

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1587744

Luminaire Tested: 22CZSP-SB-49HE-L935-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1587744  
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: 22CZSP-SB-49HE-L935-S  
Description: 2x2 CZSP LED Luminaire, 3500K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

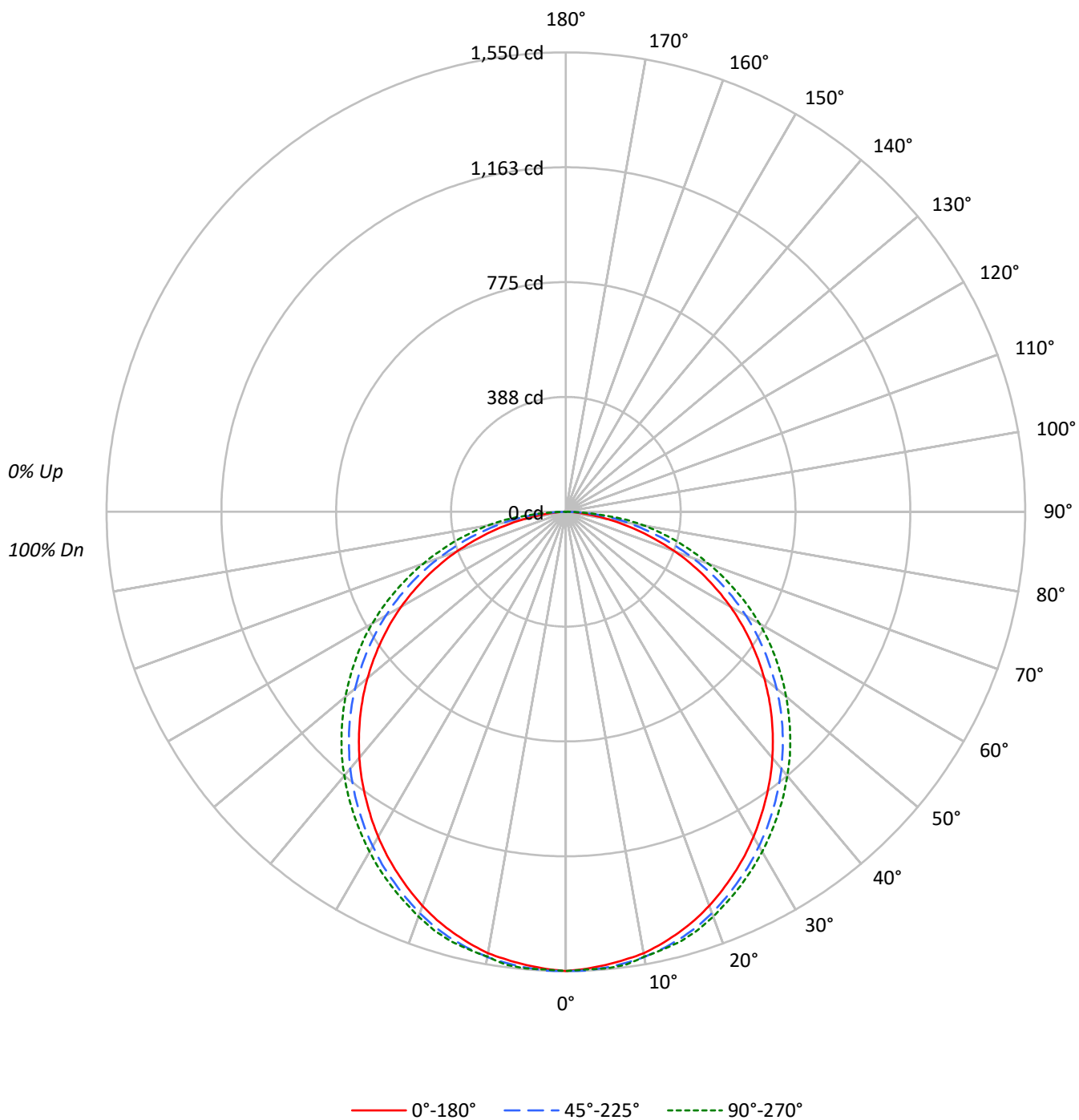
Lumens per Lamp: N/A  
Luminaire Lumens: 4508.0 lumens  
Efficiency: N/A  
Efficacy: 140.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 32.2  
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: 24 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°  | 4853 | 4853 | 4853 |
| 5°  | 4825 | 4853 | 4862 |
| 10° | 4810 | 4850 | 4847 |
| 15° | 4766 | 4835 | 4863 |
| 20° | 4715 | 4802 | 4844 |
| 25° | 4647 | 4754 | 4815 |
| 30° | 4579 | 4713 | 4790 |
| 35° | 4504 | 4667 | 4767 |
| 40° | 4432 | 4626 | 4753 |
| 45° | 4350 | 4578 | 4741 |
| 50° | 4257 | 4521 | 4729 |
| 55° | 4151 | 4463 | 4722 |
| 60° | 4021 | 4397 | 4725 |
| 65° | 3837 | 4304 | 4699 |
| 70° | 3587 | 4173 | 4688 |
| 75° | 3179 | 4013 | 4705 |
| 80° | 2588 | 3812 | 4844 |
| 85° | 1671 | 3517 | 4182 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4908 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 146.6  | 3.3       |
| 10°-20°   | 420.0  | 9.3       |
| 20°-30°   | 633.2  | 14.0      |
| 30°-40°   | 761.9  | 16.9      |
| 40°-50°   | 794.7  | 17.6      |
| 50°-60°   | 728.4  | 16.2      |
| 60°-70°   | 572.0  | 12.7      |
| 70°-80°   | 348.1  | 7.7       |
| 80°-90°   | 103.0  | 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°    | 1199.8 | 26.6      |
| 0°-40°    | 1961.7 | 43.5      |
| 0°-60°    | 3484.9 | 77.3      |
| 0°-90°    | 4508.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4508.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1550 | 1550  | 1550 | 1550  | 1550 |      |
| 5°  | 1535 | 1545  | 1544 | 1542  | 1547 | 146  |
| 15° | 1470 | 1485  | 1492 | 1493  | 1500 | 415  |
| 25° | 1345 | 1364  | 1376 | 1385  | 1394 | 620  |
| 35° | 1178 | 1197  | 1221 | 1238  | 1247 | 737  |
| 45° | 982  | 1003  | 1034 | 1058  | 1071 | 758  |
| 55° | 760  | 780   | 818  | 850   | 865  | 679  |
| 65° | 518  | 537   | 581  | 620   | 634  | 512  |
| 75° | 263  | 287   | 332  | 371   | 389  | 279  |
| 85° | 46   | 66    | 98   | 110   | 116  | 61   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1549.7 | 1549.7 | 1549.7 | 1549.7 | 1549.7 |
| 2.5°  | 1543.9 | 1551.6 | 1549.7 | 1542.9 | 1545.8 |
| 5°    | 1535.1 | 1544.8 | 1543.9 | 1541.9 | 1546.8 |
| 7.5°  | 1524.5 | 1535.1 | 1536.1 | 1536.1 | 1541.9 |
| 10°   | 1512.8 | 1523.5 | 1525.4 | 1522.5 | 1524.5 |
| 12.5° | 1493.4 | 1506.1 | 1509.9 | 1509.9 | 1512.8 |
| 15°   | 1470.2 | 1484.7 | 1491.5 | 1493.4 | 1500.2 |
| 17.5° | 1445.0 | 1460.5 | 1469.2 | 1474.1 | 1479.9 |
| 20°   | 1414.9 | 1431.4 | 1441.1 | 1446.9 | 1453.7 |
| 22.5° | 1381.0 | 1399.4 | 1410.0 | 1415.9 | 1423.6 |
| 25°   | 1345.1 | 1363.5 | 1376.1 | 1384.8 | 1393.6 |
| 27.5° | 1307.3 | 1324.7 | 1342.2 | 1352.8 | 1360.6 |
| 30°   | 1266.5 | 1284.9 | 1303.4 | 1316.9 | 1324.7 |
| 32.5° | 1222.9 | 1242.3 | 1263.6 | 1278.2 | 1286.9 |
| 35°   | 1178.3 | 1196.7 | 1220.9 | 1238.4 | 1247.1 |
| 37.5° | 1132.7 | 1152.1 | 1177.3 | 1195.7 | 1206.4 |
| 40°   | 1084.2 | 1104.6 | 1131.7 | 1152.1 | 1162.8 |
| 42.5° | 1033.8 | 1053.2 | 1083.2 | 1106.5 | 1119.1 |
| 45°   | 982.4  | 1002.7 | 1033.8 | 1058.0 | 1070.6 |
| 47.5° | 929.0  | 948.4  | 982.4  | 1010.5 | 1021.2 |
| 50°   | 873.8  | 892.2  | 928.1  | 958.1  | 970.7  |
| 52.5° | 817.5  | 836.9  | 872.8  | 904.8  | 918.4  |
| 55°   | 760.3  | 779.7  | 817.5  | 850.5  | 865.0  |
| 57.5° | 702.1  | 721.5  | 760.3  | 794.2  | 811.7  |
| 60°   | 642.0  | 661.4  | 702.1  | 737.0  | 754.5  |
| 62.5° | 579.9  | 600.3  | 642.0  | 677.9  | 696.3  |
| 65°   | 517.9  | 537.3  | 580.9  | 619.7  | 634.2  |
| 67.5° | 455.8  | 475.2  | 517.9  | 556.6  | 574.1  |
| 70°   | 391.8  | 414.1  | 455.8  | 496.5  | 512.0  |
| 72.5° | 324.9  | 350.1  | 391.8  | 434.5  | 450.0  |
| 75°   | 262.8  | 287.1  | 331.7  | 371.4  | 388.9  |
| 77.5° | 201.7  | 227.9  | 269.6  | 310.3  | 327.8  |
| 80°   | 143.5  | 168.7  | 211.4  | 250.2  | 268.6  |
| 82.5° | 91.2   | 113.5  | 156.1  | 191.0  | 204.6  |
| 85°   | 46.5   | 65.9   | 97.9   | 109.6  | 116.4  |
| 87.5° | 13.6   | 23.3   | 34.9   | 43.6   | 48.5   |
| 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 | 16.99            | 18.65 | 17.35 | 18.96 | 19.28 | 17.72          | 19.38 | 18.09 | 19.70 | 20.01 |
|                 | 3H   | 18.76            | 20.26 | 19.13 | 20.59 | 20.95 | 19.80          | 21.31 | 20.18 | 21.63 | 21.99 |
|                 | 4H   | 19.38            | 20.79 | 19.77 | 21.14 | 21.52 | 20.67          | 22.09 | 21.06 | 22.43 | 22.81 |
|                 | 6H   | 19.78            | 21.10 | 20.19 | 21.47 | 21.86 | 21.41          | 22.73 | 21.82 | 23.09 | 23.48 |
|                 | 8H   | 19.89            | 21.15 | 20.31 | 21.54 | 21.93 | 21.71          | 22.97 | 22.13 | 23.35 | 23.75 |
|                 | 12H  | 19.94            | 21.14 | 20.36 | 21.52 | 21.95 | 21.90          | 23.11 | 22.33 | 23.49 | 23.92 |
| 4H              | 2H   | 17.76            | 19.18 | 18.15 | 19.52 | 19.90 | 18.33          | 19.75 | 18.72 | 20.09 | 20.47 |
|                 | 3H   | 19.75            | 20.94 | 20.16 | 21.34 | 21.74 | 20.64          | 21.84 | 21.05 | 22.23 | 22.63 |
|                 | 4H   | 20.49            | 21.57 | 20.92 | 21.99 | 22.42 | 21.66          | 22.74 | 22.09 | 23.15 | 23.59 |
|                 | 6H   | 21.02            | 21.97 | 21.47 | 22.41 | 22.86 | 22.56          | 23.51 | 23.02 | 23.95 | 24.41 |
|                 | 8H   | 21.16            | 22.05 | 21.62 | 22.49 | 22.96 | 22.93          | 23.82 | 23.39 | 24.26 | 24.73 |
|                 | 12H  | 21.24            | 22.04 | 21.72 | 22.52 | 22.98 | 23.18          | 23.99 | 23.66 | 24.46 | 24.93 |
| 8H              | 4H   | 20.94            | 21.82 | 21.39 | 22.27 | 22.73 | 21.96          | 22.85 | 22.41 | 23.29 | 23.75 |
|                 | 6H   | 21.60            | 22.34 | 22.09 | 22.83 | 23.30 | 23.01          | 23.76 | 23.51 | 24.24 | 24.72 |
|                 | 8H   | 21.81            | 22.47 | 22.31 | 22.98 | 23.46 | 23.49          | 24.15 | 23.99 | 24.66 | 25.14 |
|                 | 12H  | 21.94            | 22.53 | 22.45 | 23.02 | 23.58 | 23.84          | 24.43 | 24.34 | 24.92 | 25.48 |
| 12H             | 4H   | 21.02            | 21.82 | 21.49 | 22.29 | 22.76 | 21.98          | 22.78 | 22.46 | 23.26 | 23.73 |
|                 | 6H   | 21.72            | 22.39 | 22.23 | 22.89 | 23.38 | 23.06          | 23.73 | 23.57 | 24.24 | 24.72 |
|                 | 8H   | 22.00            | 22.59 | 22.50 | 23.08 | 23.64 | 23.60          | 24.19 | 24.11 | 24.68 | 25.24 |