

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: P219149

Luminaire Tested: **24GR-LD5-56-A125-UNV-L930-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219149  
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-LD5-56-A125-UNV-L930-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH A125 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4537.2 lumens  
Efficiency: N/A  
Efficacy: 100.4 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

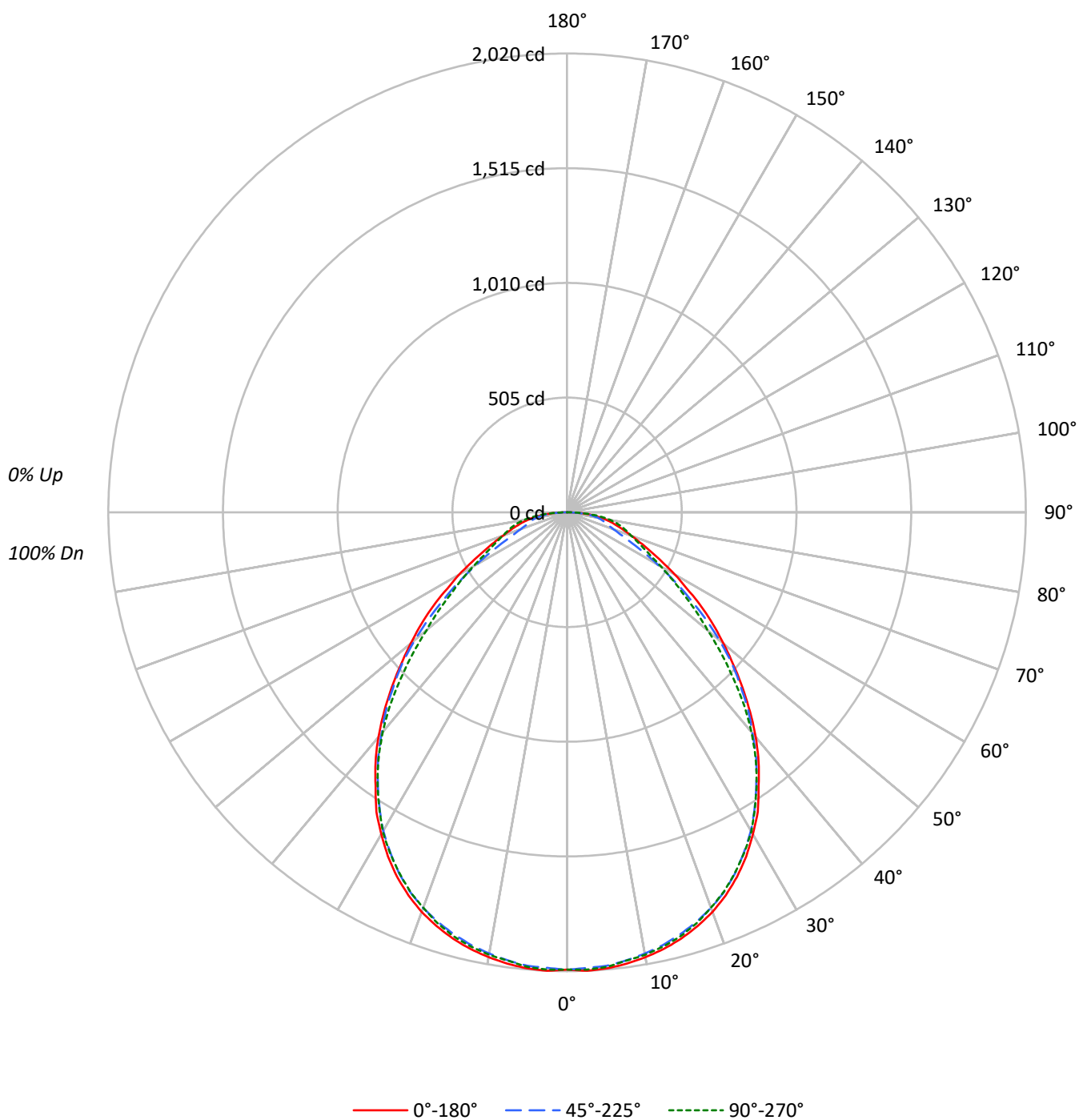
Input Watts (W): 45.182  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3083 | 3083 | 3083 |
| 5°  | 3098 | 3081 | 3089 |
| 10° | 3093 | 3068 | 3076 |
| 15° | 3081 | 3050 | 3063 |
| 20° | 3052 | 3021 | 3019 |
| 25° | 2992 | 2960 | 2958 |
| 30° | 2893 | 2864 | 2870 |
| 35° | 2748 | 2717 | 2721 |
| 40° | 2584 | 2539 | 2524 |
| 45° | 2369 | 2337 | 2244 |
| 50° | 2141 | 2083 | 1926 |
| 55° | 1922 | 1750 | 1660 |
| 60° | 1684 | 1408 | 1460 |
| 65° | 1468 | 1108 | 1344 |
| 70° | 1343 | 967  | 1343 |
| 75° | 1344 | 1029 | 1481 |
| 80° | 1459 | 1212 | 1688 |
| 85° | 1601 | 1367 | 1812 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 190.6  | 4.2       |
| 10°-20°   | 544.0  | 12.0      |
| 20°-30°   | 806.7  | 17.8      |
| 30°-40°   | 910.0  | 20.1      |
| 40°-50°   | 824.2  | 18.2      |
| 50°-60°   | 594.6  | 13.1      |
| 60°-70°   | 355.0  | 7.8       |
| 70°-80°   | 219.4  | 4.8       |
| 80°-90°   | 92.5   | 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°    | 1541.4 | 34.0      |
| 0°-40°    | 2451.4 | 54.0      |
| 0°-60°    | 3870.2 | 85.3      |
| 0°-90°    | 4537.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4537.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2013 | 2013  | 2013 | 2013  | 2013 |      |
| 5°  | 2015 | 2012  | 2004 | 2002  | 2009 | 191  |
| 15° | 1943 | 1931  | 1923 | 1924  | 1932 | 548  |
| 25° | 1770 | 1761  | 1752 | 1745  | 1750 | 813  |
| 35° | 1470 | 1468  | 1453 | 1454  | 1455 | 920  |
| 45° | 1094 | 1086  | 1079 | 1052  | 1036 | 843  |
| 55° | 720  | 697   | 655  | 623   | 622  | 643  |
| 65° | 405  | 357   | 306  | 347   | 371  | 408  |
| 75° | 227  | 197   | 174  | 217   | 250  | 243  |
| 85° | 91   | 80    | 78   | 102   | 103  | 95   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2013.1 | 2013.1 | 2013.1 | 2013.1 | 2013.1 |
| 2.5°  | 2020.1 | 2014.5 | 2007.5 | 2011.7 | 2015.2 |
| 5°    | 2015.2 | 2012.4 | 2004.0 | 2001.9 | 2008.9 |
| 7.5°  | 2004.7 | 1997.7 | 1990.0 | 1993.5 | 1990.6 |
| 10°   | 1988.6 | 1982.3 | 1972.4 | 1973.2 | 1978.0 |
| 12.5° | 1968.9 | 1961.2 | 1950.7 | 1953.5 | 1957.7 |
| 15°   | 1943.0 | 1931.1 | 1923.4 | 1924.0 | 1931.8 |
| 17.5° | 1910.0 | 1900.9 | 1891.2 | 1893.2 | 1896.7 |
| 20°   | 1872.2 | 1867.3 | 1853.3 | 1849.1 | 1852.5 |
| 22.5° | 1824.5 | 1815.4 | 1807.7 | 1805.6 | 1806.3 |
| 25°   | 1770.5 | 1760.8 | 1751.6 | 1745.4 | 1750.2 |
| 27.5° | 1707.5 | 1699.0 | 1687.2 | 1685.0 | 1689.3 |
| 30°   | 1636.0 | 1629.7 | 1619.2 | 1616.4 | 1622.7 |
| 32.5° | 1563.1 | 1552.6 | 1537.8 | 1537.8 | 1539.2 |
| 35°   | 1469.8 | 1467.8 | 1453.0 | 1453.8 | 1455.2 |
| 37.5° | 1385.7 | 1376.0 | 1367.5 | 1359.1 | 1363.3 |
| 40°   | 1292.6 | 1281.3 | 1270.1 | 1264.5 | 1262.4 |
| 42.5° | 1192.3 | 1183.9 | 1179.0 | 1158.7 | 1153.7 |
| 45°   | 1093.5 | 1086.4 | 1078.7 | 1052.1 | 1036.0 |
| 47.5° | 992.5  | 991.1  | 984.8  | 937.8  | 921.8  |
| 50°   | 898.6  | 896.5  | 874.0  | 824.3  | 808.2  |
| 52.5° | 809.6  | 795.6  | 766.1  | 717.1  | 714.2  |
| 55°   | 719.9  | 697.4  | 655.3  | 623.1  | 621.7  |
| 57.5° | 625.2  | 598.6  | 555.9  | 538.3  | 547.4  |
| 60°   | 549.6  | 508.9  | 459.8  | 461.9  | 476.7  |
| 62.5° | 471.0  | 425.5  | 377.1  | 398.1  | 415.7  |
| 65°   | 405.2  | 356.8  | 305.6  | 346.9  | 370.8  |
| 67.5° | 347.7  | 302.8  | 253.7  | 309.1  | 332.3  |
| 70°   | 300.0  | 263.5  | 215.9  | 274.0  | 300.0  |
| 72.5° | 262.2  | 228.5  | 191.4  | 246.0  | 276.2  |
| 75°   | 227.1  | 197.0  | 173.8  | 216.6  | 250.3  |
| 77.5° | 197.0  | 167.5  | 157.0  | 191.4  | 224.3  |
| 80°   | 165.4  | 138.8  | 137.4  | 166.8  | 191.4  |
| 82.5° | 129.0  | 110.8  | 110.8  | 139.5  | 154.2  |
| 85°   | 91.1   | 79.9   | 77.8   | 101.6  | 103.1  |
| 87.5° | 47.0   | 44.9   | 40.7   | 53.3   | 53.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)