

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: P234060

Luminaire Tested: **14GR-LD5-60-A-UNV-L950-CD1-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P234060
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33314)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-60-A-UNV-L950-CD1-U
Description: METALUX 1X4 GRLED TROFFER
WITH A LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6095.1 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

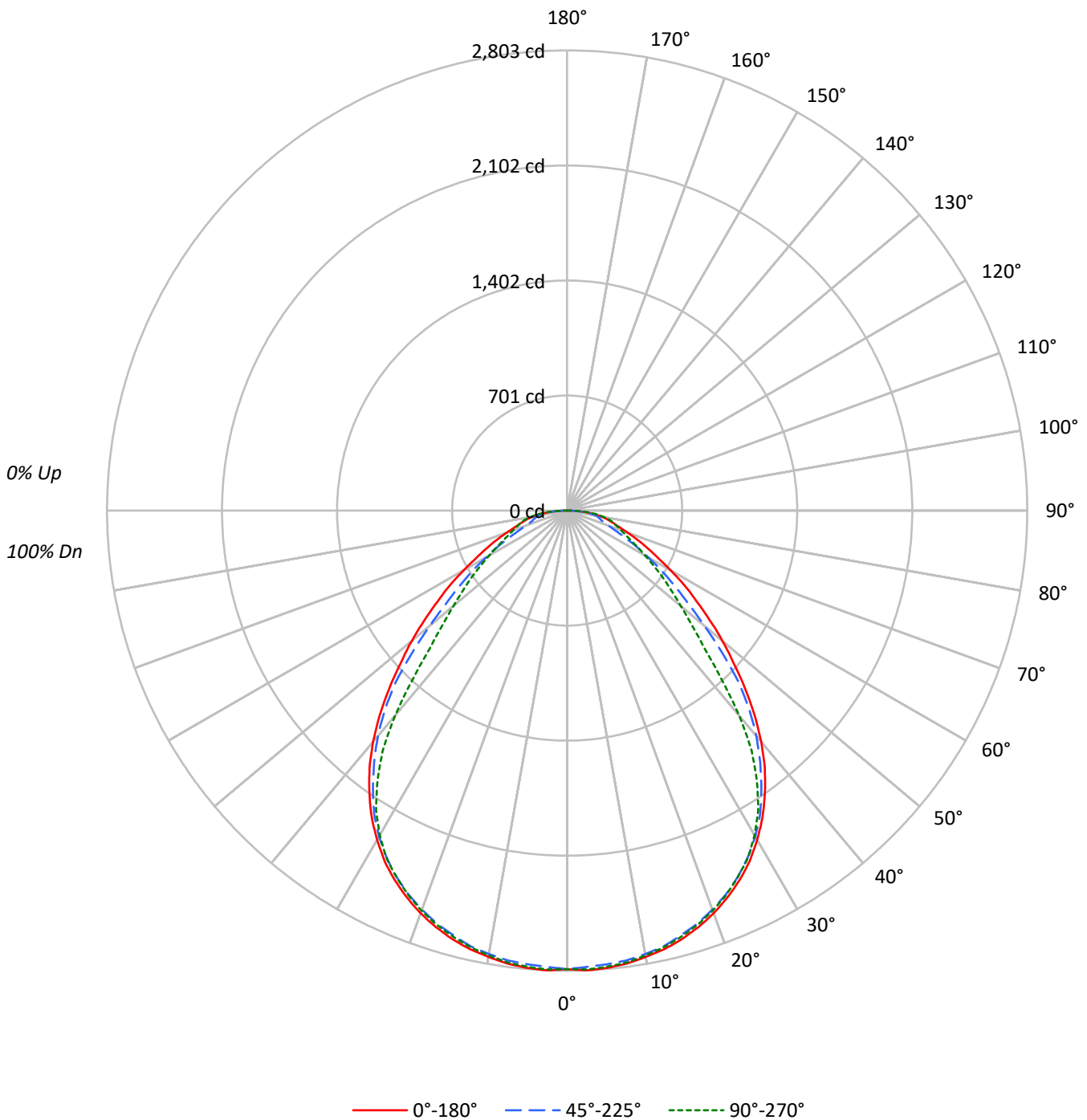
Input Watts (W): 59.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P234060

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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 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 86 | 82 | 88 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 |
| 3 | 93 | 84 | 76 | 71 | 91 | 82 | 75 | 70 | 79 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 |
| 7 | 69 | 57 | 48 | 43 | 67 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 65 | 52 | 44 | 38 | 63 | 51 | 44 | 38 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 9 | 61 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 39 | 34 | 33 |
| 10 | 57 | 44 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 41 | 36 | 31 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9412 | 9412 | 9412 |
| 5° | 9457 | 9385 | 9433 |
| 10° | 9445 | 9387 | 9411 |
| 15° | 9427 | 9343 | 9373 |
| 20° | 9360 | 9274 | 9299 |
| 25° | 9237 | 9148 | 9153 |
| 30° | 9011 | 8917 | 8879 |
| 35° | 8642 | 8484 | 8292 |
| 40° | 8089 | 7883 | 7173 |
| 45° | 7306 | 7029 | 5606 |
| 50° | 6479 | 5707 | 4742 |
| 55° | 5655 | 4682 | 4183 |
| 60° | 4903 | 3854 | 3692 |
| 65° | 4301 | 3092 | 3408 |
| 70° | 3835 | 2623 | 3431 |
| 75° | 3742 | 2764 | 3834 |
| 80° | 4149 | 3489 | 4395 |
| 85° | 4322 | 3723 | 5142 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 265.0 | 4.3 |
| 10°-20° | 759.2 | 12.5 |
| 20°-30° | 1135.6 | 18.6 |
| 30°-40° | 1281.9 | 21.0 |
| 40°-50° | 1087.5 | 17.8 |
| 50°-60° | 735.8 | 12.1 |
| 60°-70° | 439.2 | 7.2 |
| 70°-80° | 275.1 | 4.5 |
| 80°-90° | 115.7 | 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° | 2159.8 | 35.4 |
| 0°-40° | 3441.7 | 56.5 |
| 0°-60° | 5265.1 | 86.4 |
| 0°-90° | 6095.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6095.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2793 | 2793 | 2793 | 2793 | 2793 | |
| 5° | 2796 | 2787 | 2775 | 2794 | 2789 | 266 |
| 15° | 2702 | 2697 | 2678 | 2697 | 2687 | 762 |
| 25° | 2484 | 2476 | 2460 | 2472 | 2462 | 1142 |
| 35° | 2101 | 2087 | 2063 | 2044 | 2016 | 1309 |
| 45° | 1533 | 1539 | 1475 | 1264 | 1176 | 1181 |
| 55° | 963 | 917 | 797 | 713 | 712 | 867 |
| 65° | 539 | 447 | 388 | 413 | 428 | 539 |
| 75° | 287 | 256 | 212 | 280 | 294 | 309 |
| 85° | 112 | 106 | 96 | 125 | 133 | 120 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P234060

CATALOG NUMBER: 14GR-LD5-60-A-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2793.1 | 2793.1 | 2793.1 | 2793.1 | 2793.1 |
| 2.5° | 2803.0 | 2794.4 | 2781.7 | 2798.7 | 2797.2 |
| 5° | 2795.9 | 2787.4 | 2774.7 | 2794.4 | 2788.8 |
| 7.5° | 2783.1 | 2776.0 | 2763.3 | 2781.7 | 2776.0 |
| 10° | 2760.5 | 2754.8 | 2743.5 | 2759.0 | 2750.6 |
| 12.5° | 2736.4 | 2732.2 | 2718.0 | 2732.2 | 2723.6 |
| 15° | 2702.4 | 2696.8 | 2678.4 | 2696.8 | 2686.9 |
| 17.5° | 2659.9 | 2652.9 | 2637.4 | 2652.9 | 2644.4 |
| 20° | 2610.4 | 2602.0 | 2586.4 | 2602.0 | 2593.4 |
| 22.5° | 2551.0 | 2543.9 | 2529.7 | 2543.9 | 2532.5 |
| 25° | 2484.4 | 2475.9 | 2460.4 | 2471.7 | 2461.8 |
| 27.5° | 2408.0 | 2396.7 | 2382.5 | 2391.0 | 2385.4 |
| 30° | 2316.0 | 2301.8 | 2291.9 | 2291.9 | 2282.0 |
| 32.5° | 2215.5 | 2205.6 | 2188.6 | 2178.6 | 2165.9 |
| 35° | 2100.8 | 2086.6 | 2062.6 | 2044.1 | 2015.8 |
| 37.5° | 1977.6 | 1960.7 | 1930.9 | 1884.2 | 1846.0 |
| 40° | 1838.9 | 1817.6 | 1792.2 | 1700.2 | 1630.8 |
| 42.5° | 1690.2 | 1686.0 | 1642.1 | 1485.0 | 1388.8 |
| 45° | 1533.2 | 1538.8 | 1475.1 | 1264.2 | 1176.4 |
| 47.5° | 1374.6 | 1394.4 | 1278.3 | 1071.6 | 1026.3 |
| 50° | 1235.9 | 1243.0 | 1088.6 | 930.1 | 904.6 |
| 52.5° | 1092.9 | 1081.5 | 928.7 | 818.3 | 799.8 |
| 55° | 962.6 | 917.4 | 797.0 | 713.4 | 712.1 |
| 57.5° | 847.9 | 764.4 | 681.0 | 618.6 | 625.7 |
| 60° | 727.6 | 634.2 | 571.9 | 537.9 | 547.8 |
| 62.5° | 621.4 | 532.3 | 477.1 | 467.2 | 484.1 |
| 65° | 539.4 | 447.4 | 387.8 | 413.3 | 427.5 |
| 67.5° | 461.5 | 383.7 | 315.7 | 376.6 | 382.2 |
| 70° | 389.3 | 332.7 | 266.2 | 346.8 | 348.3 |
| 72.5° | 329.9 | 294.5 | 230.8 | 314.3 | 318.5 |
| 75° | 287.4 | 256.3 | 212.3 | 280.3 | 294.5 |
| 77.5° | 252.0 | 219.4 | 196.7 | 242.1 | 266.2 |
| 80° | 213.8 | 177.0 | 179.8 | 202.5 | 226.5 |
| 82.5° | 164.3 | 137.3 | 143.0 | 167.1 | 184.0 |
| 85° | 111.8 | 106.2 | 96.3 | 124.6 | 133.0 |
| 87.5° | 59.4 | 56.6 | 49.5 | 70.8 | 66.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)