

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: P1589985

Luminaire Tested: 24CZSP-SB-70VHE-L935

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1589985  
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-70VHE-L935  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 7500 lumens, 90CRI, Ribbed Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

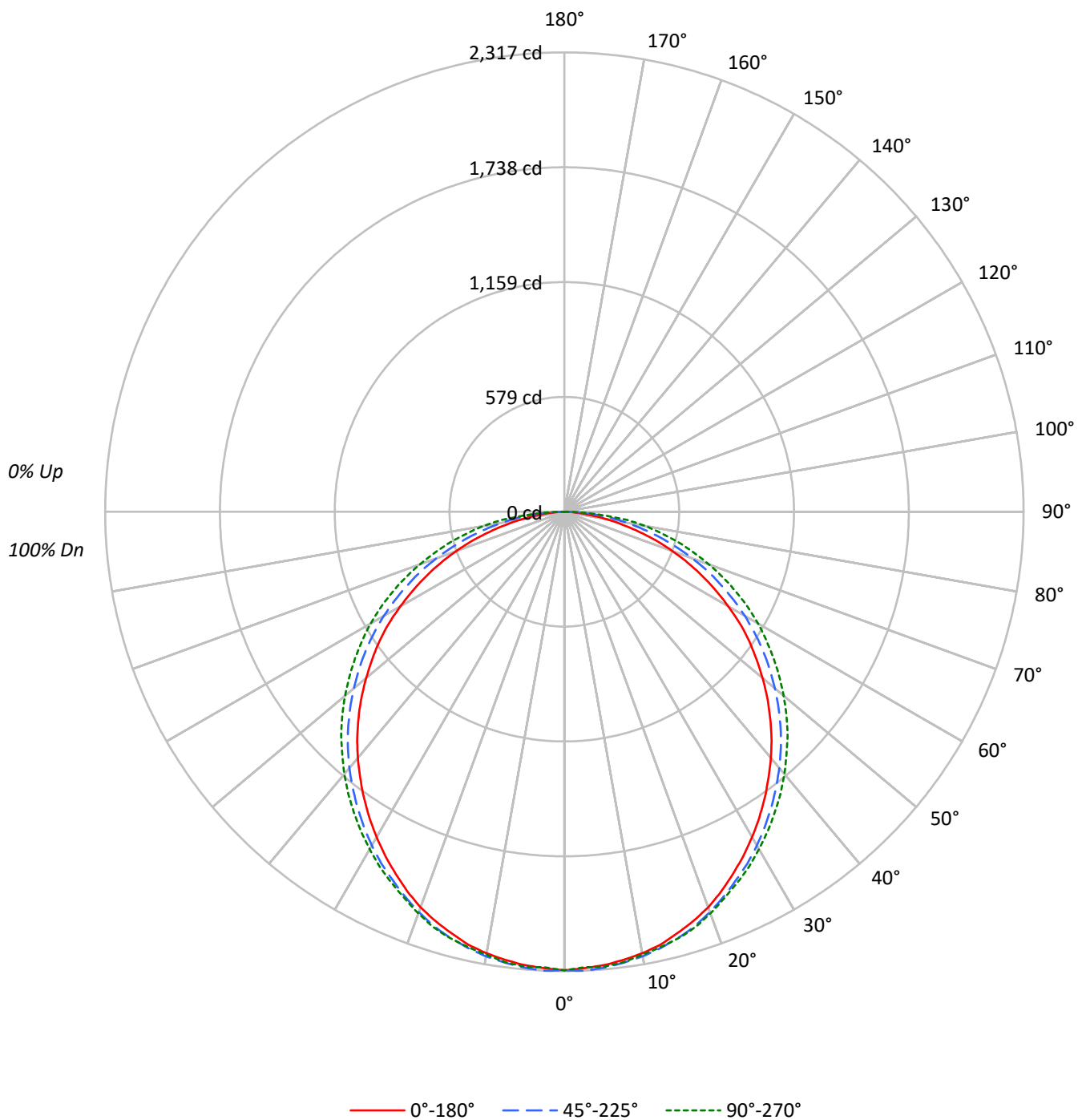
Lumens per Lamp: N/A  
Luminaire Lumens: 6749.0 lumens  
Efficiency: N/A  
Efficacy: 126.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 53.3  
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  | 50  | 30 | 10 |
| 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°  | 3542 | 3542 | 3542 |
| 5°  | 3529 | 3549 | 3540 |
| 10° | 3517 | 3541 | 3528 |
| 15° | 3490 | 3527 | 3531 |
| 20° | 3460 | 3502 | 3513 |
| 25° | 3404 | 3464 | 3488 |
| 30° | 3350 | 3436 | 3474 |
| 35° | 3296 | 3403 | 3461 |
| 40° | 3242 | 3373 | 3453 |
| 45° | 3181 | 3342 | 3450 |
| 50° | 3111 | 3305 | 3441 |
| 55° | 3040 | 3269 | 3440 |
| 60° | 2927 | 3220 | 3461 |
| 65° | 2790 | 3158 | 3463 |
| 70° | 2604 | 3070 | 3473 |
| 75° | 2316 | 2958 | 3533 |
| 80° | 1903 | 2835 | 3667 |
| 85° | 1255 | 2661 | 3314 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3755 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 218.8  | 3.2       |
| 10°-20°   | 626.2  | 9.3       |
| 20°-30°   | 943.8  | 14.0      |
| 30°-40°   | 1136.6 | 16.8      |
| 40°-50°   | 1187.4 | 17.6      |
| 50°-60°   | 1090.9 | 16.2      |
| 60°-70°   | 859.1  | 12.7      |
| 70°-80°   | 526.7  | 7.8       |
| 80°-90°   | 159.7  | 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°    | 1788.7 | 26.5      |
| 0°-40°    | 2925.3 | 43.3      |
| 0°-60°    | 5203.6 | 77.1      |
| 0°-90°    | 6749.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6749.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2313 | 2313  | 2313 | 2313  | 2313 |      |
| 5°  | 2296 | 2300  | 2308 | 2306  | 2303 | 218  |
| 15° | 2201 | 2210  | 2224 | 2233  | 2227 | 621  |
| 25° | 2014 | 2027  | 2050 | 2071  | 2064 | 928  |
| 35° | 1763 | 1786  | 1820 | 1853  | 1851 | 1102 |
| 45° | 1468 | 1500  | 1543 | 1586  | 1593 | 1133 |
| 55° | 1138 | 1171  | 1224 | 1277  | 1288 | 1016 |
| 65° | 770  | 810   | 871  | 930   | 956  | 761  |
| 75° | 391  | 437   | 500  | 560   | 597  | 416  |
| 85° | 71   | 106   | 151  | 169   | 189  | 92   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2312.6 | 2312.6 | 2312.6 | 2312.6 | 2312.6 |
| 2.5°  | 2304.0 | 2309.8 | 2316.9 | 2305.5 | 2299.8 |
| 5°    | 2295.5 | 2299.8 | 2308.3 | 2305.5 | 2302.6 |
| 7.5°  | 2279.8 | 2282.6 | 2294.0 | 2294.0 | 2291.2 |
| 10°   | 2261.2 | 2266.9 | 2276.9 | 2275.5 | 2268.3 |
| 12.5° | 2236.9 | 2241.2 | 2252.6 | 2252.6 | 2248.3 |
| 15°   | 2201.2 | 2209.8 | 2224.1 | 2232.6 | 2226.9 |
| 17.5° | 2164.1 | 2172.6 | 2191.2 | 2199.8 | 2196.9 |
| 20°   | 2122.6 | 2129.8 | 2148.3 | 2161.2 | 2155.5 |
| 22.5° | 2071.2 | 2079.8 | 2101.2 | 2115.5 | 2109.8 |
| 25°   | 2014.1 | 2026.9 | 2049.8 | 2071.2 | 2064.1 |
| 27.5° | 1956.9 | 1971.2 | 1999.8 | 2021.2 | 2018.4 |
| 30°   | 1894.1 | 1912.7 | 1942.7 | 1969.8 | 1964.1 |
| 32.5° | 1829.8 | 1851.2 | 1882.7 | 1911.2 | 1909.8 |
| 35°   | 1762.7 | 1785.5 | 1819.8 | 1852.7 | 1851.2 |
| 37.5° | 1691.2 | 1718.4 | 1754.1 | 1789.8 | 1791.2 |
| 40°   | 1621.3 | 1647.0 | 1687.0 | 1725.5 | 1727.0 |
| 42.5° | 1547.0 | 1574.1 | 1617.0 | 1657.0 | 1658.4 |
| 45°   | 1468.4 | 1499.8 | 1542.7 | 1585.5 | 1592.7 |
| 47.5° | 1388.4 | 1421.3 | 1465.6 | 1511.3 | 1519.8 |
| 50°   | 1305.6 | 1339.9 | 1387.0 | 1435.6 | 1444.1 |
| 52.5° | 1221.3 | 1257.0 | 1305.6 | 1354.1 | 1367.0 |
| 55°   | 1138.5 | 1171.3 | 1224.2 | 1277.0 | 1288.4 |
| 57.5° | 1051.3 | 1081.3 | 1138.5 | 1194.2 | 1208.4 |
| 60°   | 955.6  | 992.8  | 1051.3 | 1107.0 | 1129.9 |
| 62.5° | 862.8  | 902.8  | 962.8  | 1018.5 | 1044.2 |
| 65°   | 769.9  | 809.9  | 871.3  | 929.9  | 955.6  |
| 67.5° | 675.6  | 717.1  | 782.8  | 838.5  | 867.1  |
| 70°   | 581.4  | 622.8  | 685.6  | 745.6  | 775.6  |
| 72.5° | 487.1  | 531.4  | 592.8  | 654.2  | 684.2  |
| 75°   | 391.4  | 437.1  | 499.9  | 559.9  | 597.1  |
| 77.5° | 301.4  | 345.7  | 408.5  | 470.0  | 501.4  |
| 80°   | 215.7  | 260.0  | 321.4  | 382.8  | 415.7  |
| 82.5° | 137.1  | 178.6  | 238.5  | 290.0  | 320.0  |
| 85°   | 71.4   | 105.7  | 151.4  | 168.6  | 188.6  |
| 87.5° | 21.4   | 41.4   | 58.6   | 65.7   | 81.4   |
| 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 | 15.9             | 17.6 | 16.3 | 17.9 | 18.2 | 16.7           | 18.3 | 17.0 | 18.6 | 18.9 |
|                 | 3H   | 17.7             | 19.2 | 18.0 | 19.5 | 19.9 | 18.7           | 20.3 | 19.1 | 20.6 | 20.9 |
|                 | 4H   | 18.3             | 19.7 | 18.7 | 20.1 | 20.4 | 19.6           | 21.1 | 20.0 | 21.4 | 21.8 |
|                 | 6H   | 18.7             | 20.0 | 19.1 | 20.4 | 20.8 | 20.4           | 21.7 | 20.8 | 22.1 | 22.5 |
|                 | 8H   | 18.8             | 20.1 | 19.2 | 20.5 | 20.9 | 20.7           | 22.0 | 21.1 | 22.4 | 22.8 |
|                 | 12H  | 18.9             | 20.1 | 19.3 | 20.5 | 20.9 | 20.9           | 22.1 | 21.4 | 22.5 | 22.9 |
| 4H              | 2H   | 16.7             | 18.1 | 17.1 | 18.4 | 18.8 | 17.3           | 18.7 | 17.7 | 19.0 | 19.4 |
|                 | 3H   | 18.7             | 19.9 | 19.1 | 20.3 | 20.7 | 19.6           | 20.8 | 20.0 | 21.2 | 21.6 |
|                 | 4H   | 19.4             | 20.5 | 19.9 | 20.9 | 21.4 | 20.6           | 21.7 | 21.1 | 22.1 | 22.6 |
|                 | 6H   | 20.0             | 20.9 | 20.4 | 21.4 | 21.8 | 21.6           | 22.5 | 22.0 | 22.9 | 23.4 |
|                 | 8H   | 20.1             | 21.0 | 20.6 | 21.4 | 21.9 | 21.9           | 22.8 | 22.4 | 23.3 | 23.7 |
|                 | 12H  | 20.2             | 21.0 | 20.7 | 21.5 | 21.9 | 22.2           | 23.0 | 22.7 | 23.5 | 24.0 |
| 8H              | 4H   | 19.9             | 20.8 | 20.3 | 21.2 | 21.7 | 20.9           | 21.8 | 21.4 | 22.3 | 22.7 |
|                 | 6H   | 20.6             | 21.3 | 21.0 | 21.8 | 22.3 | 22.0           | 22.7 | 22.5 | 23.2 | 23.7 |
|                 | 8H   | 20.8             | 21.4 | 21.3 | 21.9 | 22.4 | 22.5           | 23.2 | 23.0 | 23.7 | 24.2 |
|                 | 12H  | 20.9             | 21.5 | 21.4 | 22.0 | 22.6 | 22.9           | 23.5 | 23.4 | 23.9 | 24.5 |
| 12H             | 4H   | 20.0             | 20.8 | 20.4 | 21.2 | 21.7 | 20.9           | 21.8 | 21.4 | 22.2 | 22.7 |
|                 | 6H   | 20.7             | 21.4 | 21.2 | 21.8 | 22.4 | 22.1           | 22.7 | 22.6 | 23.2 | 23.7 |
|                 | 8H   | 21.0             | 21.6 | 21.5 | 22.1 | 22.6 | 22.6           | 23.2 | 23.1 | 23.7 | 24.3 |

(END OF REPORT)