

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: P290785

Luminaire Tested: **14GR-LD5-43-F125-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33313)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-43-F125-UNV-L83050-W2A1-U-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4581.0 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.24
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

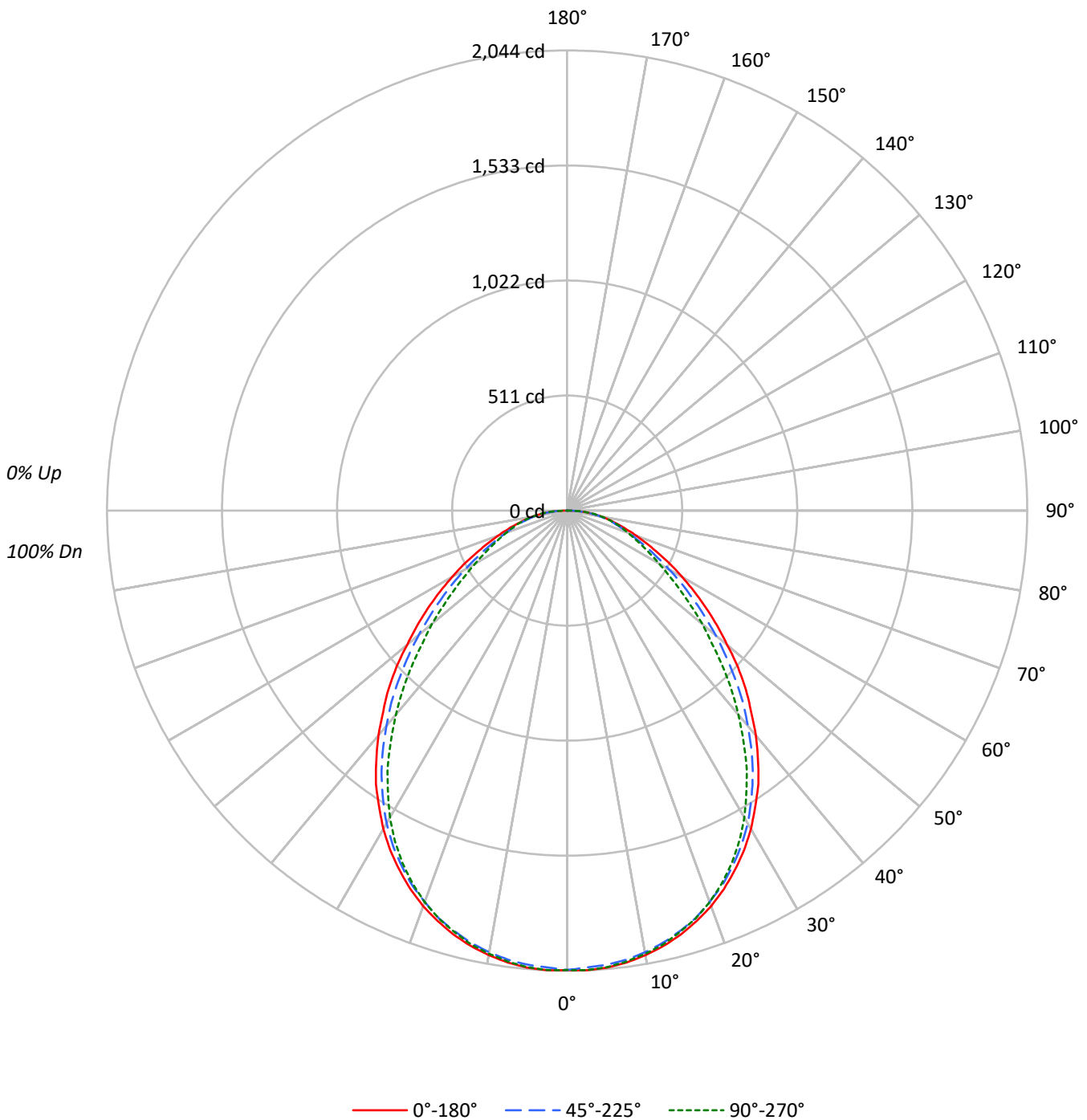
Input Watts (W): 37.386
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P290785

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5492 | 5492 | 5492 |
| 5° | 5504 | 5469 | 5498 |
| 10° | 5479 | 5444 | 5462 |
| 15° | 5431 | 5389 | 5398 |
| 20° | 5355 | 5296 | 5299 |
| 25° | 5233 | 5169 | 5134 |
| 30° | 5072 | 4985 | 4891 |
| 35° | 4864 | 4723 | 4567 |
| 40° | 4582 | 4385 | 4155 |
| 45° | 4272 | 4014 | 3715 |
| 50° | 3885 | 3601 | 3282 |
| 55° | 3536 | 3193 | 2860 |
| 60° | 3171 | 2813 | 2540 |
| 65° | 2828 | 2506 | 2335 |
| 70° | 2572 | 2284 | 2259 |
| 75° | 2404 | 2225 | 2336 |
| 80° | 2416 | 2300 | 2433 |
| 85° | 2523 | 2356 | 2689 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 193.0 | 4.2 |
| 10°-20° | 547.1 | 11.9 |
| 20°-30° | 802.1 | 17.5 |
| 30°-40° | 895.3 | 19.5 |
| 40°-50° | 810.5 | 17.7 |
| 50°-60° | 612.0 | 13.4 |
| 60°-70° | 400.1 | 8.7 |
| 70°-80° | 235.0 | 5.1 |
| 80°-90° | 86.0 | 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° | 1542.2 | 33.7 |
| 0°-40° | 2437.4 | 53.2 |
| 0°-60° | 3860.0 | 84.3 |
| 0°-90° | 4581.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4581.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2041 | 2041 | 2041 | 2041 | 2041 | |
| 5° | 2038 | 2033 | 2025 | 2036 | 2035 | 193 |
| 15° | 1949 | 1946 | 1934 | 1945 | 1938 | 549 |
| 25° | 1762 | 1756 | 1741 | 1738 | 1729 | 811 |
| 35° | 1481 | 1468 | 1438 | 1405 | 1390 | 922 |
| 45° | 1123 | 1105 | 1055 | 998 | 976 | 863 |
| 55° | 754 | 736 | 681 | 627 | 610 | 674 |
| 65° | 444 | 430 | 394 | 371 | 367 | 446 |
| 75° | 231 | 225 | 214 | 218 | 225 | 248 |
| 85° | 82 | 78 | 76 | 86 | 87 | 87 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P290785

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2040.8 | 2040.8 | 2040.8 | 2040.8 | 2040.8 |
| 2.5° | 2044.0 | 2040.8 | 2031.1 | 2044.0 | 2043.0 |
| 5° | 2037.6 | 2033.3 | 2024.7 | 2036.5 | 2035.4 |
| 7.5° | 2024.7 | 2020.4 | 2011.8 | 2022.5 | 2020.4 |
| 10° | 2005.3 | 2001.0 | 1992.4 | 2004.2 | 1998.9 |
| 12.5° | 1980.6 | 1976.3 | 1966.6 | 1977.4 | 1973.1 |
| 15° | 1949.4 | 1946.2 | 1934.4 | 1945.1 | 1937.6 |
| 17.5° | 1911.8 | 1906.4 | 1897.8 | 1904.3 | 1898.9 |
| 20° | 1869.8 | 1863.4 | 1849.4 | 1855.9 | 1850.5 |
| 22.5° | 1819.3 | 1810.7 | 1801.0 | 1801.0 | 1793.5 |
| 25° | 1762.3 | 1755.9 | 1740.8 | 1737.6 | 1729.0 |
| 27.5° | 1701.0 | 1695.7 | 1676.3 | 1670.9 | 1655.9 |
| 30° | 1632.2 | 1624.7 | 1604.3 | 1587.1 | 1574.2 |
| 32.5° | 1555.9 | 1550.5 | 1522.5 | 1500.0 | 1481.7 |
| 35° | 1480.6 | 1467.7 | 1437.6 | 1405.3 | 1390.3 |
| 37.5° | 1392.4 | 1382.8 | 1345.1 | 1305.3 | 1284.9 |
| 40° | 1304.3 | 1292.4 | 1248.4 | 1204.3 | 1182.8 |
| 42.5° | 1208.6 | 1197.8 | 1155.9 | 1103.2 | 1080.6 |
| 45° | 1122.6 | 1105.3 | 1054.8 | 997.8 | 976.3 |
| 47.5° | 1027.9 | 1009.7 | 955.9 | 895.7 | 870.9 |
| 50° | 927.9 | 916.1 | 860.2 | 802.1 | 783.9 |
| 52.5° | 838.7 | 820.4 | 767.7 | 710.7 | 691.4 |
| 55° | 753.7 | 736.5 | 680.6 | 626.9 | 609.7 |
| 57.5° | 668.8 | 649.4 | 601.1 | 552.7 | 535.5 |
| 60° | 589.2 | 569.9 | 522.6 | 482.8 | 472.0 |
| 62.5° | 517.2 | 495.7 | 453.8 | 422.6 | 415.0 |
| 65° | 444.1 | 430.1 | 393.5 | 371.0 | 366.7 |
| 67.5° | 382.8 | 365.6 | 336.6 | 325.8 | 323.6 |
| 70° | 326.9 | 315.0 | 290.3 | 287.1 | 287.1 |
| 72.5° | 276.3 | 266.7 | 248.4 | 250.5 | 253.8 |
| 75° | 231.2 | 224.7 | 214.0 | 218.3 | 224.7 |
| 77.5° | 192.5 | 186.0 | 179.6 | 186.0 | 190.3 |
| 80° | 155.9 | 149.5 | 148.4 | 153.8 | 157.0 |
| 82.5° | 117.2 | 111.8 | 112.9 | 121.5 | 124.7 |
| 85° | 81.7 | 78.5 | 76.3 | 86.0 | 87.1 |
| 87.5° | 41.9 | 39.8 | 38.7 | 46.2 | 44.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)