

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: P1586408

Luminaire Tested: 22CZSP-42-L945-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586408  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-42-L945-S  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

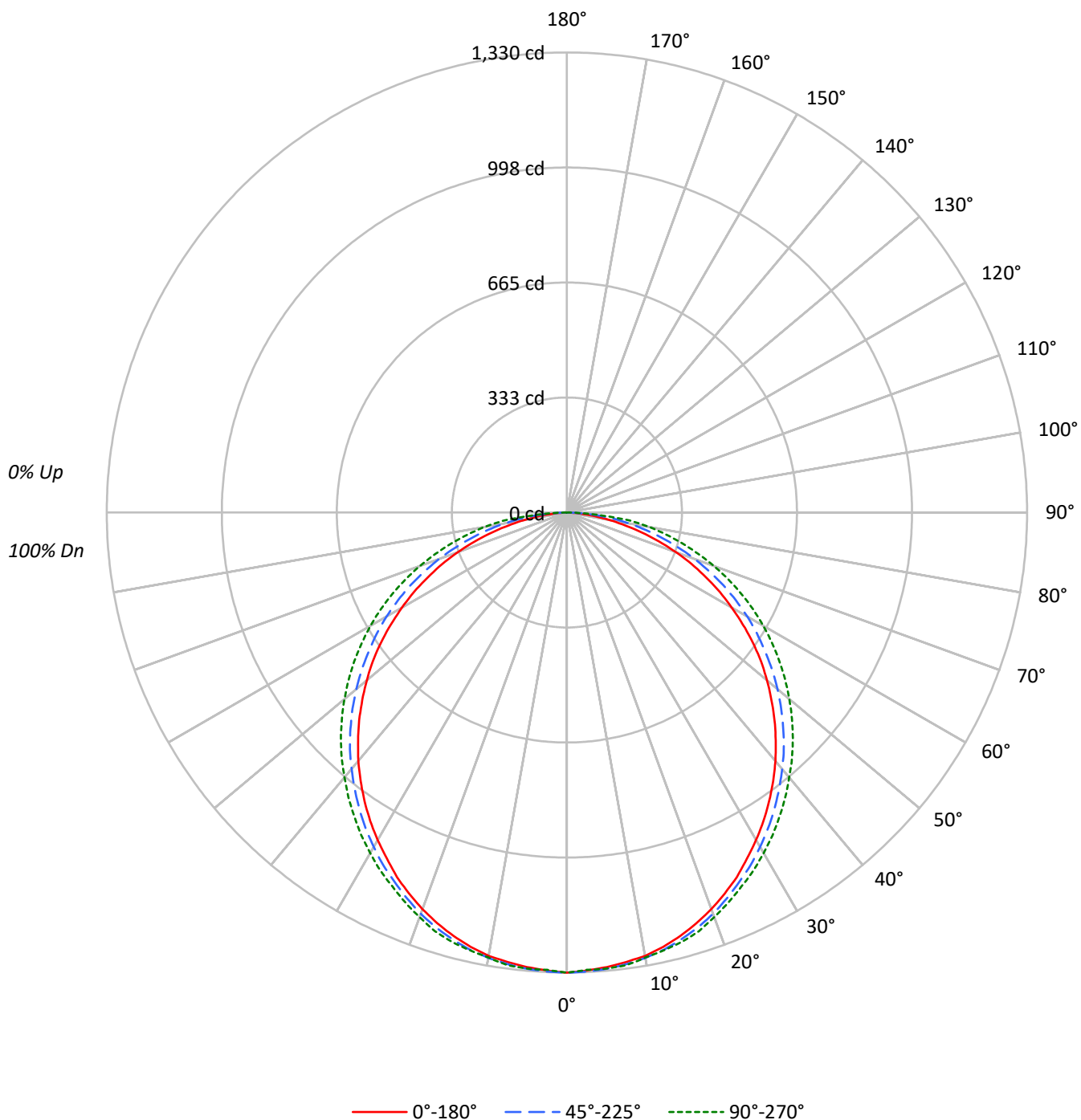
Lumens per Lamp: N/A  
Luminaire Lumens: 3884.0 lumens  
Efficiency: N/A  
Efficacy: 134.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.9  
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  | 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  | 69  |
| 3   | 89  | 79  | 70  | 64  | 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°  | 4166 | 4166 | 4166 |
| 5°  | 4147 | 4163 | 4160 |
| 10° | 4138 | 4157 | 4154 |
| 15° | 4108 | 4141 | 4166 |
| 20° | 4067 | 4115 | 4149 |
| 25° | 4016 | 4072 | 4123 |
| 30° | 3953 | 4037 | 4111 |
| 35° | 3896 | 3997 | 4098 |
| 40° | 3832 | 3958 | 4086 |
| 45° | 3759 | 3917 | 4091 |
| 50° | 3678 | 3869 | 4090 |
| 55° | 3582 | 3816 | 4094 |
| 60° | 3448 | 3773 | 4105 |
| 65° | 3290 | 3700 | 4117 |
| 70° | 3066 | 3597 | 4135 |
| 75° | 2732 | 3454 | 4176 |
| 80° | 2259 | 3289 | 4380 |
| 85° | 1469 | 2971 | 3826 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4517 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 125.8  | 3.2       |
| 10°-20°   | 360.3  | 9.3       |
| 20°-30°   | 543.3  | 14.0      |
| 30°-40°   | 654.5  | 16.8      |
| 40°-50°   | 683.5  | 17.6      |
| 50°-60°   | 627.7  | 16.2      |
| 60°-70°   | 494.4  | 12.7      |
| 70°-80°   | 303.3  | 7.8       |
| 80°-90°   | 91.3   | 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°    | 1029.4 | 26.5      |
| 0°-40°    | 1683.9 | 43.4      |
| 0°-60°    | 2995.0 | 77.1      |
| 0°-90°    | 3884.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3884.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1330 | 1330  | 1330 | 1330  | 1330 |      |
| 5°  | 1319 | 1321  | 1324 | 1329  | 1324 | 125  |
| 15° | 1267 | 1270  | 1278 | 1285  | 1285 | 357  |
| 25° | 1162 | 1165  | 1179 | 1193  | 1193 | 535  |
| 35° | 1019 | 1024  | 1046 | 1067  | 1072 | 638  |
| 45° | 849  | 858   | 885  | 915   | 924  | 654  |
| 55° | 656  | 668   | 699  | 738   | 750  | 586  |
| 65° | 444  | 459   | 499  | 541   | 556  | 439  |
| 75° | 226  | 244   | 286  | 331   | 345  | 239  |
| 85° | 41   | 56    | 83   | 105   | 106  | 53   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1330.4 | 1330.4 | 1330.4 | 1330.4 | 1330.4 |
| 2.5°  | 1325.3 | 1327.8 | 1328.7 | 1329.5 | 1323.6 |
| 5°    | 1319.3 | 1321.0 | 1324.4 | 1328.7 | 1323.6 |
| 7.5°  | 1310.8 | 1312.5 | 1316.7 | 1322.7 | 1320.1 |
| 10°   | 1301.4 | 1302.2 | 1307.4 | 1311.6 | 1306.5 |
| 12.5° | 1286.1 | 1288.6 | 1294.6 | 1298.0 | 1296.3 |
| 15°   | 1267.3 | 1269.9 | 1277.5 | 1285.2 | 1285.2 |
| 17.5° | 1245.1 | 1248.6 | 1257.9 | 1268.2 | 1269.0 |
| 20°   | 1220.4 | 1223.0 | 1234.9 | 1245.1 | 1245.1 |
| 22.5° | 1192.3 | 1195.7 | 1207.6 | 1218.7 | 1220.4 |
| 25°   | 1162.5 | 1165.0 | 1178.7 | 1193.2 | 1193.2 |
| 27.5° | 1127.5 | 1132.6 | 1149.7 | 1164.2 | 1167.6 |
| 30°   | 1093.4 | 1097.7 | 1116.5 | 1134.4 | 1136.9 |
| 32.5° | 1057.7 | 1062.8 | 1082.4 | 1102.0 | 1106.2 |
| 35°   | 1019.3 | 1024.4 | 1045.7 | 1067.0 | 1072.1 |
| 37.5° | 979.2  | 985.2  | 1007.4 | 1032.1 | 1037.2 |
| 40°   | 937.5  | 944.3  | 968.2  | 994.6  | 999.7  |
| 42.5° | 893.2  | 902.5  | 928.1  | 955.4  | 963.1  |
| 45°   | 848.8  | 858.2  | 884.6  | 915.3  | 923.8  |
| 47.5° | 802.0  | 813.1  | 840.3  | 872.7  | 882.1  |
| 50°   | 755.1  | 766.2  | 794.3  | 829.2  | 839.5  |
| 52.5° | 707.4  | 718.5  | 747.4  | 784.1  | 795.2  |
| 55°   | 656.2  | 668.2  | 698.9  | 738.1  | 750.0  |
| 57.5° | 603.4  | 618.7  | 651.1  | 691.2  | 703.1  |
| 60°   | 550.6  | 565.9  | 602.5  | 641.7  | 655.4  |
| 62.5° | 498.6  | 513.1  | 550.6  | 592.3  | 606.8  |
| 65°   | 444.0  | 459.4  | 499.4  | 541.2  | 555.7  |
| 67.5° | 390.3  | 405.7  | 445.7  | 489.2  | 504.5  |
| 70°   | 334.9  | 352.0  | 392.9  | 436.4  | 451.7  |
| 72.5° | 279.5  | 297.4  | 339.2  | 383.5  | 398.0  |
| 75°   | 225.8  | 243.7  | 285.5  | 330.7  | 345.2  |
| 77.5° | 173.0  | 192.6  | 233.5  | 279.5  | 293.2  |
| 80°   | 125.3  | 144.0  | 182.4  | 227.6  | 242.9  |
| 82.5° | 80.1   | 96.3   | 134.7  | 177.3  | 188.3  |
| 85°   | 40.9   | 56.2   | 82.7   | 104.8  | 106.5  |
| 87.5° | 12.8   | 17.9   | 27.3   | 40.9   | 41.8   |
| 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 | 16.44            | 18.10 | 16.80 | 18.41 | 18.73 | 17.27          | 18.93 | 17.63 | 19.24 | 19.56 |
|                 | 3H   | 18.19            | 19.70 | 18.57 | 20.02 | 20.38 | 19.38          | 20.89 | 19.76 | 21.22 | 21.58 |
|                 | 4H   | 18.81            | 20.23 | 19.21 | 20.58 | 20.95 | 20.27          | 21.69 | 20.67 | 22.04 | 22.42 |
|                 | 6H   | 19.22            | 20.54 | 19.63 | 20.90 | 21.29 | 21.05          | 22.37 | 21.46 | 22.74 | 23.13 |
|                 | 8H   | 19.33            | 20.59 | 19.75 | 20.98 | 21.38 | 21.37          | 22.64 | 21.80 | 23.02 | 23.42 |
|                 | 12H  | 19.38            | 20.59 | 19.81 | 20.97 | 21.40 | 21.58          | 22.79 | 22.01 | 23.18 | 23.60 |
| 4H              | 2H   | 17.21            | 18.63 | 17.60 | 18.98 | 19.35 | 17.85          | 19.28 | 18.25 | 19.62 | 20.00 |
|                 | 3H   | 19.18            | 20.38 | 19.59 | 20.78 | 21.18 | 20.21          | 21.41 | 20.62 | 21.80 | 22.20 |
|                 | 4H   | 19.92            | 21.01 | 20.35 | 21.42 | 21.85 | 21.26          | 22.35 | 21.69 | 22.76 | 23.19 |
|                 | 6H   | 20.45            | 21.40 | 20.90 | 21.84 | 22.30 | 22.21          | 23.17 | 22.67 | 23.61 | 24.06 |
|                 | 8H   | 20.60            | 21.49 | 21.05 | 21.93 | 22.39 | 22.61          | 23.50 | 23.07 | 23.94 | 24.41 |
|                 | 12H  | 20.68            | 21.48 | 21.16 | 21.96 | 22.43 | 22.89          | 23.69 | 23.37 | 24.17 | 24.63 |
| 8H              | 4H   | 20.38            | 21.27 | 20.84 | 21.71 | 22.18 | 21.55          | 22.44 | 22.01 | 22.88 | 23.35 |
|                 | 6H   | 21.04            | 21.79 | 21.53 | 22.27 | 22.75 | 22.66          | 23.41 | 23.15 | 23.89 | 24.37 |
|                 | 8H   | 21.25            | 21.92 | 21.76 | 22.43 | 22.91 | 23.17          | 23.84 | 23.68 | 24.35 | 24.83 |
|                 | 12H  | 21.39            | 21.98 | 21.90 | 22.47 | 23.03 | 23.56          | 24.15 | 24.06 | 24.64 | 25.20 |
| 12H             | 4H   | 20.47            | 21.27 | 20.95 | 21.75 | 22.22 | 21.57          | 22.38 | 22.05 | 22.85 | 23.32 |
|                 | 6H   | 21.17            | 21.84 | 21.68 | 22.35 | 22.83 | 22.71          | 23.38 | 23.22 | 23.88 | 24.37 |
|                 | 8H   | 21.45            | 22.04 | 21.96 | 22.53 | 23.09 | 23.29          | 23.88 | 23.79 | 24.37 | 24.93 |