

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: P412742

Luminaire Tested: **22PD-45-PP3-L840**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-16)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22PD-45-PP3-L840
Description: 4500 LUMEN 2X2 PERCEIVE LED TROFFER WITH PRISM PATTERN OPTICS AND 80 CRI, 4000 CCT LEDS
Light Source: -
Ballast/Driver: -

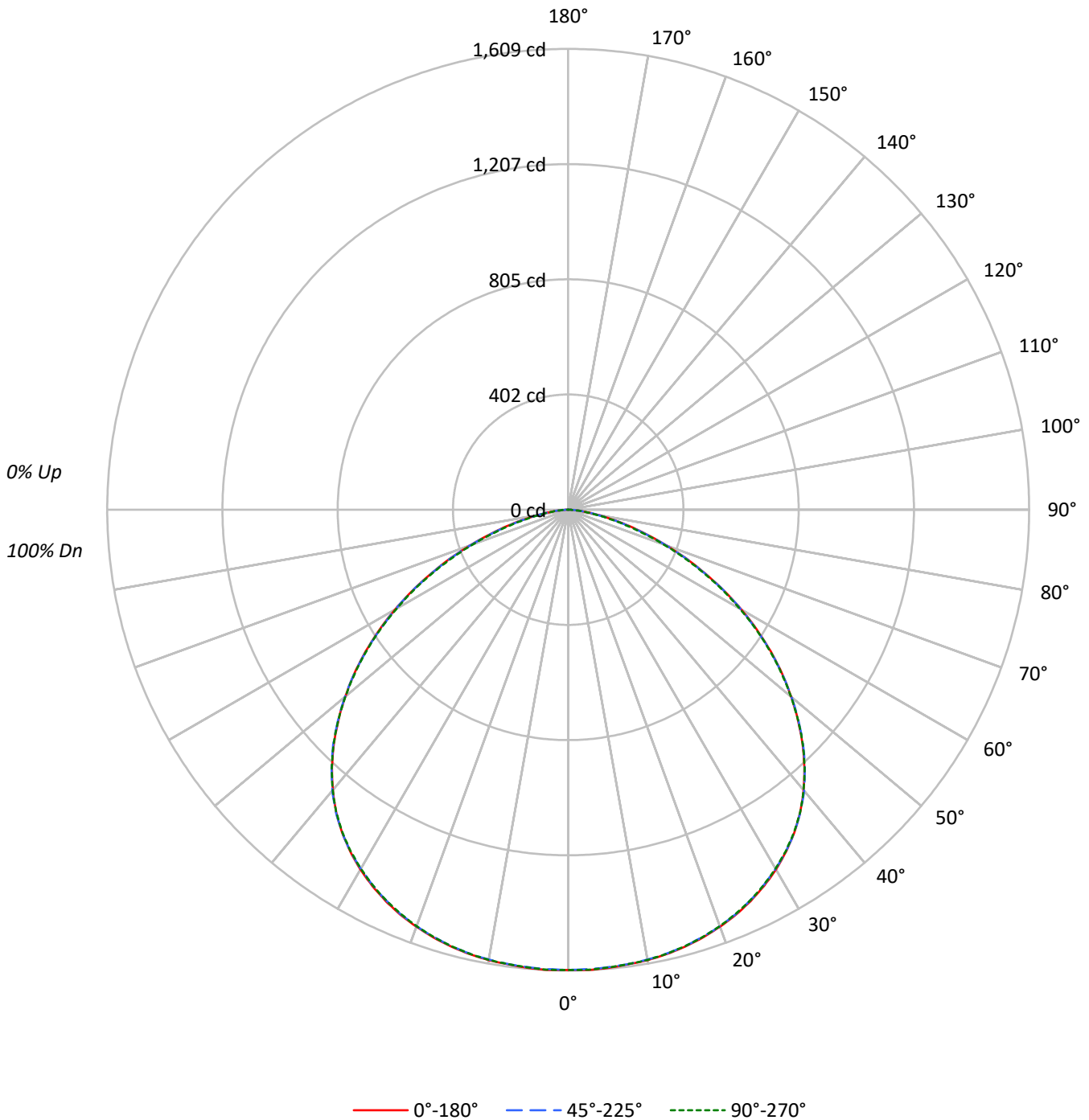
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4610.0 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.43
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 38.2
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





TEST NUMBER: P412742

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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 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 87 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 66 | 60 | 55 | 64 | 58 | 54 | 52 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 48 | 59 | 53 | 47 | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 48 | 42 | 55 | 48 | 42 | 53 | 47 | 42 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 33 | 60 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 28 |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4324 | 4324 | 4324 |
| 5° | 4337 | 4332 | 4334 |
| 10° | 4364 | 4358 | 4361 |
| 15° | 4399 | 4394 | 4394 |
| 20° | 4437 | 4432 | 4431 |
| 25° | 4476 | 4468 | 4468 |
| 30° | 4508 | 4499 | 4498 |
| 35° | 4521 | 4521 | 4515 |
| 40° | 4491 | 4500 | 4491 |
| 45° | 4402 | 4414 | 4408 |
| 50° | 4254 | 4261 | 4249 |
| 55° | 4050 | 4040 | 4032 |
| 60° | 3759 | 3751 | 3722 |
| 65° | 3358 | 3354 | 3317 |
| 70° | 2870 | 2854 | 2790 |
| 75° | 2287 | 2220 | 2153 |
| 80° | 1630 | 1596 | 1512 |
| 85° | 1059 | 1059 | 1028 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 152.8 | 3.3 |
| 10°-20° | 445.7 | 9.7 |
| 20°-30° | 694.0 | 15.1 |
| 30°-40° | 859.0 | 18.6 |
| 40°-50° | 890.7 | 19.3 |
| 50°-60° | 767.7 | 16.7 |
| 60°-70° | 522.0 | 11.3 |
| 70°-80° | 233.6 | 5.1 |
| 80°-90° | 44.5 | 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° | 1292.6 | 28.0 |
| 0°-40° | 2151.6 | 46.7 |
| 0°-60° | 3810.0 | 82.6 |
| 0°-90° | 4610.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4610.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1607 | 1607 | 1607 | 1607 | 1607 | |
| 5° | 1606 | 1602 | 1604 | 1603 | 1605 | 153 |
| 15° | 1579 | 1576 | 1577 | 1576 | 1577 | 446 |
| 25° | 1508 | 1505 | 1505 | 1504 | 1505 | 695 |
| 35° | 1376 | 1374 | 1376 | 1374 | 1374 | 860 |
| 45° | 1157 | 1156 | 1160 | 1157 | 1158 | 890 |
| 55° | 863 | 860 | 861 | 860 | 860 | 770 |
| 65° | 527 | 532 | 527 | 525 | 521 | 524 |
| 75° | 220 | 220 | 214 | 212 | 207 | 237 |
| 85° | 34 | 35 | 34 | 33 | 33 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P412742

CATALOG NUMBER: 22PD-45-PP3-L840

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1606.8 | 1606.8 | 1606.8 | 1606.8 | 1606.8 |
| 2.5° | 1608.9 | 1605.7 | 1605.7 | 1606.3 | 1607.9 |
| 5° | 1605.7 | 1602.5 | 1603.6 | 1603.0 | 1604.6 |
| 7.5° | 1601.4 | 1598.7 | 1600.4 | 1599.3 | 1600.4 |
| 10° | 1597.1 | 1594.5 | 1595.0 | 1594.5 | 1596.1 |
| 12.5° | 1589.6 | 1586.4 | 1587.5 | 1587.5 | 1588.0 |
| 15° | 1578.9 | 1576.2 | 1577.3 | 1576.2 | 1577.3 |
| 17.5° | 1566.0 | 1562.8 | 1563.3 | 1562.8 | 1563.9 |
| 20° | 1549.4 | 1547.2 | 1547.8 | 1546.7 | 1547.2 |
| 22.5° | 1530.6 | 1527.9 | 1528.5 | 1527.4 | 1527.4 |
| 25° | 1507.5 | 1505.4 | 1504.9 | 1504.3 | 1504.9 |
| 27.5° | 1480.7 | 1478.0 | 1478.0 | 1477.5 | 1477.5 |
| 30° | 1450.7 | 1448.0 | 1448.0 | 1447.5 | 1447.5 |
| 32.5° | 1415.3 | 1414.2 | 1414.7 | 1413.7 | 1413.1 |
| 35° | 1376.1 | 1374.5 | 1376.1 | 1374.0 | 1374.5 |
| 37.5° | 1330.5 | 1328.4 | 1331.6 | 1329.4 | 1330.0 |
| 40° | 1278.5 | 1277.4 | 1281.1 | 1279.5 | 1278.5 |
| 42.5° | 1220.5 | 1220.5 | 1222.1 | 1222.7 | 1221.6 |
| 45° | 1156.7 | 1155.6 | 1159.9 | 1157.2 | 1158.3 |
| 47.5° | 1088.0 | 1086.4 | 1089.6 | 1089.1 | 1088.5 |
| 50° | 1016.1 | 1015.0 | 1017.7 | 1015.0 | 1015.0 |
| 52.5° | 941.5 | 941.0 | 941.5 | 938.9 | 938.3 |
| 55° | 863.2 | 860.0 | 861.1 | 859.5 | 859.5 |
| 57.5° | 781.7 | 777.9 | 778.4 | 777.9 | 778.4 |
| 60° | 698.5 | 697.4 | 696.9 | 694.2 | 691.5 |
| 62.5° | 613.2 | 614.3 | 613.7 | 610.0 | 607.3 |
| 65° | 527.4 | 531.7 | 526.8 | 525.2 | 520.9 |
| 67.5° | 446.4 | 448.0 | 444.8 | 441.0 | 436.2 |
| 70° | 364.8 | 368.0 | 362.7 | 358.9 | 354.6 |
| 72.5° | 287.0 | 289.2 | 284.3 | 282.2 | 276.8 |
| 75° | 220.0 | 220.5 | 213.5 | 212.5 | 207.1 |
| 77.5° | 156.7 | 158.8 | 153.4 | 153.4 | 148.1 |
| 80° | 105.2 | 108.9 | 103.0 | 101.4 | 97.6 |
| 82.5° | 66.0 | 66.5 | 64.9 | 63.3 | 61.7 |
| 85° | 34.3 | 35.4 | 34.3 | 33.3 | 33.3 |
| 87.5° | 12.9 | 13.4 | 12.9 | 12.3 | 12.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)