

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: P1586379

Luminaire Tested: 22CZSP-37HE-L845

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586379  
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-37HE-L845  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 80CRI, Ribbed Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

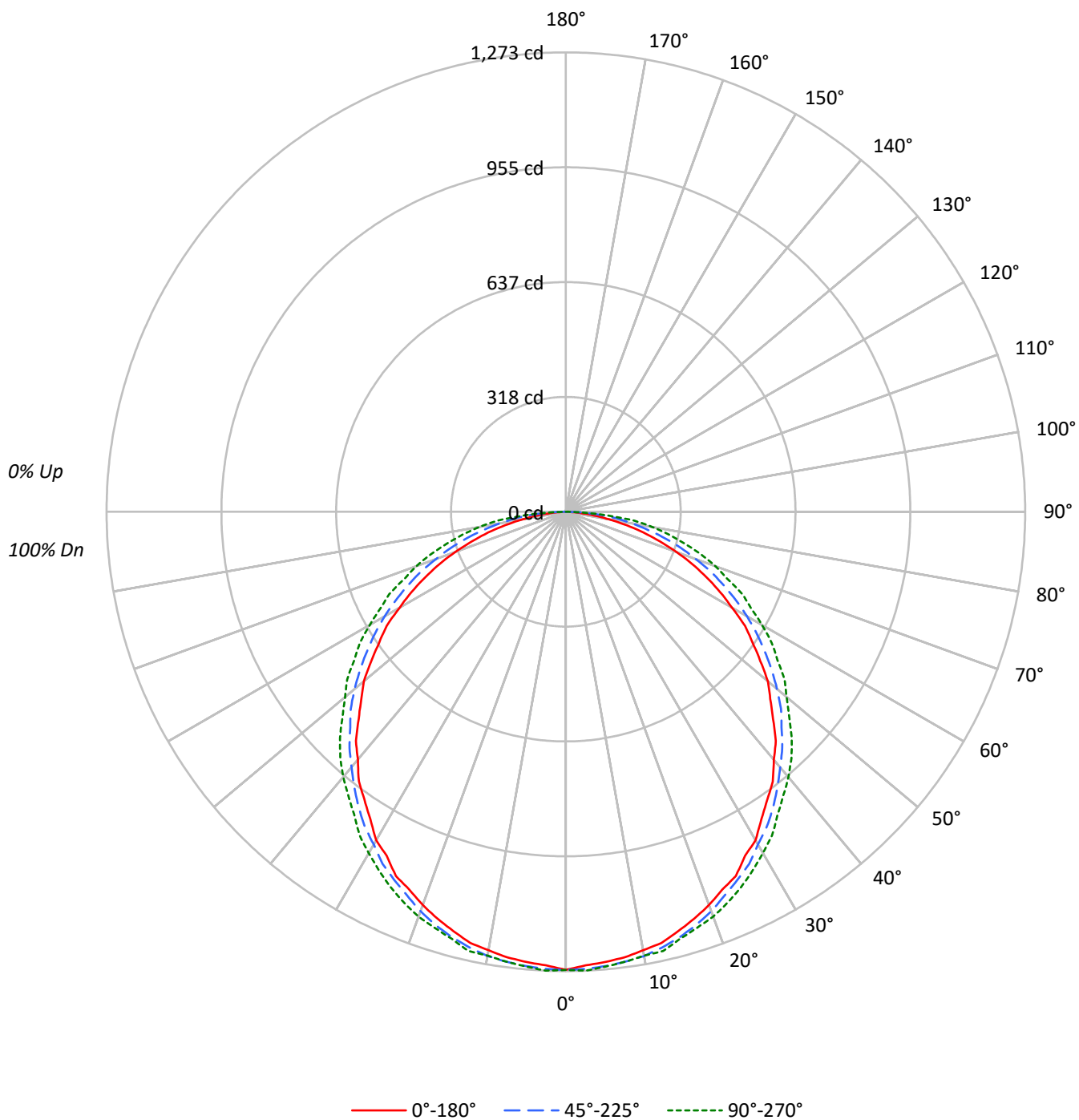
Lumens per Lamp: N/A  
Luminaire Lumens: 3739.0 lumens  
Efficiency: N/A  
Efficacy: 155.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.38  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 24.1  
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°  | 3975 | 3975 | 3975 |
| 5°  | 3936 | 3972 | 3976 |
| 10° | 3924 | 3975 | 3971 |
| 15° | 3900 | 3956 | 3971 |
| 20° | 3864 | 3925 | 3978 |
| 25° | 3849 | 3888 | 3967 |
| 30° | 3800 | 3850 | 3949 |
| 35° | 3720 | 3825 | 3912 |
| 40° | 3665 | 3777 | 3922 |
| 45° | 3596 | 3742 | 3920 |
| 50° | 3560 | 3721 | 3889 |
| 55° | 3446 | 3671 | 3908 |
| 60° | 3330 | 3631 | 3932 |
| 65° | 3186 | 3576 | 4000 |
| 70° | 2995 | 3507 | 4041 |
| 75° | 2698 | 3446 | 4123 |
| 80° | 2207 | 3383 | 4393 |
| 85° | 1437 | 3370 | 4110 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4608 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 120.0  | 3.2       |
| 10°-20°   | 343.6  | 9.2       |
| 20°-30°   | 519.3  | 13.9      |
| 30°-40°   | 626.3  | 16.8      |
| 40°-50°   | 654.7  | 17.5      |
| 50°-60°   | 603.8  | 16.1      |
| 60°-70°   | 478.4  | 12.8      |
| 70°-80°   | 299.1  | 8.0       |
| 80°-90°   | 93.8   | 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°    | 982.9  | 26.3      |
| 0°-40°    | 1609.1 | 43.0      |
| 0°-60°    | 2867.6 | 76.7      |
| 0°-90°    | 3739.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3739.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1269 | 1269  | 1269 | 1269  | 1269 |      |
| 5°  | 1252 | 1258  | 1264 | 1268  | 1265 | 119  |
| 15° | 1203 | 1209  | 1220 | 1228  | 1225 | 339  |
| 25° | 1114 | 1110  | 1125 | 1141  | 1148 | 511  |
| 35° | 973  | 985   | 1001 | 1018  | 1024 | 610  |
| 45° | 812  | 823   | 845  | 867   | 885  | 628  |
| 55° | 631  | 646   | 672  | 709   | 716  | 566  |
| 65° | 430  | 448   | 483  | 520   | 540  | 426  |
| 75° | 223  | 241   | 285  | 325   | 341  | 235  |
| 85° | 40   | 57    | 94   | 110   | 114  | 52   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1269.4 | 1269.4 | 1269.4 | 1269.4 | 1269.4 |
| 2.5°  | 1258.0 | 1263.7 | 1268.3 | 1267.1 | 1272.9 |
| 5°    | 1252.3 | 1258.0 | 1263.7 | 1268.3 | 1264.9 |
| 7.5°  | 1245.4 | 1251.1 | 1258.0 | 1264.9 | 1258.0 |
| 10°   | 1234.0 | 1237.4 | 1250.0 | 1251.1 | 1248.8 |
| 12.5° | 1223.7 | 1227.1 | 1236.3 | 1244.3 | 1246.6 |
| 15°   | 1203.1 | 1208.8 | 1220.2 | 1228.3 | 1224.8 |
| 17.5° | 1182.5 | 1190.5 | 1200.8 | 1208.8 | 1208.8 |
| 20°   | 1159.6 | 1165.4 | 1177.9 | 1183.7 | 1193.9 |
| 22.5° | 1133.3 | 1140.2 | 1150.5 | 1166.5 | 1172.2 |
| 25°   | 1113.9 | 1110.5 | 1125.3 | 1141.3 | 1148.2 |
| 27.5° | 1075.0 | 1079.6 | 1100.2 | 1115.0 | 1120.8 |
| 30°   | 1051.0 | 1053.3 | 1064.7 | 1085.3 | 1092.2 |
| 32.5° | 1008.7 | 1015.5 | 1036.1 | 1051.0 | 1063.6 |
| 35°   | 973.2  | 984.7  | 1000.7 | 1017.8 | 1023.5 |
| 37.5° | 942.3  | 944.6  | 962.9  | 985.8  | 990.4  |
| 40°   | 896.6  | 910.3  | 924.1  | 952.6  | 959.5  |
| 42.5° | 861.2  | 868.0  | 887.5  | 914.9  | 925.2  |
| 45°   | 812.0  | 823.4  | 845.1  | 866.9  | 885.2  |
| 47.5° | 768.5  | 780.0  | 808.5  | 836.0  | 839.4  |
| 50°   | 730.8  | 735.4  | 763.9  | 794.8  | 798.3  |
| 52.5° | 679.3  | 690.8  | 718.2  | 752.5  | 763.9  |
| 55°   | 631.3  | 646.1  | 672.5  | 709.0  | 715.9  |
| 57.5° | 589.0  | 595.8  | 626.7  | 663.3  | 677.0  |
| 60°   | 531.8  | 551.2  | 579.8  | 615.3  | 627.9  |
| 62.5° | 482.6  | 500.9  | 531.8  | 565.0  | 578.7  |
| 65°   | 430.0  | 448.3  | 482.6  | 520.3  | 539.8  |
| 67.5° | 379.7  | 394.6  | 435.7  | 474.6  | 483.8  |
| 70°   | 327.1  | 344.2  | 383.1  | 423.1  | 441.4  |
| 72.5° | 272.2  | 291.6  | 335.1  | 372.8  | 392.3  |
| 75°   | 223.0  | 241.3  | 284.8  | 324.8  | 340.8  |
| 77.5° | 171.5  | 192.1  | 234.4  | 274.5  | 292.8  |
| 80°   | 122.4  | 143.0  | 187.6  | 227.6  | 243.6  |
| 82.5° | 78.9   | 100.6  | 143.0  | 178.4  | 192.1  |
| 85°   | 40.0   | 57.2   | 93.8   | 109.8  | 114.4  |
| 87.5° | 12.6   | 20.6   | 32.0   | 36.6   | 36.6   |
| 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 | 16.32            | 17.99 | 16.68 | 18.30 | 18.62 | 17.11          | 18.78 | 17.47 | 19.09 | 19.40 |
|                 | 3H   | 18.10            | 19.61 | 18.48 | 19.94 | 20.30 | 19.25          | 20.77 | 19.63 | 21.09 | 21.45 |
|                 | 4H   | 18.74            | 20.17 | 19.14 | 20.51 | 20.89 | 20.18          | 21.60 | 20.57 | 21.95 | 22.33 |
|                 | 6H   | 19.17            | 20.49 | 19.58 | 20.85 | 21.24 | 21.00          | 22.33 | 21.41 | 22.69 | 23.08 |
|                 | 8H   | 19.28            | 20.55 | 19.70 | 20.93 | 21.33 | 21.35          | 22.62 | 21.77 | 23.00 | 23.40 |
|                 | 12H  | 19.33            | 20.55 | 19.76 | 20.93 | 21.36 | 21.59          | 22.81 | 22.02 | 23.19 | 23.62 |
| 4H              | 2H   | 17.09            | 18.52 | 17.49 | 18.87 | 19.24 | 17.71          | 19.13 | 18.10 | 19.48 | 19.86 |
|                 | 3H   | 19.10            | 20.31 | 19.51 | 20.70 | 21.10 | 20.09          | 21.30 | 20.50 | 21.69 | 22.09 |
|                 | 4H   | 19.86            | 20.96 | 20.29 | 21.37 | 21.80 | 21.18          | 22.27 | 21.61 | 22.68 | 23.12 |
|                 | 6H   | 20.41            | 21.37 | 20.86 | 21.81 | 22.26 | 22.18          | 23.13 | 22.63 | 23.57 | 24.03 |
|                 | 8H   | 20.57            | 21.46 | 21.02 | 21.90 | 22.37 | 22.60          | 23.50 | 23.06 | 23.94 | 24.41 |
|                 | 12H  | 20.65            | 21.46 | 21.13 | 21.94 | 22.41 | 22.92          | 23.73 | 23.40 | 24.20 | 24.67 |
| 8H              | 4H   | 20.34            | 21.24 | 20.80 | 21.68 | 22.15 | 21.49          | 22.38 | 21.94 | 22.83 | 23.29 |
|                 | 6H   | 21.03            | 21.78 | 21.52 | 22.27 | 22.74 | 22.65          | 23.40 | 23.14 | 23.89 | 24.36 |
|                 | 8H   | 21.26            | 21.93 | 21.77 | 22.44 | 22.92 | 23.20          | 23.87 | 23.70 | 24.37 | 24.86 |
|                 | 12H  | 21.41            | 22.00 | 21.91 | 22.49 | 23.05 | 23.62          | 24.22 | 24.13 | 24.71 | 25.27 |
| 12H             | 4H   | 20.44            | 21.25 | 20.92 | 21.72 | 22.19 | 21.51          | 22.32 | 21.99 | 22.80 | 23.27 |
|                 | 6H   | 21.18            | 21.86 | 21.69 | 22.36 | 22.85 | 22.71          | 23.38 | 23.21 | 23.89 | 24.37 |
|                 | 8H   | 21.48            | 22.08 | 21.99 | 22.57 | 23.13 | 23.32          | 23.92 | 23.83 | 24.41 | 24.97 |