

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: P293816

Luminaire Tested: **24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33307)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4392.0 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.27
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

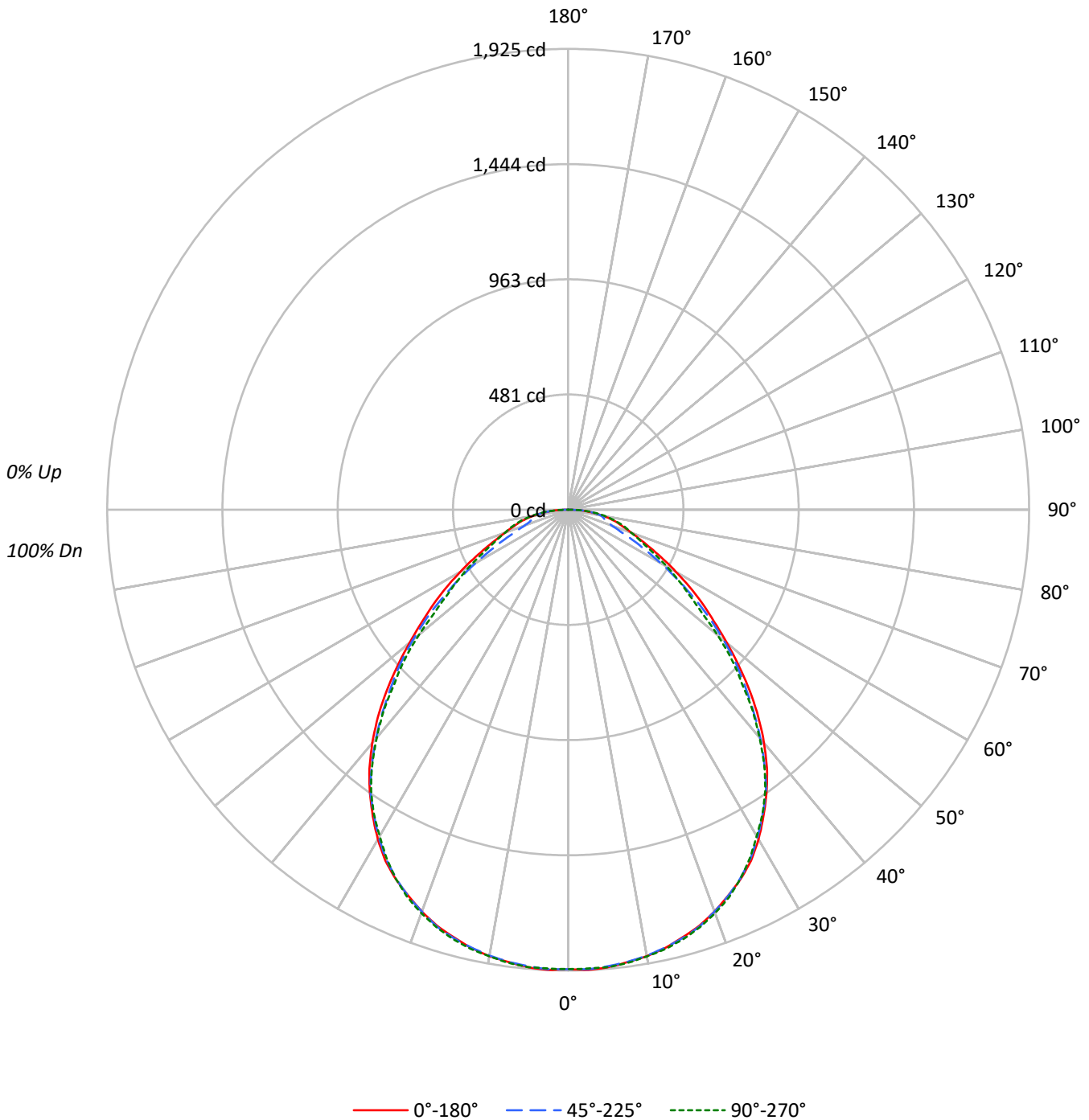
Input Watts (W): 39.863241
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P293816

CATALOG NUMBER: 24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P293816

CATALOG NUMBER: 24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K

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 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 | | | | | 86 | | | |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | | | | | 74 | | | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 | | | | | 64 | | | |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | | | | 55 | | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | | 49 | | | |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | 39 | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 | | | | | 35 | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 38 | 33 | 32 | | | | | 32 | | | |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 30 | 29 | | | | | 29 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2582 | 2582 | 2582 |
| 5° | 2591 | 2586 | 2590 |
| 10° | 2587 | 2584 | 2588 |
| 15° | 2575 | 2580 | 2586 |
| 20° | 2558 | 2558 | 2567 |
| 25° | 2529 | 2524 | 2526 |
| 30° | 2470 | 2457 | 2445 |
| 35° | 2372 | 2366 | 2357 |
| 40° | 2235 | 2194 | 2184 |
| 45° | 2044 | 1988 | 1952 |
| 50° | 1807 | 1771 | 1702 |
| 55° | 1607 | 1498 | 1440 |
| 60° | 1399 | 1199 | 1285 |
| 65° | 1209 | 929 | 1137 |
| 70° | 1102 | 760 | 1100 |
| 75° | 1111 | 819 | 1168 |
| 80° | 1158 | 1067 | 1232 |
| 85° | 1206 | 1269 | 1365 |



TEST NUMBER: P293816

CATALOG NUMBER: 24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 182.1 | 4.1 |
| 10°-20° | 522.1 | 11.9 |
| 20°-30° | 781.5 | 17.8 |
| 30°-40° | 893.0 | 20.3 |
| 40°-50° | 807.4 | 18.4 |
| 50°-60° | 580.9 | 13.2 |
| 60°-70° | 336.8 | 7.7 |
| 70°-80° | 199.8 | 4.5 |
| 80°-90° | 88.5 | 2.0 |
| 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° | 1485.7 | 33.8 |
| 0°-40° | 2378.7 | 54.2 |
| 0°-60° | 3767.0 | 85.8 |
| 0°-90° | 4392.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4392.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1919 | 1919 | 1919 | 1919 | 1919 | |
| 5° | 1918 | 1916 | 1914 | 1912 | 1918 | 182 |
| 15° | 1849 | 1852 | 1852 | 1850 | 1857 | 522 |
| 25° | 1703 | 1701 | 1700 | 1696 | 1701 | 783 |
| 35° | 1444 | 1438 | 1440 | 1422 | 1435 | 900 |
| 45° | 1074 | 1056 | 1045 | 1035 | 1026 | 825 |
| 55° | 685 | 672 | 639 | 622 | 614 | 613 |
| 65° | 380 | 337 | 292 | 326 | 357 | 383 |
| 75° | 214 | 179 | 158 | 195 | 225 | 226 |
| 85° | 78 | 84 | 82 | 95 | 88 | 84 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293816

CATALOG NUMBER: 24GR-LD5-56-A125-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1919.2 | 1919.2 | 1919.2 | 1919.2 | 1919.2 |
| 2.5° | 1924.6 | 1917.8 | 1921.2 | 1919.2 | 1918.5 |
| 5° | 1918.5 | 1915.7 | 1914.4 | 1911.6 | 1917.8 |
| 7.5° | 1906.1 | 1904.1 | 1904.8 | 1905.4 | 1909.6 |
| 10° | 1893.8 | 1890.4 | 1891.1 | 1892.4 | 1894.5 |
| 12.5° | 1874.6 | 1872.6 | 1873.2 | 1874.6 | 1879.4 |
| 15° | 1848.6 | 1852.0 | 1852.0 | 1849.9 | 1856.8 |
| 17.5° | 1822.5 | 1821.9 | 1825.3 | 1819.1 | 1828.7 |
| 20° | 1786.2 | 1786.9 | 1786.2 | 1786.9 | 1793.1 |
| 22.5° | 1745.1 | 1748.5 | 1746.5 | 1746.5 | 1753.3 |
| 25° | 1703.3 | 1701.3 | 1699.9 | 1696.5 | 1701.3 |
| 27.5° | 1653.3 | 1649.2 | 1645.8 | 1638.9 | 1642.3 |
| 30° | 1589.6 | 1590.3 | 1581.4 | 1575.2 | 1573.8 |
| 32.5° | 1518.3 | 1518.3 | 1510.1 | 1505.3 | 1509.4 |
| 35° | 1444.3 | 1437.5 | 1440.2 | 1422.4 | 1434.7 |
| 37.5° | 1364.2 | 1353.2 | 1347.0 | 1340.9 | 1345.0 |
| 40° | 1272.4 | 1258.0 | 1249.1 | 1236.7 | 1243.6 |
| 42.5° | 1175.7 | 1157.9 | 1147.0 | 1138.1 | 1140.8 |
| 45° | 1074.3 | 1055.8 | 1044.9 | 1035.3 | 1025.7 |
| 47.5° | 967.5 | 955.8 | 950.3 | 938.0 | 927.0 |
| 50° | 863.3 | 859.2 | 846.2 | 835.9 | 813.3 |
| 52.5° | 768.1 | 764.6 | 744.1 | 727.0 | 698.2 |
| 55° | 685.2 | 672.1 | 638.6 | 622.1 | 613.9 |
| 57.5° | 600.9 | 579.7 | 539.2 | 537.2 | 542.7 |
| 60° | 520.0 | 494.0 | 445.4 | 456.3 | 477.6 |
| 62.5° | 446.7 | 407.7 | 361.1 | 387.1 | 412.5 |
| 65° | 379.6 | 337.1 | 291.9 | 326.1 | 357.0 |
| 67.5° | 324.1 | 281.6 | 235.0 | 280.9 | 316.5 |
| 70° | 280.2 | 237.1 | 193.2 | 246.0 | 279.5 |
| 72.5° | 243.9 | 204.9 | 168.6 | 218.6 | 253.5 |
| 75° | 213.8 | 178.8 | 157.6 | 194.6 | 224.7 |
| 77.5° | 183.6 | 155.5 | 150.7 | 173.3 | 191.8 |
| 80° | 149.4 | 136.3 | 137.7 | 152.1 | 159.0 |
| 82.5° | 111.7 | 112.4 | 115.8 | 127.4 | 124.7 |
| 85° | 78.1 | 84.3 | 82.2 | 94.6 | 88.4 |
| 87.5° | 43.2 | 47.3 | 44.5 | 54.1 | 48.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)