

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: P1589971

Luminaire Tested: 24CZSP-SB-65VHE-L950

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1589971  
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-65VHE-L950  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 7000 lumens, 90CRI, Ribbed Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

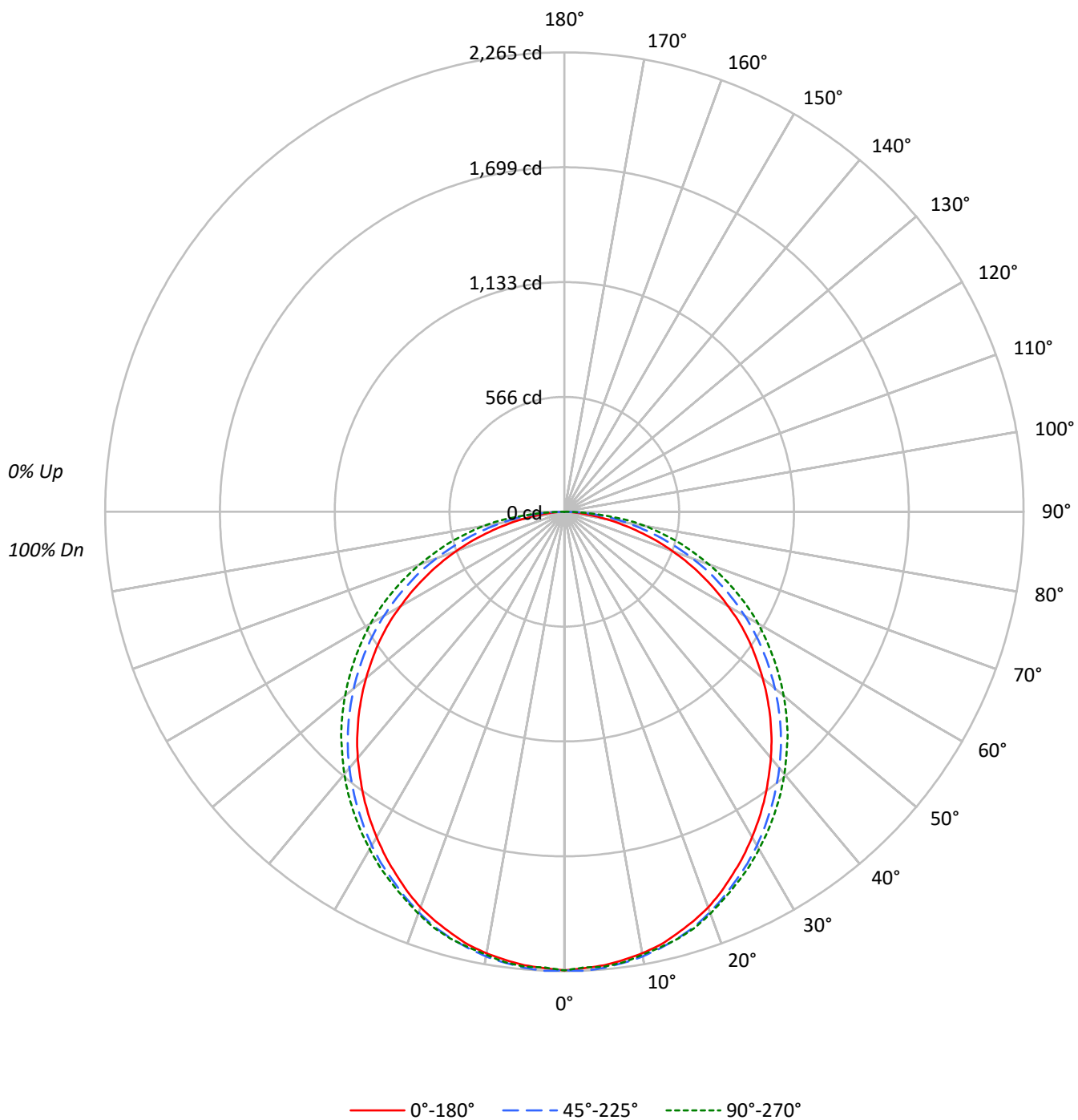
Lumens per Lamp: N/A  
Luminaire Lumens: 6599.0 lumens  
Efficiency: N/A  
Efficacy: 131.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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### Luminous Intensity Polar Plot



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**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°  | 3463 | 3463 | 3463 |
| 5°  | 3451 | 3470 | 3461 |
| 10° | 3439 | 3462 | 3449 |
| 15° | 3413 | 3448 | 3453 |
| 20° | 3383 | 3424 | 3435 |
| 25° | 3328 | 3387 | 3411 |
| 30° | 3275 | 3359 | 3396 |
| 35° | 3223 | 3327 | 3384 |
| 40° | 3169 | 3298 | 3376 |
| 45° | 3110 | 3267 | 3373 |
| 50° | 3042 | 3232 | 3364 |
| 55° | 2972 | 3196 | 3364 |
| 60° | 2862 | 3149 | 3384 |
| 65° | 2728 | 3088 | 3386 |
| 70° | 2545 | 3002 | 3396 |
| 75° | 2265 | 2893 | 3455 |
| 80° | 1860 | 2772 | 3585 |
| 85° | 1227 | 2601 | 3241 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3672 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 213.9  | 3.2       |
| 10°-20°   | 612.2  | 9.3       |
| 20°-30°   | 922.8  | 14.0      |
| 30°-40°   | 1111.3 | 16.8      |
| 40°-50°   | 1161.0 | 17.6      |
| 50°-60°   | 1066.6 | 16.2      |
| 60°-70°   | 840.0  | 12.7      |
| 70°-80°   | 515.0  | 7.8       |
| 80°-90°   | 156.1  | 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°    | 1749.0 | 26.5      |
| 0°-40°    | 2860.3 | 43.3      |
| 0°-60°    | 5087.9 | 77.1      |
| 0°-90°    | 6599.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6599.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2261 | 2261  | 2261 | 2261  | 2261 |      |
| 5°  | 2244 | 2249  | 2257 | 2254  | 2251 | 213  |
| 15° | 2152 | 2161  | 2175 | 2183  | 2177 | 607  |
| 25° | 1969 | 1982  | 2004 | 2025  | 2018 | 908  |
| 35° | 1724 | 1746  | 1779 | 1812  | 1810 | 1078 |
| 45° | 1436 | 1466  | 1508 | 1550  | 1557 | 1107 |
| 55° | 1113 | 1145  | 1197 | 1249  | 1260 | 993  |
| 65° | 753  | 792   | 852  | 909   | 934  | 744  |
| 75° | 383  | 427   | 489  | 548   | 584  | 407  |
| 85° | 70   | 103   | 148  | 165   | 184  | 90   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2261.2 | 2261.2 | 2261.2 | 2261.2 | 2261.2 |
| 2.5°  | 2252.8 | 2258.4 | 2265.4 | 2254.2 | 2248.6 |
| 5°    | 2244.5 | 2248.6 | 2257.0 | 2254.2 | 2251.4 |
| 7.5°  | 2229.1 | 2231.9 | 2243.1 | 2243.1 | 2240.3 |
| 10°   | 2210.9 | 2216.5 | 2226.3 | 2224.9 | 2217.9 |
| 12.5° | 2187.2 | 2191.4 | 2202.6 | 2202.6 | 2198.4 |
| 15°   | 2152.3 | 2160.7 | 2174.6 | 2183.0 | 2177.4 |
| 17.5° | 2116.0 | 2124.3 | 2142.5 | 2150.9 | 2148.1 |
| 20°   | 2075.5 | 2082.4 | 2100.6 | 2113.2 | 2107.6 |
| 22.5° | 2025.2 | 2033.6 | 2054.5 | 2068.5 | 2062.9 |
| 25°   | 1969.3 | 1981.9 | 2004.2 | 2025.2 | 2018.2 |
| 27.5° | 1913.4 | 1927.4 | 1955.3 | 1976.3 | 1973.5 |
| 30°   | 1852.0 | 1870.1 | 1899.5 | 1926.0 | 1920.4 |
| 32.5° | 1789.1 | 1810.1 | 1840.8 | 1868.7 | 1867.4 |
| 35°   | 1723.5 | 1745.8 | 1779.4 | 1811.5 | 1810.1 |
| 37.5° | 1653.7 | 1680.2 | 1715.1 | 1750.0 | 1751.4 |
| 40°   | 1585.2 | 1610.4 | 1649.5 | 1687.2 | 1688.6 |
| 42.5° | 1512.6 | 1539.1 | 1581.0 | 1620.1 | 1621.5 |
| 45°   | 1435.8 | 1466.5 | 1508.4 | 1550.3 | 1557.3 |
| 47.5° | 1357.6 | 1389.7 | 1433.0 | 1477.7 | 1486.1 |
| 50°   | 1276.6 | 1310.1 | 1356.2 | 1403.7 | 1412.0 |
| 52.5° | 1194.2 | 1229.1 | 1276.6 | 1324.0 | 1336.6 |
| 55°   | 1113.1 | 1145.3 | 1196.9 | 1248.6 | 1259.8 |
| 57.5° | 1028.0 | 1057.3 | 1113.1 | 1167.6 | 1181.6 |
| 60°   | 934.4  | 970.7  | 1028.0 | 1082.4 | 1104.8 |
| 62.5° | 843.6  | 882.7  | 941.4  | 995.8  | 1021.0 |
| 65°   | 752.8  | 791.9  | 852.0  | 909.2  | 934.4  |
| 67.5° | 660.6  | 701.1  | 765.4  | 819.8  | 847.8  |
| 70°   | 568.4  | 608.9  | 670.4  | 729.1  | 758.4  |
| 72.5° | 476.3  | 519.6  | 579.6  | 639.7  | 669.0  |
| 75°   | 382.7  | 427.4  | 488.8  | 547.5  | 583.8  |
| 77.5° | 294.7  | 338.0  | 399.4  | 459.5  | 490.2  |
| 80°   | 210.9  | 254.2  | 314.3  | 374.3  | 406.4  |
| 82.5° | 134.1  | 174.6  | 233.2  | 283.5  | 312.9  |
| 85°   | 69.8   | 103.4  | 148.0  | 164.8  | 184.4  |
| 87.5° | 21.0   | 40.5   | 57.3   | 64.2   | 79.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**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 | 15.8             | 17.5 | 16.2 | 17.8 | 18.1 | 16.6           | 18.2 | 16.9 | 18.6 | 18.9 |
|                 | 3H   | 17.6             | 19.1 | 18.0 | 19.4 | 19.8 | 18.7           | 20.2 | 19.0 | 20.5 | 20.9 |
|                 | 4H   | 18.2             | 19.6 | 18.6 | 20.0 | 20.4 | 19.6           | 21.0 | 20.0 | 21.3 | 21.7 |
|                 | 6H   | 18.6             | 19.9 | 19.0 | 20.3 | 20.7 | 20.3           | 21.6 | 20.7 | 22.0 | 22.4 |
|                 | 8H   | 18.7             | 20.0 | 19.2 | 20.4 | 20.8 | 20.6           | 21.9 | 21.1 | 22.3 | 22.7 |
|                 | 12H  | 18.8             | 20.0 | 19.2 | 20.4 | 20.8 | 20.8           | 22.1 | 21.3 | 22.4 | 22.9 |
| 4H              | 2H   | 16.6             | 18.0 | 17.0 | 18.4 | 18.7 | 17.2           | 18.6 | 17.6 | 18.9 | 19.3 |
|                 | 3H   | 18.6             | 19.8 | 19.0 | 20.2 | 20.6 | 19.5           | 20.7 | 19.9 | 21.1 | 21.5 |
|                 | 4H   | 19.3             | 20.4 | 19.8 | 20.8 | 21.3 | 20.5           | 21.6 | 21.0 | 22.0 | 22.5 |
|                 | 6H   | 19.9             | 20.8 | 20.3 | 21.3 | 21.7 | 21.5           | 22.4 | 21.9 | 22.9 | 23.3 |
|                 | 8H   | 20.0             | 20.9 | 20.5 | 21.4 | 21.8 | 21.9           | 22.7 | 22.3 | 23.2 | 23.7 |
|                 | 12H  | 20.1             | 20.9 | 20.6 | 21.4 | 21.9 | 22.1           | 22.9 | 22.6 | 23.4 | 23.9 |
| 8H              | 4H   | 19.8             | 20.7 | 20.3 | 21.1 | 21.6 | 20.8           | 21.7 | 21.3 | 22.2 | 22.6 |
|                 | 6H   | 20.5             | 21.2 | 21.0 | 21.7 | 22.2 | 21.9           | 22.7 | 22.4 | 23.2 | 23.6 |
|                 | 8H   | 20.7             | 21.4 | 21.2 | 21.9 | 22.4 | 22.4           | 23.1 | 22.9 | 23.6 | 24.1 |
|                 | 12H  | 20.8             | 21.4 | 21.3 | 21.9 | 22.5 | 22.8           | 23.4 | 23.3 | 23.9 | 24.4 |
| 12H             | 4H   | 19.9             | 20.7 | 20.4 | 21.2 | 21.6 | 20.9           | 21.7 | 21.3 | 22.1 | 22.6 |
|                 | 6H   | 20.6             | 21.3 | 21.1 | 21.7 | 22.3 | 22.0           | 22.7 | 22.5 | 23.1 | 23.7 |
|                 | 8H   | 20.9             | 21.5 | 21.4 | 22.0 | 22.5 | 22.5           | 23.1 | 23.0 | 23.6 | 24.2 |

(END OF REPORT)