

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: P1586628

Luminaire Tested: 22CZSP-A-37HE-L945-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586628  
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-A-37HE-L945-S  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 90CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

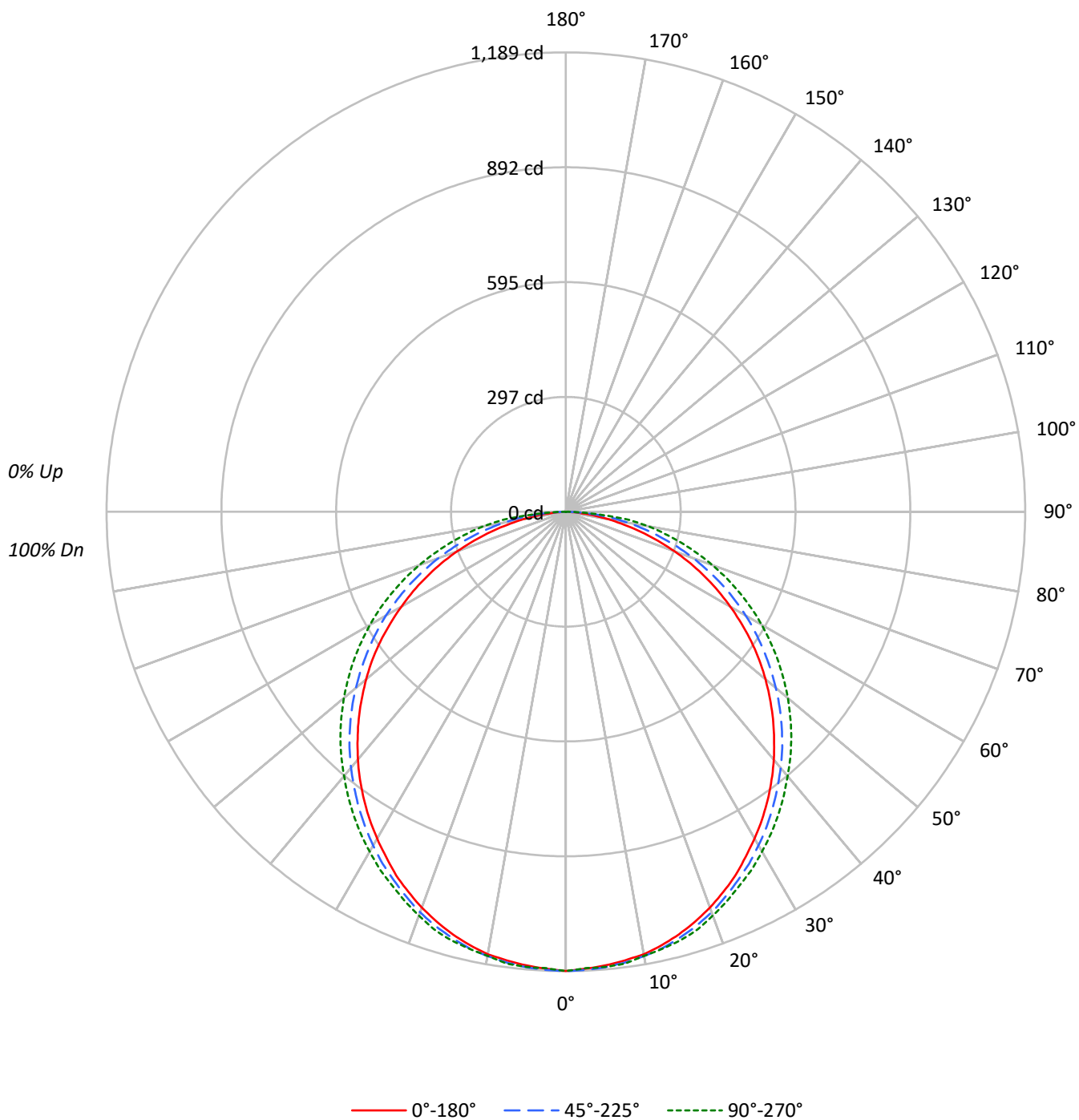
Lumens per Lamp: N/A  
Luminaire Lumens: 3470.0 lumens  
Efficiency: N/A  
Efficacy: 144.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 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  | 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°  | 3722 | 3722 | 3722 |
| 5°  | 3705 | 3719 | 3717 |
| 10° | 3697 | 3714 | 3711 |
| 15° | 3670 | 3700 | 3722 |
| 20° | 3633 | 3677 | 3707 |
| 25° | 3588 | 3638 | 3683 |
| 30° | 3532 | 3607 | 3673 |
| 35° | 3481 | 3571 | 3662 |
| 40° | 3424 | 3536 | 3651 |
| 45° | 3358 | 3500 | 3655 |
| 50° | 3286 | 3457 | 3654 |
| 55° | 3201 | 3409 | 3658 |
| 60° | 3081 | 3371 | 3667 |
| 65° | 2939 | 3306 | 3678 |
| 70° | 2739 | 3214 | 3694 |
| 75° | 2441 | 3086 | 3731 |
| 80° | 2018 | 2938 | 3913 |
| 85° | 1311 | 2655 | 3420 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4038 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 112.4  | 3.2       |
| 10°-20°   | 321.9  | 9.3       |
| 20°-30°   | 485.4  | 14.0      |
| 30°-40°   | 584.7  | 16.8      |
| 40°-50°   | 610.6  | 17.6      |
| 50°-60°   | 560.8  | 16.2      |
| 60°-70°   | 441.7  | 12.7      |
| 70°-80°   | 271.0  | 7.8       |
| 80°-90°   | 81.6   | 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°    | 919.7  | 26.5      |
| 0°-40°    | 1504.4 | 43.4      |
| 0°-60°    | 2675.8 | 77.1      |
| 0°-90°    | 3470.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3470.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1189 | 1189  | 1189 | 1189  | 1189 |      |
| 5°  | 1179 | 1180  | 1183 | 1187  | 1182 | 112  |
| 15° | 1132 | 1134  | 1141 | 1148  | 1148 | 319  |
| 25° | 1039 | 1041  | 1053 | 1066  | 1066 | 478  |
| 35° | 911  | 915   | 934  | 953   | 958  | 570  |
| 45° | 758  | 767   | 790  | 818   | 825  | 585  |
| 55° | 586  | 597   | 624  | 659   | 670  | 523  |
| 65° | 397  | 410   | 446  | 484   | 496  | 392  |
| 75° | 202  | 218   | 255  | 295   | 308  | 214  |
| 85° | 36   | 50    | 74   | 94    | 95   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1188.6 | 1188.6 | 1188.6 | 1188.6 | 1188.6 |
| 2.5°  | 1184.0 | 1186.3 | 1187.0 | 1187.8 | 1182.5 |
| 5°    | 1178.7 | 1180.2 | 1183.2 | 1187.0 | 1182.5 |
| 7.5°  | 1171.1 | 1172.6 | 1176.4 | 1181.7 | 1179.4 |
| 10°   | 1162.7 | 1163.4 | 1168.0 | 1171.8 | 1167.2 |
| 12.5° | 1149.0 | 1151.3 | 1156.6 | 1159.6 | 1158.1 |
| 15°   | 1132.2 | 1134.5 | 1141.4 | 1148.2 | 1148.2 |
| 17.5° | 1112.4 | 1115.5 | 1123.8 | 1133.0 | 1133.7 |
| 20°   | 1090.3 | 1092.6 | 1103.3 | 1112.4 | 1112.4 |
| 22.5° | 1065.2 | 1068.3 | 1078.9 | 1088.8 | 1090.3 |
| 25°   | 1038.6 | 1040.9 | 1053.0 | 1066.0 | 1066.0 |
| 27.5° | 1007.4 | 1011.9 | 1027.1 | 1040.1 | 1043.1 |
| 30°   | 976.9  | 980.7  | 997.5  | 1013.4 | 1015.7 |
| 32.5° | 944.9  | 949.5  | 967.0  | 984.5  | 988.3  |
| 35°   | 910.7  | 915.2  | 934.3  | 953.3  | 957.9  |
| 37.5° | 874.9  | 880.2  | 900.0  | 922.1  | 926.6  |
| 40°   | 837.6  | 843.6  | 865.0  | 888.6  | 893.1  |
| 42.5° | 798.0  | 806.3  | 829.2  | 853.5  | 860.4  |
| 45°   | 758.4  | 766.7  | 790.3  | 817.8  | 825.4  |
| 47.5° | 716.5  | 726.4  | 750.8  | 779.7  | 788.1  |
| 50°   | 674.6  | 684.5  | 709.6  | 740.9  | 750.0  |
| 52.5° | 632.0  | 641.9  | 667.8  | 700.5  | 710.4  |
| 55°   | 586.3  | 596.9  | 624.4  | 659.4  | 670.0  |
| 57.5° | 539.1  | 552.8  | 581.7  | 617.5  | 628.2  |
| 60°   | 491.9  | 505.6  | 538.3  | 573.3  | 585.5  |
| 62.5° | 445.4  | 458.4  | 491.9  | 529.2  | 542.1  |
| 65°   | 396.7  | 410.4  | 446.2  | 483.5  | 496.4  |
| 67.5° | 348.7  | 362.4  | 398.2  | 437.1  | 450.8  |
| 70°   | 299.2  | 314.5  | 351.0  | 389.8  | 403.5  |
| 72.5° | 249.7  | 265.7  | 303.0  | 342.6  | 355.6  |
| 75°   | 201.8  | 217.8  | 255.1  | 295.4  | 308.4  |
| 77.5° | 154.6  | 172.1  | 208.6  | 249.7  | 261.9  |
| 80°   | 111.9  | 128.7  | 162.9  | 203.3  | 217.0  |
| 82.5° | 71.6   | 86.0   | 120.3  | 158.4  | 168.3  |
| 85°   | 36.5   | 50.3   | 73.9   | 93.7   | 95.2   |
| 87.5° | 11.4   | 16.0   | 24.4   | 36.5   | 37.3   |
| 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 | 16.04            | 17.71 | 16.41 | 18.02 | 18.33 | 16.87          | 18.54 | 17.24 | 18.85 | 19.16 |
|                 | 3H   | 17.80            | 19.31 | 18.18 | 19.63 | 19.99 | 18.99          | 20.50 | 19.37 | 20.82 | 21.18 |
|                 | 4H   | 18.42            | 19.84 | 18.82 | 20.19 | 20.56 | 19.88          | 21.30 | 20.28 | 21.65 | 22.02 |
|                 | 6H   | 18.83            | 20.15 | 19.24 | 20.51 | 20.90 | 20.66          | 21.98 | 21.07 | 22.34 | 22.74 |
|                 | 8H   | 18.94            | 20.20 | 19.36 | 20.59 | 20.99 | 20.98          | 22.24 | 21.40 | 22.63 | 23.03 |
|                 | 12H  | 18.99            | 20.20 | 19.42 | 20.58 | 21.01 | 21.19          | 22.40 | 21.62 | 22.78 | 23.21 |
| 4H              | 2H   | 16.82            | 18.24 | 17.21 | 18.59 | 18.96 | 17.46          | 18.88 | 17.86 | 19.23 | 19.61 |
|                 | 3H   | 18.79            | 19.99 | 19.20 | 20.39 | 20.79 | 19.82          | 21.02 | 20.23 | 21.41 | 21.81 |
|                 | 4H   | 19.53            | 20.62 | 19.96 | 21.03 | 21.46 | 20.87          | 21.96 | 21.30 | 22.37 | 22.80 |
|                 | 6H   | 20.06            | 21.01 | 20.51 | 21.45 | 21.90 | 21.82          | 22.77 | 22.27 | 23.21 | 23.67 |
|                 | 8H   | 20.20            | 21.10 | 20.66 | 21.54 | 22.00 | 22.22          | 23.11 | 22.68 | 23.55 | 24.02 |
|                 | 12H  | 20.29            | 21.09 | 20.77 | 21.57 | 22.03 | 22.50          | 23.30 | 22.97 | 23.77 | 24.24 |
| 8H              | 4H   | 19.99            | 20.88 | 20.45 | 21.32 | 21.79 | 21.16          | 22.05 | 21.62 | 22.49 | 22.96 |
|                 | 6H   | 20.65            | 21.39 | 21.14 | 21.88 | 22.35 | 22.27          | 23.01 | 22.76 | 23.50 | 23.97 |
|                 | 8H   | 20.86            | 21.53 | 21.37 | 22.03 | 22.52 | 22.78          | 23.45 | 23.29 | 23.96 | 24.44 |
|                 | 12H  | 21.00            | 21.59 | 21.51 | 22.08 | 22.64 | 23.17          | 23.76 | 23.67 | 24.25 | 24.81 |
| 12H             | 4H   | 20.08            | 20.88 | 20.56 | 21.36 | 21.82 | 21.18          | 21.99 | 21.66 | 22.46 | 22.93 |
|                 | 6H   | 20.78            | 21.45 | 21.29 | 21.96 | 22.44 | 22.32          | 22.99 | 22.82 | 23.49 | 23.98 |
|                 | 8H   | 21.06            | 21.65 | 21.57 | 22.14 | 22.70 | 22.90          | 23.49 | 23.40 | 23.98 | 24.54 |