

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: P1590032

Luminaire Tested: 24CZSP-SB-80-L830-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1590032  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-SB-80-L830-S  
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 8000 lumens, 80CRI, Smooth Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

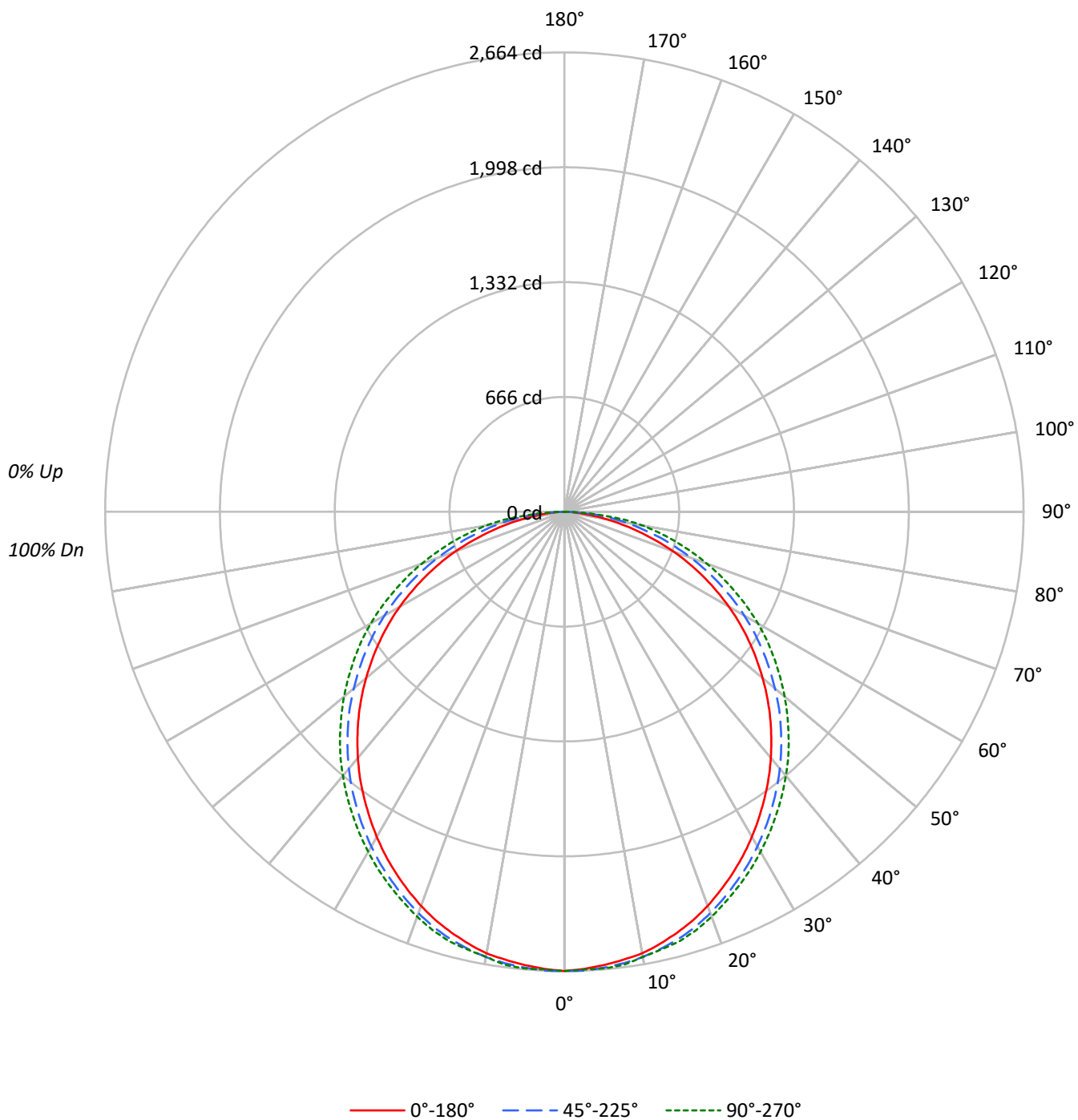
Lumens per Lamp: N/A  
Luminaire Lumens: 7748.0 lumens  
Efficiency: N/A  
Efficacy: 123.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

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

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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  | 94  | 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  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 66  | 61  |  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 53  |  | 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  | 45  | 39  |  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 48  | 41  | 35  |  | 47  | 40  | 35  |  | 45  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  |  | 37  | 30  | 25  |  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4079 | 4079 | 4079 |
| 5°  | 4057 | 4080 | 4087 |
| 10° | 4044 | 4078 | 4075 |
| 15° | 4007 | 4065 | 4089 |
| 20° | 3964 | 4037 | 4072 |
| 25° | 3907 | 3997 | 4048 |
| 30° | 3850 | 3962 | 4027 |
| 35° | 3786 | 3924 | 4008 |
| 40° | 3726 | 3889 | 3996 |
| 45° | 3657 | 3849 | 3986 |
| 50° | 3578 | 3801 | 3975 |
| 55° | 3489 | 3752 | 3970 |
| 60° | 3380 | 3696 | 3972 |
| 65° | 3226 | 3618 | 3951 |
| 70° | 3016 | 3508 | 3941 |
| 75° | 2673 | 3373 | 3955 |
| 80° | 2176 | 3205 | 4072 |
| 85° | 1406 | 2958 | 3515 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4127 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 252.1  | 3.3       |
| 10°-20°   | 721.8  | 9.3       |
| 20°-30°   | 1088.3 | 14.0      |
| 30°-40°   | 1309.5 | 16.9      |
| 40°-50°   | 1365.9 | 17.6      |
| 50°-60°   | 1252.0 | 16.2      |
| 60°-70°   | 983.1  | 12.7      |
| 70°-80°   | 598.4  | 7.7       |
| 80°-90°   | 177.0  | 2.3       |
| 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°    | 2062.1 | 26.6      |
| 0°-40°    | 3371.6 | 43.5      |
| 0°-60°    | 5989.5 | 77.3      |
| 0°-90°    | 7748.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7748.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2664 | 2664  | 2664 | 2664  | 2664 |      |
| 5°  | 2638 | 2655  | 2654 | 2650  | 2658 | 251  |
| 15° | 2527 | 2552  | 2564 | 2567  | 2578 | 713  |
| 25° | 2312 | 2344  | 2365 | 2380  | 2395 | 1065 |
| 35° | 2025 | 2057  | 2098 | 2128  | 2144 | 1267 |
| 45° | 1688 | 1723  | 1777 | 1818  | 1840 | 1302 |
| 55° | 1307 | 1340  | 1405 | 1462  | 1487 | 1168 |
| 65° | 890  | 923   | 998  | 1065  | 1090 | 880  |
| 75° | 452  | 493   | 570  | 638   | 668  | 479  |
| 85° | 80   | 113   | 168  | 188   | 200  | 104  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2663.5 | 2663.5 | 2663.5 | 2663.5 | 2663.5 |
| 2.5°  | 2653.5 | 2666.8 | 2663.5 | 2651.8 | 2656.8 |
| 5°    | 2638.5 | 2655.2 | 2653.5 | 2650.2 | 2658.5 |
| 7.5°  | 2620.2 | 2638.5 | 2640.2 | 2640.2 | 2650.2 |
| 10°   | 2600.2 | 2618.5 | 2621.8 | 2616.8 | 2620.2 |
| 12.5° | 2566.8 | 2588.5 | 2595.2 | 2595.2 | 2600.2 |
| 15°   | 2526.8 | 2551.8 | 2563.5 | 2566.8 | 2578.5 |
| 17.5° | 2483.5 | 2510.2 | 2525.2 | 2533.5 | 2543.5 |
| 20°   | 2431.8 | 2460.1 | 2476.8 | 2486.8 | 2498.5 |
| 22.5° | 2373.5 | 2405.1 | 2423.5 | 2433.5 | 2446.8 |
| 25°   | 2311.8 | 2343.5 | 2365.1 | 2380.1 | 2395.1 |
| 27.5° | 2246.8 | 2276.8 | 2306.8 | 2325.1 | 2338.5 |
| 30°   | 2176.8 | 2208.5 | 2240.1 | 2263.5 | 2276.8 |
| 32.5° | 2101.8 | 2135.1 | 2171.8 | 2196.8 | 2211.8 |
| 35°   | 2025.1 | 2056.8 | 2098.5 | 2128.5 | 2143.5 |
| 37.5° | 1946.8 | 1980.1 | 2023.5 | 2055.1 | 2073.5 |
| 40°   | 1863.4 | 1898.4 | 1945.1 | 1980.1 | 1998.5 |
| 42.5° | 1776.8 | 1810.1 | 1861.8 | 1901.8 | 1923.4 |
| 45°   | 1688.4 | 1723.4 | 1776.8 | 1818.4 | 1840.1 |
| 47.5° | 1596.8 | 1630.1 | 1688.4 | 1736.8 | 1755.1 |
| 50°   | 1501.8 | 1533.4 | 1595.1 | 1646.8 | 1668.4 |
| 52.5° | 1405.1 | 1438.4 | 1500.1 | 1555.1 | 1578.4 |
| 55°   | 1306.7 | 1340.1 | 1405.1 | 1461.8 | 1486.8 |
| 57.5° | 1206.7 | 1240.1 | 1306.7 | 1365.1 | 1395.1 |
| 60°   | 1103.4 | 1136.7 | 1206.7 | 1266.7 | 1296.7 |
| 62.5° | 996.7  | 1031.7 | 1103.4 | 1165.1 | 1196.7 |
| 65°   | 890.1  | 923.4  | 998.4  | 1065.1 | 1090.1 |
| 67.5° | 783.4  | 816.7  | 890.1  | 956.7  | 986.7  |
| 70°   | 673.4  | 711.7  | 783.4  | 853.4  | 880.1  |
| 72.5° | 558.4  | 601.7  | 673.4  | 746.7  | 773.4  |
| 75°   | 451.7  | 493.4  | 570.0  | 638.4  | 668.4  |
| 77.5° | 346.7  | 391.7  | 463.4  | 533.4  | 563.4  |
| 80°   | 246.7  | 290.0  | 363.4  | 430.0  | 461.7  |
| 82.5° | 156.7  | 195.0  | 268.3  | 328.4  | 351.7  |
| 85°   | 80.0   | 113.3  | 168.3  | 188.3  | 200.0  |
| 87.5° | 23.3   | 40.0   | 60.0   | 75.0   | 83.3   |
| 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 | 16.4             | 18.0 | 16.7 | 18.4 | 18.7 | 17.1           | 18.8 | 17.5 | 19.1 | 19.4 |
|                 | 3H   | 18.2             | 19.7 | 18.5 | 20.0 | 20.3 | 19.2           | 20.7 | 19.6 | 21.0 | 21.4 |
|                 | 4H   | 18.8             | 20.2 | 19.2 | 20.5 | 20.9 | 20.1           | 21.5 | 20.5 | 21.8 | 22.2 |
|                 | 6H   | 19.2             | 20.5 | 19.6 | 20.9 | 21.3 | 20.8           | 22.1 | 21.2 | 22.5 | 22.9 |
|                 | 8H   | 19.3             | 20.5 | 19.7 | 20.9 | 21.3 | 21.1           | 22.4 | 21.5 | 22.8 | 23.2 |
|                 | 12H  | 19.3             | 20.5 | 19.8 | 20.9 | 21.4 | 21.3           | 22.5 | 21.7 | 22.9 | 23.3 |
| 4H              | 2H   | 17.2             | 18.6 | 17.6 | 18.9 | 19.3 | 17.7           | 19.1 | 18.1 | 19.5 | 19.9 |
|                 | 3H   | 19.1             | 20.3 | 19.6 | 20.7 | 21.1 | 20.0           | 21.2 | 20.4 | 21.6 | 22.0 |
|                 | 4H   | 19.9             | 21.0 | 20.3 | 21.4 | 21.8 | 21.1           | 22.1 | 21.5 | 22.6 | 23.0 |
|                 | 6H   | 20.4             | 21.4 | 20.9 | 21.8 | 22.3 | 22.0           | 22.9 | 22.4 | 23.4 | 23.8 |
|                 | 8H   | 20.6             | 21.4 | 21.0 | 21.9 | 22.4 | 22.3           | 23.2 | 22.8 | 23.7 | 24.1 |
|                 | 12H  | 20.6             | 21.4 | 21.1 | 21.9 | 22.4 | 22.6           | 23.4 | 23.1 | 23.9 | 24.3 |
| 8H              | 4H   | 20.3             | 21.2 | 20.8 | 21.7 | 22.1 | 21.4           | 22.2 | 21.8 | 22.7 | 23.1 |
|                 | 6H   | 21.0             | 21.7 | 21.5 | 22.2 | 22.7 | 22.4           | 23.2 | 22.9 | 23.6 | 24.1 |
|                 | 8H   | 21.2             | 21.9 | 21.7 | 22.4 | 22.9 | 22.9           | 23.5 | 23.4 | 24.1 | 24.5 |
|                 | 12H  | 21.3             | 21.9 | 21.8 | 22.4 | 23.0 | 23.2           | 23.8 | 23.7 | 24.3 | 24.9 |
| 12H             | 4H   | 20.4             | 21.2 | 20.9 | 21.7 | 22.2 | 21.4           | 22.2 | 21.9 | 22.7 | 23.1 |
|                 | 6H   | 21.1             | 21.8 | 21.7 | 22.3 | 22.8 | 22.5           | 23.1 | 23.0 | 23.6 | 24.1 |
|                 | 8H   | 21.4             | 22.0 | 21.9 | 22.5 | 23.0 | 23.0           | 23.6 | 23.5 | 24.1 | 24.6 |

(END OF REPORT)