

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: P412842

Luminaire Tested: **24PD-35-PP3-L850**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-47)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24PD-35-PP3-L850
Description: 3500 LUMEN 2X4 PERCEIVE LED TROFFER WITH PRISM PATTERN OPTICS AND 80 CRI, 5000 CCT LEDS
Light Source: -
Ballast/Driver: -

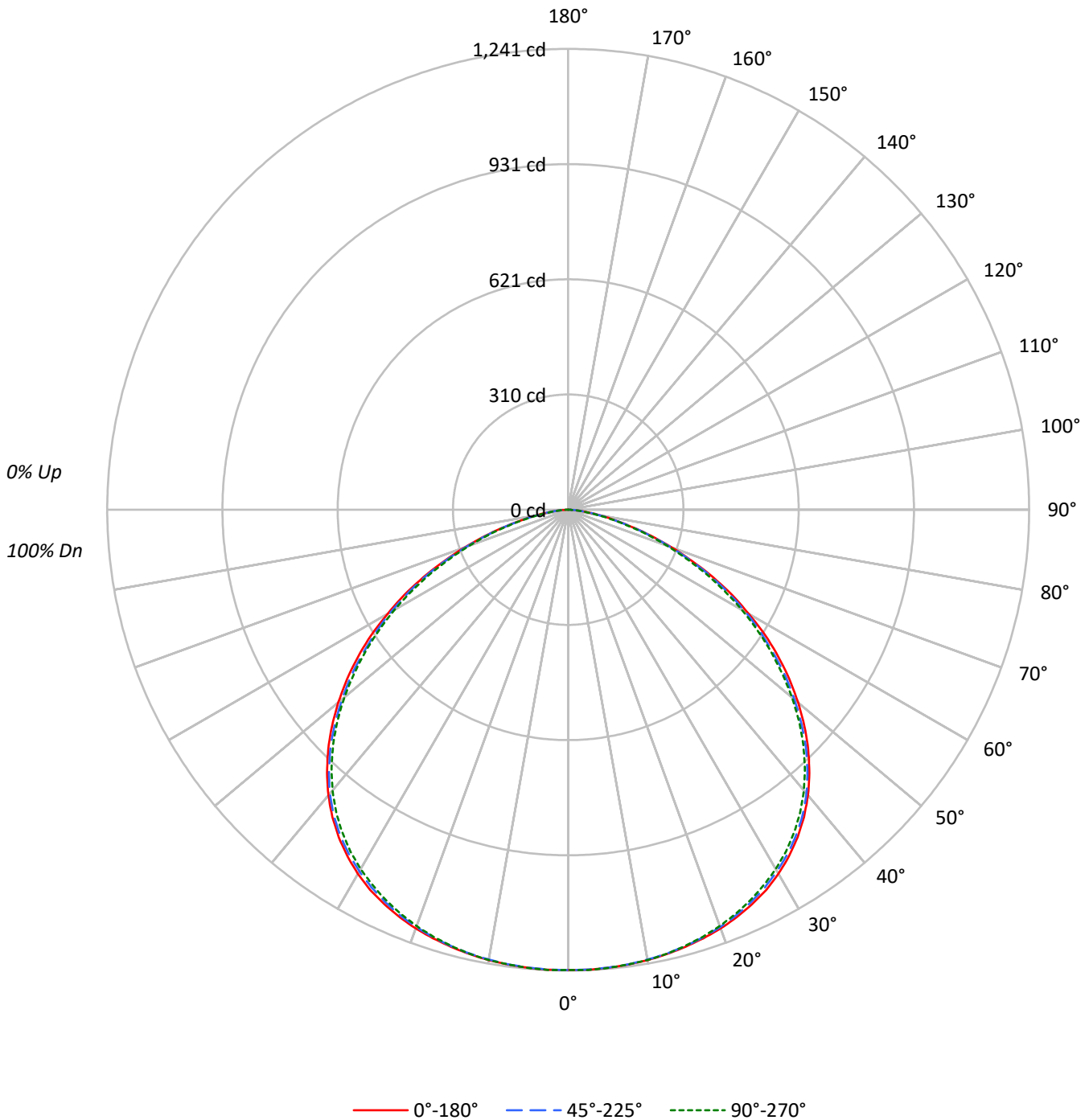
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3607.0 lumens
Efficiency: N/A
Efficacy: 139.8 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.33 / 1.43
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 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 | 86 | 81 | 77 | | 83 | 79 | 75 | | 80 | 77 | 74 | 71 |
| 3 | 91 | 81 | 73 | 66 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | | 73 | 68 | 64 | | 71 | 66 | 63 | 60 |
| 4 | 83 | 72 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | | 65 | 59 | 54 | | 63 | 58 | 54 | 52 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 54 | 48 | 61 | 53 | 48 | | 59 | 52 | 47 | | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | | 53 | 46 | 41 | | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | | 48 | 42 | 37 | | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | | 44 | 38 | 33 | | 43 | 37 | 32 | 31 |
| 9 | 57 | 44 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | | 41 | 34 | 29 | | 40 | 34 | 29 | 27 |
| 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° | 1668 | 1668 | 1668 |
| 5° | 1672 | 1672 | 1673 |
| 10° | 1683 | 1681 | 1682 |
| 15° | 1698 | 1695 | 1694 |
| 20° | 1718 | 1712 | 1708 |
| 25° | 1740 | 1731 | 1723 |
| 30° | 1759 | 1747 | 1736 |
| 35° | 1769 | 1758 | 1742 |
| 40° | 1764 | 1753 | 1733 |
| 45° | 1739 | 1722 | 1702 |
| 50° | 1691 | 1664 | 1646 |
| 55° | 1621 | 1582 | 1562 |
| 60° | 1510 | 1484 | 1454 |
| 65° | 1369 | 1342 | 1302 |
| 70° | 1168 | 1147 | 1110 |
| 75° | 912 | 903 | 860 |
| 80° | 673 | 645 | 609 |
| 85° | 406 | 406 | 378 |



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CATALOG NUMBER: 24PD-35-PP3-L850

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 117.9 | 3.3 |
| 10°-20° | 344.1 | 9.5 |
| 20°-30° | 537.9 | 14.9 |
| 30°-40° | 668.5 | 18.5 |
| 40°-50° | 696.5 | 19.3 |
| 50°-60° | 604.4 | 16.8 |
| 60°-70° | 415.6 | 11.5 |
| 70°-80° | 187.6 | 5.2 |
| 80°-90° | 34.4 | 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° | 1000.0 | 27.7 |
| 0°-40° | 1668.5 | 46.3 |
| 0°-60° | 2969.5 | 82.3 |
| 0°-90° | 3607.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3607.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1240 | 1240 | 1240 | 1240 | 1240 | |
| 5° | 1238 | 1238 | 1238 | 1237 | 1238 | 118 |
| 15° | 1219 | 1219 | 1217 | 1216 | 1216 | 345 |
| 25° | 1172 | 1172 | 1166 | 1161 | 1160 | 541 |
| 35° | 1077 | 1077 | 1070 | 1064 | 1060 | 673 |
| 45° | 914 | 914 | 905 | 898 | 895 | 703 |
| 55° | 691 | 687 | 674 | 666 | 666 | 616 |
| 65° | 430 | 428 | 421 | 411 | 409 | 424 |
| 75° | 176 | 176 | 174 | 169 | 166 | 191 |
| 85° | 26 | 26 | 26 | 26 | 24 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1239.6 | 1239.6 | 1239.6 | 1239.6 | 1239.6 |
| 2.5° | 1240.0 | 1240.0 | 1239.3 | 1238.2 | 1240.7 |
| 5° | 1238.2 | 1238.5 | 1237.8 | 1236.7 | 1238.5 |
| 7.5° | 1235.7 | 1236.0 | 1234.9 | 1233.9 | 1235.3 |
| 10° | 1231.7 | 1231.3 | 1230.2 | 1229.5 | 1231.3 |
| 12.5° | 1225.9 | 1225.6 | 1224.5 | 1223.8 | 1225.2 |
| 15° | 1218.7 | 1218.7 | 1216.9 | 1215.8 | 1216.2 |
| 17.5° | 1210.1 | 1210.1 | 1207.5 | 1205.0 | 1205.7 |
| 20° | 1200.0 | 1199.6 | 1196.0 | 1193.5 | 1193.1 |
| 22.5° | 1187.4 | 1187.4 | 1182.3 | 1179.1 | 1178.0 |
| 25° | 1171.9 | 1171.5 | 1165.7 | 1161.0 | 1160.3 |
| 27.5° | 1154.2 | 1153.5 | 1146.6 | 1141.9 | 1140.1 |
| 30° | 1132.2 | 1131.5 | 1124.3 | 1119.2 | 1117.1 |
| 32.5° | 1106.3 | 1107.3 | 1099.0 | 1093.3 | 1091.1 |
| 35° | 1076.7 | 1076.7 | 1070.2 | 1064.1 | 1060.5 |
| 37.5° | 1042.8 | 1042.8 | 1036.7 | 1030.6 | 1026.2 |
| 40° | 1004.2 | 1004.6 | 998.1 | 990.5 | 986.9 |
| 42.5° | 961.0 | 961.7 | 953.1 | 946.9 | 943.0 |
| 45° | 913.8 | 914.1 | 904.8 | 897.9 | 894.7 |
| 47.5° | 862.6 | 861.9 | 851.4 | 845.6 | 842.4 |
| 50° | 807.8 | 806.3 | 794.8 | 789.4 | 786.5 |
| 52.5° | 750.5 | 747.6 | 737.5 | 729.6 | 727.0 |
| 55° | 691.0 | 687.0 | 674.4 | 666.5 | 665.8 |
| 57.5° | 629.0 | 624.3 | 613.9 | 606.3 | 603.4 |
| 60° | 561.2 | 560.2 | 551.5 | 542.5 | 540.3 |
| 62.5° | 497.8 | 494.6 | 487.0 | 476.2 | 475.1 |
| 65° | 430.0 | 428.2 | 421.4 | 411.3 | 409.1 |
| 67.5° | 360.1 | 361.9 | 356.1 | 347.1 | 344.2 |
| 70° | 297.0 | 298.1 | 291.6 | 283.3 | 282.2 |
| 72.5° | 233.6 | 235.4 | 230.0 | 224.6 | 223.5 |
| 75° | 175.5 | 176.3 | 173.7 | 169.1 | 165.5 |
| 77.5° | 124.7 | 127.2 | 124.4 | 121.1 | 118.2 |
| 80° | 86.9 | 82.9 | 83.3 | 81.8 | 78.6 |
| 82.5° | 52.3 | 50.5 | 50.1 | 48.7 | 47.2 |
| 85° | 26.3 | 26.0 | 26.3 | 26.0 | 24.5 |
| 87.5° | 8.7 | 9.4 | 9.7 | 9.7 | 9.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)