

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: P412594

Luminaire Tested: **24PD-85-PB1-L940**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412594
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-45)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24PD-85-PB1-L940
Description: 8500 LUMEN 2X4 PERCEIVE LED TROFFER WITH BEVEL PATTERN OPTICS AND 90 CRI, 4000 CCT LEDS
Light Source: -
Ballast/Driver: -

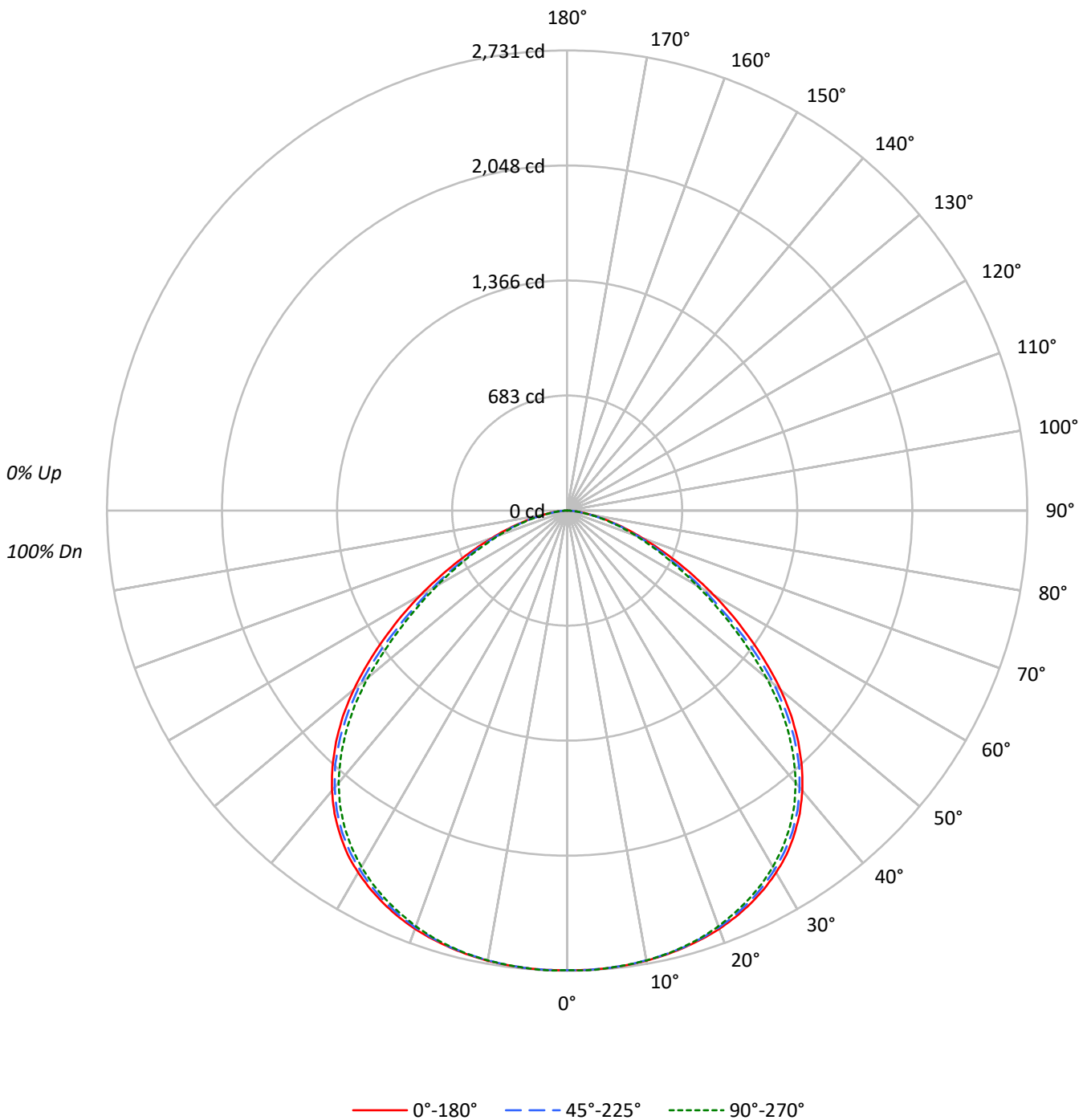
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7258.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.32 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 64.5
Input Voltage (V): NR
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 102 | 102 | 102 | 100 |
| 1 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | | 95 | 93 | 91 | | 92 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | | 85 | 81 | 77 | | 82 | 78 | 75 | 73 |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | | 75 | 70 | 66 | | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 65 | 59 | 83 | 72 | 65 | 59 | 70 | 63 | 58 | | 68 | 62 | 57 | | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | | 61 | 55 | 50 | | 59 | 54 | 49 | 47 |
| 6 | 72 | 60 | 51 | 45 | 70 | 59 | 51 | 45 | 57 | 50 | 44 | | 55 | 49 | 44 | | 54 | 48 | 43 | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | | 50 | 44 | 39 | | 49 | 43 | 39 | 37 |
| 8 | 63 | 49 | 41 | 35 | 61 | 49 | 41 | 35 | 47 | 40 | 35 | | 46 | 40 | 35 | | 45 | 39 | 35 | 33 |
| 9 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | | 43 | 36 | 32 | | 42 | 36 | 31 | 30 |
| 10 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 29 | 40 | 33 | 29 | | 39 | 33 | 29 | | 39 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3670 | 3670 | 3670 |
| 5° | 3682 | 3682 | 3682 |
| 10° | 3707 | 3703 | 3704 |
| 15° | 3740 | 3735 | 3732 |
| 20° | 3782 | 3770 | 3760 |
| 25° | 3822 | 3803 | 3781 |
| 30° | 3855 | 3823 | 3794 |
| 35° | 3859 | 3826 | 3778 |
| 40° | 3814 | 3770 | 3707 |
| 45° | 3691 | 3623 | 3530 |
| 50° | 3461 | 3353 | 3231 |
| 55° | 3110 | 2925 | 2805 |
| 60° | 2708 | 2492 | 2397 |
| 65° | 2279 | 2108 | 2016 |
| 70° | 1857 | 1763 | 1692 |
| 75° | 1488 | 1436 | 1376 |
| 80° | 1143 | 1053 | 1025 |
| 85° | 715 | 692 | 692 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 259.7 | 3.6 |
| 10°-20° | 758.0 | 10.4 |
| 20°-30° | 1180.9 | 16.3 |
| 30°-40° | 1452.7 | 20.0 |
| 40°-50° | 1459.2 | 20.1 |
| 50°-60° | 1124.6 | 15.5 |
| 60°-70° | 667.6 | 9.2 |
| 70°-80° | 297.3 | 4.1 |
| 80°-90° | 58.0 | 0.8 |
| 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° | 2198.6 | 30.3 |
| 0°-40° | 3651.3 | 50.3 |
| 0°-60° | 6235.1 | 85.9 |
| 0°-90° | 7258.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7258.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2728 | 2728 | 2728 | 2728 | 2728 | |
| 5° | 2726 | 2727 | 2726 | 2723 | 2726 | 260 |
| 15° | 2685 | 2685 | 2681 | 2677 | 2679 | 759 |
| 25° | 2574 | 2574 | 2561 | 2550 | 2547 | 1187 |
| 35° | 2350 | 2346 | 2329 | 2310 | 2300 | 1467 |
| 45° | 1940 | 1935 | 1904 | 1872 | 1855 | 1489 |
| 55° | 1326 | 1301 | 1247 | 1210 | 1196 | 1186 |
| 65° | 716 | 685 | 662 | 637 | 633 | 715 |
| 75° | 286 | 280 | 276 | 267 | 265 | 310 |
| 85° | 46 | 44 | 45 | 43 | 45 | 62 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P412594

CATALOG NUMBER: 24PD-85-PB1-L940

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2727.6 | 2727.6 | 2727.6 | 2727.6 | 2727.6 |
| 2.5° | 2729.1 | 2728.4 | 2728.4 | 2725.5 | 2731.3 |
| 5° | 2726.2 | 2726.9 | 2726.2 | 2723.3 | 2726.2 |
| 7.5° | 2720.4 | 2721.1 | 2719.7 | 2716.8 | 2719.7 |
| 10° | 2713.2 | 2713.2 | 2710.3 | 2708.9 | 2711.0 |
| 12.5° | 2700.9 | 2700.9 | 2698.0 | 2695.8 | 2698.0 |
| 15° | 2685.0 | 2685.0 | 2681.4 | 2677.0 | 2679.2 |
| 17.5° | 2665.5 | 2665.5 | 2659.7 | 2653.9 | 2655.4 |
| 20° | 2641.6 | 2640.9 | 2632.9 | 2625.0 | 2625.7 |
| 22.5° | 2611.3 | 2610.5 | 2600.4 | 2591.0 | 2588.1 |
| 25° | 2574.4 | 2573.7 | 2561.4 | 2549.8 | 2546.9 |
| 27.5° | 2531.7 | 2528.8 | 2515.1 | 2502.1 | 2499.2 |
| 30° | 2481.1 | 2479.0 | 2460.9 | 2447.9 | 2442.1 |
| 32.5° | 2422.6 | 2416.8 | 2400.2 | 2384.3 | 2376.3 |
| 35° | 2349.6 | 2345.9 | 2329.3 | 2309.8 | 2300.4 |
| 37.5° | 2267.1 | 2263.5 | 2245.4 | 2223.8 | 2212.9 |
| 40° | 2171.7 | 2168.8 | 2146.4 | 2124.0 | 2110.3 |
| 42.5° | 2061.8 | 2059.7 | 2035.8 | 2004.7 | 1990.3 |
| 45° | 1939.6 | 1934.6 | 1904.2 | 1872.4 | 1855.1 |
| 47.5° | 1803.7 | 1795.1 | 1758.2 | 1727.8 | 1709.0 |
| 50° | 1653.4 | 1641.8 | 1602.0 | 1563.0 | 1543.5 |
| 52.5° | 1490.7 | 1470.5 | 1429.3 | 1384.4 | 1365.6 |
| 55° | 1325.9 | 1300.6 | 1247.1 | 1209.5 | 1195.7 |
| 57.5° | 1164.7 | 1127.8 | 1077.2 | 1050.4 | 1036.7 |
| 60° | 1006.3 | 965.8 | 926.1 | 900.1 | 890.7 |
| 62.5° | 855.2 | 821.3 | 787.3 | 761.3 | 755.5 |
| 65° | 715.7 | 684.6 | 662.2 | 636.9 | 633.3 |
| 67.5° | 585.6 | 571.1 | 550.9 | 529.2 | 526.3 |
| 70° | 472.1 | 466.3 | 448.2 | 435.2 | 430.1 |
| 72.5° | 376.7 | 370.9 | 357.9 | 348.5 | 347.0 |
| 75° | 286.3 | 280.5 | 276.2 | 266.8 | 264.6 |
| 77.5° | 203.9 | 204.6 | 201.0 | 195.9 | 197.4 |
| 80° | 147.5 | 138.8 | 135.9 | 133.0 | 132.3 |
| 82.5° | 90.4 | 85.3 | 83.1 | 82.4 | 83.9 |
| 85° | 46.3 | 44.1 | 44.8 | 42.7 | 44.8 |
| 87.5° | 15.9 | 15.9 | 16.6 | 15.9 | 17.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)