

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: P412443

Luminaire Tested: **22PD-70-PB1-L830**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P412443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-14)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22PD-70-PB1-L830
Description: 7000 LUMEN 2X2 PERCEIVE LED TROFFER WITH BEVEL PATTERN OPTICS AND 80 CRI, 3000 CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

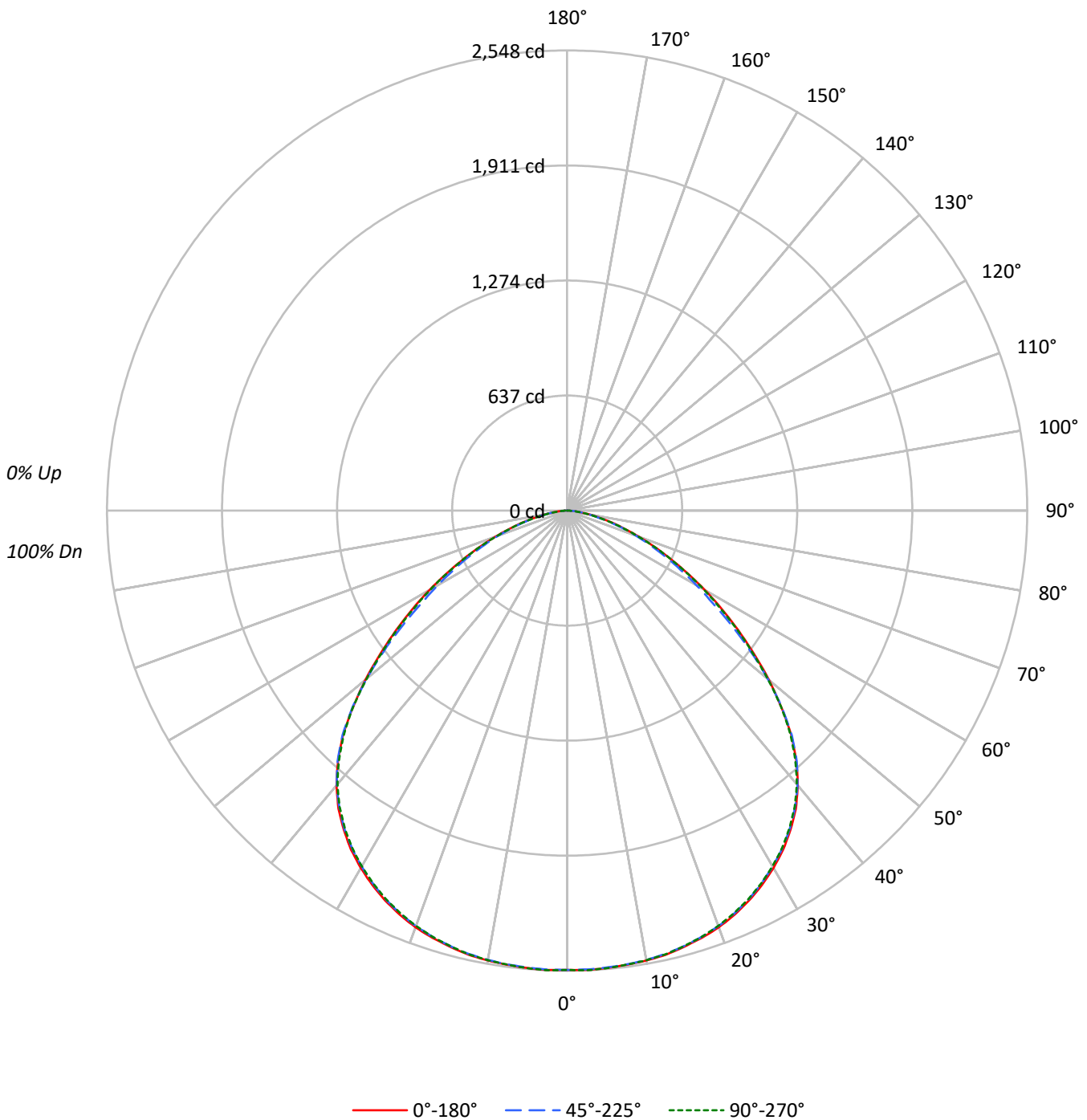
Lumens per Lamp: N/A
Luminaire Lumens: 6678.0 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.32 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 63
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

TEST NUMBER: P412443

CATALOG NUMBER: 22PD-70-PB1-L830

Luminous Intensity Polar Plot





TEST NUMBER: P412443

CATALOG NUMBER: 22PD-70-PB1-L830

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 | 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 | 76 | | | | | 73 | | | | |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 76 | 70 | 66 | 73 | 69 | 65 | | | | | 63 | | | | |
| 4 | 85 | 74 | 65 | 59 | 83 | 72 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 56 | | | | | 54 | | | | |
| 5 | 78 | 66 | 58 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | | | | | 47 | | | | |
| 6 | 72 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | | | | | 42 | | | | |
| 7 | 67 | 54 | 46 | 40 | 66 | 53 | 45 | 40 | 52 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 39 | | | | | 37 | | | | |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | | | | | 33 | | | | |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | | | | | 30 | | | | |
| 10 | 55 | 42 | 34 | 29 | 54 | 41 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | | | | | 27 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6845 | 6845 | 6845 |
| 5° | 6867 | 6860 | 6869 |
| 10° | 6912 | 6903 | 6907 |
| 15° | 6968 | 6957 | 6957 |
| 20° | 7032 | 7012 | 7007 |
| 25° | 7076 | 7055 | 7048 |
| 30° | 7100 | 7070 | 7066 |
| 35° | 7085 | 7064 | 7051 |
| 40° | 6979 | 6971 | 6949 |
| 45° | 6672 | 6693 | 6642 |
| 50° | 6108 | 6075 | 6069 |
| 55° | 5428 | 5236 | 5391 |
| 60° | 4732 | 4445 | 4703 |
| 65° | 4011 | 3796 | 3992 |
| 70° | 3317 | 3181 | 3286 |
| 75° | 2682 | 2511 | 2576 |
| 80° | 1939 | 1877 | 1864 |
| 85° | 1263 | 1263 | 1213 |



TEST NUMBER: P412443

CATALOG NUMBER: 22PD-70-PB1-L830

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 242.0 | 3.6 |
| 10°-20° | 705.9 | 10.6 |
| 20°-30° | 1095.3 | 16.4 |
| 30°-40° | 1343.2 | 20.1 |
| 40°-50° | 1342.7 | 20.1 |
| 50°-60° | 1017.1 | 15.2 |
| 60°-70° | 610.0 | 9.1 |
| 70°-80° | 268.6 | 4.0 |
| 80°-90° | 53.3 | 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° | 2043.2 | 30.6 |
| 0°-40° | 3386.4 | 50.7 |
| 0°-60° | 5746.1 | 86.0 |
| 0°-90° | 6678.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6678.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2544 | 2544 | 2544 | 2544 | 2544 | |
| 5° | 2542 | 2539 | 2540 | 2539 | 2543 | 242 |
| 15° | 2501 | 2499 | 2497 | 2496 | 2497 | 707 |
| 25° | 2383 | 2378 | 2376 | 2372 | 2374 | 1099 |
| 35° | 2157 | 2156 | 2150 | 2149 | 2146 | 1347 |
| 45° | 1753 | 1756 | 1759 | 1754 | 1745 | 1342 |
| 55° | 1157 | 1132 | 1116 | 1131 | 1149 | 1037 |
| 65° | 630 | 608 | 596 | 606 | 627 | 630 |
| 75° | 258 | 252 | 242 | 245 | 248 | 275 |
| 85° | 41 | 42 | 41 | 39 | 39 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P412443

CATALOG NUMBER: 22PD-70-PB1-L830

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2543.6 | 2543.6 | 2543.6 | 2543.6 | 2543.6 |
| 2.5° | 2546.0 | 2542.1 | 2542.9 | 2542.9 | 2547.6 |
| 5° | 2542.1 | 2538.9 | 2539.7 | 2538.9 | 2542.9 |
| 7.5° | 2536.6 | 2533.4 | 2534.2 | 2533.4 | 2535.8 |
| 10° | 2529.5 | 2526.3 | 2526.3 | 2524.8 | 2527.9 |
| 12.5° | 2520.0 | 2516.1 | 2514.5 | 2513.8 | 2516.1 |
| 15° | 2501.2 | 2498.8 | 2497.2 | 2495.7 | 2497.2 |
| 17.5° | 2480.7 | 2476.8 | 2475.2 | 2472.1 | 2475.2 |
| 20° | 2455.6 | 2450.0 | 2448.5 | 2446.1 | 2446.9 |
| 22.5° | 2422.5 | 2417.8 | 2415.4 | 2411.5 | 2413.1 |
| 25° | 2383.2 | 2378.5 | 2376.1 | 2372.2 | 2373.8 |
| 27.5° | 2337.6 | 2334.4 | 2328.9 | 2325.8 | 2326.6 |
| 30° | 2284.9 | 2281.7 | 2275.4 | 2273.9 | 2273.9 |
| 32.5° | 2226.7 | 2222.7 | 2217.2 | 2215.7 | 2214.9 |
| 35° | 2156.7 | 2155.9 | 2150.4 | 2148.8 | 2146.4 |
| 37.5° | 2080.4 | 2078.8 | 2072.5 | 2070.9 | 2068.6 |
| 40° | 1986.8 | 1985.2 | 1984.4 | 1981.3 | 1978.1 |
| 42.5° | 1878.2 | 1880.6 | 1882.2 | 1875.9 | 1869.6 |
| 45° | 1753.2 | 1755.5 | 1758.7 | 1754.0 | 1745.3 |
| 47.5° | 1606.9 | 1616.3 | 1611.6 | 1614.7 | 1606.1 |
| 50° | 1459.0 | 1459.0 | 1451.2 | 1454.3 | 1449.6 |
| 52.5° | 1304.1 | 1291.5 | 1282.0 | 1288.3 | 1294.6 |
| 55° | 1157.0 | 1131.8 | 1116.1 | 1131.0 | 1149.1 |
| 57.5° | 1016.2 | 986.3 | 957.2 | 980.8 | 1002.8 |
| 60° | 879.3 | 844.7 | 825.9 | 843.2 | 873.8 |
| 62.5° | 749.6 | 724.4 | 705.5 | 718.9 | 744.8 |
| 65° | 630.0 | 608.0 | 596.2 | 606.4 | 626.9 |
| 67.5° | 520.7 | 505.7 | 493.9 | 502.6 | 518.3 |
| 70° | 421.6 | 417.6 | 404.3 | 408.2 | 417.6 |
| 72.5° | 331.1 | 330.3 | 318.5 | 321.7 | 327.2 |
| 75° | 258.0 | 252.5 | 241.5 | 245.4 | 247.8 |
| 77.5° | 182.5 | 184.8 | 174.6 | 177.0 | 177.0 |
| 80° | 125.1 | 129.0 | 121.1 | 119.6 | 120.3 |
| 82.5° | 79.4 | 79.4 | 78.7 | 77.9 | 75.5 |
| 85° | 40.9 | 42.5 | 40.9 | 39.3 | 39.3 |
| 87.5° | 15.7 | 15.7 | 15.7 | 14.9 | 14.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)