

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: P293382

Luminaire Tested: **24GR-LD5-56-F125-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293382
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-56-F125-UNV-L92765-W2A1-U-5000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5209.0 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

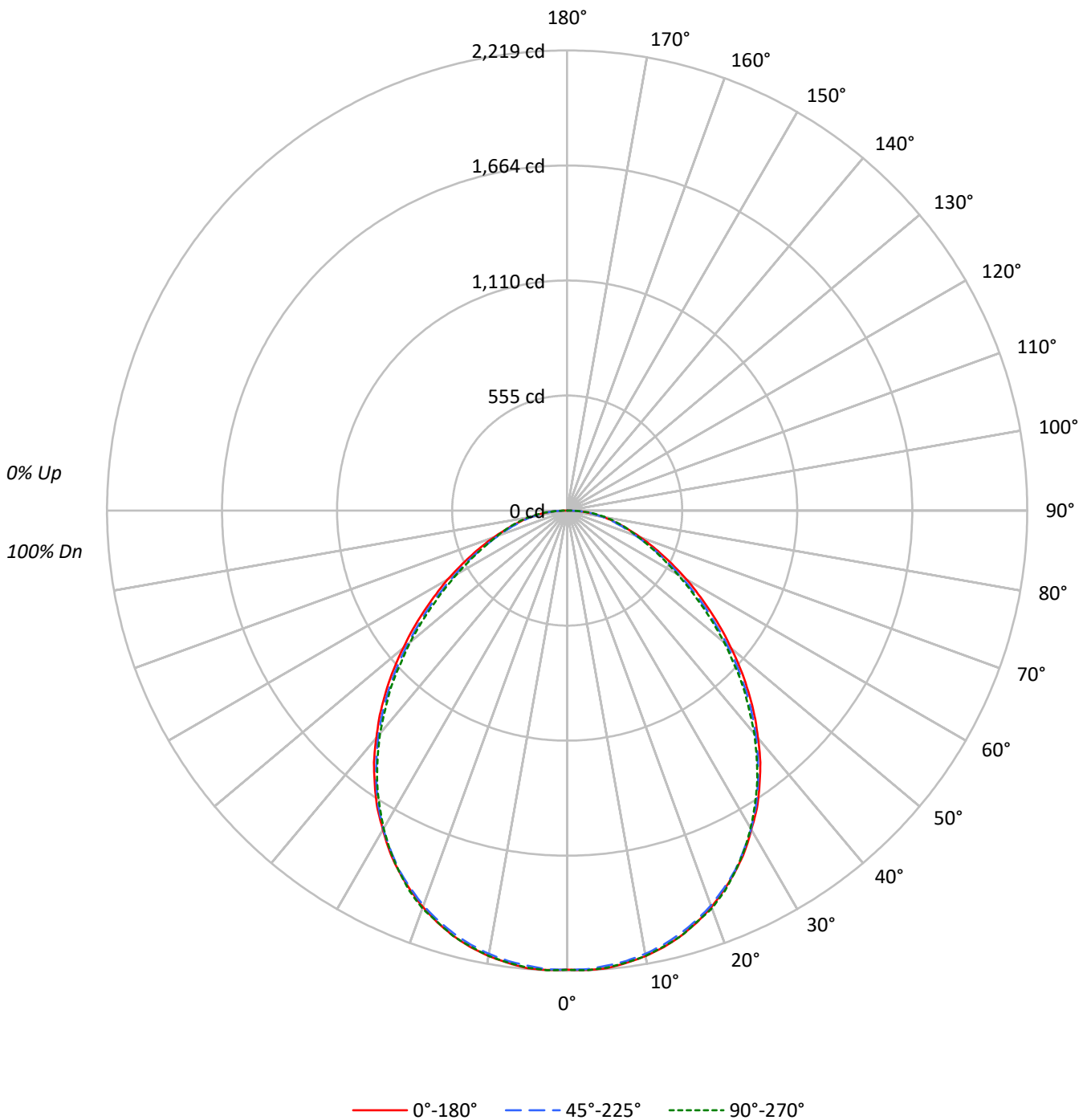
Input Watts (W): 39.897
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P293382

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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 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 77 | 74 | 72 | | | | | 72 | | | |
| 3 | 92 | 82 | 74 | 68 | 90 | 80 | 73 | 68 | 78 | 71 | 66 | 75 | 70 | 65 | 72 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 85 | 73 | 65 | 59 | 82 | 72 | 64 | 58 | 70 | 63 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 | | | | | 47 | | | |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 42 | | | | | 42 | | | |
| 7 | 67 | 54 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 44 | 39 | 37 | | | | | 37 | | | |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2979 | 2979 | 2979 |
| 5° | 2992 | 2976 | 2988 |
| 10° | 2980 | 2966 | 2979 |
| 15° | 2957 | 2941 | 2959 |
| 20° | 2913 | 2902 | 2923 |
| 25° | 2850 | 2843 | 2849 |
| 30° | 2760 | 2755 | 2749 |
| 35° | 2656 | 2636 | 2625 |
| 40° | 2514 | 2485 | 2465 |
| 45° | 2352 | 2308 | 2281 |
| 50° | 2161 | 2103 | 2067 |
| 55° | 1971 | 1898 | 1843 |
| 60° | 1790 | 1694 | 1650 |
| 65° | 1612 | 1521 | 1496 |
| 70° | 1476 | 1380 | 1419 |
| 75° | 1380 | 1316 | 1413 |
| 80° | 1369 | 1344 | 1476 |
| 85° | 1396 | 1408 | 1609 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 209.5 | 4.0 |
| 10°-20° | 595.7 | 11.4 |
| 20°-30° | 880.0 | 16.9 |
| 30°-40° | 1000.5 | 19.2 |
| 40°-50° | 934.3 | 17.9 |
| 50°-60° | 726.6 | 13.9 |
| 60°-70° | 482.1 | 9.3 |
| 70°-80° | 279.0 | 5.4 |
| 80°-90° | 101.4 | 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° | 1685.2 | 32.4 |
| 0°-40° | 2685.6 | 51.6 |
| 0°-60° | 4346.5 | 83.4 |
| 0°-90° | 5209.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5209.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2214 | 2214 | 2214 | 2214 | 2214 | |
| 5° | 2216 | 2204 | 2203 | 2207 | 2212 | 210 |
| 15° | 2123 | 2112 | 2111 | 2110 | 2124 | 598 |
| 25° | 1920 | 1912 | 1915 | 1911 | 1919 | 883 |
| 35° | 1617 | 1609 | 1605 | 1593 | 1598 | 1010 |
| 45° | 1236 | 1226 | 1213 | 1198 | 1198 | 952 |
| 55° | 840 | 828 | 809 | 788 | 786 | 754 |
| 65° | 506 | 491 | 478 | 469 | 470 | 506 |
| 75° | 265 | 259 | 253 | 265 | 272 | 284 |
| 85° | 90 | 89 | 91 | 103 | 104 | 98 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293382

CATALOG NUMBER: 24GR-LD5-56-F125-UNV-L92765-W2A1-U-5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2213.8 | 2213.8 | 2213.8 | 2213.8 | 2213.8 |
| 2.5° | 2217.1 | 2210.6 | 2213.8 | 2211.4 | 2218.7 |
| 5° | 2215.5 | 2204.1 | 2203.2 | 2207.3 | 2212.2 |
| 7.5° | 2200.0 | 2187.8 | 2190.2 | 2190.2 | 2198.4 |
| 10° | 2181.3 | 2169.0 | 2170.7 | 2171.5 | 2180.4 |
| 12.5° | 2156.0 | 2143.8 | 2144.6 | 2143.8 | 2152.8 |
| 15° | 2122.6 | 2112.0 | 2111.2 | 2110.4 | 2124.3 |
| 17.5° | 2081.9 | 2067.3 | 2072.2 | 2073.0 | 2080.3 |
| 20° | 2034.7 | 2023.3 | 2026.6 | 2025.7 | 2041.2 |
| 22.5° | 1978.5 | 1970.4 | 1972.8 | 1971.2 | 1985.8 |
| 25° | 1919.9 | 1911.8 | 1915.0 | 1910.9 | 1919.1 |
| 27.5° | 1853.9 | 1848.2 | 1845.0 | 1842.5 | 1848.2 |
| 30° | 1776.6 | 1773.3 | 1773.3 | 1762.8 | 1769.3 |
| 32.5° | 1703.3 | 1692.7 | 1692.7 | 1688.7 | 1684.6 |
| 35° | 1617.0 | 1608.9 | 1604.8 | 1593.4 | 1598.3 |
| 37.5° | 1530.7 | 1512.0 | 1510.4 | 1501.4 | 1501.4 |
| 40° | 1431.4 | 1420.8 | 1415.1 | 1405.3 | 1403.7 |
| 42.5° | 1336.9 | 1326.3 | 1316.6 | 1300.3 | 1297.0 |
| 45° | 1236.0 | 1226.2 | 1213.2 | 1197.7 | 1198.5 |
| 47.5° | 1135.8 | 1122.0 | 1109.8 | 1091.0 | 1088.6 |
| 50° | 1032.4 | 1022.6 | 1004.7 | 988.4 | 987.6 |
| 52.5° | 935.5 | 920.1 | 903.8 | 884.2 | 884.2 |
| 55° | 840.3 | 828.0 | 809.3 | 788.2 | 785.7 |
| 57.5° | 749.1 | 737.7 | 716.5 | 701.0 | 697.0 |
| 60° | 665.2 | 648.9 | 629.4 | 616.4 | 613.1 |
| 62.5° | 581.3 | 566.7 | 552.0 | 539.0 | 538.2 |
| 65° | 506.4 | 491.0 | 477.9 | 469.0 | 469.8 |
| 67.5° | 438.9 | 425.8 | 411.2 | 408.7 | 409.5 |
| 70° | 375.3 | 361.5 | 350.9 | 356.6 | 360.7 |
| 72.5° | 315.1 | 307.8 | 300.4 | 308.6 | 314.3 |
| 75° | 265.4 | 258.9 | 253.2 | 264.6 | 271.9 |
| 77.5° | 219.8 | 215.0 | 214.1 | 223.9 | 230.4 |
| 80° | 176.7 | 171.0 | 173.4 | 184.8 | 190.5 |
| 82.5° | 134.3 | 130.3 | 131.1 | 144.9 | 149.0 |
| 85° | 90.4 | 88.7 | 91.2 | 103.4 | 104.2 |
| 87.5° | 48.0 | 48.0 | 49.7 | 57.0 | 54.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)