

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: P393304

Luminaire Tested: **22EN-LD2-30-UNV-L92765-W2A-1-U (5700K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393304
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-30-UNV-L92765-W2A-1-U (5700K)
Description: 2X2 ENCOUNTER, 3000 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2567.1 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

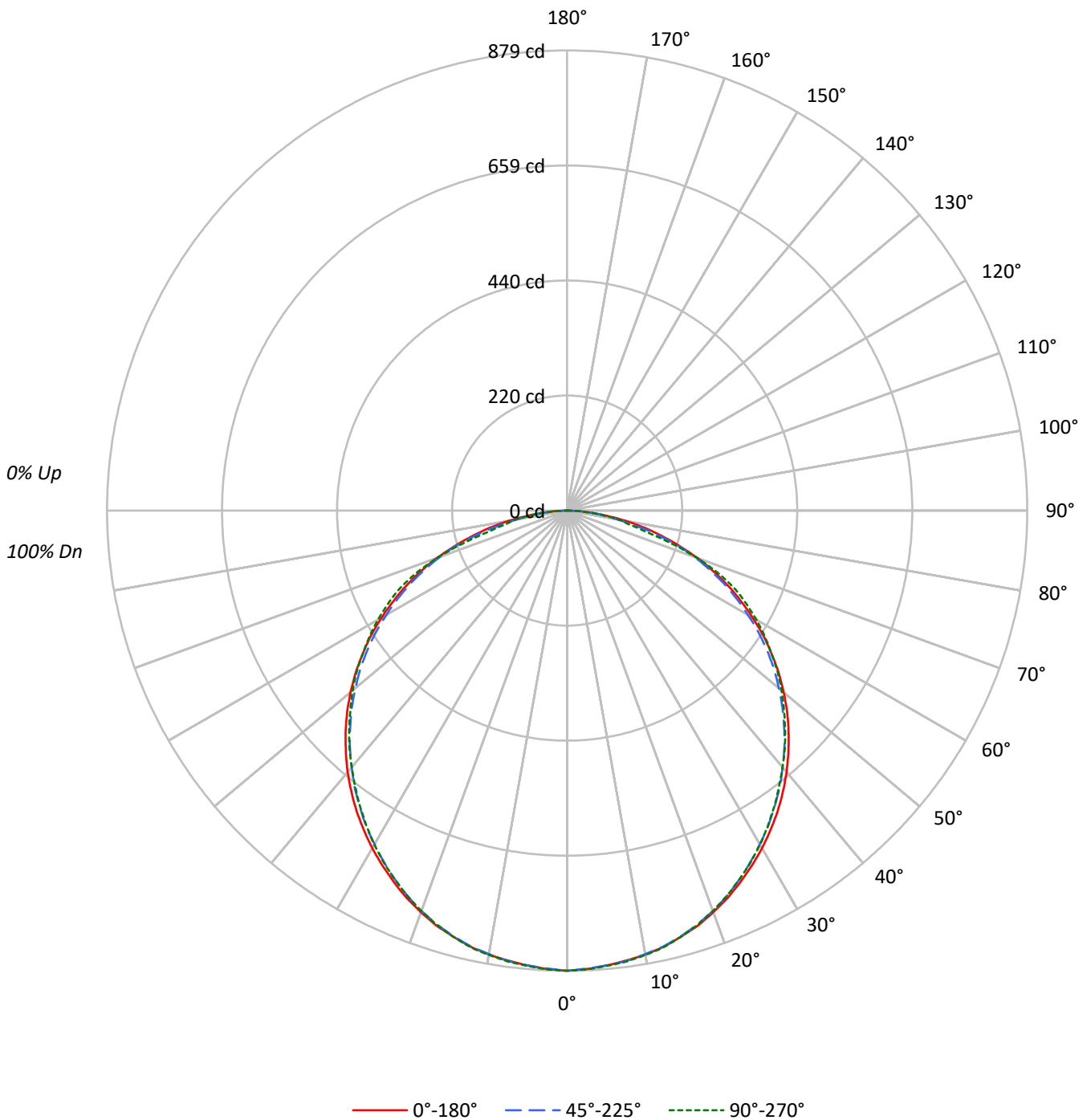
Input Watts (W): 21.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2365 | 2365 | 2365 |
| 5° | 2356 | 2356 | 2358 |
| 10° | 2353 | 2350 | 2355 |
| 15° | 2346 | 2344 | 2346 |
| 20° | 2338 | 2331 | 2331 |
| 25° | 2325 | 2310 | 2310 |
| 30° | 2314 | 2287 | 2290 |
| 35° | 2303 | 2269 | 2266 |
| 40° | 2291 | 2249 | 2249 |
| 45° | 2277 | 2231 | 2241 |
| 50° | 2261 | 2211 | 2239 |
| 55° | 2236 | 2188 | 2236 |
| 60° | 2202 | 2146 | 2248 |
| 65° | 2158 | 2104 | 2251 |
| 70° | 2081 | 2034 | 2081 |
| 75° | 1940 | 1851 | 1602 |
| 80° | 1764 | 1499 | 1578 |
| 85° | 1294 | 1321 | 1269 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 83.1 | 3.2 |
| 10°-20° | 238.1 | 9.3 |
| 20°-30° | 360.0 | 14.0 |
| 30°-40° | 434.8 | 16.9 |
| 40°-50° | 456.5 | 17.8 |
| 50°-60° | 422.6 | 16.5 |
| 60°-70° | 334.2 | 13.0 |
| 70°-80° | 187.4 | 7.3 |
| 80°-90° | 50.3 | 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° | 681.2 | 26.5 |
| 0°-40° | 1116.0 | 43.5 |
| 0°-60° | 1995.1 | 77.7 |
| 0°-90° | 2567.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2567.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 879 | 879 | 879 | 879 | 879 | |
| 5° | 872 | 881 | 872 | 873 | 873 | 83 |
| 15° | 842 | 851 | 841 | 840 | 842 | 238 |
| 25° | 783 | 790 | 778 | 775 | 778 | 361 |
| 35° | 701 | 706 | 691 | 687 | 690 | 439 |
| 45° | 598 | 602 | 586 | 584 | 589 | 462 |
| 55° | 477 | 478 | 466 | 471 | 477 | 426 |
| 65° | 339 | 339 | 330 | 342 | 354 | 335 |
| 75° | 187 | 187 | 178 | 161 | 154 | 198 |
| 85° | 42 | 42 | 43 | 42 | 41 | 52 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393304

CATALOG NUMBER: 22EN-LD2-30-UNV-L92765-W2A-1-U (5700K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 879.0 | 879.0 | 879.0 | 879.0 | 879.0 |
| 2.5° | 876.4 | 884.1 | 875.6 | 876.4 | 877.3 |
| 5° | 872.1 | 880.7 | 872.1 | 873.0 | 873.0 |
| 7.5° | 867.0 | 875.6 | 867.9 | 867.0 | 868.7 |
| 10° | 861.0 | 869.6 | 860.1 | 861.0 | 861.9 |
| 12.5° | 853.3 | 861.0 | 852.4 | 852.4 | 854.2 |
| 15° | 842.2 | 850.7 | 841.3 | 840.5 | 842.2 |
| 17.5° | 831.0 | 837.9 | 828.5 | 827.6 | 829.3 |
| 20° | 816.5 | 824.2 | 813.9 | 812.2 | 813.9 |
| 22.5° | 801.1 | 807.9 | 796.8 | 795.1 | 796.8 |
| 25° | 783.1 | 790.0 | 778.0 | 775.4 | 778.0 |
| 27.5° | 764.3 | 770.3 | 757.4 | 754.9 | 758.3 |
| 30° | 744.6 | 750.6 | 736.0 | 733.5 | 736.9 |
| 32.5° | 723.2 | 728.3 | 714.7 | 710.4 | 713.8 |
| 35° | 701.0 | 706.1 | 690.7 | 687.3 | 689.8 |
| 37.5° | 677.0 | 682.1 | 666.7 | 663.3 | 665.0 |
| 40° | 652.2 | 656.5 | 640.2 | 636.8 | 640.2 |
| 42.5° | 625.6 | 629.9 | 614.5 | 611.9 | 615.4 |
| 45° | 598.3 | 601.7 | 586.3 | 583.7 | 588.8 |
| 47.5° | 570.0 | 573.4 | 558.0 | 557.2 | 561.5 |
| 50° | 540.1 | 542.6 | 528.1 | 528.9 | 534.9 |
| 52.5° | 509.2 | 510.1 | 498.1 | 500.7 | 506.7 |
| 55° | 476.7 | 477.6 | 466.4 | 470.7 | 476.7 |
| 57.5° | 444.2 | 445.1 | 433.9 | 439.1 | 447.6 |
| 60° | 409.1 | 410.0 | 398.8 | 408.2 | 417.7 |
| 62.5° | 374.0 | 374.9 | 365.5 | 375.7 | 386.0 |
| 65° | 338.9 | 338.9 | 330.4 | 341.5 | 353.5 |
| 67.5° | 302.1 | 302.1 | 294.4 | 305.5 | 312.4 |
| 70° | 264.5 | 265.3 | 258.5 | 261.0 | 264.5 |
| 72.5° | 225.1 | 226.8 | 220.8 | 211.4 | 208.8 |
| 75° | 186.6 | 187.4 | 178.0 | 160.9 | 154.1 |
| 77.5° | 150.6 | 148.9 | 135.2 | 119.8 | 119.8 |
| 80° | 113.8 | 112.1 | 96.7 | 99.3 | 101.8 |
| 82.5° | 76.2 | 76.2 | 71.0 | 70.2 | 70.2 |
| 85° | 41.9 | 41.9 | 42.8 | 41.9 | 41.1 |
| 87.5° | 18.0 | 18.0 | 18.8 | 18.8 | 17.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)