

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: P709634

Luminaire Tested: **24ARS-L3C3-HO-SQR-UNV-3500K-LOW**

Issue Date: 9/22/2023



Test Information

Test Method: LM-79-08
Report Number: P709634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2305-014-25)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24ARS-L3C3-HO-SQR-UNV-3500K-LOW
Description: ARS 2x4 Selectable High Output 80CRI Square, SET AT 3500K AND, LOW LUMEN OUTPUT SETTINGS

Light Source: -
Ballast/Driver: -

Summary

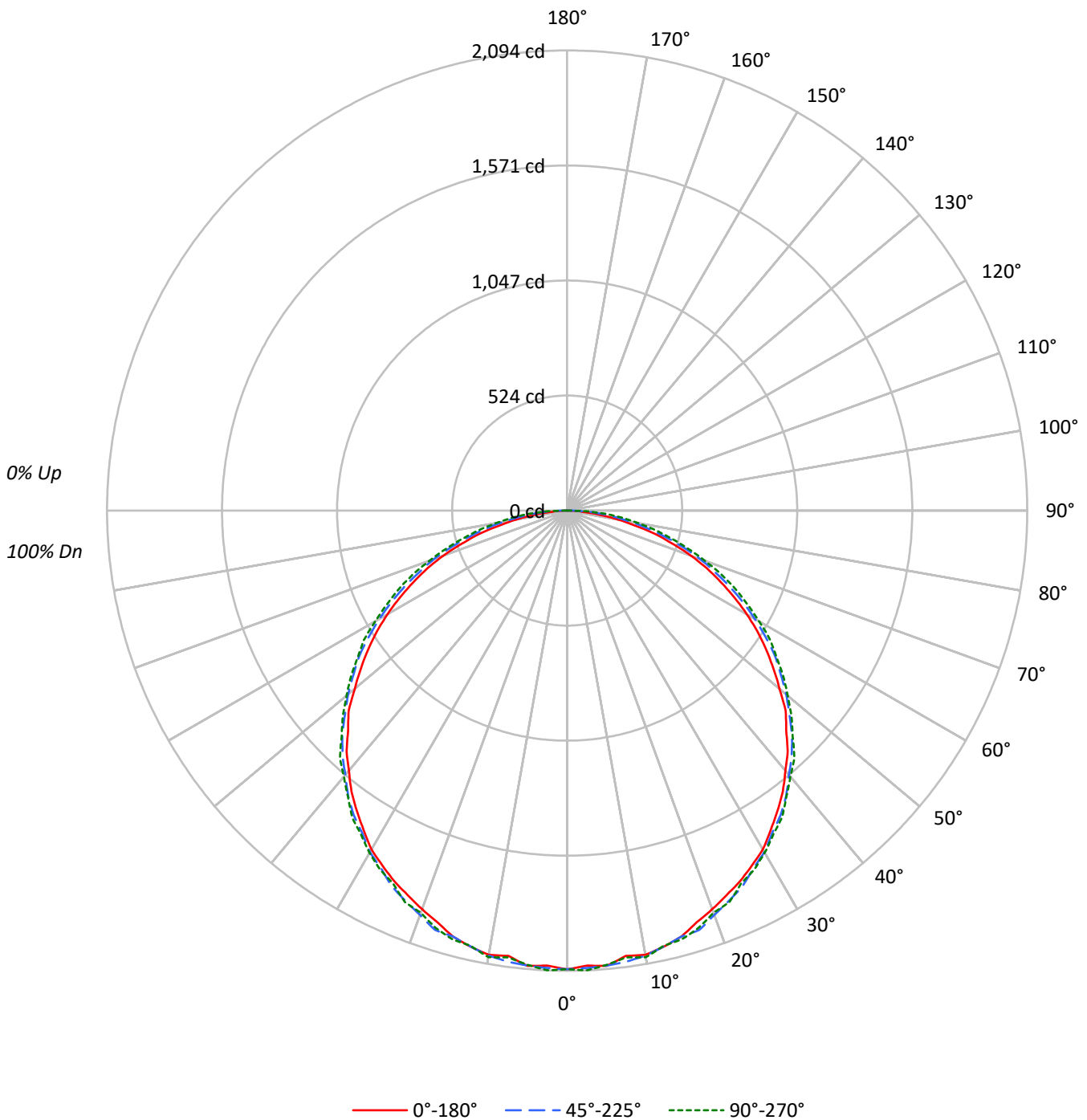
Lumens per Lamp: N/A
Luminaire Lumens: 6267.0 lumens
Efficiency: N/A
Efficacy: 133.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1.83' x L: 3.87' x H: 0')
CIE Type: Direct

Input Watts (W): 46.9
Input Voltage (V): NR
Input Current (A_{in}): 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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 95 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 60 | 68 | 64 | 59 | 57 |
| 4 | 82 | 69 | 60 | 53 | 79 | 68 | 60 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 55 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 58 | 51 | 45 | 56 | 50 | 44 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 46 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 39 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 40 | 34 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3172 | 3172 | 3172 |
| 5° | 3173 | 3171 | 3166 |
| 10° | 3169 | 3173 | 3185 |
| 15° | 3158 | 3158 | 3177 |
| 20° | 3122 | 3167 | 3150 |
| 25° | 3122 | 3164 | 3141 |
| 30° | 3126 | 3149 | 3156 |
| 35° | 3096 | 3140 | 3163 |
| 40° | 3066 | 3116 | 3135 |
| 45° | 3029 | 3110 | 3120 |
| 50° | 2983 | 3075 | 3097 |
| 55° | 2933 | 3061 | 3081 |
| 60° | 2871 | 3000 | 3069 |
| 65° | 2782 | 2928 | 3043 |
| 70° | 2669 | 2858 | 2955 |
| 75° | 2451 | 2707 | 2884 |
| 80° | 2066 | 2546 | 2860 |
| 85° | 1400 | 2536 | 3146 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 197.7 | 3.2 |
| 10°-20° | 568.3 | 9.1 |
| 20°-30° | 866.5 | 13.8 |
| 30°-40° | 1056.2 | 16.9 |
| 40°-50° | 1110.9 | 17.7 |
| 50°-60° | 1024.5 | 16.3 |
| 60°-70° | 804.6 | 12.8 |
| 70°-80° | 485.0 | 7.7 |
| 80°-90° | 153.4 | 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° | 1632.5 | 26.0 |
| 0°-40° | 2688.7 | 42.9 |
| 0°-60° | 4824.1 | 77.0 |
| 0°-90° | 6267.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6267.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2087 | 2087 | 2087 | 2087 | 2087 | |
| 5° | 2080 | 2082 | 2079 | 2089 | 2075 | 197 |
| 15° | 2007 | 2024 | 2007 | 2022 | 2019 | 565 |
| 25° | 1862 | 1880 | 1887 | 1876 | 1873 | 858 |
| 35° | 1669 | 1685 | 1692 | 1697 | 1705 | 1044 |
| 45° | 1409 | 1425 | 1447 | 1457 | 1452 | 1090 |
| 55° | 1107 | 1136 | 1155 | 1164 | 1163 | 989 |
| 65° | 774 | 790 | 814 | 838 | 846 | 765 |
| 75° | 417 | 429 | 461 | 484 | 491 | 437 |
| 85° | 80 | 107 | 145 | 173 | 180 | 104 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P709634

CATALOG NUMBER: 24ARS-L3C3-HO-SQR-UNV-3500K-LOW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2087.2 | 2087.2 | 2087.2 | 2087.2 | 2087.2 |
| 2.5° | 2072.1 | 2079.6 | 2083.4 | 2088.1 | 2093.8 |
| 5° | 2079.6 | 2081.5 | 2078.7 | 2089.1 | 2074.9 |
| 7.5° | 2043.7 | 2075.8 | 2070.2 | 2072.1 | 2050.3 |
| 10° | 2053.2 | 2050.3 | 2056.0 | 2062.6 | 2063.6 |
| 12.5° | 2032.4 | 2037.1 | 2031.5 | 2048.5 | 2028.6 |
| 15° | 2006.9 | 2023.9 | 2006.9 | 2022.0 | 2019.2 |
| 17.5° | 1963.5 | 1969.1 | 2001.2 | 1987.1 | 1990.8 |
| 20° | 1930.4 | 1955.0 | 1957.8 | 1955.9 | 1947.4 |
| 22.5° | 1894.5 | 1913.4 | 1922.8 | 1932.3 | 1928.5 |
| 25° | 1861.5 | 1880.3 | 1887.0 | 1875.6 | 1872.8 |
| 27.5° | 1820.8 | 1829.3 | 1835.0 | 1854.8 | 1842.6 |
| 30° | 1781.2 | 1781.2 | 1794.4 | 1802.0 | 1798.2 |
| 32.5° | 1723.6 | 1742.5 | 1737.7 | 1746.2 | 1747.2 |
| 35° | 1668.8 | 1684.9 | 1692.4 | 1697.1 | 1704.7 |
| 37.5° | 1612.1 | 1623.5 | 1636.7 | 1642.4 | 1639.5 |
| 40° | 1545.1 | 1554.5 | 1570.6 | 1581.9 | 1580.0 |
| 42.5° | 1485.6 | 1500.7 | 1512.0 | 1521.5 | 1530.9 |
| 45° | 1409.1 | 1425.1 | 1446.9 | 1457.2 | 1451.6 |
| 47.5° | 1348.6 | 1354.3 | 1371.3 | 1381.7 | 1384.5 |
| 50° | 1261.7 | 1293.9 | 1300.5 | 1321.2 | 1309.9 |
| 52.5° | 1184.3 | 1213.6 | 1225.9 | 1241.0 | 1240.0 |
| 55° | 1106.9 | 1136.1 | 1155.0 | 1164.5 | 1162.6 |
| 57.5° | 1027.5 | 1051.1 | 1071.0 | 1084.2 | 1096.5 |
| 60° | 944.4 | 965.2 | 986.9 | 1003.9 | 1009.6 |
| 62.5° | 858.5 | 882.1 | 901.0 | 930.3 | 924.6 |
| 65° | 773.5 | 790.5 | 814.1 | 837.7 | 846.2 |
| 67.5° | 688.5 | 706.4 | 726.3 | 748.9 | 759.3 |
| 70° | 600.7 | 615.8 | 643.2 | 658.3 | 664.9 |
| 72.5° | 503.4 | 524.2 | 552.5 | 573.3 | 578.0 |
| 75° | 417.4 | 428.8 | 460.9 | 484.5 | 491.1 |
| 77.5° | 318.3 | 344.7 | 376.8 | 400.4 | 411.8 |
| 80° | 236.1 | 258.8 | 290.9 | 317.3 | 326.8 |
| 82.5° | 157.7 | 178.5 | 214.4 | 246.5 | 254.0 |
| 85° | 80.3 | 106.7 | 145.4 | 172.8 | 180.4 |
| 87.5° | 27.4 | 50.1 | 78.4 | 90.7 | 94.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)