

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: P1589725

Luminaire Tested: 24CZSP-SB-37HE-L935

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1589725  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-SB-37HE-L935  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 3500 lumens, 90CRI, Ribbed Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

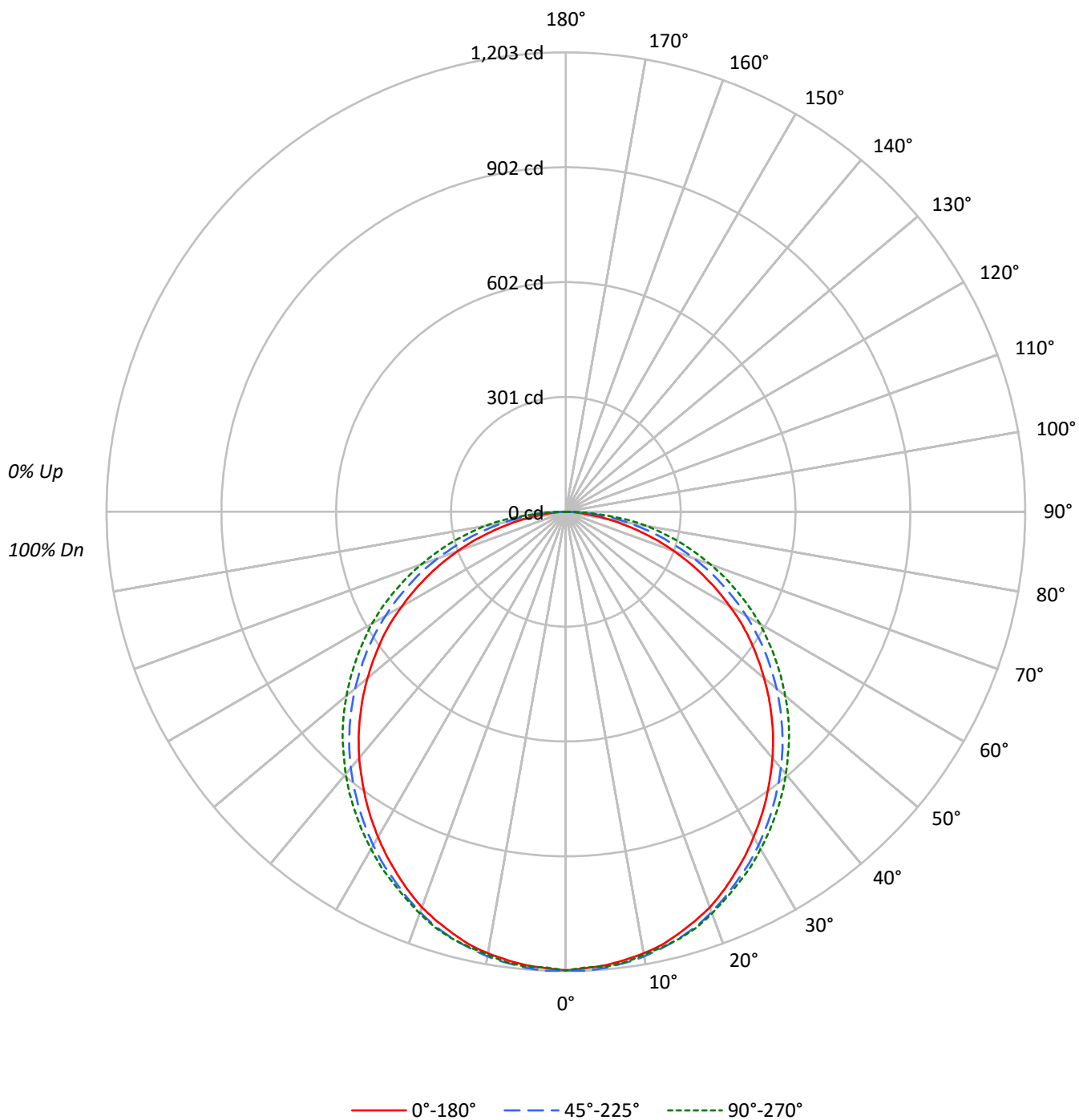
Lumens per Lamp: N/A  
Luminaire Lumens: 3505.0 lumens  
Efficiency: N/A  
Efficacy: 141.9 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 24.7  
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: P1589725

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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  | 0   |
| 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  | 106 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 88  |  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 76  | 72  |  | 78  | 74  | 71  | 68  |
| 3   | 89  | 79  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 65  | 61  |  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  |  | 63  | 57  | 52  |  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  |  | 57  | 50  | 45  |  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  |  | 51  | 44  | 39  |  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  |  | 47  | 40  | 35  |  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  |  | 37  | 30  | 25  |  | 36  | 30  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1839 | 1839 | 1839 |
| 5°  | 1833 | 1843 | 1839 |
| 10° | 1826 | 1839 | 1832 |
| 15° | 1813 | 1831 | 1834 |
| 20° | 1797 | 1819 | 1825 |
| 25° | 1768 | 1799 | 1811 |
| 30° | 1740 | 1784 | 1804 |
| 35° | 1712 | 1767 | 1798 |
| 40° | 1683 | 1752 | 1793 |
| 45° | 1652 | 1735 | 1792 |
| 50° | 1616 | 1716 | 1787 |
| 55° | 1579 | 1698 | 1787 |
| 60° | 1520 | 1673 | 1798 |
| 65° | 1449 | 1640 | 1799 |
| 70° | 1352 | 1595 | 1804 |
| 75° | 1203 | 1536 | 1835 |
| 80° | 988  | 1472 | 1904 |
| 85° | 652  | 1381 | 1720 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1950 cd/sqm

TEST NUMBER: P1589725

CATALOG NUMBER: 24CZSP-SB-37HE-L935

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 113.6  | 3.2       |
| 10°-20°   | 325.2  | 9.3       |
| 20°-30°   | 490.1  | 14.0      |
| 30°-40°   | 590.3  | 16.8      |
| 40°-50°   | 616.7  | 17.6      |
| 50°-60°   | 566.5  | 16.2      |
| 60°-70°   | 446.1  | 12.7      |
| 70°-80°   | 273.5  | 7.8       |
| 80°-90°   | 82.9   | 2.4       |
| 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°    | 928.9  | 26.5      |
| 0°-40°    | 1519.2 | 43.3      |
| 0°-60°    | 2702.4 | 77.1      |
| 0°-90°    | 3505.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3505.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1201 | 1201  | 1201 | 1201  | 1201 |      |
| 5°  | 1192 | 1194  | 1199 | 1197  | 1196 | 113  |
| 15° | 1143 | 1148  | 1155 | 1160  | 1156 | 323  |
| 25° | 1046 | 1053  | 1064 | 1076  | 1072 | 482  |
| 35° | 915  | 927   | 945  | 962   | 961  | 573  |
| 45° | 763  | 779   | 801  | 823   | 827  | 588  |
| 55° | 591  | 608   | 636  | 663   | 669  | 527  |
| 65° | 400  | 421   | 452  | 483   | 496  | 395  |
| 75° | 203  | 227   | 260  | 291   | 310  | 216  |
| 85° | 37   | 55    | 79   | 88    | 98   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1589725

CATALOG NUMBER: 24CZSP-SB-37HE-L935

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1201.0 | 1201.0 | 1201.0 | 1201.0 | 1201.0 |
| 2.5°  | 1196.6 | 1199.5 | 1203.2 | 1197.3 | 1194.3 |
| 5°    | 1192.1 | 1194.3 | 1198.8 | 1197.3 | 1195.8 |
| 7.5°  | 1184.0 | 1185.4 | 1191.4 | 1191.4 | 1189.9 |
| 10°   | 1174.3 | 1177.3 | 1182.5 | 1181.7 | 1178.0 |
| 12.5° | 1161.7 | 1163.9 | 1169.9 | 1169.9 | 1167.6 |
| 15°   | 1143.2 | 1147.6 | 1155.0 | 1159.5 | 1156.5 |
| 17.5° | 1123.9 | 1128.3 | 1138.0 | 1142.4 | 1140.9 |
| 20°   | 1102.4 | 1106.1 | 1115.7 | 1122.4 | 1119.4 |
| 22.5° | 1075.7 | 1080.1 | 1091.2 | 1098.7 | 1095.7 |
| 25°   | 1046.0 | 1052.7 | 1064.5 | 1075.7 | 1071.9 |
| 27.5° | 1016.3 | 1023.7 | 1038.6 | 1049.7 | 1048.2 |
| 30°   | 983.7  | 993.3  | 1008.9 | 1023.0 | 1020.0 |
| 32.5° | 950.3  | 961.4  | 977.7  | 992.6  | 991.8  |
| 35°   | 915.4  | 927.3  | 945.1  | 962.2  | 961.4  |
| 37.5° | 878.3  | 892.4  | 911.0  | 929.5  | 930.3  |
| 40°   | 842.0  | 855.3  | 876.1  | 896.1  | 896.9  |
| 42.5° | 803.4  | 817.5  | 839.8  | 860.5  | 861.3  |
| 45°   | 762.6  | 778.9  | 801.2  | 823.4  | 827.1  |
| 47.5° | 721.1  | 738.1  | 761.1  | 784.9  | 789.3  |
| 50°   | 678.0  | 695.8  | 720.3  | 745.5  | 750.0  |
| 52.5° | 634.3  | 652.8  | 678.0  | 703.3  | 709.9  |
| 55°   | 591.2  | 608.3  | 635.7  | 663.2  | 669.1  |
| 57.5° | 546.0  | 561.6  | 591.2  | 620.2  | 627.6  |
| 60°   | 496.3  | 515.6  | 546.0  | 574.9  | 586.8  |
| 62.5° | 448.1  | 468.8  | 500.0  | 528.9  | 542.3  |
| 65°   | 399.8  | 420.6  | 452.5  | 482.9  | 496.3  |
| 67.5° | 350.9  | 372.4  | 406.5  | 435.5  | 450.3  |
| 70°   | 301.9  | 323.4  | 356.1  | 387.2  | 402.8  |
| 72.5° | 253.0  | 276.0  | 307.9  | 339.8  | 355.3  |
| 75°   | 203.3  | 227.0  | 259.6  | 290.8  | 310.1  |
| 77.5° | 156.5  | 179.5  | 212.2  | 244.1  | 260.4  |
| 80°   | 112.0  | 135.0  | 166.9  | 198.8  | 215.9  |
| 82.5° | 71.2   | 92.7   | 123.9  | 150.6  | 166.2  |
| 85°   | 37.1   | 54.9   | 78.6   | 87.5   | 97.9   |
| 87.5° | 11.1   | 21.5   | 30.4   | 34.1   | 42.3   |
| 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 | 13.63            | 15.29 | 14.00 | 15.61 | 15.92 | 14.38          | 16.04 | 14.74 | 16.35 | 16.67 |
|                 | 3H   | 15.39            | 16.90 | 15.77 | 17.23 | 17.59 | 16.47          | 17.98 | 16.85 | 18.31 | 18.67 |
|                 | 4H   | 16.02            | 17.44 | 16.42 | 17.79 | 18.16 | 17.36          | 18.78 | 17.76 | 19.13 | 19.50 |
|                 | 6H   | 16.43            | 17.75 | 16.84 | 18.12 | 18.51 | 18.12          | 19.45 | 18.53 | 19.81 | 20.20 |
|                 | 8H   | 16.54            | 17.80 | 16.96 | 18.19 | 18.59 | 18.44          | 19.70 | 18.86 | 20.09 | 20.49 |
|                 | 12H  | 16.59            | 17.80 | 17.02 | 18.18 | 18.61 | 18.65          | 19.86 | 19.08 | 20.24 | 20.67 |
| 4H              | 2H   | 14.40            | 15.82 | 14.80 | 16.17 | 16.55 | 14.98          | 16.40 | 15.38 | 16.75 | 17.13 |
|                 | 3H   | 16.39            | 17.59 | 16.80 | 17.99 | 18.39 | 17.31          | 18.51 | 17.72 | 18.90 | 19.30 |
|                 | 4H   | 17.15            | 18.24 | 17.58 | 18.65 | 19.08 | 18.34          | 19.43 | 18.77 | 19.84 | 20.28 |
|                 | 6H   | 17.68            | 18.64 | 18.14 | 19.08 | 19.53 | 19.27          | 20.23 | 19.73 | 20.67 | 21.12 |
|                 | 8H   | 17.83            | 18.72 | 18.29 | 19.17 | 19.63 | 19.66          | 20.55 | 20.12 | 20.99 | 21.46 |
|                 | 12H  | 17.92            | 18.72 | 18.40 | 19.20 | 19.66 | 19.93          | 20.74 | 20.41 | 21.21 | 21.68 |
| 8H              | 4H   | 17.60            | 18.49 | 18.06 | 18.93 | 19.40 | 18.64          | 19.54 | 19.10 | 19.98 | 20.44 |
|                 | 6H   | 18.28            | 19.02 | 18.77 | 19.51 | 19.98 | 19.73          | 20.47 | 20.22 | 20.96 | 21.43 |
|                 | 8H   | 18.50            | 19.17 | 19.01 | 19.67 | 20.16 | 20.22          | 20.88 | 20.72 | 21.39 | 21.87 |
|                 | 12H  | 18.65            | 19.24 | 19.15 | 19.73 | 20.29 | 20.59          | 21.18 | 21.10 | 21.67 | 22.23 |
| 12H             | 4H   | 17.68            | 18.49 | 18.16 | 18.96 | 19.43 | 18.67          | 19.48 | 19.15 | 19.95 | 20.42 |
|                 | 6H   | 18.41            | 19.08 | 18.91 | 19.58 | 20.07 | 19.78          | 20.45 | 20.29 | 20.96 | 21.44 |
|                 | 8H   | 18.70            | 19.29 | 19.20 | 19.78 | 20.34 | 20.33          | 20.93 | 20.84 | 21.42 | 21.97 |