

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: P298695

Luminaire Tested: **24FPX-47-L830-HCD-SWPD1**

Issue Date: 3/3/2020



**Test Information**

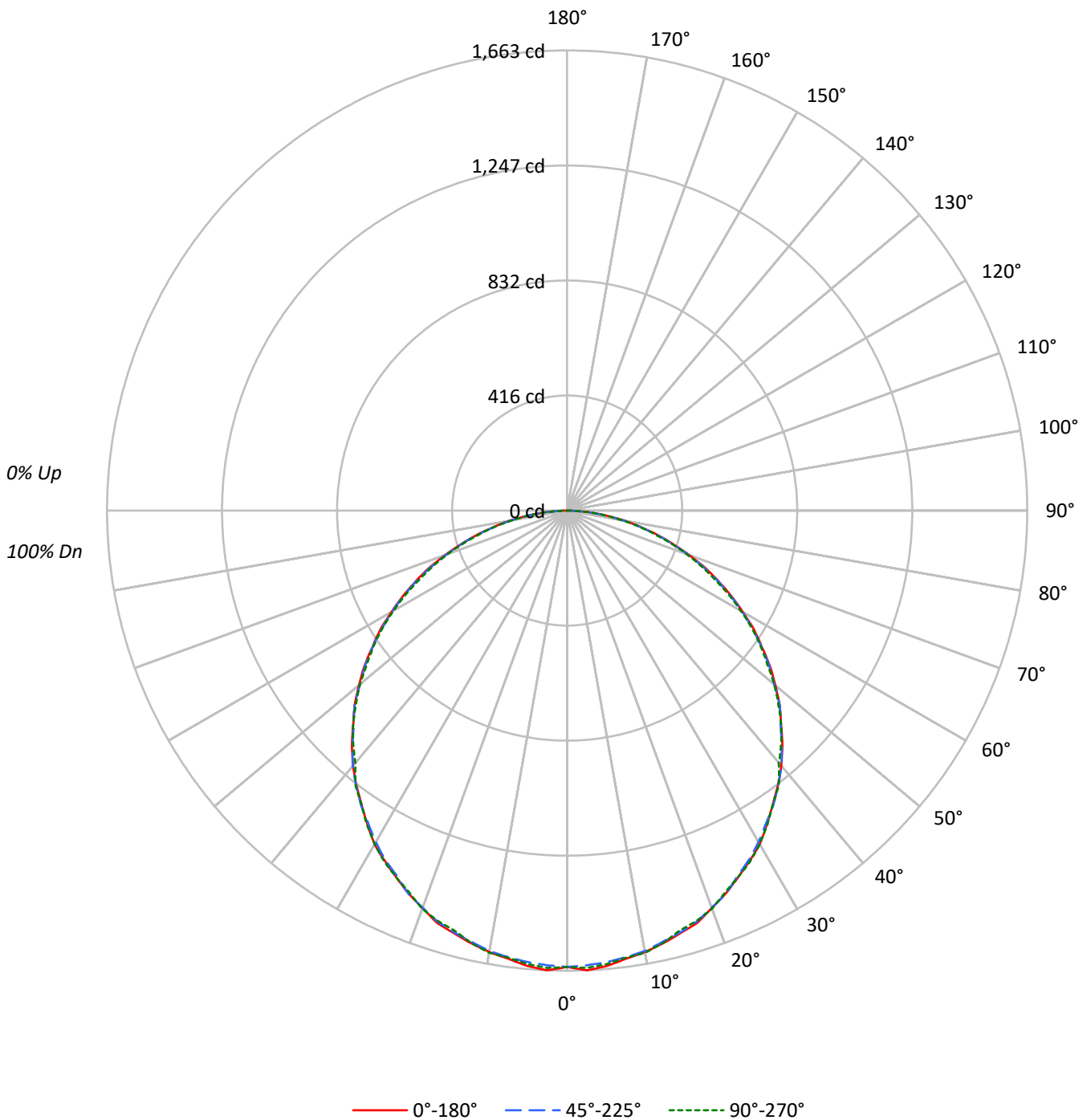
Test Method: LM-79-08  
Report Number: P298695  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1903-179-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24FPX-47-L830-HCD-SWPD1  
Description: 2x4 FPX SERIES LED PANEL, 3000K CCT AND 80CRI  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4742.1 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.1723722267062  
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 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  |  | 93  | 90  | 88  |  | 90  | 87  | 85  | 83  |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 75  |  | 81  | 77  | 73  |  | 78  | 75  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  |  | 72  | 66  | 61  |  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 69  | 60  | 54  | 66  | 59  | 53  |  | 64  | 57  | 52  |  | 61  | 56  | 52  | 49  |
| 5   | 75  | 62  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  |  | 57  | 50  | 45  |  | 55  | 49  | 45  | 43  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 40  | 53  | 46  | 40  |  | 52  | 45  | 40  |  | 50  | 44  | 39  | 37  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 48  | 41  | 35  |  | 47  | 40  | 35  |  | 46  | 40  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 32  |  | 43  | 36  | 31  |  | 42  | 36  | 31  | 29  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 28  |  | 40  | 33  | 28  |  | 39  | 33  | 28  | 26  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  |  | 37  | 30  | 26  |  | 36  | 30  | 26  | 24  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2219 | 2219 | 2219 |
| 5°  | 2231 | 2212 | 2221 |
| 10° | 2213 | 2207 | 2217 |
| 15° | 2202 | 2198 | 2189 |
| 20° | 2188 | 2186 | 2192 |
| 25° | 2170 | 2162 | 2170 |
| 30° | 2164 | 2149 | 2161 |
| 35° | 2128 | 2135 | 2128 |
| 40° | 2115 | 2117 | 2091 |
| 45° | 2080 | 2075 | 2083 |
| 50° | 2056 | 2045 | 2045 |
| 55° | 2015 | 2012 | 2002 |
| 60° | 1972 | 1965 | 1950 |
| 65° | 1919 | 1910 | 1875 |
| 70° | 1842 | 1826 | 1804 |
| 75° | 1750 | 1722 | 1693 |
| 80° | 1632 | 1578 | 1557 |
| 85° | 1433 | 1369 | 1348 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 155.8  | 3.3       |
| 10°-20°   | 445.1  | 9.4       |
| 20°-30°   | 674.1  | 14.2      |
| 30°-40°   | 812.2  | 17.1      |
| 40°-50°   | 844.5  | 17.8      |
| 50°-60°   | 766.4  | 16.2      |
| 60°-70°   | 591.7  | 12.5      |
| 70°-80°   | 350.5  | 7.4       |
| 80°-90°   | 101.8  | 2.1       |
| 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°    | 1274.9 | 26.9      |
| 0°-40°    | 2087.2 | 44.0      |
| 0°-60°    | 3698.2 | 78.0      |
| 0°-90°    | 4742.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4742.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1649 | 1649  | 1649 | 1649  | 1649 |      |
| 5°  | 1652 | 1643  | 1638 | 1634  | 1645 | 156  |
| 15° | 1581 | 1574  | 1578 | 1576  | 1571 | 447  |
| 25° | 1462 | 1463  | 1456 | 1458  | 1462 | 675  |
| 35° | 1296 | 1297  | 1300 | 1298  | 1296 | 813  |
| 45° | 1093 | 1096  | 1090 | 1093  | 1095 | 846  |
| 55° | 859  | 862   | 858  | 856   | 854  | 770  |
| 65° | 603  | 603   | 600  | 594   | 589  | 597  |
| 75° | 337  | 334   | 331  | 328   | 326  | 355  |
| 85° | 93   | 89    | 89   | 87    | 87   | 105  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1648.9 | 1648.9 | 1648.9 | 1648.9 | 1648.9 |
| 2.5°  | 1662.8 | 1642.0 | 1644.7 | 1639.2 | 1654.4 |
| 5°    | 1651.7 | 1643.4 | 1637.8 | 1633.7 | 1644.7 |
| 7.5°  | 1633.7 | 1626.7 | 1628.1 | 1626.7 | 1629.5 |
| 10°   | 1619.8 | 1619.8 | 1615.6 | 1611.5 | 1622.6 |
| 12.5° | 1601.8 | 1601.8 | 1596.2 | 1592.1 | 1600.4 |
| 15°   | 1581.0 | 1574.1 | 1578.2 | 1575.5 | 1571.3 |
| 17.5° | 1563.0 | 1554.7 | 1557.5 | 1545.0 | 1554.7 |
| 20°   | 1528.4 | 1525.6 | 1527.0 | 1520.0 | 1531.1 |
| 22.5° | 1497.9 | 1502.0 | 1499.3 | 1496.5 | 1492.3 |
| 25°   | 1461.8 | 1463.2 | 1456.3 | 1457.7 | 1461.8 |
| 27.5° | 1427.2 | 1431.4 | 1423.0 | 1423.0 | 1431.4 |
| 30°   | 1392.6 | 1387.0 | 1382.9 | 1391.2 | 1391.2 |
| 32.5° | 1344.1 | 1338.5 | 1338.5 | 1342.7 | 1346.8 |
| 35°   | 1295.6 | 1297.0 | 1299.7 | 1298.3 | 1295.6 |
| 37.5° | 1251.2 | 1248.5 | 1252.6 | 1252.6 | 1255.4 |
| 40°   | 1204.1 | 1206.9 | 1205.5 | 1200.0 | 1190.3 |
| 42.5° | 1151.5 | 1154.2 | 1147.3 | 1154.2 | 1144.5 |
| 45°   | 1093.3 | 1096.0 | 1090.5 | 1093.3 | 1094.6 |
| 47.5° | 1042.0 | 1039.2 | 1042.0 | 1037.8 | 1035.1 |
| 50°   | 982.4  | 981.0  | 976.9  | 976.9  | 976.9  |
| 52.5° | 924.2  | 920.1  | 920.1  | 920.1  | 911.7  |
| 55°   | 859.1  | 861.9  | 857.7  | 856.3  | 853.5  |
| 57.5° | 800.9  | 795.4  | 794.0  | 794.0  | 792.6  |
| 60°   | 733.0  | 731.6  | 730.2  | 727.5  | 724.7  |
| 62.5° | 669.3  | 663.7  | 665.1  | 662.3  | 658.2  |
| 65°   | 602.8  | 602.8  | 600.0  | 594.4  | 588.9  |
| 67.5° | 539.0  | 536.2  | 532.1  | 529.3  | 523.8  |
| 70°   | 468.3  | 467.0  | 464.2  | 461.4  | 458.6  |
| 72.5° | 400.4  | 399.1  | 397.7  | 394.9  | 392.1  |
| 75°   | 336.7  | 333.9  | 331.2  | 328.4  | 325.6  |
| 77.5° | 270.2  | 268.8  | 267.4  | 263.3  | 263.3  |
| 80°   | 210.6  | 206.5  | 203.7  | 202.3  | 200.9  |
| 82.5° | 148.3  | 148.3  | 145.5  | 144.1  | 144.1  |
| 85°   | 92.8   | 88.7   | 88.7   | 87.3   | 87.3   |
| 87.5° | 40.2   | 38.8   | 36.0   | 36.0   | 36.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)