

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: P709581

Luminaire Tested: **14ARS-L3C3-HO-SQR-UNV-3500K-MID**

Issue Date: 9/22/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709581  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2305-014-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14ARS-L3C3-HO-SQR-UNV-3500K-MID  
Description: ARS 1x4 Selectable High Output 80CRI Square, SET AT 3500K AND, MID LUMEN OUTPUT SETTINGS

Light Source: -  
Ballast/Driver: -

**Summary**

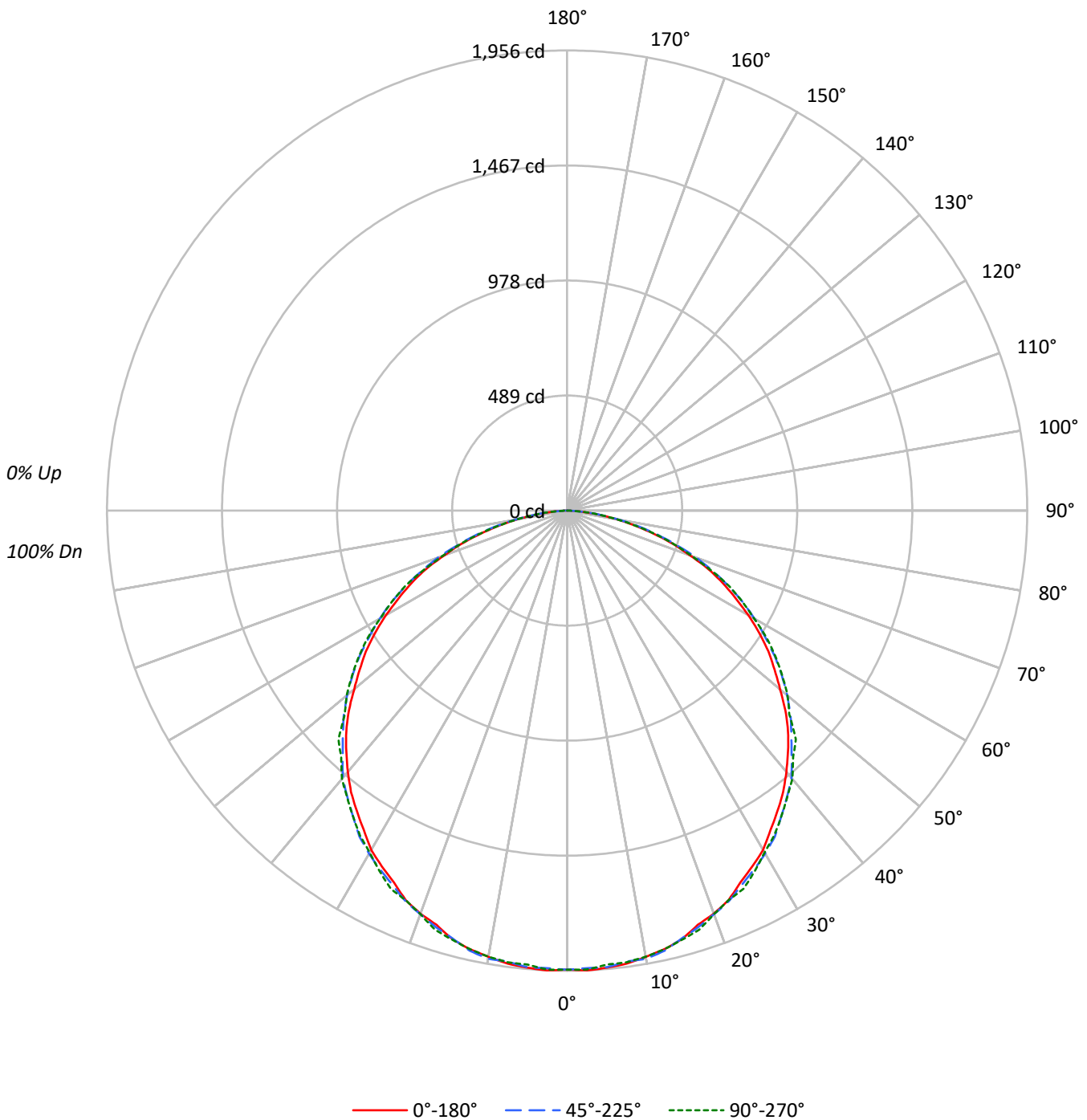
Lumens per Lamp: N/A  
Luminaire Lumens: 5761.0 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 0.85' x L: 3.87' x H: 0')  
CIE Type: Direct

Input Watts (W): 42.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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  | 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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 84  |
| 2   | 99  | 90  | 83  | 78  | 96  | 88  | 82  | 77  | 85  | 79  | 75  | 82  | 77  | 73  | 78  | 75  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 64  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 69  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 52  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 43  |
| 6   | 70  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 55  | 42  | 34  | 28  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6384 | 6384 | 6384 |
| 5°  | 6406 | 6400 | 6362 |
| 10° | 6401 | 6427 | 6398 |
| 15° | 6389 | 6377 | 6398 |
| 20° | 6349 | 6359 | 6355 |
| 25° | 6293 | 6338 | 6405 |
| 30° | 6293 | 6363 | 6340 |
| 35° | 6227 | 6340 | 6340 |
| 40° | 6192 | 6339 | 6362 |
| 45° | 6145 | 6235 | 6362 |
| 50° | 6016 | 6213 | 6227 |
| 55° | 5958 | 6138 | 6164 |
| 60° | 5819 | 6021 | 6004 |
| 65° | 5657 | 5847 | 5881 |
| 70° | 5312 | 5573 | 5387 |
| 75° | 4813 | 5036 | 4913 |
| 80° | 4068 | 4185 | 4068 |
| 85° | 2778 | 2943 | 3079 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 184.7  | 3.2       |
| 10°-20°   | 532.4  | 9.2       |
| 20°-30°   | 809.8  | 14.1      |
| 30°-40°   | 989.2  | 17.2      |
| 40°-50°   | 1039.4 | 18.0      |
| 50°-60°   | 954.8  | 16.6      |
| 60°-70°   | 739.0  | 12.8      |
| 70°-80°   | 414.4  | 7.2       |
| 80°-90°   | 97.2   | 1.7       |
| 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°    | 1527.0 | 26.5      |
| 0°-40°    | 2516.1 | 43.7      |
| 0°-60°    | 4510.4 | 78.3      |
| 0°-90°    | 5761.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5761.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1951 | 1951  | 1951 | 1951  | 1951 |      |
| 5°  | 1950 | 1929  | 1948 | 1944  | 1937 | 185  |
| 15° | 1886 | 1887  | 1882 | 1892  | 1888 | 531  |
| 25° | 1743 | 1748  | 1756 | 1764  | 1774 | 806  |
| 35° | 1559 | 1567  | 1587 | 1592  | 1587 | 977  |
| 45° | 1328 | 1335  | 1347 | 1355  | 1375 | 1022 |
| 55° | 1044 | 1061  | 1076 | 1072  | 1080 | 930  |
| 65° | 731  | 740   | 755  | 755   | 760  | 720  |
| 75° | 381  | 396   | 398  | 385   | 389  | 404  |
| 85° | 74   | 76    | 78   | 79    | 82   | 94   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1951.1 | 1951.1 | 1951.1 | 1951.1 | 1951.1 |
| 2.5°  | 1956.4 | 1947.6 | 1946.7 | 1950.2 | 1952.9 |
| 5°    | 1950.2 | 1929.1 | 1948.5 | 1944.0 | 1937.0 |
| 7.5°  | 1942.3 | 1912.3 | 1933.5 | 1936.1 | 1936.1 |
| 10°   | 1926.4 | 1913.2 | 1934.4 | 1929.1 | 1925.5 |
| 12.5° | 1909.7 | 1908.8 | 1915.8 | 1913.2 | 1909.7 |
| 15°   | 1885.9 | 1886.8 | 1882.4 | 1892.1 | 1888.5 |
| 17.5° | 1846.2 | 1859.4 | 1855.9 | 1867.4 | 1867.4 |
| 20°   | 1823.3 | 1816.3 | 1826.0 | 1831.2 | 1825.1 |
| 22.5° | 1792.5 | 1778.4 | 1796.9 | 1800.4 | 1792.5 |
| 25°   | 1743.1 | 1747.5 | 1755.5 | 1764.3 | 1774.0 |
| 27.5° | 1705.2 | 1707.9 | 1720.2 | 1718.4 | 1727.3 |
| 30°   | 1665.6 | 1667.3 | 1684.1 | 1692.0 | 1677.9 |
| 32.5° | 1609.2 | 1628.6 | 1642.7 | 1639.1 | 1638.2 |
| 35°   | 1558.9 | 1566.9 | 1587.1 | 1591.5 | 1587.1 |
| 37.5° | 1508.7 | 1514.0 | 1534.3 | 1533.4 | 1536.0 |
| 40°   | 1449.7 | 1460.2 | 1484.0 | 1476.1 | 1489.3 |
| 42.5° | 1389.7 | 1402.1 | 1411.8 | 1420.6 | 1421.5 |
| 45°   | 1328.0 | 1335.1 | 1347.4 | 1355.4 | 1374.8 |
| 47.5° | 1258.4 | 1275.2 | 1287.5 | 1293.7 | 1281.3 |
| 50°   | 1181.8 | 1210.0 | 1220.5 | 1226.7 | 1223.2 |
| 52.5° | 1111.3 | 1141.2 | 1150.0 | 1150.0 | 1152.7 |
| 55°   | 1044.3 | 1061.0 | 1076.0 | 1072.5 | 1080.4 |
| 57.5° | 968.5  | 987.0  | 996.7  | 1001.1 | 1004.6 |
| 60°   | 889.2  | 914.7  | 920.0  | 918.3  | 917.4  |
| 62.5° | 807.2  | 830.1  | 840.7  | 833.7  | 839.8  |
| 65°   | 730.6  | 740.3  | 755.2  | 755.2  | 759.6  |
| 67.5° | 649.5  | 660.1  | 669.8  | 668.0  | 660.9  |
| 70°   | 555.2  | 570.2  | 582.5  | 571.1  | 563.1  |
| 72.5° | 472.4  | 484.7  | 486.5  | 477.6  | 478.5  |
| 75°   | 380.7  | 395.7  | 398.3  | 385.1  | 388.6  |
| 77.5° | 294.3  | 310.2  | 312.8  | 298.7  | 298.7  |
| 80°   | 215.9  | 226.5  | 222.1  | 215.9  | 215.9  |
| 82.5° | 140.1  | 147.2  | 142.8  | 146.3  | 142.8  |
| 85°   | 74.0   | 75.8   | 78.4   | 79.3   | 82.0   |
| 87.5° | 24.7   | 27.3   | 26.4   | 23.8   | 22.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)