

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1590035

Luminaire Tested: 24CZSP-SB-80-L835

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1590035  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-SB-80-L835  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 8000 lumens, 80CRI, Ribbed Lens, SB housing  
Light Source: -  
Ballast/Driver: -

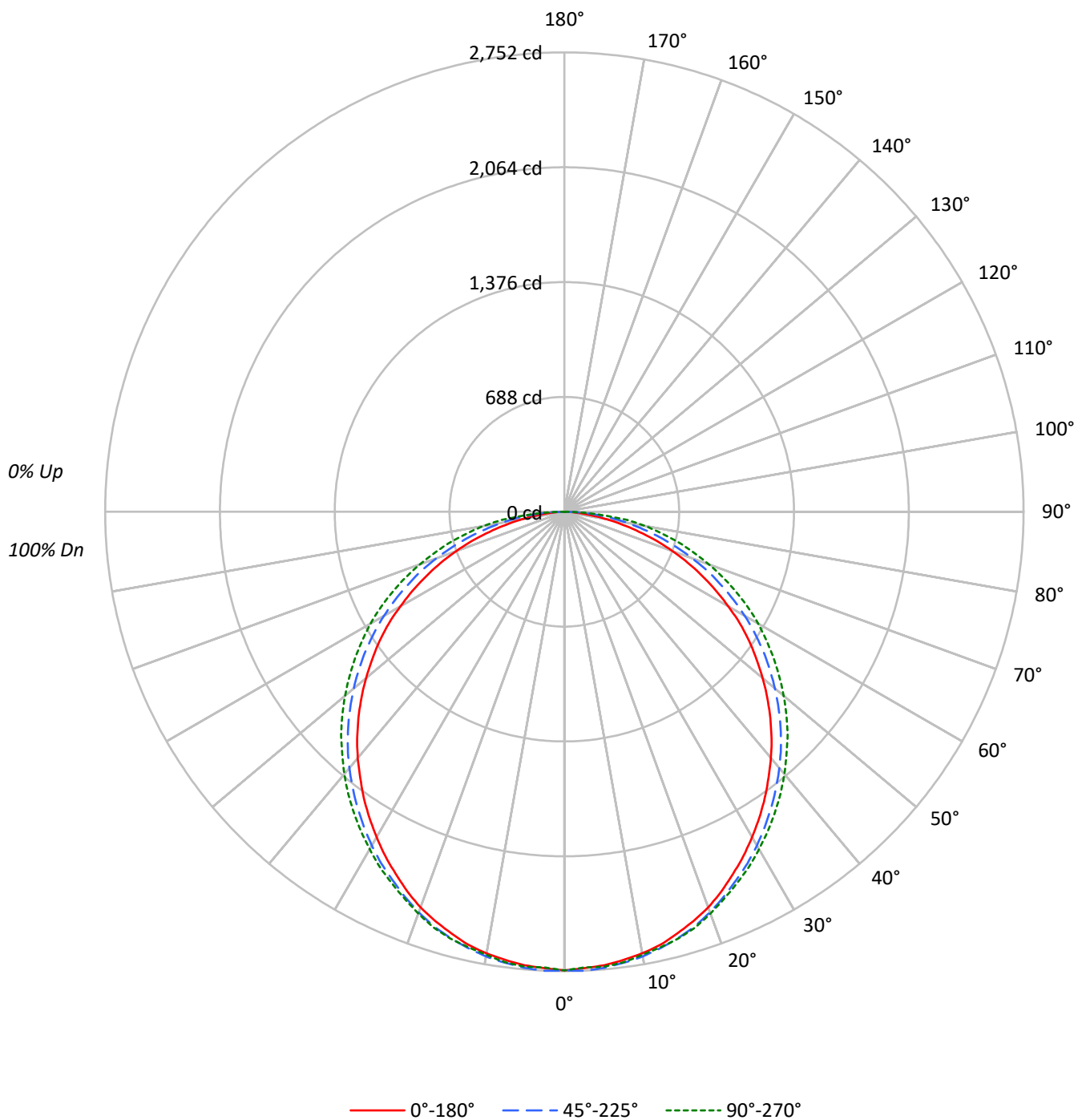
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8018.0 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 62.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

TEST NUMBER: P1590035  
CATALOG NUMBER: 24CZSP-SB-80-L835

### Luminous Intensity Polar Plot



TEST NUMBER: P1590035

CATALOG NUMBER: 24CZSP-SB-80-L835

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |     |     |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 88  |  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 76  | 72  |  | 78  | 74  | 71  | 68  |
| 3   | 89  | 79  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 65  | 61  |  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  |  | 63  | 57  | 52  |  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  |  | 57  | 50  | 45  |  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  |  | 51  | 44  | 39  |  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  |  | 47  | 40  | 35  |  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  |  | 37  | 30  | 25  |  | 36  | 30  | 25  | 23  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4208 | 4208 | 4208 |
| 5°  | 4193 | 4216 | 4206 |
| 10° | 4178 | 4207 | 4191 |
| 15° | 4147 | 4190 | 4195 |
| 20° | 4110 | 4160 | 4174 |
| 25° | 4044 | 4115 | 4144 |
| 30° | 3980 | 4082 | 4127 |
| 35° | 3915 | 4042 | 4112 |
| 40° | 3851 | 4007 | 4102 |
| 45° | 3779 | 3970 | 4099 |
| 50° | 3696 | 3926 | 4088 |
| 55° | 3612 | 3883 | 4087 |
| 60° | 3478 | 3826 | 4112 |
| 65° | 3315 | 3752 | 4114 |
| 70° | 3093 | 3648 | 4127 |
| 75° | 2752 | 3515 | 4197 |
| 80° | 2260 | 3368 | 4355 |
| 85° | 1492 | 3161 | 3936 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4460 cd/sqm

TEST NUMBER: P1590035

CATALOG NUMBER: 24CZSP-SB-80-L835

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 259.9  | 3.2       |
| 10°-20°   | 743.9  | 9.3       |
| 20°-30°   | 1121.2 | 14.0      |
| 30°-40°   | 1350.3 | 16.8      |
| 40°-50°   | 1410.7 | 17.6      |
| 50°-60°   | 1296.0 | 16.2      |
| 60°-70°   | 1020.6 | 12.7      |
| 70°-80°   | 625.7  | 7.8       |
| 80°-90°   | 189.7  | 2.4       |
| 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°-30°    | 2125.0 | 26.5      |
| 0°-40°    | 3475.3 | 43.3      |
| 0°-60°    | 6182.0 | 77.1      |
| 0°-90°    | 8018.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8018.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2747 | 2747  | 2747 | 2747  | 2747 |      |
| 5°  | 2727 | 2732  | 2742 | 2739  | 2736 | 259  |
| 15° | 2615 | 2625  | 2642 | 2652  | 2646 | 738  |
| 25° | 2393 | 2408  | 2435 | 2461  | 2452 | 1103 |
| 35° | 2094 | 2121  | 2162 | 2201  | 2199 | 1310 |
| 45° | 1744 | 1782  | 1833 | 1884  | 1892 | 1346 |
| 55° | 1352 | 1392  | 1454 | 1517  | 1531 | 1207 |
| 65° | 915  | 962   | 1035 | 1105  | 1135 | 904  |
| 75° | 465  | 519   | 594  | 665   | 709  | 494  |
| 85° | 85   | 126   | 180  | 200   | 224  | 109  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1590035

CATALOG NUMBER: 24CZSP-SB-80-L835

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2747.4 | 2747.4 | 2747.4 | 2747.4 | 2747.4 |
| 2.5°  | 2737.3 | 2744.1 | 2752.5 | 2739.0 | 2732.2 |
| 5°    | 2727.1 | 2732.2 | 2742.4 | 2739.0 | 2735.6 |
| 7.5°  | 2708.4 | 2711.8 | 2725.4 | 2725.4 | 2722.0 |
| 10°   | 2686.4 | 2693.1 | 2705.0 | 2703.3 | 2694.8 |
| 12.5° | 2657.5 | 2662.6 | 2676.2 | 2676.2 | 2671.1 |
| 15°   | 2615.1 | 2625.3 | 2642.2 | 2652.4 | 2645.6 |
| 17.5° | 2571.0 | 2581.1 | 2603.2 | 2613.4 | 2610.0 |
| 20°   | 2521.7 | 2530.2 | 2552.3 | 2567.6 | 2560.8 |
| 22.5° | 2460.7 | 2470.8 | 2496.3 | 2513.3 | 2506.5 |
| 25°   | 2392.8 | 2408.0 | 2435.2 | 2460.7 | 2452.2 |
| 27.5° | 2324.9 | 2341.9 | 2375.8 | 2401.3 | 2397.9 |
| 30°   | 2250.2 | 2272.3 | 2307.9 | 2340.2 | 2333.4 |
| 32.5° | 2173.9 | 2199.3 | 2236.6 | 2270.6 | 2268.9 |
| 35°   | 2094.1 | 2121.3 | 2162.0 | 2201.0 | 2199.3 |
| 37.5° | 2009.3 | 2041.5 | 2083.9 | 2126.3 | 2128.0 |
| 40°   | 1926.1 | 1956.6 | 2004.2 | 2050.0 | 2051.7 |
| 42.5° | 1837.9 | 1870.1 | 1921.0 | 1968.5 | 1970.2 |
| 45°   | 1744.5 | 1781.9 | 1832.8 | 1883.7 | 1892.2 |
| 47.5° | 1649.5 | 1688.5 | 1741.1 | 1795.4 | 1805.6 |
| 50°   | 1551.1 | 1591.8 | 1647.8 | 1705.5 | 1715.7 |
| 52.5° | 1450.9 | 1493.4 | 1551.1 | 1608.8 | 1624.0 |
| 55°   | 1352.5 | 1391.5 | 1454.3 | 1517.1 | 1530.7 |
| 57.5° | 1249.0 | 1284.6 | 1352.5 | 1418.7 | 1435.7 |
| 60°   | 1135.3 | 1179.4 | 1249.0 | 1315.2 | 1342.3 |
| 62.5° | 1025.0 | 1072.5 | 1143.8 | 1210.0 | 1240.5 |
| 65°   | 914.7  | 962.2  | 1035.2 | 1104.7 | 1135.3 |
| 67.5° | 802.7  | 851.9  | 930.0  | 996.1  | 1030.1 |
| 70°   | 690.7  | 739.9  | 814.6  | 885.8  | 921.5  |
| 72.5° | 578.7  | 631.3  | 704.3  | 777.2  | 812.9  |
| 75°   | 465.0  | 519.3  | 594.0  | 665.2  | 709.3  |
| 77.5° | 358.1  | 410.7  | 485.3  | 558.3  | 595.6  |
| 80°   | 256.2  | 308.9  | 381.8  | 454.8  | 493.8  |
| 82.5° | 162.9  | 212.1  | 283.4  | 344.5  | 380.1  |
| 85°   | 84.9   | 125.6  | 179.9  | 200.2  | 224.0  |
| 87.5° | 25.5   | 49.2   | 69.6   | 78.1   | 96.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P1590035

CATALOG NUMBER: 24CZSP-SB-80-L835

**CIE UGR TABLE:**

| Reflectances:   |      |                  |      |      |      |      |                |      |      |      |      |
|-----------------|------|------------------|------|------|------|------|----------------|------|------|------|------|
| Ceiling         |      | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall            |      | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane |      | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room Dimensions |      | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H            | Y=2H | 16.5             | 18.2 | 16.9 | 18.5 | 18.8 | 17.3           | 18.9 | 17.6 | 19.2 | 19.5 |
|                 | 3H   | 18.3             | 19.8 | 18.6 | 20.1 | 20.5 | 19.3           | 20.9 | 19.7 | 21.2 | 21.5 |
|                 | 4H   | 18.9             | 20.3 | 19.3 | 20.7 | 21.0 | 20.2           | 21.7 | 20.6 | 22.0 | 22.4 |
|                 | 6H   | 19.3             | 20.6 | 19.7 | 21.0 | 21.4 | 21.0           | 22.3 | 21.4 | 22.7 | 23.1 |
|                 | 8H   | 19.4             | 20.7 | 19.8 | 21.1 | 21.5 | 21.3           | 22.6 | 21.7 | 23.0 | 23.4 |
|                 | 12H  | 19.5             | 20.7 | 19.9 | 21.1 | 21.5 | 21.5           | 22.7 | 22.0 | 23.1 | 23.5 |
| 4H              | 2H   | 17.3             | 18.7 | 17.7 | 19.0 | 19.4 | 17.9           | 19.3 | 18.3 | 19.6 | 20.0 |
|                 | 3H   | 19.3             | 20.5 | 19.7 | 20.9 | 21.3 | 20.2           | 21.4 | 20.6 | 21.8 | 22.2 |
|                 | 4H   | 20.0             | 21.1 | 20.5 | 21.5 | 22.0 | 21.2           | 22.3 | 21.6 | 22.7 | 23.2 |
|                 | 6H   | 20.6             | 21.5 | 21.0 | 22.0 | 22.4 | 22.1           | 23.1 | 22.6 | 23.5 | 24.0 |
|                 | 8H   | 20.7             | 21.6 | 21.2 | 22.0 | 22.5 | 22.5           | 23.4 | 23.0 | 23.9 | 24.3 |
|                 | 12H  | 20.8             | 21.6 | 21.3 | 22.1 | 22.5 | 22.8           | 23.6 | 23.3 | 24.1 | 24.6 |
| 8H              | 4H   | 20.5             | 21.4 | 20.9 | 21.8 | 22.3 | 21.5           | 22.4 | 22.0 | 22.9 | 23.3 |
|                 | 6H   | 21.2             | 21.9 | 21.6 | 22.4 | 22.9 | 22.6           | 23.3 | 23.1 | 23.8 | 24.3 |
|                 | 8H   | 21.4             | 22.0 | 21.9 | 22.5 | 23.0 | 23.1           | 23.8 | 23.6 | 24.3 | 24.7 |
|                 | 12H  | 21.5             | 22.1 | 22.0 | 22.6 | 23.2 | 23.5           | 24.1 | 24.0 | 24.5 | 25.1 |
| 12H             | 4H   | 20.6             | 21.4 | 21.0 | 21.8 | 22.3 | 21.5           | 22.4 | 22.0 | 22.8 | 23.3 |
|                 | 6H   | 21.3             | 22.0 | 21.8 | 22.4 | 23.0 | 22.7           | 23.3 | 23.2 | 23.8 | 24.3 |
|                 | 8H   | 21.6             | 22.2 | 22.1 | 22.7 | 23.2 | 23.2           | 23.8 | 23.7 | 24.3 | 24.8 |

(END OF REPORT)