

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: P1586421

Luminaire Tested: 22CZSP-43HE-L850

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-668-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-43HE-L850  
Description: 2x2 CZSP LED Luminaire, 5000K CCT and 4000 lumens, 80CRI, Ribbed Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

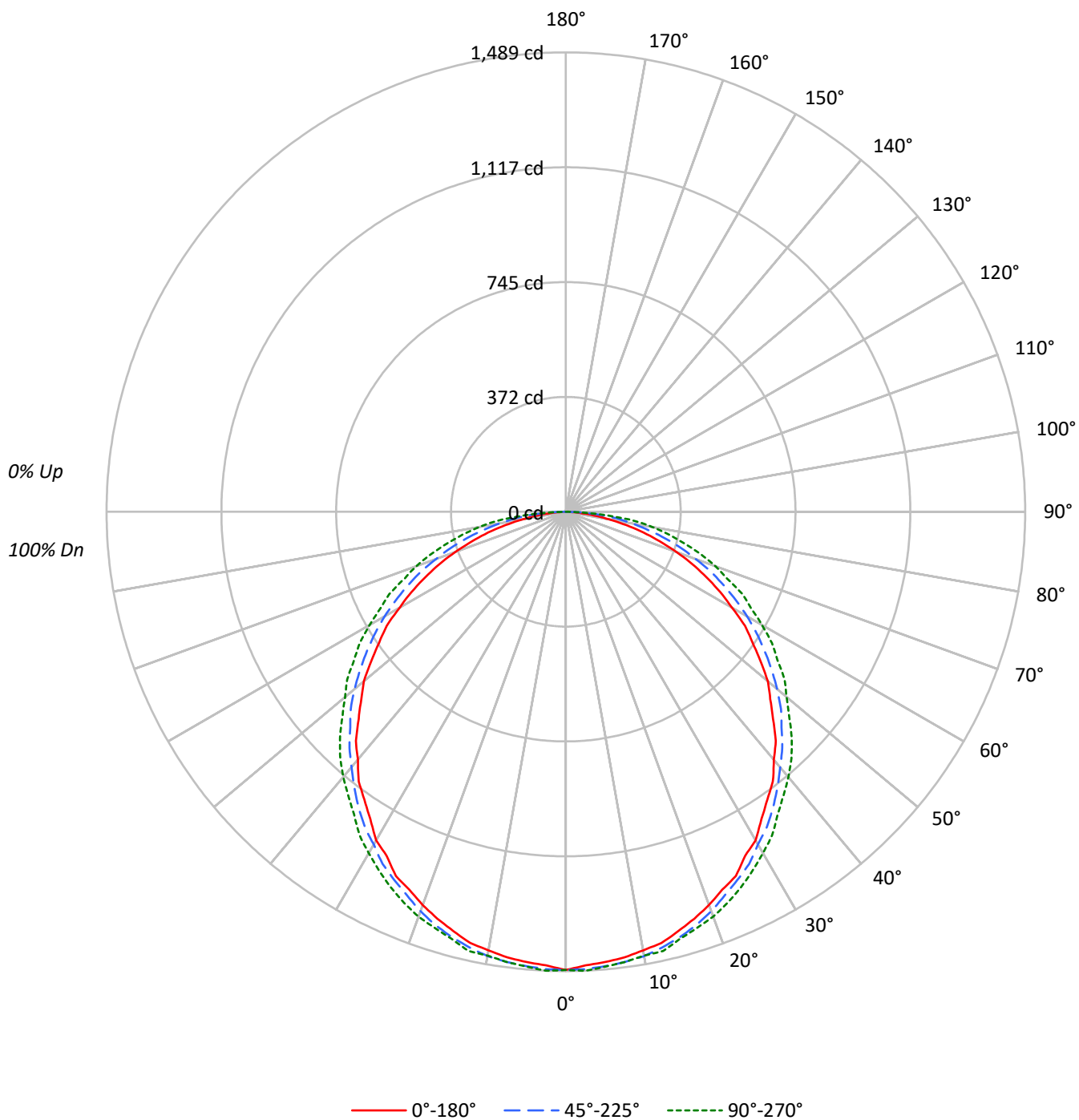
Lumens per Lamp: N/A  
Luminaire Lumens: 4374.0 lumens  
Efficiency: N/A  
Efficacy: 155.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.38  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.2  
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  | 105 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 87  |  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 82  | 76  | 95  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 76  | 72  |  | 78  | 74  | 70  | 68  |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 65  | 60  |  | 68  | 64  | 59  | 57  |
| 4   | 82  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  |  | 63  | 57  | 51  |  | 61  | 55  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 46  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  |  | 51  | 44  | 39  |  | 49  | 43  | 39  | 36  |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  |  | 46  | 40  | 34  |  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  |  | 43  | 36  | 31  |  | 41  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 31  | 25  | 37  | 30  | 25  |  | 36  | 30  | 25  |  | 35  | 29  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4650 | 4650 | 4650 |
| 5°  | 4605 | 4647 | 4651 |
| 10° | 4590 | 4650 | 4645 |
| 15° | 4562 | 4628 | 4645 |
| 20° | 4521 | 4592 | 4654 |
| 25° | 4502 | 4548 | 4641 |
| 30° | 4446 | 4503 | 4619 |
| 35° | 4352 | 4475 | 4577 |
| 40° | 4288 | 4419 | 4588 |
| 45° | 4207 | 4378 | 4586 |
| 50° | 4165 | 4354 | 4549 |
| 55° | 4032 | 4295 | 4572 |
| 60° | 3896 | 4248 | 4600 |
| 65° | 3727 | 4183 | 4679 |
| 70° | 3503 | 4103 | 4728 |
| 75° | 3157 | 4030 | 4824 |
| 80° | 2580 | 3956 | 5139 |
| 85° | 1681 | 3941 | 4807 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5393 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 140.4  | 3.2       |
| 10°-20°   | 402.0  | 9.2       |
| 20°-30°   | 607.5  | 13.9      |
| 30°-40°   | 732.7  | 16.8      |
| 40°-50°   | 765.9  | 17.5      |
| 50°-60°   | 706.3  | 16.1      |
| 60°-70°   | 559.7  | 12.8      |
| 70°-80°   | 349.9  | 8.0       |
| 80°-90°   | 109.8  | 2.5       |
| 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°    | 1149.8 | 26.3      |
| 0°-40°    | 1882.4 | 43.0      |
| 0°-60°    | 3354.7 | 76.7      |
| 0°-90°    | 4374.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4374.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1485 | 1485  | 1485 | 1485  | 1485 |      |
| 5°  | 1465 | 1472  | 1478 | 1484  | 1480 | 139  |
| 15° | 1407 | 1414  | 1428 | 1437  | 1433 | 397  |
| 25° | 1303 | 1299  | 1316 | 1335  | 1343 | 598  |
| 35° | 1138 | 1152  | 1171 | 1191  | 1197 | 714  |
| 45° | 950  | 963   | 989  | 1014  | 1036 | 735  |
| 55° | 738  | 756   | 787  | 830   | 838  | 662  |
| 65° | 503  | 524   | 565  | 609   | 632  | 498  |
| 75° | 261  | 282   | 333  | 380   | 399  | 275  |
| 85° | 47   | 67    | 110  | 128   | 134  | 61   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1485.0 | 1485.0 | 1485.0 | 1485.0 | 1485.0 |
| 2.5°  | 1471.6 | 1478.3 | 1483.7 | 1482.3 | 1489.0 |
| 5°    | 1464.9 | 1471.6 | 1478.3 | 1483.7 | 1479.7 |
| 7.5°  | 1456.9 | 1463.6 | 1471.6 | 1479.7 | 1471.6 |
| 10°   | 1443.5 | 1447.6 | 1462.3 | 1463.6 | 1460.9 |
| 12.5° | 1431.5 | 1435.5 | 1446.2 | 1455.6 | 1458.3 |
| 15°   | 1407.4 | 1414.1 | 1427.5 | 1436.9 | 1432.8 |
| 17.5° | 1383.3 | 1392.7 | 1404.7 | 1414.1 | 1414.1 |
| 20°   | 1356.6 | 1363.3 | 1378.0 | 1384.7 | 1396.7 |
| 22.5° | 1325.8 | 1333.8 | 1345.9 | 1364.6 | 1371.3 |
| 25°   | 1303.1 | 1299.1 | 1316.4 | 1335.2 | 1343.2 |
| 27.5° | 1257.6 | 1262.9 | 1287.0 | 1304.4 | 1311.1 |
| 30°   | 1229.5 | 1232.2 | 1245.5 | 1269.6 | 1277.6 |
| 32.5° | 1180.0 | 1188.0 | 1212.1 | 1229.5 | 1244.2 |
| 35°   | 1138.5 | 1151.9 | 1170.6 | 1190.7 | 1197.4 |
| 37.5° | 1102.4 | 1105.1 | 1126.5 | 1153.2 | 1158.6 |
| 40°   | 1048.9 | 1064.9 | 1081.0 | 1114.4 | 1122.5 |
| 42.5° | 1007.4 | 1015.4 | 1038.2 | 1070.3 | 1082.3 |
| 45°   | 949.9  | 963.3  | 988.7  | 1014.1 | 1035.5 |
| 47.5° | 899.0  | 912.4  | 945.9  | 978.0  | 982.0  |
| 50°   | 854.9  | 860.2  | 893.7  | 929.8  | 933.8  |
| 52.5° | 794.7  | 808.1  | 840.2  | 880.3  | 893.7  |
| 55°   | 738.5  | 755.9  | 786.7  | 829.5  | 837.5  |
| 57.5° | 689.0  | 697.0  | 733.1  | 776.0  | 792.0  |
| 60°   | 622.1  | 644.8  | 678.3  | 719.8  | 734.5  |
| 62.5° | 564.6  | 586.0  | 622.1  | 660.9  | 677.0  |
| 65°   | 503.0  | 524.4  | 564.6  | 608.7  | 631.5  |
| 67.5° | 444.2  | 461.6  | 509.7  | 555.2  | 565.9  |
| 70°   | 382.6  | 402.7  | 448.2  | 495.0  | 516.4  |
| 72.5° | 318.4  | 341.2  | 392.0  | 436.1  | 458.9  |
| 75°   | 260.9  | 282.3  | 333.1  | 379.9  | 398.7  |
| 77.5° | 200.7  | 224.8  | 274.3  | 321.1  | 342.5  |
| 80°   | 143.1  | 167.2  | 219.4  | 266.2  | 285.0  |
| 82.5° | 92.3   | 117.7  | 167.2  | 208.7  | 224.8  |
| 85°   | 46.8   | 66.9   | 109.7  | 128.4  | 133.8  |
| 87.5° | 14.7   | 24.1   | 37.5   | 42.8   | 42.8   |
| 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 | 16.86            | 18.53 | 17.23 | 18.85 | 19.16 | 17.65          | 19.32 | 18.02 | 19.64 | 19.95 |
|                 | 3H   | 18.65            | 20.16 | 19.02 | 20.48 | 20.84 | 19.80          | 21.31 | 20.17 | 21.64 | 22.00 |
|                 | 4H   | 19.28            | 20.71 | 19.68 | 21.06 | 21.43 | 20.72          | 22.15 | 21.12 | 22.50 | 22.87 |
|                 | 6H   | 19.71            | 21.04 | 20.12 | 21.40 | 21.79 | 21.55          | 22.87 | 21.96 | 23.24 | 23.63 |
|                 | 8H   | 19.82            | 21.09 | 20.25 | 21.48 | 21.88 | 21.89          | 23.16 | 22.32 | 23.55 | 23.95 |
|                 | 12H  | 19.88            | 21.09 | 20.31 | 21.47 | 21.90 | 22.14          | 23.35 | 22.56 | 23.73 | 24.16 |
| 4H              | 2H   | 17.64            | 19.06 | 18.03 | 19.41 | 19.79 | 18.25          | 19.68 | 18.65 | 20.03 | 20.40 |
|                 | 3H   | 19.65            | 20.85 | 20.06 | 21.25 | 21.65 | 20.64          | 21.84 | 21.05 | 22.24 | 22.64 |
|                 | 4H   | 20.41            | 21.50 | 20.84 | 21.91 | 22.35 | 21.72          | 22.82 | 22.15 | 23.23 | 23.66 |
|                 | 6H   | 20.96            | 21.91 | 21.41 | 22.35 | 22.81 | 22.72          | 23.68 | 23.17 | 24.12 | 24.57 |
|                 | 8H   | 21.11            | 22.01 | 21.57 | 22.45 | 22.91 | 23.15          | 24.05 | 23.61 | 24.49 | 24.95 |
|                 | 12H  | 21.20            | 22.01 | 21.68 | 22.48 | 22.95 | 23.46          | 24.27 | 23.94 | 24.75 | 25.21 |
| 8H              | 4H   | 20.89            | 21.79 | 21.35 | 22.23 | 22.69 | 22.03          | 22.93 | 22.49 | 23.37 | 23.83 |
|                 | 6H   | 21.58            | 22.33 | 22.07 | 22.81 | 23.29 | 23.20          | 23.95 | 23.69 | 24.43 | 24.91 |
|                 | 8H   | 21.81            | 22.48 | 22.31 | 22.98 | 23.47 | 23.74          | 24.41 | 24.25 | 24.92 | 25.40 |
|                 | 12H  | 21.95            | 22.55 | 22.46 | 23.04 | 23.60 | 24.17          | 24.77 | 24.67 | 25.26 | 25.81 |
| 12H             | 4H   | 20.98            | 21.79 | 21.46 | 22.27 | 22.74 | 22.06          | 22.87 | 22.54 | 23.34 | 23.81 |
|                 | 6H   | 21.73            | 22.40 | 22.23 | 22.91 | 23.39 | 23.25          | 23.93 | 23.76 | 24.43 | 24.92 |
|                 | 8H   | 22.03            | 22.63 | 22.53 | 23.12 | 23.67 | 23.87          | 24.47 | 24.37 | 24.95 | 25.51 |