

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: P412922

Luminaire Tested: **24PD-80-PP3-L840**

Issue Date: 9/15/2020



**Test Information**

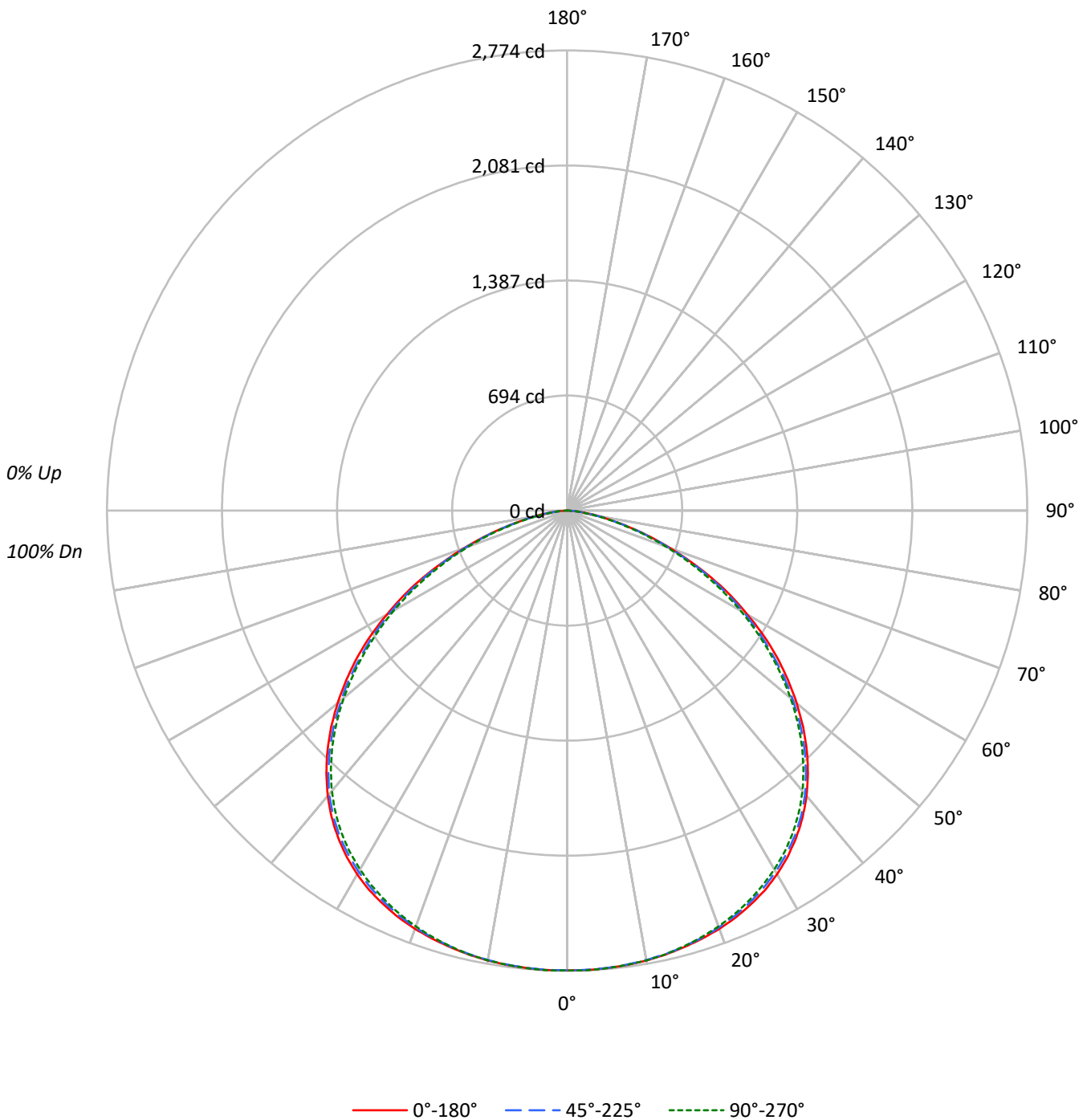
Test Method: LM-79-08  
Report Number: P412922  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/15/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24PD-80-PP3-L840  
Description: 8000 LUMEN 2X4 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: 8065.0 lumens  
Efficiency: N/A  
Efficacy: 133.7 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): 60.3  
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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 71  |    |    |    |    | 71  |   |  |   |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 73  | 68  | 64  | 71  | 66  | 63  | 60  |    |    |    |    | 60  |   |  |   |
| 4   | 83  | 72  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 45  |    |    |    |    | 45  |   |  |   |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 52  | 46  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 36  | 34  |    |    |    |    | 34  |   |  |   |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 32  | 31  |    |    |    |    | 31  |   |  |   |
| 9   | 57  | 44  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |    |    |    |    | 27  |   |  |   |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 27  | 25  |    |    |    |    | 25  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3729 | 3729 | 3729 |
| 5°  | 3739 | 3738 | 3740 |
| 10° | 3763 | 3758 | 3762 |
| 15° | 3796 | 3790 | 3788 |
| 20° | 3842 | 3829 | 3820 |
| 25° | 3890 | 3870 | 3852 |
| 30° | 3933 | 3906 | 3881 |
| 35° | 3954 | 3930 | 3895 |
| 40° | 3944 | 3920 | 3876 |
| 45° | 3888 | 3849 | 3806 |
| 50° | 3781 | 3720 | 3681 |
| 55° | 3624 | 3537 | 3492 |
| 60° | 3377 | 3318 | 3251 |
| 65° | 3061 | 3000 | 2912 |
| 70° | 2613 | 2565 | 2483 |
| 75° | 2040 | 2020 | 1923 |
| 80° | 1505 | 1443 | 1361 |
| 85° | 908  | 908  | 846  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 263.7  | 3.3       |
| 10°-20°   | 769.5  | 9.5       |
| 20°-30°   | 1202.7 | 14.9      |
| 30°-40°   | 1494.8 | 18.5      |
| 40°-50°   | 1557.4 | 19.3      |
| 50°-60°   | 1351.4 | 16.8      |
| 60°-70°   | 929.3  | 11.5      |
| 70°-80°   | 419.4  | 5.2       |
| 80°-90°   | 76.8   | 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°    | 2235.9 | 27.7      |
| 0°-40°    | 3730.7 | 46.3      |
| 0°-60°    | 6639.5 | 82.3      |
| 0°-90°    | 8065.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8065.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2772 | 2772  | 2772 | 2772  | 2772 |      |
| 5°  | 2768 | 2769  | 2768 | 2765  | 2769 | 264  |
| 15° | 2725 | 2725  | 2721 | 2718  | 2719 | 771  |
| 25° | 2620 | 2619  | 2606 | 2596  | 2594 | 1209 |
| 35° | 2407 | 2407  | 2393 | 2379  | 2371 | 1504 |
| 45° | 2043 | 2044  | 2023 | 2008  | 2000 | 1573 |
| 55° | 1545 | 1536  | 1508 | 1490  | 1489 | 1377 |
| 65° | 962  | 958   | 942  | 920   | 915  | 949  |
| 75° | 392  | 394   | 388  | 378   | 370  | 427  |
| 85° | 59   | 58    | 59   | 58    | 55   | 79   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2771.7 | 2771.7 | 2771.7 | 2771.7 | 2771.7 |
| 2.5°  | 2772.5 | 2772.5 | 2770.9 | 2768.5 | 2774.1 |
| 5°    | 2768.5 | 2769.3 | 2767.7 | 2765.3 | 2769.3 |
| 7.5°  | 2762.8 | 2763.6 | 2761.2 | 2758.8 | 2762.0 |
| 10°   | 2754.0 | 2753.2 | 2750.8 | 2749.1 | 2753.2 |
| 12.5° | 2741.1 | 2740.3 | 2737.9 | 2736.2 | 2739.5 |
| 15°   | 2725.0 | 2725.0 | 2720.9 | 2718.5 | 2719.3 |
| 17.5° | 2705.6 | 2705.6 | 2700.0 | 2694.3 | 2695.9 |
| 20°   | 2683.0 | 2682.2 | 2674.2 | 2668.5 | 2667.7 |
| 22.5° | 2654.8 | 2654.8 | 2643.6 | 2636.3 | 2633.9 |
| 25°   | 2620.2 | 2619.4 | 2606.5 | 2596.0 | 2594.4 |
| 27.5° | 2580.7 | 2579.1 | 2563.8 | 2553.3 | 2549.3 |
| 30°   | 2531.5 | 2529.9 | 2513.8 | 2502.5 | 2497.7 |
| 32.5° | 2473.5 | 2475.9 | 2457.4 | 2444.5 | 2439.6 |
| 35°   | 2407.4 | 2407.4 | 2392.9 | 2379.2 | 2371.1 |
| 37.5° | 2331.6 | 2331.6 | 2317.9 | 2304.2 | 2294.6 |
| 40°   | 2245.4 | 2246.2 | 2231.7 | 2214.8 | 2206.7 |
| 42.5° | 2148.7 | 2150.3 | 2131.0 | 2117.3 | 2108.4 |
| 45°   | 2043.1 | 2043.9 | 2023.0 | 2007.7 | 2000.4 |
| 47.5° | 1928.7 | 1927.1 | 1903.7 | 1890.8 | 1883.5 |
| 50°   | 1806.2 | 1802.9 | 1777.1 | 1765.1 | 1758.6 |
| 52.5° | 1678.0 | 1671.6 | 1649.0 | 1631.3 | 1625.6 |
| 55°   | 1545.0 | 1536.2 | 1508.0 | 1490.2 | 1488.6 |
| 57.5° | 1406.4 | 1395.9 | 1372.6 | 1355.6 | 1349.2 |
| 60°   | 1254.9 | 1252.5 | 1233.1 | 1213.0 | 1208.1 |
| 62.5° | 1113.0 | 1105.8 | 1088.9 | 1064.7 | 1062.3 |
| 65°   | 961.5  | 957.5  | 942.2  | 919.6  | 914.8  |
| 67.5° | 805.2  | 809.2  | 796.3  | 776.1  | 769.7  |
| 70°   | 664.1  | 666.5  | 652.0  | 633.5  | 631.1  |
| 72.5° | 522.3  | 526.3  | 514.2  | 502.1  | 499.7  |
| 75°   | 392.5  | 394.1  | 388.5  | 378.0  | 369.9  |
| 77.5° | 278.9  | 284.5  | 278.1  | 270.8  | 264.4  |
| 80°   | 194.2  | 185.4  | 186.2  | 183.0  | 175.7  |
| 82.5° | 116.9  | 112.8  | 112.0  | 108.8  | 105.6  |
| 85°   | 58.8   | 58.0   | 58.8   | 58.0   | 54.8   |
| 87.5° | 19.3   | 21.0   | 21.8   | 21.8   | 20.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)