

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: P294375

Luminaire Tested: **24GR-LD5-42-FGW080-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-42-FGW080-UNV-L92765-W2A1-U-6500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3469.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

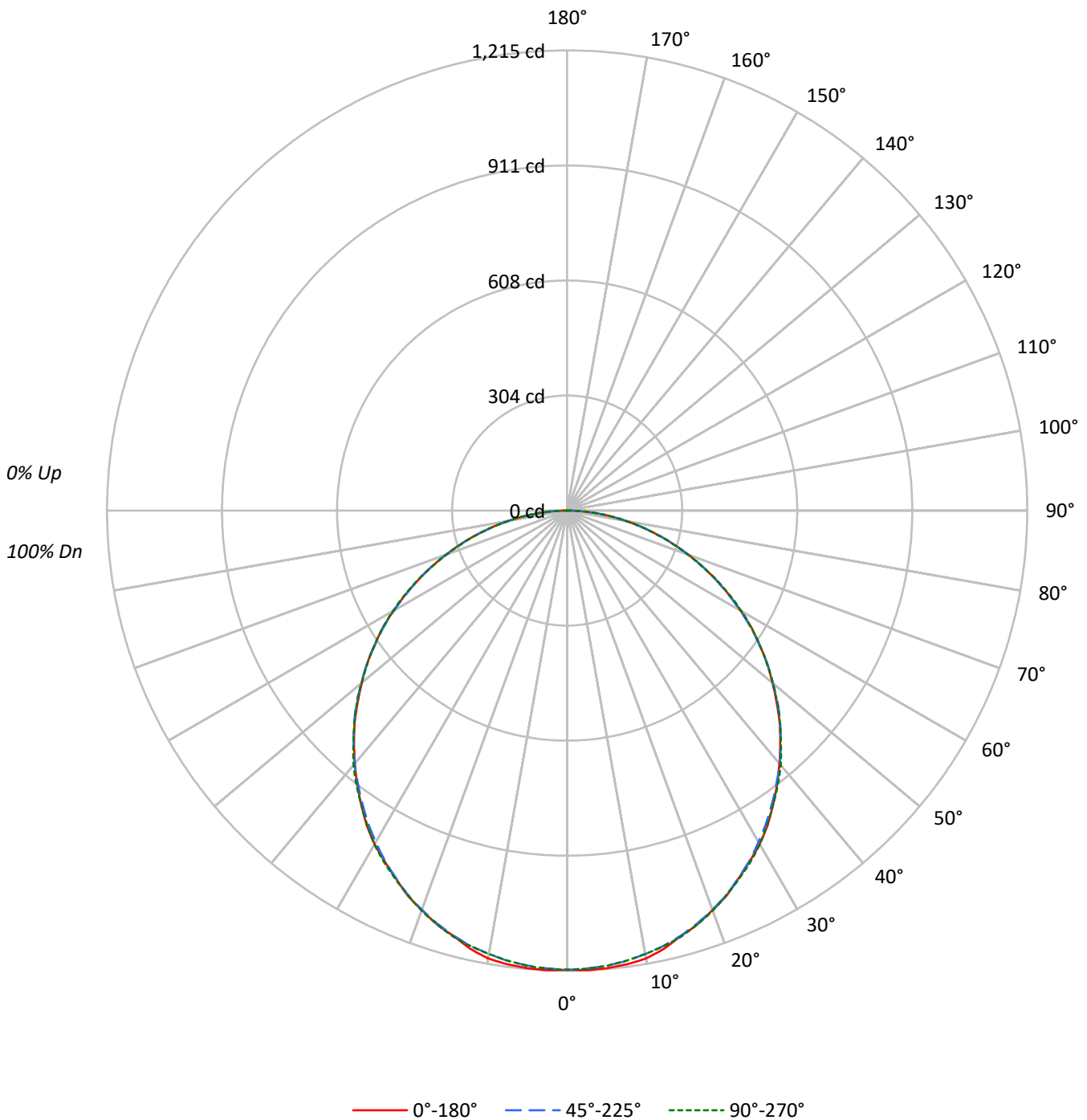
Input Watts (W): 29.295
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | | 93 | 90 | 88 | | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | | 81 | 77 | 73 | | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | | 71 | 66 | 61 | | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | | 64 | 57 | 52 | | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | | 57 | 50 | 45 | | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | | 52 | 45 | 40 | | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | | 47 | 40 | 35 | | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | | 43 | 36 | 31 | | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | | 40 | 33 | 28 | | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | | 37 | 30 | 26 | | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1631 | 1631 | 1631 |
| 5° | 1638 | 1629 | 1630 |
| 10° | 1641 | 1624 | 1624 |
| 15° | 1619 | 1618 | 1622 |
| 20° | 1607 | 1606 | 1610 |
| 25° | 1590 | 1589 | 1594 |
| 30° | 1580 | 1570 | 1581 |
| 35° | 1557 | 1549 | 1557 |
| 40° | 1532 | 1533 | 1542 |
| 45° | 1510 | 1515 | 1512 |
| 50° | 1481 | 1486 | 1483 |
| 55° | 1459 | 1455 | 1459 |
| 60° | 1424 | 1420 | 1433 |
| 65° | 1380 | 1386 | 1391 |
| 70° | 1336 | 1342 | 1332 |
| 75° | 1289 | 1289 | 1289 |
| 80° | 1217 | 1217 | 1230 |
| 85° | 1124 | 1136 | 1099 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.6 | 3.3 |
| 10°-20° | 327.7 | 9.4 |
| 20°-30° | 493.9 | 14.2 |
| 30°-40° | 591.5 | 17.1 |
| 40°-50° | 612.3 | 17.7 |
| 50°-60° | 555.2 | 16.0 |
| 60°-70° | 430.5 | 12.4 |
| 70°-80° | 261.8 | 7.5 |
| 80°-90° | 81.4 | 2.3 |
| 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° | 936.3 | 27.0 |
| 0°-40° | 1527.8 | 44.0 |
| 0°-60° | 2695.3 | 77.7 |
| 0°-90° | 3469.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3469.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1212 | 1212 | 1212 | 1212 | 1212 | |
| 5° | 1212 | 1205 | 1206 | 1204 | 1207 | 115 |
| 15° | 1162 | 1163 | 1162 | 1158 | 1164 | 329 |
| 25° | 1071 | 1071 | 1070 | 1073 | 1073 | 494 |
| 35° | 948 | 942 | 943 | 947 | 948 | 593 |
| 45° | 794 | 795 | 796 | 793 | 794 | 611 |
| 55° | 622 | 618 | 620 | 623 | 622 | 556 |
| 65° | 434 | 436 | 435 | 434 | 437 | 430 |
| 75° | 248 | 247 | 248 | 247 | 248 | 262 |
| 85° | 73 | 72 | 74 | 73 | 71 | 81 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P294375

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1212.5 | 1212.5 | 1212.5 | 1212.5 | 1212.5 |
| 2.5° | 1214.9 | 1210.0 | 1210.0 | 1208.4 | 1210.8 |
| 5° | 1212.5 | 1205.1 | 1205.9 | 1204.3 | 1206.7 |
| 7.5° | 1208.4 | 1198.5 | 1199.4 | 1197.7 | 1198.5 |
| 10° | 1201.0 | 1189.5 | 1188.7 | 1187.9 | 1188.7 |
| 12.5° | 1184.6 | 1178.1 | 1177.3 | 1175.6 | 1178.1 |
| 15° | 1162.5 | 1163.4 | 1161.7 | 1157.6 | 1164.2 |
| 17.5° | 1145.4 | 1144.6 | 1142.9 | 1138.8 | 1145.4 |
| 20° | 1122.5 | 1123.3 | 1121.6 | 1120.0 | 1124.1 |
| 22.5° | 1100.4 | 1097.9 | 1098.7 | 1097.9 | 1098.7 |
| 25° | 1070.9 | 1070.9 | 1070.1 | 1073.4 | 1073.4 |
| 27.5° | 1043.9 | 1040.6 | 1042.3 | 1045.6 | 1047.2 |
| 30° | 1016.9 | 1008.7 | 1010.4 | 1013.7 | 1017.7 |
| 32.5° | 985.0 | 976.8 | 978.5 | 981.7 | 983.4 |
| 35° | 948.2 | 941.7 | 943.3 | 947.4 | 948.2 |
| 37.5° | 910.6 | 906.5 | 908.1 | 911.4 | 913.8 |
| 40° | 872.1 | 870.5 | 872.9 | 872.1 | 877.8 |
| 42.5° | 832.8 | 832.0 | 834.5 | 834.5 | 835.3 |
| 45° | 793.6 | 795.2 | 796.0 | 792.8 | 794.4 |
| 47.5° | 750.2 | 751.0 | 754.3 | 752.7 | 753.5 |
| 50° | 707.7 | 706.9 | 710.1 | 710.9 | 708.5 |
| 52.5° | 666.8 | 662.7 | 666.0 | 667.6 | 666.0 |
| 55° | 621.8 | 618.5 | 620.1 | 622.6 | 621.8 |
| 57.5° | 577.6 | 574.3 | 575.1 | 579.2 | 577.6 |
| 60° | 529.3 | 528.5 | 527.7 | 531.0 | 532.6 |
| 62.5° | 481.9 | 481.1 | 479.4 | 482.7 | 484.3 |
| 65° | 433.6 | 436.1 | 435.2 | 433.6 | 436.9 |
| 67.5° | 387.8 | 390.2 | 387.8 | 386.2 | 386.2 |
| 70° | 339.5 | 342.0 | 341.2 | 339.5 | 338.7 |
| 72.5° | 294.5 | 294.5 | 292.9 | 292.1 | 292.9 |
| 75° | 247.9 | 247.1 | 247.9 | 247.1 | 247.9 |
| 77.5° | 202.1 | 202.9 | 202.9 | 202.9 | 202.1 |
| 80° | 157.1 | 157.1 | 157.1 | 157.9 | 158.7 |
| 82.5° | 115.4 | 112.9 | 115.4 | 113.7 | 114.5 |
| 85° | 72.8 | 72.0 | 73.6 | 72.8 | 71.2 |
| 87.5° | 32.7 | 33.5 | 33.5 | 34.4 | 34.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)