

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: P298581

Luminaire Tested: **22FPX-21-L830-LH-SWPD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P298581
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-L830-LH-SWPD1
Description: 2x2 FPX SERIES LED PANEL, 3000K CCT AND 80CRI
Light Source: -
Ballast/Driver: -

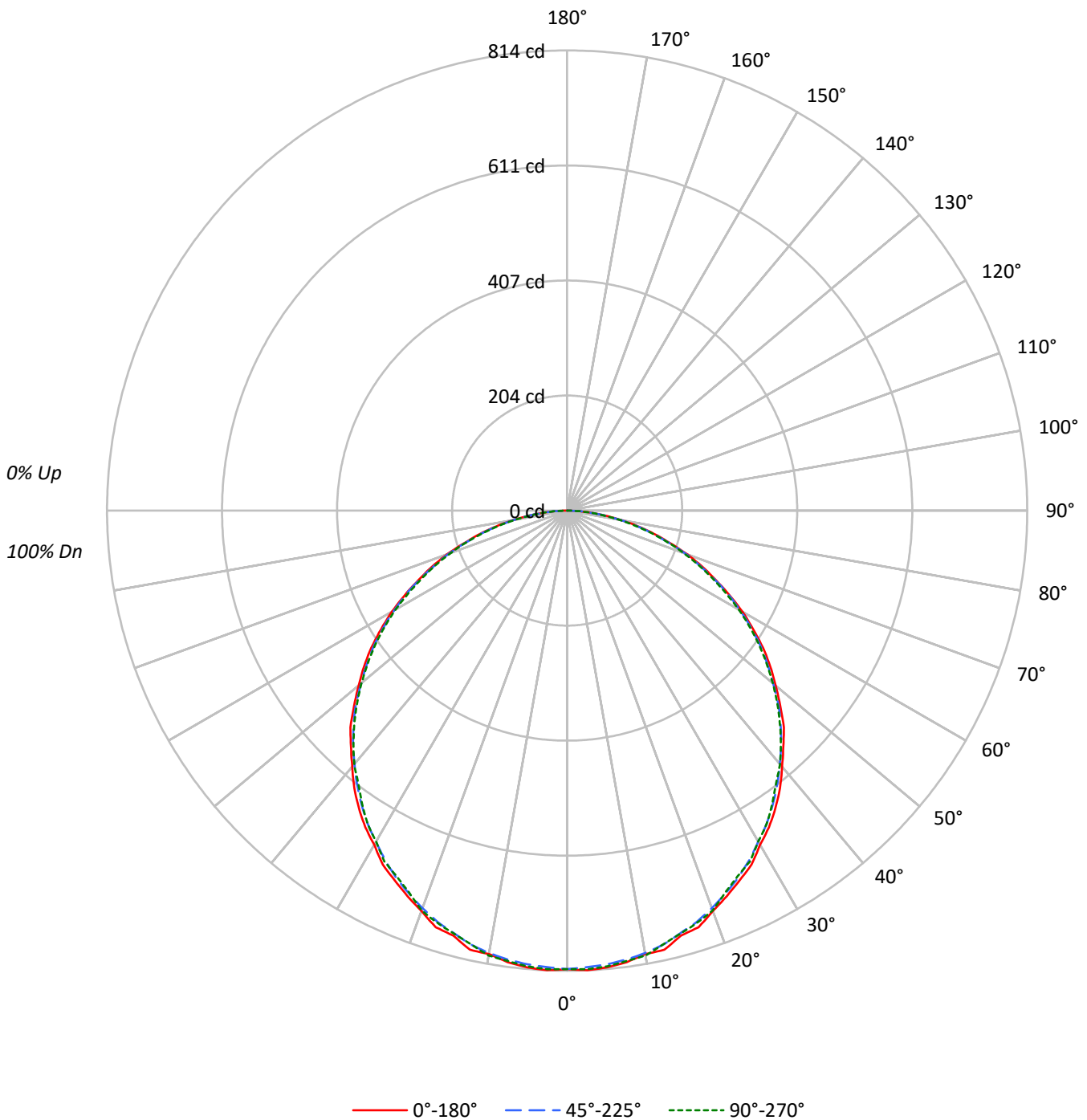
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2307.0 lumens
Efficiency: N/A
Efficacy: 102.7 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): 22.4538426549602
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





TEST NUMBER: P298581

CATALOG NUMBER: 22FPX-21-L830-LH-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° | 2183 | 2183 | 2183 |
| 5° | 2191 | 2176 | 2186 |
| 10° | 2176 | 2172 | 2184 |
| 15° | 2168 | 2156 | 2158 |
| 20° | 2158 | 2143 | 2156 |
| 25° | 2143 | 2127 | 2119 |
| 30° | 2121 | 2101 | 2101 |
| 35° | 2111 | 2084 | 2078 |
| 40° | 2078 | 2055 | 2059 |
| 45° | 2064 | 2033 | 2025 |
| 50° | 2015 | 1991 | 1988 |
| 55° | 1984 | 1958 | 1946 |
| 60° | 1928 | 1903 | 1889 |
| 65° | 1845 | 1828 | 1805 |
| 70° | 1778 | 1750 | 1721 |
| 75° | 1658 | 1630 | 1611 |
| 80° | 1497 | 1469 | 1441 |
| 85° | 1266 | 1238 | 1210 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 76.7 | 3.3 |
| 10°-20° | 219.2 | 9.5 |
| 20°-30° | 330.8 | 14.3 |
| 30°-40° | 397.8 | 17.2 |
| 40°-50° | 412.2 | 17.9 |
| 50°-60° | 372.9 | 16.2 |
| 60°-70° | 284.6 | 12.3 |
| 70°-80° | 165.9 | 7.2 |
| 80°-90° | 46.9 | 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° | 626.7 | 27.2 |
| 0°-40° | 1024.5 | 44.4 |
| 0°-60° | 1809.6 | 78.4 |
| 0°-90° | 2307.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2307.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 811 | 811 | 811 | 811 | 811 | |
| 5° | 811 | 808 | 806 | 806 | 809 | 77 |
| 15° | 778 | 777 | 774 | 776 | 775 | 221 |
| 25° | 722 | 722 | 716 | 716 | 714 | 333 |
| 35° | 642 | 638 | 634 | 633 | 632 | 401 |
| 45° | 542 | 536 | 534 | 531 | 532 | 416 |
| 55° | 423 | 420 | 417 | 416 | 415 | 377 |
| 65° | 290 | 290 | 287 | 286 | 283 | 288 |
| 75° | 160 | 159 | 157 | 154 | 155 | 168 |
| 85° | 41 | 43 | 40 | 41 | 39 | 47 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P298581

CATALOG NUMBER: 22FPX-21-L830-LH-SWPD1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 811.1 | 811.1 | 811.1 | 811.1 | 811.1 |
| 2.5° | 813.9 | 809.3 | 808.4 | 810.2 | 812.0 |
| 5° | 811.1 | 808.4 | 805.7 | 805.7 | 809.3 |
| 7.5° | 805.7 | 802.9 | 801.1 | 801.1 | 803.8 |
| 10° | 796.5 | 793.8 | 794.7 | 794.7 | 799.3 |
| 12.5° | 795.6 | 787.4 | 786.5 | 787.4 | 785.6 |
| 15° | 778.3 | 777.4 | 773.8 | 775.6 | 774.7 |
| 17.5° | 772.8 | 767.4 | 762.8 | 763.7 | 764.6 |
| 20° | 753.7 | 751.9 | 748.2 | 749.2 | 752.8 |
| 22.5° | 738.2 | 739.1 | 732.7 | 732.7 | 730.9 |
| 25° | 721.8 | 721.8 | 716.3 | 716.3 | 713.6 |
| 27.5° | 706.3 | 701.8 | 697.2 | 698.1 | 699.9 |
| 30° | 682.6 | 680.8 | 676.2 | 677.2 | 676.2 |
| 32.5° | 664.4 | 663.5 | 657.1 | 655.3 | 657.1 |
| 35° | 642.5 | 638.0 | 634.3 | 633.4 | 632.5 |
| 37.5° | 618.8 | 615.2 | 610.6 | 609.7 | 607.0 |
| 40° | 591.5 | 590.6 | 585.1 | 586.0 | 586.0 |
| 42.5° | 566.0 | 563.2 | 560.5 | 558.7 | 559.6 |
| 45° | 542.3 | 535.9 | 534.1 | 531.3 | 532.2 |
| 47.5° | 511.3 | 508.5 | 506.7 | 503.1 | 504.0 |
| 50° | 481.2 | 481.2 | 475.7 | 474.8 | 474.8 |
| 52.5° | 453.0 | 451.1 | 446.6 | 447.5 | 444.8 |
| 55° | 422.9 | 420.1 | 417.4 | 415.6 | 414.7 |
| 57.5° | 390.1 | 387.3 | 385.5 | 382.8 | 382.8 |
| 60° | 358.2 | 354.5 | 353.6 | 350.0 | 350.9 |
| 62.5° | 323.5 | 322.6 | 321.7 | 319.0 | 316.2 |
| 65° | 289.8 | 289.8 | 287.1 | 286.2 | 283.4 |
| 67.5° | 257.9 | 256.1 | 253.4 | 253.4 | 251.5 |
| 70° | 226.0 | 223.3 | 222.4 | 219.6 | 218.7 |
| 72.5° | 190.5 | 190.5 | 187.7 | 186.8 | 186.8 |
| 75° | 159.5 | 158.6 | 156.8 | 154.0 | 154.9 |
| 77.5° | 127.6 | 126.7 | 125.8 | 123.9 | 123.0 |
| 80° | 96.6 | 96.6 | 94.8 | 95.7 | 93.0 |
| 82.5° | 67.4 | 68.4 | 66.5 | 66.5 | 64.7 |
| 85° | 41.0 | 42.8 | 40.1 | 41.0 | 39.2 |
| 87.5° | 17.3 | 17.3 | 16.4 | 16.4 | 16.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)