

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: P1584639

Luminaire Tested: 14CZSP-A-49HE-L845

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1584639  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2602-698-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 14CZSP-A-49HE-L845  
Description: 1x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 80CRI, Ribbed Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

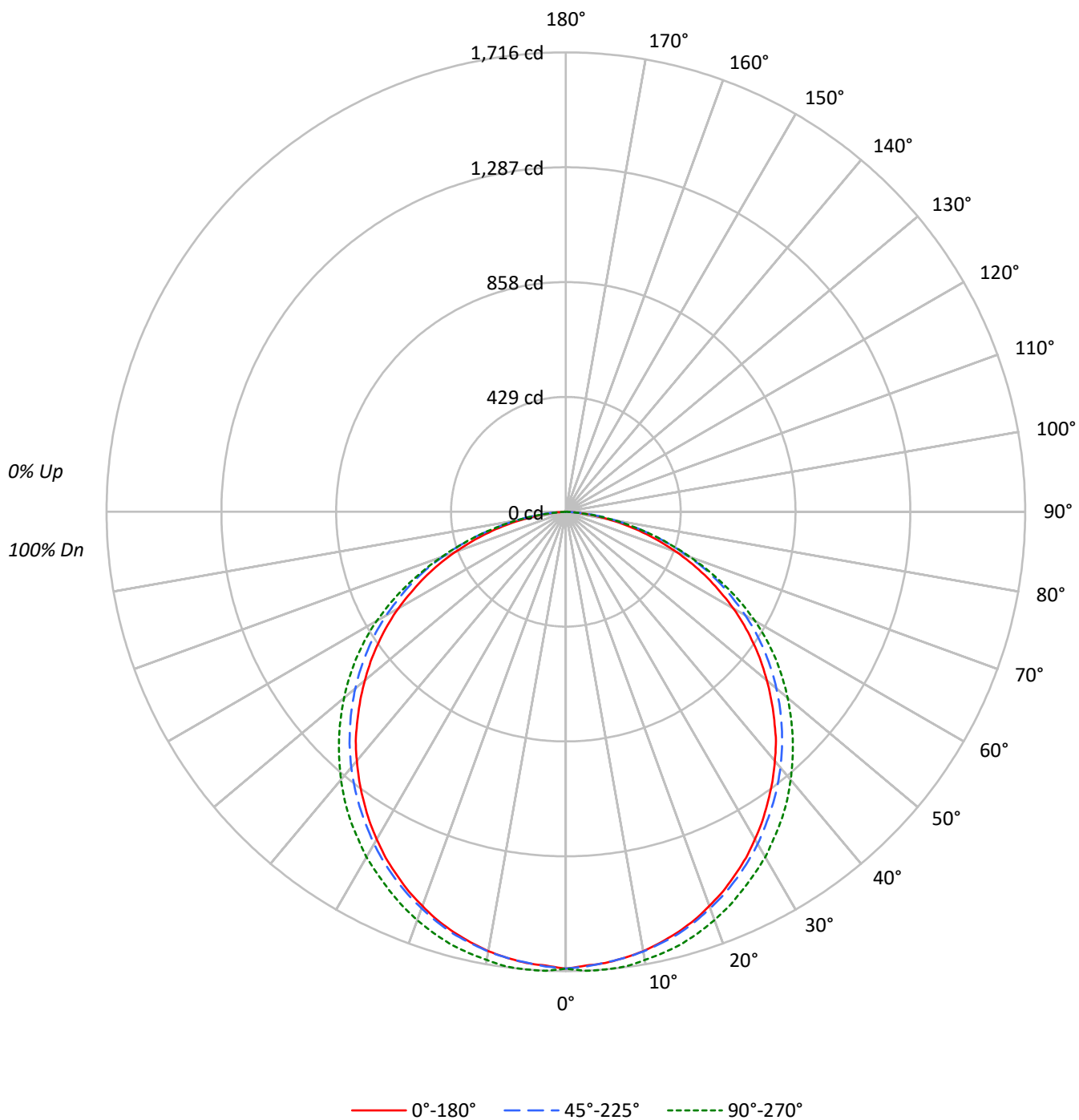
Lumens per Lamp: N/A  
Luminaire Lumens: 4916.0 lumens  
Efficiency: N/A  
Efficacy: 148.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.1  
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

TEST NUMBER: P1584639

CATALOG NUMBER: 14CZSP-A-49HE-L845

### Luminous Intensity Polar Plot



TEST NUMBER: P1584639

CATALOG NUMBER: 14CZSP-A-49HE-L845

**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  |  | 94  | 91  | 88  |  | 90  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 65  | 87  | 78  | 70  | 64  | 75  | 68  | 63  |  | 72  | 66  | 62  |  | 69  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  |  | 64  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 47  | 73  | 61  | 53  | 47  | 59  | 52  | 46  |  | 57  | 51  | 46  |  | 55  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  |  | 52  | 45  | 40  |  | 50  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  |  | 47  | 40  | 35  |  | 46  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 44  | 37  | 32  |  | 43  | 36  | 32  |  | 42  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  |  | 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°  | 5751 | 5751 | 5751 |
| 5°  | 5724 | 5718 | 5805 |
| 10° | 5702 | 5708 | 5817 |
| 15° | 5668 | 5690 | 5830 |
| 20° | 5618 | 5653 | 5820 |
| 25° | 5562 | 5616 | 5801 |
| 30° | 5496 | 5577 | 5796 |
| 35° | 5420 | 5526 | 5777 |
| 40° | 5344 | 5485 | 5747 |
| 45° | 5246 | 5437 | 5713 |
| 50° | 5139 | 5383 | 5669 |
| 55° | 5022 | 5315 | 5617 |
| 60° | 4874 | 5220 | 5502 |
| 65° | 4651 | 5087 | 5253 |
| 70° | 4338 | 4797 | 4877 |
| 75° | 3871 | 4331 | 4373 |
| 80° | 3149 | 3648 | 3617 |
| 85° | 2049 | 2548 | 1987 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5713 cd/sqm

TEST NUMBER: P1584639

CATALOG NUMBER: 14CZSP-A-49HE-L845

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 161.7  | 3.3       |
| 10°-20°   | 463.2  | 9.4       |
| 20°-30°   | 701.5  | 14.3      |
| 30°-40°   | 847.4  | 17.2      |
| 40°-50°   | 885.2  | 18.0      |
| 50°-60°   | 810.6  | 16.5      |
| 60°-70°   | 622.8  | 12.7      |
| 70°-80°   | 346.8  | 7.1       |
| 80°-90°   | 76.8   | 1.6       |
| 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°    | 1326.3 | 27.0      |
| 0°-40°    | 2173.7 | 44.2      |
| 0°-60°    | 3869.6 | 78.7      |
| 0°-90°    | 4916.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4916.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1707 | 1707  | 1707 | 1707  | 1707 |      |
| 5°  | 1692 | 1710  | 1691 | 1700  | 1716 | 161  |
| 15° | 1625 | 1641  | 1631 | 1647  | 1671 | 458  |
| 25° | 1496 | 1514  | 1511 | 1533  | 1560 | 690  |
| 35° | 1318 | 1337  | 1344 | 1376  | 1404 | 825  |
| 45° | 1101 | 1125  | 1141 | 1175  | 1199 | 850  |
| 55° | 855  | 882   | 905  | 937   | 956  | 764  |
| 65° | 583  | 614   | 638  | 651   | 659  | 576  |
| 75° | 297  | 328   | 333  | 333   | 336  | 315  |
| 85° | 53   | 63    | 66   | 55    | 51   | 69   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1584639

CATALOG NUMBER: 14CZSP-A-49HE-L845

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1706.6 | 1706.6 | 1706.6 | 1706.6 | 1706.6 |
| 2.5°  | 1697.0 | 1713.1 | 1700.2 | 1705.0 | 1716.3 |
| 5°    | 1692.2 | 1709.9 | 1690.6 | 1700.2 | 1716.3 |
| 7.5°  | 1680.9 | 1697.0 | 1680.9 | 1692.2 | 1713.1 |
| 10°   | 1666.5 | 1684.1 | 1668.1 | 1679.3 | 1700.2 |
| 12.5° | 1647.2 | 1661.6 | 1650.4 | 1666.5 | 1687.4 |
| 15°   | 1624.7 | 1640.8 | 1631.1 | 1647.2 | 1671.3 |
| 17.5° | 1599.0 | 1613.4 | 1605.4 | 1626.3 | 1648.8 |
| 20°   | 1566.8 | 1582.9 | 1576.5 | 1597.4 | 1623.1 |
| 22.5° | 1534.7 | 1550.8 | 1545.9 | 1566.8 | 1594.2 |
| 25°   | 1496.1 | 1513.8 | 1510.6 | 1533.1 | 1560.4 |
| 27.5° | 1457.6 | 1475.2 | 1473.6 | 1499.3 | 1525.0 |
| 30°   | 1412.6 | 1430.2 | 1433.4 | 1460.8 | 1489.7 |
| 32.5° | 1367.6 | 1386.8 | 1388.5 | 1419.0 | 1446.3 |
| 35°   | 1317.7 | 1337.0 | 1343.5 | 1375.6 | 1404.5 |
| 37.5° | 1267.9 | 1287.2 | 1296.9 | 1327.4 | 1357.9 |
| 40°   | 1214.9 | 1235.8 | 1247.0 | 1279.2 | 1306.5 |
| 42.5° | 1161.9 | 1182.8 | 1195.6 | 1227.8 | 1253.5 |
| 45°   | 1100.8 | 1124.9 | 1141.0 | 1174.7 | 1198.8 |
| 47.5° | 1041.3 | 1067.1 | 1084.7 | 1116.9 | 1141.0 |
| 50°   | 980.3  | 1007.6 | 1026.9 | 1059.0 | 1081.5 |
| 52.5° | 919.2  | 948.1  | 967.4  | 998.0  | 1020.4 |
| 55°   | 854.9  | 882.2  | 904.7  | 936.9  | 956.2  |
| 57.5° | 790.6  | 818.0  | 842.1  | 871.0  | 888.7  |
| 60°   | 723.2  | 752.1  | 774.6  | 803.5  | 816.4  |
| 62.5° | 652.4  | 683.0  | 705.5  | 728.0  | 739.2  |
| 65°   | 583.3  | 613.9  | 638.0  | 650.8  | 658.9  |
| 67.5° | 512.6  | 543.2  | 565.7  | 572.1  | 576.9  |
| 70°   | 440.3  | 470.9  | 486.9  | 490.1  | 495.0  |
| 72.5° | 368.0  | 398.5  | 411.4  | 411.4  | 413.0  |
| 75°   | 297.3  | 327.8  | 332.7  | 332.7  | 335.9  |
| 77.5° | 228.2  | 255.5  | 258.7  | 258.7  | 258.7  |
| 80°   | 162.3  | 183.2  | 188.0  | 188.0  | 186.4  |
| 82.5° | 102.8  | 117.3  | 125.3  | 118.9  | 115.7  |
| 85°   | 53.0   | 62.7   | 65.9   | 54.6   | 51.4   |
| 87.5° | 16.1   | 19.3   | 16.1   | 9.6    | 8.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P1584639

CATALOG NUMBER: 14CZSP-A-49HE-L845

**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 | 17.82            | 19.47 | 18.19 | 19.78 | 20.10 | 18.33          | 19.98 | 18.69 | 20.29 | 20.60 |
|                 | 3H   | 19.59            | 21.08 | 19.97 | 21.41 | 21.77 | 20.13          | 21.62 | 20.50 | 21.94 | 22.30 |
|                 | 4H   | 20.22            | 21.62 | 20.61 | 21.97 | 22.34 | 20.76          | 22.16 | 21.15 | 22.51 | 22.88 |
|                 | 6H   | 20.62            | 21.92 | 21.03 | 22.29 | 22.68 | 21.18          | 22.48 | 21.59 | 22.84 | 23.23 |
|                 | 8H   | 20.72            | 21.96 | 21.14 | 22.35 | 22.75 | 21.28          | 22.53 | 21.71 | 22.92 | 23.31 |
|                 | 12H  | 20.76            | 21.95 | 21.19 | 22.34 | 22.76 | 21.32          | 22.51 | 21.75 | 22.90 | 23.32 |
| 4H              | 2H   | 18.54            | 19.95 | 18.94 | 20.29 | 20.67 | 18.94          | 20.34 | 19.34 | 20.69 | 21.07 |
|                 | 3H   | 20.54            | 21.71 | 20.95 | 22.11 | 22.51 | 20.95          | 22.13 | 21.36 | 22.53 | 22.93 |
|                 | 4H   | 21.29            | 22.36 | 21.72 | 22.77 | 23.21 | 21.70          | 22.77 | 22.13 | 23.18 | 23.62 |
|                 | 6H   | 21.82            | 22.75 | 22.27 | 23.19 | 23.64 | 22.24          | 23.17 | 22.69 | 23.61 | 24.07 |
|                 | 8H   | 21.95            | 22.82 | 22.41 | 23.26 | 23.72 | 22.38          | 23.25 | 22.84 | 23.69 | 24.16 |
|                 | 12H  | 22.02            | 22.80 | 22.50 | 23.28 | 23.75 | 22.45          | 23.23 | 22.93 | 23.71 | 24.17 |
| 8H              | 4H   | 21.63            | 22.50 | 22.09 | 22.94 | 23.40 | 21.99          | 22.86 | 22.45 | 23.30 | 23.77 |
|                 | 6H   | 22.26            | 22.98 | 22.75 | 23.47 | 23.94 | 22.63          | 23.35 | 23.12 | 23.84 | 24.31 |
|                 | 8H   | 22.45            | 23.10 | 22.96 | 23.60 | 24.09 | 22.82          | 23.47 | 23.33 | 23.98 | 24.46 |
|                 | 12H  | 22.57            | 23.15 | 23.08 | 23.64 | 24.20 | 22.93          | 23.50 | 23.44 | 23.99 | 24.55 |
| 12H             | 4H   | 21.66            | 22.44 | 22.14 | 22.91 | 23.38 | 22.01          | 22.80 | 22.49 | 23.27 | 23.74 |
|                 | 6H   | 22.31            | 22.96 | 22.82 | 23.46 | 23.95 | 22.67          | 23.32 | 23.18 | 23.82 | 24.31 |
|                 | 8H   | 22.55            | 23.12 | 23.06 | 23.61 | 24.18 | 22.91          | 23.48 | 23.42 | 23.97 | 24.53 |