

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: P412516

Luminaire Tested: **24PD-45-PB1-L835**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412516
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-45-PB1-L835
Description: 4500 LUMEN 2X4 PERCEIVE LED TROFFER WITH BEVEL PATTERN OPTICS AND 80 CRI, 3500 CCT LEDS
Light Source: -
Ballast/Driver: -

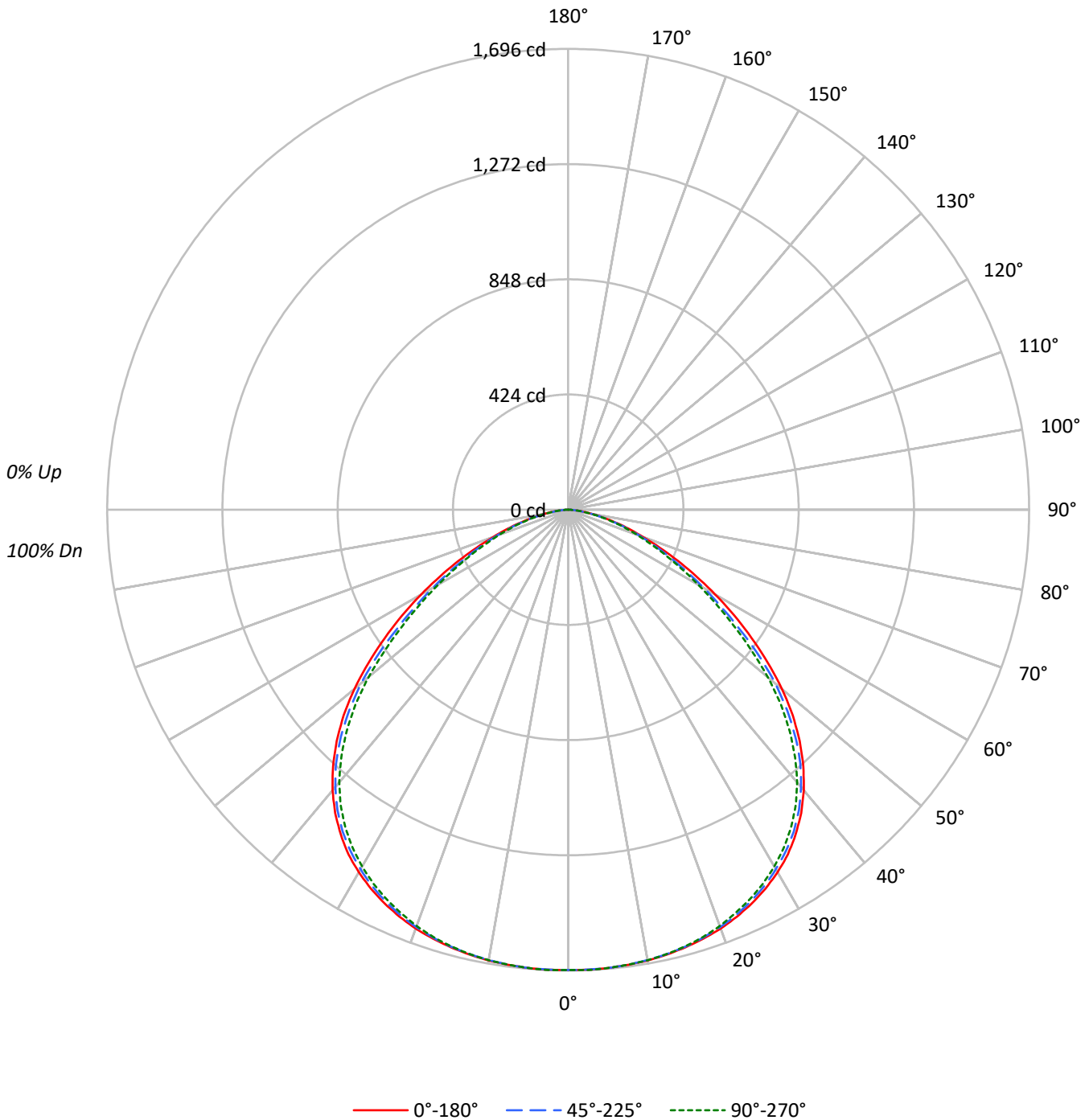
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4507.0 lumens
Efficiency: N/A
Efficacy: 134.9 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): 33.4
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° | 2279 | 2279 | 2279 |
| 5° | 2286 | 2286 | 2286 |
| 10° | 2302 | 2299 | 2300 |
| 15° | 2322 | 2319 | 2317 |
| 20° | 2349 | 2341 | 2335 |
| 25° | 2373 | 2361 | 2348 |
| 30° | 2394 | 2374 | 2356 |
| 35° | 2396 | 2376 | 2346 |
| 40° | 2369 | 2341 | 2302 |
| 45° | 2292 | 2250 | 2192 |
| 50° | 2149 | 2082 | 2006 |
| 55° | 1931 | 1817 | 1742 |
| 60° | 1682 | 1548 | 1488 |
| 65° | 1415 | 1309 | 1252 |
| 70° | 1153 | 1095 | 1051 |
| 75° | 924 | 892 | 854 |
| 80° | 710 | 654 | 637 |
| 85° | 443 | 429 | 429 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 161.3 | 3.6 |
| 10°-20° | 470.7 | 10.4 |
| 20°-30° | 733.3 | 16.3 |
| 30°-40° | 902.1 | 20.0 |
| 40°-50° | 906.1 | 20.1 |
| 50°-60° | 698.4 | 15.5 |
| 60°-70° | 414.6 | 9.2 |
| 70°-80° | 184.6 | 4.1 |
| 80°-90° | 36.1 | 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° | 1365.2 | 30.3 |
| 0°-40° | 2267.3 | 50.3 |
| 0°-60° | 3871.8 | 85.9 |
| 0°-90° | 4507.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4507.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1694 | 1694 | 1694 | 1694 | 1694 | |
| 5° | 1693 | 1693 | 1693 | 1691 | 1693 | 161 |
| 15° | 1667 | 1667 | 1665 | 1662 | 1664 | 471 |
| 25° | 1599 | 1598 | 1590 | 1583 | 1582 | 737 |
| 35° | 1459 | 1457 | 1446 | 1434 | 1428 | 911 |
| 45° | 1204 | 1201 | 1182 | 1163 | 1152 | 925 |
| 55° | 823 | 808 | 774 | 751 | 742 | 736 |
| 65° | 444 | 425 | 411 | 396 | 393 | 444 |
| 75° | 178 | 174 | 172 | 166 | 164 | 192 |
| 85° | 29 | 27 | 28 | 26 | 28 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1693.8 | 1693.8 | 1693.8 | 1693.8 | 1693.8 |
| 2.5° | 1694.7 | 1694.2 | 1694.2 | 1692.4 | 1696.0 |
| 5° | 1692.9 | 1693.3 | 1692.9 | 1691.1 | 1692.9 |
| 7.5° | 1689.3 | 1689.7 | 1688.9 | 1687.1 | 1688.9 |
| 10° | 1684.8 | 1684.8 | 1683.0 | 1682.1 | 1683.5 |
| 12.5° | 1677.2 | 1677.2 | 1675.4 | 1674.0 | 1675.4 |
| 15° | 1667.3 | 1667.3 | 1665.1 | 1662.4 | 1663.7 |
| 17.5° | 1655.2 | 1655.2 | 1651.6 | 1648.0 | 1648.9 |
| 20° | 1640.4 | 1639.9 | 1635.0 | 1630.0 | 1630.5 |
| 22.5° | 1621.5 | 1621.1 | 1614.8 | 1608.9 | 1607.1 |
| 25° | 1598.6 | 1598.2 | 1590.5 | 1583.4 | 1581.6 |
| 27.5° | 1572.1 | 1570.3 | 1561.8 | 1553.7 | 1551.9 |
| 30° | 1540.7 | 1539.4 | 1528.1 | 1520.1 | 1516.5 |
| 32.5° | 1504.3 | 1500.8 | 1490.4 | 1480.5 | 1475.6 |
| 35° | 1459.0 | 1456.8 | 1446.4 | 1434.3 | 1428.5 |
| 37.5° | 1407.8 | 1405.6 | 1394.4 | 1380.9 | 1374.2 |
| 40° | 1348.6 | 1346.8 | 1332.9 | 1318.9 | 1310.4 |
| 42.5° | 1280.3 | 1279.0 | 1264.2 | 1244.9 | 1235.9 |
| 45° | 1204.5 | 1201.3 | 1182.5 | 1162.7 | 1151.9 |
| 47.5° | 1120.1 | 1114.7 | 1091.8 | 1072.9 | 1061.3 |
| 50° | 1026.7 | 1019.5 | 994.8 | 970.6 | 958.5 |
| 52.5° | 925.7 | 913.1 | 887.5 | 859.7 | 848.0 |
| 55° | 823.3 | 807.6 | 774.4 | 751.0 | 742.5 |
| 57.5° | 723.2 | 700.3 | 668.9 | 652.3 | 643.8 |
| 60° | 624.9 | 599.8 | 575.1 | 558.9 | 553.1 |
| 62.5° | 531.1 | 510.0 | 488.9 | 472.7 | 469.1 |
| 65° | 444.4 | 425.1 | 411.2 | 395.5 | 393.3 |
| 67.5° | 363.6 | 354.6 | 342.1 | 328.6 | 326.8 |
| 70° | 293.1 | 289.6 | 278.3 | 270.3 | 267.1 |
| 72.5° | 233.9 | 230.3 | 222.2 | 216.4 | 215.5 |
| 75° | 177.8 | 174.2 | 171.5 | 165.7 | 164.3 |
| 77.5° | 126.6 | 127.0 | 124.8 | 121.7 | 122.6 |
| 80° | 91.6 | 86.2 | 84.4 | 82.6 | 82.2 |
| 82.5° | 56.1 | 53.0 | 51.6 | 51.2 | 52.1 |
| 85° | 28.7 | 27.4 | 27.8 | 26.5 | 27.8 |
| 87.5° | 9.9 | 9.9 | 10.3 | 9.9 | 10.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)