

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: P234056

Luminaire Tested: **14GR-LD5-50-F1-UNV-L950-CD1-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P234056
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33313)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-50-F1-UNV-L950-CD1-U
Description: METALUX 1X4 GRLED TROFFER
WITH F1 LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4955.9 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.24
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

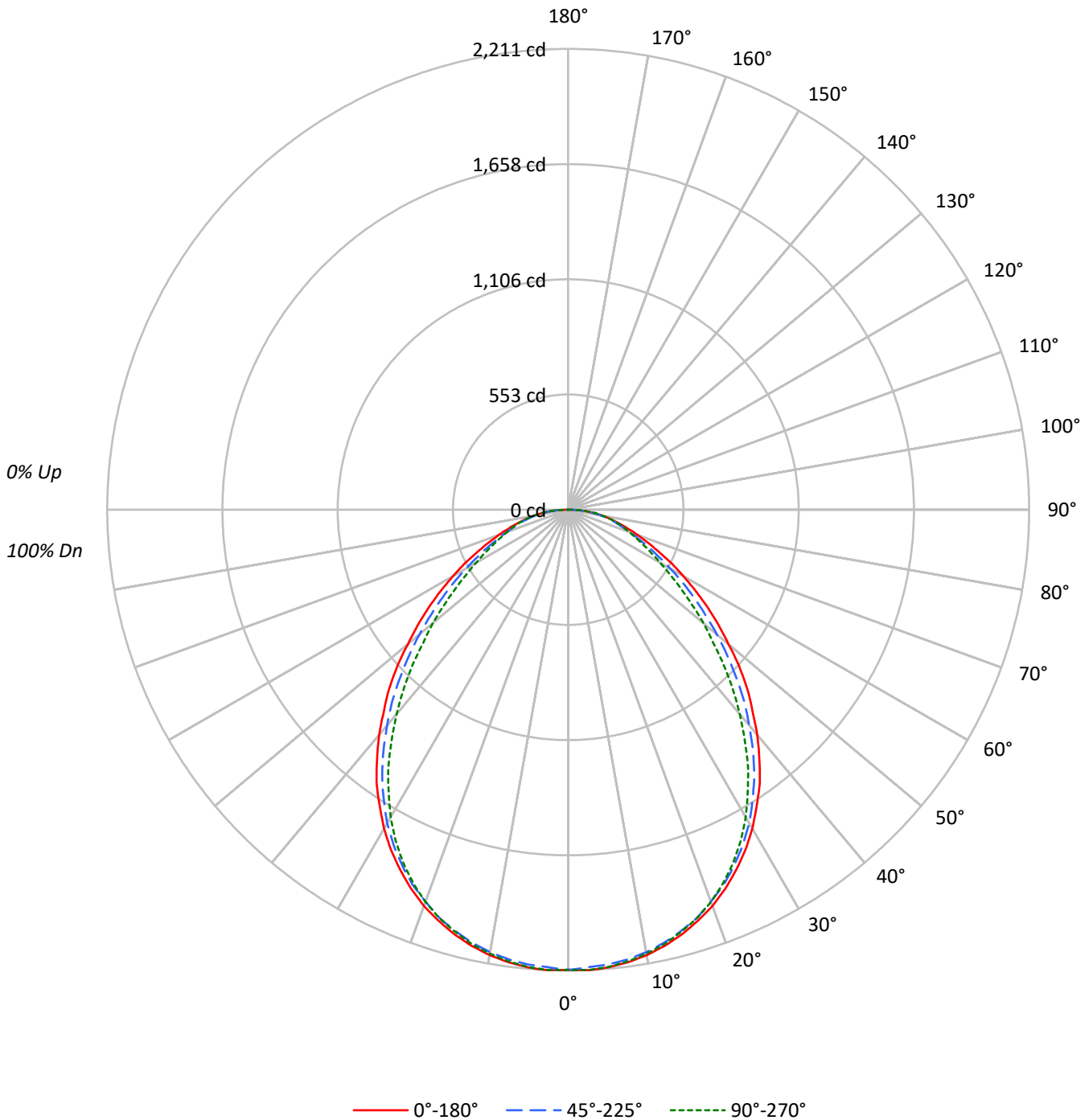
Input Watts (W): 45.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P234056

CATALOG NUMBER: 14GR-LD5-50-F1-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P234056

CATALOG NUMBER: 14GR-LD5-50-F1-UNV-L950-CD1-U

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 | 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 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 88 | | | | | 85 | | | | |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | | | | | 73 | | | | |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | | | | | 63 | | | | |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 64 | 58 | 68 | 62 | 58 | 66 | 61 | 57 | | | | | 55 | | | | |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | | | | | 48 | | | | |
| 6 | 73 | 60 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | | | | | 43 | | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | | | | | 38 | | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 41 | 36 | | | | | 34 | | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | | | | | 31 | | | | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | | | | | 28 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7439 | 7439 | 7439 |
| 5° | 7456 | 7409 | 7448 |
| 10° | 7423 | 7375 | 7399 |
| 15° | 7357 | 7300 | 7312 |
| 20° | 7254 | 7175 | 7178 |
| 25° | 7088 | 7002 | 6954 |
| 30° | 6871 | 6753 | 6626 |
| 35° | 6589 | 6398 | 6187 |
| 40° | 6207 | 5940 | 5629 |
| 45° | 5787 | 5438 | 5033 |
| 50° | 5263 | 4878 | 4445 |
| 55° | 4791 | 4326 | 3875 |
| 60° | 4296 | 3810 | 3442 |
| 65° | 3830 | 3395 | 3163 |
| 70° | 3484 | 3094 | 3060 |
| 75° | 3256 | 3014 | 3166 |
| 80° | 3274 | 3114 | 3295 |
| 85° | 3422 | 3193 | 3642 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 208.8 | 4.2 |
| 10°-20° | 591.8 | 11.9 |
| 20°-30° | 867.8 | 17.5 |
| 30°-40° | 968.5 | 19.5 |
| 40°-50° | 876.9 | 17.7 |
| 50°-60° | 662.1 | 13.4 |
| 60°-70° | 432.8 | 8.7 |
| 70°-80° | 254.2 | 5.1 |
| 80°-90° | 93.1 | 1.9 |
| 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° | 1668.4 | 33.7 |
| 0°-40° | 2636.9 | 53.2 |
| 0°-60° | 4175.9 | 84.3 |
| 0°-90° | 4955.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4955.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2208 | 2208 | 2208 | 2208 | 2208 | |
| 5° | 2204 | 2200 | 2190 | 2203 | 2202 | 209 |
| 15° | 2109 | 2106 | 2093 | 2104 | 2096 | 594 |
| 25° | 1906 | 1900 | 1883 | 1880 | 1870 | 877 |
| 35° | 1602 | 1588 | 1555 | 1520 | 1504 | 998 |
| 45° | 1214 | 1196 | 1141 | 1080 | 1056 | 933 |
| 55° | 816 | 797 | 736 | 678 | 660 | 730 |
| 65° | 480 | 465 | 426 | 401 | 397 | 482 |
| 75° | 250 | 243 | 232 | 236 | 243 | 269 |
| 85° | 88 | 85 | 83 | 93 | 94 | 94 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P234056

CATALOG NUMBER: 14GR-LD5-50-F1-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2207.8 | 2207.8 | 2207.8 | 2207.8 | 2207.8 |
| 2.5° | 2211.3 | 2207.8 | 2197.4 | 2211.3 | 2210.2 |
| 5° | 2204.4 | 2199.7 | 2190.4 | 2203.2 | 2202.0 |
| 7.5° | 2190.4 | 2185.7 | 2176.4 | 2188.1 | 2185.7 |
| 10° | 2169.4 | 2164.8 | 2155.5 | 2168.3 | 2162.4 |
| 12.5° | 2142.7 | 2138.0 | 2127.6 | 2139.2 | 2134.6 |
| 15° | 2108.9 | 2105.5 | 2092.7 | 2104.3 | 2096.2 |
| 17.5° | 2068.2 | 2062.4 | 2053.1 | 2060.1 | 2054.3 |
| 20° | 2022.9 | 2015.9 | 2000.8 | 2007.7 | 2001.9 |
| 22.5° | 1968.2 | 1958.9 | 1948.4 | 1948.4 | 1940.3 |
| 25° | 1906.5 | 1899.6 | 1883.3 | 1879.8 | 1870.5 |
| 27.5° | 1840.3 | 1834.5 | 1813.5 | 1807.7 | 1791.4 |
| 30° | 1765.9 | 1757.7 | 1735.6 | 1717.0 | 1703.0 |
| 32.5° | 1683.2 | 1677.4 | 1647.2 | 1622.7 | 1603.0 |
| 35° | 1601.8 | 1587.9 | 1555.3 | 1520.3 | 1504.0 |
| 37.5° | 1506.4 | 1495.9 | 1455.2 | 1412.1 | 1390.1 |
| 40° | 1411.0 | 1398.2 | 1350.5 | 1302.8 | 1279.6 |
| 42.5° | 1307.5 | 1295.8 | 1250.5 | 1193.5 | 1169.1 |
| 45° | 1214.4 | 1195.8 | 1141.1 | 1079.5 | 1056.2 |
| 47.5° | 1112.0 | 1092.3 | 1034.1 | 969.0 | 942.2 |
| 50° | 1003.9 | 991.1 | 930.6 | 867.8 | 848.0 |
| 52.5° | 907.4 | 887.5 | 830.6 | 769.0 | 747.9 |
| 55° | 815.5 | 796.8 | 736.4 | 678.1 | 659.6 |
| 57.5° | 723.5 | 702.6 | 650.3 | 597.9 | 579.3 |
| 60° | 637.5 | 616.5 | 565.4 | 522.3 | 510.7 |
| 62.5° | 559.6 | 536.3 | 490.9 | 457.2 | 449.0 |
| 65° | 480.4 | 465.3 | 425.8 | 401.3 | 396.7 |
| 67.5° | 414.1 | 395.5 | 364.1 | 352.4 | 350.2 |
| 70° | 353.6 | 340.8 | 314.0 | 310.6 | 310.6 |
| 72.5° | 298.9 | 288.5 | 268.7 | 271.0 | 274.5 |
| 75° | 250.1 | 243.2 | 231.5 | 236.1 | 243.2 |
| 77.5° | 208.2 | 201.2 | 194.3 | 201.2 | 205.9 |
| 80° | 168.7 | 161.7 | 160.5 | 166.3 | 169.8 |
| 82.5° | 126.8 | 120.9 | 122.1 | 131.4 | 135.0 |
| 85° | 88.5 | 84.9 | 82.6 | 93.1 | 94.2 |
| 87.5° | 45.4 | 43.0 | 41.9 | 50.1 | 47.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)