

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: P213854

Luminaire Tested: **22GR-LD5-40-A125-UNV-L940-CD1-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P213854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33297)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-40-A125-UNV-L940-CD1-U
Description: METALUX GR 2X2 LED TROFFER WITH A125 LENS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3507.1 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.24
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')
CIE Type: Direct

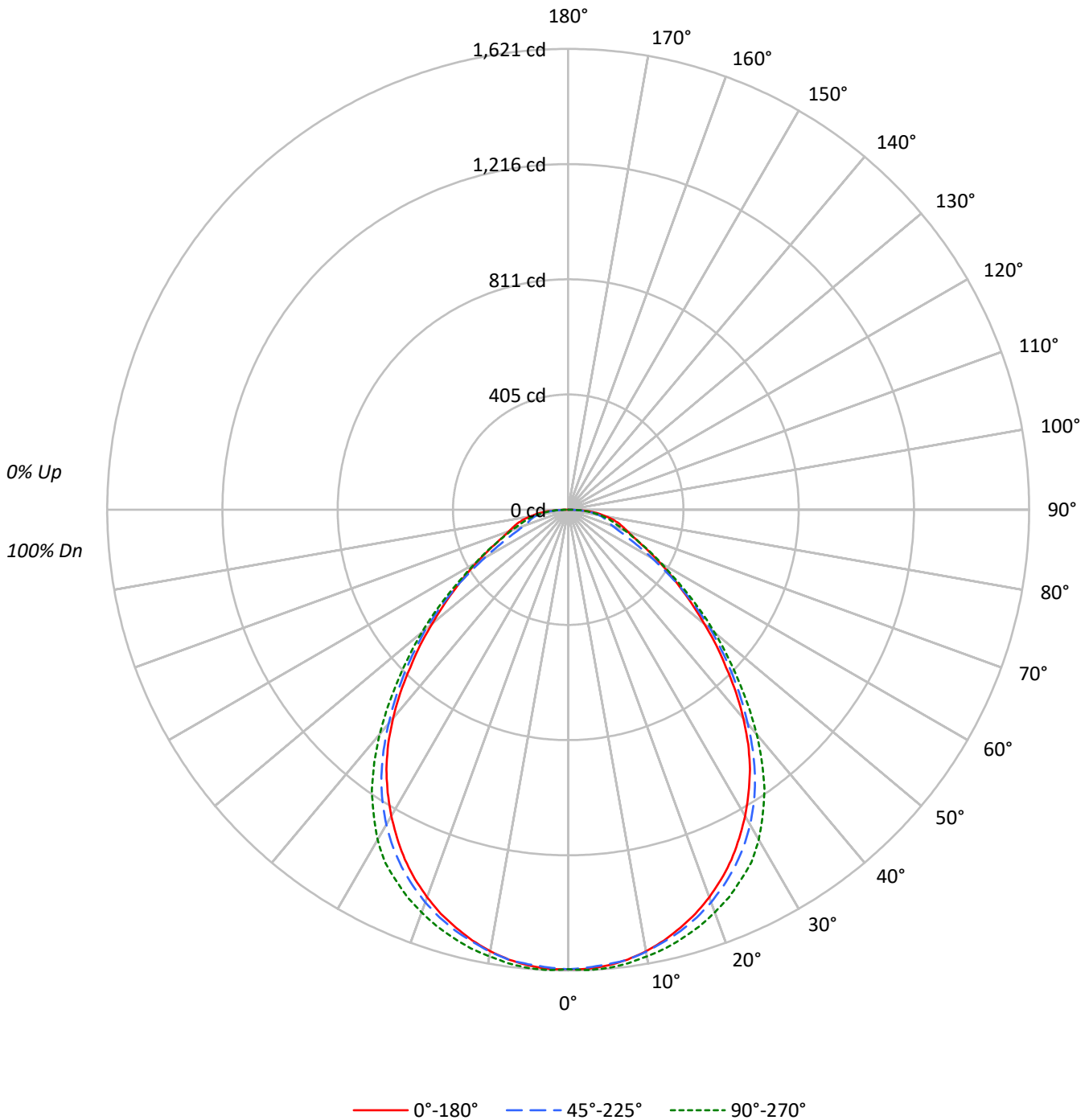
Input Watts (W): 38.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 5177 | 5177 | 5177 |
| 5° | 5173 | 5160 | 5202 |
| 10° | 5129 | 5135 | 5188 |
| 15° | 5048 | 5083 | 5170 |
| 20° | 4944 | 5008 | 5136 |
| 25° | 4799 | 4898 | 5077 |
| 30° | 4599 | 4729 | 4956 |
| 35° | 4358 | 4479 | 4706 |
| 40° | 4007 | 4105 | 4311 |
| 45° | 3559 | 3688 | 3822 |
| 50° | 3108 | 3251 | 3349 |
| 55° | 2703 | 2739 | 2840 |
| 60° | 2378 | 2178 | 2425 |
| 65° | 2113 | 1741 | 2125 |
| 70° | 2075 | 1547 | 1960 |
| 75° | 2267 | 1699 | 2003 |
| 80° | 2488 | 2021 | 2141 |
| 85° | 2973 | 2344 | 2403 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 152.8 | 4.4 |
| 10°-20° | 433.3 | 12.4 |
| 20°-30° | 639.6 | 18.2 |
| 30°-40° | 715.7 | 20.4 |
| 40°-50° | 628.5 | 17.9 |
| 50°-60° | 444.7 | 12.7 |
| 60°-70° | 258.9 | 7.4 |
| 70°-80° | 161.3 | 4.6 |
| 80°-90° | 72.2 | 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° | 1225.7 | 34.9 |
| 0°-40° | 1941.4 | 55.4 |
| 0°-60° | 3014.7 | 86.0 |
| 0°-90° | 3507.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3507.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1617 | 1617 | 1617 | 1617 | 1617 | |
| 5° | 1609 | 1605 | 1605 | 1613 | 1618 | 153 |
| 15° | 1522 | 1526 | 1533 | 1550 | 1559 | 429 |
| 25° | 1358 | 1364 | 1386 | 1419 | 1437 | 624 |
| 35° | 1115 | 1120 | 1146 | 1180 | 1204 | 693 |
| 45° | 786 | 795 | 814 | 834 | 844 | 608 |
| 55° | 484 | 494 | 491 | 500 | 509 | 438 |
| 65° | 279 | 257 | 230 | 250 | 280 | 283 |
| 75° | 183 | 158 | 137 | 141 | 162 | 191 |
| 85° | 81 | 84 | 64 | 62 | 65 | 82 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P213854

CATALOG NUMBER: 22GR-LD5-40-A125-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1616.6 | 1616.6 | 1616.6 | 1616.6 | 1616.6 |
| 2.5° | 1616.6 | 1613.4 | 1611.7 | 1617.4 | 1620.7 |
| 5° | 1609.2 | 1605.1 | 1605.1 | 1613.4 | 1618.3 |
| 7.5° | 1596.2 | 1592.0 | 1596.9 | 1604.3 | 1609.2 |
| 10° | 1577.3 | 1575.7 | 1579.0 | 1588.8 | 1595.3 |
| 12.5° | 1552.8 | 1553.6 | 1556.9 | 1572.4 | 1580.6 |
| 15° | 1522.5 | 1525.8 | 1533.2 | 1549.5 | 1559.4 |
| 17.5° | 1489.9 | 1492.3 | 1503.7 | 1522.5 | 1536.5 |
| 20° | 1450.6 | 1455.5 | 1469.4 | 1493.1 | 1507.0 |
| 22.5° | 1407.2 | 1413.0 | 1430.2 | 1458.7 | 1475.9 |
| 25° | 1358.2 | 1364.0 | 1386.0 | 1418.7 | 1436.7 |
| 27.5° | 1302.6 | 1311.6 | 1336.1 | 1372.1 | 1396.6 |
| 30° | 1243.7 | 1251.0 | 1278.9 | 1319.8 | 1340.2 |
| 32.5° | 1180.8 | 1189.7 | 1216.0 | 1255.2 | 1273.1 |
| 35° | 1114.6 | 1119.5 | 1145.6 | 1179.9 | 1203.7 |
| 37.5° | 1039.3 | 1041.7 | 1066.3 | 1098.1 | 1119.5 |
| 40° | 958.4 | 960.0 | 982.0 | 1012.3 | 1031.1 |
| 42.5° | 874.1 | 875.0 | 898.6 | 921.6 | 937.9 |
| 45° | 785.8 | 794.8 | 814.4 | 834.0 | 843.8 |
| 47.5° | 706.5 | 713.0 | 731.0 | 748.2 | 757.2 |
| 50° | 623.9 | 640.3 | 652.5 | 661.5 | 672.2 |
| 52.5° | 552.7 | 566.7 | 569.9 | 580.6 | 589.5 |
| 55° | 484.1 | 493.9 | 490.6 | 499.6 | 508.6 |
| 57.5° | 426.0 | 421.1 | 410.5 | 426.0 | 437.5 |
| 60° | 371.3 | 358.2 | 340.1 | 361.5 | 378.6 |
| 62.5° | 322.2 | 300.9 | 278.8 | 300.1 | 328.7 |
| 65° | 278.8 | 256.8 | 229.8 | 250.2 | 280.4 |
| 67.5° | 246.1 | 223.3 | 191.4 | 211.8 | 242.0 |
| 70° | 221.6 | 197.9 | 165.2 | 182.3 | 209.3 |
| 72.5° | 202.0 | 176.6 | 148.0 | 159.4 | 182.3 |
| 75° | 183.2 | 157.8 | 137.3 | 140.6 | 161.9 |
| 77.5° | 161.1 | 142.2 | 125.9 | 124.3 | 140.6 |
| 80° | 134.9 | 129.2 | 109.6 | 107.2 | 116.1 |
| 82.5° | 111.2 | 108.8 | 90.0 | 87.5 | 90.7 |
| 85° | 80.9 | 84.2 | 63.8 | 62.2 | 65.4 |
| 87.5° | 42.5 | 46.6 | 33.5 | 35.2 | 35.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)