

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: P293306

Luminaire Tested: **24GR-LD5-42-F125-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293306
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-LD5-42-F125-UNV-L93050-W2A1-U-5000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3915.0 lumens
Efficiency: N/A
Efficacy: 134.2 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

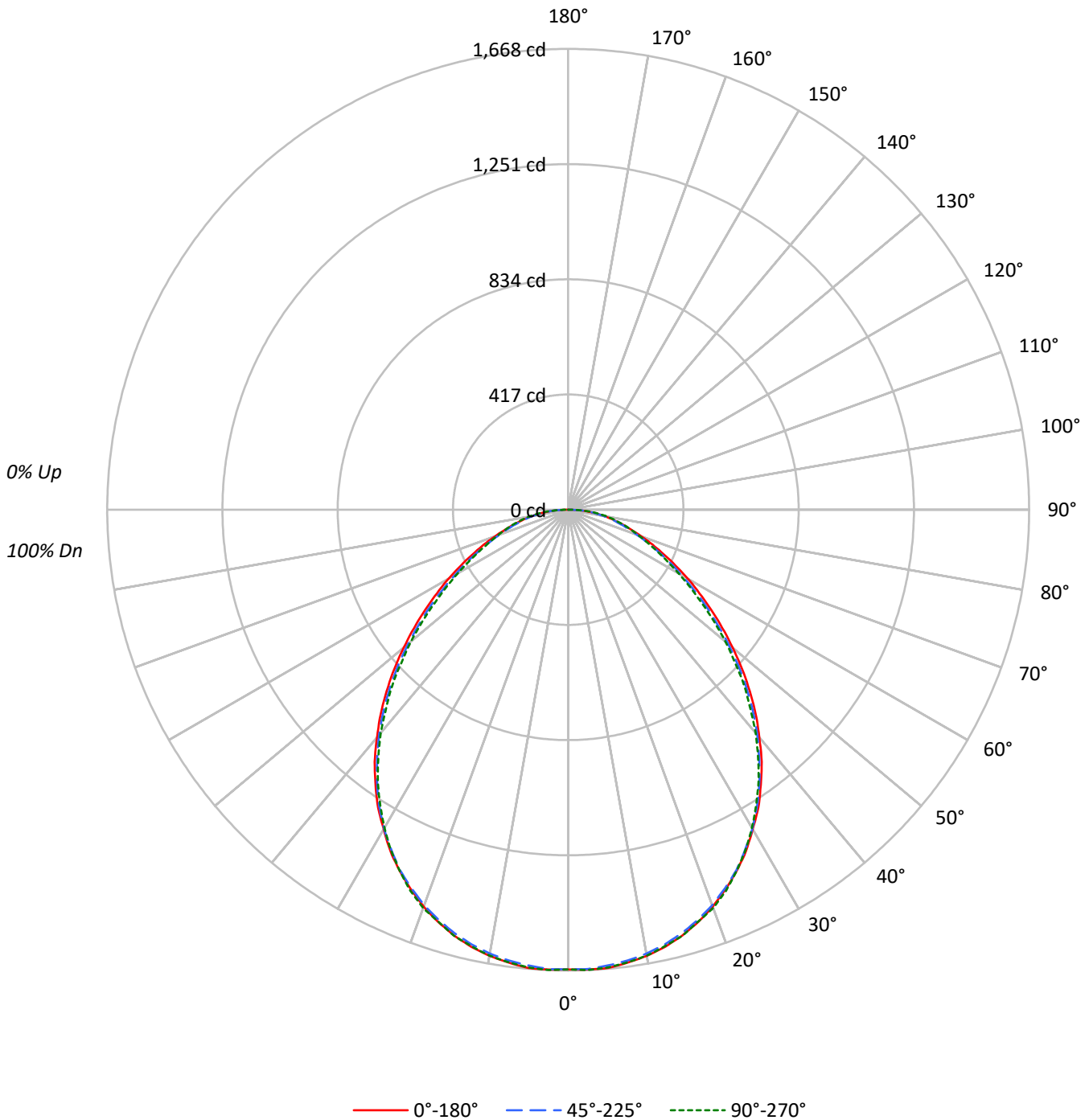
Input Watts (W): 29.168706
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 73 | 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° | 2239 | 2239 | 2239 |
| 5° | 2249 | 2237 | 2246 |
| 10° | 2240 | 2229 | 2239 |
| 15° | 2222 | 2210 | 2224 |
| 20° | 2190 | 2181 | 2197 |
| 25° | 2142 | 2137 | 2141 |
| 30° | 2075 | 2071 | 2066 |
| 35° | 1996 | 1981 | 1973 |
| 40° | 1890 | 1868 | 1853 |
| 45° | 1768 | 1735 | 1714 |
| 50° | 1624 | 1581 | 1554 |
| 55° | 1481 | 1427 | 1385 |
| 60° | 1345 | 1273 | 1240 |
| 65° | 1212 | 1144 | 1124 |
| 70° | 1110 | 1037 | 1066 |
| 75° | 1037 | 989 | 1063 |
| 80° | 1029 | 1010 | 1110 |
| 85° | 1048 | 1057 | 1209 |



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CATALOG NUMBER: 24GR-LD5-42-F125-UNV-L93050-W2A1-U-5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 157.5 | 4.0 |
| 10°-20° | 447.7 | 11.4 |
| 20°-30° | 661.4 | 16.9 |
| 30°-40° | 751.9 | 19.2 |
| 40°-50° | 702.2 | 17.9 |
| 50°-60° | 546.1 | 13.9 |
| 60°-70° | 362.3 | 9.3 |
| 70°-80° | 209.7 | 5.4 |
| 80°-90° | 76.2 | 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° | 1266.5 | 32.4 |
| 0°-40° | 2018.5 | 51.6 |
| 0°-60° | 3266.7 | 83.4 |
| 0°-90° | 3915.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3915.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1664 | 1664 | 1664 | 1664 | 1664 | |
| 5° | 1665 | 1656 | 1656 | 1659 | 1663 | 158 |
| 15° | 1595 | 1587 | 1587 | 1586 | 1597 | 449 |
| 25° | 1443 | 1437 | 1439 | 1436 | 1442 | 663 |
| 35° | 1215 | 1209 | 1206 | 1198 | 1201 | 759 |
| 45° | 929 | 922 | 912 | 900 | 901 | 716 |
| 55° | 632 | 622 | 608 | 592 | 590 | 566 |
| 65° | 381 | 369 | 359 | 352 | 353 | 380 |
| 75° | 200 | 195 | 190 | 199 | 204 | 213 |
| 85° | 68 | 67 | 68 | 78 | 78 | 74 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293306

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1663.9 | 1663.9 | 1663.9 | 1663.9 | 1663.9 |
| 2.5° | 1666.3 | 1661.4 | 1663.9 | 1662.0 | 1667.5 |
| 5° | 1665.1 | 1656.5 | 1655.9 | 1659.0 | 1662.7 |
| 7.5° | 1653.5 | 1644.3 | 1646.1 | 1646.1 | 1652.2 |
| 10° | 1639.4 | 1630.2 | 1631.4 | 1632.1 | 1638.8 |
| 12.5° | 1620.4 | 1611.2 | 1611.9 | 1611.2 | 1618.0 |
| 15° | 1595.3 | 1587.4 | 1586.8 | 1586.2 | 1596.6 |
| 17.5° | 1564.7 | 1553.7 | 1557.4 | 1558.0 | 1563.5 |
| 20° | 1529.2 | 1520.7 | 1523.1 | 1522.5 | 1534.1 |
| 22.5° | 1487.0 | 1480.9 | 1482.7 | 1481.5 | 1492.5 |
| 25° | 1443.0 | 1436.8 | 1439.3 | 1436.2 | 1442.4 |
| 27.5° | 1393.4 | 1389.1 | 1386.7 | 1384.8 | 1389.1 |
| 30° | 1335.3 | 1332.8 | 1332.8 | 1324.9 | 1329.8 |
| 32.5° | 1280.2 | 1272.2 | 1272.2 | 1269.2 | 1266.1 |
| 35° | 1215.3 | 1209.2 | 1206.1 | 1197.6 | 1201.2 |
| 37.5° | 1150.5 | 1136.4 | 1135.2 | 1128.4 | 1128.4 |
| 40° | 1075.8 | 1067.8 | 1063.6 | 1056.2 | 1055.0 |
| 42.5° | 1004.8 | 996.9 | 989.5 | 977.3 | 974.8 |
| 45° | 928.9 | 921.6 | 911.8 | 900.2 | 900.8 |
| 47.5° | 853.7 | 843.3 | 834.1 | 820.0 | 818.2 |
| 50° | 775.9 | 768.6 | 755.1 | 742.9 | 742.3 |
| 52.5° | 703.1 | 691.5 | 679.3 | 664.6 | 664.6 |
| 55° | 631.5 | 622.3 | 608.3 | 592.4 | 590.5 |
| 57.5° | 563.0 | 554.4 | 538.5 | 526.9 | 523.8 |
| 60° | 500.0 | 487.7 | 473.0 | 463.2 | 460.8 |
| 62.5° | 436.9 | 425.9 | 414.9 | 405.1 | 404.5 |
| 65° | 380.6 | 369.0 | 359.2 | 352.5 | 353.1 |
| 67.5° | 329.8 | 320.0 | 309.0 | 307.2 | 307.8 |
| 70° | 282.1 | 271.7 | 263.7 | 268.0 | 271.1 |
| 72.5° | 236.8 | 231.3 | 225.8 | 231.9 | 236.2 |
| 75° | 199.5 | 194.6 | 190.3 | 198.9 | 204.4 |
| 77.5° | 165.2 | 161.6 | 160.9 | 168.3 | 173.2 |
| 80° | 132.8 | 128.5 | 130.3 | 138.9 | 143.2 |
| 82.5° | 101.0 | 97.9 | 98.5 | 108.9 | 112.0 |
| 85° | 67.9 | 66.7 | 68.5 | 77.7 | 78.3 |
| 87.5° | 36.1 | 36.1 | 37.3 | 42.8 | 41.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)