

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: P293298

Luminaire Tested: **24GR-LD5-38-F125-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293298
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-F125-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3271.0 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

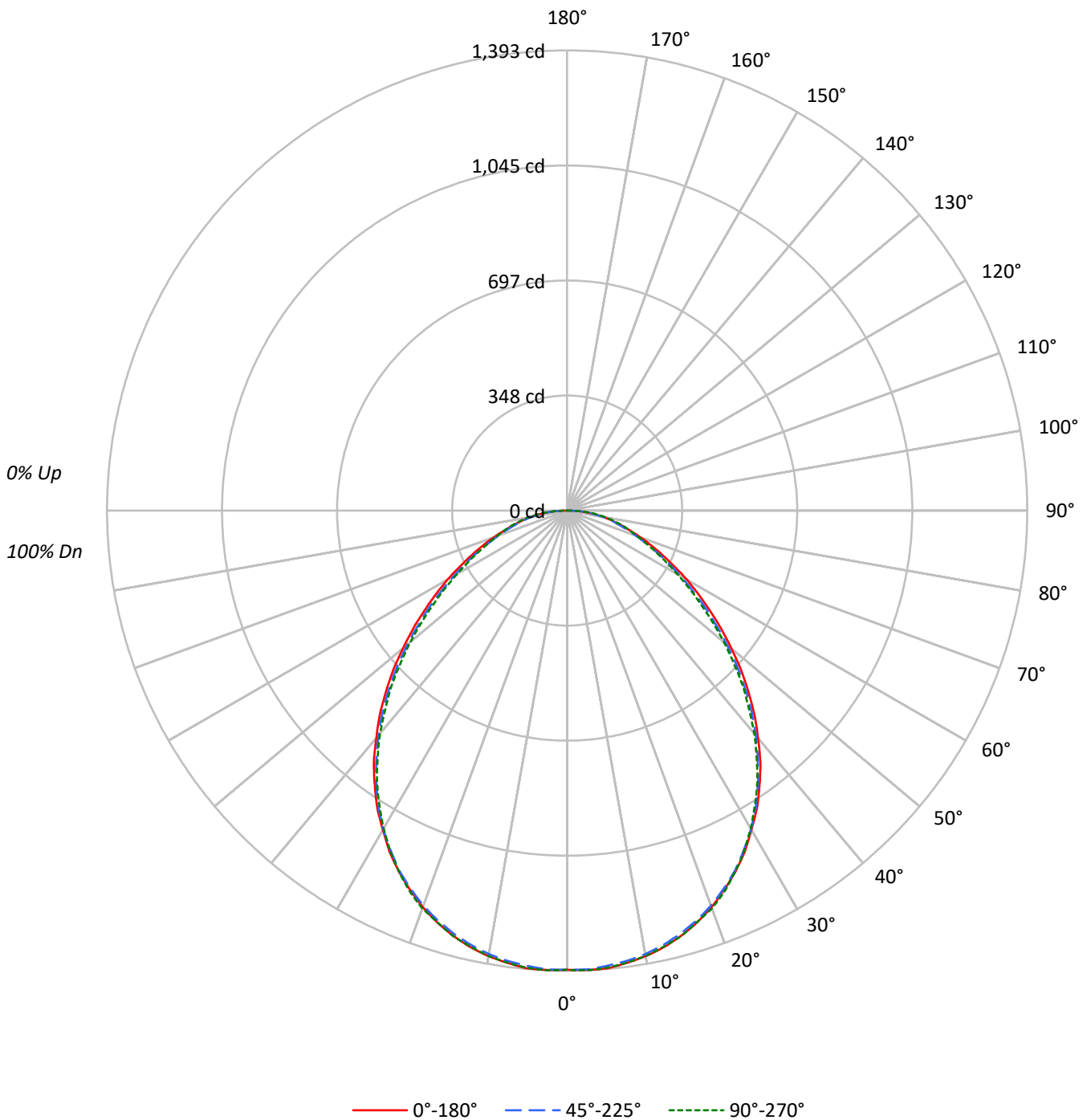
Input Watts (W): 25.871391
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 77 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 90 | 80 | 73 | 68 | 78 | 71 | 66 | 75 | 70 | 65 | 72 | 68 | 64 | 62 |
| 4 | 85 | 73 | 65 | 59 | 82 | 72 | 64 | 58 | 70 | 63 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 |
| 6 | 72 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 42 |
| 7 | 67 | 54 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 44 | 39 | 37 |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 33 |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1870 | 1870 | 1870 |
| 5° | 1879 | 1869 | 1876 |
| 10° | 1871 | 1862 | 1871 |
| 15° | 1857 | 1847 | 1858 |
| 20° | 1829 | 1822 | 1835 |
| 25° | 1790 | 1785 | 1789 |
| 30° | 1733 | 1730 | 1726 |
| 35° | 1668 | 1655 | 1648 |
| 40° | 1579 | 1561 | 1548 |
| 45° | 1477 | 1450 | 1432 |
| 50° | 1357 | 1321 | 1298 |
| 55° | 1238 | 1192 | 1157 |
| 60° | 1124 | 1063 | 1036 |
| 65° | 1012 | 955 | 939 |
| 70° | 927 | 867 | 891 |
| 75° | 867 | 827 | 888 |
| 80° | 859 | 844 | 927 |
| 85° | 877 | 885 | 1010 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 131.6 | 4.0 |
| 10°-20° | 374.0 | 11.4 |
| 20°-30° | 552.6 | 16.9 |
| 30°-40° | 628.2 | 19.2 |
| 40°-50° | 586.7 | 17.9 |
| 50°-60° | 456.2 | 13.9 |
| 60°-70° | 302.7 | 9.3 |
| 70°-80° | 175.2 | 5.4 |
| 80°-90° | 63.7 | 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° | 1058.2 | 32.4 |
| 0°-40° | 1686.4 | 51.6 |
| 0°-60° | 2729.4 | 83.4 |
| 0°-90° | 3271.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3271.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1390 | 1390 | 1390 | 1390 | 1390 | |
| 5° | 1391 | 1384 | 1384 | 1386 | 1389 | 132 |
| 15° | 1333 | 1326 | 1326 | 1325 | 1334 | 376 |
| 25° | 1206 | 1200 | 1202 | 1200 | 1205 | 554 |
| 35° | 1015 | 1010 | 1008 | 1001 | 1004 | 634 |
| 45° | 776 | 770 | 762 | 752 | 753 | 598 |
| 55° | 528 | 520 | 508 | 495 | 493 | 473 |
| 65° | 318 | 308 | 300 | 294 | 295 | 318 |
| 75° | 167 | 163 | 159 | 166 | 171 | 178 |
| 85° | 57 | 56 | 57 | 65 | 65 | 62 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293298

CATALOG NUMBER: 24GR-LD5-38-F125-UNV-L93050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1390.2 | 1390.2 | 1390.2 | 1390.2 | 1390.2 |
| 2.5° | 1392.2 | 1388.1 | 1390.2 | 1388.6 | 1393.2 |
| 5° | 1391.2 | 1384.0 | 1383.5 | 1386.1 | 1389.2 |
| 7.5° | 1381.5 | 1373.8 | 1375.3 | 1375.3 | 1380.5 |
| 10° | 1369.7 | 1362.1 | 1363.1 | 1363.6 | 1369.2 |
| 12.5° | 1353.9 | 1346.2 | 1346.7 | 1346.2 | 1351.8 |
| 15° | 1332.9 | 1326.3 | 1325.8 | 1325.2 | 1333.9 |
| 17.5° | 1307.3 | 1298.1 | 1301.2 | 1301.7 | 1306.3 |
| 20° | 1277.7 | 1270.5 | 1272.6 | 1272.1 | 1281.8 |
| 22.5° | 1242.4 | 1237.3 | 1238.8 | 1237.8 | 1247.0 |
| 25° | 1205.6 | 1200.5 | 1202.5 | 1200.0 | 1205.1 |
| 27.5° | 1164.2 | 1160.6 | 1158.6 | 1157.0 | 1160.6 |
| 30° | 1115.6 | 1113.6 | 1113.6 | 1106.9 | 1111.0 |
| 32.5° | 1069.6 | 1063.0 | 1063.0 | 1060.4 | 1057.8 |
| 35° | 1015.4 | 1010.3 | 1007.7 | 1000.6 | 1003.6 |
| 37.5° | 961.2 | 949.4 | 948.4 | 942.8 | 942.8 |
| 40° | 898.8 | 892.2 | 888.6 | 882.5 | 881.4 |
| 42.5° | 839.5 | 832.9 | 826.7 | 816.5 | 814.5 |
| 45° | 776.1 | 770.0 | 761.8 | 752.1 | 752.6 |
| 47.5° | 713.2 | 704.5 | 696.9 | 685.1 | 683.6 |
| 50° | 648.3 | 642.2 | 630.9 | 620.7 | 620.2 |
| 52.5° | 587.5 | 577.7 | 567.5 | 555.3 | 555.3 |
| 55° | 527.6 | 520.0 | 508.2 | 494.9 | 493.4 |
| 57.5° | 470.4 | 463.2 | 449.9 | 440.2 | 437.7 |
| 60° | 417.7 | 407.5 | 395.2 | 387.0 | 385.0 |
| 62.5° | 365.1 | 355.9 | 346.6 | 338.5 | 338.0 |
| 65° | 318.0 | 308.3 | 300.1 | 294.5 | 295.0 |
| 67.5° | 275.6 | 267.4 | 258.2 | 256.7 | 257.2 |
| 70° | 235.7 | 227.0 | 220.4 | 223.9 | 226.5 |
| 72.5° | 197.9 | 193.3 | 188.7 | 193.8 | 197.4 |
| 75° | 166.7 | 162.6 | 159.0 | 166.2 | 170.8 |
| 77.5° | 138.0 | 135.0 | 134.5 | 140.6 | 144.7 |
| 80° | 110.9 | 107.4 | 108.9 | 116.1 | 119.6 |
| 82.5° | 84.4 | 81.8 | 82.3 | 91.0 | 93.6 |
| 85° | 56.8 | 55.7 | 57.3 | 64.9 | 65.4 |
| 87.5° | 30.2 | 30.2 | 31.2 | 35.8 | 34.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)