

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: P183799

Luminaire Tested: **24SR-LD2-59-C-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34443)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-59-C-UNV-L840-CD1-U
Description: METALUX SKYRIDGE EDGELIT LED 2X4 TROFFER

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6035.3 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.52 / 1.48
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

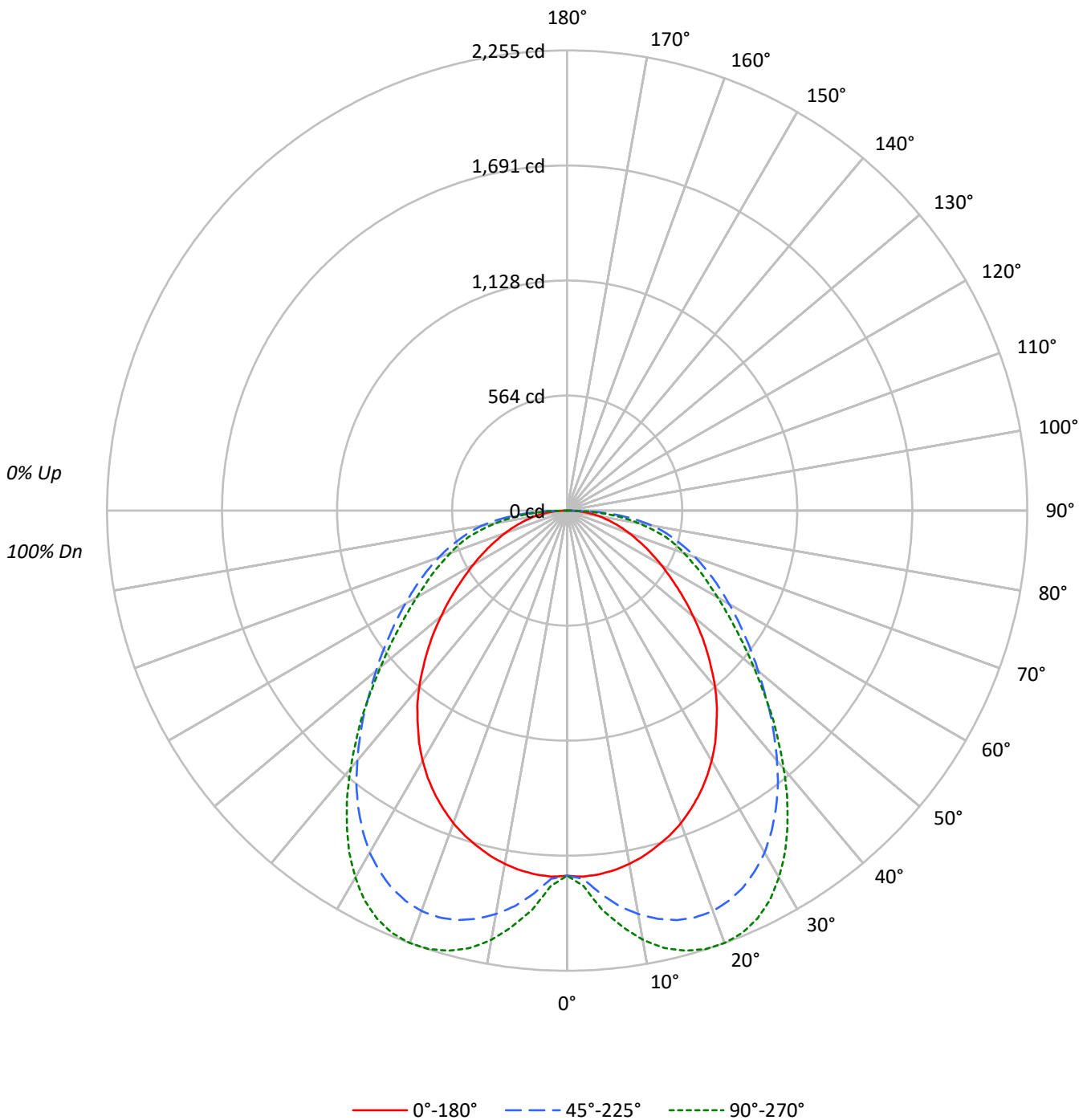
Input Watts (W): 50.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 98 | 94 | 105 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 89 | 87 | 89 | 86 | 84 | 82 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 74 | 81 | 76 | 72 | 78 | 74 | 70 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 61 | 68 | 64 | 60 | 57 |
| 4 | 82 | 70 | 61 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 59 | 46 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2407 | 2407 | 2407 |
| 5° | 2417 | 2545 | 2650 |
| 10° | 2402 | 2743 | 2918 |
| 15° | 2372 | 2894 | 3110 |
| 20° | 2335 | 2990 | 3229 |
| 25° | 2277 | 3026 | 3274 |
| 30° | 2200 | 3007 | 3225 |
| 35° | 2096 | 2929 | 3091 |
| 40° | 1980 | 2809 | 2900 |
| 45° | 1839 | 2679 | 2699 |
| 50° | 1687 | 2559 | 2498 |
| 55° | 1547 | 2485 | 2360 |
| 60° | 1431 | 2468 | 2291 |
| 65° | 1339 | 2514 | 2310 |
| 70° | 1273 | 2627 | 2400 |
| 75° | 1232 | 2850 | 2604 |
| 80° | 1246 | 3274 | 2747 |
| 85° | 1304 | 3819 | 2992 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 182.9 | 3.0 |
| 10°-20° | 575.8 | 9.5 |
| 20°-30° | 908.7 | 15.1 |
| 30°-40° | 1064.9 | 17.6 |
| 40°-50° | 1018.8 | 16.9 |
| 50°-60° | 868.1 | 14.4 |
| 60°-70° | 696.6 | 11.5 |
| 70°-80° | 504.2 | 8.4 |
| 80°-90° | 215.3 | 3.6 |
| 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° | 1667.3 | 27.6 |
| 0°-40° | 2732.3 | 45.3 |
| 0°-60° | 4619.2 | 76.5 |
| 0°-90° | 6035.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6035.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1789 | 1789 | 1789 | 1789 | 1789 | |
| 5° | 1789 | 1822 | 1884 | 1950 | 1962 | 170 |
| 15° | 1703 | 1907 | 2078 | 2201 | 2232 | 480 |
| 25° | 1534 | 1828 | 2039 | 2177 | 2206 | 705 |
| 35° | 1276 | 1589 | 1783 | 1878 | 1882 | 798 |
| 45° | 967 | 1249 | 1408 | 1426 | 1418 | 745 |
| 55° | 660 | 940 | 1060 | 1031 | 1006 | 592 |
| 65° | 420 | 707 | 790 | 738 | 726 | 418 |
| 75° | 237 | 501 | 548 | 505 | 501 | 251 |
| 85° | 84 | 252 | 247 | 204 | 194 | 90 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P183799

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1789.2 | 1789.2 | 1789.2 | 1789.2 | 1789.2 |
| 2.5° | 1795.4 | 1797.4 | 1805.7 | 1840.7 | 1840.7 |
| 5° | 1789.2 | 1822.2 | 1884.0 | 1950.0 | 1962.3 |
| 7.5° | 1776.8 | 1851.0 | 1954.1 | 2038.6 | 2055.1 |
| 10° | 1758.3 | 1881.9 | 2007.7 | 2110.7 | 2135.5 |
| 12.5° | 1733.5 | 1900.5 | 2048.9 | 2166.4 | 2195.3 |
| 15° | 1702.6 | 1906.7 | 2077.8 | 2201.4 | 2232.4 |
| 17.5° | 1669.6 | 1904.6 | 2090.1 | 2222.1 | 2253.0 |
| 20° | 1630.5 | 1888.1 | 2088.1 | 2226.2 | 2255.0 |
| 22.5° | 1583.1 | 1865.5 | 2069.5 | 2209.7 | 2240.6 |
| 25° | 1533.6 | 1828.3 | 2038.6 | 2176.7 | 2205.6 |
| 27.5° | 1477.9 | 1785.1 | 1991.2 | 2125.2 | 2152.0 |
| 30° | 1416.1 | 1729.4 | 1935.5 | 2055.1 | 2075.7 |
| 32.5° | 1350.1 | 1663.4 | 1863.4 | 1972.6 | 1987.1 |
| 35° | 1275.9 | 1589.2 | 1783.0 | 1877.8 | 1881.9 |
| 37.5° | 1205.8 | 1508.9 | 1696.4 | 1772.7 | 1770.6 |
| 40° | 1127.5 | 1422.3 | 1599.5 | 1661.4 | 1651.1 |
| 42.5° | 1045.1 | 1335.7 | 1502.7 | 1546.0 | 1531.5 |
| 45° | 966.7 | 1249.1 | 1407.8 | 1426.4 | 1418.2 |
| 47.5° | 886.3 | 1162.6 | 1308.9 | 1323.3 | 1298.6 |
| 50° | 806.0 | 1084.2 | 1222.3 | 1216.1 | 1193.5 |
| 52.5° | 731.8 | 1012.1 | 1139.9 | 1121.3 | 1096.6 |
| 55° | 659.6 | 939.9 | 1059.5 | 1030.6 | 1005.9 |
| 57.5° | 591.6 | 876.0 | 987.3 | 948.2 | 925.5 |
| 60° | 531.8 | 814.2 | 917.3 | 871.9 | 851.3 |
| 62.5° | 474.1 | 758.5 | 851.3 | 803.9 | 783.3 |
| 65° | 420.5 | 707.0 | 789.5 | 737.9 | 725.6 |
| 67.5° | 369.0 | 655.5 | 727.6 | 678.2 | 663.7 |
| 70° | 323.6 | 601.9 | 667.9 | 618.4 | 610.1 |
| 72.5° | 278.3 | 552.4 | 608.1 | 562.7 | 556.5 |
| 75° | 237.0 | 500.9 | 548.3 | 505.0 | 500.9 |
| 77.5° | 195.8 | 445.2 | 488.5 | 437.0 | 426.7 |
| 80° | 160.8 | 389.6 | 422.6 | 362.8 | 354.5 |
| 82.5° | 121.6 | 321.6 | 338.0 | 284.5 | 280.3 |
| 85° | 84.5 | 251.5 | 247.4 | 204.1 | 193.8 |
| 87.5° | 45.3 | 150.5 | 131.9 | 105.1 | 101.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)