

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: P412870

Luminaire Tested: **24PD-50-PP3-L927**

Issue Date: 9/15/2020



**Test Information**

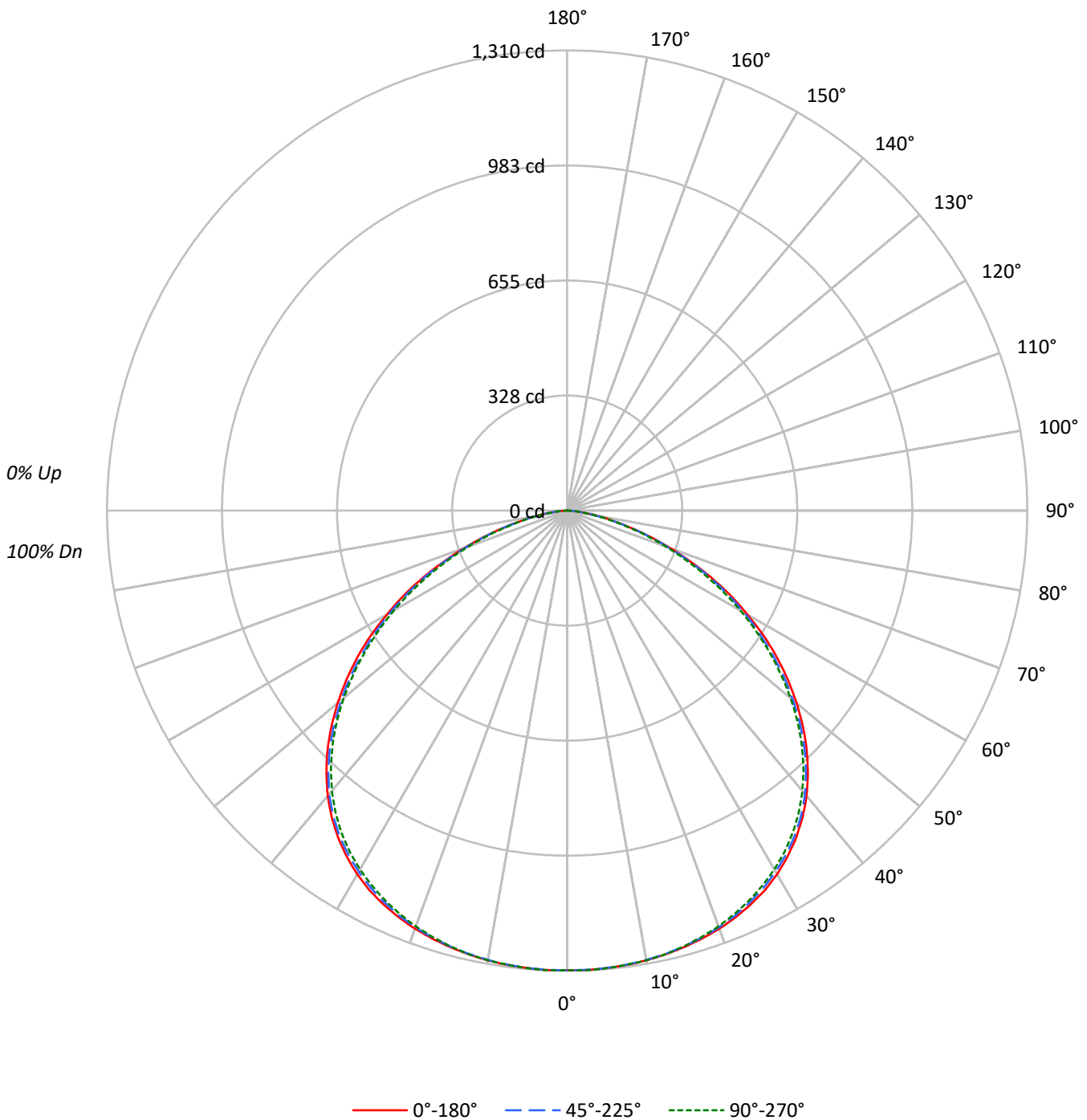
Test Method: LM-79-08  
Report Number: P412870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/15/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24PD-50-PP3-L927  
Description: 5000 LUMEN 2X4 PERCEIVE LED TROFFER WITH PRISM PATTERN OPTICS AND 90 CRI, 2700 CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3808.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 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): 37.5  
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°  | 1761 | 1761 | 1761 |
| 5°  | 1766 | 1765 | 1766 |
| 10° | 1777 | 1774 | 1776 |
| 15° | 1792 | 1790 | 1789 |
| 20° | 1814 | 1808 | 1804 |
| 25° | 1837 | 1827 | 1819 |
| 30° | 1857 | 1844 | 1832 |
| 35° | 1867 | 1856 | 1839 |
| 40° | 1862 | 1851 | 1830 |
| 45° | 1836 | 1818 | 1797 |
| 50° | 1785 | 1756 | 1738 |
| 55° | 1711 | 1670 | 1649 |
| 60° | 1594 | 1567 | 1535 |
| 65° | 1445 | 1416 | 1375 |
| 70° | 1234 | 1211 | 1172 |
| 75° | 963  | 953  | 908  |
| 80° | 711  | 681  | 643  |
| 85° | 429  | 429  | 400  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 124.5  | 3.3       |
| 10°-20°   | 363.3  | 9.5       |
| 20°-30°   | 567.9  | 14.9      |
| 30°-40°   | 705.8  | 18.5      |
| 40°-50°   | 735.4  | 19.3      |
| 50°-60°   | 638.1  | 16.8      |
| 60°-70°   | 438.8  | 11.5      |
| 70°-80°   | 198.0  | 5.2       |
| 80°-90°   | 36.3   | 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°    | 1055.7 | 27.7      |
| 0°-40°    | 1761.5 | 46.3      |
| 0°-60°    | 3135.0 | 82.3      |
| 0°-90°    | 3808.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3808.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1309 | 1309  | 1309 | 1309  | 1309 |      |
| 5°  | 1307 | 1308  | 1307 | 1306  | 1308 | 125  |
| 15° | 1287 | 1287  | 1285 | 1284  | 1284 | 364  |
| 25° | 1237 | 1237  | 1231 | 1226  | 1225 | 571  |
| 35° | 1137 | 1137  | 1130 | 1123  | 1120 | 710  |
| 45° | 965  | 965   | 955  | 948   | 944  | 742  |
| 55° | 730  | 725   | 712  | 704   | 703  | 650  |
| 65° | 454  | 452   | 445  | 434   | 432  | 448  |
| 75° | 185  | 186   | 183  | 178   | 175  | 202  |
| 85° | 28   | 27    | 28   | 27    | 26   | 38   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 |
| 2.5°  | 1309.1 | 1309.1 | 1308.3 | 1307.2 | 1309.8 |
| 5°    | 1307.2 | 1307.6 | 1306.8 | 1305.7 | 1307.6 |
| 7.5°  | 1304.5 | 1304.9 | 1303.8 | 1302.6 | 1304.1 |
| 10°   | 1300.3 | 1299.9 | 1298.8 | 1298.0 | 1299.9 |
| 12.5° | 1294.2 | 1293.9 | 1292.7 | 1292.0 | 1293.5 |
| 15°   | 1286.6 | 1286.6 | 1284.7 | 1283.6 | 1284.0 |
| 17.5° | 1277.5 | 1277.5 | 1274.8 | 1272.2 | 1272.9 |
| 20°   | 1266.8 | 1266.5 | 1262.7 | 1260.0 | 1259.6 |
| 22.5° | 1253.5 | 1253.5 | 1248.2 | 1244.8 | 1243.6 |
| 25°   | 1237.2 | 1236.8 | 1230.7 | 1225.7 | 1225.0 |
| 27.5° | 1218.5 | 1217.7 | 1210.5 | 1205.6 | 1203.7 |
| 30°   | 1195.3 | 1194.5 | 1186.9 | 1181.6 | 1179.3 |
| 32.5° | 1167.9 | 1169.0 | 1160.3 | 1154.2 | 1151.9 |
| 35°   | 1136.7 | 1136.7 | 1129.8 | 1123.4 | 1119.6 |
| 37.5° | 1100.9 | 1100.9 | 1094.5 | 1088.0 | 1083.4 |
| 40°   | 1060.2 | 1060.6 | 1053.7 | 1045.7 | 1041.9 |
| 42.5° | 1014.5 | 1015.3 | 1006.2 | 999.7  | 995.5  |
| 45°   | 964.7  | 965.1  | 955.2  | 947.9  | 944.5  |
| 47.5° | 910.6  | 909.9  | 898.9  | 892.8  | 889.3  |
| 50°   | 852.8  | 851.3  | 839.1  | 833.4  | 830.4  |
| 52.5° | 792.3  | 789.3  | 778.6  | 770.2  | 767.6  |
| 55°   | 729.5  | 725.3  | 712.0  | 703.6  | 702.9  |
| 57.5° | 664.1  | 659.1  | 648.1  | 640.1  | 637.0  |
| 60°   | 592.5  | 591.4  | 582.2  | 572.7  | 570.4  |
| 62.5° | 525.5  | 522.1  | 514.1  | 502.7  | 501.6  |
| 65°   | 454.0  | 452.1  | 444.9  | 434.2  | 431.9  |
| 67.5° | 380.2  | 382.1  | 376.0  | 366.5  | 363.4  |
| 70°   | 313.6  | 314.7  | 307.9  | 299.1  | 298.0  |
| 72.5° | 246.6  | 248.5  | 242.8  | 237.1  | 235.9  |
| 75°   | 185.3  | 186.1  | 183.4  | 178.5  | 174.7  |
| 77.5° | 131.7  | 134.3  | 131.3  | 127.9  | 124.8  |
| 80°   | 91.7   | 87.5   | 87.9   | 86.4   | 83.0   |
| 82.5° | 55.2   | 53.3   | 52.9   | 51.4   | 49.9   |
| 85°   | 27.8   | 27.4   | 27.8   | 27.4   | 25.9   |
| 87.5° | 9.1    | 9.9    | 10.3   | 10.3   | 9.5    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)