

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: P1584429

Luminaire Tested: 14CZSP-60VHE-L945

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1584429  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-776-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 14CZSP-60VHE-L945  
Description: 1x4 CZSP LED Luminaire, 4500K CCT and 6200 lumens, 90CRI, Ribbed Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

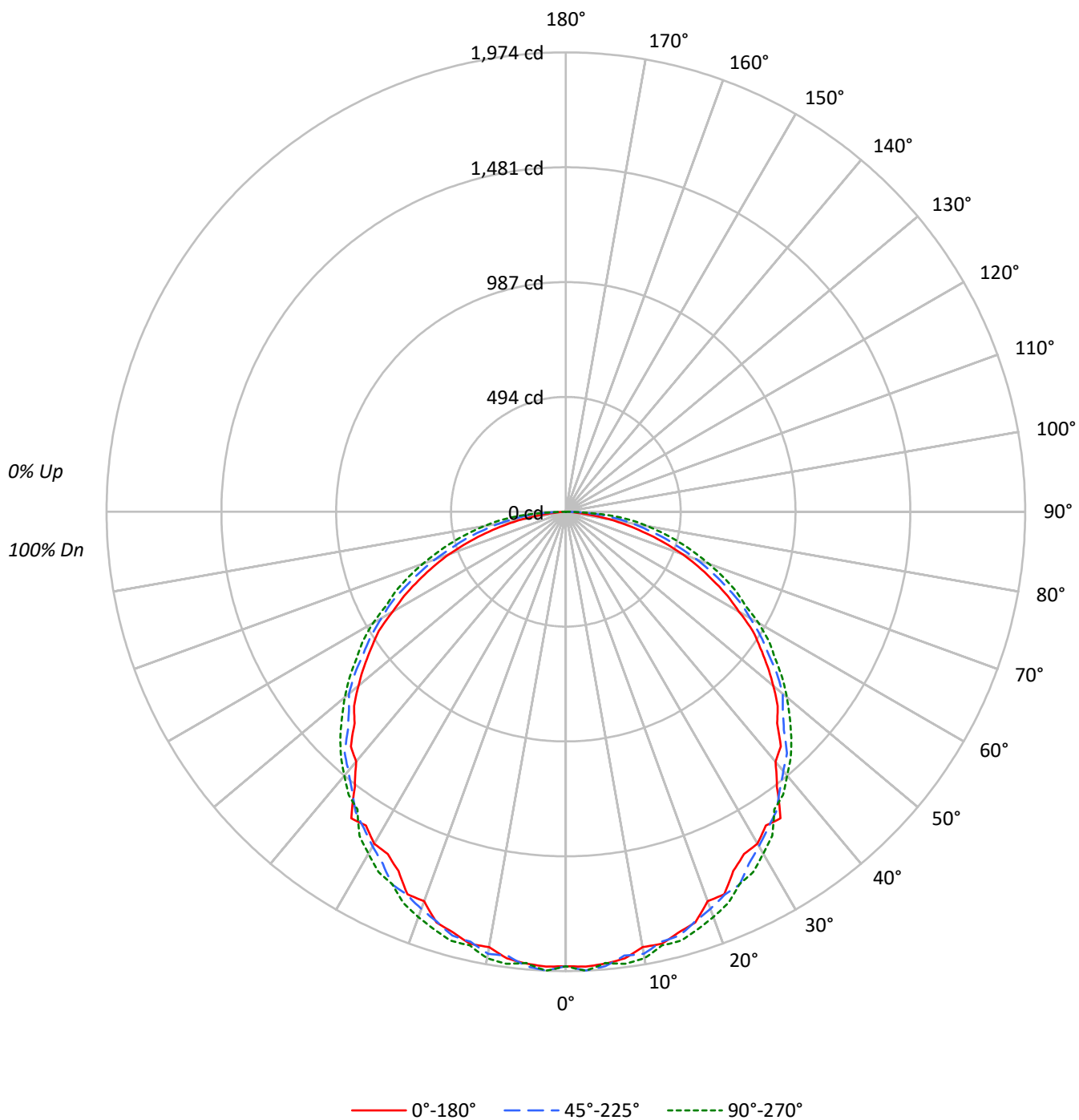
Lumens per Lamp: N/A  
Luminaire Lumens: 5854.0 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.9  
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  | 50  | 30 | 10 |
| 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  | 89  | 82  | 76  | 95  | 88  | 81  | 75  | 84  | 78  | 74  | 81  | 76  | 72  | 78  | 74  | 70  | 68  |    |    |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 61  | 71  | 65  | 60  | 68  | 63  | 59  | 57  |    |    |
| 4   | 82  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  | 63  | 57  | 51  | 61  | 55  | 51  | 48  |    |    |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 55  | 49  | 44  | 42  |    |    |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36  |    |    |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  | 46  | 39  | 34  | 45  | 39  | 34  | 32  |    |    |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 30  | 29  |    |    |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 27  | 26  |    |    |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6581 | 6581 | 6581 |
| 5°  | 6592 | 6630 | 6586 |
| 10° | 6500 | 6600 | 6665 |
| 15° | 6529 | 6578 | 6658 |
| 20° | 6386 | 6513 | 6646 |
| 25° | 6330 | 6569 | 6565 |
| 30° | 6409 | 6460 | 6600 |
| 35° | 6614 | 6478 | 6424 |
| 40° | 6165 | 6395 | 6510 |
| 45° | 6118 | 6315 | 6530 |
| 50° | 6102 | 6377 | 6498 |
| 55° | 5994 | 6236 | 6449 |
| 60° | 5791 | 6164 | 6449 |
| 65° | 5568 | 6057 | 6434 |
| 70° | 5264 | 5889 | 6443 |
| 75° | 4650 | 5751 | 6563 |
| 80° | 3827 | 5604 | 6951 |
| 85° | 2138 | 5911 | 7740 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 7740 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 185.1  | 3.2       |
| 10°-20°   | 531.3  | 9.1       |
| 20°-30°   | 807.5  | 13.8      |
| 30°-40°   | 981.9  | 16.8      |
| 40°-50°   | 1030.7 | 17.6      |
| 50°-60°   | 953.3  | 16.3      |
| 60°-70°   | 751.0  | 12.8      |
| 70°-80°   | 461.6  | 7.9       |
| 80°-90°   | 151.6  | 2.6       |
| 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°    | 1523.9 | 26.0      |
| 0°-40°    | 2505.8 | 42.8      |
| 0°-60°    | 4489.8 | 76.7      |
| 0°-90°    | 5854.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5854.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1953 | 1953  | 1953 | 1953  | 1953 |      |
| 5°  | 1949 | 1915  | 1960 | 1943  | 1947 | 185  |
| 15° | 1872 | 1866  | 1886 | 1911  | 1909 | 527  |
| 25° | 1702 | 1734  | 1767 | 1762  | 1766 | 791  |
| 35° | 1608 | 1550  | 1575 | 1599  | 1562 | 974  |
| 45° | 1284 | 1311  | 1325 | 1363  | 1370 | 998  |
| 55° | 1020 | 1052  | 1062 | 1089  | 1098 | 912  |
| 65° | 698  | 726   | 760  | 793   | 807  | 692  |
| 75° | 357  | 396   | 442  | 487   | 504  | 380  |
| 85° | 55   | 97    | 153  | 187   | 200  | 77   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1953.0 | 1953.0 | 1953.0 | 1953.0 | 1953.0 |
| 2.5°  | 1956.0 | 1959.0 | 1973.1 | 1941.9 | 1974.1 |
| 5°    | 1949.0 | 1914.8 | 1960.0 | 1942.9 | 1947.0 |
| 7.5°  | 1935.9 | 1939.9 | 1923.8 | 1933.9 | 1959.0 |
| 10°   | 1899.7 | 1924.8 | 1928.8 | 1932.9 | 1948.0 |
| 12.5° | 1901.7 | 1885.6 | 1892.6 | 1921.8 | 1908.7 |
| 15°   | 1871.5 | 1866.5 | 1885.6 | 1910.7 | 1908.7 |
| 17.5° | 1850.4 | 1839.3 | 1846.3 | 1858.4 | 1881.6 |
| 20°   | 1780.9 | 1810.1 | 1816.2 | 1853.4 | 1853.4 |
| 22.5° | 1778.9 | 1777.9 | 1781.9 | 1801.1 | 1821.2 |
| 25°   | 1702.5 | 1733.6 | 1766.9 | 1761.8 | 1765.8 |
| 27.5° | 1658.2 | 1693.4 | 1704.5 | 1738.7 | 1744.7 |
| 30°   | 1647.1 | 1653.2 | 1660.2 | 1697.4 | 1696.4 |
| 32.5° | 1598.8 | 1608.9 | 1613.9 | 1635.0 | 1651.1 |
| 35°   | 1607.9 | 1550.5 | 1574.7 | 1598.8 | 1561.6 |
| 37.5° | 1490.2 | 1499.2 | 1509.3 | 1527.4 | 1533.4 |
| 40°   | 1401.6 | 1424.7 | 1453.9 | 1475.1 | 1480.1 |
| 42.5° | 1367.4 | 1401.6 | 1406.6 | 1425.8 | 1430.8 |
| 45°   | 1283.9 | 1311.1 | 1325.1 | 1363.4 | 1370.4 |
| 47.5° | 1234.6 | 1238.6 | 1263.8 | 1300.0 | 1305.0 |
| 50°   | 1164.1 | 1191.3 | 1216.5 | 1232.6 | 1239.6 |
| 52.5° | 1092.7 | 1122.9 | 1143.0 | 1158.1 | 1172.2 |
| 55°   | 1020.3 | 1052.5 | 1061.5 | 1088.7 | 1097.7 |
| 57.5° | 952.9  | 962.9  | 992.1  | 1018.3 | 1034.4 |
| 60°   | 859.3  | 893.5  | 914.6  | 962.9  | 956.9  |
| 62.5° | 783.8  | 807.0  | 846.2  | 870.3  | 867.3  |
| 65°   | 698.3  | 725.5  | 759.7  | 792.9  | 807.0  |
| 67.5° | 616.8  | 653.0  | 678.2  | 721.4  | 731.5  |
| 70°   | 534.3  | 551.4  | 597.7  | 639.9  | 654.0  |
| 72.5° | 445.7  | 472.9  | 513.2  | 559.4  | 576.5  |
| 75°   | 357.2  | 396.4  | 441.7  | 487.0  | 504.1  |
| 77.5° | 273.7  | 307.9  | 359.2  | 411.5  | 428.6  |
| 80°   | 197.2  | 228.4  | 288.8  | 337.1  | 358.2  |
| 82.5° | 115.7  | 158.0  | 217.3  | 270.7  | 286.8  |
| 85°   | 55.3   | 96.6   | 152.9  | 187.1  | 200.2  |
| 87.5° | 15.1   | 43.3   | 67.4   | 87.5   | 90.6   |
| 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 | 18.35            | 20.02 | 18.72 | 20.34 | 20.65 | 18.78          | 20.45 | 19.15 | 20.77 | 21.08 |
|                 | 3H   | 20.16            | 21.67 | 20.54 | 22.00 | 22.36 | 20.87          | 22.38 | 21.24 | 22.71 | 23.07 |
|                 | 4H   | 20.80            | 22.23 | 21.19 | 22.57 | 22.95 | 21.75          | 23.18 | 22.15 | 23.53 | 23.90 |
|                 | 6H   | 21.21            | 22.54 | 21.62 | 22.90 | 23.29 | 22.53          | 23.86 | 22.94 | 24.22 | 24.62 |
|                 | 8H   | 21.31            | 22.58 | 21.73 | 22.97 | 23.37 | 22.87          | 24.14 | 23.30 | 24.53 | 24.93 |
|                 | 12H  | 21.35            | 22.57 | 21.78 | 22.95 | 23.38 | 23.16          | 24.38 | 23.59 | 24.76 | 25.19 |
| 4H              | 2H   | 19.08            | 20.51 | 19.48 | 20.86 | 21.23 | 19.42          | 20.85 | 19.82 | 21.19 | 21.57 |
|                 | 3H   | 21.11            | 22.32 | 21.52 | 22.71 | 23.11 | 21.73          | 22.94 | 22.14 | 23.33 | 23.73 |
|                 | 4H   | 21.89            | 22.98 | 22.32 | 23.39 | 23.83 | 22.77          | 23.87 | 23.20 | 24.28 | 24.71 |
|                 | 6H   | 22.43            | 23.38 | 22.88 | 23.82 | 24.28 | 23.72          | 24.68 | 24.17 | 25.12 | 25.58 |
|                 | 8H   | 22.56            | 23.46 | 23.02 | 23.91 | 24.37 | 24.14          | 25.04 | 24.60 | 25.48 | 25.95 |
|                 | 12H  | 22.64            | 23.45 | 23.12 | 23.92 | 24.39 | 24.51          | 25.32 | 24.99 | 25.79 | 26.26 |
| 8H              | 4H   | 22.32            | 23.22 | 22.78 | 23.66 | 24.12 | 23.09          | 23.99 | 23.55 | 24.43 | 24.90 |
|                 | 6H   | 23.00            | 23.75 | 23.49 | 24.24 | 24.71 | 24.21          | 24.96 | 24.70 | 25.45 | 25.92 |
|                 | 8H   | 23.21            | 23.89 | 23.72 | 24.39 | 24.88 | 24.75          | 25.42 | 25.25 | 25.93 | 26.41 |
|                 | 12H  | 23.35            | 23.95 | 23.85 | 24.44 | 24.99 | 25.25          | 25.85 | 25.75 | 26.34 | 26.90 |
| 12H             | 4H   | 22.40            | 23.21 | 22.88 | 23.69 | 24.15 | 23.12          | 23.93 | 23.60 | 24.41 | 24.88 |
|                 | 6H   | 23.13            | 23.80 | 23.63 | 24.31 | 24.79 | 24.27          | 24.95 | 24.78 | 25.45 | 25.93 |
|                 | 8H   | 23.42            | 24.01 | 23.92 | 24.50 | 25.06 | 24.88          | 25.48 | 25.39 | 25.97 | 26.53 |