

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: P290888

Luminaire Tested: **14GR-LD5-20-F125-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33313)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-20-F125-UNV-L92765-W2A1-U-3500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1763.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.24
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

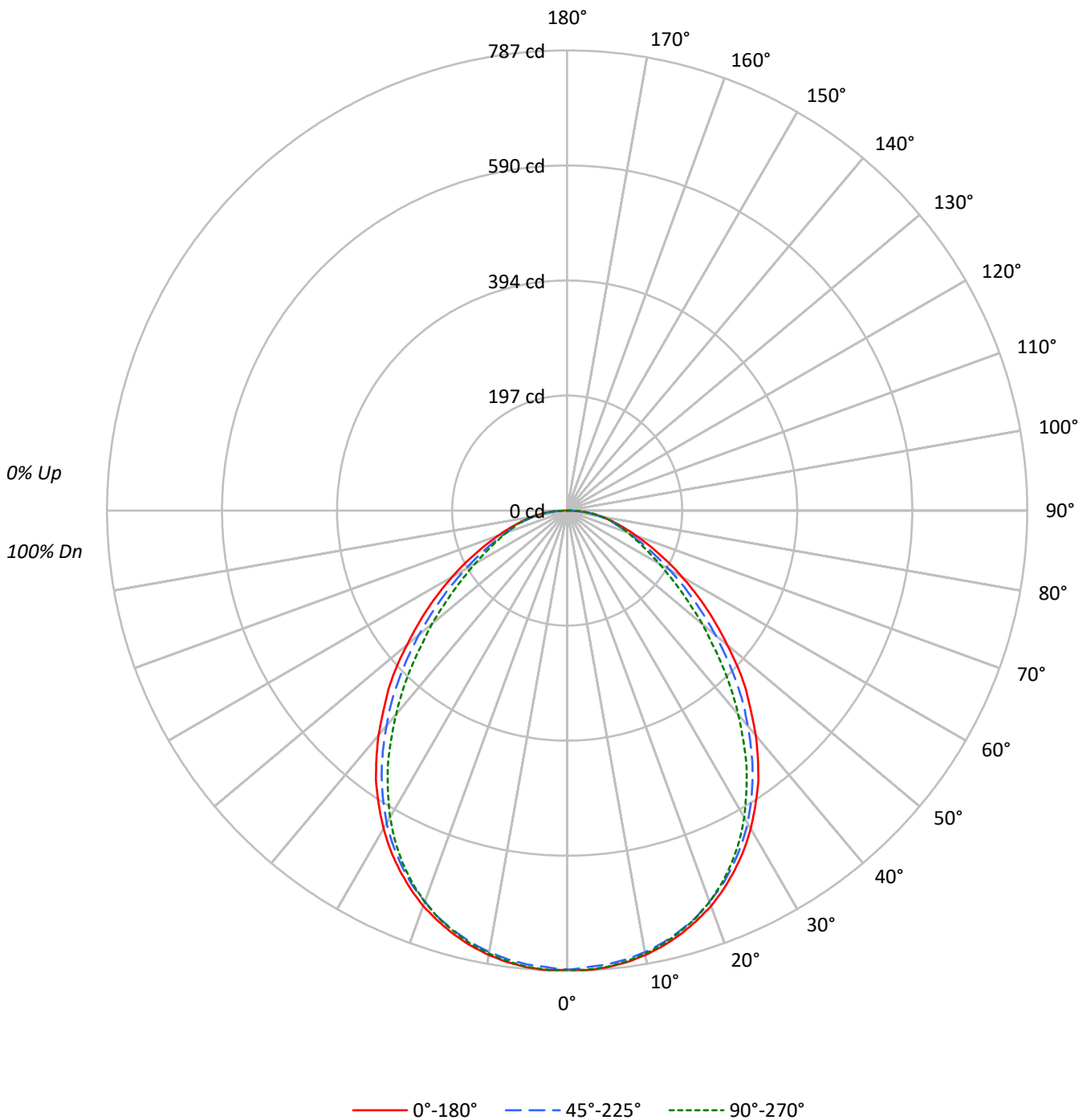
Input Watts (W): 15.531
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 88 | 85 | | | | | 85 | | | |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 73 | | | | | 73 | | | |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 | | | | | 63 | | | |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 64 | 58 | 68 | 62 | 58 | 66 | 61 | 57 | 55 | | | | | 55 | | | |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | 48 | | | | | 48 | | | |
| 6 | 73 | 60 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 41 | 36 | 34 | | | | | 34 | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 | | | | | 31 | | | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2113 | 2113 | 2113 |
| 5° | 2118 | 2105 | 2116 |
| 10° | 2109 | 2095 | 2102 |
| 15° | 2090 | 2074 | 2077 |
| 20° | 2061 | 2038 | 2040 |
| 25° | 2014 | 1989 | 1976 |
| 30° | 1952 | 1918 | 1882 |
| 35° | 1872 | 1818 | 1758 |
| 40° | 1763 | 1688 | 1599 |
| 45° | 1644 | 1545 | 1430 |
| 50° | 1495 | 1386 | 1263 |
| 55° | 1361 | 1229 | 1101 |
| 60° | 1221 | 1082 | 978 |
| 65° | 1088 | 965 | 898 |
| 70° | 990 | 879 | 869 |
| 75° | 925 | 856 | 899 |
| 80° | 930 | 885 | 936 |
| 85° | 969 | 908 | 1034 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.3 | 4.2 |
| 10°-20° | 210.5 | 11.9 |
| 20°-30° | 308.7 | 17.5 |
| 30°-40° | 344.5 | 19.5 |
| 40°-50° | 311.9 | 17.7 |
| 50°-60° | 235.5 | 13.4 |
| 60°-70° | 154.0 | 8.7 |
| 70°-80° | 90.4 | 5.1 |
| 80°-90° | 33.1 | 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° | 593.5 | 33.7 |
| 0°-40° | 938.1 | 53.2 |
| 0°-60° | 1485.5 | 84.3 |
| 0°-90° | 1763.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1763.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 785 | 785 | 785 | 785 | 785 | |
| 5° | 784 | 782 | 779 | 784 | 783 | 74 |
| 15° | 750 | 749 | 744 | 749 | 746 | 211 |
| 25° | 678 | 676 | 670 | 669 | 665 | 312 |
| 35° | 570 | 565 | 553 | 541 | 535 | 355 |
| 45° | 432 | 425 | 406 | 384 | 376 | 332 |
| 55° | 290 | 284 | 262 | 241 | 235 | 260 |
| 65° | 171 | 166 | 152 | 143 | 141 | 171 |
| 75° | 89 | 86 | 82 | 84 | 86 | 96 |
| 85° | 31 | 30 | 29 | 33 | 34 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 785.4 | 785.4 | 785.4 | 785.4 | 785.4 |
| 2.5° | 786.6 | 785.4 | 781.7 | 786.6 | 786.2 |
| 5° | 784.2 | 782.5 | 779.2 | 783.8 | 783.3 |
| 7.5° | 779.2 | 777.5 | 774.2 | 778.4 | 777.5 |
| 10° | 771.7 | 770.1 | 766.8 | 771.3 | 769.3 |
| 12.5° | 762.2 | 760.6 | 756.9 | 761.0 | 759.3 |
| 15° | 750.2 | 749.0 | 744.4 | 748.6 | 745.7 |
| 17.5° | 735.7 | 733.7 | 730.4 | 732.9 | 730.8 |
| 20° | 719.6 | 717.1 | 711.7 | 714.2 | 712.2 |
| 22.5° | 700.2 | 696.9 | 693.1 | 693.1 | 690.2 |
| 25° | 678.2 | 675.7 | 670.0 | 668.7 | 665.4 |
| 27.5° | 654.6 | 652.6 | 645.1 | 643.1 | 637.3 |
| 30° | 628.2 | 625.3 | 617.4 | 610.8 | 605.8 |
| 32.5° | 598.8 | 596.7 | 586.0 | 577.3 | 570.2 |
| 35° | 569.8 | 564.8 | 553.3 | 540.8 | 535.1 |
| 37.5° | 535.9 | 532.2 | 517.7 | 502.4 | 494.5 |
| 40° | 501.9 | 497.4 | 480.4 | 463.5 | 455.2 |
| 42.5° | 465.1 | 461.0 | 444.8 | 424.6 | 415.9 |
| 45° | 432.0 | 425.4 | 405.9 | 384.0 | 375.7 |
| 47.5° | 395.6 | 388.6 | 367.9 | 344.7 | 335.2 |
| 50° | 357.1 | 352.6 | 331.0 | 308.7 | 301.7 |
| 52.5° | 322.8 | 315.7 | 295.5 | 273.5 | 266.1 |
| 55° | 290.1 | 283.5 | 261.9 | 241.2 | 234.6 |
| 57.5° | 257.4 | 249.9 | 231.3 | 212.7 | 206.1 |
| 60° | 226.8 | 219.3 | 201.1 | 185.8 | 181.7 |
| 62.5° | 199.0 | 190.8 | 174.6 | 162.6 | 159.7 |
| 65° | 170.9 | 165.5 | 151.5 | 142.8 | 141.1 |
| 67.5° | 147.3 | 140.7 | 129.5 | 125.4 | 124.6 |
| 70° | 125.8 | 121.2 | 111.7 | 110.5 | 110.5 |
| 72.5° | 106.3 | 102.6 | 95.6 | 96.4 | 97.7 |
| 75° | 89.0 | 86.5 | 82.3 | 84.0 | 86.5 |
| 77.5° | 74.1 | 71.6 | 69.1 | 71.6 | 73.2 |
| 80° | 60.0 | 57.5 | 57.1 | 59.2 | 60.4 |
| 82.5° | 45.1 | 43.0 | 43.4 | 46.8 | 48.0 |
| 85° | 31.4 | 30.2 | 29.4 | 33.1 | 33.5 |
| 87.5° | 16.1 | 15.3 | 14.9 | 17.8 | 17.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)