

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: P476283

Luminaire Tested: **14GR-LD5-43-A-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476283
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-43-A-UNV-L830-CD1-U
Description: GR 1'X4' LED TROFFER w/ A LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4054.0 lumens
Efficiency: N/A
Efficacy: 122.8 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

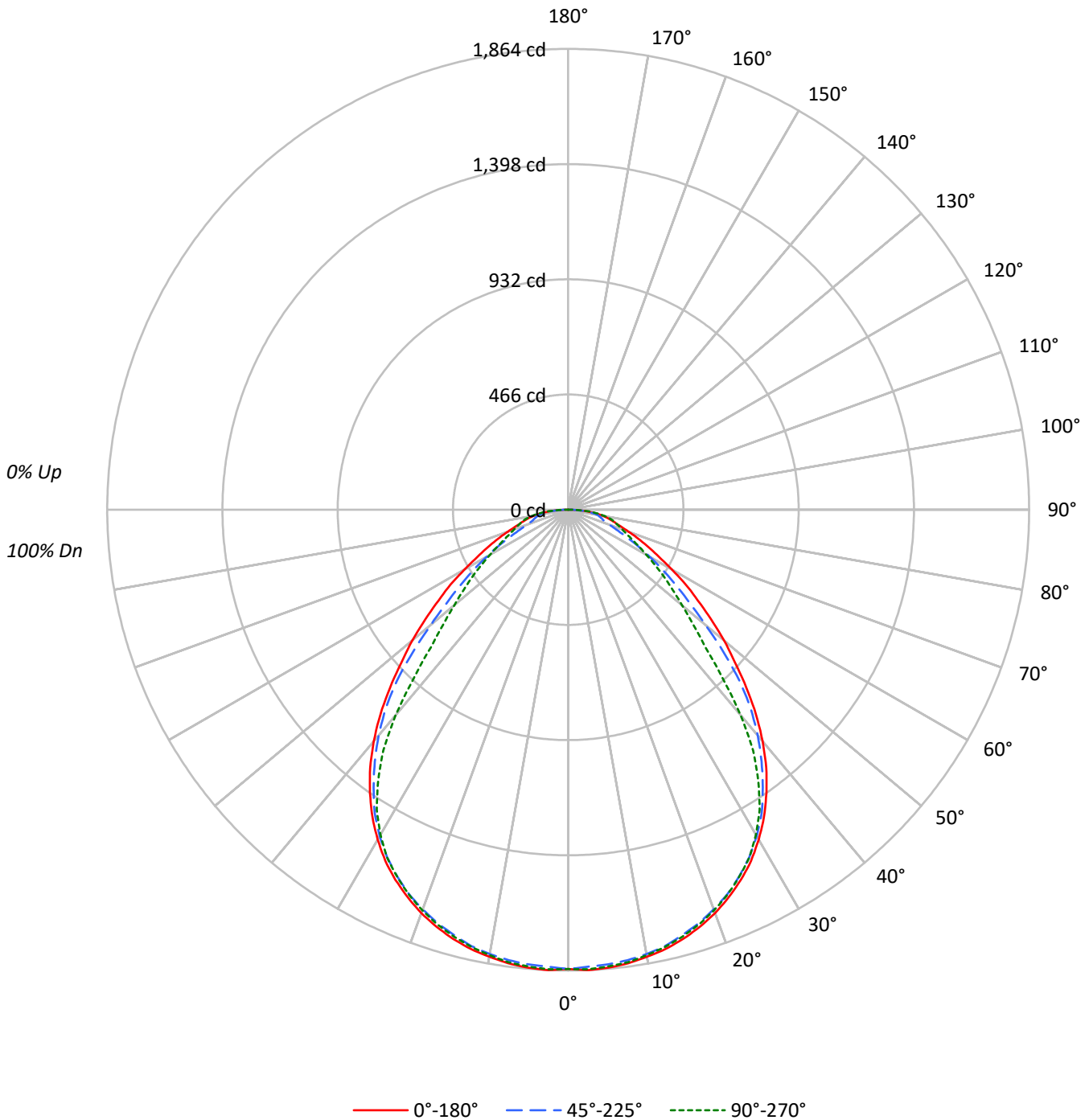
Input Watts (W): 33
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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° | 6260 | 6260 | 6260 |
| 5° | 6290 | 6243 | 6274 |
| 10° | 6282 | 6244 | 6260 |
| 15° | 6270 | 6215 | 6234 |
| 20° | 6226 | 6168 | 6186 |
| 25° | 6143 | 6084 | 6088 |
| 30° | 5993 | 5931 | 5906 |
| 35° | 5748 | 5644 | 5515 |
| 40° | 5380 | 5244 | 4772 |
| 45° | 4859 | 4676 | 3729 |
| 50° | 4310 | 3795 | 3154 |
| 55° | 3761 | 3114 | 2782 |
| 60° | 3261 | 2563 | 2456 |
| 65° | 2861 | 2056 | 2268 |
| 70° | 2551 | 1745 | 2283 |
| 75° | 2488 | 1840 | 2550 |
| 80° | 2757 | 2321 | 2922 |
| 85° | 2873 | 2474 | 3425 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 176.3 | 4.3 |
| 10°-20° | 504.9 | 12.5 |
| 20°-30° | 755.3 | 18.6 |
| 30°-40° | 852.7 | 21.0 |
| 40°-50° | 723.4 | 17.8 |
| 50°-60° | 489.4 | 12.1 |
| 60°-70° | 292.1 | 7.2 |
| 70°-80° | 183.0 | 4.5 |
| 80°-90° | 77.0 | 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° | 1436.5 | 35.4 |
| 0°-40° | 2289.2 | 56.5 |
| 0°-60° | 3502.0 | 86.4 |
| 0°-90° | 4054.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4054.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1858 | 1858 | 1858 | 1858 | 1858 | |
| 5° | 1860 | 1854 | 1846 | 1859 | 1855 | 177 |
| 15° | 1798 | 1794 | 1782 | 1794 | 1787 | 507 |
| 25° | 1652 | 1647 | 1636 | 1644 | 1637 | 760 |
| 35° | 1397 | 1388 | 1372 | 1360 | 1341 | 871 |
| 45° | 1020 | 1024 | 981 | 841 | 782 | 786 |
| 55° | 640 | 610 | 530 | 475 | 474 | 577 |
| 65° | 359 | 298 | 258 | 275 | 284 | 359 |
| 75° | 191 | 170 | 141 | 186 | 196 | 205 |
| 85° | 74 | 71 | 64 | 83 | 89 | 80 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P476283

CATALOG NUMBER: 14GR-LD5-43-A-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1857.8 | 1857.8 | 1857.8 | 1857.8 | 1857.8 |
| 2.5° | 1864.3 | 1858.6 | 1850.1 | 1861.6 | 1860.6 |
| 5° | 1859.6 | 1854.1 | 1845.6 | 1858.6 | 1854.9 |
| 7.5° | 1851.1 | 1846.4 | 1838.1 | 1850.1 | 1846.4 |
| 10° | 1836.1 | 1832.3 | 1824.8 | 1835.1 | 1829.6 |
| 12.5° | 1820.1 | 1817.3 | 1807.8 | 1817.3 | 1811.6 |
| 15° | 1797.5 | 1793.8 | 1781.5 | 1793.8 | 1787.1 |
| 17.5° | 1769.3 | 1764.5 | 1754.2 | 1764.5 | 1758.8 |
| 20° | 1736.3 | 1730.7 | 1720.2 | 1730.7 | 1725.0 |
| 22.5° | 1696.7 | 1692.0 | 1682.7 | 1692.0 | 1684.5 |
| 25° | 1652.4 | 1646.9 | 1636.4 | 1643.9 | 1637.4 |
| 27.5° | 1601.6 | 1594.1 | 1584.7 | 1590.4 | 1586.6 |
| 30° | 1540.4 | 1531.1 | 1524.4 | 1524.4 | 1517.8 |
| 32.5° | 1473.6 | 1467.0 | 1455.8 | 1449.1 | 1440.6 |
| 35° | 1397.3 | 1388.0 | 1372.0 | 1359.7 | 1340.7 |
| 37.5° | 1315.4 | 1304.2 | 1284.4 | 1253.2 | 1227.9 |
| 40° | 1223.1 | 1208.9 | 1192.1 | 1130.8 | 1084.8 |
| 42.5° | 1124.3 | 1121.3 | 1092.3 | 987.7 | 923.7 |
| 45° | 1019.7 | 1023.5 | 981.2 | 840.9 | 782.5 |
| 47.5° | 914.2 | 927.4 | 850.3 | 712.8 | 682.7 |
| 50° | 822.1 | 826.6 | 724.0 | 618.7 | 601.7 |
| 52.5° | 727.0 | 719.3 | 617.7 | 544.2 | 531.9 |
| 55° | 640.2 | 610.2 | 530.1 | 474.6 | 473.6 |
| 57.5° | 563.9 | 508.4 | 452.8 | 411.5 | 416.3 |
| 60° | 483.9 | 421.8 | 380.3 | 357.8 | 364.5 |
| 62.5° | 413.3 | 354.0 | 317.2 | 310.7 | 322.0 |
| 65° | 358.8 | 297.5 | 257.9 | 274.9 | 284.4 |
| 67.5° | 307.0 | 255.2 | 209.9 | 250.4 | 254.2 |
| 70° | 258.9 | 221.2 | 177.1 | 230.7 | 231.7 |
| 72.5° | 219.4 | 195.9 | 153.4 | 209.1 | 211.9 |
| 75° | 191.1 | 170.4 | 141.3 | 186.4 | 195.9 |
| 77.5° | 167.6 | 145.9 | 130.9 | 161.1 | 177.1 |
| 80° | 142.1 | 117.6 | 119.6 | 134.6 | 150.6 |
| 82.5° | 109.3 | 91.3 | 95.1 | 111.1 | 122.4 |
| 85° | 74.3 | 70.6 | 64.0 | 82.8 | 88.6 |
| 87.5° | 39.5 | 37.8 | 33.0 | 47.0 | 44.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)