

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: P292479

Luminaire Tested: **22GR-LD5-28-A125-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292479
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33297)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-28-A125-UNV-L92765-W2A1-U-5700K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2737.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

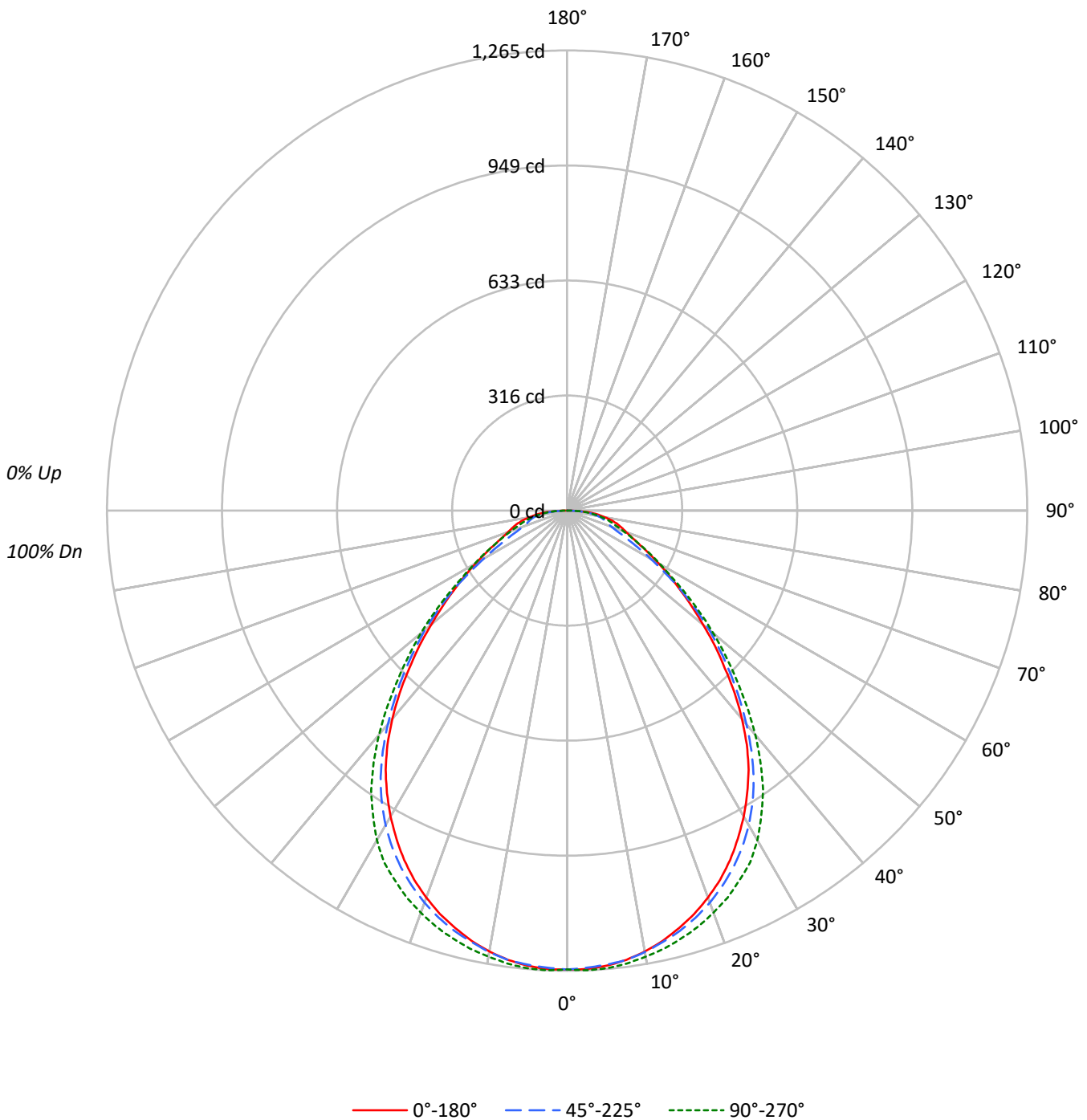
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P292479

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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 | 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 | | | | | 100 | | | |
| 1 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 | | | | | 86 | | | |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | | | | 74 | | | |
| 3 | 93 | 83 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | | 64 | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | | | | 56 | | | |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 6 | 74 | 61 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 | | | | | 44 | | | |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 46 | 41 | 39 | | | | | 39 | | | |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 37 | 36 | | | | | 36 | | | |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | | 32 | | | |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3395 | 3395 | 3395 |
| 5° | 3393 | 3384 | 3411 |
| 10° | 3364 | 3367 | 3402 |
| 15° | 3310 | 3333 | 3390 |
| 20° | 3242 | 3284 | 3368 |
| 25° | 3147 | 3212 | 3329 |
| 30° | 3016 | 3101 | 3250 |
| 35° | 2857 | 2937 | 3086 |
| 40° | 2627 | 2692 | 2827 |
| 45° | 2334 | 2419 | 2506 |
| 50° | 2038 | 2132 | 2196 |
| 55° | 1772 | 1796 | 1862 |
| 60° | 1559 | 1429 | 1590 |
| 65° | 1386 | 1142 | 1394 |
| 70° | 1360 | 1014 | 1286 |
| 75° | 1486 | 1115 | 1314 |
| 80° | 1632 | 1325 | 1404 |
| 85° | 1951 | 1538 | 1578 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.2 | 4.4 |
| 10°-20° | 338.1 | 12.4 |
| 20°-30° | 499.2 | 18.2 |
| 30°-40° | 558.6 | 20.4 |
| 40°-50° | 490.5 | 17.9 |
| 50°-60° | 347.1 | 12.7 |
| 60°-70° | 202.0 | 7.4 |
| 70°-80° | 125.9 | 4.6 |
| 80°-90° | 56.3 | 2.1 |
| 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° | 956.6 | 34.9 |
| 0°-40° | 1515.1 | 55.4 |
| 0°-60° | 2352.7 | 86.0 |
| 0°-90° | 2737.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2737.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1262 | 1262 | 1262 | 1262 | 1262 | |
| 5° | 1256 | 1253 | 1253 | 1259 | 1263 | 119 |
| 15° | 1188 | 1191 | 1196 | 1209 | 1217 | 335 |
| 25° | 1060 | 1064 | 1082 | 1107 | 1121 | 487 |
| 35° | 870 | 874 | 894 | 921 | 939 | 541 |
| 45° | 613 | 620 | 636 | 651 | 659 | 474 |
| 55° | 378 | 385 | 383 | 390 | 397 | 341 |
| 65° | 218 | 200 | 179 | 195 | 219 | 221 |
| 75° | 143 | 123 | 107 | 110 | 126 | 149 |
| 85° | 63 | 66 | 50 | 48 | 51 | 64 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1261.6 | 1261.6 | 1261.6 | 1261.6 | 1261.6 |
| 2.5° | 1261.6 | 1259.1 | 1257.8 | 1262.3 | 1264.8 |
| 5° | 1255.9 | 1252.7 | 1252.7 | 1259.1 | 1262.9 |
| 7.5° | 1245.7 | 1242.5 | 1246.3 | 1252.0 | 1255.9 |
| 10° | 1231.0 | 1229.7 | 1232.3 | 1239.9 | 1245.0 |
| 12.5° | 1211.8 | 1212.5 | 1215.0 | 1227.2 | 1233.5 |
| 15° | 1188.2 | 1190.8 | 1196.5 | 1209.3 | 1217.0 |
| 17.5° | 1162.7 | 1164.6 | 1173.6 | 1188.2 | 1199.1 |
| 20° | 1132.1 | 1135.9 | 1146.8 | 1165.3 | 1176.1 |
| 22.5° | 1098.3 | 1102.7 | 1116.1 | 1138.5 | 1151.9 |
| 25° | 1060.0 | 1064.4 | 1081.7 | 1107.2 | 1121.2 |
| 27.5° | 1016.6 | 1023.6 | 1042.7 | 1070.8 | 1090.0 |
| 30° | 970.6 | 976.4 | 998.1 | 1030.0 | 1045.9 |
| 32.5° | 921.5 | 928.5 | 948.9 | 979.6 | 993.6 |
| 35° | 869.8 | 873.6 | 894.0 | 920.8 | 939.4 |
| 37.5° | 811.1 | 813.0 | 832.1 | 857.0 | 873.6 |
| 40° | 747.9 | 749.2 | 766.4 | 790.0 | 804.7 |
| 42.5° | 682.2 | 682.8 | 701.3 | 719.2 | 732.0 |
| 45° | 613.3 | 620.3 | 635.6 | 650.9 | 658.6 |
| 47.5° | 551.4 | 556.5 | 570.5 | 583.9 | 590.9 |
| 50° | 486.9 | 499.7 | 509.2 | 516.3 | 524.6 |
| 52.5° | 431.4 | 442.2 | 444.8 | 453.1 | 460.1 |
| 55° | 377.8 | 385.4 | 382.9 | 389.9 | 396.9 |
| 57.5° | 332.5 | 328.6 | 320.4 | 332.5 | 341.4 |
| 60° | 289.7 | 279.5 | 265.5 | 282.1 | 295.5 |
| 62.5° | 251.4 | 234.8 | 217.6 | 234.2 | 256.5 |
| 65° | 217.6 | 200.4 | 179.3 | 195.3 | 218.9 |
| 67.5° | 192.1 | 174.2 | 149.3 | 165.3 | 188.9 |
| 70° | 172.9 | 154.4 | 128.9 | 142.3 | 163.4 |
| 72.5° | 157.6 | 137.8 | 115.5 | 124.4 | 142.3 |
| 75° | 142.9 | 123.2 | 107.2 | 109.8 | 126.4 |
| 77.5° | 125.7 | 111.0 | 98.3 | 97.0 | 109.8 |
| 80° | 105.3 | 100.8 | 85.5 | 83.6 | 90.6 |
| 82.5° | 86.8 | 84.9 | 70.2 | 68.3 | 70.8 |
| 85° | 63.2 | 65.7 | 49.8 | 48.5 | 51.1 |
| 87.5° | 33.2 | 36.4 | 26.2 | 27.4 | 28.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)