

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: P412542

Luminaire Tested: **24PD-60-PB1-L830**

Issue Date: 9/15/2020



**Test Information**

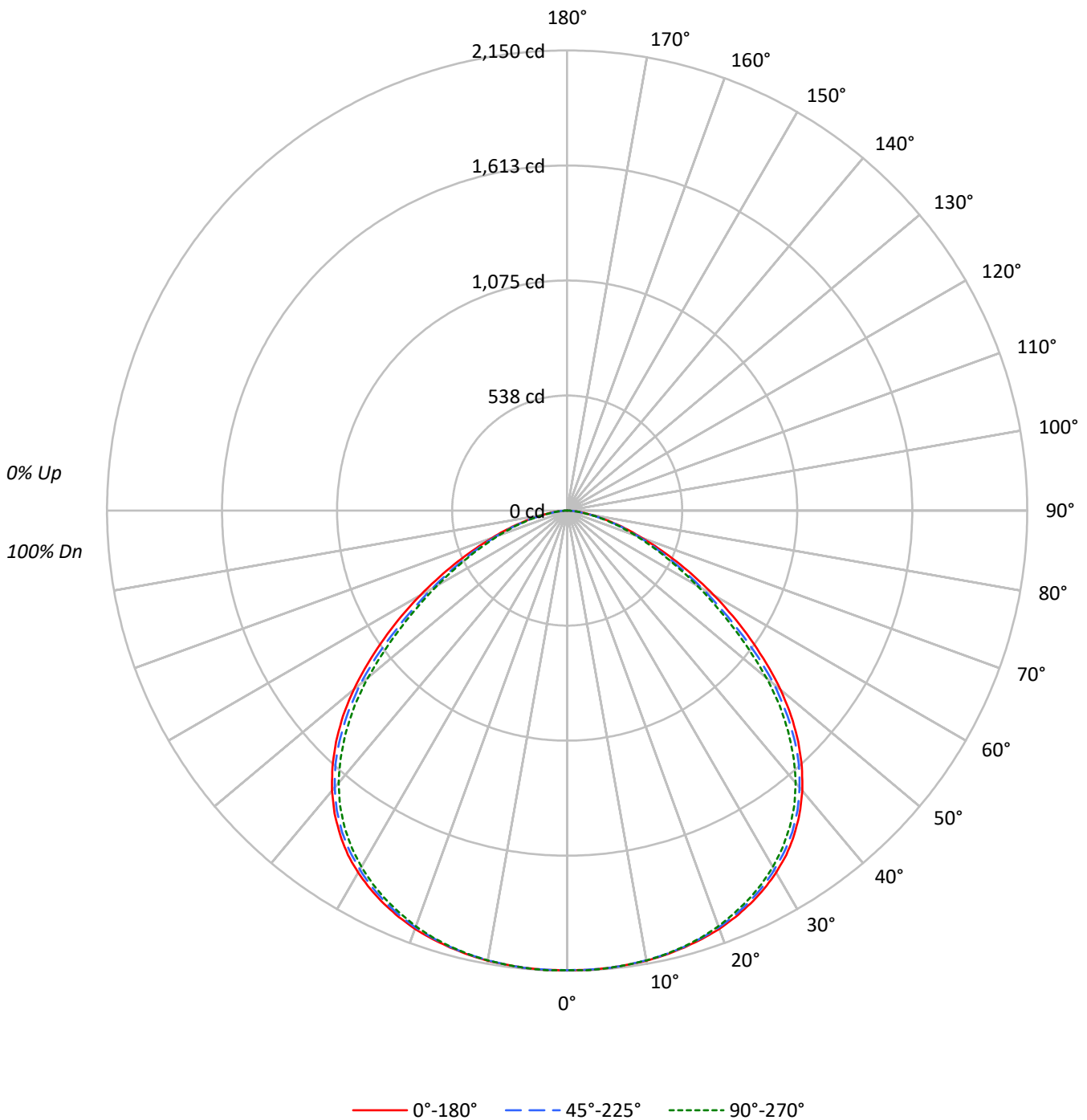
Test Method: LM-79-08  
Report Number: P412542  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-45)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/15/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24PD-60-PB1-L830  
Description: 6000 LUMEN 2X4 PERCEIVE LED TROFFER WITH BEVEL PATTERN OPTICS AND 80 CRI, 3000 CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5713.0 lumens  
Efficiency: N/A  
Efficacy: 125.8 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): 45.4  
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°  | 2889 | 2889 | 2889 |
| 5°  | 2898 | 2898 | 2898 |
| 10° | 2918 | 2915 | 2915 |
| 15° | 2944 | 2940 | 2938 |
| 20° | 2977 | 2967 | 2959 |
| 25° | 3008 | 2993 | 2976 |
| 30° | 3034 | 3009 | 2986 |
| 35° | 3038 | 3012 | 2974 |
| 40° | 3002 | 2967 | 2918 |
| 45° | 2905 | 2852 | 2778 |
| 50° | 2724 | 2640 | 2543 |
| 55° | 2448 | 2303 | 2208 |
| 60° | 2132 | 1962 | 1887 |
| 65° | 1794 | 1659 | 1587 |
| 70° | 1462 | 1388 | 1332 |
| 75° | 1171 | 1130 | 1083 |
| 80° | 900  | 829  | 807  |
| 85° | 562  | 545  | 545  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 204.4  | 3.6       |
| 10°-20°   | 596.6  | 10.4      |
| 20°-30°   | 929.5  | 16.3      |
| 30°-40°   | 1143.5 | 20.0      |
| 40°-50°   | 1148.6 | 20.1      |
| 50°-60°   | 885.2  | 15.5      |
| 60°-70°   | 525.5  | 9.2       |
| 70°-80°   | 234.0  | 4.1       |
| 80°-90°   | 45.7   | 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°    | 1730.6 | 30.3      |
| 0°-40°    | 2874.0 | 50.3      |
| 0°-60°    | 4907.8 | 85.9      |
| 0°-90°    | 5713.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5713.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2147 | 2147  | 2147 | 2147  | 2147 |      |
| 5°  | 2146 | 2146  | 2146 | 2144  | 2146 | 204  |
| 15° | 2113 | 2113  | 2111 | 2107  | 2109 | 598  |
| 25° | 2026 | 2026  | 2016 | 2007  | 2005 | 935  |
| 35° | 1849 | 1847  | 1834 | 1818  | 1811 | 1155 |
| 45° | 1527 | 1523  | 1499 | 1474  | 1460 | 1172 |
| 55° | 1044 | 1024  | 982  | 952   | 941  | 933  |
| 65° | 563  | 539   | 521  | 501   | 498  | 563  |
| 75° | 225  | 221   | 217  | 210   | 208  | 244  |
| 85° | 36   | 35    | 35   | 34    | 35   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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CATALOG NUMBER: 24PD-60-PB1-L830

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2147.0 | 2147.0 | 2147.0 | 2147.0 | 2147.0 |
| 2.5°  | 2148.2 | 2147.6 | 2147.6 | 2145.3 | 2149.9 |
| 5°    | 2145.9 | 2146.4 | 2145.9 | 2143.6 | 2145.9 |
| 7.5°  | 2141.3 | 2141.9 | 2140.8 | 2138.5 | 2140.8 |
| 10°   | 2135.6 | 2135.6 | 2133.4 | 2132.2 | 2133.9 |
| 12.5° | 2126.0 | 2126.0 | 2123.7 | 2122.0 | 2123.7 |
| 15°   | 2113.4 | 2113.4 | 2110.6 | 2107.2 | 2108.9 |
| 17.5° | 2098.1 | 2098.1 | 2093.5 | 2089.0 | 2090.1 |
| 20°   | 2079.3 | 2078.7 | 2072.5 | 2066.2 | 2066.8 |
| 22.5° | 2055.4 | 2054.8 | 2046.9 | 2039.5 | 2037.2 |
| 25°   | 2026.4 | 2025.8 | 2016.1 | 2007.0 | 2004.8 |
| 27.5° | 1992.8 | 1990.5 | 1979.7 | 1969.5 | 1967.2 |
| 30°   | 1953.0 | 1951.3 | 1937.0 | 1926.8 | 1922.2 |
| 32.5° | 1906.9 | 1902.3 | 1889.2 | 1876.7 | 1870.5 |
| 35°   | 1849.4 | 1846.6 | 1833.5 | 1818.1 | 1810.7 |
| 37.5° | 1784.5 | 1781.7 | 1767.5 | 1750.4 | 1741.9 |
| 40°   | 1709.4 | 1707.1 | 1689.5 | 1671.9 | 1661.1 |
| 42.5° | 1622.9 | 1621.2 | 1602.4 | 1578.0 | 1566.6 |
| 45°   | 1526.8 | 1522.8 | 1498.9 | 1473.8 | 1460.2 |
| 47.5° | 1419.8 | 1412.9 | 1383.9 | 1360.0 | 1345.2 |
| 50°   | 1301.4 | 1292.3 | 1261.0 | 1230.3 | 1214.9 |
| 52.5° | 1173.4 | 1157.4 | 1125.0 | 1089.7 | 1074.9 |
| 55°   | 1043.6 | 1023.7 | 981.6  | 952.0  | 941.2  |
| 57.5° | 916.7  | 887.7  | 847.9  | 826.8  | 816.0  |
| 60°   | 792.1  | 760.2  | 729.0  | 708.5  | 701.1  |
| 62.5° | 673.2  | 646.4  | 619.7  | 599.2  | 594.7  |
| 65°   | 563.4  | 538.9  | 521.2  | 501.3  | 498.5  |
| 67.5° | 460.9  | 449.5  | 433.6  | 416.5  | 414.3  |
| 70°   | 371.6  | 367.0  | 352.8  | 342.6  | 338.6  |
| 72.5° | 296.5  | 291.9  | 281.7  | 274.3  | 273.1  |
| 75°   | 225.3  | 220.8  | 217.4  | 210.0  | 208.3  |
| 77.5° | 160.5  | 161.0  | 158.2  | 154.2  | 155.4  |
| 80°   | 116.1  | 109.3  | 107.0  | 104.7  | 104.1  |
| 82.5° | 71.1   | 67.1   | 65.4   | 64.9   | 66.0   |
| 85°   | 36.4   | 34.7   | 35.3   | 33.6   | 35.3   |
| 87.5° | 12.5   | 12.5   | 13.1   | 12.5   | 13.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)