

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: P298475

Luminaire Tested: **22FPX-21-L840-SWPD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P298475
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1903-179-3)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22FPX-21-L840-SWPD1
Description: 2x2 FPX SERIES LED PANEL, 4000K CCT AND 80CRI
Light Source: -
Ballast/Driver: -

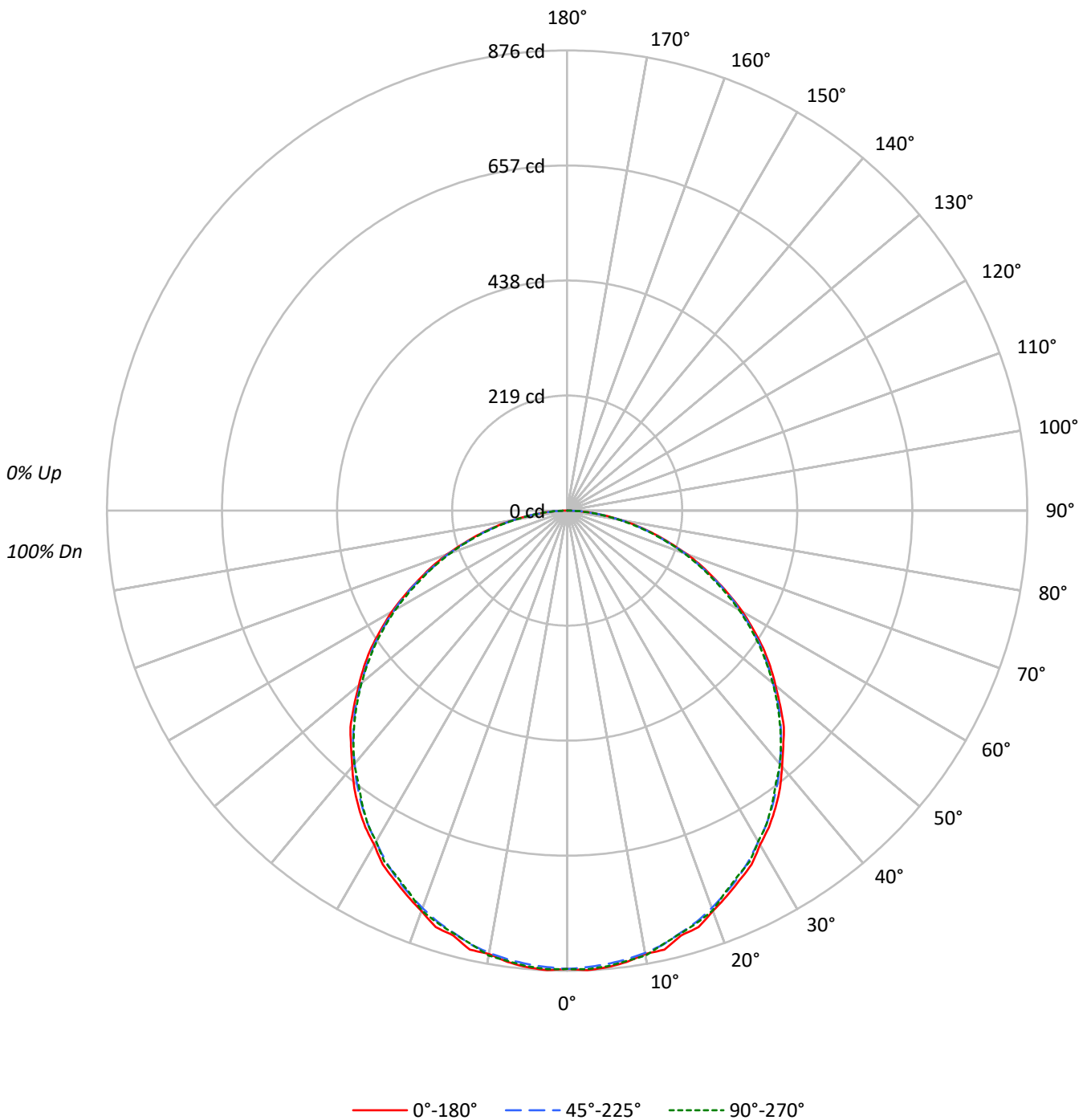
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2482.2 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 20.8
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: P298475
CATALOG NUMBER: 22FPX-21-L840-SWPD1

Luminous Intensity Polar Plot





TEST NUMBER: P298475

CATALOG NUMBER: 22FPX-21-L840-SWPD1

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 | 104 | 99 | 95 | 106 | 101 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 83 | | | | | 83 | | | |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 79 | 75 | 82 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 | | | | | 50 | | | |
| 5 | 76 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 55 | 50 | 45 | 43 | | | | | 43 | | | |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 37 | | | | | 37 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 40 | 35 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 | | | | | 27 | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2348 | 2348 | 2348 |
| 5° | 2357 | 2341 | 2352 |
| 10° | 2342 | 2337 | 2350 |
| 15° | 2333 | 2319 | 2322 |
| 20° | 2322 | 2306 | 2320 |
| 25° | 2306 | 2288 | 2280 |
| 30° | 2282 | 2261 | 2261 |
| 35° | 2271 | 2242 | 2235 |
| 40° | 2236 | 2211 | 2215 |
| 45° | 2220 | 2187 | 2179 |
| 50° | 2167 | 2143 | 2139 |
| 55° | 2135 | 2107 | 2093 |
| 60° | 2074 | 2048 | 2032 |
| 65° | 1985 | 1967 | 1942 |
| 70° | 1913 | 1883 | 1851 |
| 75° | 1784 | 1754 | 1733 |
| 80° | 1610 | 1581 | 1550 |
| 85° | 1362 | 1331 | 1303 |



TEST NUMBER: P298475

CATALOG NUMBER: 22FPX-21-L840-SWPD1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.5 | 3.3 |
| 10°-20° | 235.9 | 9.5 |
| 20°-30° | 356.0 | 14.3 |
| 30°-40° | 428.0 | 17.2 |
| 40°-50° | 443.5 | 17.9 |
| 50°-60° | 401.2 | 16.2 |
| 60°-70° | 306.2 | 12.3 |
| 70°-80° | 178.5 | 7.2 |
| 80°-90° | 50.4 | 2.0 |
| 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° | 674.3 | 27.2 |
| 0°-40° | 1102.3 | 44.4 |
| 0°-60° | 1947.0 | 78.4 |
| 0°-90° | 2482.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2482.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 873 | 873 | 873 | 873 | 873 | |
| 5° | 873 | 870 | 867 | 867 | 871 | 83 |
| 15° | 837 | 836 | 832 | 834 | 834 | 237 |
| 25° | 777 | 777 | 771 | 771 | 768 | 358 |
| 35° | 691 | 686 | 682 | 682 | 680 | 432 |
| 45° | 583 | 577 | 575 | 572 | 573 | 448 |
| 55° | 455 | 452 | 449 | 447 | 446 | 406 |
| 65° | 312 | 312 | 309 | 308 | 305 | 310 |
| 75° | 172 | 171 | 169 | 166 | 167 | 181 |
| 85° | 44 | 46 | 43 | 44 | 42 | 51 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P298475

CATALOG NUMBER: 22FPX-21-L840-SWPD1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 872.7 | 872.7 | 872.7 | 872.7 | 872.7 |
| 2.5° | 875.7 | 870.8 | 869.8 | 871.7 | 873.7 |
| 5° | 872.7 | 869.8 | 866.8 | 866.8 | 870.8 |
| 7.5° | 866.8 | 863.9 | 861.9 | 861.9 | 864.9 |
| 10° | 857.0 | 854.1 | 855.1 | 855.1 | 860.0 |
| 12.5° | 856.0 | 847.2 | 846.2 | 847.2 | 845.3 |
| 15° | 837.4 | 836.4 | 832.5 | 834.5 | 833.5 |
| 17.5° | 831.5 | 825.6 | 820.7 | 821.7 | 822.7 |
| 20° | 810.9 | 809.0 | 805.1 | 806.0 | 810.0 |
| 22.5° | 794.3 | 795.2 | 788.4 | 788.4 | 786.4 |
| 25° | 776.6 | 776.6 | 770.7 | 770.7 | 767.8 |
| 27.5° | 759.9 | 755.0 | 750.1 | 751.1 | 753.1 |
| 30° | 734.5 | 732.5 | 727.6 | 728.6 | 727.6 |
| 32.5° | 714.8 | 713.9 | 707.0 | 705.0 | 707.0 |
| 35° | 691.3 | 686.4 | 682.5 | 681.5 | 680.5 |
| 37.5° | 665.8 | 661.9 | 657.0 | 656.0 | 653.1 |
| 40° | 636.4 | 635.4 | 629.5 | 630.5 | 630.5 |
| 42.5° | 608.9 | 606.0 | 603.1 | 601.1 | 602.1 |
| 45° | 583.4 | 576.6 | 574.6 | 571.7 | 572.7 |
| 47.5° | 550.1 | 547.2 | 545.2 | 541.3 | 542.3 |
| 50° | 517.7 | 517.7 | 511.9 | 510.9 | 510.9 |
| 52.5° | 487.3 | 485.4 | 480.5 | 481.5 | 478.5 |
| 55° | 455.0 | 452.0 | 449.1 | 447.1 | 446.2 |
| 57.5° | 419.7 | 416.7 | 414.8 | 411.8 | 411.8 |
| 60° | 385.4 | 381.4 | 380.5 | 376.5 | 377.5 |
| 62.5° | 348.1 | 347.1 | 346.1 | 343.2 | 340.3 |
| 65° | 311.8 | 311.8 | 308.9 | 307.9 | 305.0 |
| 67.5° | 277.5 | 275.5 | 272.6 | 272.6 | 270.6 |
| 70° | 243.2 | 240.2 | 239.3 | 236.3 | 235.3 |
| 72.5° | 204.9 | 204.9 | 202.0 | 201.0 | 201.0 |
| 75° | 171.6 | 170.6 | 168.7 | 165.7 | 166.7 |
| 77.5° | 137.3 | 136.3 | 135.3 | 133.4 | 132.4 |
| 80° | 103.9 | 103.9 | 102.0 | 103.0 | 100.0 |
| 82.5° | 72.6 | 73.5 | 71.6 | 71.6 | 69.6 |
| 85° | 44.1 | 46.1 | 43.1 | 44.1 | 42.2 |
| 87.5° | 18.6 | 18.6 | 17.7 | 17.7 | 17.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)