

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: P1587608

Luminaire Tested: 22CZSP-SB-31-L945-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1587608  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-SB-31-L945-S  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 3000 lumens, 90CRI, Smooth Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

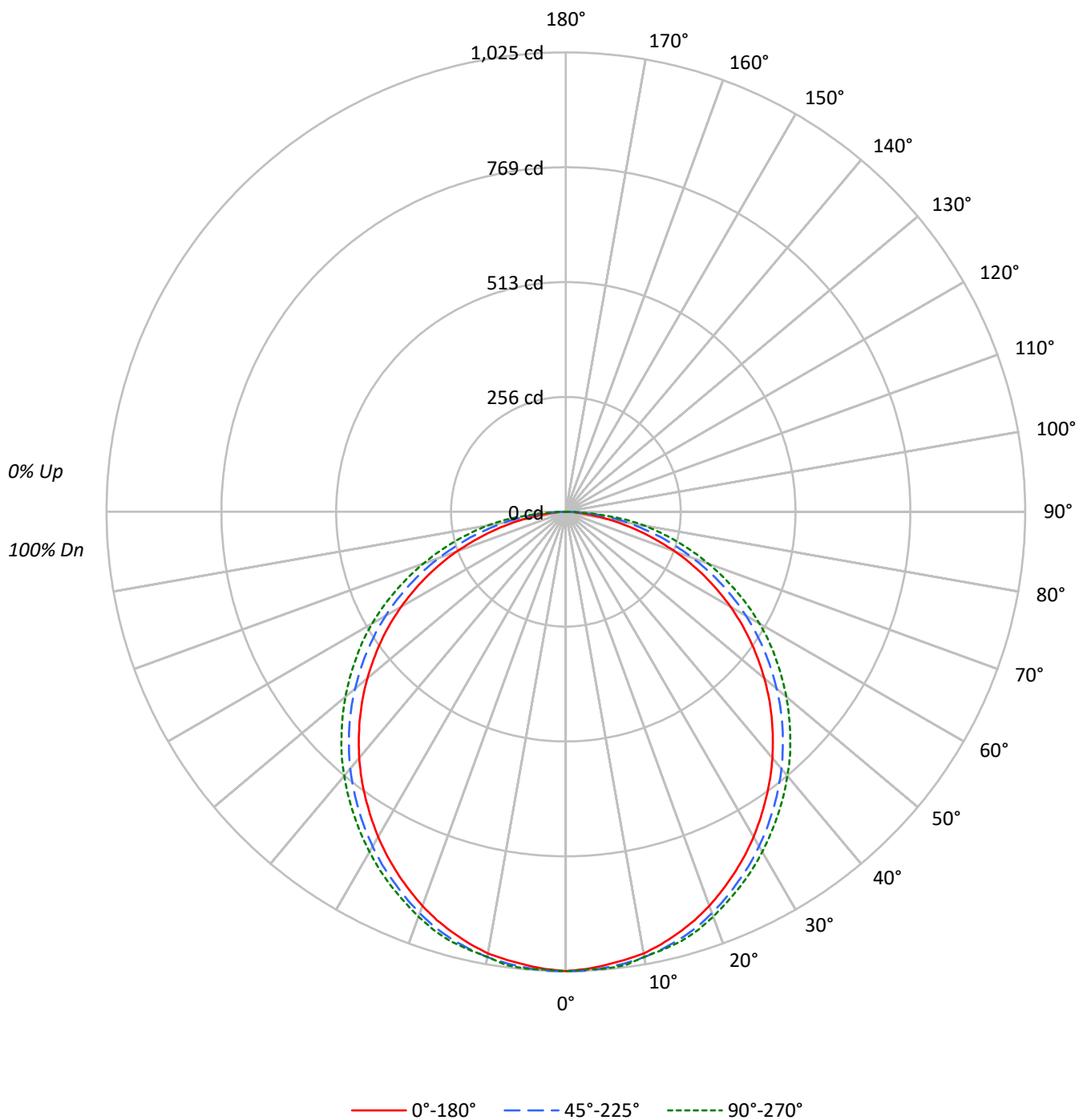
Lumens per Lamp: N/A  
Luminaire Lumens: 2982.0 lumens  
Efficiency: N/A  
Efficacy: 142.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 21  
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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 94  | 90  |  | 93  | 90  | 88  |  | 89  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 76  | 72  |  | 78  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 66  | 61  |  | 69  |
| 4   | 82  | 70  | 61  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 53  |  | 63  | 57  | 52  |  | 61  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  |  | 57  | 50  | 45  |  | 55  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  |  | 51  | 45  | 39  |  | 50  |
| 7   | 64  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 48  | 41  | 35  |  | 47  | 40  | 35  |  | 45  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  |  | 37  | 30  | 25  |  | 36  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3210 | 3210 | 3210 |
| 5°  | 3192 | 3210 | 3216 |
| 10° | 3182 | 3209 | 3206 |
| 15° | 3153 | 3198 | 3217 |
| 20° | 3119 | 3177 | 3204 |
| 25° | 3074 | 3145 | 3185 |
| 30° | 3029 | 3117 | 3168 |
| 35° | 2979 | 3087 | 3154 |
| 40° | 2932 | 3060 | 3144 |
| 45° | 2878 | 3028 | 3136 |
| 50° | 2816 | 2991 | 3128 |
| 55° | 2745 | 2952 | 3124 |
| 60° | 2660 | 2908 | 3126 |
| 65° | 2538 | 2847 | 3108 |
| 70° | 2373 | 2760 | 3101 |
| 75° | 2103 | 2654 | 3112 |
| 80° | 1711 | 2521 | 3204 |
| 85° | 1107 | 2328 | 2766 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3248 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 97.0   | 3.3       |
| 10°-20°   | 277.8  | 9.3       |
| 20°-30°   | 418.9  | 14.0      |
| 30°-40°   | 504.0  | 16.9      |
| 40°-50°   | 525.7  | 17.6      |
| 50°-60°   | 481.9  | 16.2      |
| 60°-70°   | 378.4  | 12.7      |
| 70°-80°   | 230.3  | 7.7       |
| 80°-90°   | 68.1   | 2.3       |
| 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°    | 793.7  | 26.6      |
| 0°-40°    | 1297.6 | 43.5      |
| 0°-60°    | 2305.2 | 77.3      |
| 0°-90°    | 2982.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2982.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1025 | 1025  | 1025 | 1025  | 1025 |      |
| 5°  | 1016 | 1022  | 1021 | 1020  | 1023 | 96   |
| 15° | 972  | 982   | 987  | 988   | 992  | 274  |
| 25° | 890  | 902   | 910  | 916   | 922  | 410  |
| 35° | 779  | 792   | 808  | 819   | 825  | 488  |
| 45° | 650  | 663   | 684  | 700   | 708  | 501  |
| 55° | 503  | 516   | 541  | 563   | 572  | 449  |
| 65° | 343  | 355   | 384  | 410   | 420  | 339  |
| 75° | 174  | 190   | 219  | 246   | 257  | 184  |
| 85° | 31   | 44    | 65   | 72    | 77   | 40   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1025.1 | 1025.1 | 1025.1 | 1025.1 | 1025.1 |
| 2.5°  | 1021.3 | 1026.4 | 1025.1 | 1020.6 | 1022.5 |
| 5°    | 1015.5 | 1021.9 | 1021.3 | 1020.0 | 1023.2 |
| 7.5°  | 1008.4 | 1015.5 | 1016.1 | 1016.1 | 1020.0 |
| 10°   | 1000.7 | 1007.8 | 1009.1 | 1007.1 | 1008.4 |
| 12.5° | 987.9  | 996.2  | 998.8  | 998.8  | 1000.7 |
| 15°   | 972.5  | 982.1  | 986.6  | 987.9  | 992.4  |
| 17.5° | 955.8  | 966.1  | 971.9  | 975.1  | 978.9  |
| 20°   | 935.9  | 946.8  | 953.3  | 957.1  | 961.6  |
| 22.5° | 913.5  | 925.7  | 932.7  | 936.6  | 941.7  |
| 25°   | 889.8  | 901.9  | 910.3  | 916.1  | 921.8  |
| 27.5° | 864.7  | 876.3  | 887.8  | 894.9  | 900.0  |
| 30°   | 837.8  | 850.0  | 862.2  | 871.1  | 876.3  |
| 32.5° | 808.9  | 821.8  | 835.9  | 845.5  | 851.3  |
| 35°   | 779.4  | 791.6  | 807.6  | 819.2  | 825.0  |
| 37.5° | 749.3  | 762.1  | 778.8  | 791.0  | 798.0  |
| 40°   | 717.2  | 730.7  | 748.6  | 762.1  | 769.2  |
| 42.5° | 683.8  | 696.7  | 716.5  | 731.9  | 740.3  |
| 45°   | 649.8  | 663.3  | 683.8  | 699.9  | 708.2  |
| 47.5° | 614.6  | 627.4  | 649.8  | 668.4  | 675.5  |
| 50°   | 578.0  | 590.2  | 613.9  | 633.8  | 642.1  |
| 52.5° | 540.8  | 553.6  | 577.3  | 598.5  | 607.5  |
| 55°   | 502.9  | 515.8  | 540.8  | 562.6  | 572.2  |
| 57.5° | 464.4  | 477.3  | 502.9  | 525.4  | 536.9  |
| 60°   | 424.7  | 437.5  | 464.4  | 487.5  | 499.1  |
| 62.5° | 383.6  | 397.1  | 424.7  | 448.4  | 460.6  |
| 65°   | 342.6  | 355.4  | 384.3  | 409.9  | 419.5  |
| 67.5° | 301.5  | 314.3  | 342.6  | 368.2  | 379.8  |
| 70°   | 259.2  | 273.9  | 301.5  | 328.4  | 338.7  |
| 72.5° | 214.9  | 231.6  | 259.2  | 287.4  | 297.7  |
| 75°   | 173.8  | 189.9  | 219.4  | 245.7  | 257.2  |
| 77.5° | 133.4  | 150.8  | 178.3  | 205.3  | 216.8  |
| 80°   | 94.9   | 111.6  | 139.8  | 165.5  | 177.7  |
| 82.5° | 60.3   | 75.1   | 103.3  | 126.4  | 135.4  |
| 85°   | 30.8   | 43.6   | 64.8   | 72.5   | 77.0   |
| 87.5° | 9.0    | 15.4   | 23.1   | 28.9   | 32.1   |
| 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 | 15.55            | 17.21 | 15.92 | 17.53 | 17.84 | 16.29          | 17.95 | 16.65 | 18.26 | 18.57 |
|                 | 3H   | 17.32            | 18.83 | 17.70 | 19.15 | 19.51 | 18.37          | 19.87 | 18.74 | 20.20 | 20.56 |
|                 | 4H   | 17.94            | 19.36 | 18.34 | 19.71 | 20.08 | 19.23          | 20.65 | 19.63 | 21.00 | 21.37 |
|                 | 6H   | 18.35            | 19.67 | 18.76 | 20.03 | 20.42 | 19.98          | 21.29 | 20.39 | 21.66 | 22.05 |
|                 | 8H   | 18.45            | 19.71 | 18.87 | 20.10 | 20.50 | 20.27          | 21.53 | 20.69 | 21.92 | 22.32 |
|                 | 12H  | 18.50            | 19.71 | 18.93 | 20.09 | 20.52 | 20.46          | 21.67 | 20.89 | 22.05 | 22.48 |
| 4H              | 2H   | 16.32            | 17.74 | 16.72 | 18.09 | 18.46 | 16.89          | 18.31 | 17.29 | 18.66 | 19.03 |
|                 | 3H   | 18.31            | 19.51 | 18.72 | 19.90 | 20.30 | 19.20          | 20.40 | 19.61 | 20.80 | 21.20 |
|                 | 4H   | 19.05            | 20.14 | 19.48 | 20.55 | 20.98 | 20.22          | 21.31 | 20.65 | 21.72 | 22.15 |
|                 | 6H   | 19.58            | 20.53 | 20.03 | 20.97 | 21.43 | 21.13          | 22.08 | 21.58 | 22.52 | 22.97 |
|                 | 8H   | 19.72            | 20.61 | 20.18 | 21.05 | 21.52 | 21.50          | 22.38 | 21.95 | 22.83 | 23.29 |
|                 | 12H  | 19.80            | 20.61 | 20.28 | 21.08 | 21.55 | 21.75          | 22.55 | 22.23 | 23.02 | 23.49 |
| 8H              | 4H   | 19.50            | 20.39 | 19.96 | 20.83 | 21.29 | 20.52          | 21.41 | 20.98 | 21.85 | 22.32 |
|                 | 6H   | 20.16            | 20.90 | 20.65 | 21.39 | 21.86 | 21.58          | 22.32 | 22.07 | 22.81 | 23.28 |
|                 | 8H   | 20.37            | 21.04 | 20.88 | 21.54 | 22.03 | 22.05          | 22.72 | 22.56 | 23.22 | 23.71 |
|                 | 12H  | 20.51            | 21.10 | 21.01 | 21.59 | 22.15 | 22.40          | 22.99 | 22.91 | 23.48 | 24.04 |
| 12H             | 4H   | 19.58            | 20.38 | 20.06 | 20.86 | 21.32 | 20.55          | 21.35 | 21.03 | 21.82 | 22.29 |
|                 | 6H   | 20.29            | 20.95 | 20.79 | 21.46 | 21.94 | 21.63          | 22.30 | 22.14 | 22.80 | 23.29 |
|                 | 8H   | 20.56            | 21.15 | 21.07 | 21.64 | 22.20 | 22.17          | 22.76 | 22.67 | 23.25 | 23.80 |