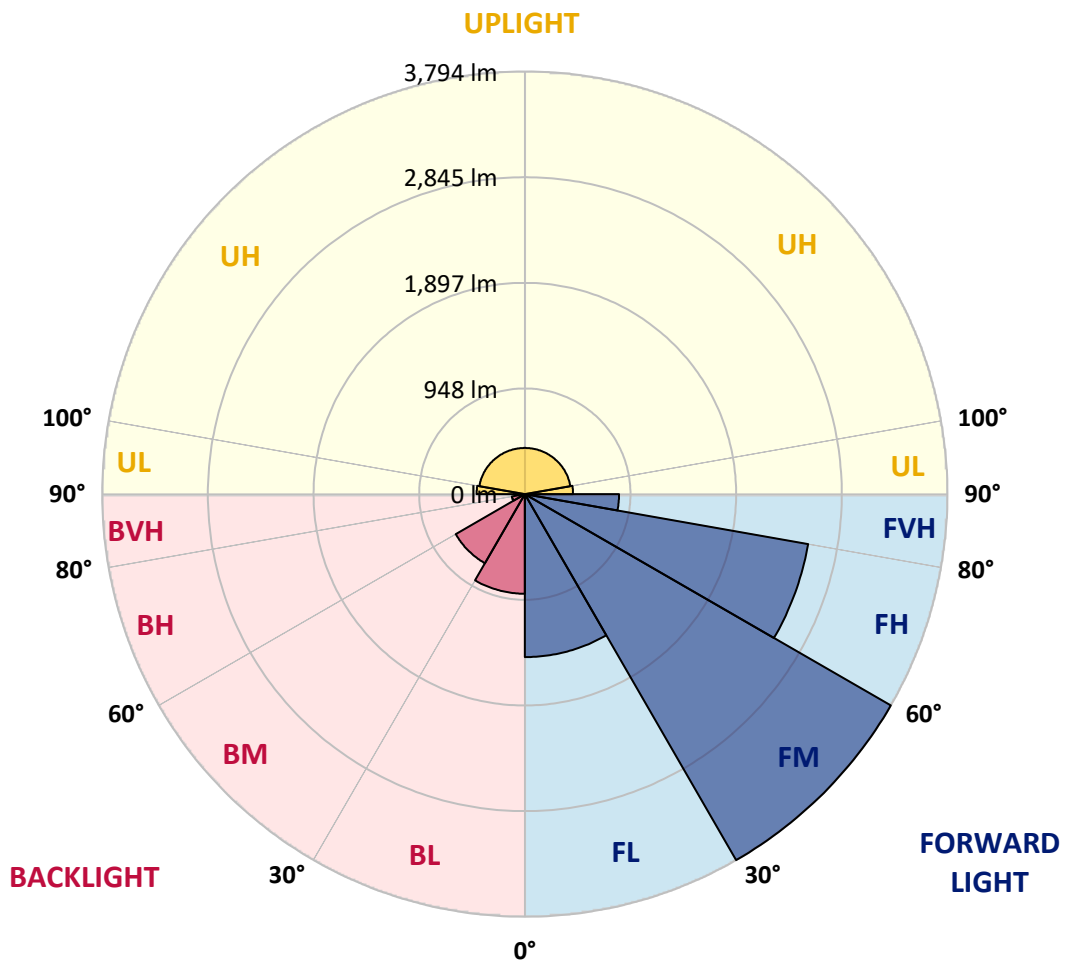
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |        |         |
|----------------|--------|-----------|-------------------------|--------|---------|
|                |        |           | B                       | U      | G       |
| FL (0°-30°)    | 1462.7 | 13.0      |                         |        |         |
| FM (30°-60°)   | 3793.7 | 33.7      |                         |        |         |
| FH (60°-80°)   | 2582.7 | 22.9      |                         |        | G2/5000 |
| FVH (80°-90°)  | 845.6  | 7.5       |                         |        | G5      |
| BL (0°-30°)    | 894.1  | 7.9       | B2/1000                 |        |         |
| BM (30°-60°)   | 716.7  | 6.4       | B1/1000                 |        |         |
| BH (60°-80°)   | 118.5  | 1.1       | B1/500                  |        | G1/500  |
| BVH (80°-90°)  | 11.9   | 0.1       |                         |        | G1/100  |
| UL (90°-100°)  | 433.0  | 3.8       |                         | U3/500 |         |
| UH (100°-180°) | 414.8  | 3.7       |                         | U3/500 |         |

**BUG Rating: B2-U3-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 |
| 2.5°   | 3520.3 | 3532.2 | 3517.9 | 3517.9 | 3513.1 | 3501.2 | 3507.6 | 3489.3 | 3452.8 | 3433.7 | 3454.4 |
| 5°     | 3614.0 | 3610.0 | 3625.9 | 3640.2 | 3627.5 | 3556.8 | 3530.6 | 3474.2 | 3498.9 | 3432.1 | 3440.1 |
| 7.5°   | 3544.1 | 3535.4 | 3556.0 | 3617.2 | 3625.9 | 3610.8 | 3620.4 | 3533.8 | 3498.9 | 3415.5 | 3425.8 |
| 10°    | 3569.5 | 3569.5 | 3524.3 | 3498.1 | 3499.6 | 3549.7 | 3599.7 | 3621.9 | 3475.0 | 3419.4 | 3399.6 |
| 12.5°  | 3622.7 | 3619.6 | 3591.0 | 3576.7 | 3526.6 | 3475.8 | 3534.6 | 3559.2 | 3487.7 | 3408.3 | 3363.9 |
| 15°    | 3856.2 | 3832.4 | 3832.4 | 3703.7 | 3585.4 | 3529.0 | 3436.9 | 3511.6 | 3490.9 | 3375.8 | 3319.4 |
| 17.5°  | 3463.9 | 3471.1 | 3490.9 | 3656.1 | 3778.4 | 3568.7 | 3433.7 | 3420.2 | 3435.3 | 3326.5 | 3263.0 |
| 20°    | 3626.7 | 3632.3 | 3522.7 | 3398.8 | 3525.9 | 3699.0 | 3448.0 | 3282.9 | 3348.8 | 3245.5 | 3189.9 |
| 22.5°  | 3722.0 | 3719.6 | 3723.6 | 3681.5 | 3383.7 | 3512.4 | 3507.6 | 3240.8 | 3263.8 | 3170.1 | 3115.3 |
| 25°    | 3682.3 | 3664.0 | 3652.9 | 3663.2 | 3663.2 | 3297.9 | 3524.3 | 3232.0 | 3198.7 | 3085.1 | 3019.2 |
| 27.5°  | 3672.8 | 3666.4 | 3616.4 | 3625.9 | 3582.2 | 3445.6 | 3288.4 | 3224.1 | 3116.1 | 2983.5 | 2936.6 |
| 30°    | 3973.7 | 3977.7 | 3888.8 | 3635.4 | 3511.6 | 3473.4 | 3116.9 | 3247.1 | 2977.9 | 2891.4 | 2850.9 |
| 32.5°  | 4192.1 | 4188.1 | 4111.1 | 3893.5 | 3516.3 | 3358.3 | 3198.7 | 3178.0 | 2863.6 | 2813.5 | 2757.2 |
| 35°    | 4272.3 | 4261.2 | 4125.4 | 4022.2 | 3741.9 | 3315.4 | 3261.4 | 3020.8 | 2800.8 | 2734.1 | 2666.6 |
| 37.5°  | 4190.5 | 4200.8 | 4098.4 | 4003.9 | 3770.4 | 3381.3 | 3136.7 | 2867.5 | 2749.2 | 2640.4 | 2538.0 |
| 40°    | 4325.5 | 4316.8 | 4269.1 | 3992.8 | 3697.4 | 3483.8 | 3028.7 | 2822.3 | 2725.4 | 2530.0 | 2410.1 |
| 42.5°  | 4418.4 | 4392.2 | 4382.7 | 4105.6 | 3688.6 | 3407.5 | 3023.2 | 2875.5 | 2675.4 | 2392.7 | 2242.6 |
| 45°    | 4296.9 | 4320.0 | 4335.8 | 4082.5 | 3818.1 | 3314.6 | 3108.2 | 2776.2 | 2522.1 | 2241.8 | 2059.1 |
| 47.5°  | 4458.9 | 4432.7 | 4246.9 | 4114.3 | 3722.8 | 3343.2 | 2989.8 | 2600.7 | 2364.1 | 2077.4 | 1897.9 |
| 49°    | 4627.3 | 4598.7 | 4451.8 | 4033.3 | 3699.0 | 3399.6 | 2912.0 | 2534.0 | 2256.1 | 1971.0 | 1786.0 |
| 50°    | 4549.5 | 4541.5 | 4508.2 | 4142.9 | 3727.6 | 3361.5 | 2877.1 | 2480.8 | 2190.2 | 1908.2 | 1719.3 |
| 52.5°  | 4315.2 | 4293.0 | 4341.4 | 4219.1 | 3772.8 | 3240.0 | 2830.2 | 2462.5 | 2040.9 | 1749.4 | 1571.5 |
| 55°    | 4180.2 | 4193.7 | 4180.2 | 4047.6 | 3830.0 | 3256.7 | 2814.3 | 2335.5 | 1923.3 | 1620.0 | 1435.8 |
| 57.5°  | 4404.9 | 4395.4 | 4224.7 | 3906.2 | 3735.5 | 3321.8 | 2668.2 | 2148.1 | 1784.4 | 1503.3 | 1311.9 |
| 60°    | 4157.2 | 4130.2 | 4196.1 | 4014.2 | 3556.0 | 3259.0 | 2565.8 | 2033.7 | 1661.3 | 1391.3 | 1183.2 |
| 62.5°  | 3969.0 | 3983.3 | 3876.9 | 3811.7 | 3588.6 | 3127.2 | 2535.6 | 1996.4 | 1564.4 | 1264.2 | 1052.2 |
| 65°    | 3973.7 | 3965.0 | 3910.2 | 3637.0 | 3405.9 | 3045.4 | 2437.1 | 1879.7 | 1504.0 | 1138.8 | 926.7  |
| 67.5°  | 4012.6 | 4008.7 | 3899.1 | 3649.7 | 3279.7 | 2900.9 | 2283.9 | 1774.8 | 1366.7 | 1027.6 | 799.7  |
| 70°    | 3901.5 | 3881.6 | 3823.6 | 3606.1 | 3261.4 | 2773.0 | 2167.9 | 1730.4 | 1238.0 | 909.3  | 651.2  |
| 72.5°  | 3776.8 | 3746.6 | 3662.4 | 3469.5 | 3182.0 | 2687.3 | 2009.9 | 1608.9 | 1159.4 | 767.1  | 508.2  |
| 75°    | 3402.8 | 3410.7 | 3413.9 | 3251.1 | 2989.0 | 2554.7 | 1865.4 | 1408.8 | 1033.1 | 623.4  | 386.7  |
| 77.5°  | 3308.3 | 3273.3 | 3174.9 | 3015.2 | 2810.4 | 2399.8 | 1718.5 | 1247.5 | 925.9  | 485.2  | 281.9  |
| 80°    | 3277.3 | 3237.6 | 3147.1 | 2889.8 | 2614.2 | 2222.7 | 1572.3 | 1102.2 | 782.2  | 358.9  | 197.7  |
| 82.5°  | 2869.1 | 2865.9 | 2803.2 | 2692.8 | 2373.6 | 1978.9 | 1397.6 | 955.3  | 628.9  | 258.9  | 135.0  |
| 85°    | 2528.5 | 2530.0 | 2463.3 | 2291.8 | 2122.7 | 1740.7 | 1224.5 | 817.1  | 501.1  | 184.2  | 91.3   |
| 87.5°  | 2252.1 | 2265.6 | 2190.2 | 2024.2 | 1809.0 | 1508.0 | 1041.1 | 686.1  | 385.1  | 125.5  | 61.1   |
| 90°    | 1966.2 | 1959.1 | 1893.2 | 1750.2 | 1563.6 | 1246.8 | 862.4  | 551.9  | 289.1  | 85.0   | 42.9   |
| 92.5°  | 1604.9 | 1585.0 | 1541.4 | 1431.0 | 1308.7 | 1044.3 | 695.6  | 425.6  | 218.4  | 61.9   | 36.5   |
| 95°    | 1350.0 | 1349.2 | 1282.5 | 1199.9 | 1055.4 | 860.0  | 569.4  | 342.3  | 175.5  | 52.4   | 36.5   |
| 97.5°  | 1060.9 | 1078.4 | 1033.9 | 987.9  | 871.1  | 697.2  | 470.9  | 280.3  | 141.4  | 49.2   | 38.1   |
| 100°   | 906.9  | 903.7  | 862.4  | 794.1  | 701.2  | 565.4  | 385.1  | 235.9  | 119.1  | 49.2   | 39.7   |
| 102.5° | 793.3  | 800.5  | 771.9  | 698.0  | 590.0  | 459.8  | 317.6  | 199.3  | 101.6  | 51.6   | 41.3   |
| 105°   | 671.8  | 665.5  | 642.4  | 590.0  | 514.6  | 386.7  | 266.0  | 166.8  | 88.9   | 52.4   | 42.1   |
| 107.5° | 563.0  | 569.4  | 550.3  | 500.3  | 425.6  | 327.2  | 225.5  | 140.6  | 80.2   | 52.4   | 42.1   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°  | 85°  | 90°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 110°   | 489.2 | 490.0 | 466.1 | 421.7 | 356.6 | 277.1 | 189.8 | 120.7 | 75.4 | 51.6 | 41.3 |
| 112.5° | 432.0 | 428.0 | 412.1 | 361.3 | 301.8 | 228.7 | 162.0 | 104.8 | 71.5 | 50.0 | 40.5 |
| 115°   | 370.9 | 370.1 | 351.0 | 311.3 | 254.1 | 196.9 | 139.0 | 92.1  | 68.3 | 49.2 | 38.9 |
| 117.5° | 322.4 | 321.6 | 304.9 | 265.2 | 216.0 | 169.1 | 121.5 | 82.6  | 65.1 | 46.1 | 36.5 |
| 120°   | 282.7 | 277.9 | 263.6 | 226.3 | 185.0 | 145.3 | 106.4 | 75.4  | 61.1 | 42.1 | 33.4 |
| 122.5° | 236.6 | 232.7 | 221.6 | 190.6 | 157.2 | 126.3 | 95.3  | 69.1  | 55.6 | 38.1 | 29.4 |
| 125°   | 199.3 | 197.7 | 185.0 | 160.4 | 136.6 | 112.0 | 85.0  | 62.7  | 50.0 | 33.4 | 26.2 |
| 127.5° | 165.2 | 162.8 | 152.5 | 137.4 | 119.9 | 99.3  | 77.0  | 58.0  | 44.5 | 29.4 | 23.0 |
| 130°   | 136.6 | 135.8 | 129.4 | 120.7 | 108.0 | 90.5  | 70.7  | 53.2  | 39.7 | 26.2 | 20.6 |
| 132.5° | 115.9 | 114.4 | 113.6 | 109.6 | 99.3  | 82.6  | 64.3  | 49.2  | 34.9 | 23.0 | 18.3 |
| 135°   | 104.8 | 104.0 | 106.4 | 103.2 | 91.3  | 73.9  | 58.0  | 45.3  | 31.0 | 19.9 | 15.9 |
| 137.5° | 104.8 | 104.8 | 104.8 | 97.7  | 81.8  | 65.1  | 51.6  | 40.5  | 27.0 | 17.5 | 13.5 |
| 140°   | 107.2 | 106.4 | 100.1 | 88.1  | 71.5  | 57.2  | 45.3  | 34.9  | 22.2 | 14.3 | 11.1 |
| 142.5° | 95.3  | 92.9  | 86.6  | 74.6  | 60.4  | 49.2  | 39.7  | 29.4  | 18.3 | 11.9 | 9.5  |
| 145°   | 77.0  | 76.2  | 70.7  | 61.1  | 50.8  | 42.1  | 34.1  | 24.6  | 14.3 | 9.5  | 7.1  |
| 147.5° | 58.8  | 58.8  | 55.6  | 50.0  | 42.9  | 36.5  | 29.4  | 19.9  | 11.1 | 7.9  | 6.4  |
| 150°   | 46.9  | 46.9  | 44.5  | 40.5  | 35.7  | 30.2  | 23.0  | 15.1  | 7.9  | 6.4  | 5.6  |
| 152.5° | 38.1  | 38.1  | 35.7  | 32.6  | 29.4  | 24.6  | 17.5  | 10.3  | 7.1  | 5.6  | 4.8  |
| 155°   | 29.4  | 29.4  | 28.6  | 26.2  | 23.0  | 18.3  | 11.9  | 7.1   | 5.6  | 4.0  | 4.0  |
| 157.5° | 23.8  | 23.0  | 21.4  | 19.9  | 17.5  | 12.7  | 7.9   | 5.6   | 4.8  | 4.0  | 3.2  |
| 160°   | 17.5  | 17.5  | 16.7  | 14.3  | 11.9  | 7.9   | 5.6   | 4.8   | 4.0  | 3.2  | 2.4  |
| 162.5° | 12.7  | 12.7  | 11.9  | 9.5   | 7.9   | 5.6   | 4.8   | 4.0   | 3.2  | 3.2  | 2.4  |
| 165°   | 7.9   | 7.9   | 7.1   | 6.4   | 4.8   | 4.8   | 4.0   | 3.2   | 3.2  | 2.4  | 2.4  |
| 167.5° | 5.6   | 4.8   | 4.8   | 4.0   | 4.0   | 3.2   | 3.2   | 3.2   | 3.2  | 3.2  | 2.4  |
| 170°   | 2.4   | 2.4   | 2.4   | 3.2   | 3.2   | 3.2   | 3.2   | 3.2   | 3.2  | 3.2  | 2.4  |
| 172.5° | 0.8   | 0.8   | 1.6   | 2.4   | 2.4   | 3.2   | 3.2   | 3.2   | 3.2  | 3.2  | 2.4  |
| 175°   | 0.0   | 0.8   | 1.6   | 1.6   | 2.4   | 3.2   | 3.2   | 3.2   | 3.2  | 2.4  | 2.4  |
| 177.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 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  |





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**CANDELA DISTRIBUTION (continued):**

|        | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 | 3443.3 |
| 2.5°   | 3455.2 | 3462.3 | 3453.6 | 3419.4 | 3404.4 | 3415.5 | 3426.6 | 3425.8 | 3430.6 | 3432.9 |
| 5°     | 3458.4 | 3417.1 | 3411.5 | 3405.1 | 3358.3 | 3272.5 | 3226.5 | 3193.1 | 3174.9 | 3173.3 |
| 7.5°   | 3439.3 | 3405.1 | 3371.8 | 3239.2 | 3075.6 | 2951.7 | 2838.9 | 2781.8 | 2717.4 | 2706.3 |
| 10°    | 3421.8 | 3399.6 | 3219.3 | 2991.4 | 2761.9 | 2661.9 | 2618.2 | 2605.5 | 2585.6 | 2591.2 |
| 12.5°  | 3353.5 | 3305.1 | 3028.7 | 2727.8 | 2600.7 | 2555.5 | 2459.4 | 2355.3 | 2279.1 | 2299.7 |
| 15°    | 3308.3 | 3178.8 | 2823.9 | 2584.0 | 2495.9 | 2272.0 | 2104.4 | 2014.7 | 1977.3 | 1975.7 |
| 17.5°  | 3240.0 | 3016.0 | 2611.8 | 2481.6 | 2206.8 | 1988.5 | 1874.1 | 1782.0 | 1714.5 | 1697.0 |
| 20°    | 3154.2 | 2831.0 | 2495.9 | 2260.0 | 1966.2 | 1762.1 | 1628.7 | 1551.7 | 1509.6 | 1496.9 |
| 22.5°  | 3070.0 | 2684.9 | 2363.3 | 2003.5 | 1744.7 | 1556.5 | 1405.6 | 1273.0 | 1198.3 | 1198.3 |
| 25°    | 2970.8 | 2503.0 | 2189.4 | 1804.2 | 1536.6 | 1334.1 | 1123.7 | 960.1  | 887.0  | 875.9  |
| 27.5°  | 2852.4 | 2343.4 | 1985.3 | 1603.3 | 1334.1 | 1052.2 | 848.9  | 725.0  | 678.2  | 671.0  |
| 30°    | 2728.6 | 2198.1 | 1794.7 | 1419.9 | 1105.4 | 821.1  | 662.3  | 578.9  | 539.2  | 532.8  |
| 32.5°  | 2603.9 | 2070.2 | 1617.6 | 1230.1 | 881.5  | 649.6  | 530.5  | 473.3  | 445.5  | 447.1  |
| 35°    | 2450.6 | 1924.1 | 1441.3 | 1045.8 | 708.3  | 528.9  | 447.1  | 399.4  | 372.4  | 369.3  |
| 37.5°  | 2315.6 | 1756.6 | 1257.9 | 863.2  | 567.8  | 439.1  | 370.9  | 339.1  | 318.4  | 312.9  |
| 40°    | 2157.6 | 1590.6 | 1072.8 | 694.1  | 473.3  | 372.4  | 318.4  | 282.7  | 263.6  | 265.2  |
| 42.5°  | 1983.7 | 1398.4 | 917.2  | 558.3  | 400.2  | 317.6  | 266.0  | 234.3  | 217.6  | 218.4  |
| 45°    | 1796.3 | 1238.0 | 775.1  | 461.4  | 335.9  | 264.4  | 216.8  | 187.4  | 171.5  | 169.9  |
| 47.5°  | 1613.6 | 1083.2 | 645.6  | 388.3  | 280.3  | 216.8  | 173.1  | 146.1  | 135.0  | 134.2  |
| 49°    | 1514.4 | 1003.8 | 574.9  | 353.4  | 252.5  | 193.8  | 150.9  | 126.3  | 115.1  | 114.4  |
| 50°    | 1451.6 | 949.8  | 532.8  | 331.9  | 234.3  | 177.9  | 138.2  | 115.9  | 102.4  | 102.4  |
| 52.5°  | 1316.6 | 817.9  | 437.6  | 285.9  | 195.4  | 142.9  | 107.2  | 88.9   | 81.8   | 80.2   |
| 55°    | 1172.9 | 692.5  | 371.6  | 239.8  | 162.0  | 112.8  | 83.4   | 67.5   | 59.6   | 57.2   |
| 57.5°  | 1037.9 | 578.9  | 320.0  | 201.7  | 131.8  | 87.4   | 61.1   | 46.9   | 41.3   | 40.5   |
| 60°    | 910.8  | 478.8  | 276.4  | 170.7  | 105.6  | 65.1   | 42.9   | 30.2   | 25.4   | 25.4   |
| 62.5°  | 792.5  | 392.3  | 235.9  | 142.9  | 81.8   | 46.1   | 24.6   | 15.9   | 15.1   | 15.9   |
| 65°    | 664.7  | 328.0  | 200.9  | 115.9  | 60.4   | 29.4   | 9.5    | 4.0    | 4.0    | 4.0    |
| 67.5°  | 540.8  | 273.2  | 169.9  | 92.1   | 42.1   | 13.5   | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°    | 428.8  | 228.7  | 142.1  | 73.1   | 27.0   | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5°  | 328.8  | 190.6  | 119.1  | 55.6   | 15.1   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°    | 249.4  | 154.1  | 96.1   | 41.3   | 5.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5°  | 183.4  | 122.3  | 77.0   | 28.6   | 2.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°    | 136.6  | 96.1   | 59.6   | 20.6   | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5°  | 100.1  | 76.2   | 45.3   | 14.3   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°    | 70.7   | 61.1   | 35.7   | 10.3   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5°  | 52.4   | 49.2   | 29.4   | 7.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°    | 41.3   | 40.5   | 23.0   | 5.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 35.7   | 34.1   | 19.9   | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 33.4   | 30.2   | 16.7   | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 33.4   | 27.0   | 14.3   | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 34.1   | 24.6   | 11.9   | 2.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 34.1   | 23.0   | 11.1   | 2.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 34.1   | 21.4   | 9.5    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 34.1   | 19.9   | 7.9    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P979154  
 CATALOG NUMBER: WPMLD26S-70W-3500K

**CANDELA DISTRIBUTION (continued):**

|        | 95°  | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|--------|------|------|------|------|------|------|------|------|------|------|
| 110°   | 33.4 | 18.3 | 7.1  | 1.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 112.5° | 31.8 | 16.7 | 4.8  | 1.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 115°   | 31.0 | 15.1 | 4.0  | 1.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 117.5° | 28.6 | 13.5 | 4.0  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 120°   | 25.4 | 11.9 | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 122.5° | 22.2 | 10.3 | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 125°   | 19.9 | 8.7  | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 127.5° | 17.5 | 7.9  | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 130°   | 15.1 | 7.1  | 2.4  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 132.5° | 13.5 | 6.4  | 2.4  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 135°   | 11.9 | 5.6  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137.5° | 10.3 | 4.8  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140°   | 8.7  | 4.0  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.5° | 7.1  | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145°   | 6.4  | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147.5° | 5.6  | 3.2  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150°   | 4.8  | 2.4  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152.5° | 4.0  | 2.4  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155°   | 3.2  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157.5° | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160°   | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162.5° | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 2.4  | 1.6  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 1.6  | 0.8  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 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  |

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

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2407-168-2

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 3500k

Data in this report applies to families of products including LSDL-92S-100W 3500k.

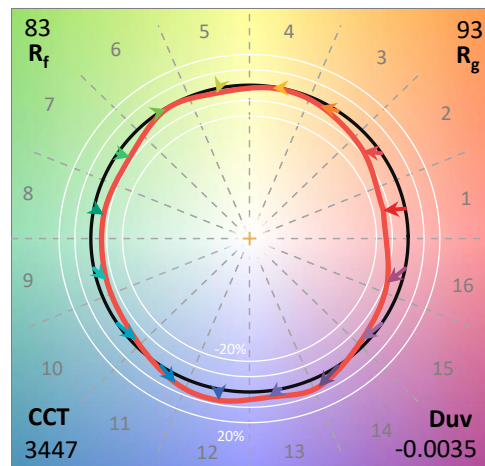
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-168-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/12/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Lumark  
 Catalog Number: **LSDL-92S-100W 3500k**  
 Description: Lumark Wallpack 100W

**Spectral Parameters**

CCT (K): 3447  
 CIE u': 0.2387  
 CIE v': 0.5076  
 Duv: -0.0035  
 CIE x: 0.4046  
 CIE y: 0.3824  
 CIE z: 0.2130  
 Peak Wavelength (nm): 597  
 Dominant Wavelength (nm): 582  
 Purity: 36.18615  
 Rf: 82.6  
 Rg: 93

|           |      |      |      |
|-----------|------|------|------|
| CRI (Ra): | 81.3 |      |      |
| R1:       | 80.7 | R9:  | -0.6 |
| R2:       | 93.3 | R10: | 84.3 |
| R3:       | 92.2 | R11: | 76.0 |
| R4:       | 77.2 | R12: | 69.4 |
| R5:       | 81.3 | R13: | 84.3 |
| R6:       | 90.3 | R14: | 96.4 |
| R7:       | 79.5 | R15: | 73.7 |
| R8:       | 55.9 |      |      |



**Test Conditions**

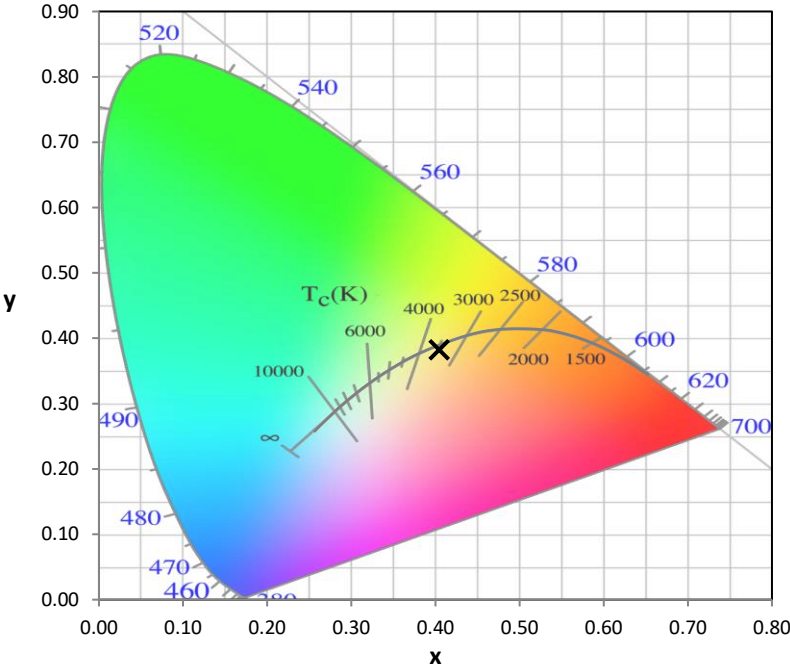
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-168-2

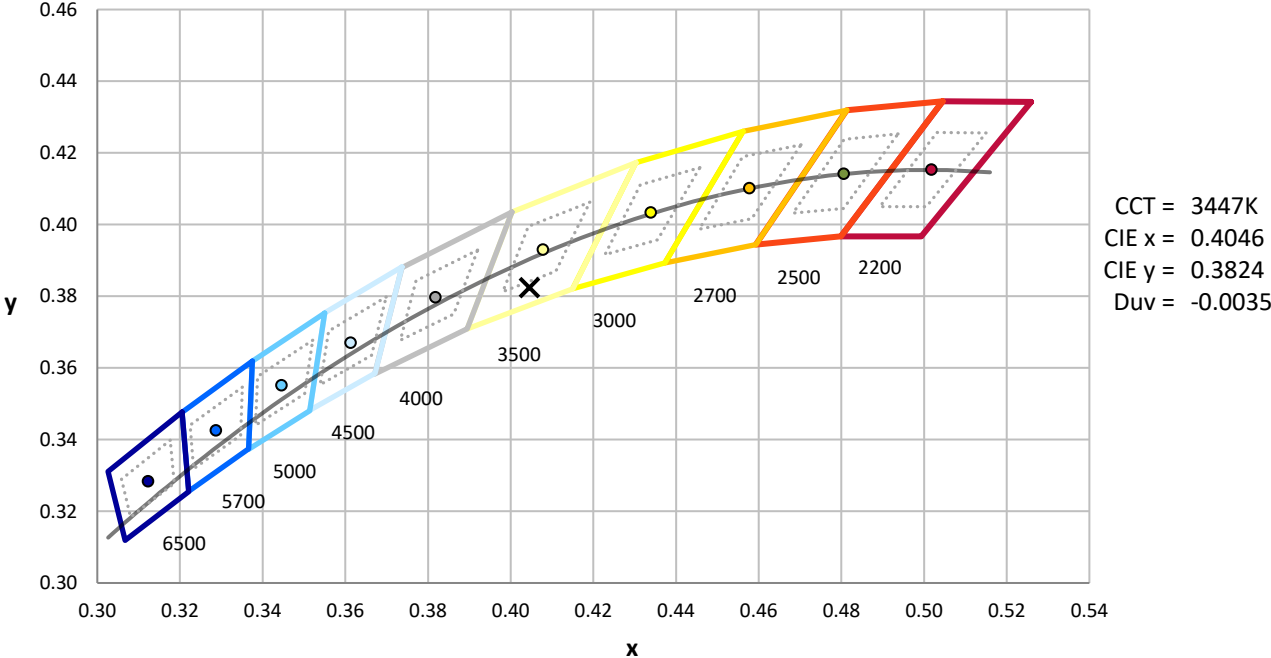
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| 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           |

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CIE 1931 Chromaticity Diagram



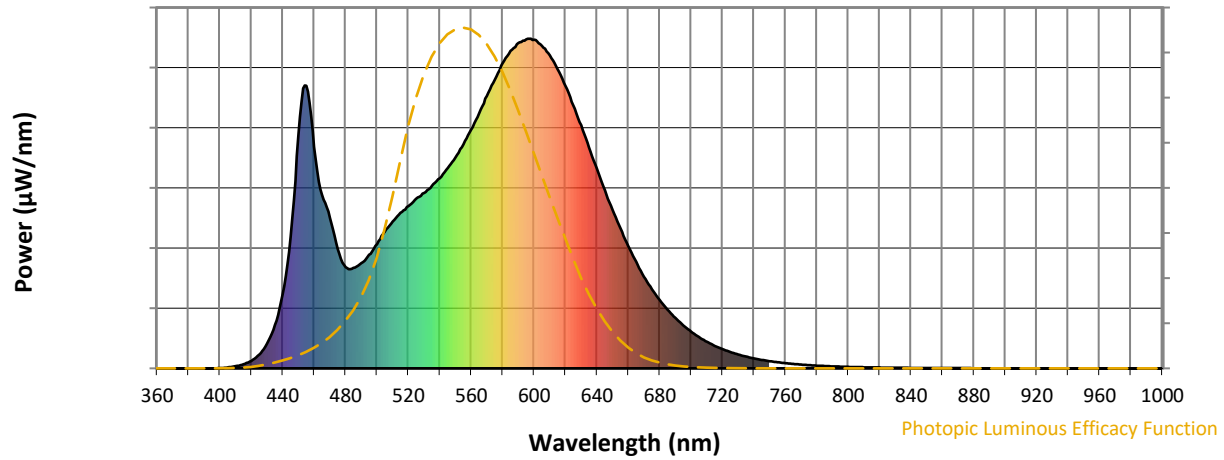
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-168-2

**Photopic Flux vs. Wavelength**

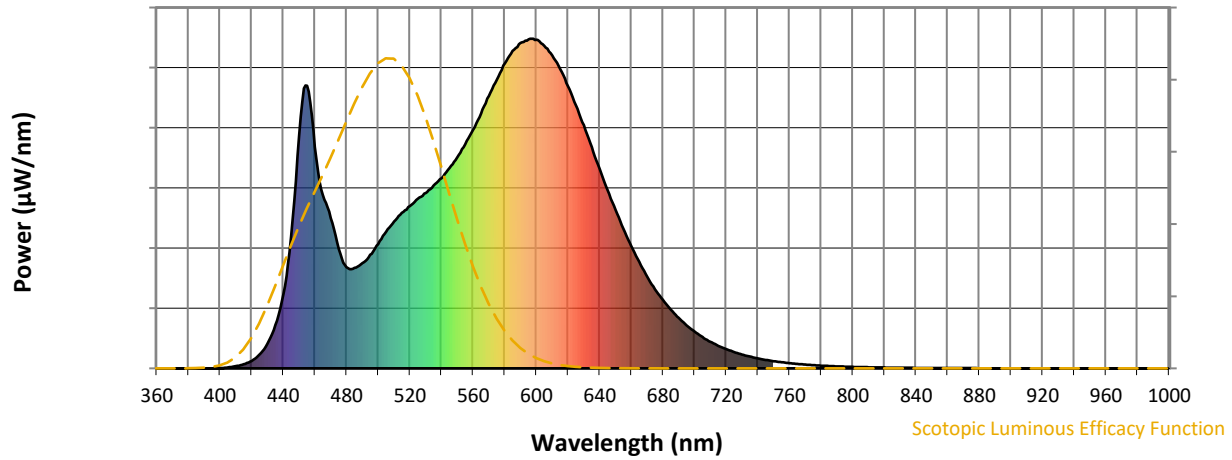


**Photopic Lumens: NR**

| $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) |
|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|
| 360            | 0                        | NR                   | 490            | 319                      | NR                   | 620            | 856                      | NR                   | 750            | 22                       | NR                   | 880            | 1                        | NR                   |
| 365            | 0                        | NR                   | 495            | 344                      | NR                   | 625            | 798                      | NR                   | 755            | 18                       | NR                   | 885            | 0                        | NR                   |
| 370            | 0                        | NR                   | 500            | 377                      | NR                   | 630            | 738                      | NR                   | 760            | 16                       | NR                   | 890            | 0                        | NR                   |
| 375            | 0                        | NR                   | 505            | 415                      | NR                   | 635            | 671                      | NR                   | 765            | 13                       | NR                   | 895            | 0                        | NR                   |
| 380            | 0                        | NR                   | 510            | 445                      | NR                   | 640            | 606                      | NR                   | 770            | 11                       | NR                   | 900            | 0                        | NR                   |
| 385            | 0                        | NR                   | 515            | 472                      | NR                   | 645            | 541                      | NR                   | 775            | 10                       | NR                   | 905            | 0                        | NR                   |
| 390            | 0                        | NR                   | 520            | 492                      | NR                   | 650            | 481                      | NR                   | 780            | 8                        | NR                   | 910            | 0                        | NR                   |
| 395            | 0                        | NR                   | 525            | 514                      | NR                   | 655            | 424                      | NR                   | 785            | 7                        | NR                   | 915            | 0                        | NR                   |
| 400            | 1                        | NR                   | 530            | 532                      | NR                   | 660            | 371                      | NR                   | 790            | 6                        | NR                   | 920            | 0                        | NR                   |
| 405            | 3                        | NR                   | 535            | 554                      | NR                   | 665            | 323                      | NR                   | 795            | 5                        | NR                   | 925            | 0                        | NR                   |
| 410            | 6                        | NR                   | 540            | 577                      | NR                   | 670            | 278                      | NR                   | 800            | 4                        | NR                   | 930            | 0                        | NR                   |
| 415            | 12                       | NR                   | 545            | 608                      | NR                   | 675            | 240                      | NR                   | 805            | 4                        | NR                   | 935            | 0                        | NR                   |
| 420            | 23                       | NR                   | 550            | 640                      | NR                   | 680            | 207                      | NR                   | 810            | 3                        | NR                   | 940            | 0                        | NR                   |
| 425            | 42                       | NR                   | 555            | 680                      | NR                   | 685            | 178                      | NR                   | 815            | 3                        | NR                   | 945            | 0                        | NR                   |
| 430            | 75                       | NR                   | 560            | 725                      | NR                   | 690            | 154                      | NR                   | 820            | 3                        | NR                   | 950            | 0                        | NR                   |
| 435            | 132                      | NR                   | 565            | 774                      | NR                   | 695            | 131                      | NR                   | 825            | 2                        | NR                   | 955            | 0                        | NR                   |
| 440            | 225                      | NR                   | 570            | 826                      | NR                   | 700            | 111                      | NR                   | 830            | 2                        | NR                   | 960            | 0                        | NR                   |
| 445            | 400                      | NR                   | 575            | 875                      | NR                   | 705            | 95                       | NR                   | 835            | 2                        | NR                   | 965            | 0                        | NR                   |
| 450            | 706                      | NR                   | 580            | 925                      | NR                   | 710            | 80                       | NR                   | 840            | 1                        | NR                   | 970            | 0                        | NR                   |
| 455            | 858                      | NR                   | 585            | 963                      | NR                   | 715            | 68                       | NR                   | 845            | 1                        | NR                   | 975            | 0                        | NR                   |
| 460            | 672                      | NR                   | 590            | 987                      | NR                   | 720            | 58                       | NR                   | 850            | 1                        | NR                   | 980            | 0                        | NR                   |
| 465            | 526                      | NR                   | 595            | 998                      | NR                   | 725            | 49                       | NR                   | 855            | 1                        | NR                   | 985            | 0                        | NR                   |
| 470            | 456                      | NR                   | 600            | 997                      | NR                   | 730            | 42                       | NR                   | 860            | 1                        | NR                   | 990            | 0                        | NR                   |
| 475            | 363                      | NR                   | 605            | 978                      | NR                   | 735            | 36                       | NR                   | 865            | 1                        | NR                   | 995            | 0                        | NR                   |
| 480            | 307                      | NR                   | 610            | 950                      | NR                   | 740            | 30                       | NR                   | 870            | 1                        | NR                   | 1000           | 0                        | NR                   |
| 485            | 305                      | NR                   | 615            | 908                      | NR                   | 745            | 26                       | NR                   | 875            | 1                        | NR                   |                |                          |                      |

REPORT NUMBER: SP1-2407-168-2

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

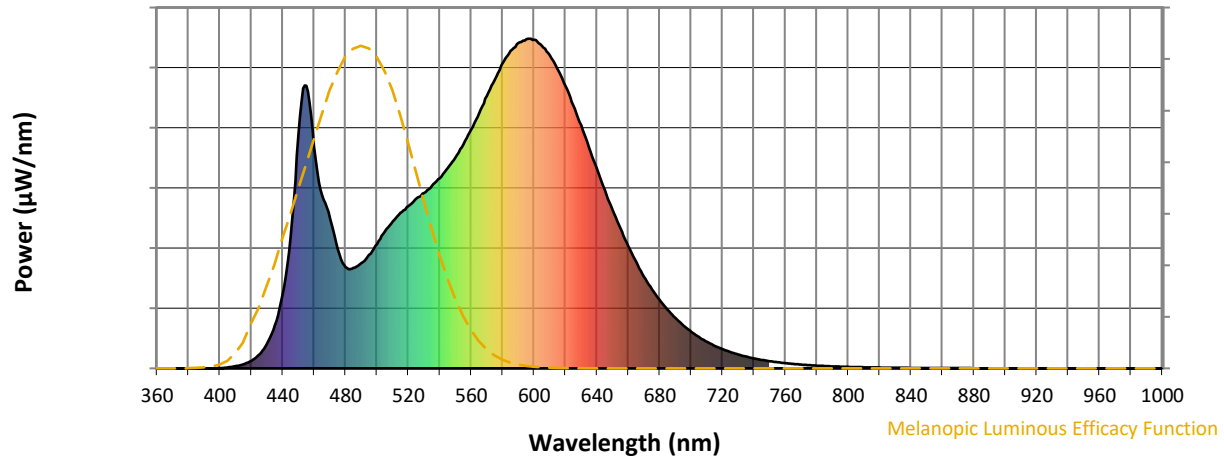
**S/P: 1.56**

| λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 319                      | NR            | 620    | 856                      | NR            | 750    | 22                       | NR            | 880    | 1                        | NR            |
| 365    | 0                        | NR            | 495    | 344                      | NR            | 625    | 798                      | NR            | 755    | 18                       | NR            | 885    | 0                        | NR            |
| 370    | 0                        | NR            | 500    | 377                      | NR            | 630    | 738                      | NR            | 760    | 16                       | NR            | 890    | 0                        | NR            |
| 375    | 0                        | NR            | 505    | 415                      | NR            | 635    | 671                      | NR            | 765    | 13                       | NR            | 895    | 0                        | NR            |
| 380    | 0                        | NR            | 510    | 445                      | NR            | 640    | 606                      | NR            | 770    | 11                       | NR            | 900    | 0                        | NR            |
| 385    | 0                        | NR            | 515    | 472                      | NR            | 645    | 541                      | NR            | 775    | 10                       | NR            | 905    | 0                        | NR            |
| 390    | 0                        | NR            | 520    | 492                      | NR            | 650    | 481                      | NR            | 780    | 8                        | NR            | 910    | 0                        | NR            |
| 395    | 0                        | NR            | 525    | 514                      | NR            | 655    | 424                      | NR            | 785    | 7                        | NR            | 915    | 0                        | NR            |
| 400    | 1                        | NR            | 530    | 532                      | NR            | 660    | 371                      | NR            | 790    | 6                        | NR            | 920    | 0                        | NR            |
| 405    | 3                        | NR            | 535    | 554                      | NR            | 665    | 323                      | NR            | 795    | 5                        | NR            | 925    | 0                        | NR            |
| 410    | 6                        | NR            | 540    | 577                      | NR            | 670    | 278                      | NR            | 800    | 4                        | NR            | 930    | 0                        | NR            |
| 415    | 12                       | NR            | 545    | 608                      | NR            | 675    | 240                      | NR            | 805    | 4                        | NR            | 935    | 0                        | NR            |
| 420    | 23                       | NR            | 550    | 640                      | NR            | 680    | 207                      | NR            | 810    | 3                        | NR            | 940    | 0                        | NR            |
| 425    | 42                       | NR            | 555    | 680                      | NR            | 685    | 178                      | NR            | 815    | 3                        | NR            | 945    | 0                        | NR            |
| 430    | 75                       | NR            | 560    | 725                      | NR            | 690    | 154                      | NR            | 820    | 3                        | NR            | 950    | 0                        | NR            |
| 435    | 132                      | NR            | 565    | 774                      | NR            | 695    | 131                      | NR            | 825    | 2                        | NR            | 955    | 0                        | NR            |
| 440    | 225                      | NR            | 570    | 826                      | NR            | 700    | 111                      | NR            | 830    | 2                        | NR            | 960    | 0                        | NR            |
| 445    | 400                      | NR            | 575    | 875                      | NR            | 705    | 95                       | NR            | 835    | 2                        | NR            | 965    | 0                        | NR            |
| 450    | 706                      | NR            | 580    | 925                      | NR            | 710    | 80                       | NR            | 840    | 1                        | NR            | 970    | 0                        | NR            |
| 455    | 858                      | NR            | 585    | 963                      | NR            | 715    | 68                       | NR            | 845    | 1                        | NR            | 975    | 0                        | NR            |
| 460    | 672                      | NR            | 590    | 987                      | NR            | 720    | 58                       | NR            | 850    | 1                        | NR            | 980    | 0                        | NR            |
| 465    | 526                      | NR            | 595    | 998                      | NR            | 725    | 49                       | NR            | 855    | 1                        | NR            | 985    | 0                        | NR            |
| 470    | 456                      | NR            | 600    | 997                      | NR            | 730    | 42                       | NR            | 860    | 1                        | NR            | 990    | 0                        | NR            |
| 475    | 363                      | NR            | 605    | 978                      | NR            | 735    | 36                       | NR            | 865    | 1                        | NR            | 995    | 0                        | NR            |
| 480    | 307                      | NR            | 610    | 950                      | NR            | 740    | 30                       | NR            | 870    | 1                        | NR            | 1000   | 0                        | NR            |
| 485    | 305                      | NR            | 615    | 908                      | NR            | 745    | 26                       | NR            | 875    | 1                        | NR            |        |                          |               |



REPORT NUMBER: SP1-2407-168-2

Melanopic Flux vs. Wavelength



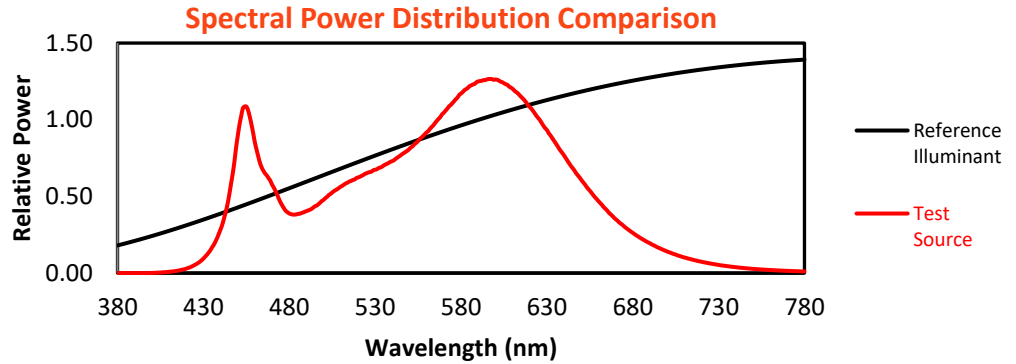
Melanopic Lumens: NR

M/P: 3.22

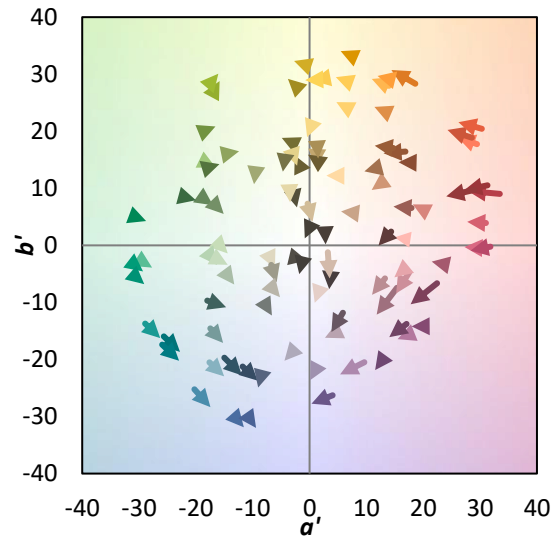
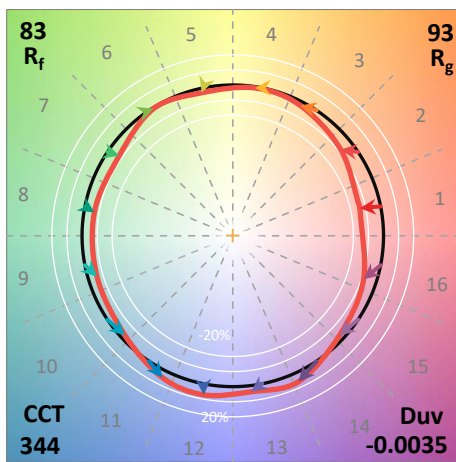
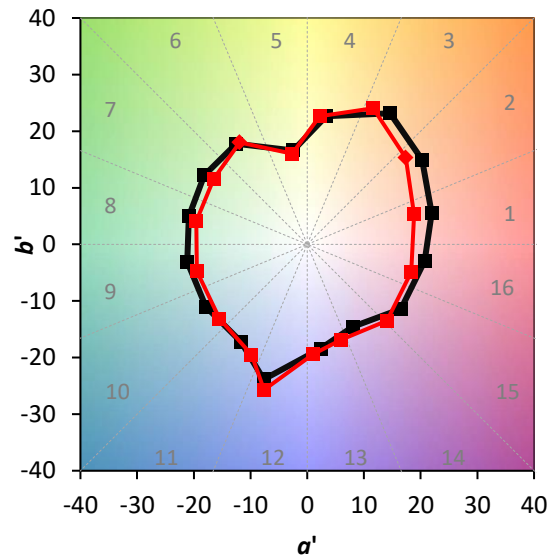
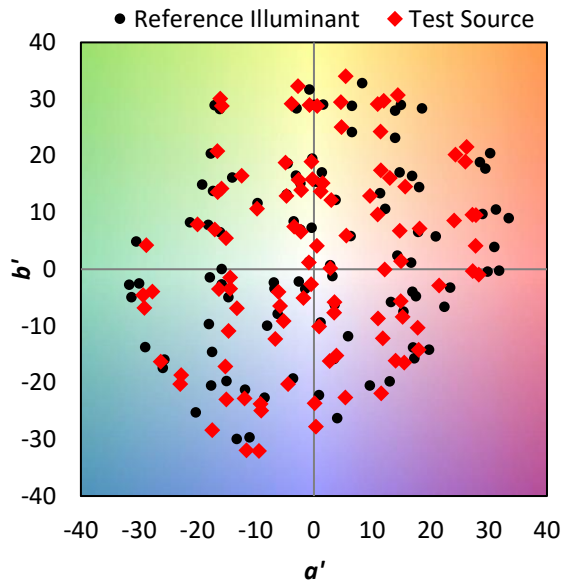
| λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 319                      | NR            | 620    | 856                      | NR            | 750    | 22                       | NR            | 880    | 1                        | NR            |
| 365    | 0                        | NR            | 495    | 344                      | NR            | 625    | 798                      | NR            | 755    | 18                       | NR            | 885    | 0                        | NR            |
| 370    | 0                        | NR            | 500    | 377                      | NR            | 630    | 738                      | NR            | 760    | 16                       | NR            | 890    | 0                        | NR            |
| 375    | 0                        | NR            | 505    | 415                      | NR            | 635    | 671                      | NR            | 765    | 13                       | NR            | 895    | 0                        | NR            |
| 380    | 0                        | NR            | 510    | 445                      | NR            | 640    | 606                      | NR            | 770    | 11                       | NR            | 900    | 0                        | NR            |
| 385    | 0                        | NR            | 515    | 472                      | NR            | 645    | 541                      | NR            | 775    | 10                       | NR            | 905    | 0                        | NR            |
| 390    | 0                        | NR            | 520    | 492                      | NR            | 650    | 481                      | NR            | 780    | 8                        | NR            | 910    | 0                        | NR            |
| 395    | 0                        | NR            | 525    | 514                      | NR            | 655    | 424                      | NR            | 785    | 7                        | NR            | 915    | 0                        | NR            |
| 400    | 1                        | NR            | 530    | 532                      | NR            | 660    | 371                      | NR            | 790    | 6                        | NR            | 920    | 0                        | NR            |
| 405    | 3                        | NR            | 535    | 554                      | NR            | 665    | 323                      | NR            | 795    | 5                        | NR            | 925    | 0                        | NR            |
| 410    | 6                        | NR            | 540    | 577                      | NR            | 670    | 278                      | NR            | 800    | 4                        | NR            | 930    | 0                        | NR            |
| 415    | 12                       | NR            | 545    | 608                      | NR            | 675    | 240                      | NR            | 805    | 4                        | NR            | 935    | 0                        | NR            |
| 420    | 23                       | NR            | 550    | 640                      | NR            | 680    | 207                      | NR            | 810    | 3                        | NR            | 940    | 0                        | NR            |
| 425    | 42                       | NR            | 555    | 680                      | NR            | 685    | 178                      | NR            | 815    | 3                        | NR            | 945    | 0                        | NR            |
| 430    | 75                       | NR            | 560    | 725                      | NR            | 690    | 154                      | NR            | 820    | 3                        | NR            | 950    | 0                        | NR            |
| 435    | 132                      | NR            | 565    | 774                      | NR            | 695    | 131                      | NR            | 825    | 2                        | NR            | 955    | 0                        | NR            |
| 440    | 225                      | NR            | 570    | 826                      | NR            | 700    | 111                      | NR            | 830    | 2                        | NR            | 960    | 0                        | NR            |
| 445    | 400                      | NR            | 575    | 875                      | NR            | 705    | 95                       | NR            | 835    | 2                        | NR            | 965    | 0                        | NR            |
| 450    | 706                      | NR            | 580    | 925                      | NR            | 710    | 80                       | NR            | 840    | 1                        | NR            | 970    | 0                        | NR            |
| 455    | 858                      | NR            | 585    | 963                      | NR            | 715    | 68                       | NR            | 845    | 1                        | NR            | 975    | 0                        | NR            |
| 460    | 672                      | NR            | 590    | 987                      | NR            | 720    | 58                       | NR            | 850    | 1                        | NR            | 980    | 0                        | NR            |
| 465    | 526                      | NR            | 595    | 998                      | NR            | 725    | 49                       | NR            | 855    | 1                        | NR            | 985    | 0                        | NR            |
| 470    | 456                      | NR            | 600    | 997                      | NR            | 730    | 42                       | NR            | 860    | 1                        | NR            | 990    | 0                        | NR            |
| 475    | 363                      | NR            | 605    | 978                      | NR            | 735    | 36                       | NR            | 865    | 1                        | NR            | 995    | 0                        | NR            |
| 480    | 307                      | NR            | 610    | 950                      | NR            | 740    | 30                       | NR            | 870    | 1                        | NR            | 1000   | 0                        | NR            |
| 485    | 305                      | NR            | 615    | 908                      | NR            | 745    | 26                       | NR            | 875    | 1                        | NR            |        |                          |               |

**Summary**

$R_f = 82.6$   
 $R_g = 93$   
 CIE  $R_a = 81.3$   
 $R_9 = -0.6$

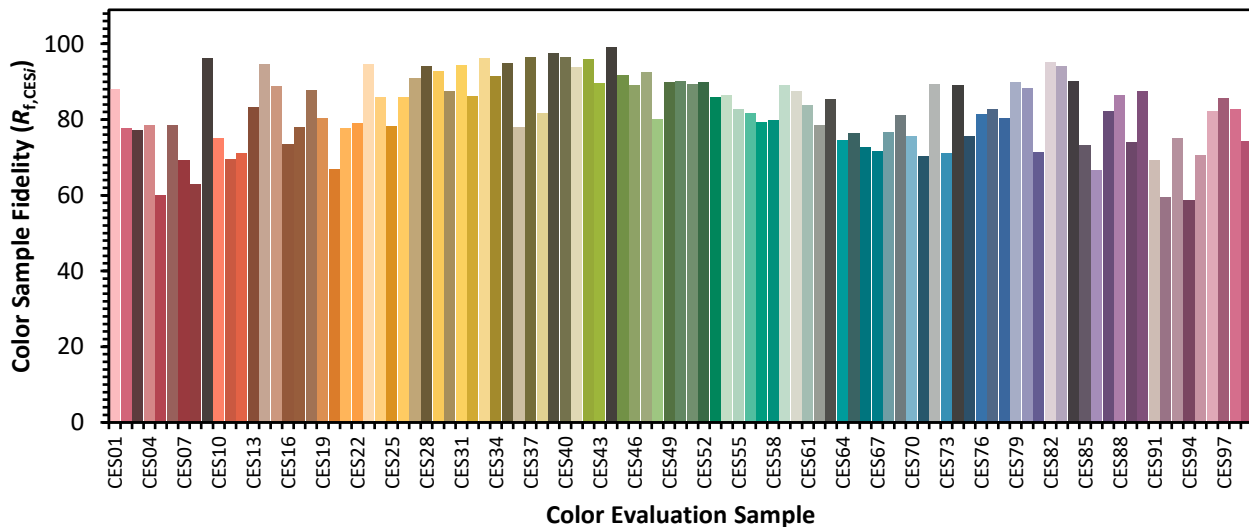


**Color Vector Graphics**

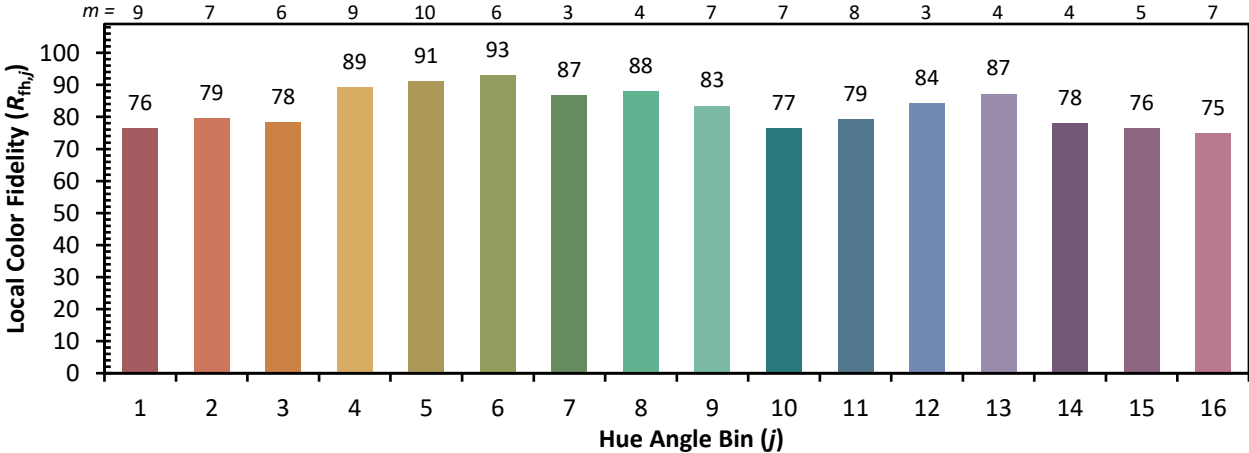
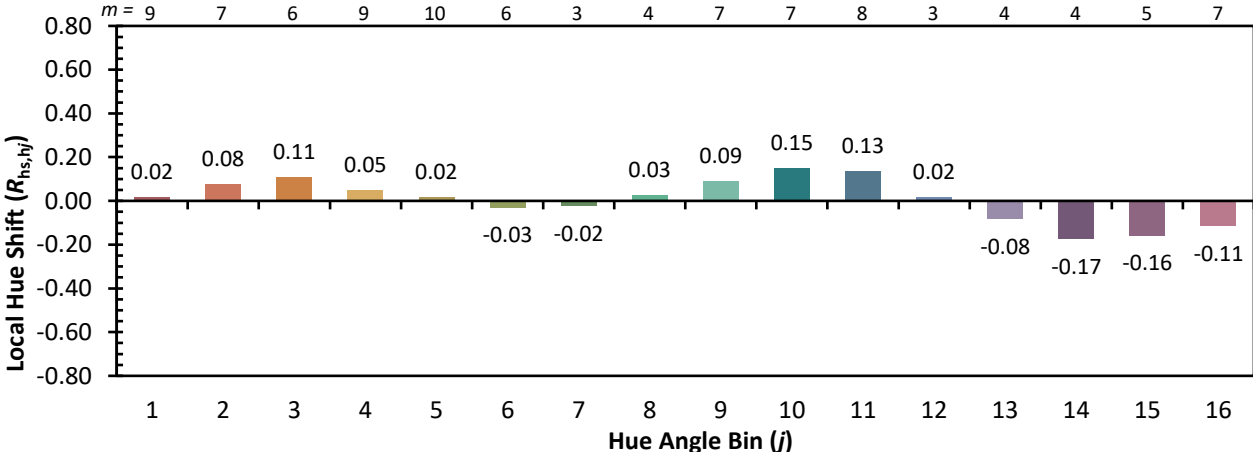
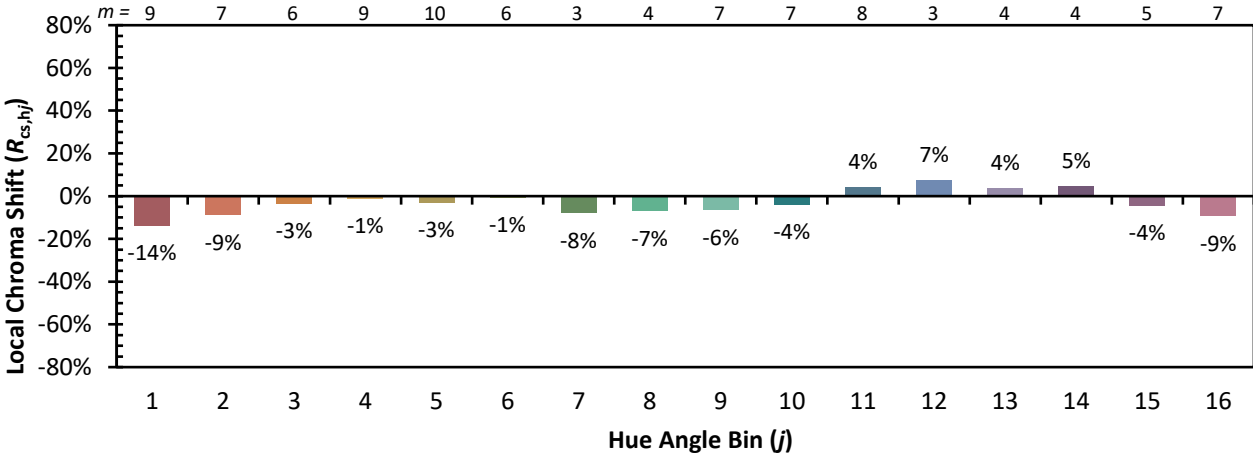


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

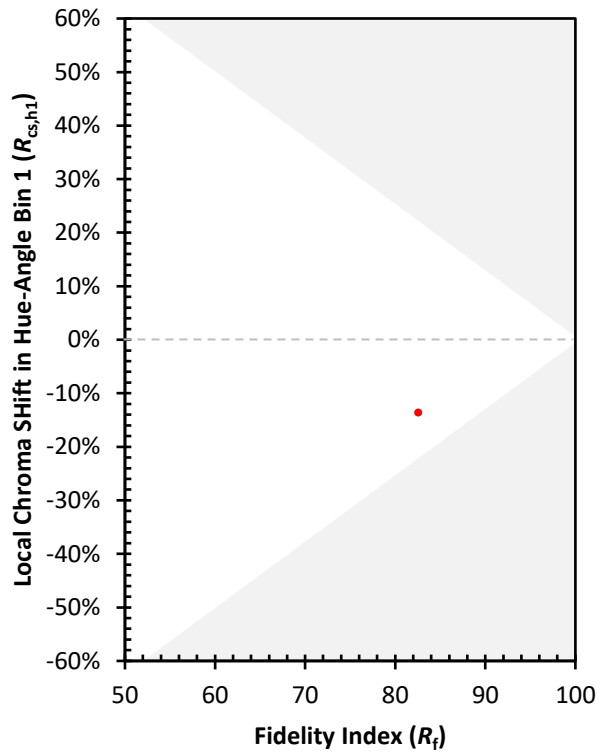
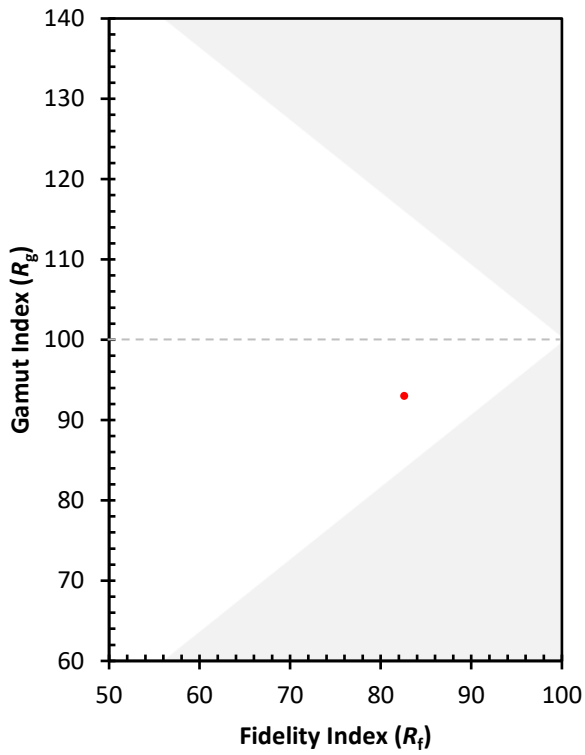
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 86 | CES51 = 89 | CES76 = 81 |
| CES02 = 62 | CES27 = 91 | CES52 = 90 | CES77 = 83 |
| CES03 = 31 | CES28 = 94 | CES53 = 86 | CES78 = 80 |
| CES04 = 70 | CES29 = 93 | CES54 = 86 | CES79 = 90 |
| CES05 = 49 | CES30 = 87 | CES55 = 83 | CES80 = 88 |
| CES06 = 51 | CES31 = 94 | CES56 = 82 | CES81 = 71 |
| CES07 = 41 | CES32 = 86 | CES57 = 79 | CES82 = 95 |
| CES08 = 40 | CES33 = 96 | CES58 = 80 | CES83 = 94 |
| CES09 = 29 | CES34 = 91 | CES59 = 89 | CES84 = 90 |
| CES10 = 75 | CES35 = 95 | CES60 = 88 | CES85 = 73 |
| CES11 = 58 | CES36 = 78 | CES61 = 84 | CES86 = 67 |
| CES12 = 64 | CES37 = 96 | CES62 = 79 | CES87 = 82 |
| CES13 = 43 | CES38 = 82 | CES63 = 86 | CES88 = 86 |
| CES14 = 74 | CES39 = 97 | CES64 = 74 | CES89 = 74 |
| CES15 = 71 | CES40 = 96 | CES65 = 76 | CES90 = 88 |
| CES16 = 47 | CES41 = 94 | CES66 = 73 | CES91 = 69 |
| CES17 = 50 | CES42 = 96 | CES67 = 72 | CES92 = 59 |
| CES18 = 56 | CES43 = 90 | CES68 = 77 | CES93 = 75 |
| CES19 = 72 | CES44 = 99 | CES69 = 81 | CES94 = 59 |
| CES20 = 66 | CES45 = 92 | CES70 = 76 | CES95 = 71 |
| CES21 = 86 | CES46 = 89 | CES71 = 70 | CES96 = 82 |
| CES22 = 79 | CES47 = 92 | CES72 = 89 | CES97 = 86 |
| CES23 = 92 | CES48 = 80 | CES73 = 71 | CES98 = 83 |
| CES24 = 91 | CES49 = 90 | CES74 = 89 | CES99 = 74 |
| CES25 = 72 | CES50 = 90 | CES75 = 76 |            |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)