

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: P709609

Luminaire Tested: **22ARS-L3C3-HO-SQR-UNV-4000K-HI**

Issue Date: 9/22/2023



Test Information

Test Method: LM-79-08
Report Number: P709609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2305-014-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22ARS-L3C3-HO-SQR-UNV-4000K-HI
Description: ARS 2x2 Selectable High Output 80CRI Square, SET AT 4000K AND, HI LUMEN OUTPUT SETTINGS

Light Source: -
Ballast/Driver: -

Summary

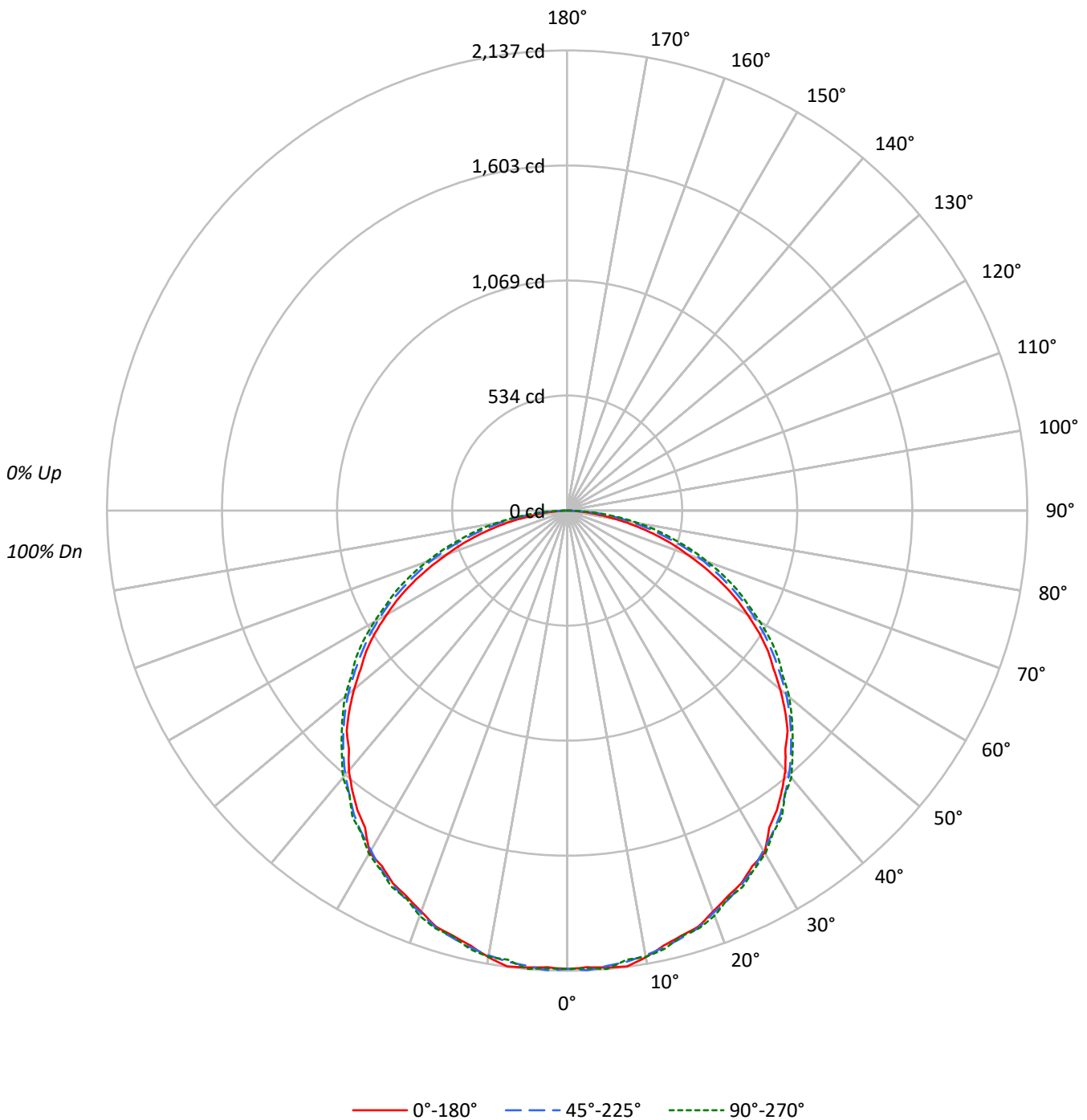
Lumens per Lamp: N/A
Luminaire Lumens: 6384.0 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1.97' x L: 1.97' x H: 0')
CIE Type: Direct

Input Watts (W): 45.4
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 | 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 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 61 | 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 | 45 | 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° | 5904 | 5904 | 5904 |
| 5° | 5930 | 5910 | 5949 |
| 10° | 5931 | 5906 | 5926 |
| 15° | 5871 | 5900 | 5877 |
| 20° | 5849 | 5866 | 5910 |
| 25° | 5849 | 5864 | 5901 |
| 30° | 5875 | 5836 | 5893 |
| 35° | 5749 | 5839 | 5883 |
| 40° | 5707 | 5804 | 5865 |
| 45° | 5679 | 5768 | 5811 |
| 50° | 5574 | 5727 | 5812 |
| 55° | 5510 | 5658 | 5797 |
| 60° | 5367 | 5608 | 5734 |
| 65° | 5182 | 5487 | 5721 |
| 70° | 4809 | 5394 | 5618 |
| 75° | 4416 | 5084 | 5475 |
| 80° | 3678 | 4784 | 5351 |
| 85° | 2769 | 4433 | 4688 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 202.0 | 3.2 |
| 10°-20° | 579.4 | 9.1 |
| 20°-30° | 882.5 | 13.8 |
| 30°-40° | 1074.3 | 16.8 |
| 40°-50° | 1131.4 | 17.7 |
| 50°-60° | 1045.7 | 16.4 |
| 60°-70° | 824.8 | 12.9 |
| 70°-80° | 499.0 | 7.8 |
| 80°-90° | 144.9 | 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° | 1663.9 | 26.1 |
| 0°-40° | 2738.2 | 42.9 |
| 0°-60° | 4915.2 | 77.0 |
| 0°-90° | 6384.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6384.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2129 | 2129 | 2129 | 2129 | 2129 | |
| 5° | 2130 | 2120 | 2123 | 2121 | 2137 | 203 |
| 15° | 2045 | 2053 | 2055 | 2048 | 2047 | 578 |
| 25° | 1911 | 1906 | 1916 | 1919 | 1928 | 880 |
| 35° | 1698 | 1705 | 1725 | 1728 | 1737 | 1063 |
| 45° | 1448 | 1449 | 1471 | 1482 | 1481 | 1111 |
| 55° | 1140 | 1147 | 1170 | 1195 | 1199 | 1015 |
| 65° | 790 | 806 | 836 | 865 | 872 | 778 |
| 75° | 412 | 439 | 474 | 508 | 511 | 435 |
| 85° | 87 | 108 | 139 | 143 | 147 | 104 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P709609

CATALOG NUMBER: 22ARS-L3C3-HO-SQR-UNV-4000K-HI

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2128.8 | 2128.8 | 2128.8 | 2128.8 | 2128.8 |
| 2.5° | 2122.8 | 2133.7 | 2136.7 | 2127.8 | 2126.8 |
| 5° | 2129.8 | 2119.9 | 2122.8 | 2120.9 | 2136.7 |
| 7.5° | 2134.7 | 2118.9 | 2113.0 | 2108.0 | 2104.1 |
| 10° | 2106.0 | 2099.1 | 2097.1 | 2096.2 | 2104.1 |
| 12.5° | 2069.5 | 2075.4 | 2077.4 | 2074.4 | 2085.3 |
| 15° | 2044.8 | 2052.7 | 2054.6 | 2047.7 | 2046.7 |
| 17.5° | 2026.0 | 2020.1 | 2030.9 | 2020.1 | 2034.9 |
| 20° | 1981.5 | 1986.5 | 1987.4 | 1997.3 | 2002.3 |
| 22.5° | 1942.0 | 1955.8 | 1955.8 | 1962.7 | 1949.9 |
| 25° | 1911.3 | 1906.4 | 1916.3 | 1919.3 | 1928.1 |
| 27.5° | 1861.9 | 1859.0 | 1874.8 | 1863.9 | 1878.7 |
| 30° | 1834.3 | 1818.4 | 1822.4 | 1830.3 | 1840.2 |
| 32.5° | 1746.3 | 1770.0 | 1776.0 | 1779.9 | 1777.9 |
| 35° | 1697.9 | 1704.8 | 1724.6 | 1727.5 | 1737.4 |
| 37.5° | 1638.6 | 1636.6 | 1661.3 | 1671.2 | 1661.3 |
| 40° | 1576.3 | 1582.2 | 1603.0 | 1613.9 | 1619.8 |
| 42.5° | 1500.2 | 1514.1 | 1537.8 | 1549.6 | 1548.6 |
| 45° | 1447.8 | 1448.8 | 1470.6 | 1482.4 | 1481.4 |
| 47.5° | 1371.7 | 1380.6 | 1401.4 | 1419.2 | 1414.2 |
| 50° | 1291.7 | 1306.5 | 1327.3 | 1343.1 | 1347.0 |
| 52.5° | 1208.7 | 1226.5 | 1248.2 | 1279.8 | 1263.0 |
| 55° | 1139.5 | 1147.4 | 1170.1 | 1194.8 | 1198.8 |
| 57.5° | 1057.5 | 1066.4 | 1093.0 | 1114.8 | 1121.7 |
| 60° | 967.5 | 976.4 | 1011.0 | 1037.7 | 1033.7 |
| 62.5° | 883.5 | 897.4 | 927.0 | 950.7 | 947.8 |
| 65° | 789.6 | 806.4 | 836.1 | 864.8 | 871.7 |
| 67.5° | 689.8 | 712.6 | 750.1 | 781.7 | 782.7 |
| 70° | 593.0 | 619.7 | 665.1 | 690.8 | 692.8 |
| 72.5° | 507.0 | 526.8 | 574.2 | 601.9 | 603.8 |
| 75° | 412.1 | 438.8 | 474.4 | 508.0 | 510.9 |
| 77.5° | 320.2 | 347.9 | 388.4 | 421.0 | 427.9 |
| 80° | 230.3 | 260.9 | 299.5 | 330.1 | 335.0 |
| 82.5° | 151.2 | 180.9 | 218.4 | 246.1 | 246.1 |
| 85° | 87.0 | 107.7 | 139.3 | 143.3 | 147.3 |
| 87.5° | 28.7 | 41.5 | 52.4 | 56.3 | 57.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)