

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: P292030

Luminaire Tested: **22GR-LD5-20-F125-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292030
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-LD5-20-F125-UNV-L93050-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1942.0 lumens
Efficiency: N/A
Efficacy: 120.7 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

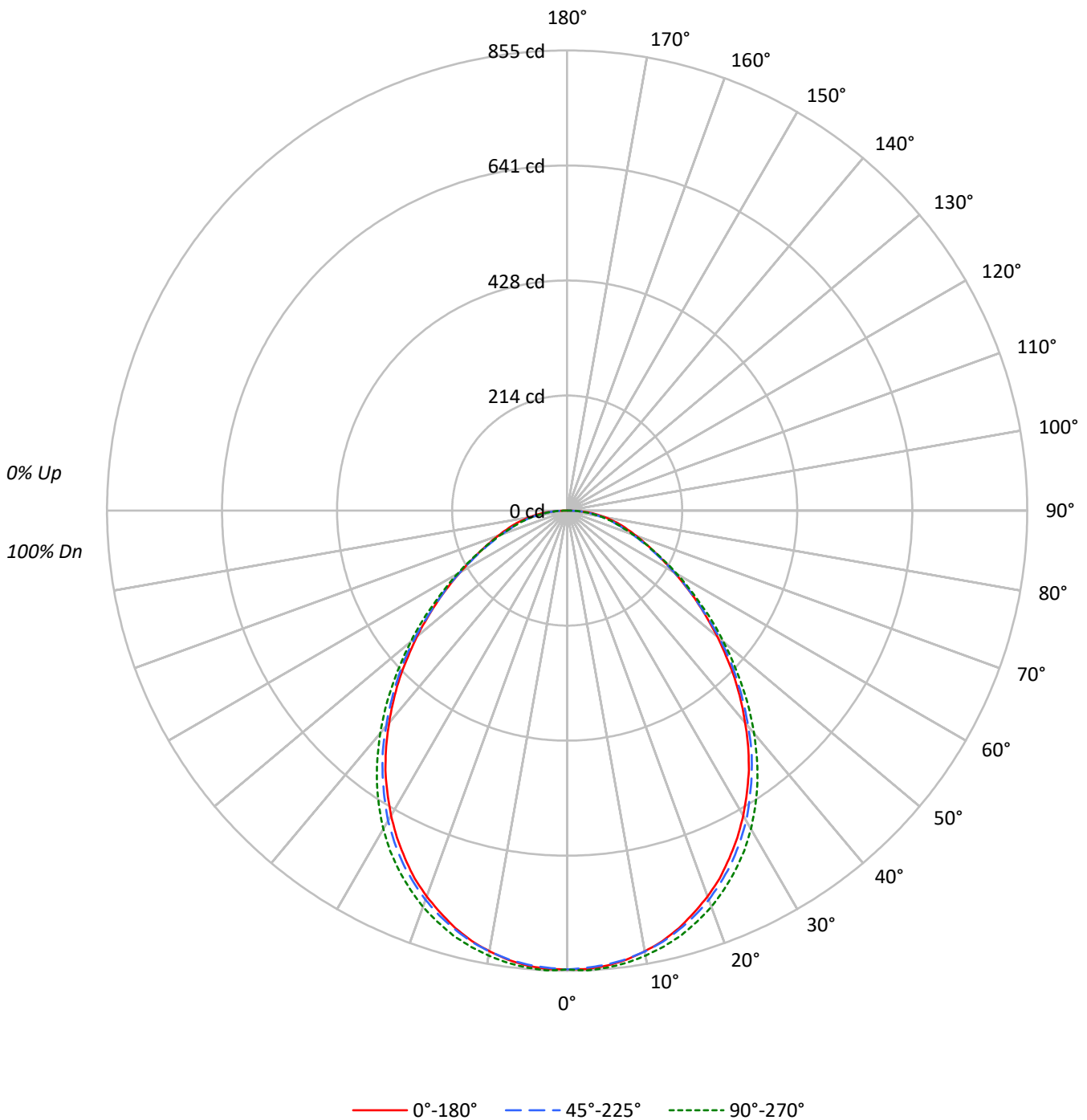
Input Watts (W): 16.089
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2294 | 2294 | 2294 |
| 5° | 2293 | 2287 | 2303 |
| 10° | 2272 | 2273 | 2294 |
| 15° | 2237 | 2245 | 2277 |
| 20° | 2185 | 2204 | 2244 |
| 25° | 2117 | 2146 | 2193 |
| 30° | 2033 | 2068 | 2123 |
| 35° | 1933 | 1964 | 2025 |
| 40° | 1808 | 1838 | 1898 |
| 45° | 1674 | 1700 | 1749 |
| 50° | 1524 | 1549 | 1588 |
| 55° | 1376 | 1380 | 1421 |
| 60° | 1235 | 1239 | 1269 |
| 65° | 1124 | 1102 | 1128 |
| 70° | 1071 | 1010 | 1028 |
| 75° | 1077 | 974 | 979 |
| 80° | 1117 | 984 | 978 |
| 85° | 1226 | 1044 | 988 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.5 | 4.1 |
| 10°-20° | 227.5 | 11.7 |
| 20°-30° | 333.0 | 17.1 |
| 30°-40° | 374.4 | 19.3 |
| 40°-50° | 345.3 | 17.8 |
| 50°-60° | 266.1 | 13.7 |
| 60°-70° | 175.6 | 9.0 |
| 70°-80° | 102.2 | 5.3 |
| 80°-90° | 37.2 | 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° | 641.1 | 33.0 |
| 0°-40° | 1015.5 | 52.3 |
| 0°-60° | 1627.0 | 83.8 |
| 0°-90° | 1942.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1942.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 852 | 852 | 852 | 852 | 852 | |
| 5° | 849 | 847 | 847 | 851 | 852 | 80 |
| 15° | 803 | 803 | 806 | 813 | 817 | 226 |
| 25° | 713 | 716 | 723 | 733 | 738 | 328 |
| 35° | 588 | 591 | 598 | 610 | 616 | 367 |
| 45° | 440 | 440 | 447 | 456 | 460 | 339 |
| 55° | 293 | 293 | 294 | 299 | 303 | 263 |
| 65° | 177 | 176 | 173 | 174 | 177 | 177 |
| 75° | 104 | 99 | 94 | 92 | 94 | 109 |
| 85° | 40 | 39 | 34 | 31 | 32 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P292030

CATALOG NUMBER: 22GR-LD5-20-F125-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 852.5 | 852.5 | 852.5 | 852.5 | 852.5 |
| 2.5° | 852.5 | 850.7 | 850.3 | 853.4 | 855.2 |
| 5° | 848.9 | 847.1 | 846.7 | 850.7 | 852.5 |
| 7.5° | 841.7 | 840.4 | 840.8 | 845.3 | 847.6 |
| 10° | 831.4 | 830.9 | 831.8 | 836.8 | 839.5 |
| 12.5° | 819.2 | 818.8 | 820.6 | 826.0 | 829.6 |
| 15° | 803.0 | 803.0 | 805.7 | 812.9 | 817.4 |
| 17.5° | 783.6 | 785.0 | 789.0 | 796.2 | 801.2 |
| 20° | 762.9 | 764.2 | 769.6 | 777.7 | 783.6 |
| 22.5° | 739.9 | 741.7 | 747.1 | 757.0 | 762.0 |
| 25° | 712.9 | 716.5 | 722.8 | 732.7 | 738.5 |
| 27.5° | 684.9 | 689.0 | 694.8 | 707.0 | 712.4 |
| 30° | 654.3 | 657.0 | 665.5 | 676.8 | 683.1 |
| 32.5° | 621.8 | 624.5 | 631.7 | 645.3 | 650.7 |
| 35° | 588.5 | 591.2 | 598.0 | 610.1 | 616.4 |
| 37.5° | 552.4 | 554.7 | 562.8 | 572.3 | 579.0 |
| 40° | 514.6 | 517.7 | 523.2 | 534.4 | 540.3 |
| 42.5° | 477.6 | 479.0 | 484.9 | 496.1 | 500.6 |
| 45° | 439.8 | 440.2 | 446.6 | 455.6 | 459.6 |
| 47.5° | 400.6 | 401.5 | 409.2 | 414.6 | 418.6 |
| 50° | 364.1 | 364.5 | 369.9 | 374.9 | 379.4 |
| 52.5° | 327.6 | 327.6 | 330.3 | 335.7 | 341.6 |
| 55° | 293.3 | 292.9 | 294.2 | 299.2 | 302.8 |
| 57.5° | 260.9 | 260.5 | 262.3 | 265.4 | 268.1 |
| 60° | 229.4 | 228.5 | 230.3 | 232.1 | 235.7 |
| 62.5° | 201.4 | 202.3 | 200.1 | 202.8 | 205.5 |
| 65° | 176.6 | 175.7 | 173.0 | 174.4 | 177.1 |
| 67.5° | 155.5 | 154.1 | 149.6 | 150.5 | 153.7 |
| 70° | 136.1 | 133.4 | 128.4 | 128.4 | 130.7 |
| 72.5° | 118.5 | 115.8 | 109.5 | 109.9 | 110.8 |
| 75° | 103.6 | 99.1 | 93.7 | 91.9 | 94.2 |
| 77.5° | 87.4 | 83.8 | 78.9 | 77.5 | 78.4 |
| 80° | 72.1 | 69.4 | 63.5 | 61.7 | 63.1 |
| 82.5° | 57.2 | 55.0 | 48.2 | 46.9 | 47.3 |
| 85° | 39.7 | 39.2 | 33.8 | 31.1 | 32.0 |
| 87.5° | 21.2 | 21.6 | 17.6 | 15.8 | 16.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)