

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: P293671

Luminaire Tested: **24GR-LD5-34-A125-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293671
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-LD5-34-A125-UNV-L83050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3498.0 lumens
Efficiency: N/A
Efficacy: 152.3 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

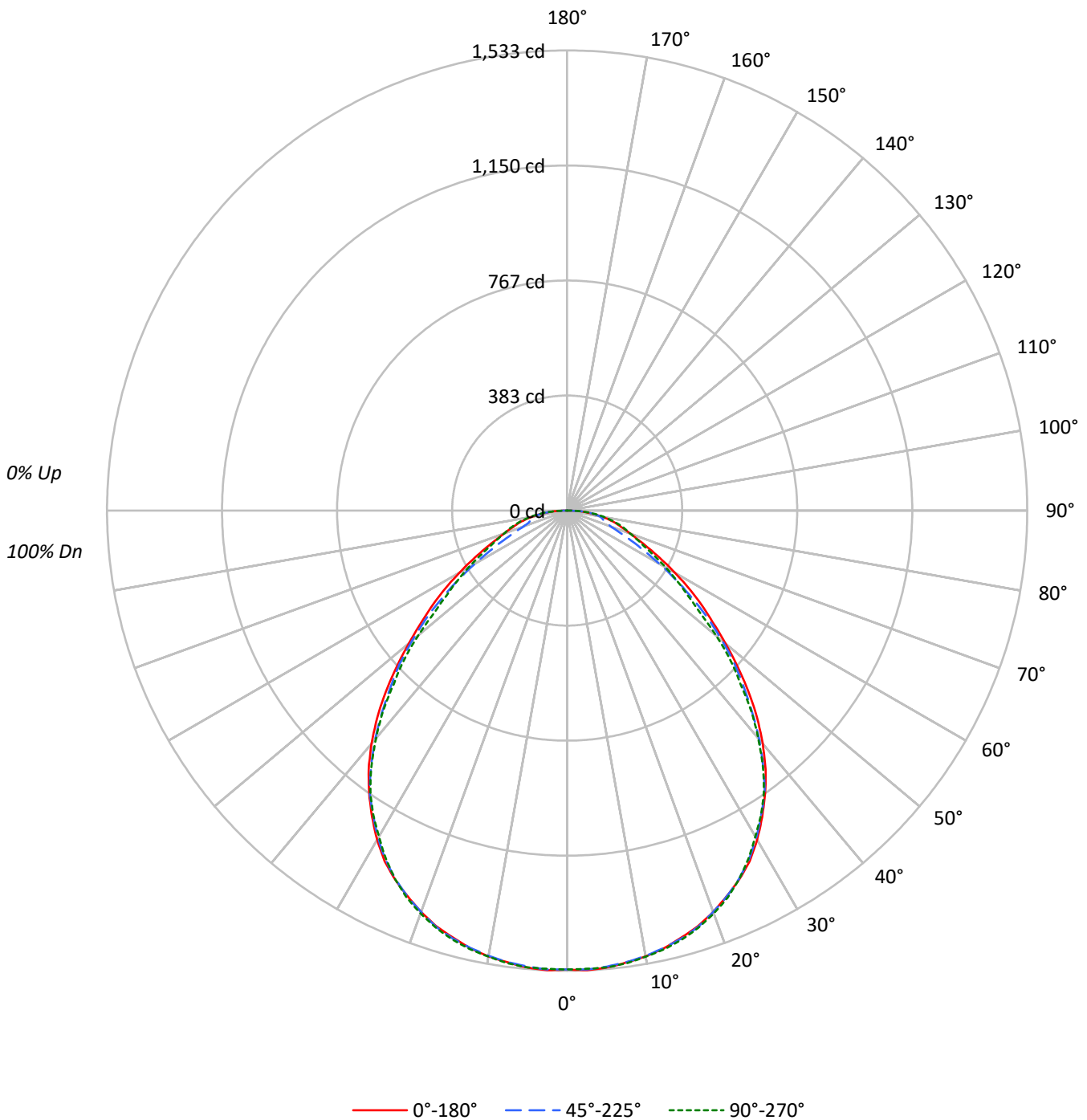
Input Watts (W): 22.971
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P293671

CATALOG NUMBER: 24GR-LD5-34-A125-UNV-L83050-W2A1-U-3500K

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 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 38 | 33 | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 30 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2057 | 2057 | 2057 |
| 5° | 2064 | 2059 | 2063 |
| 10° | 2061 | 2058 | 2062 |
| 15° | 2051 | 2055 | 2060 |
| 20° | 2037 | 2037 | 2045 |
| 25° | 2014 | 2010 | 2012 |
| 30° | 1967 | 1957 | 1947 |
| 35° | 1889 | 1884 | 1877 |
| 40° | 1780 | 1747 | 1740 |
| 45° | 1628 | 1584 | 1554 |
| 50° | 1439 | 1411 | 1356 |
| 55° | 1280 | 1193 | 1147 |
| 60° | 1115 | 954 | 1024 |
| 65° | 962 | 740 | 905 |
| 70° | 878 | 605 | 876 |
| 75° | 885 | 652 | 931 |
| 80° | 922 | 850 | 981 |
| 85° | 960 | 1011 | 1087 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 145.0 | 4.1 |
| 10°-20° | 415.8 | 11.9 |
| 20°-30° | 622.5 | 17.8 |
| 30°-40° | 711.3 | 20.3 |
| 40°-50° | 643.1 | 18.4 |
| 50°-60° | 462.6 | 13.2 |
| 60°-70° | 268.2 | 7.7 |
| 70°-80° | 159.1 | 4.5 |
| 80°-90° | 70.5 | 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° | 1183.3 | 33.8 |
| 0°-40° | 1894.5 | 54.2 |
| 0°-60° | 3000.2 | 85.8 |
| 0°-90° | 3498.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3498.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1528 | 1528 | 1528 | 1528 | 1528 | |
| 5° | 1528 | 1526 | 1525 | 1522 | 1527 | 145 |
| 15° | 1472 | 1475 | 1475 | 1473 | 1479 | 416 |
| 25° | 1357 | 1355 | 1354 | 1351 | 1355 | 624 |
| 35° | 1150 | 1145 | 1147 | 1133 | 1143 | 717 |
| 45° | 856 | 841 | 832 | 825 | 817 | 657 |
| 55° | 546 | 535 | 509 | 496 | 489 | 488 |
| 65° | 302 | 268 | 232 | 260 | 284 | 305 |
| 75° | 170 | 142 | 126 | 155 | 179 | 180 |
| 85° | 62 | 67 | 66 | 75 | 70 | 67 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293671

CATALOG NUMBER: 24GR-LD5-34-A125-UNV-L83050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1528.5 | 1528.5 | 1528.5 | 1528.5 | 1528.5 |
| 2.5° | 1532.9 | 1527.4 | 1530.1 | 1528.5 | 1528.0 |
| 5° | 1528.0 | 1525.8 | 1524.7 | 1522.5 | 1527.4 |
| 7.5° | 1518.1 | 1516.5 | 1517.0 | 1517.6 | 1520.9 |
| 10° | 1508.3 | 1505.6 | 1506.1 | 1507.2 | 1508.9 |
| 12.5° | 1493.0 | 1491.4 | 1491.9 | 1493.0 | 1496.9 |
| 15° | 1472.3 | 1475.0 | 1475.0 | 1473.4 | 1478.8 |
| 17.5° | 1451.6 | 1451.0 | 1453.7 | 1448.8 | 1456.5 |
| 20° | 1422.6 | 1423.2 | 1422.6 | 1423.2 | 1428.1 |
| 22.5° | 1389.9 | 1392.6 | 1391.0 | 1391.0 | 1396.4 |
| 25° | 1356.6 | 1355.0 | 1353.9 | 1351.2 | 1355.0 |
| 27.5° | 1316.8 | 1313.5 | 1310.8 | 1305.3 | 1308.0 |
| 30° | 1266.0 | 1266.6 | 1259.5 | 1254.6 | 1253.5 |
| 32.5° | 1209.3 | 1209.3 | 1202.7 | 1198.9 | 1202.2 |
| 35° | 1150.3 | 1144.9 | 1147.1 | 1132.9 | 1142.7 |
| 37.5° | 1086.5 | 1077.8 | 1072.8 | 1067.9 | 1071.2 |
| 40° | 1013.4 | 1001.9 | 994.8 | 985.0 | 990.4 |
| 42.5° | 936.4 | 922.2 | 913.5 | 906.4 | 908.6 |
| 45° | 855.7 | 840.9 | 832.2 | 824.6 | 816.9 |
| 47.5° | 770.5 | 761.3 | 756.9 | 747.1 | 738.3 |
| 50° | 687.6 | 684.3 | 673.9 | 665.8 | 647.7 |
| 52.5° | 611.7 | 609.0 | 592.6 | 579.0 | 556.1 |
| 55° | 545.7 | 535.3 | 508.6 | 495.5 | 488.9 |
| 57.5° | 478.6 | 461.7 | 429.5 | 427.8 | 432.2 |
| 60° | 414.2 | 393.4 | 354.7 | 363.4 | 380.4 |
| 62.5° | 355.8 | 324.7 | 287.6 | 308.3 | 328.5 |
| 65° | 302.3 | 268.5 | 232.5 | 259.8 | 284.3 |
| 67.5° | 258.1 | 224.3 | 187.2 | 223.7 | 252.1 |
| 70° | 223.2 | 188.8 | 153.9 | 195.9 | 222.6 |
| 72.5° | 194.3 | 163.2 | 134.2 | 174.1 | 201.9 |
| 75° | 170.3 | 142.4 | 125.5 | 155.0 | 179.0 |
| 77.5° | 146.2 | 123.9 | 120.1 | 138.1 | 152.8 |
| 80° | 119.0 | 108.6 | 109.7 | 121.1 | 126.6 |
| 82.5° | 88.9 | 89.5 | 92.2 | 101.5 | 99.3 |
| 85° | 62.2 | 67.1 | 65.5 | 75.3 | 70.4 |
| 87.5° | 34.4 | 37.7 | 35.5 | 43.1 | 38.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)