

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: P232315

Luminaire Tested: **24RDIA-30-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232315
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-078-8-R2)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24RDIA-30-UNV-L850-CD1-U
Description: METALUX 2X4 OVATION LED TROFFER
AIR VENTED VERSION
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

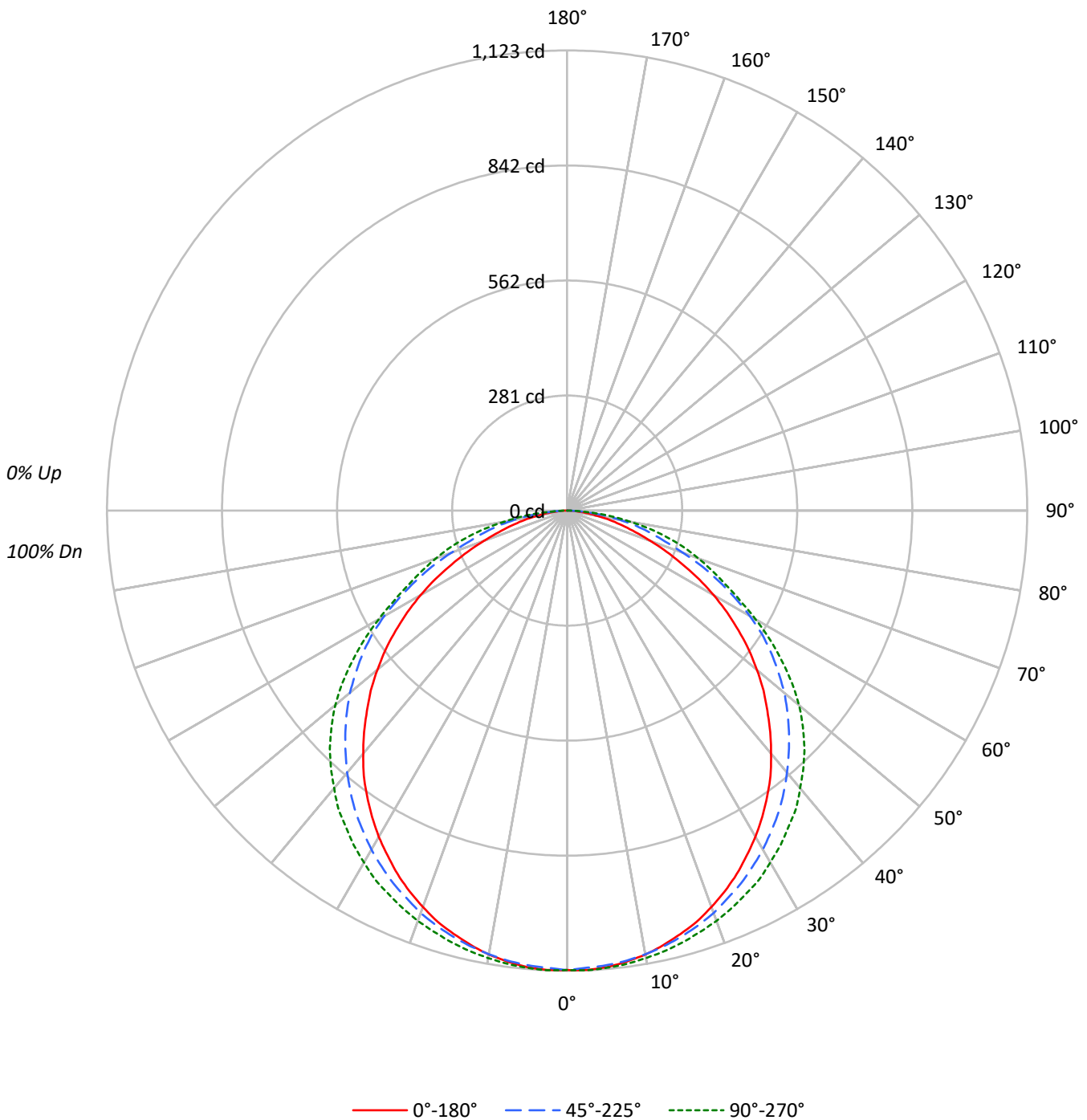
Lumens per Lamp: N/A
Luminaire Lumens: 3217.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.31 / 1.39
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.7
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: P232315
CATALOG NUMBER: 24RDIA-30-UNV-L850-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P232315

CATALOG NUMBER: 24RDIA-30-UNV-L850-CD1-U

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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 88 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 74 | 79 | 75 | 72 | 70 |
| 3 | 90 | 79 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 54 | 67 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1811 | 1811 | 1811 |
| 5° | 1812 | 1805 | 1815 |
| 10° | 1804 | 1802 | 1818 |
| 15° | 1788 | 1800 | 1823 |
| 20° | 1769 | 1796 | 1831 |
| 25° | 1744 | 1789 | 1839 |
| 30° | 1714 | 1781 | 1849 |
| 35° | 1678 | 1773 | 1857 |
| 40° | 1632 | 1760 | 1864 |
| 45° | 1578 | 1748 | 1871 |
| 50° | 1518 | 1738 | 1856 |
| 55° | 1438 | 1715 | 1801 |
| 60° | 1334 | 1665 | 1715 |
| 65° | 1188 | 1563 | 1627 |
| 70° | 1022 | 1419 | 1609 |
| 75° | 864 | 1316 | 1581 |
| 80° | 703 | 1222 | 1441 |
| 85° | 496 | 948 | 1137 |



TEST NUMBER: P232315

CATALOG NUMBER: 24RDIA-30-UNV-L850-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 106.1 | 3.3 |
| 10°-20° | 304.5 | 9.5 |
| 20°-30° | 463.3 | 14.4 |
| 30°-40° | 561.8 | 17.5 |
| 40°-50° | 586.7 | 18.2 |
| 50°-60° | 528.4 | 16.4 |
| 60°-70° | 388.8 | 12.1 |
| 70°-80° | 220.1 | 6.8 |
| 80°-90° | 57.3 | 1.8 |
| 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° | 874.0 | 27.2 |
| 0°-40° | 1435.7 | 44.6 |
| 0°-60° | 2550.8 | 79.3 |
| 0°-90° | 3217.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3217.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1121 | 1121 | 1121 | 1121 | 1121 | |
| 5° | 1118 | 1116 | 1114 | 1118 | 1120 | 106 |
| 15° | 1070 | 1071 | 1077 | 1087 | 1091 | 302 |
| 25° | 979 | 985 | 1004 | 1025 | 1032 | 451 |
| 35° | 852 | 866 | 900 | 930 | 942 | 532 |
| 45° | 691 | 717 | 766 | 806 | 819 | 533 |
| 55° | 511 | 546 | 609 | 637 | 640 | 456 |
| 65° | 311 | 366 | 409 | 421 | 426 | 309 |
| 75° | 138 | 181 | 211 | 244 | 253 | 149 |
| 85° | 27 | 37 | 51 | 58 | 61 | 34 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P232315

CATALOG NUMBER: 24RDIA-30-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1121.4 | 1121.4 | 1121.4 | 1121.4 | 1121.4 |
| 2.5° | 1122.2 | 1119.9 | 1116.7 | 1120.7 | 1123.0 |
| 5° | 1118.3 | 1115.9 | 1113.6 | 1118.3 | 1119.9 |
| 7.5° | 1110.4 | 1108.9 | 1108.1 | 1113.6 | 1115.9 |
| 10° | 1100.2 | 1098.6 | 1099.4 | 1107.3 | 1108.9 |
| 12.5° | 1086.0 | 1086.8 | 1089.2 | 1097.8 | 1101.0 |
| 15° | 1069.5 | 1071.1 | 1076.6 | 1086.8 | 1090.8 |
| 17.5° | 1052.2 | 1053.0 | 1061.6 | 1074.2 | 1078.2 |
| 20° | 1029.4 | 1034.1 | 1045.1 | 1060.1 | 1065.6 |
| 22.5° | 1005.8 | 1011.3 | 1023.9 | 1043.5 | 1049.8 |
| 25° | 979.0 | 985.3 | 1004.2 | 1025.4 | 1032.5 |
| 27.5° | 949.1 | 958.5 | 979.8 | 1005.0 | 1015.2 |
| 30° | 919.2 | 929.4 | 955.4 | 982.2 | 991.6 |
| 32.5° | 886.1 | 897.2 | 927.1 | 957.8 | 968.8 |
| 35° | 851.5 | 865.7 | 899.5 | 930.2 | 942.0 |
| 37.5° | 815.3 | 830.3 | 868.0 | 903.5 | 917.6 |
| 40° | 774.4 | 793.3 | 835.0 | 872.8 | 884.6 |
| 42.5° | 733.5 | 756.3 | 800.4 | 840.5 | 853.1 |
| 45° | 691.0 | 716.9 | 765.7 | 805.9 | 819.2 |
| 47.5° | 650.0 | 676.0 | 729.5 | 768.9 | 779.9 |
| 50° | 604.4 | 635.9 | 691.8 | 729.5 | 739.0 |
| 52.5° | 559.5 | 591.8 | 650.0 | 686.2 | 691.8 |
| 55° | 510.8 | 546.2 | 609.1 | 636.7 | 639.8 |
| 57.5° | 462.7 | 502.1 | 565.1 | 587.1 | 587.9 |
| 60° | 413.2 | 456.4 | 515.5 | 531.2 | 531.2 |
| 62.5° | 363.6 | 413.2 | 462.0 | 477.7 | 476.1 |
| 65° | 310.9 | 365.9 | 409.2 | 421.0 | 425.8 |
| 67.5° | 262.1 | 321.1 | 357.3 | 370.7 | 382.5 |
| 70° | 216.4 | 274.7 | 300.6 | 328.2 | 340.8 |
| 72.5° | 174.7 | 229.8 | 250.3 | 289.6 | 299.1 |
| 75° | 138.5 | 181.0 | 210.9 | 244.0 | 253.4 |
| 77.5° | 107.0 | 134.6 | 172.3 | 200.7 | 206.2 |
| 80° | 75.6 | 92.9 | 131.4 | 151.1 | 155.0 |
| 82.5° | 50.4 | 63.7 | 91.3 | 105.5 | 110.2 |
| 85° | 26.8 | 37.0 | 51.2 | 58.2 | 61.4 |
| 87.5° | 10.2 | 15.0 | 17.3 | 18.9 | 19.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)