

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: P292499

Luminaire Tested: **22GR-LD5-40-A125-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292499
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-LD5-40-A125-UNV-L92765-W2A1-U-2700K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3180.0 lumens
Efficiency: N/A
Efficacy: 98.5 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

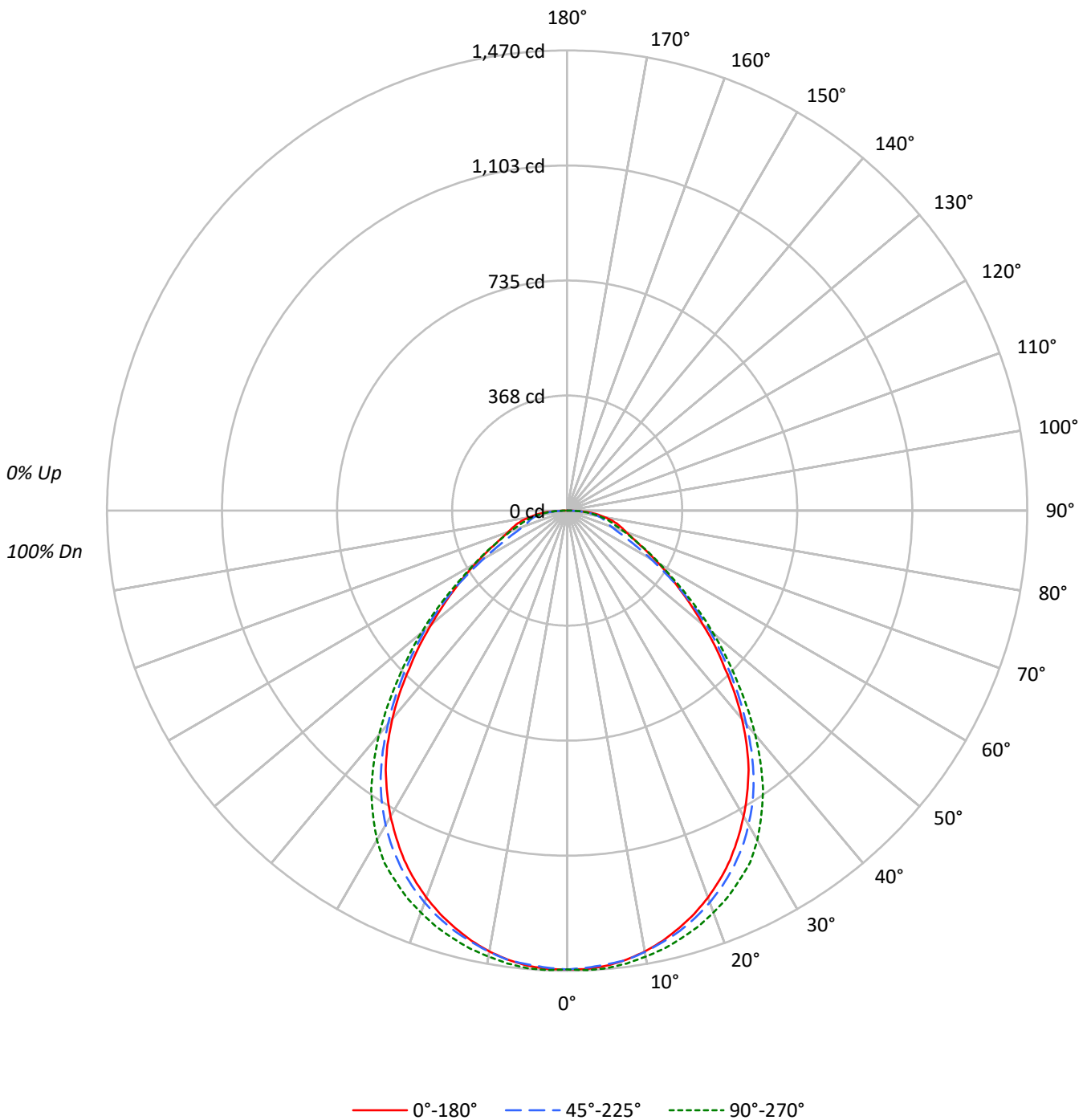
Input Watts (W): 32.271
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 3944 | 3944 | 3944 |
| 5° | 3941 | 3931 | 3964 |
| 10° | 3908 | 3912 | 3953 |
| 15° | 3846 | 3873 | 3939 |
| 20° | 3767 | 3816 | 3913 |
| 25° | 3657 | 3731 | 3868 |
| 30° | 3504 | 3603 | 3776 |
| 35° | 3320 | 3413 | 3585 |
| 40° | 3053 | 3128 | 3284 |
| 45° | 2712 | 2810 | 2912 |
| 50° | 2368 | 2477 | 2552 |
| 55° | 2059 | 2087 | 2164 |
| 60° | 1812 | 1660 | 1848 |
| 65° | 1610 | 1326 | 1619 |
| 70° | 1581 | 1179 | 1493 |
| 75° | 1727 | 1295 | 1526 |
| 80° | 1895 | 1540 | 1632 |
| 85° | 2266 | 1785 | 1831 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 138.5 | 4.4 |
| 10°-20° | 392.9 | 12.4 |
| 20°-30° | 580.0 | 18.2 |
| 30°-40° | 649.0 | 20.4 |
| 40°-50° | 569.9 | 17.9 |
| 50°-60° | 403.3 | 12.7 |
| 60°-70° | 234.7 | 7.4 |
| 70°-80° | 146.3 | 4.6 |
| 80°-90° | 65.5 | 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° | 1111.4 | 34.9 |
| 0°-40° | 1760.4 | 55.4 |
| 0°-60° | 2733.5 | 86.0 |
| 0°-90° | 3180.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3180.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1466 | 1466 | 1466 | 1466 | 1466 | |
| 5° | 1459 | 1455 | 1455 | 1463 | 1467 | 138 |
| 15° | 1381 | 1384 | 1390 | 1405 | 1414 | 389 |
| 25° | 1232 | 1237 | 1257 | 1286 | 1303 | 566 |
| 35° | 1011 | 1015 | 1039 | 1070 | 1091 | 628 |
| 45° | 712 | 721 | 738 | 756 | 765 | 551 |
| 55° | 439 | 448 | 445 | 453 | 461 | 397 |
| 65° | 253 | 233 | 208 | 227 | 254 | 256 |
| 75° | 166 | 143 | 125 | 128 | 147 | 173 |
| 85° | 73 | 76 | 58 | 56 | 59 | 75 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1465.8 | 1465.8 | 1465.8 | 1465.8 | 1465.8 |
| 2.5° | 1465.8 | 1462.9 | 1461.4 | 1466.6 | 1469.5 |
| 5° | 1459.1 | 1455.4 | 1455.4 | 1462.9 | 1467.3 |
| 7.5° | 1447.3 | 1443.6 | 1448.0 | 1454.7 | 1459.1 |
| 10° | 1430.2 | 1428.8 | 1431.7 | 1440.6 | 1446.5 |
| 12.5° | 1408.0 | 1408.7 | 1411.7 | 1425.8 | 1433.2 |
| 15° | 1380.6 | 1383.5 | 1390.2 | 1405.0 | 1413.9 |
| 17.5° | 1350.9 | 1353.1 | 1363.5 | 1380.6 | 1393.2 |
| 20° | 1315.3 | 1319.8 | 1332.4 | 1353.9 | 1366.5 |
| 22.5° | 1276.0 | 1281.2 | 1296.8 | 1322.7 | 1338.3 |
| 25° | 1231.5 | 1236.7 | 1256.7 | 1286.4 | 1302.7 |
| 27.5° | 1181.1 | 1189.3 | 1211.5 | 1244.1 | 1266.4 |
| 30° | 1127.7 | 1134.4 | 1159.6 | 1196.7 | 1215.2 |
| 32.5° | 1070.6 | 1078.8 | 1102.5 | 1138.1 | 1154.4 |
| 35° | 1010.6 | 1015.0 | 1038.8 | 1069.9 | 1091.4 |
| 37.5° | 942.4 | 944.6 | 966.8 | 995.8 | 1015.0 |
| 40° | 869.0 | 870.4 | 890.5 | 917.9 | 935.0 |
| 42.5° | 792.6 | 793.3 | 814.8 | 835.6 | 850.4 |
| 45° | 712.5 | 720.7 | 738.5 | 756.3 | 765.2 |
| 47.5° | 640.6 | 646.5 | 662.8 | 678.4 | 686.6 |
| 50° | 565.7 | 580.5 | 591.7 | 599.8 | 609.5 |
| 52.5° | 501.2 | 513.8 | 516.8 | 526.4 | 534.6 |
| 55° | 438.9 | 447.8 | 444.9 | 453.0 | 461.2 |
| 57.5° | 386.3 | 381.8 | 372.2 | 386.3 | 396.7 |
| 60° | 336.6 | 324.7 | 308.4 | 327.7 | 343.3 |
| 62.5° | 292.1 | 272.8 | 252.8 | 272.1 | 298.1 |
| 65° | 252.8 | 232.8 | 208.3 | 226.9 | 254.3 |
| 67.5° | 223.2 | 202.4 | 173.5 | 192.0 | 219.5 |
| 70° | 200.9 | 179.4 | 149.8 | 165.3 | 189.8 |
| 72.5° | 183.1 | 160.2 | 134.2 | 144.6 | 165.3 |
| 75° | 166.1 | 143.1 | 124.6 | 127.5 | 146.8 |
| 77.5° | 146.1 | 129.0 | 114.2 | 112.7 | 127.5 |
| 80° | 122.3 | 117.1 | 99.4 | 97.1 | 105.3 |
| 82.5° | 100.8 | 98.6 | 81.6 | 79.3 | 82.3 |
| 85° | 73.4 | 76.4 | 57.8 | 56.3 | 59.3 |
| 87.5° | 38.6 | 42.3 | 30.4 | 31.9 | 32.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)