

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: P1584401

Luminaire Tested: 14CZSP-54VHE-L850

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1584401  
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-54VHE-L850  
Description: 1x4 CZSP LED Luminaire, 5000K CCT and 5200 lumens, 80CRI, Ribbed Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

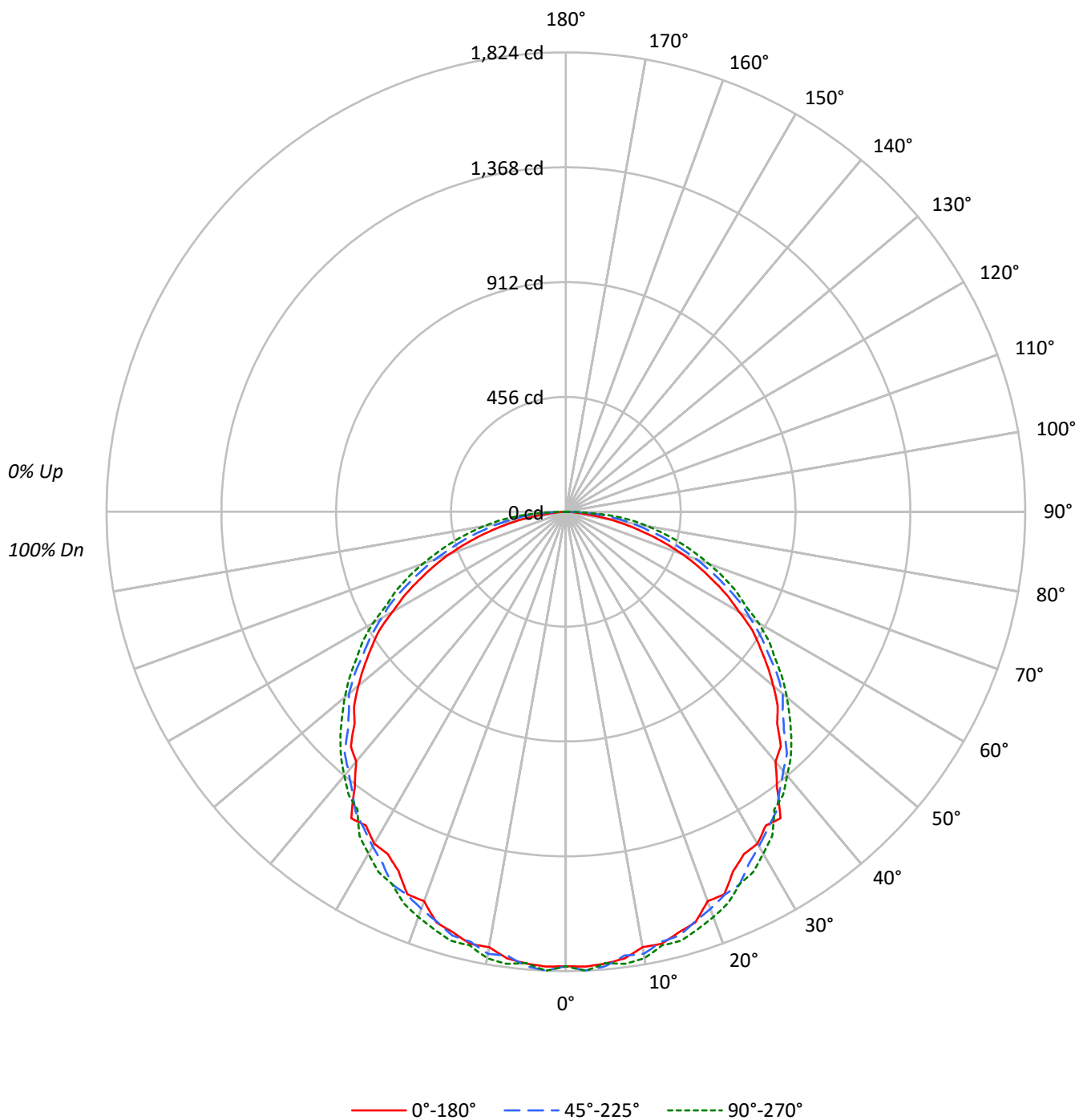
Lumens per Lamp: N/A  
Luminaire Lumens: 5409.0 lumens  
Efficiency: N/A  
Efficacy: 144.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 37.5  
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  | 105 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 87  |  | 89  |
| 2   | 98  | 89  | 82  | 76  | 95  | 88  | 81  | 75  | 84  | 78  | 74  |  | 81  | 76  | 72  |  | 78  |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 61  |  | 71  | 65  | 60  |  | 68  |
| 4   | 82  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  |  | 63  | 57  | 51  |  | 61  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 55  |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 40  | 53  | 45  | 39  |  | 51  | 44  | 39  |  | 49  |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  |  | 46  | 39  | 34  |  | 45  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 32  | 28  |  | 38  |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  |  | 36  | 30  | 25  |  | 35  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6080 | 6080 | 6080 |
| 5°  | 6091 | 6126 | 6085 |
| 10° | 6006 | 6098 | 6158 |
| 15° | 6032 | 6078 | 6152 |
| 20° | 5901 | 6017 | 6141 |
| 25° | 5848 | 6070 | 6066 |
| 30° | 5921 | 5969 | 6099 |
| 35° | 6111 | 5985 | 5935 |
| 40° | 5697 | 5909 | 6016 |
| 45° | 5653 | 5835 | 6034 |
| 50° | 5639 | 5892 | 6004 |
| 55° | 5538 | 5762 | 5959 |
| 60° | 5351 | 5695 | 5958 |
| 65° | 5144 | 5596 | 5945 |
| 70° | 4864 | 5440 | 5954 |
| 75° | 4296 | 5313 | 6064 |
| 80° | 3536 | 5177 | 6423 |
| 85° | 1976 | 5463 | 7152 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 7152 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 171.0  | 3.2       |
| 10°-20°   | 490.9  | 9.1       |
| 20°-30°   | 746.1  | 13.8      |
| 30°-40°   | 907.3  | 16.8      |
| 40°-50°   | 952.4  | 17.6      |
| 50°-60°   | 880.8  | 16.3      |
| 60°-70°   | 693.9  | 12.8      |
| 70°-80°   | 426.5  | 7.9       |
| 80°-90°   | 140.1  | 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°    | 1408.0 | 26.0      |
| 0°-40°    | 2315.3 | 42.8      |
| 0°-60°    | 4148.5 | 76.7      |
| 0°-90°    | 5409.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5409.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1804 | 1804  | 1804 | 1804  | 1804 |      |
| 5°  | 1801 | 1769  | 1811 | 1795  | 1799 | 171  |
| 15° | 1729 | 1725  | 1742 | 1766  | 1764 | 487  |
| 25° | 1573 | 1602  | 1632 | 1628  | 1632 | 731  |
| 35° | 1486 | 1433  | 1455 | 1477  | 1443 | 900  |
| 45° | 1186 | 1211  | 1224 | 1260  | 1266 | 922  |
| 55° | 943  | 972   | 981  | 1006  | 1014 | 843  |
| 65° | 645  | 670   | 702  | 733   | 746  | 639  |
| 75° | 330  | 366   | 408  | 450   | 466  | 351  |
| 85° | 51   | 89    | 141  | 173   | 185  | 71   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 |
| 2.5°  | 1807.3 | 1810.1 | 1823.1 | 1794.3 | 1824.1 |
| 5°    | 1800.8 | 1769.2 | 1811.0 | 1795.2 | 1799.0 |
| 7.5°  | 1788.7 | 1792.4 | 1777.6 | 1786.9 | 1810.1 |
| 10°   | 1755.3 | 1778.5 | 1782.2 | 1785.9 | 1799.9 |
| 12.5° | 1757.1 | 1742.2 | 1748.8 | 1775.7 | 1763.6 |
| 15°   | 1729.2 | 1724.6 | 1742.2 | 1765.5 | 1763.6 |
| 17.5° | 1709.7 | 1699.5 | 1706.0 | 1717.1 | 1738.5 |
| 20°   | 1645.6 | 1672.5 | 1678.1 | 1712.5 | 1712.5 |
| 22.5° | 1643.7 | 1642.8 | 1646.5 | 1664.2 | 1682.7 |
| 25°   | 1573.0 | 1601.9 | 1632.5 | 1627.9 | 1631.6 |
| 27.5° | 1532.1 | 1564.7 | 1574.9 | 1606.5 | 1612.1 |
| 30°   | 1521.9 | 1527.5 | 1534.0 | 1568.4 | 1567.5 |
| 32.5° | 1477.3 | 1486.6 | 1491.2 | 1510.8 | 1525.6 |
| 35°   | 1485.6 | 1432.7 | 1455.0 | 1477.3 | 1442.9 |
| 37.5° | 1376.9 | 1385.2 | 1394.5 | 1411.3 | 1416.9 |
| 40°   | 1295.1 | 1316.4 | 1343.4 | 1362.9 | 1367.6 |
| 42.5° | 1263.5 | 1295.1 | 1299.7 | 1317.4 | 1322.0 |
| 45°   | 1186.3 | 1211.4 | 1224.4 | 1259.7 | 1266.2 |
| 47.5° | 1140.7 | 1144.5 | 1167.7 | 1201.2 | 1205.8 |
| 50°   | 1075.7 | 1100.8 | 1124.0 | 1138.9 | 1145.4 |
| 52.5° | 1009.6 | 1037.5 | 1056.1 | 1070.1 | 1083.1 |
| 55°   | 942.7  | 972.5  | 980.8  | 1005.9 | 1014.3 |
| 57.5° | 880.4  | 889.7  | 916.7  | 940.8  | 955.7  |
| 60°   | 794.0  | 825.6  | 845.1  | 889.7  | 884.1  |
| 62.5° | 724.2  | 745.6  | 781.9  | 804.2  | 801.4  |
| 65°   | 645.2  | 670.3  | 701.9  | 732.6  | 745.6  |
| 67.5° | 569.9  | 603.4  | 626.6  | 666.6  | 675.9  |
| 70°   | 493.7  | 509.5  | 552.2  | 591.3  | 604.3  |
| 72.5° | 411.9  | 437.0  | 474.1  | 516.9  | 532.7  |
| 75°   | 330.0  | 366.3  | 408.1  | 450.0  | 465.8  |
| 77.5° | 252.9  | 284.5  | 331.9  | 380.2  | 396.0  |
| 80°   | 182.2  | 211.0  | 266.8  | 311.4  | 331.0  |
| 82.5° | 106.9  | 146.0  | 200.8  | 250.1  | 265.0  |
| 85°   | 51.1   | 89.3   | 141.3  | 172.9  | 185.0  |
| 87.5° | 13.9   | 40.0   | 62.3   | 80.9   | 83.7   |
| 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 | 18.08            | 19.75 | 18.44 | 20.06 | 20.37 | 18.51          | 20.18 | 18.87 | 20.49 | 20.81 |
|                 | 3H   | 19.88            | 21.40 | 20.26 | 21.73 | 22.09 | 20.59          | 22.11 | 20.97 | 22.43 | 22.79 |
|                 | 4H   | 20.52            | 21.95 | 20.92 | 22.30 | 22.67 | 21.47          | 22.90 | 21.87 | 23.25 | 23.63 |
|                 | 6H   | 20.94            | 22.27 | 21.35 | 22.63 | 23.02 | 22.26          | 23.59 | 22.67 | 23.95 | 24.34 |
|                 | 8H   | 21.03            | 22.31 | 21.46 | 22.69 | 23.09 | 22.60          | 23.87 | 23.02 | 24.26 | 24.65 |
|                 | 12H  | 21.07            | 22.29 | 21.50 | 22.67 | 23.10 | 22.88          | 24.10 | 23.31 | 24.48 | 24.91 |
| 4H              | 2H   | 18.81            | 20.24 | 19.21 | 20.58 | 20.96 | 19.14          | 20.57 | 19.54 | 20.92 | 21.29 |
|                 | 3H   | 20.84            | 22.04 | 21.24 | 22.44 | 22.84 | 21.46          | 22.66 | 21.87 | 23.06 | 23.46 |
|                 | 4H   | 21.61            | 22.71 | 22.04 | 23.12 | 23.55 | 22.50          | 23.59 | 22.93 | 24.00 | 24.44 |
|                 | 6H   | 22.15            | 23.11 | 22.60 | 23.55 | 24.00 | 23.45          | 24.41 | 23.90 | 24.85 | 25.30 |
|                 | 8H   | 22.29            | 23.19 | 22.75 | 23.63 | 24.09 | 23.87          | 24.77 | 24.33 | 25.21 | 25.67 |
|                 | 12H  | 22.36            | 23.17 | 22.84 | 23.65 | 24.12 | 24.23          | 25.04 | 24.71 | 25.52 | 25.99 |
| 8H              | 4H   | 22.04            | 22.94 | 22.50 | 23.39 | 23.85 | 22.82          | 23.72 | 23.28 | 24.16 | 24.62 |
|                 | 6H   | 22.72            | 23.48 | 23.22 | 23.96 | 24.43 | 23.93          | 24.68 | 24.42 | 25.17 | 25.64 |
|                 | 8H   | 22.94            | 23.61 | 23.44 | 24.12 | 24.60 | 24.47          | 25.15 | 24.98 | 25.65 | 26.14 |
|                 | 12H  | 23.07            | 23.67 | 23.58 | 24.16 | 24.72 | 24.97          | 25.57 | 25.48 | 26.06 | 26.62 |
| 12H             | 4H   | 22.13            | 22.94 | 22.61 | 23.41 | 23.88 | 22.85          | 23.66 | 23.33 | 24.13 | 24.60 |
|                 | 6H   | 22.85            | 23.53 | 23.36 | 24.03 | 24.52 | 23.99          | 24.67 | 24.50 | 25.18 | 25.66 |
|                 | 8H   | 23.14            | 23.74 | 23.65 | 24.23 | 24.79 | 24.61          | 25.21 | 25.11 | 25.70 | 26.25 |