

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: P1586376

Luminaire Tested: 22CZSP-37HE-L840-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586376  
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-37HE-L840-S  
Description: 2x2 CZSP LED Luminaire, 4000K CCT and 3500 lumens, 80CRI, Smooth Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

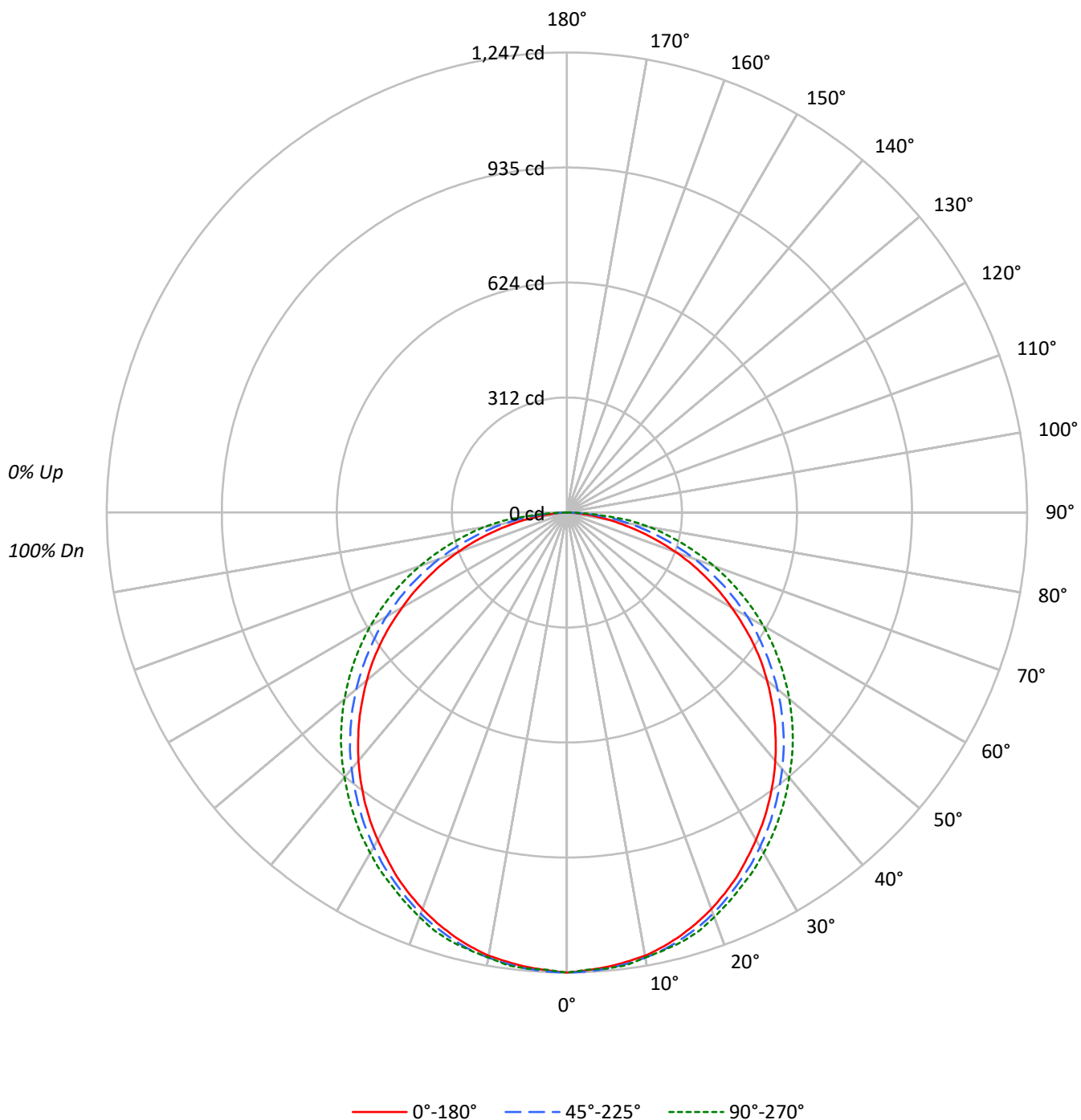
Lumens per Lamp: N/A  
Luminaire Lumens: 3641.0 lumens  
Efficiency: N/A  
Efficacy: 151.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

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°  | 3905 | 3905 | 3905 |
| 5°  | 3888 | 3902 | 3900 |
| 10° | 3879 | 3897 | 3894 |
| 15° | 3851 | 3882 | 3906 |
| 20° | 3812 | 3858 | 3889 |
| 25° | 3765 | 3817 | 3864 |
| 30° | 3706 | 3784 | 3854 |
| 35° | 3653 | 3747 | 3842 |
| 40° | 3592 | 3710 | 3831 |
| 45° | 3524 | 3672 | 3835 |
| 50° | 3449 | 3627 | 3834 |
| 55° | 3359 | 3576 | 3838 |
| 60° | 3232 | 3537 | 3848 |
| 65° | 3084 | 3469 | 3860 |
| 70° | 2875 | 3372 | 3876 |
| 75° | 2561 | 3238 | 3915 |
| 80° | 2117 | 3084 | 4106 |
| 85° | 1376 | 2784 | 3589 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4237 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.9  | 3.2       |
| 10°-20°   | 337.7  | 9.3       |
| 20°-30°   | 509.3  | 14.0      |
| 30°-40°   | 613.5  | 16.8      |
| 40°-50°   | 640.7  | 17.6      |
| 50°-60°   | 588.4  | 16.2      |
| 60°-70°   | 463.5  | 12.7      |
| 70°-80°   | 284.3  | 7.8       |
| 80°-90°   | 85.6   | 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°    | 965.0  | 26.5      |
| 0°-40°    | 1578.5 | 43.4      |
| 0°-60°    | 2807.7 | 77.1      |
| 0°-90°    | 3641.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3641.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1247 | 1247  | 1247 | 1247  | 1247 |      |
| 5°  | 1237 | 1238  | 1242 | 1246  | 1241 | 118  |
| 15° | 1188 | 1190  | 1198 | 1205  | 1205 | 335  |
| 25° | 1090 | 1092  | 1105 | 1118  | 1118 | 502  |
| 35° | 956  | 960   | 980  | 1000  | 1005 | 598  |
| 45° | 796  | 804   | 829  | 858   | 866  | 614  |
| 55° | 615  | 626   | 655  | 692   | 703  | 549  |
| 65° | 416  | 431   | 468  | 507   | 521  | 412  |
| 75° | 212  | 228   | 268  | 310   | 324  | 224  |
| 85° | 38   | 53    | 78   | 98    | 100  | 50   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1247.1 | 1247.1 | 1247.1 | 1247.1 | 1247.1 |
| 2.5°  | 1242.3 | 1244.7 | 1245.5 | 1246.3 | 1240.7 |
| 5°    | 1236.8 | 1238.4 | 1241.5 | 1245.5 | 1240.7 |
| 7.5°  | 1228.8 | 1230.4 | 1234.4 | 1239.9 | 1237.6 |
| 10°   | 1220.0 | 1220.8 | 1225.6 | 1229.6 | 1224.8 |
| 12.5° | 1205.6 | 1208.0 | 1213.6 | 1216.8 | 1215.2 |
| 15°   | 1188.0 | 1190.4 | 1197.6 | 1204.8 | 1204.8 |
| 17.5° | 1167.2 | 1170.4 | 1179.2 | 1188.8 | 1189.6 |
| 20°   | 1144.1 | 1146.5 | 1157.7 | 1167.2 | 1167.2 |
| 22.5° | 1117.7 | 1120.9 | 1132.1 | 1142.5 | 1144.1 |
| 25°   | 1089.7 | 1092.1 | 1104.9 | 1118.5 | 1118.5 |
| 27.5° | 1057.0 | 1061.8 | 1077.8 | 1091.3 | 1094.5 |
| 30°   | 1025.0 | 1029.0 | 1046.6 | 1063.4 | 1065.8 |
| 32.5° | 991.5  | 996.3  | 1014.6 | 1033.0 | 1037.0 |
| 35°   | 955.5  | 960.3  | 980.3  | 1000.3 | 1005.1 |
| 37.5° | 918.0  | 923.6  | 944.3  | 967.5  | 972.3  |
| 40°   | 878.8  | 885.2  | 907.6  | 932.4  | 937.2  |
| 42.5° | 837.3  | 846.1  | 870.0  | 895.6  | 902.8  |
| 45°   | 795.7  | 804.5  | 829.3  | 858.1  | 866.0  |
| 47.5° | 751.8  | 762.2  | 787.8  | 818.1  | 826.9  |
| 50°   | 707.9  | 718.2  | 744.6  | 777.4  | 787.0  |
| 52.5° | 663.1  | 673.5  | 700.7  | 735.0  | 745.4  |
| 55°   | 615.2  | 626.4  | 655.1  | 691.9  | 703.1  |
| 57.5° | 565.6  | 580.0  | 610.4  | 647.9  | 659.1  |
| 60°   | 516.1  | 530.5  | 564.8  | 601.6  | 614.4  |
| 62.5° | 467.4  | 481.0  | 516.1  | 555.3  | 568.8  |
| 65°   | 416.2  | 430.6  | 468.2  | 507.3  | 520.9  |
| 67.5° | 365.9  | 380.3  | 417.8  | 458.6  | 473.0  |
| 70°   | 314.0  | 330.0  | 368.3  | 409.1  | 423.4  |
| 72.5° | 262.1  | 278.8  | 318.0  | 359.5  | 373.1  |
| 75°   | 211.7  | 228.5  | 267.6  | 310.0  | 323.6  |
| 77.5° | 162.2  | 180.6  | 218.9  | 262.1  | 274.8  |
| 80°   | 117.4  | 135.0  | 171.0  | 213.3  | 227.7  |
| 82.5° | 75.1   | 90.3   | 126.2  | 166.2  | 176.6  |
| 85°   | 38.3   | 52.7   | 77.5   | 98.3   | 99.9   |
| 87.5° | 12.0   | 16.8   | 25.6   | 38.3   | 39.1   |
| 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 | 16.21            | 17.87 | 16.58 | 18.19 | 18.50 | 17.04          | 18.70 | 17.41 | 19.02 | 19.33 |
|                 | 3H   | 17.97            | 19.47 | 18.34 | 19.80 | 20.16 | 19.16          | 20.67 | 19.53 | 20.99 | 21.35 |
|                 | 4H   | 18.59            | 20.01 | 18.98 | 20.35 | 20.73 | 20.05          | 21.47 | 20.44 | 21.82 | 22.19 |
|                 | 6H   | 19.00            | 20.32 | 19.41 | 20.68 | 21.07 | 20.83          | 22.15 | 21.24 | 22.51 | 22.90 |
|                 | 8H   | 19.10            | 20.37 | 19.53 | 20.75 | 21.15 | 21.15          | 22.41 | 21.57 | 22.80 | 23.20 |
|                 | 12H  | 19.16            | 20.37 | 19.58 | 20.75 | 21.18 | 21.36          | 22.57 | 21.79 | 22.95 | 23.38 |
| 4H              | 2H   | 16.98            | 18.41 | 17.38 | 18.75 | 19.13 | 17.63          | 19.05 | 18.03 | 19.40 | 19.77 |
|                 | 3H   | 18.96            | 20.16 | 19.37 | 20.55 | 20.95 | 19.98          | 21.18 | 20.39 | 21.58 | 21.98 |
|                 | 4H   | 19.70            | 20.78 | 20.13 | 21.20 | 21.63 | 21.04          | 22.12 | 21.47 | 22.54 | 22.97 |
|                 | 6H   | 20.23            | 21.18 | 20.68 | 21.62 | 22.07 | 21.99          | 22.94 | 22.44 | 23.38 | 23.83 |
|                 | 8H   | 20.37            | 21.26 | 20.83 | 21.71 | 22.17 | 22.39          | 23.28 | 22.85 | 23.72 | 24.18 |
|                 | 12H  | 20.46            | 21.26 | 20.93 | 21.73 | 22.20 | 22.66          | 23.47 | 23.14 | 23.94 | 24.41 |
| 8H              | 4H   | 20.16            | 21.05 | 20.61 | 21.49 | 21.95 | 21.33          | 22.22 | 21.78 | 22.66 | 23.12 |
|                 | 6H   | 20.82            | 21.56 | 21.31 | 22.05 | 22.52 | 22.44          | 23.18 | 22.93 | 23.67 | 24.14 |
|                 | 8H   | 21.03            | 21.70 | 21.54 | 22.20 | 22.69 | 22.95          | 23.62 | 23.46 | 24.12 | 24.61 |
|                 | 12H  | 21.17            | 21.76 | 21.67 | 22.25 | 22.81 | 23.34          | 23.93 | 23.84 | 24.42 | 24.98 |
| 12H             | 4H   | 20.25            | 21.05 | 20.72 | 21.52 | 21.99 | 21.35          | 22.15 | 21.83 | 22.63 | 23.10 |
|                 | 6H   | 20.95            | 21.62 | 21.46 | 22.12 | 22.61 | 22.48          | 23.15 | 22.99 | 23.66 | 24.14 |
|                 | 8H   | 21.23            | 21.82 | 21.73 | 22.31 | 22.87 | 23.06          | 23.65 | 23.57 | 24.14 | 24.70 |