

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: P232622

Luminaire Tested: **4SKB1-LD5-5-N-UNV-L840-CD1-RS-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-317-8)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SKB1-LD5-5-N-UNV-L840-CD1-RS-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS AND REFLECTOR
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5351.0 lumens
Efficiency: N/A
Efficacy: 140.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.5 / 1.49
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.29')
CIE Type: Direct

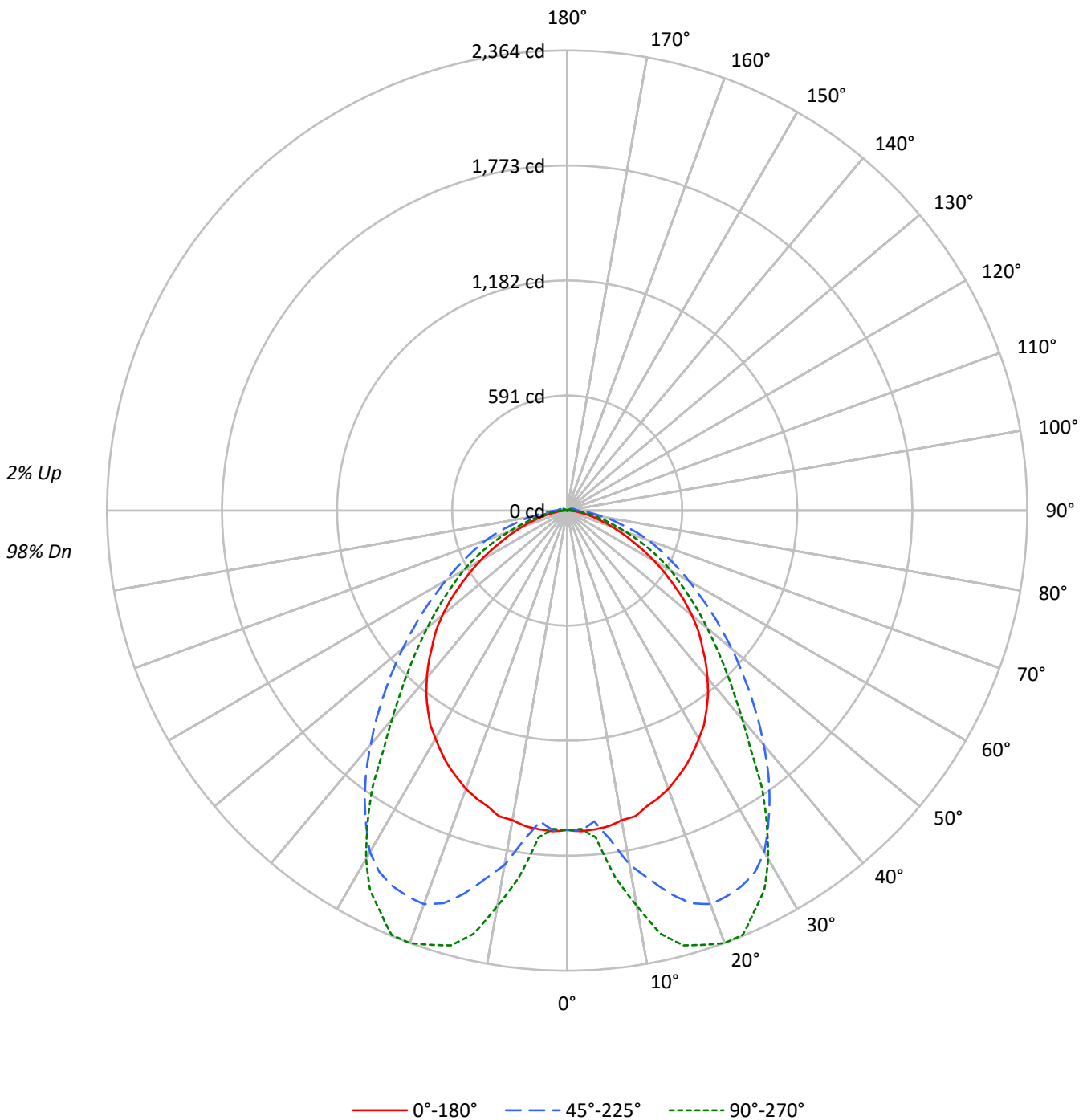
Input Watts (W): 38
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-RS-U

Luminous Intensity Polar Plot





TEST NUMBER: P232622

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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 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1 | 109 | 104 | 100 | 97 | 106 | 102 | 98 | 95 | 97 | 94 | 92 | 93 | 91 | 88 | 89 | 87 | 85 | 83 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 82 | 78 | 75 | 79 | 76 | 73 | 71 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 67 | 76 | 70 | 65 | 73 | 68 | 64 | 71 | 66 | 63 | 60 |
| 4 | 84 | 72 | 64 | 58 | 82 | 71 | 63 | 57 | 68 | 62 | 56 | 66 | 60 | 55 | 63 | 58 | 54 | 52 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 56 | 50 | 62 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 52 | 47 | 42 | 40 |
| 7 | 67 | 53 | 45 | 39 | 65 | 53 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 60 | 48 | 40 | 35 | 47 | 40 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 34 | 29 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17665 | 17665 | 17665 |
| 5° | 17651 | 16082 | 16518 |
| 10° | 17427 | 17479 | 18689 |
| 15° | 17205 | 18369 | 19635 |
| 20° | 16972 | 18682 | 19006 |
| 25° | 16601 | 17928 | 17482 |
| 30° | 16136 | 16721 | 15339 |
| 35° | 15604 | 14762 | 12637 |
| 40° | 14850 | 12715 | 9932 |
| 45° | 13898 | 10774 | 8058 |
| 50° | 12883 | 9042 | 6577 |
| 55° | 11405 | 7502 | 5373 |
| 60° | 9863 | 6159 | 4367 |
| 65° | 8110 | 5039 | 3382 |
| 70° | 6508 | 4072 | 2401 |
| 75° | 5021 | 2969 | 1600 |
| 80° | 3640 | 2010 | 1012 |
| 85° | 2257 | 1215 | 545 |



TEST NUMBER: P232622

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 164.2 | 3.1 |
| 10°-20° | 560.3 | 10.5 |
| 20°-30° | 918.8 | 17.2 |
| 30°-40° | 1038.7 | 19.4 |
| 40°-50° | 935.8 | 17.5 |
| 50°-60° | 737.3 | 13.8 |
| 60°-70° | 507.1 | 9.5 |
| 70°-80° | 282.8 | 5.3 |
| 80°-90° | 114.8 | 2.1 |
| 90°-100° | 43.7 | 0.8 |
| 100°-110° | 24.3 | 0.5 |
| 110°-120° | 13.3 | 0.2 |
| 120°-130° | 4.6 | 0.1 |
| 130°-140° | 3.2 | 0.1 |
| 140°-150° | 1.9 | 0.0 |
| 150°-160° | 0.2 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1643.4 | 30.7 |
| 0°-40° | 2682.0 | 50.1 |
| 0°-60° | 4355.2 | 81.4 |
| 0°-90° | 5259.9 | 98.3 |
| 90°-120° | 81.3 | 1.5 |
| 90°-150° | 90.9 | 1.7 |
| 90°-180° | 91.0 | 1.7 |
| 0°-180° | 5351.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1641 | 1641 | 1641 | 1641 | 1641 | |
| 5° | 1644 | 1651 | 1602 | 1674 | 1685 | 156 |
| 15° | 1574 | 1694 | 2036 | 2271 | 2313 | 445 |
| 25° | 1445 | 1747 | 2126 | 2284 | 2273 | 665 |
| 35° | 1248 | 1574 | 1813 | 1787 | 1747 | 779 |
| 45° | 980 | 1223 | 1328 | 1227 | 1147 | 757 |
| 55° | 671 | 846 | 900 | 822 | 763 | 602 |
| 65° | 368 | 531 | 570 | 522 | 465 | 369 |
| 75° | 154 | 324 | 305 | 244 | 206 | 166 |
| 85° | 34 | 162 | 108 | 81 | 63 | 38 |
| 90° | 2 | 103 | 60 | 39 | 28 | 2 |
| 95° | 0 | 72 | 44 | 30 | 21 | 0 |
| 105° | 0 | 18 | 33 | 28 | 22 | 0 |
| 115° | 0 | 14 | 6 | 22 | 25 | 0 |
| 125° | 1 | 10 | 5 | 4 | 0 | 1 |
| 135° | 1 | 6 | 5 | 5 | 0 | 1 |
| 145° | 1 | 3 | 4 | 4 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P232622

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-RS-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1641.1 | 1641.1 | 1641.1 | 1641.1 | 1641.1 |
| 2.5° | 1649.1 | 1646.2 | 1644.7 | 1658.6 | 1636.7 |
| 5° | 1644.0 | 1650.6 | 1602.5 | 1673.9 | 1684.8 |
| 7.5° | 1635.3 | 1616.4 | 1705.9 | 1863.1 | 1900.9 |
| 10° | 1614.9 | 1594.5 | 1846.3 | 2020.3 | 2061.7 |
| 12.5° | 1609.1 | 1636.0 | 1936.6 | 2170.2 | 2228.4 |
| 15° | 1574.1 | 1694.2 | 2035.5 | 2271.3 | 2312.8 |
| 17.5° | 1550.1 | 1735.7 | 2114.9 | 2309.9 | 2339.0 |
| 20° | 1521.0 | 1748.1 | 2151.3 | 2331.7 | 2363.8 |
| 22.5° | 1482.4 | 1760.5 | 2144.7 | 2332.5 | 2358.7 |
| 25° | 1445.3 | 1747.4 | 2126.5 | 2284.4 | 2272.8 |
| 27.5° | 1400.2 | 1718.2 | 2091.6 | 2211.7 | 2194.9 |
| 30° | 1352.9 | 1687.0 | 2026.1 | 2093.8 | 2065.4 |
| 32.5° | 1307.1 | 1640.4 | 1921.3 | 1941.7 | 1908.9 |
| 35° | 1248.1 | 1574.1 | 1812.9 | 1786.7 | 1747.4 |
| 37.5° | 1188.4 | 1496.3 | 1697.1 | 1628.0 | 1549.4 |
| 40° | 1121.5 | 1408.2 | 1570.5 | 1489.7 | 1398.8 |
| 42.5° | 1052.3 | 1314.3 | 1450.4 | 1352.2 | 1264.8 |
| 45° | 979.6 | 1223.4 | 1328.2 | 1227.0 | 1147.0 |
| 47.5° | 914.1 | 1130.9 | 1213.2 | 1109.1 | 1039.2 |
| 50° | 836.2 | 1034.9 | 1104.0 | 1003.6 | 938.8 |
| 52.5° | 757.6 | 942.5 | 995.6 | 907.5 | 848.6 |
| 55° | 671.0 | 846.4 | 900.2 | 821.6 | 763.4 |
| 57.5° | 591.7 | 761.2 | 803.4 | 741.6 | 682.6 |
| 60° | 516.0 | 676.1 | 720.5 | 661.5 | 612.8 |
| 62.5° | 438.1 | 602.6 | 644.8 | 593.1 | 538.5 |
| 65° | 368.2 | 531.3 | 569.8 | 522.5 | 465.0 |
| 67.5° | 306.4 | 470.9 | 505.8 | 442.5 | 387.9 |
| 70° | 248.2 | 417.0 | 441.0 | 370.4 | 320.9 |
| 72.5° | 196.5 | 366.8 | 374.8 | 301.3 | 257.6 |
| 75° | 153.6 | 323.9 | 304.9 | 243.8 | 206.0 |
| 77.5° | 114.3 | 286.0 | 246.0 | 193.6 | 161.6 |
| 80° | 83.0 | 248.2 | 193.6 | 147.7 | 124.4 |
| 82.5° | 57.5 | 204.5 | 148.5 | 111.3 | 91.7 |
| 85° | 33.5 | 161.6 | 108.4 | 80.8 | 63.3 |
| 87.5° | 12.4 | 131.0 | 79.3 | 54.6 | 42.2 |
| 90° | 1.5 | 103.3 | 59.7 | 39.3 | 27.7 |
| 92.5° | 0.7 | 87.3 | 49.5 | 32.7 | 22.6 |
| 95° | 0.0 | 72.0 | 44.4 | 29.8 | 21.1 |
| 97.5° | 0.0 | 56.8 | 40.8 | 29.1 | 21.1 |
| 100° | 0.0 | 37.1 | 37.8 | 27.7 | 20.4 |
| 102.5° | 0.0 | 21.1 | 35.7 | 27.7 | 21.1 |
| 105° | 0.0 | 18.2 | 32.7 | 28.4 | 21.8 |
| 107.5° | 0.0 | 16.7 | 29.1 | 29.8 | 23.3 |
| 110° | 0.0 | 16.0 | 18.9 | 30.6 | 24.7 |



TEST NUMBER: P232622

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|------|
| 112.5° | 0.0 | 14.6 | 7.3 | 31.3 | 26.2 |
| 115° | 0.0 | 13.8 | 5.8 | 21.8 | 24.7 |
| 117.5° | 0.0 | 13.1 | 5.8 | 15.3 | 16.0 |
| 120° | 0.7 | 11.6 | 5.8 | 4.4 | 4.4 |
| 122.5° | 0.7 | 10.9 | 5.1 | 4.4 | 0.0 |
| 125° | 0.7 | 10.2 | 5.1 | 4.4 | 0.0 |
| 127.5° | 0.7 | 8.7 | 5.1 | 5.1 | 0.0 |
| 130° | 0.7 | 8.0 | 5.1 | 4.4 | 0.0 |
| 132.5° | 0.7 | 7.3 | 5.1 | 5.1 | 0.0 |
| 135° | 0.7 | 5.8 | 5.1 | 5.1 | 0.0 |
| 137.5° | 0.7 | 5.1 | 4.4 | 5.1 | 0.0 |
| 140° | 0.7 | 4.4 | 4.4 | 5.1 | 0.0 |
| 142.5° | 0.7 | 3.6 | 4.4 | 5.1 | 0.0 |
| 145° | 0.7 | 2.9 | 3.6 | 4.4 | 0.0 |
| 147.5° | 0.7 | 2.2 | 3.6 | 4.4 | 0.0 |
| 150° | 0.7 | 2.2 | 2.9 | 4.4 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)