

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: P219176

Luminaire Tested: **24GR-LD5-38-A125-UNV-L940-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219176  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-38-A125-UNV-L940-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH A125 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3399.8 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

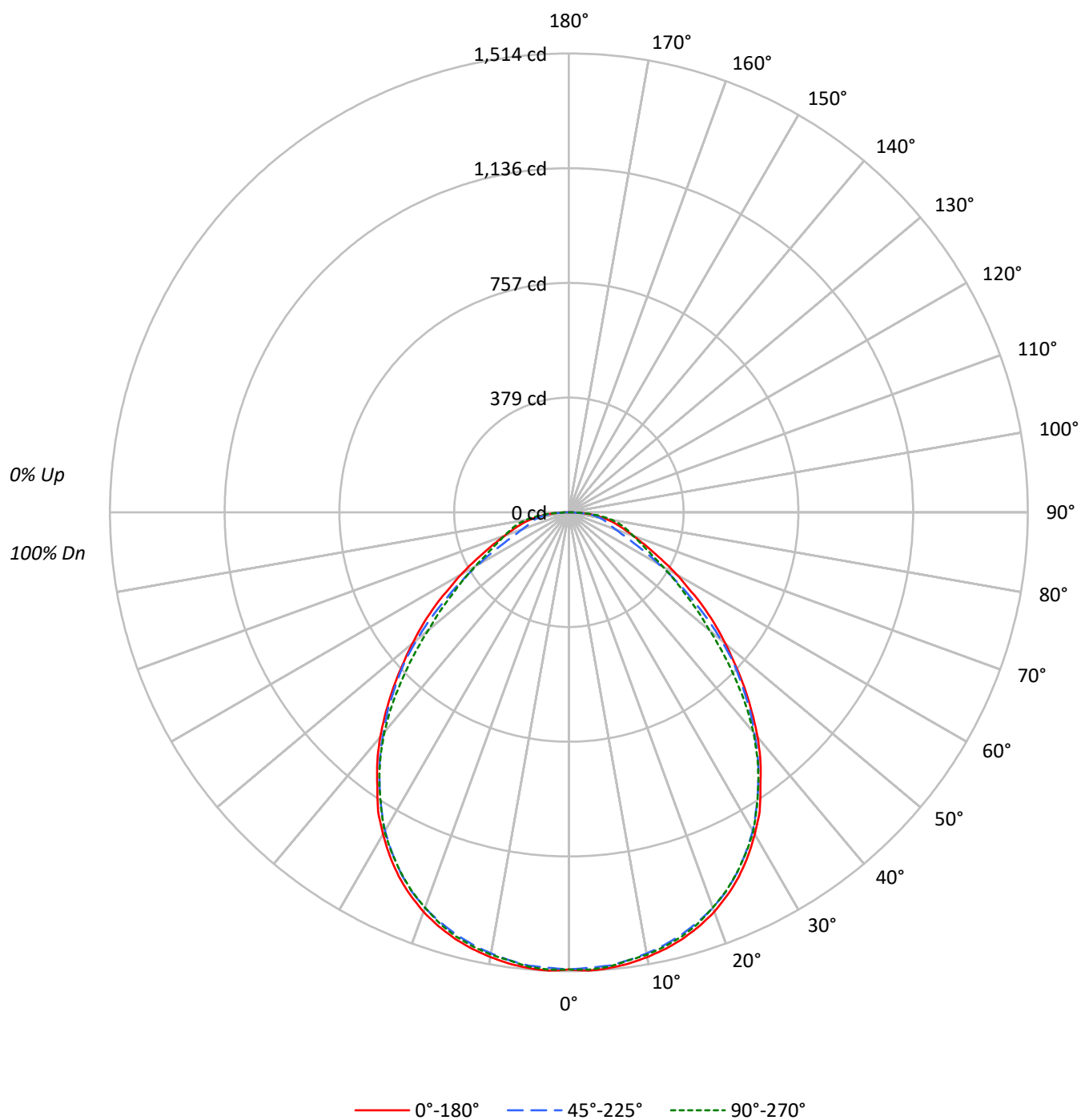
Input Watts (W): 30.624  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 89  | 88  | 86  |    |    |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 75  | 73  |    |    |
| 3   | 93  | 83  | 75  | 69  | 90  | 81  | 74  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 73  | 69  | 65  | 63  |    |    |
| 4   | 86  | 74  | 66  | 60  | 83  | 73  | 65  | 60  | 71  | 64  | 59  | 68  | 63  | 58  | 66  | 61  | 57  | 55  |    |    |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 49  |    |    |
| 6   | 73  | 61  | 53  | 46  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 43  |    |    |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 35  |    |    |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 43  | 38  | 33  | 32  |    |    |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 40  | 35  | 30  | 29  |    |    |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2310 | 2310 | 2310 |
| 5°  | 2322 | 2309 | 2314 |
| 10° | 2317 | 2299 | 2305 |
| 15° | 2309 | 2285 | 2295 |
| 20° | 2286 | 2263 | 2262 |
| 25° | 2242 | 2218 | 2216 |
| 30° | 2168 | 2146 | 2150 |
| 35° | 2059 | 2036 | 2039 |
| 40° | 1936 | 1903 | 1891 |
| 45° | 1775 | 1751 | 1681 |
| 50° | 1604 | 1561 | 1443 |
| 55° | 1440 | 1311 | 1244 |
| 60° | 1261 | 1055 | 1094 |
| 65° | 1100 | 830  | 1007 |
| 70° | 1007 | 725  | 1007 |
| 75° | 1007 | 771  | 1110 |
| 80° | 1093 | 908  | 1265 |
| 85° | 1200 | 1025 | 1357 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 142.8  | 4.2       |
| 10°-20°   | 407.6  | 12.0      |
| 20°-30°   | 604.5  | 17.8      |
| 30°-40°   | 681.9  | 20.1      |
| 40°-50°   | 617.6  | 18.2      |
| 50°-60°   | 445.6  | 13.1      |
| 60°-70°   | 266.0  | 7.8       |
| 70°-80°   | 164.4  | 4.8       |
| 80°-90°   | 69.3   | 2.0       |
| 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°    | 1154.9 | 34.0      |
| 0°-40°    | 1836.8 | 54.0      |
| 0°-60°    | 2900.0 | 85.3      |
| 0°-90°    | 3399.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3399.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1508 | 1508  | 1508 | 1508  | 1508 |      |
| 5°  | 1510 | 1508  | 1502 | 1500  | 1505 | 143  |
| 15° | 1456 | 1447  | 1441 | 1442  | 1448 | 410  |
| 25° | 1327 | 1319  | 1312 | 1308  | 1312 | 609  |
| 35° | 1101 | 1100  | 1089 | 1089  | 1090 | 689  |
| 45° | 819  | 814   | 808  | 788   | 776  | 631  |
| 55° | 539  | 523   | 491  | 467   | 466  | 482  |
| 65° | 304  | 267   | 229  | 260   | 278  | 305  |
| 75° | 170  | 148   | 130  | 162   | 188  | 182  |
| 85° | 68   | 60    | 58   | 76    | 77   | 71   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1508.4 | 1508.4 | 1508.4 | 1508.4 | 1508.4 |
| 2.5°  | 1513.7 | 1509.5 | 1504.2 | 1507.4 | 1510.0 |
| 5°    | 1510.0 | 1507.9 | 1501.6 | 1500.0 | 1505.3 |
| 7.5°  | 1502.1 | 1496.8 | 1491.1 | 1493.7 | 1491.6 |
| 10°   | 1490.0 | 1485.3 | 1478.0 | 1478.5 | 1482.1 |
| 12.5° | 1475.3 | 1469.6 | 1461.7 | 1463.8 | 1466.9 |
| 15°   | 1455.9 | 1447.0 | 1441.2 | 1441.7 | 1447.5 |
| 17.5° | 1431.2 | 1424.4 | 1417.0 | 1418.6 | 1421.2 |
| 20°   | 1402.8 | 1399.1 | 1388.6 | 1385.5 | 1388.1 |
| 22.5° | 1367.1 | 1360.3 | 1354.5 | 1353.0 | 1353.5 |
| 25°   | 1326.7 | 1319.3 | 1312.5 | 1307.8 | 1311.5 |
| 27.5° | 1279.4 | 1273.1 | 1264.2 | 1262.7 | 1265.7 |
| 30°   | 1225.8 | 1221.1 | 1213.3 | 1211.1 | 1215.9 |
| 32.5° | 1171.2 | 1163.3 | 1152.3 | 1152.3 | 1153.3 |
| 35°   | 1101.4 | 1099.8 | 1088.8 | 1089.3 | 1090.3 |
| 37.5° | 1038.4 | 1031.0 | 1024.7 | 1018.4 | 1021.5 |
| 40°   | 968.5  | 960.1  | 951.7  | 947.5  | 945.9  |
| 42.5° | 893.4  | 887.1  | 883.4  | 868.2  | 864.5  |
| 45°   | 819.3  | 814.1  | 808.3  | 788.4  | 776.2  |
| 47.5° | 743.7  | 742.7  | 738.0  | 702.7  | 690.7  |
| 50°   | 673.3  | 671.7  | 655.0  | 617.7  | 605.6  |
| 52.5° | 606.6  | 596.2  | 574.0  | 537.3  | 535.2  |
| 55°   | 539.4  | 522.6  | 491.1  | 466.9  | 465.9  |
| 57.5° | 468.5  | 448.6  | 416.5  | 403.3  | 410.2  |
| 60°   | 411.8  | 381.3  | 344.5  | 346.2  | 357.2  |
| 62.5° | 352.9  | 318.8  | 282.6  | 298.3  | 311.5  |
| 65°   | 303.6  | 267.4  | 229.0  | 260.0  | 277.9  |
| 67.5° | 260.5  | 226.9  | 190.1  | 231.6  | 249.0  |
| 70°   | 224.8  | 197.5  | 161.8  | 205.4  | 224.8  |
| 72.5° | 196.4  | 171.2  | 143.4  | 184.4  | 206.9  |
| 75°   | 170.2  | 147.6  | 130.3  | 162.3  | 187.5  |
| 77.5° | 147.6  | 125.6  | 117.6  | 143.4  | 168.0  |
| 80°   | 123.9  | 104.0  | 102.9  | 125.0  | 143.4  |
| 82.5° | 96.7   | 83.0   | 83.0   | 104.5  | 115.6  |
| 85°   | 68.3   | 59.9   | 58.3   | 76.2   | 77.2   |
| 87.5° | 35.2   | 33.6   | 30.4   | 39.9   | 39.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)