

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: P1586532

Luminaire Tested: 22CZSP-60HE-L830-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586532  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-60HE-L830-S  
Description: 2x2 CZSP LED Luminaire, 3000K CCT and 6700 lumens, 80CRI, Smooth Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

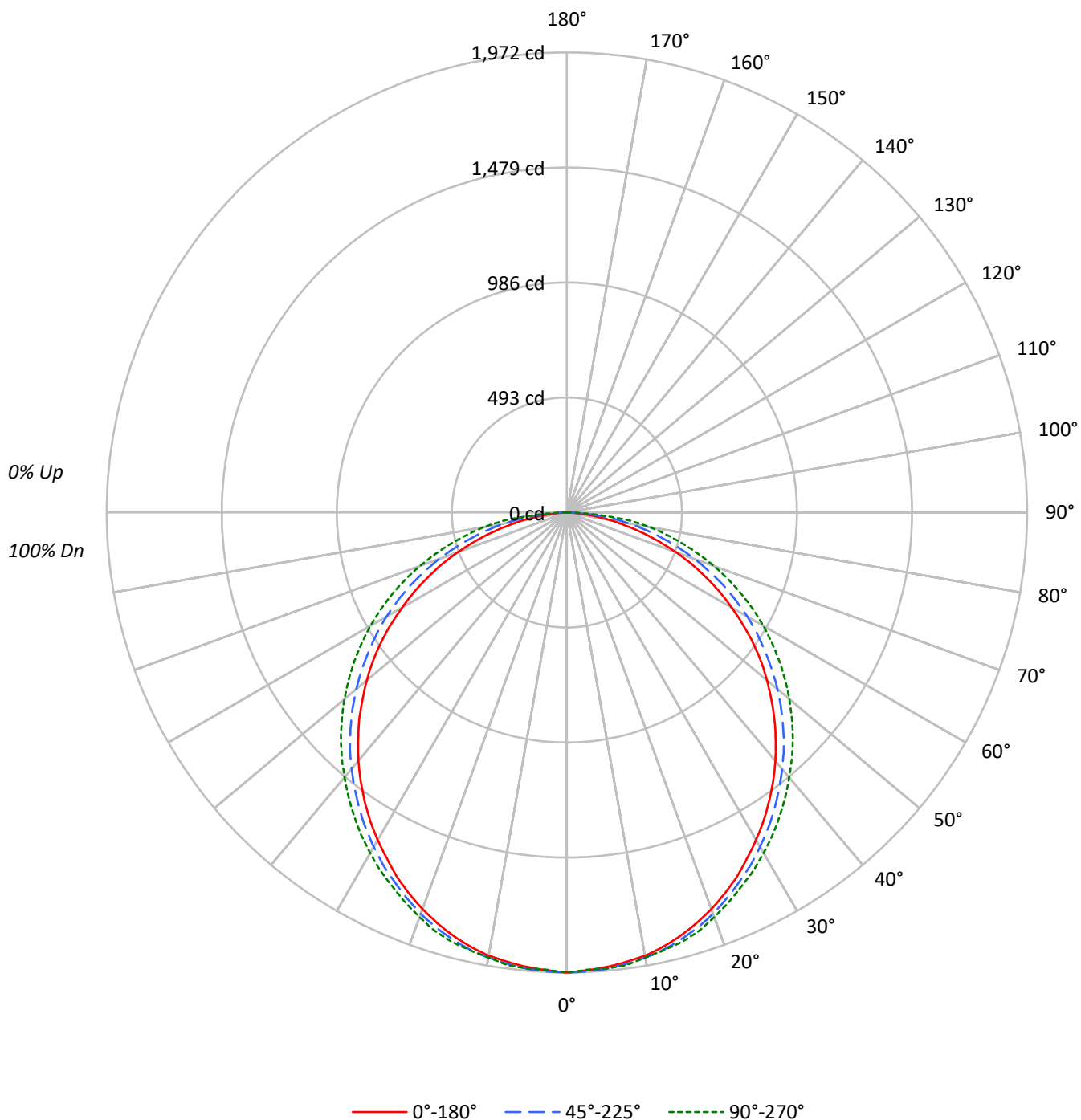
Lumens per Lamp: N/A  
Luminaire Lumens: 5758.0 lumens  
Efficiency: N/A  
Efficacy: 138.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 41.5  
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  |     |     | 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  | 69  |
| 3   | 89  | 79  | 70  | 64  | 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°  | 6176 | 6176 | 6176 |
| 5°  | 6148 | 6172 | 6168 |
| 10° | 6134 | 6163 | 6159 |
| 15° | 6091 | 6140 | 6177 |
| 20° | 6029 | 6101 | 6151 |
| 25° | 5954 | 6037 | 6112 |
| 30° | 5861 | 5984 | 6094 |
| 35° | 5776 | 5926 | 6076 |
| 40° | 5681 | 5867 | 6058 |
| 45° | 5573 | 5808 | 6065 |
| 50° | 5453 | 5736 | 6063 |
| 55° | 5311 | 5656 | 6070 |
| 60° | 5112 | 5594 | 6085 |
| 65° | 4878 | 5486 | 6104 |
| 70° | 4546 | 5333 | 6130 |
| 75° | 4051 | 5121 | 6191 |
| 80° | 3349 | 4876 | 6494 |
| 85° | 2177 | 4405 | 5673 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 6698 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 186.5  | 3.2       |
| 10°-20°   | 534.1  | 9.3       |
| 20°-30°   | 805.5  | 14.0      |
| 30°-40°   | 970.2  | 16.8      |
| 40°-50°   | 1013.2 | 17.6      |
| 50°-60°   | 930.6  | 16.2      |
| 60°-70°   | 732.9  | 12.7      |
| 70°-80°   | 449.6  | 7.8       |
| 80°-90°   | 135.3  | 2.3       |
| 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°    | 1526.1 | 26.5      |
| 0°-40°    | 2496.3 | 43.4      |
| 0°-60°    | 4440.1 | 77.1      |
| 0°-90°    | 5758.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5758.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1972 | 1972  | 1972 | 1972  | 1972 |      |
| 5°  | 1956 | 1958  | 1963 | 1970  | 1962 | 186  |
| 15° | 1879 | 1883  | 1894 | 1905  | 1905 | 530  |
| 25° | 1723 | 1727  | 1747 | 1769  | 1769 | 793  |
| 35° | 1511 | 1519  | 1550 | 1582  | 1589 | 945  |
| 45° | 1258 | 1272  | 1312 | 1357  | 1370 | 970  |
| 55° | 973  | 991   | 1036 | 1094  | 1112 | 869  |
| 65° | 658  | 681   | 740  | 802   | 824  | 651  |
| 75° | 335  | 361   | 423  | 490   | 512  | 355  |
| 85° | 61   | 83    | 123  | 155   | 158  | 79   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1972.3 | 1972.3 | 1972.3 | 1972.3 | 1972.3 |
| 2.5°  | 1964.7 | 1968.5 | 1969.7 | 1971.0 | 1962.2 |
| 5°    | 1955.8 | 1958.4 | 1963.4 | 1969.7 | 1962.2 |
| 7.5°  | 1943.2 | 1945.7 | 1952.1 | 1960.9 | 1957.1 |
| 10°   | 1929.3 | 1930.6 | 1938.2 | 1944.5 | 1936.9 |
| 12.5° | 1906.6 | 1910.4 | 1919.2 | 1924.3 | 1921.7 |
| 15°   | 1878.8 | 1882.6 | 1893.9 | 1905.3 | 1905.3 |
| 17.5° | 1845.9 | 1851.0 | 1864.9 | 1880.0 | 1881.3 |
| 20°   | 1809.3 | 1813.1 | 1830.8 | 1845.9 | 1845.9 |
| 22.5° | 1767.6 | 1772.6 | 1790.3 | 1806.8 | 1809.3 |
| 25°   | 1723.4 | 1727.2 | 1747.4 | 1768.9 | 1768.9 |
| 27.5° | 1671.6 | 1679.1 | 1704.4 | 1725.9 | 1730.9 |
| 30°   | 1621.0 | 1627.3 | 1655.1 | 1681.7 | 1685.5 |
| 32.5° | 1568.0 | 1575.5 | 1604.6 | 1633.7 | 1640.0 |
| 35°   | 1511.1 | 1518.7 | 1550.3 | 1581.9 | 1589.4 |
| 37.5° | 1451.7 | 1460.6 | 1493.4 | 1530.1 | 1537.6 |
| 40°   | 1389.8 | 1399.9 | 1435.3 | 1474.5 | 1482.0 |
| 42.5° | 1324.1 | 1338.0 | 1375.9 | 1416.3 | 1427.7 |
| 45°   | 1258.4 | 1272.3 | 1311.5 | 1357.0 | 1369.6 |
| 47.5° | 1188.9 | 1205.3 | 1245.8 | 1293.8 | 1307.7 |
| 50°   | 1119.4 | 1135.9 | 1177.5 | 1229.4 | 1244.5 |
| 52.5° | 1048.7 | 1065.1 | 1108.1 | 1162.4 | 1178.8 |
| 55°   | 972.9  | 990.6  | 1036.0 | 1094.2 | 1111.8 |
| 57.5° | 894.5  | 917.3  | 965.3  | 1024.7 | 1042.4 |
| 60°   | 816.2  | 838.9  | 893.3  | 951.4  | 971.6  |
| 62.5° | 739.1  | 760.6  | 816.2  | 878.1  | 899.6  |
| 65°   | 658.3  | 681.0  | 740.4  | 802.3  | 823.8  |
| 67.5° | 578.7  | 601.4  | 660.8  | 725.2  | 748.0  |
| 70°   | 496.5  | 521.8  | 582.5  | 646.9  | 669.6  |
| 72.5° | 414.4  | 440.9  | 502.9  | 568.6  | 590.0  |
| 75°   | 334.8  | 361.4  | 423.3  | 490.2  | 511.7  |
| 77.5° | 256.5  | 285.5  | 346.2  | 414.4  | 434.6  |
| 80°   | 185.7  | 213.5  | 270.4  | 337.3  | 360.1  |
| 82.5° | 118.8  | 142.8  | 199.6  | 262.8  | 279.2  |
| 85°   | 60.6   | 83.4   | 122.6  | 155.4  | 157.9  |
| 87.5° | 19.0   | 26.5   | 40.4   | 60.6   | 61.9   |
| 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 | 17.80            | 19.47 | 18.17 | 19.78 | 20.09 | 18.63          | 20.30 | 19.00 | 20.61 | 20.92 |
|                 | 3H   | 19.56            | 21.07 | 19.94 | 21.39 | 21.75 | 20.75          | 22.26 | 21.13 | 22.58 | 22.94 |
|                 | 4H   | 20.18            | 21.60 | 20.58 | 21.95 | 22.32 | 21.64          | 23.06 | 22.04 | 23.41 | 23.78 |
|                 | 6H   | 20.59            | 21.91 | 21.00 | 22.27 | 22.66 | 22.42          | 23.74 | 22.83 | 24.10 | 24.49 |
|                 | 8H   | 20.70            | 21.96 | 21.12 | 22.35 | 22.75 | 22.74          | 24.00 | 23.16 | 24.39 | 24.79 |
|                 | 12H  | 20.75            | 21.96 | 21.18 | 22.34 | 22.77 | 22.95          | 24.16 | 23.38 | 24.54 | 24.97 |
| 4H              | 2H   | 18.58            | 20.00 | 18.97 | 20.35 | 20.72 | 19.22          | 20.64 | 19.62 | 20.99 | 21.37 |
|                 | 3H   | 20.55            | 21.75 | 20.96 | 22.15 | 22.55 | 21.58          | 22.78 | 21.99 | 23.17 | 23.57 |
|                 | 4H   | 21.29            | 22.38 | 21.72 | 22.79 | 23.22 | 22.63          | 23.72 | 23.06 | 24.13 | 24.56 |
|                 | 6H   | 21.82            | 22.77 | 22.27 | 23.21 | 23.66 | 23.58          | 24.53 | 24.03 | 24.97 | 25.43 |
|                 | 8H   | 21.96            | 22.86 | 22.42 | 23.30 | 23.76 | 23.98          | 24.87 | 24.44 | 25.31 | 25.78 |
|                 | 12H  | 22.05            | 22.85 | 22.53 | 23.33 | 23.79 | 24.26          | 25.06 | 24.73 | 25.53 | 26.00 |
| 8H              | 4H   | 21.75            | 22.64 | 22.21 | 23.08 | 23.55 | 22.92          | 23.81 | 23.38 | 24.25 | 24.72 |
|                 | 6H   | 22.41            | 23.15 | 22.90 | 23.64 | 24.11 | 24.03          | 24.77 | 24.52 | 25.26 | 25.73 |
|                 | 8H   | 22.62            | 23.29 | 23.13 | 23.79 | 24.28 | 24.54          | 25.21 | 25.05 | 25.71 | 26.20 |
|                 | 12H  | 22.76            | 23.35 | 23.26 | 23.84 | 24.40 | 24.93          | 25.52 | 25.43 | 26.01 | 26.57 |
| 12H             | 4H   | 21.84            | 22.64 | 22.32 | 23.12 | 23.58 | 22.94          | 23.75 | 23.42 | 24.22 | 24.69 |
|                 | 6H   | 22.54            | 23.21 | 23.05 | 23.72 | 24.20 | 24.08          | 24.75 | 24.58 | 25.25 | 25.74 |
|                 | 8H   | 22.82            | 23.41 | 23.32 | 23.90 | 24.46 | 24.65          | 25.25 | 25.16 | 25.74 | 26.29 |