

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: P1584628

Luminaire Tested: 14CZSP-A-47-L945-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1584628  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 14CZSP-A-47-L945-S  
Description: 1x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

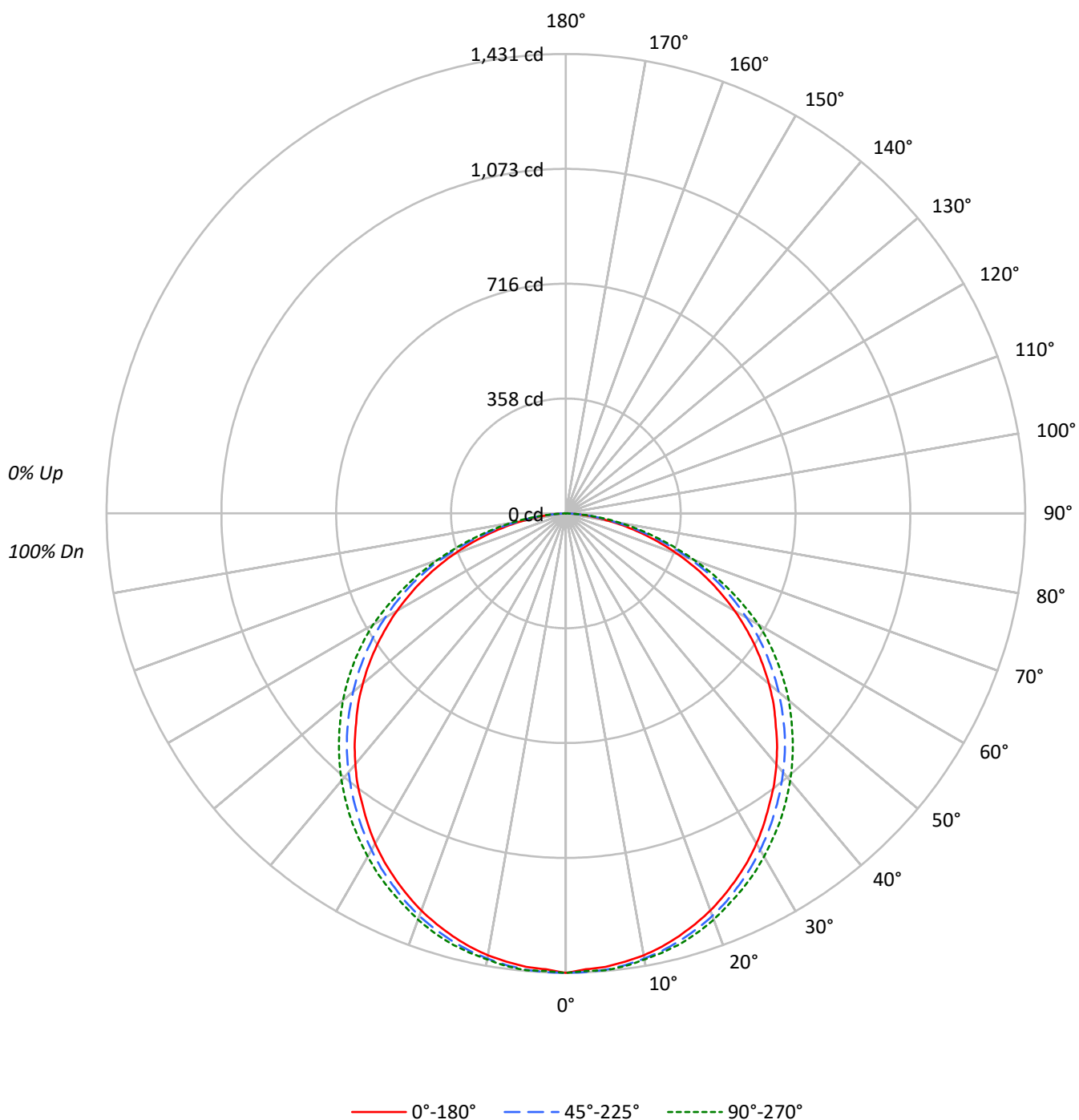
Lumens per Lamp: N/A  
Luminaire Lumens: 4138.0 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.38  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 32.8  
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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  |  | 93  | 91  | 88  |  | 90  |
| 2   | 99  | 90  | 83  | 78  | 96  | 88  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 64  | 87  | 78  | 70  | 64  | 75  | 68  | 63  |  | 72  | 66  | 62  |  | 69  |
| 4   | 82  | 70  | 61  | 54  | 80  | 69  | 60  | 54  | 66  | 59  | 53  |  | 64  | 58  | 52  |  | 62  |
| 5   | 76  | 63  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  |  | 57  | 51  | 45  |  | 55  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 53  | 46  | 40  |  | 52  | 45  | 40  |  | 50  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 35  |  | 47  | 40  | 35  |  | 46  |
| 8   | 60  | 46  | 38  | 32  | 59  | 46  | 38  | 32  | 44  | 37  | 32  |  | 43  | 36  | 31  |  | 42  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 28  |  | 40  | 33  | 28  |  | 39  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  |  | 37  | 30  | 26  |  | 36  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4823 | 4823 | 4823 |
| 5°  | 4796 | 4827 | 4831 |
| 10° | 4783 | 4818 | 4829 |
| 15° | 4755 | 4804 | 4838 |
| 20° | 4722 | 4785 | 4829 |
| 25° | 4674 | 4749 | 4814 |
| 30° | 4621 | 4711 | 4804 |
| 35° | 4547 | 4670 | 4796 |
| 40° | 4488 | 4632 | 4782 |
| 45° | 4403 | 4592 | 4763 |
| 50° | 4329 | 4537 | 4754 |
| 55° | 4226 | 4472 | 4723 |
| 60° | 4097 | 4384 | 4675 |
| 65° | 3914 | 4264 | 4482 |
| 70° | 3648 | 4027 | 4207 |
| 75° | 3259 | 3632 | 3838 |
| 80° | 2672 | 3062 | 3357 |
| 85° | 1790 | 2239 | 2498 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4763 cd/sqm

TEST NUMBER: P1584628

CATALOG NUMBER: 14CZSP-A-47-L945-S

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 135.6  | 3.3       |
| 10°-20°   | 388.6  | 9.4       |
| 20°-30°   | 588.5  | 14.2      |
| 30°-40°   | 710.6  | 17.2      |
| 40°-50°   | 742.7  | 17.9      |
| 50°-60°   | 680.5  | 16.4      |
| 60°-70°   | 525.3  | 12.7      |
| 70°-80°   | 295.5  | 7.1       |
| 80°-90°   | 70.7   | 1.7       |
| 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°    | 1112.7 | 26.9      |
| 0°-40°    | 1823.3 | 44.1      |
| 0°-60°    | 3246.5 | 78.5      |
| 0°-90°    | 4138.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4138.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1431 | 1431  | 1431 | 1431  | 1431 |      |
| 5°  | 1418 | 1428  | 1427 | 1428  | 1428 | 135  |
| 15° | 1363 | 1374  | 1377 | 1383  | 1387 | 385  |
| 25° | 1257 | 1268  | 1277 | 1284  | 1295 | 579  |
| 35° | 1106 | 1120  | 1135 | 1151  | 1166 | 693  |
| 45° | 924  | 942   | 964  | 983   | 1000 | 714  |
| 55° | 719  | 738   | 761  | 785   | 804  | 643  |
| 65° | 491  | 512   | 535  | 556   | 562  | 485  |
| 75° | 250  | 274   | 279  | 290   | 295  | 265  |
| 85° | 46   | 53    | 58   | 63    | 65   | 59   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1584628

CATALOG NUMBER: 14CZSP-A-47-L945-S

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1431.3 | 1431.3 | 1431.3 | 1431.3 | 1431.3 |
| 2.5°  | 1421.6 | 1432.6 | 1430.1 | 1433.8 | 1427.1 |
| 5°    | 1417.9 | 1428.3 | 1427.1 | 1428.3 | 1428.3 |
| 7.5°  | 1408.8 | 1419.8 | 1419.2 | 1421.0 | 1422.2 |
| 10°   | 1397.8 | 1408.2 | 1408.2 | 1410.0 | 1411.2 |
| 12.5° | 1382.6 | 1393.6 | 1394.8 | 1397.8 | 1400.3 |
| 15°   | 1363.1 | 1374.1 | 1377.1 | 1382.6 | 1386.9 |
| 17.5° | 1341.2 | 1352.8 | 1357.6 | 1363.1 | 1368.6 |
| 20°   | 1316.8 | 1327.2 | 1334.5 | 1338.8 | 1346.7 |
| 22.5° | 1288.2 | 1299.8 | 1307.7 | 1312.0 | 1320.5 |
| 25°   | 1257.1 | 1268.1 | 1277.2 | 1283.9 | 1294.9 |
| 27.5° | 1224.3 | 1235.2 | 1246.2 | 1254.1 | 1266.9 |
| 30°   | 1187.7 | 1199.3 | 1210.9 | 1223.0 | 1234.6 |
| 32.5° | 1148.1 | 1161.5 | 1174.3 | 1187.7 | 1200.5 |
| 35°   | 1105.5 | 1119.5 | 1135.3 | 1150.6 | 1165.8 |
| 37.5° | 1065.9 | 1078.7 | 1095.1 | 1111.6 | 1126.8 |
| 40°   | 1020.2 | 1034.2 | 1053.1 | 1071.4 | 1087.2 |
| 42.5° | 973.9  | 989.1  | 1009.9 | 1027.5 | 1044.6 |
| 45°   | 924.0  | 942.2  | 963.6  | 983.1  | 999.5  |
| 47.5° | 877.7  | 893.5  | 914.8  | 936.2  | 953.2  |
| 50°   | 825.9  | 843.6  | 865.5  | 888.0  | 906.9  |
| 52.5° | 773.5  | 791.8  | 814.3  | 836.9  | 856.4  |
| 55°   | 719.3  | 738.2  | 761.3  | 785.1  | 804.0  |
| 57.5° | 663.9  | 684.0  | 707.8  | 731.5  | 750.4  |
| 60°   | 607.9  | 628.0  | 650.5  | 676.7  | 693.7  |
| 62.5° | 549.4  | 571.9  | 593.2  | 617.6  | 628.0  |
| 65°   | 490.9  | 512.2  | 534.8  | 556.1  | 562.2  |
| 67.5° | 431.2  | 453.2  | 473.3  | 487.3  | 495.2  |
| 70°   | 370.3  | 394.1  | 408.7  | 422.1  | 427.0  |
| 72.5° | 310.0  | 333.8  | 342.3  | 355.1  | 360.0  |
| 75°   | 250.3  | 273.5  | 279.0  | 290.5  | 294.8  |
| 77.5° | 192.5  | 213.8  | 215.6  | 229.0  | 232.7  |
| 80°   | 137.7  | 154.7  | 157.8  | 170.5  | 173.0  |
| 82.5° | 88.3   | 100.5  | 104.8  | 115.7  | 119.4  |
| 85°   | 46.3   | 53.0   | 57.9   | 63.3   | 64.6   |
| 87.5° | 15.2   | 18.9   | 15.8   | 16.4   | 15.2   |
| 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 | 17.18            | 18.83 | 17.54 | 19.14 | 19.46 | 17.72          | 19.37 | 18.08 | 19.68 | 20.00 |
|                 | 3H   | 18.95            | 20.45 | 19.33 | 20.77 | 21.13 | 19.58          | 21.07 | 19.95 | 21.40 | 21.76 |
|                 | 4H   | 19.58            | 20.99 | 19.98 | 21.34 | 21.71 | 20.24          | 21.65 | 20.64 | 22.00 | 22.37 |
|                 | 6H   | 19.99            | 21.29 | 20.40 | 21.66 | 22.05 | 20.72          | 22.03 | 21.13 | 22.39 | 22.78 |
|                 | 8H   | 20.09            | 21.34 | 20.52 | 21.73 | 22.13 | 20.87          | 22.11 | 21.29 | 22.50 | 22.90 |
|                 | 12H  | 20.14            | 21.34 | 20.57 | 21.72 | 22.15 | 20.95          | 22.14 | 21.38 | 22.53 | 22.95 |
| 4H              | 2H   | 17.90            | 19.31 | 18.30 | 19.66 | 20.03 | 18.33          | 19.73 | 18.72 | 20.08 | 20.45 |
|                 | 3H   | 19.90            | 21.08 | 20.31 | 21.48 | 21.88 | 20.40          | 21.58 | 20.81 | 21.97 | 22.37 |
|                 | 4H   | 20.66            | 21.72 | 21.09 | 22.14 | 22.57 | 21.19          | 22.26 | 21.62 | 22.67 | 23.11 |
|                 | 6H   | 21.18            | 22.12 | 21.64 | 22.56 | 23.01 | 21.80          | 22.73 | 22.25 | 23.17 | 23.62 |
|                 | 8H   | 21.32            | 22.20 | 21.78 | 22.64 | 23.10 | 21.99          | 22.86 | 22.45 | 23.30 | 23.77 |
|                 | 12H  | 21.40            | 22.19 | 21.88 | 22.66 | 23.13 | 22.11          | 22.89 | 22.59 | 23.37 | 23.84 |
| 8H              | 4H   | 20.99            | 21.87 | 21.45 | 22.31 | 22.77 | 21.47          | 22.34 | 21.93 | 22.79 | 23.25 |
|                 | 6H   | 21.63            | 22.36 | 22.13 | 22.85 | 23.32 | 22.18          | 22.91 | 22.67 | 23.40 | 23.87 |
|                 | 8H   | 21.83            | 22.48 | 22.34 | 22.99 | 23.47 | 22.44          | 23.09 | 22.95 | 23.60 | 24.08 |
|                 | 12H  | 21.96            | 22.54 | 22.47 | 23.03 | 23.59 | 22.62          | 23.20 | 23.13 | 23.69 | 24.25 |
| 12H             | 4H   | 21.03            | 21.82 | 21.51 | 22.29 | 22.76 | 21.49          | 22.28 | 21.97 | 22.75 | 23.22 |
|                 | 6H   | 21.69            | 22.34 | 22.20 | 22.85 | 23.33 | 22.22          | 22.87 | 22.73 | 23.38 | 23.86 |
|                 | 8H   | 21.94            | 22.51 | 22.45 | 23.00 | 23.56 | 22.53          | 23.10 | 23.03 | 23.59 | 24.15 |