

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: P413202

Luminaire Tested: **24PD-45-PC3-L850**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P413202
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-46)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24PD-45-PC3-L850
Description: 4500 LUMEN 2X4 PERCEIVE LED TROFFER WITH PYRAMID PATTERN OPTICS AND 80 CRI, 5000 CCT LEDS
Light Source: -
Ballast/Driver: -

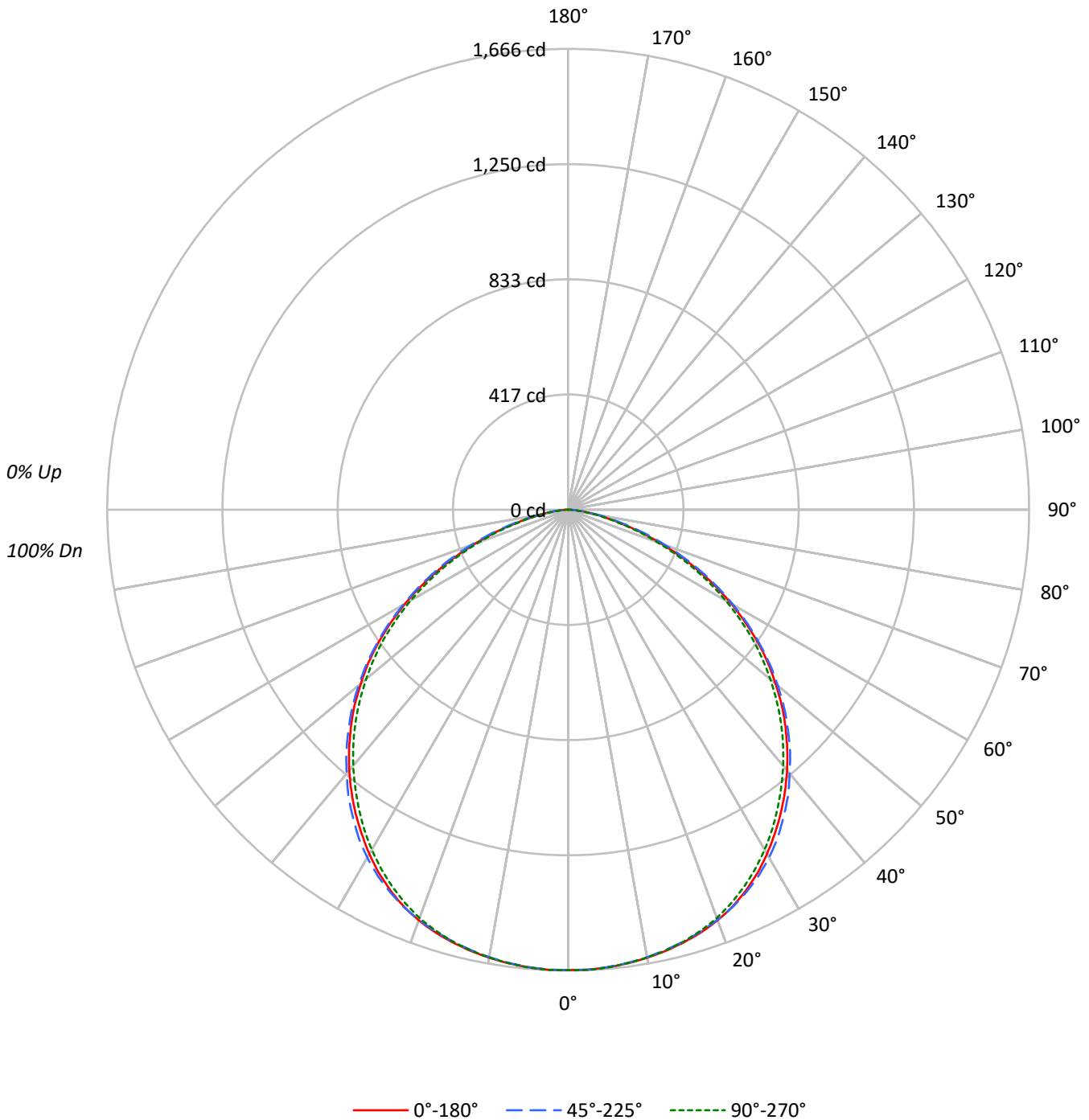
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4550.0 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.26 / 1.38
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

TEST NUMBER: P413202
CATALOG NUMBER: 24PD-45-PC3-L850

Luminous Intensity Polar Plot





TEST NUMBER: P413202

CATALOG NUMBER: 24PD-45-PC3-L850

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 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 66 | 77 | 70 | 65 | 74 | 69 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 |
| 5 | 77 | 64 | 56 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 48 | 59 | 53 | 48 | 57 | 52 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 37 | 47 | 42 | 37 | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2240 | 2240 | 2240 |
| 5° | 2243 | 2242 | 2243 |
| 10° | 2247 | 2244 | 2246 |
| 15° | 2254 | 2250 | 2251 |
| 20° | 2262 | 2259 | 2249 |
| 25° | 2256 | 2264 | 2232 |
| 30° | 2233 | 2257 | 2205 |
| 35° | 2200 | 2228 | 2167 |
| 40° | 2162 | 2188 | 2123 |
| 45° | 2113 | 2136 | 2069 |
| 50° | 2047 | 2070 | 1997 |
| 55° | 1963 | 1981 | 1905 |
| 60° | 1833 | 1854 | 1769 |
| 65° | 1652 | 1693 | 1587 |
| 70° | 1402 | 1464 | 1346 |
| 75° | 1086 | 1165 | 1036 |
| 80° | 807 | 843 | 732 |
| 85° | 499 | 534 | 463 |



TEST NUMBER: P413202

CATALOG NUMBER: 24PD-45-PC3-L850

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 157.9 | 3.5 |
| 10°-20° | 456.5 | 10.0 |
| 20°-30° | 699.1 | 15.4 |
| 30°-40° | 841.0 | 18.5 |
| 40°-50° | 857.6 | 18.8 |
| 50°-60° | 743.5 | 16.3 |
| 60°-70° | 515.5 | 11.3 |
| 70°-80° | 235.4 | 5.2 |
| 80°-90° | 43.5 | 1.0 |
| 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° | 1313.5 | 28.9 |
| 0°-40° | 2154.5 | 47.4 |
| 0°-60° | 3755.6 | 82.5 |
| 0°-90° | 4550.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4550.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1665 | 1665 | 1665 | 1665 | 1665 | |
| 5° | 1660 | 1660 | 1660 | 1659 | 1661 | 158 |
| 15° | 1618 | 1618 | 1615 | 1614 | 1616 | 457 |
| 25° | 1519 | 1524 | 1525 | 1512 | 1504 | 700 |
| 35° | 1340 | 1354 | 1357 | 1339 | 1319 | 838 |
| 45° | 1110 | 1124 | 1122 | 1107 | 1087 | 856 |
| 55° | 837 | 842 | 844 | 824 | 812 | 746 |
| 65° | 519 | 530 | 532 | 514 | 498 | 513 |
| 75° | 209 | 220 | 224 | 217 | 199 | 228 |
| 85° | 32 | 33 | 35 | 33 | 30 | 44 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P413202

CATALOG NUMBER: 24PD-45-PC3-L850

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1664.6 | 1664.6 | 1664.6 | 1664.6 | 1664.6 |
| 2.5° | 1664.6 | 1664.6 | 1663.7 | 1662.8 | 1665.5 |
| 5° | 1660.5 | 1660.5 | 1659.6 | 1658.6 | 1660.9 |
| 7.5° | 1654.0 | 1653.6 | 1652.6 | 1651.7 | 1653.1 |
| 10° | 1644.8 | 1644.3 | 1642.5 | 1642.0 | 1643.9 |
| 12.5° | 1633.3 | 1632.8 | 1630.0 | 1630.0 | 1631.4 |
| 15° | 1618.5 | 1618.0 | 1615.3 | 1613.9 | 1615.7 |
| 17.5° | 1601.9 | 1601.4 | 1598.2 | 1594.5 | 1595.5 |
| 20° | 1579.8 | 1579.8 | 1577.5 | 1571.9 | 1570.6 |
| 22.5° | 1553.0 | 1554.4 | 1554.4 | 1543.8 | 1539.7 |
| 25° | 1519.4 | 1523.5 | 1524.9 | 1511.5 | 1503.7 |
| 27.5° | 1481.1 | 1487.6 | 1491.2 | 1474.2 | 1464.0 |
| 30° | 1437.3 | 1447.9 | 1452.5 | 1434.1 | 1419.3 |
| 32.5° | 1389.3 | 1402.7 | 1408.2 | 1390.3 | 1371.4 |
| 35° | 1339.5 | 1353.8 | 1356.6 | 1339.1 | 1319.2 |
| 37.5° | 1286.5 | 1301.3 | 1305.0 | 1289.3 | 1264.8 |
| 40° | 1230.7 | 1245.5 | 1245.5 | 1232.6 | 1208.6 |
| 42.5° | 1171.7 | 1187.4 | 1186.9 | 1171.2 | 1149.6 |
| 45° | 1110.4 | 1124.2 | 1122.4 | 1107.1 | 1087.3 |
| 47.5° | 1047.2 | 1056.0 | 1058.3 | 1040.3 | 1021.4 |
| 50° | 978.0 | 986.8 | 989.1 | 968.8 | 954.0 |
| 52.5° | 909.8 | 915.3 | 918.5 | 895.0 | 884.4 |
| 55° | 836.9 | 842.0 | 844.3 | 823.6 | 812.0 |
| 57.5° | 759.9 | 766.4 | 769.1 | 748.4 | 735.5 |
| 60° | 681.1 | 688.0 | 688.9 | 669.5 | 657.5 |
| 62.5° | 600.8 | 610.1 | 611.9 | 592.5 | 578.2 |
| 65° | 518.8 | 529.8 | 531.7 | 513.7 | 498.5 |
| 67.5° | 436.7 | 451.4 | 451.9 | 437.1 | 419.2 |
| 70° | 356.4 | 372.6 | 372.1 | 359.7 | 342.1 |
| 72.5° | 279.9 | 294.7 | 297.9 | 286.4 | 269.3 |
| 75° | 208.9 | 220.4 | 224.1 | 216.7 | 199.2 |
| 77.5° | 148.5 | 159.1 | 162.3 | 155.4 | 142.5 |
| 80° | 104.2 | 104.7 | 108.8 | 103.3 | 94.5 |
| 82.5° | 64.6 | 63.6 | 65.0 | 62.7 | 57.6 |
| 85° | 32.3 | 33.2 | 34.6 | 32.7 | 30.0 |
| 87.5° | 11.1 | 11.5 | 12.5 | 12.5 | 11.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)