

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: P292745

Luminaire Tested: **22GR-LD5-43-FGW080-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-26)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-FGW080-UNV-L83050-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3819.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

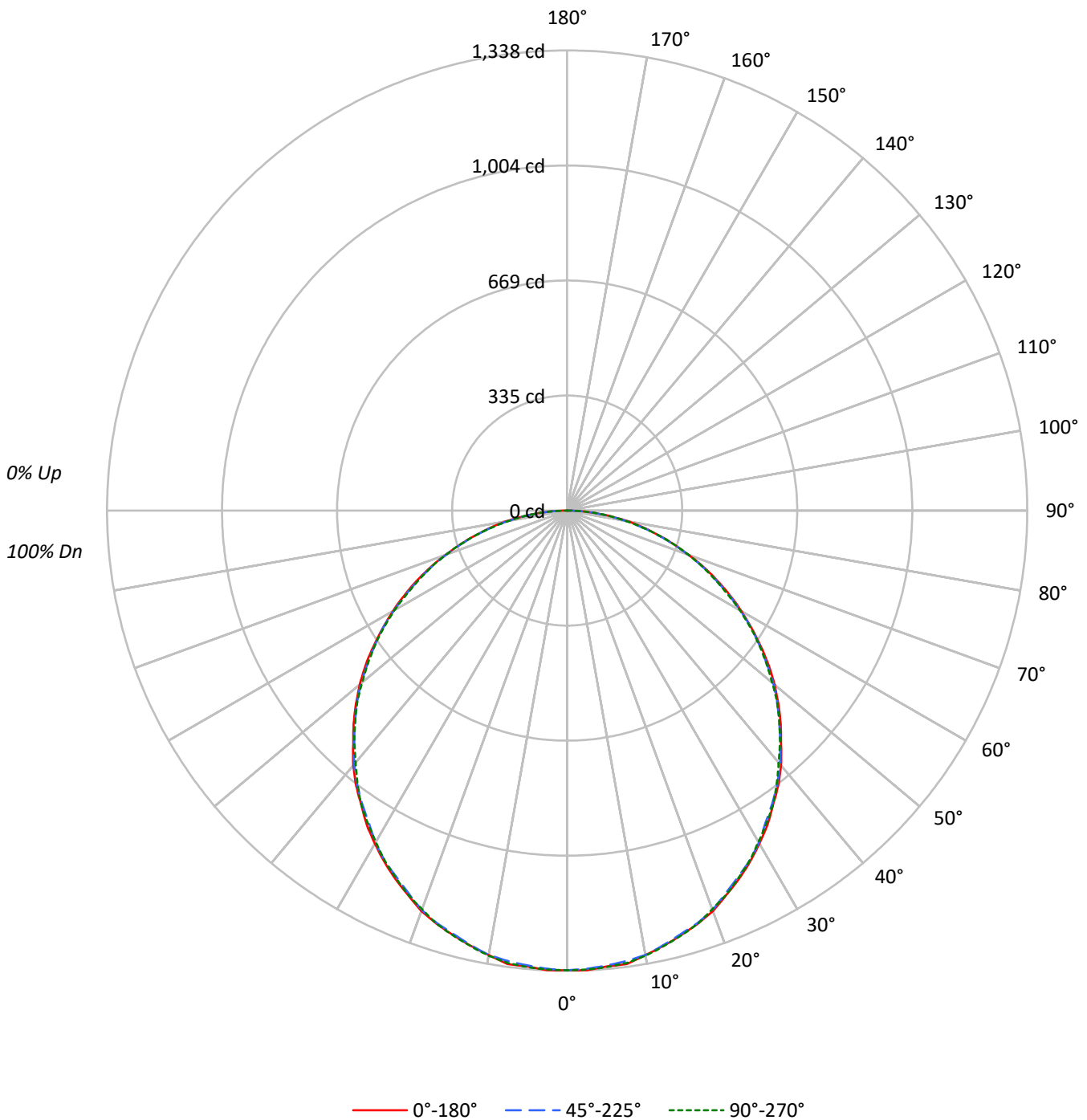
Input Watts (W): 35.991
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P292745

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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 | 85 | 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° | 3597 | 3597 | 3597 |
| 5° | 3593 | 3586 | 3599 |
| 10° | 3585 | 3585 | 3591 |
| 15° | 3562 | 3552 | 3565 |
| 20° | 3548 | 3539 | 3532 |
| 25° | 3509 | 3489 | 3499 |
| 30° | 3474 | 3464 | 3457 |
| 35° | 3430 | 3415 | 3430 |
| 40° | 3400 | 3384 | 3360 |
| 45° | 3341 | 3320 | 3320 |
| 50° | 3296 | 3277 | 3258 |
| 55° | 3225 | 3204 | 3199 |
| 60° | 3151 | 3132 | 3120 |
| 65° | 3070 | 3035 | 3020 |
| 70° | 2947 | 2938 | 2947 |
| 75° | 2845 | 2810 | 2833 |
| 80° | 2816 | 2676 | 2659 |
| 85° | 2492 | 2424 | 2458 |



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CATALOG NUMBER: 22GR-LD5-43-FGW080-UNV-L83050-W2A1-U-4000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 126.4 | 3.3 |
| 10°-20° | 360.8 | 9.4 |
| 20°-30° | 543.3 | 14.2 |
| 30°-40° | 652.0 | 17.1 |
| 40°-50° | 674.6 | 17.7 |
| 50°-60° | 611.3 | 16.0 |
| 60°-70° | 473.9 | 12.4 |
| 70°-80° | 287.7 | 7.5 |
| 80°-90° | 89.0 | 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° | 1030.5 | 27.0 |
| 0°-40° | 1682.5 | 44.1 |
| 0°-60° | 2968.4 | 77.7 |
| 0°-90° | 3819.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3819.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1337 | 1337 | 1337 | 1337 | 1337 | |
| 5° | 1330 | 1330 | 1328 | 1331 | 1332 | 127 |
| 15° | 1278 | 1278 | 1275 | 1281 | 1280 | 361 |
| 25° | 1182 | 1180 | 1175 | 1180 | 1179 | 545 |
| 35° | 1044 | 1044 | 1040 | 1041 | 1044 | 655 |
| 45° | 878 | 877 | 872 | 872 | 872 | 678 |
| 55° | 687 | 686 | 683 | 682 | 682 | 615 |
| 65° | 482 | 482 | 477 | 479 | 474 | 477 |
| 75° | 274 | 272 | 270 | 270 | 272 | 291 |
| 85° | 81 | 80 | 78 | 78 | 80 | 92 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P292745

CATALOG NUMBER: 22GR-LD5-43-FGW080-UNV-L83050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1336.7 | 1336.7 | 1336.7 | 1336.7 | 1336.7 |
| 2.5° | 1337.8 | 1332.2 | 1333.3 | 1335.6 | 1335.6 |
| 5° | 1330.0 | 1330.0 | 1327.7 | 1331.1 | 1332.2 |
| 7.5° | 1330.0 | 1324.4 | 1321.0 | 1324.4 | 1326.6 |
| 10° | 1312.0 | 1309.8 | 1312.0 | 1310.9 | 1314.3 |
| 12.5° | 1296.3 | 1294.1 | 1294.1 | 1297.4 | 1297.4 |
| 15° | 1278.4 | 1278.4 | 1275.0 | 1280.6 | 1279.5 |
| 17.5° | 1260.4 | 1260.4 | 1258.2 | 1258.2 | 1260.4 |
| 20° | 1239.1 | 1233.5 | 1235.8 | 1234.6 | 1233.5 |
| 22.5° | 1210.0 | 1206.6 | 1204.4 | 1207.7 | 1208.8 |
| 25° | 1181.9 | 1179.7 | 1175.2 | 1179.7 | 1178.6 |
| 27.5° | 1151.7 | 1149.4 | 1148.3 | 1146.1 | 1148.3 |
| 30° | 1118.0 | 1115.8 | 1114.7 | 1112.4 | 1112.4 |
| 32.5° | 1084.4 | 1079.9 | 1074.3 | 1079.9 | 1078.8 |
| 35° | 1044.0 | 1044.0 | 1039.5 | 1040.6 | 1044.0 |
| 37.5° | 1008.1 | 1005.9 | 1003.6 | 1000.3 | 1001.4 |
| 40° | 967.8 | 964.4 | 963.3 | 961.0 | 956.5 |
| 42.5° | 920.7 | 920.7 | 916.2 | 917.3 | 916.2 |
| 45° | 878.0 | 876.9 | 872.4 | 872.4 | 872.4 |
| 47.5° | 833.2 | 832.1 | 828.7 | 826.5 | 828.7 |
| 50° | 787.2 | 782.7 | 782.7 | 779.4 | 778.2 |
| 52.5° | 739.0 | 735.6 | 731.1 | 732.3 | 730.0 |
| 55° | 687.4 | 686.3 | 682.9 | 681.8 | 681.8 |
| 57.5° | 635.8 | 636.9 | 634.7 | 630.2 | 631.3 |
| 60° | 585.4 | 584.2 | 582.0 | 579.8 | 579.8 |
| 62.5° | 533.8 | 533.8 | 529.3 | 529.3 | 524.8 |
| 65° | 482.2 | 482.2 | 476.6 | 478.8 | 474.3 |
| 67.5° | 430.6 | 429.5 | 426.1 | 425.0 | 426.1 |
| 70° | 374.5 | 375.7 | 373.4 | 373.4 | 374.5 |
| 72.5° | 324.1 | 323.0 | 321.8 | 321.8 | 324.1 |
| 75° | 273.6 | 272.5 | 270.3 | 270.3 | 272.5 |
| 77.5° | 227.6 | 222.0 | 220.9 | 223.2 | 219.8 |
| 80° | 181.7 | 173.8 | 172.7 | 171.6 | 171.6 |
| 82.5° | 127.8 | 124.5 | 125.6 | 124.5 | 126.7 |
| 85° | 80.7 | 79.6 | 78.5 | 78.5 | 79.6 |
| 87.5° | 38.1 | 35.9 | 35.9 | 34.8 | 34.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)