

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: P219069

Luminaire Tested: **24GR-LD5-30-F1-UNV-L950-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219069  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35585)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-30-F1-UNV-L950-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH F1 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2844.7 lumens  
Efficiency: N/A  
Efficacy: 121.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

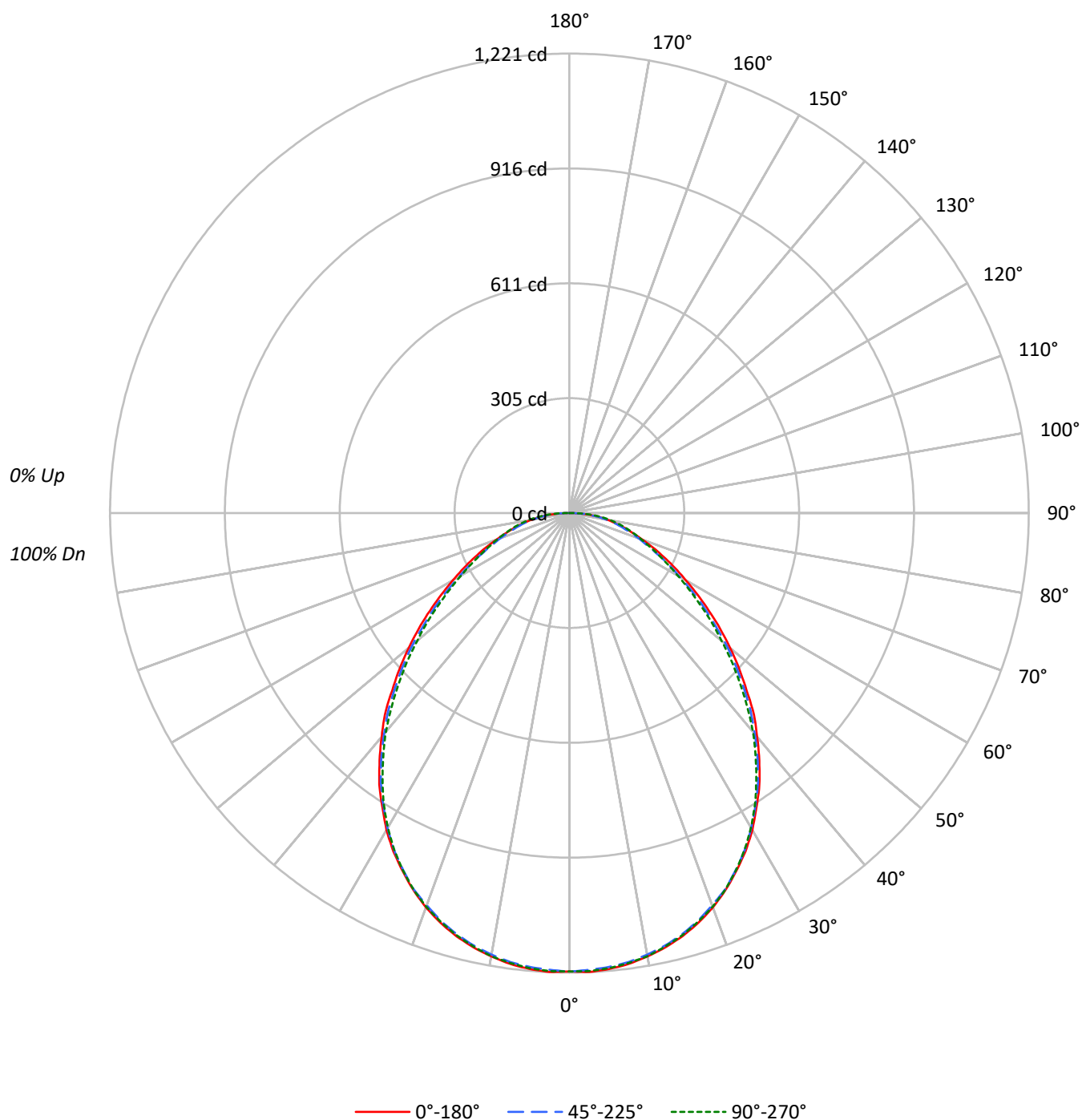
Input Watts (W): 23.434  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |
| 2   | 100 | 92  | 86  | 80  | 98  | 90  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 72  |    |    |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 75  | 69  | 65  | 72  | 68  | 64  | 62  |    |    |
| 4   | 85  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 63  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  | 61  | 55  | 50  | 59  | 54  | 49  | 47  |    |    |
| 6   | 72  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |    |    |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 39  | 49  | 44  | 39  | 37  |    |    |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 33  |    |    |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |    |    |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 33  | 29  | 28  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1866 | 1866 | 1866 |
| 5°  | 1870 | 1861 | 1866 |
| 10° | 1861 | 1853 | 1859 |
| 15° | 1845 | 1837 | 1841 |
| 20° | 1818 | 1807 | 1814 |
| 25° | 1774 | 1768 | 1769 |
| 30° | 1720 | 1710 | 1707 |
| 35° | 1647 | 1634 | 1619 |
| 40° | 1552 | 1532 | 1517 |
| 45° | 1442 | 1416 | 1390 |
| 50° | 1329 | 1295 | 1256 |
| 55° | 1209 | 1167 | 1130 |
| 60° | 1095 | 1037 | 1018 |
| 65° | 1001 | 935  | 941  |
| 70° | 921  | 868  | 910  |
| 75° | 895  | 849  | 927  |
| 80° | 897  | 874  | 986  |
| 85° | 986  | 933  | 1088 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.1  | 4.0       |
| 10°-20°   | 326.6  | 11.5      |
| 20°-30°   | 481.3  | 16.9      |
| 30°-40°   | 544.2  | 19.1      |
| 40°-50°   | 504.8  | 17.7      |
| 50°-60°   | 392.2  | 13.8      |
| 60°-70°   | 263.0  | 9.2       |
| 70°-80°   | 157.6  | 5.5       |
| 80°-90°   | 59.9   | 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°    | 922.9  | 32.4      |
| 0°-40°    | 1467.2 | 51.6      |
| 0°-60°    | 2364.2 | 83.1      |
| 0°-90°    | 2844.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2844.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1218 | 1218  | 1218 | 1218  | 1218 |      |
| 5°  | 1216 | 1213  | 1211 | 1210  | 1214 | 115  |
| 15° | 1164 | 1159  | 1158 | 1156  | 1161 | 328  |
| 25° | 1050 | 1048  | 1046 | 1044  | 1047 | 483  |
| 35° | 881  | 877   | 874  | 868   | 866  | 549  |
| 45° | 666  | 663   | 654  | 644   | 642  | 515  |
| 55° | 453  | 447   | 437  | 426   | 423  | 406  |
| 65° | 276  | 268   | 258  | 257   | 260  | 276  |
| 75° | 151  | 146   | 143  | 150   | 157  | 160  |
| 85° | 56   | 53    | 53   | 62    | 62   | 59   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1218.0 | 1218.0 | 1218.0 | 1218.0 | 1218.0 |
| 2.5°  | 1220.6 | 1216.7 | 1214.9 | 1214.0 | 1218.0 |
| 5°    | 1216.2 | 1212.8 | 1210.6 | 1209.7 | 1214.0 |
| 7.5°  | 1208.4 | 1204.4 | 1203.1 | 1201.3 | 1205.8 |
| 10°   | 1196.5 | 1193.0 | 1191.3 | 1189.9 | 1195.6 |
| 12.5° | 1181.6 | 1178.5 | 1176.8 | 1175.9 | 1179.4 |
| 15°   | 1163.6 | 1158.8 | 1158.3 | 1156.2 | 1161.0 |
| 17.5° | 1141.2 | 1136.9 | 1136.0 | 1135.1 | 1138.1 |
| 20°   | 1115.4 | 1111.0 | 1108.7 | 1108.4 | 1113.2 |
| 22.5° | 1084.3 | 1081.2 | 1082.0 | 1079.4 | 1082.9 |
| 25°   | 1049.6 | 1048.2 | 1046.0 | 1044.3 | 1047.0 |
| 27.5° | 1013.6 | 1009.2 | 1009.2 | 1005.7 | 1008.4 |
| 30°   | 972.3  | 969.3  | 966.7  | 963.1  | 965.0  |
| 32.5° | 925.9  | 924.6  | 920.6  | 917.1  | 918.0  |
| 35°   | 880.7  | 877.2  | 873.7  | 868.4  | 865.8  |
| 37.5° | 828.9  | 825.5  | 821.1  | 813.6  | 812.7  |
| 40°   | 776.3  | 773.2  | 766.2  | 758.3  | 758.8  |
| 42.5° | 726.4  | 721.5  | 712.7  | 702.2  | 700.0  |
| 45°   | 665.8  | 663.2  | 653.9  | 643.8  | 641.6  |
| 47.5° | 611.9  | 610.1  | 598.7  | 588.1  | 585.5  |
| 50°   | 557.9  | 553.1  | 543.5  | 532.9  | 527.2  |
| 52.5° | 504.9  | 498.7  | 486.4  | 479.4  | 476.7  |
| 55°   | 452.6  | 447.4  | 436.9  | 425.9  | 423.2  |
| 57.5° | 403.9  | 398.2  | 385.6  | 377.7  | 376.3  |
| 60°   | 357.4  | 352.2  | 338.6  | 332.9  | 332.4  |
| 62.5° | 316.2  | 307.5  | 298.2  | 294.3  | 294.7  |
| 65°   | 276.3  | 267.5  | 257.9  | 257.0  | 259.6  |
| 67.5° | 241.2  | 232.0  | 222.4  | 225.9  | 228.5  |
| 70°   | 205.7  | 199.1  | 193.8  | 199.6  | 203.1  |
| 72.5° | 175.4  | 171.5  | 166.7  | 174.5  | 178.9  |
| 75°   | 151.3  | 146.1  | 143.4  | 150.4  | 156.6  |
| 77.5° | 125.4  | 121.0  | 121.0  | 128.5  | 135.0  |
| 80°   | 101.7  | 98.6   | 99.1   | 107.9  | 111.8  |
| 82.5° | 79.8   | 75.4   | 75.9   | 86.8   | 89.5   |
| 85°   | 56.1   | 52.6   | 53.1   | 62.2   | 61.9   |
| 87.5° | 29.4   | 28.0   | 29.4   | 35.9   | 34.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)