

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: P412563

Luminaire Tested: **24PD-70-PB1-L850**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412563
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-70-PB1-L850
Description: 7000 LUMEN 2X4 PERCEIVE LED TROFFER WITH BEVEL PATTERN OPTICS AND 80 CRI, 5000 CCT LEDS
Light Source: -
Ballast/Driver: -

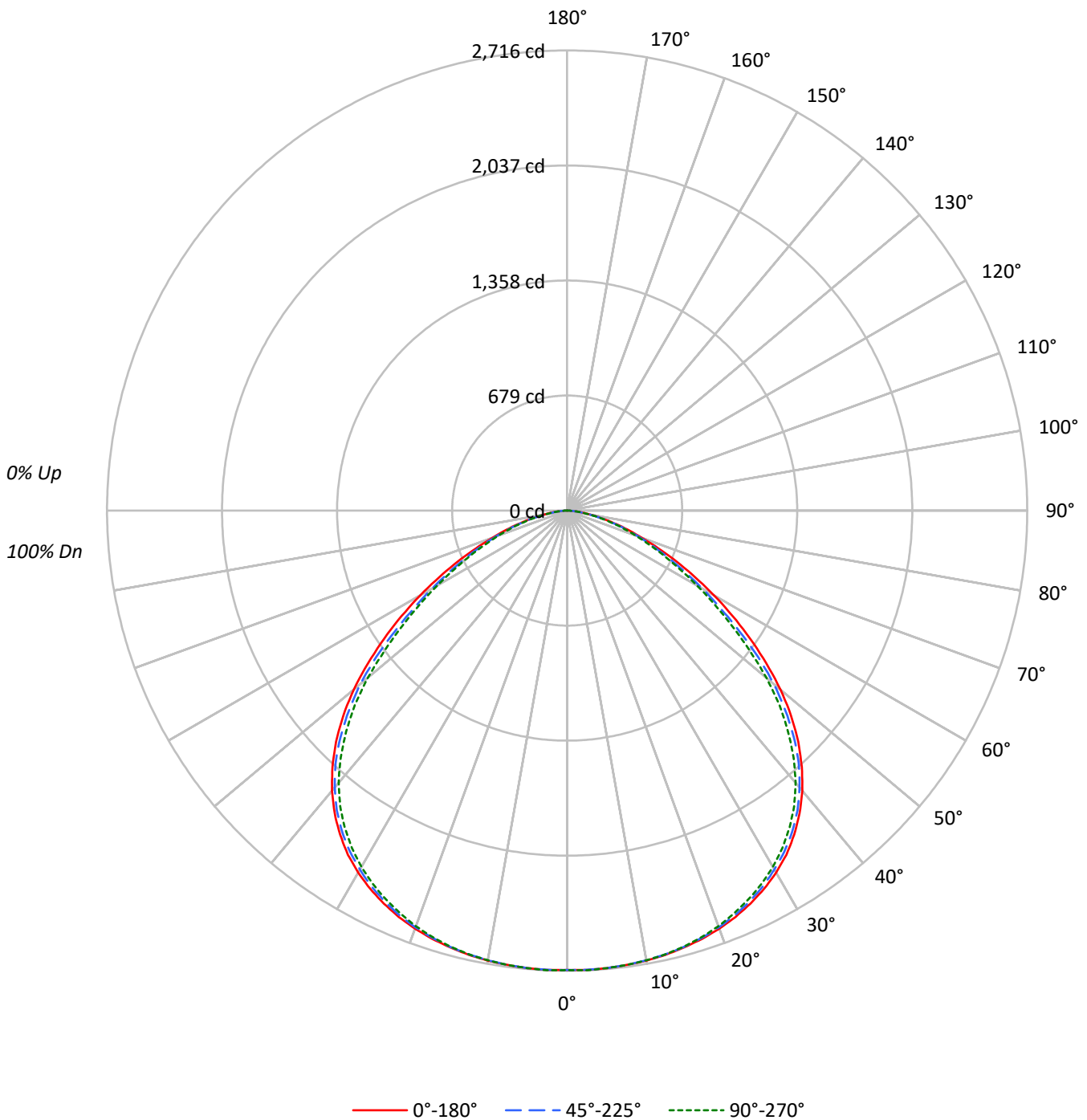
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7216.0 lumens
Efficiency: N/A
Efficacy: 138.0 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): 52.3
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° | 3649 | 3649 | 3649 |
| 5° | 3661 | 3661 | 3661 |
| 10° | 3685 | 3681 | 3682 |
| 15° | 3718 | 3713 | 3710 |
| 20° | 3760 | 3748 | 3738 |
| 25° | 3800 | 3781 | 3759 |
| 30° | 3833 | 3801 | 3772 |
| 35° | 3837 | 3804 | 3757 |
| 40° | 3792 | 3748 | 3685 |
| 45° | 3669 | 3602 | 3509 |
| 50° | 3441 | 3334 | 3212 |
| 55° | 3092 | 2909 | 2789 |
| 60° | 2692 | 2478 | 2383 |
| 65° | 2266 | 2096 | 2004 |
| 70° | 1846 | 1753 | 1683 |
| 75° | 1480 | 1428 | 1368 |
| 80° | 1136 | 1047 | 1019 |
| 85° | 710 | 689 | 689 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 258.2 | 3.6 |
| 10°-20° | 753.6 | 10.4 |
| 20°-30° | 1174.0 | 16.3 |
| 30°-40° | 1444.3 | 20.0 |
| 40°-50° | 1450.7 | 20.1 |
| 50°-60° | 1118.1 | 15.5 |
| 60°-70° | 663.8 | 9.2 |
| 70°-80° | 295.5 | 4.1 |
| 80°-90° | 57.7 | 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° | 2185.8 | 30.3 |
| 0°-40° | 3630.1 | 50.3 |
| 0°-60° | 6199.0 | 85.9 |
| 0°-90° | 7216.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7216.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2712 | 2712 | 2712 | 2712 | 2712 | |
| 5° | 2710 | 2711 | 2710 | 2708 | 2710 | 258 |
| 15° | 2670 | 2670 | 2666 | 2662 | 2664 | 755 |
| 25° | 2560 | 2559 | 2547 | 2535 | 2532 | 1180 |
| 35° | 2336 | 2332 | 2316 | 2296 | 2287 | 1459 |
| 45° | 1928 | 1923 | 1893 | 1862 | 1844 | 1480 |
| 55° | 1318 | 1293 | 1240 | 1202 | 1189 | 1179 |
| 65° | 712 | 681 | 658 | 633 | 630 | 711 |
| 75° | 285 | 279 | 275 | 265 | 263 | 308 |
| 85° | 46 | 44 | 45 | 42 | 45 | 61 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2711.9 | 2711.9 | 2711.9 | 2711.9 | 2711.9 |
| 2.5° | 2713.3 | 2712.6 | 2712.6 | 2709.7 | 2715.5 |
| 5° | 2710.4 | 2711.1 | 2710.4 | 2707.6 | 2710.4 |
| 7.5° | 2704.7 | 2705.4 | 2704.0 | 2701.1 | 2704.0 |
| 10° | 2697.5 | 2697.5 | 2694.6 | 2693.2 | 2695.3 |
| 12.5° | 2685.3 | 2685.3 | 2682.4 | 2680.2 | 2682.4 |
| 15° | 2669.5 | 2669.5 | 2665.9 | 2661.6 | 2663.7 |
| 17.5° | 2650.1 | 2650.1 | 2644.3 | 2638.6 | 2640.0 |
| 20° | 2626.3 | 2625.6 | 2617.7 | 2609.8 | 2610.5 |
| 22.5° | 2596.1 | 2595.4 | 2585.4 | 2576.0 | 2573.1 |
| 25° | 2559.5 | 2558.8 | 2546.6 | 2535.1 | 2532.2 |
| 27.5° | 2517.1 | 2514.2 | 2500.6 | 2487.6 | 2484.7 |
| 30° | 2466.8 | 2464.6 | 2446.6 | 2433.7 | 2428.0 |
| 32.5° | 2408.6 | 2402.8 | 2386.3 | 2370.5 | 2362.5 |
| 35° | 2336.0 | 2332.4 | 2315.8 | 2296.4 | 2287.1 |
| 37.5° | 2254.0 | 2250.4 | 2232.5 | 2210.9 | 2200.1 |
| 40° | 2159.1 | 2156.3 | 2134.0 | 2111.7 | 2098.0 |
| 42.5° | 2049.9 | 2047.7 | 2024.0 | 1993.1 | 1978.7 |
| 45° | 1928.4 | 1923.4 | 1893.2 | 1861.6 | 1844.3 |
| 47.5° | 1793.3 | 1784.7 | 1748.0 | 1717.8 | 1699.1 |
| 50° | 1643.8 | 1632.3 | 1592.8 | 1553.9 | 1534.5 |
| 52.5° | 1482.1 | 1461.9 | 1421.0 | 1376.4 | 1357.7 |
| 55° | 1318.2 | 1293.0 | 1239.9 | 1202.5 | 1188.8 |
| 57.5° | 1157.9 | 1121.3 | 1070.9 | 1044.4 | 1030.7 |
| 60° | 1000.5 | 960.3 | 920.7 | 894.9 | 885.5 |
| 62.5° | 850.3 | 816.5 | 782.7 | 756.8 | 751.1 |
| 65° | 711.6 | 680.7 | 658.4 | 633.2 | 629.6 |
| 67.5° | 582.2 | 567.8 | 547.7 | 526.1 | 523.3 |
| 70° | 469.3 | 463.6 | 445.6 | 432.7 | 427.7 |
| 72.5° | 374.5 | 368.7 | 355.8 | 346.4 | 345.0 |
| 75° | 284.6 | 278.9 | 274.6 | 265.2 | 263.1 |
| 77.5° | 202.7 | 203.4 | 199.8 | 194.8 | 196.2 |
| 80° | 146.6 | 138.0 | 135.1 | 132.3 | 131.5 |
| 82.5° | 89.8 | 84.8 | 82.7 | 81.9 | 83.4 |
| 85° | 46.0 | 43.8 | 44.6 | 42.4 | 44.6 |
| 87.5° | 15.8 | 15.8 | 16.5 | 15.8 | 17.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)