

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: P292337

Luminaire Tested: **22GR-LD5-32-A125-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292337
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-L83050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3207.0 lumens
Efficiency: N/A
Efficacy: 130.6 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

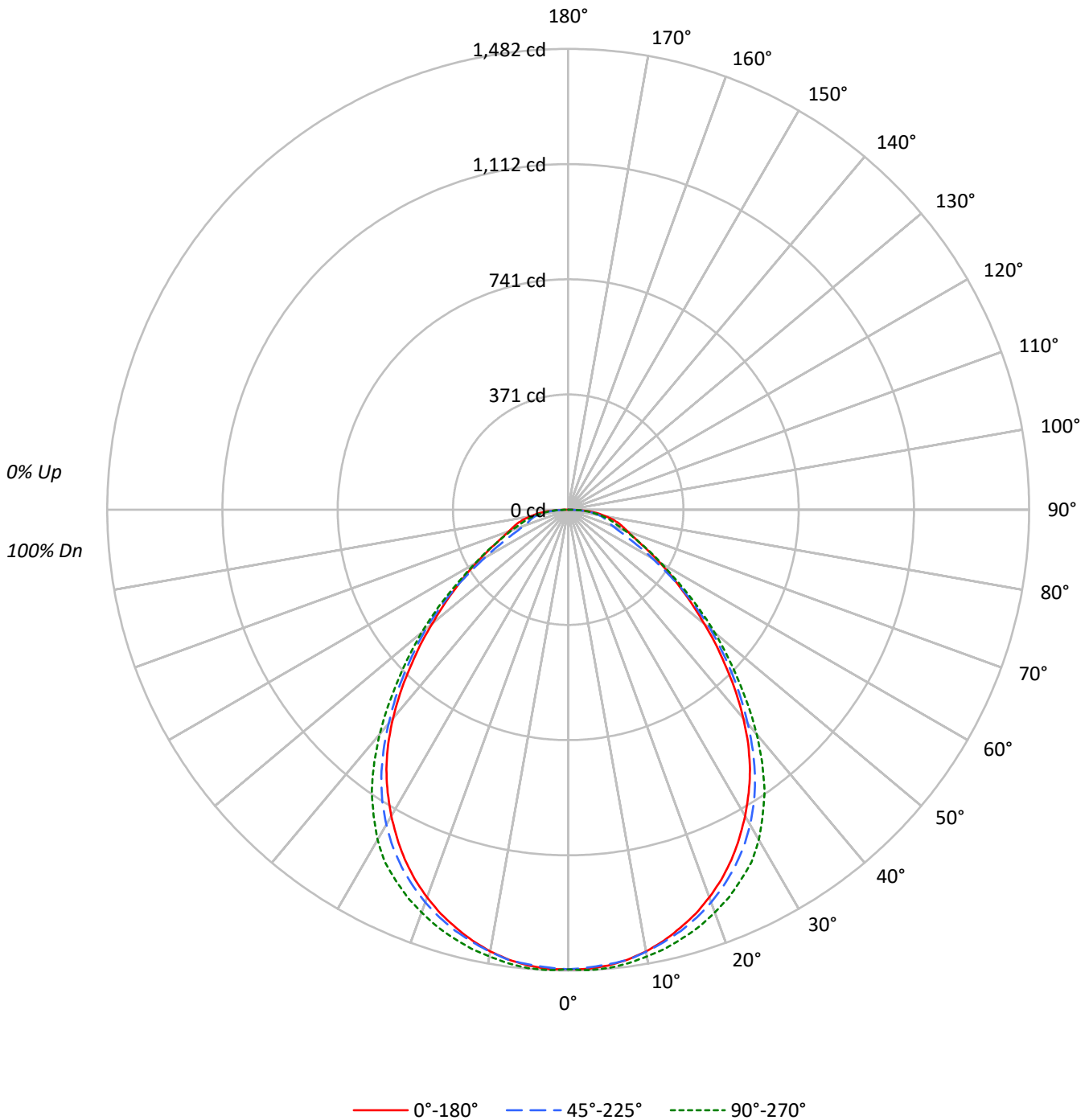
Input Watts (W): 24.552
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P292337

CATALOG NUMBER: 22GR-LD5-32-A125-UNV-L83050-W2A1-U-3500K

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3978 | 3978 | 3978 |
| 5° | 3975 | 3965 | 3997 |
| 10° | 3941 | 3945 | 3986 |
| 15° | 3879 | 3906 | 3972 |
| 20° | 3799 | 3848 | 3946 |
| 25° | 3688 | 3763 | 3901 |
| 30° | 3534 | 3634 | 3808 |
| 35° | 3348 | 3441 | 3616 |
| 40° | 3078 | 3155 | 3312 |
| 45° | 2735 | 2834 | 2937 |
| 50° | 2388 | 2498 | 2573 |
| 55° | 2077 | 2105 | 2182 |
| 60° | 1827 | 1674 | 1863 |
| 65° | 1624 | 1338 | 1633 |
| 70° | 1594 | 1188 | 1506 |
| 75° | 1742 | 1306 | 1540 |
| 80° | 1912 | 1553 | 1646 |
| 85° | 2285 | 1800 | 1846 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 139.7 | 4.4 |
| 10°-20° | 396.2 | 12.4 |
| 20°-30° | 584.9 | 18.2 |
| 30°-40° | 654.5 | 20.4 |
| 40°-50° | 574.8 | 17.9 |
| 50°-60° | 406.7 | 12.7 |
| 60°-70° | 236.7 | 7.4 |
| 70°-80° | 147.5 | 4.6 |
| 80°-90° | 66.0 | 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° | 1120.8 | 34.9 |
| 0°-40° | 1775.3 | 55.4 |
| 0°-60° | 2756.8 | 86.0 |
| 0°-90° | 3207.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3207.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1478 | 1478 | 1478 | 1478 | 1478 | |
| 5° | 1472 | 1468 | 1468 | 1475 | 1480 | 140 |
| 15° | 1392 | 1395 | 1402 | 1417 | 1426 | 392 |
| 25° | 1242 | 1247 | 1267 | 1297 | 1314 | 570 |
| 35° | 1019 | 1024 | 1048 | 1079 | 1101 | 634 |
| 45° | 719 | 727 | 745 | 763 | 772 | 556 |
| 55° | 443 | 452 | 449 | 457 | 465 | 400 |
| 65° | 255 | 235 | 210 | 229 | 256 | 259 |
| 75° | 168 | 144 | 126 | 129 | 148 | 175 |
| 85° | 74 | 77 | 58 | 57 | 60 | 75 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P292337

CATALOG NUMBER: 22GR-LD5-32-A125-UNV-L83050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1478.3 | 1478.3 | 1478.3 | 1478.3 | 1478.3 |
| 2.5° | 1478.3 | 1475.3 | 1473.8 | 1479.0 | 1482.0 |
| 5° | 1471.5 | 1467.8 | 1467.8 | 1475.3 | 1479.8 |
| 7.5° | 1459.6 | 1455.8 | 1460.3 | 1467.1 | 1471.5 |
| 10° | 1442.4 | 1440.9 | 1443.9 | 1452.8 | 1458.8 |
| 12.5° | 1419.9 | 1420.7 | 1423.7 | 1437.9 | 1445.4 |
| 15° | 1392.3 | 1395.3 | 1402.0 | 1417.0 | 1425.9 |
| 17.5° | 1362.4 | 1364.6 | 1375.1 | 1392.3 | 1405.0 |
| 20° | 1326.5 | 1331.0 | 1343.7 | 1365.4 | 1378.1 |
| 22.5° | 1286.8 | 1292.1 | 1307.8 | 1334.0 | 1349.7 |
| 25° | 1242.0 | 1247.2 | 1267.4 | 1297.3 | 1313.8 |
| 27.5° | 1191.1 | 1199.4 | 1221.8 | 1254.7 | 1277.1 |
| 30° | 1137.3 | 1144.0 | 1169.5 | 1206.8 | 1225.5 |
| 32.5° | 1079.7 | 1088.0 | 1111.9 | 1147.8 | 1164.2 |
| 35° | 1019.2 | 1023.6 | 1047.6 | 1079.0 | 1100.7 |
| 37.5° | 950.4 | 952.6 | 975.0 | 1004.2 | 1023.6 |
| 40° | 876.3 | 877.8 | 898.0 | 925.7 | 942.9 |
| 42.5° | 799.3 | 800.1 | 821.8 | 842.7 | 857.6 |
| 45° | 718.6 | 726.8 | 744.7 | 762.7 | 771.7 |
| 47.5° | 646.0 | 652.0 | 668.5 | 684.2 | 692.4 |
| 50° | 570.5 | 585.5 | 596.7 | 604.9 | 614.6 |
| 52.5° | 505.5 | 518.2 | 521.2 | 530.9 | 539.1 |
| 55° | 442.7 | 451.6 | 448.6 | 456.9 | 465.1 |
| 57.5° | 389.6 | 385.1 | 375.4 | 389.6 | 400.0 |
| 60° | 339.5 | 327.5 | 311.1 | 330.5 | 346.2 |
| 62.5° | 294.6 | 275.2 | 255.0 | 274.4 | 300.6 |
| 65° | 255.0 | 234.8 | 210.1 | 228.8 | 256.5 |
| 67.5° | 225.1 | 204.1 | 175.0 | 193.7 | 221.3 |
| 70° | 202.6 | 181.0 | 151.0 | 166.7 | 191.4 |
| 72.5° | 184.7 | 161.5 | 135.3 | 145.8 | 166.7 |
| 75° | 167.5 | 144.3 | 125.6 | 128.6 | 148.1 |
| 77.5° | 147.3 | 130.1 | 115.2 | 113.7 | 128.6 |
| 80° | 123.4 | 118.1 | 100.2 | 98.0 | 106.2 |
| 82.5° | 101.7 | 99.4 | 82.3 | 80.0 | 83.0 |
| 85° | 74.0 | 77.0 | 58.3 | 56.8 | 59.8 |
| 87.5° | 38.9 | 42.6 | 30.7 | 32.2 | 32.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)