

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: P292483

Luminaire Tested: **22GR-LD5-32-A125-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292483
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-LD5-32-A125-UNV-L92765-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2744.0 lumens
Efficiency: N/A
Efficacy: 111.3 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

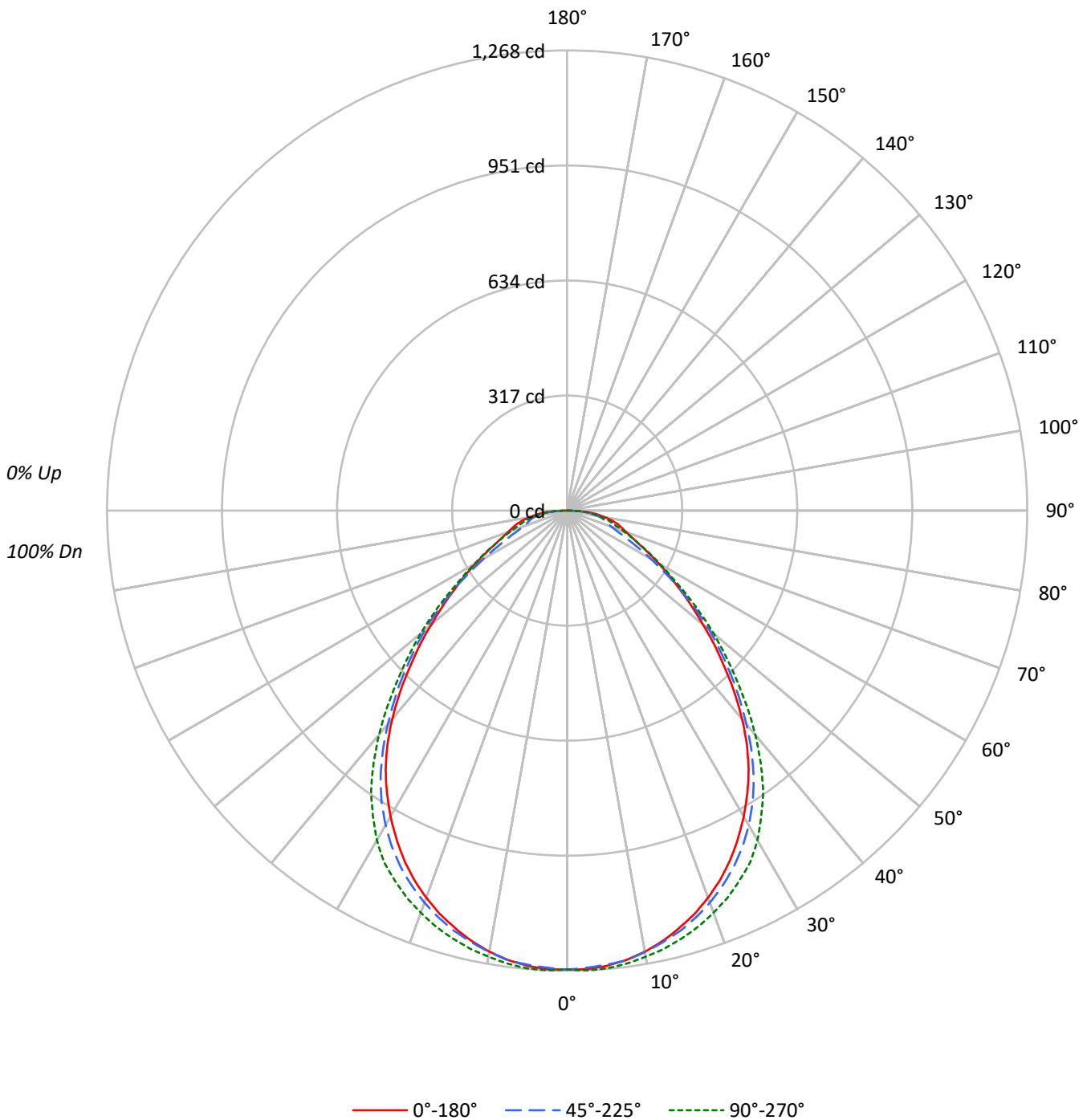
Input Watts (W): 24.645
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 3404 | 3404 | 3404 |
| 5° | 3401 | 3393 | 3420 |
| 10° | 3372 | 3376 | 3411 |
| 15° | 3319 | 3342 | 3399 |
| 20° | 3250 | 3292 | 3377 |
| 25° | 3155 | 3220 | 3338 |
| 30° | 3024 | 3109 | 3258 |
| 35° | 2865 | 2944 | 3094 |
| 40° | 2634 | 2699 | 2834 |
| 45° | 2340 | 2425 | 2513 |
| 50° | 2044 | 2137 | 2202 |
| 55° | 1777 | 1801 | 1867 |
| 60° | 1563 | 1432 | 1594 |
| 65° | 1389 | 1145 | 1397 |
| 70° | 1364 | 1017 | 1289 |
| 75° | 1490 | 1118 | 1317 |
| 80° | 1636 | 1328 | 1407 |
| 85° | 1954 | 1541 | 1581 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.5 | 4.4 |
| 10°-20° | 339.0 | 12.4 |
| 20°-30° | 500.5 | 18.2 |
| 30°-40° | 560.0 | 20.4 |
| 40°-50° | 491.8 | 17.9 |
| 50°-60° | 348.0 | 12.7 |
| 60°-70° | 202.5 | 7.4 |
| 70°-80° | 126.2 | 4.6 |
| 80°-90° | 56.5 | 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° | 959.0 | 34.9 |
| 0°-40° | 1519.0 | 55.4 |
| 0°-60° | 2358.8 | 86.0 |
| 0°-90° | 2744.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2744.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1265 | 1265 | 1265 | 1265 | 1265 | |
| 5° | 1259 | 1256 | 1256 | 1262 | 1266 | 119 |
| 15° | 1191 | 1194 | 1200 | 1212 | 1220 | 336 |
| 25° | 1063 | 1067 | 1084 | 1110 | 1124 | 488 |
| 35° | 872 | 876 | 896 | 923 | 942 | 542 |
| 45° | 615 | 622 | 637 | 653 | 660 | 476 |
| 55° | 379 | 386 | 384 | 391 | 398 | 342 |
| 65° | 218 | 201 | 180 | 196 | 219 | 221 |
| 75° | 143 | 124 | 108 | 110 | 127 | 150 |
| 85° | 63 | 66 | 50 | 49 | 51 | 64 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------------|---------------|---------------|---------------|---------------|
| 0° | 1264.8 | 1264.8 | 1264.8 | 1264.8 | <i>1264.8</i> |
| 2.5° | <i>1264.8</i> | <i>1262.3</i> | <i>1261.0</i> | <i>1265.5</i> | <i>1268.0</i> |
| 5° | 1259.1 | 1255.9 | 1255.9 | 1262.3 | <i>1266.1</i> |
| 7.5° | 1248.9 | 1245.7 | 1249.5 | 1255.3 | <i>1259.1</i> |
| 10° | 1234.1 | 1232.9 | 1235.4 | 1243.1 | <i>1248.2</i> |
| 12.5° | 1214.9 | 1215.6 | 1218.1 | 1230.3 | <i>1236.7</i> |
| 15° | 1191.3 | 1193.8 | 1199.6 | 1212.4 | <i>1220.1</i> |
| 17.5° | 1165.7 | 1167.6 | 1176.6 | 1191.3 | <i>1202.1</i> |
| 20° | 1135.0 | 1138.8 | 1149.7 | 1168.2 | <i>1179.1</i> |
| 22.5° | 1101.1 | 1105.5 | 1119.0 | 1141.4 | <i>1154.8</i> |
| 25° | 1062.7 | 1067.2 | 1084.4 | 1110.0 | <i>1124.1</i> |
| 27.5° | 1019.2 | 1026.2 | 1045.4 | 1073.6 | <i>1092.7</i> |
| 30° | 973.1 | 978.9 | 1000.6 | 1032.6 | <i>1048.6</i> |
| 32.5° | 923.8 | 930.9 | 951.4 | 982.1 | <i>996.1</i> |
| 35° | 872.0 | 875.9 | 896.3 | 923.2 | <i>941.8</i> |
| 37.5° | 813.2 | 815.1 | 834.3 | 859.2 | <i>875.9</i> |
| 40° | 749.8 | 751.1 | 768.4 | 792.0 | <i>806.8</i> |
| 42.5° | 683.9 | 684.6 | 703.1 | 721.0 | <i>733.8</i> |
| 45° | 614.8 | 621.9 | 637.2 | 652.6 | <i>660.3</i> |
| 47.5° | 552.8 | 557.9 | 572.0 | 585.4 | <i>592.4</i> |
| 50° | 488.2 | 500.9 | 510.5 | 517.6 | <i>525.9</i> |
| 52.5° | 432.5 | 443.4 | 445.9 | 454.2 | <i>461.3</i> |
| 55° | 378.8 | 386.4 | 383.9 | 390.9 | <i>397.9</i> |
| 57.5° | 333.3 | 329.5 | 321.2 | 333.3 | <i>342.3</i> |
| 60° | 290.5 | 280.2 | 266.1 | 282.8 | <i>296.2</i> |
| 62.5° | 252.1 | 235.4 | 218.2 | 234.8 | <i>257.2</i> |
| 65° | 218.2 | 200.9 | 179.8 | 195.8 | <i>219.4</i> |
| 67.5° | 192.6 | 174.7 | 149.7 | 165.7 | <i>189.4</i> |
| 70° | 173.4 | 154.8 | 129.2 | 142.7 | <i>163.8</i> |
| 72.5° | 158.0 | 138.2 | 115.8 | 124.8 | <i>142.7</i> |
| 75° | 143.3 | 123.5 | 107.5 | 110.0 | <i>126.7</i> |
| 77.5° | 126.0 | 111.3 | 98.5 | 97.2 | <i>110.0</i> |
| 80° | 105.6 | 101.1 | 85.7 | 83.8 | <i>90.8</i> |
| 82.5° | 87.0 | 85.1 | 70.4 | 68.5 | <i>71.0</i> |
| 85° | 63.3 | 65.9 | 49.9 | 48.6 | <i>51.2</i> |
| 87.5° | 33.3 | 36.5 | 26.2 | 27.5 | <i>28.2</i> |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | <i>0.0</i> |

(END OF REPORT)