

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: P292342

Luminaire Tested: **22GR-LD5-36-A125-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292342  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33297)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-36-A125-UNV-L83050-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A125 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3600.0 lumens  
Efficiency: N/A  
Efficacy: 128.2 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

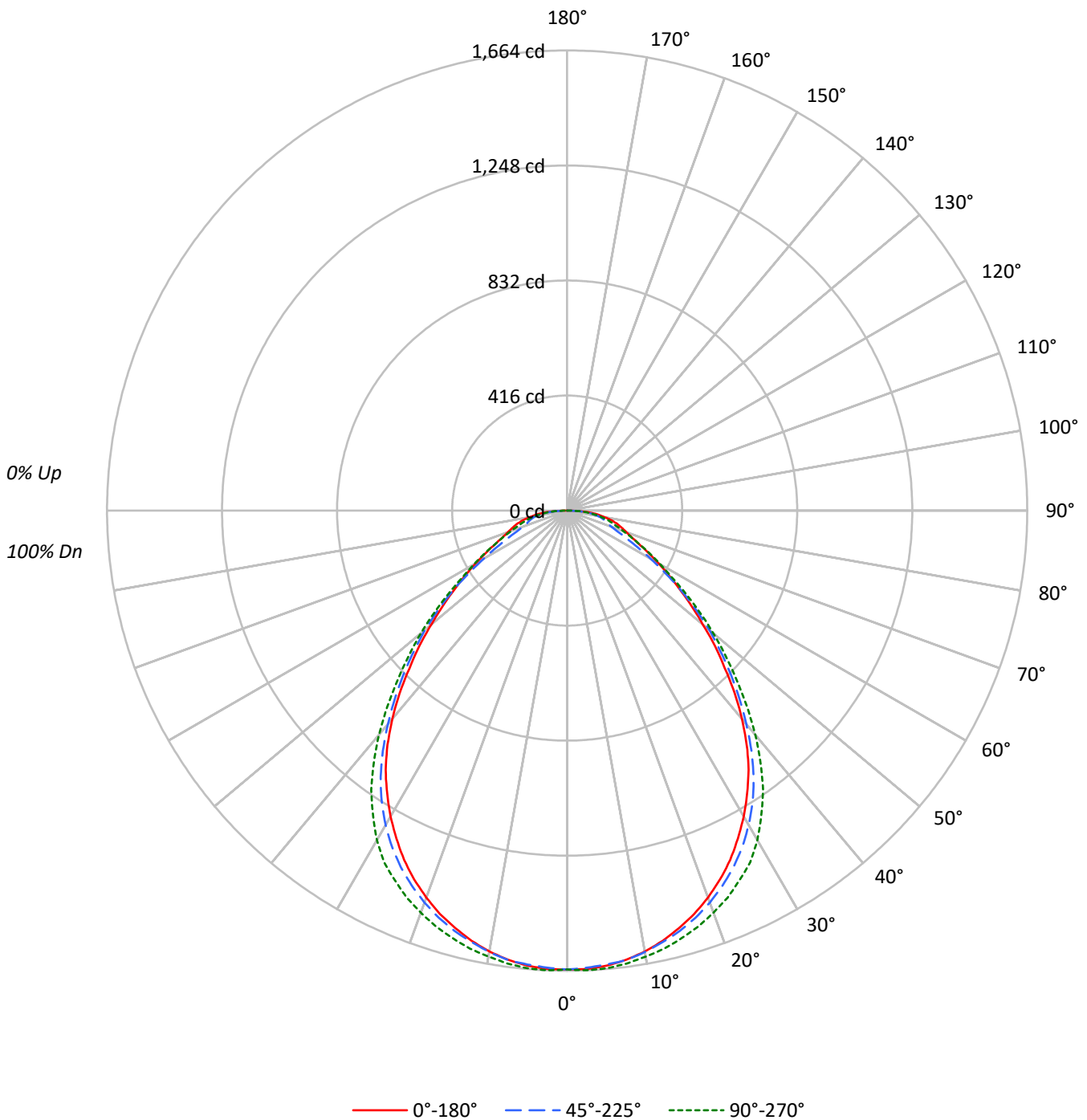
Input Watts (W): 28.086  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 4465 | 4465 | 4465 |
| 5°  | 4462 | 4451 | 4487 |
| 10° | 4424 | 4429 | 4475 |
| 15° | 4354 | 4384 | 4459 |
| 20° | 4264 | 4319 | 4430 |
| 25° | 4140 | 4224 | 4379 |
| 30° | 3967 | 4079 | 4275 |
| 35° | 3758 | 3863 | 4059 |
| 40° | 3456 | 3541 | 3718 |
| 45° | 3070 | 3181 | 3296 |
| 50° | 2681 | 2804 | 2889 |
| 55° | 2331 | 2363 | 2449 |
| 60° | 2051 | 1879 | 2091 |
| 65° | 1822 | 1502 | 1833 |
| 70° | 1790 | 1334 | 1691 |
| 75° | 1955 | 1466 | 1728 |
| 80° | 2146 | 1743 | 1847 |
| 85° | 2566 | 2022 | 2072 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 156.8  | 4.4       |
| 10°-20°   | 444.8  | 12.4      |
| 20°-30°   | 656.6  | 18.2      |
| 30°-40°   | 734.7  | 20.4      |
| 40°-50°   | 645.2  | 17.9      |
| 50°-60°   | 456.5  | 12.7      |
| 60°-70°   | 265.7  | 7.4       |
| 70°-80°   | 165.6  | 4.6       |
| 80°-90°   | 74.1   | 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°    | 1258.2 | 34.9      |
| 0°-40°    | 1992.9 | 55.4      |
| 0°-60°    | 3094.6 | 86.0      |
| 0°-90°    | 3600.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3600.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1659 | 1659  | 1659 | 1659  | 1659 |      |
| 5°  | 1652 | 1648  | 1648 | 1656  | 1661 | 157  |
| 15° | 1563 | 1566  | 1574 | 1591  | 1601 | 440  |
| 25° | 1394 | 1400  | 1423 | 1456  | 1475 | 640  |
| 35° | 1144 | 1149  | 1176 | 1211  | 1236 | 711  |
| 45° | 807  | 816   | 836  | 856   | 866  | 624  |
| 55° | 497  | 507   | 504  | 513   | 522  | 449  |
| 65° | 286  | 264   | 236  | 257   | 288  | 290  |
| 75° | 188  | 162   | 141  | 144   | 166  | 196  |
| 85° | 83   | 86    | 66   | 64    | 67   | 84   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1659.4 | 1659.4 | 1659.4 | 1659.4 | 1659.4 |
| 2.5°  | 1659.4 | 1656.1 | 1654.4 | 1660.3 | 1663.6 |
| 5°    | 1651.9 | 1647.7 | 1647.7 | 1656.1 | 1661.1 |
| 7.5°  | 1638.4 | 1634.2 | 1639.3 | 1646.8 | 1651.9 |
| 10°   | 1619.1 | 1617.5 | 1620.8 | 1630.9 | 1637.6 |
| 12.5° | 1594.0 | 1594.8 | 1598.1 | 1614.1 | 1622.5 |
| 15°   | 1562.9 | 1566.3 | 1573.8 | 1590.6 | 1600.7 |
| 17.5° | 1529.3 | 1531.8 | 1543.6 | 1562.9 | 1577.2 |
| 20°   | 1489.0 | 1494.1 | 1508.3 | 1532.7 | 1546.9 |
| 22.5° | 1444.5 | 1450.4 | 1468.0 | 1497.4 | 1515.1 |
| 25°   | 1394.2 | 1400.1 | 1422.7 | 1456.3 | 1474.8 |
| 27.5° | 1337.1 | 1346.3 | 1371.5 | 1408.5 | 1433.6 |
| 30°   | 1276.7 | 1284.2 | 1312.8 | 1354.7 | 1375.7 |
| 32.5° | 1212.0 | 1221.3 | 1248.1 | 1288.4 | 1306.9 |
| 35°   | 1144.1 | 1149.1 | 1175.9 | 1211.2 | 1235.5 |
| 37.5° | 1066.8 | 1069.3 | 1094.5 | 1127.3 | 1149.1 |
| 40°   | 983.7  | 985.4  | 1008.1 | 1039.1 | 1058.4 |
| 42.5° | 897.3  | 898.1  | 922.5  | 946.0  | 962.7  |
| 45°   | 806.6  | 815.9  | 836.0  | 856.2  | 866.2  |
| 47.5° | 725.2  | 731.9  | 750.4  | 768.0  | 777.3  |
| 50°   | 640.4  | 657.2  | 669.8  | 679.0  | 690.0  |
| 52.5° | 567.4  | 581.7  | 585.0  | 595.9  | 605.2  |
| 55°   | 496.9  | 507.0  | 503.6  | 512.9  | 522.1  |
| 57.5° | 437.3  | 432.3  | 421.4  | 437.3  | 449.1  |
| 60°   | 381.1  | 367.6  | 349.2  | 371.0  | 388.6  |
| 62.5° | 330.7  | 308.9  | 286.2  | 308.0  | 337.4  |
| 65°   | 286.2  | 263.6  | 235.9  | 256.8  | 287.9  |
| 67.5° | 252.6  | 229.1  | 196.4  | 217.4  | 248.5  |
| 70°   | 227.5  | 203.1  | 169.6  | 187.2  | 214.9  |
| 72.5° | 207.3  | 181.3  | 151.9  | 163.7  | 187.2  |
| 75°   | 188.0  | 162.0  | 141.0  | 144.4  | 166.2  |
| 77.5° | 165.4  | 146.0  | 129.3  | 127.6  | 144.4  |
| 80°   | 138.5  | 132.6  | 112.5  | 110.0  | 119.2  |
| 82.5° | 114.2  | 111.6  | 92.3   | 89.8   | 93.2   |
| 85°   | 83.1   | 86.5   | 65.5   | 63.8   | 67.1   |
| 87.5° | 43.6   | 47.8   | 34.4   | 36.1   | 36.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)