

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: P292059

Luminaire Tested: **22GR-LD5-43-F125-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292059  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33295)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-43-F125-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3997.0 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.19 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

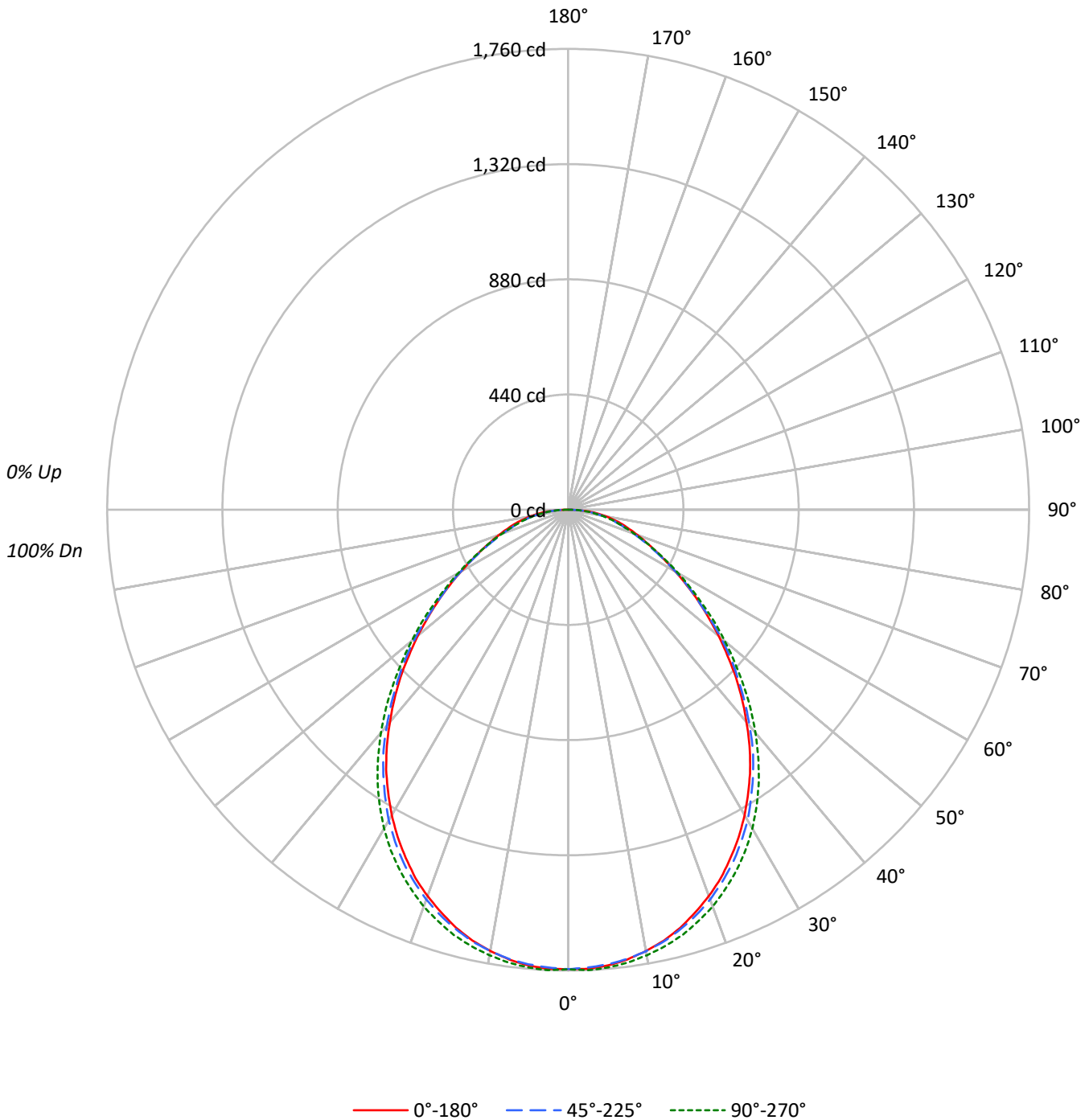
Input Watts (W): 36.084  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 110 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |    |    | 73  |   |  |   |
| 3   | 92  | 82  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 68  | 65  | 62  |    |    |    |    | 62  |   |  |   |
| 4   | 85  | 74  | 65  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 65  | 60  | 56  | 54  |    |    |    |    | 54  |   |  |   |
| 5   | 78  | 66  | 58  | 52  | 76  | 65  | 57  | 51  | 63  | 56  | 51  | 61  | 55  | 50  | 59  | 54  | 50  | 48  |    |    |    |    | 48  |   |  |   |
| 6   | 73  | 60  | 52  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 56  | 49  | 45  | 54  | 49  | 44  | 42  |    |    |    |    | 42  |   |  |   |
| 7   | 68  | 55  | 46  | 41  | 66  | 54  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |    |    | 38  |   |  |   |
| 8   | 63  | 50  | 42  | 36  | 62  | 50  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 36  | 34  |    |    |    |    | 34  |   |  |   |
| 9   | 59  | 46  | 38  | 33  | 58  | 46  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 33  | 43  | 37  | 33  | 31  |    |    |    |    | 31  |   |  |   |
| 10  | 56  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 40  | 34  | 30  | 28  |    |    |    |    | 28  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4722 | 4722 | 4722 |
| 5°  | 4720 | 4707 | 4740 |
| 10° | 4676 | 4678 | 4721 |
| 15° | 4604 | 4620 | 4687 |
| 20° | 4496 | 4536 | 4619 |
| 25° | 4356 | 4417 | 4513 |
| 30° | 4184 | 4256 | 4369 |
| 35° | 3979 | 4043 | 4168 |
| 40° | 3720 | 3782 | 3906 |
| 45° | 3445 | 3498 | 3600 |
| 50° | 3137 | 3188 | 3269 |
| 55° | 2833 | 2841 | 2924 |
| 60° | 2541 | 2551 | 2610 |
| 65° | 2315 | 2267 | 2321 |
| 70° | 2204 | 2079 | 2116 |
| 75° | 2218 | 2006 | 2015 |
| 80° | 2300 | 2027 | 2011 |
| 85° | 2519 | 2149 | 2032 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 165.8  | 4.1       |
| 10°-20°   | 468.3  | 11.7      |
| 20°-30°   | 685.4  | 17.1      |
| 30°-40°   | 770.6  | 19.3      |
| 40°-50°   | 710.7  | 17.8      |
| 50°-60°   | 547.7  | 13.7      |
| 60°-70°   | 361.4  | 9.0       |
| 70°-80°   | 210.4  | 5.3       |
| 80°-90°   | 76.6   | 1.9       |
| 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°    | 1319.5 | 33.0      |
| 0°-40°    | 2090.1 | 52.3      |
| 0°-60°    | 3348.5 | 83.8      |
| 0°-90°    | 3997.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3997.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1755 | 1755  | 1755 | 1755  | 1755 |      |
| 5°  | 1747 | 1744  | 1743 | 1751  | 1755 | 166  |
| 15° | 1653 | 1653  | 1658 | 1673  | 1682 | 465  |
| 25° | 1467 | 1475  | 1488 | 1508  | 1520 | 675  |
| 35° | 1211 | 1217  | 1231 | 1256  | 1269 | 755  |
| 45° | 905  | 906   | 919  | 938   | 946  | 697  |
| 55° | 604  | 603   | 606  | 616   | 623  | 542  |
| 65° | 364  | 362   | 356  | 359   | 364  | 365  |
| 75° | 213  | 204   | 193  | 189   | 194  | 225  |
| 85° | 82   | 81    | 70   | 64    | 66   | 86   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1754.7 | 1754.7 | 1754.7 | 1754.7 | 1754.7 |
| 2.5°  | 1754.7 | 1751.0 | 1750.1 | 1756.6 | 1760.3 |
| 5°    | 1747.3 | 1743.6 | 1742.6 | 1751.0 | 1754.7 |
| 7.5°  | 1732.4 | 1729.7 | 1730.6 | 1739.9 | 1744.5 |
| 10°   | 1711.1 | 1710.2 | 1712.0 | 1722.2 | 1727.8 |
| 12.5° | 1686.1 | 1685.1 | 1688.9 | 1700.0 | 1707.4 |
| 15°   | 1652.7 | 1652.7 | 1658.2 | 1673.1 | 1682.4 |
| 17.5° | 1612.8 | 1615.6 | 1623.9 | 1638.8 | 1649.0 |
| 20°   | 1570.1 | 1572.9 | 1584.1 | 1600.7 | 1612.8 |
| 22.5° | 1522.8 | 1526.6 | 1537.7 | 1558.1 | 1568.3 |
| 25°   | 1467.2 | 1474.6 | 1487.6 | 1508.0 | 1520.1 |
| 27.5° | 1409.7 | 1418.0 | 1430.1 | 1455.1 | 1466.3 |
| 30°   | 1346.6 | 1352.2 | 1369.8 | 1393.0 | 1406.0 |
| 32.5° | 1279.9 | 1285.4 | 1300.3 | 1328.1 | 1339.2 |
| 35°   | 1211.2 | 1216.8 | 1230.7 | 1255.7 | 1268.7 |
| 37.5° | 1137.0 | 1141.7 | 1158.4 | 1177.8 | 1191.7 |
| 40°   | 1059.1 | 1065.6 | 1076.7 | 1099.9 | 1112.0 |
| 42.5° | 983.1  | 985.9  | 997.9  | 1021.1 | 1030.4 |
| 45°   | 905.2  | 906.1  | 919.1  | 937.6  | 946.0  |
| 47.5° | 824.5  | 826.3  | 842.1  | 853.2  | 861.6  |
| 50°   | 749.4  | 750.3  | 761.4  | 771.6  | 780.9  |
| 52.5° | 674.2  | 674.2  | 679.8  | 690.9  | 703.0  |
| 55°   | 603.8  | 602.8  | 605.6  | 615.8  | 623.2  |
| 57.5° | 537.0  | 536.1  | 539.8  | 546.3  | 551.8  |
| 60°   | 472.1  | 470.2  | 473.9  | 477.6  | 485.0  |
| 62.5° | 414.6  | 416.4  | 411.8  | 417.3  | 422.9  |
| 65°   | 363.6  | 361.7  | 356.1  | 358.9  | 364.5  |
| 67.5° | 320.0  | 317.2  | 307.9  | 309.8  | 316.3  |
| 70°   | 280.1  | 274.5  | 264.3  | 264.3  | 269.0  |
| 72.5° | 243.9  | 238.3  | 225.4  | 226.3  | 228.1  |
| 75°   | 213.3  | 204.0  | 192.9  | 189.2  | 193.8  |
| 77.5° | 179.9  | 172.5  | 162.3  | 159.5  | 161.4  |
| 80°   | 148.4  | 142.8  | 130.8  | 127.1  | 129.8  |
| 82.5° | 117.8  | 113.1  | 99.2   | 96.5   | 97.4   |
| 85°   | 81.6   | 80.7   | 69.6   | 64.0   | 65.8   |
| 87.5° | 43.6   | 44.5   | 36.2   | 32.5   | 34.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)