

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **24CZ-LD5-65-RDP-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-65-RDP-UNV-L835-CD1-U  
Description:

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4332.3 lumens  
Efficiency: N/A  
Efficacy: 75.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')  
CIE Type: Direct

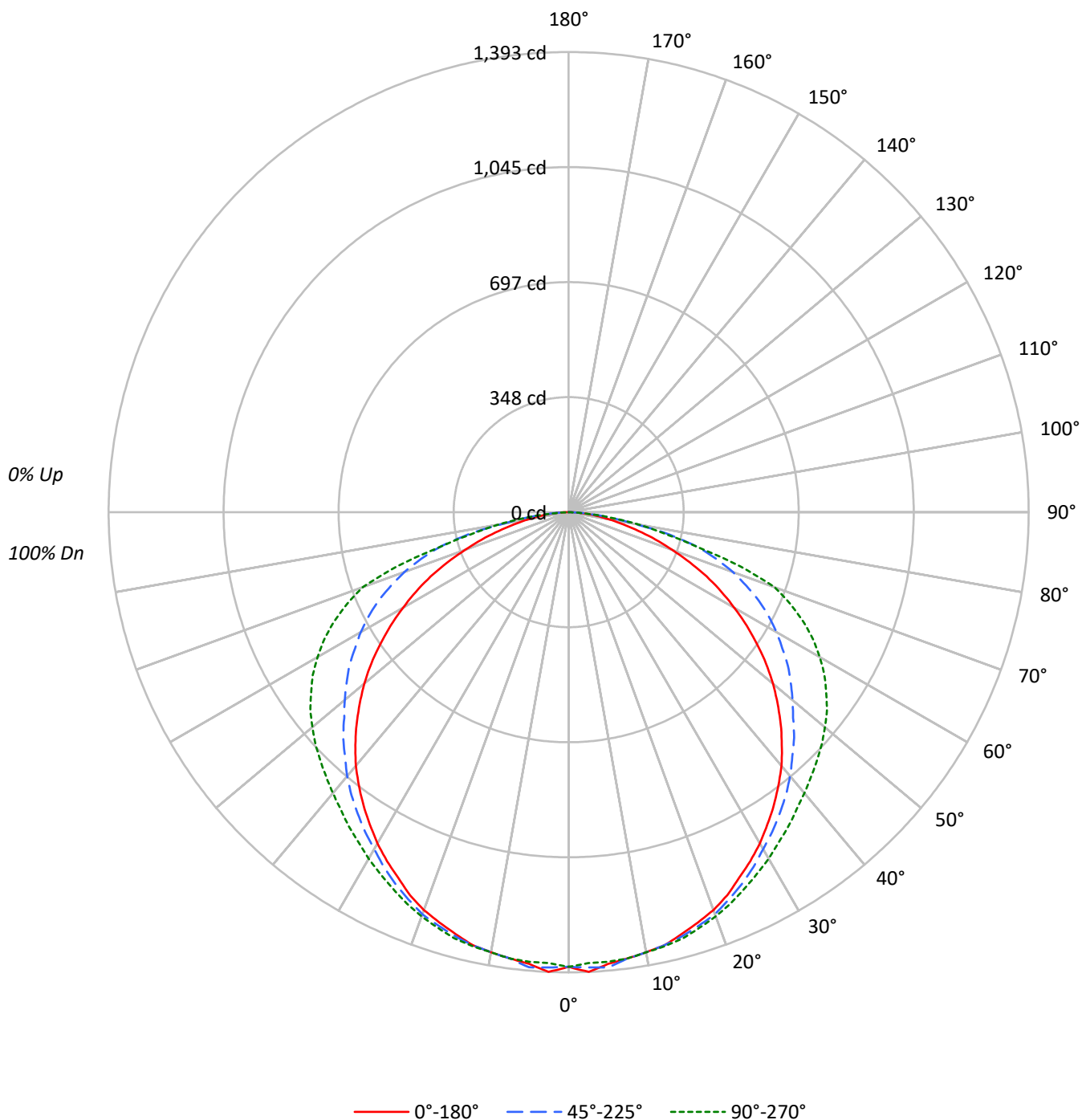
Input Watts (W): 57.64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 93  |  | 97  | 93  | 90  |  | 93  | 90  | 87  |  | 89  | 87  | 85  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  |  | 84  | 78  | 73  |  | 80  | 76  | 71  |  | 77  | 73  | 70  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  |  | 73  | 66  | 61  |  | 70  | 64  | 59  |  | 68  | 63  | 58  |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 58  | 52  |  | 64  | 57  | 51  |  | 62  | 56  | 50  |  | 60  | 54  | 50  |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 44  |  | 58  | 50  | 44  |  | 56  | 49  | 43  |  | 54  | 48  | 43  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 39  |  | 52  | 44  | 38  |  | 50  | 43  | 38  |  | 48  | 42  | 37  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  |  | 47  | 39  | 34  |  | 45  | 39  | 33  |  | 44  | 38  | 33  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  |  | 43  | 35  | 30  |  | 42  | 35  | 30  |  | 40  | 34  | 29  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  |  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  | 31  | 27  |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  |  | 36  | 29  | 24  |  | 35  | 29  | 24  |  | 35  | 28  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1852 | 1852 | 1852 |
| 5°  | 1850 | 1859 | 1837 |
| 10° | 1840 | 1831 | 1832 |
| 15° | 1830 | 1825 | 1836 |
| 20° | 1819 | 1820 | 1831 |
| 25° | 1792 | 1799 | 1825 |
| 30° | 1773 | 1775 | 1829 |
| 35° | 1749 | 1764 | 1842 |
| 40° | 1725 | 1754 | 1872 |
| 45° | 1686 | 1745 | 1927 |
| 50° | 1641 | 1742 | 2001 |
| 55° | 1577 | 1768 | 2085 |
| 60° | 1493 | 1791 | 2175 |
| 65° | 1393 | 1818 | 2254 |
| 70° | 1226 | 1814 | 2292 |
| 75° | 1040 | 1738 | 1739 |
| 80° | 845  | 1182 | 1300 |
| 85° | 646  | 647  | 595  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 130.6  | 3.0       |
| 10°-20°   | 375.2  | 8.7       |
| 20°-30°   | 571.8  | 13.2      |
| 30°-40°   | 699.6  | 16.1      |
| 40°-50°   | 752.8  | 17.4      |
| 50°-60°   | 729.2  | 16.8      |
| 60°-70°   | 617.7  | 14.3      |
| 70°-80°   | 373.4  | 8.6       |
| 80°-90°   | 82.0   | 1.9       |
| 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°    | 1077.6 | 24.9      |
| 0°-40°    | 1777.3 | 41.0      |
| 0°-60°    | 3259.2 | 75.2      |
| 0°-90°    | 4332.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4332.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1376 | 1376  | 1376 | 1376  | 1376 |      |
| 5°  | 1373 | 1373  | 1383 | 1376  | 1366 | 131  |
| 15° | 1322 | 1326  | 1329 | 1332  | 1336 | 373  |
| 25° | 1221 | 1228  | 1242 | 1252  | 1258 | 564  |
| 35° | 1083 | 1090  | 1114 | 1144  | 1161 | 678  |
| 45° | 908  | 925   | 966  | 1026  | 1063 | 700  |
| 55° | 696  | 727   | 811  | 905   | 952  | 622  |
| 65° | 461  | 511   | 636  | 737   | 784  | 454  |
| 75° | 219  | 296   | 400  | 407   | 397  | 235  |
| 85° | 54   | 64    | 67   | 64    | 61   | 61   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1376.1 | 1376.1 | 1376.1 | 1376.1 | 1376.1 |
| 2.5°  | 1392.9 | 1389.5 | 1379.4 | 1372.7 | 1366.0 |
| 5°    | 1372.7 | 1372.7 | 1382.8 | 1376.1 | 1366.0 |
| 7.5°  | 1362.6 | 1362.6 | 1362.6 | 1379.4 | 1362.6 |
| 10°   | 1352.5 | 1355.9 | 1352.5 | 1366.0 | 1352.5 |
| 12.5° | 1342.4 | 1342.4 | 1342.4 | 1345.8 | 1345.8 |
| 15°   | 1322.2 | 1325.6 | 1329.0 | 1332.3 | 1335.7 |
| 17.5° | 1302.0 | 1305.4 | 1312.1 | 1315.5 | 1318.9 |
| 20°   | 1281.8 | 1285.2 | 1295.3 | 1295.3 | 1302.0 |
| 22.5° | 1254.9 | 1254.9 | 1268.4 | 1271.8 | 1281.8 |
| 25°   | 1221.3 | 1228.0 | 1241.5 | 1251.6 | 1258.3 |
| 27.5° | 1191.0 | 1197.7 | 1211.2 | 1224.7 | 1234.7 |
| 30°   | 1157.4 | 1164.1 | 1177.6 | 1197.7 | 1211.2 |
| 32.5° | 1120.4 | 1127.1 | 1147.3 | 1170.8 | 1184.3 |
| 35°   | 1083.3 | 1090.1 | 1113.6 | 1143.9 | 1160.7 |
| 37.5° | 1043.0 | 1053.1 | 1080.0 | 1113.6 | 1133.8 |
| 40°   | 1002.6 | 1012.7 | 1043.0 | 1080.0 | 1110.3 |
| 42.5° | 955.5  | 969.0  | 1002.6 | 1053.1 | 1086.7 |
| 45°   | 908.4  | 925.2  | 965.6  | 1026.2 | 1063.2 |
| 47.5° | 857.9  | 874.8  | 921.9  | 999.2  | 1039.6 |
| 50°   | 807.5  | 827.7  | 884.8  | 969.0  | 1012.7 |
| 52.5° | 753.6  | 773.8  | 847.8  | 938.7  | 985.8  |
| 55°   | 696.4  | 726.7  | 810.8  | 905.0  | 952.1  |
| 57.5° | 639.2  | 672.9  | 767.1  | 868.0  | 918.5  |
| 60°   | 578.7  | 619.1  | 726.7  | 827.7  | 878.1  |
| 62.5° | 521.5  | 565.2  | 683.0  | 783.9  | 834.4  |
| 65°   | 460.9  | 511.4  | 635.9  | 736.8  | 783.9  |
| 67.5° | 397.0  | 460.9  | 582.0  | 679.6  | 726.7  |
| 70°   | 333.1  | 407.1  | 528.2  | 619.1  | 662.8  |
| 72.5° | 275.9  | 353.3  | 467.7  | 545.0  | 545.0  |
| 75°   | 218.7  | 296.1  | 400.4  | 407.1  | 397.0  |
| 77.5° | 168.2  | 242.2  | 312.9  | 286.0  | 292.7  |
| 80°   | 124.5  | 185.0  | 198.5  | 208.6  | 215.3  |
| 82.5° | 84.1   | 124.5  | 127.8  | 134.6  | 134.6  |
| 85°   | 53.8   | 63.9   | 67.3   | 63.9   | 60.6   |
| 87.5° | 23.6   | 26.9   | 20.2   | 13.5   | 10.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)