

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: P393336

Luminaire Tested: **22EN-LD2-34-UNV-L92765-W2A-1-U (5700K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-34-UNV-L92765-W2A-1-U (5700K)
Description: 2X2 ENCOUNTER, 3400 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2934.9 lumens
Efficiency: N/A
Efficacy: 115.1 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

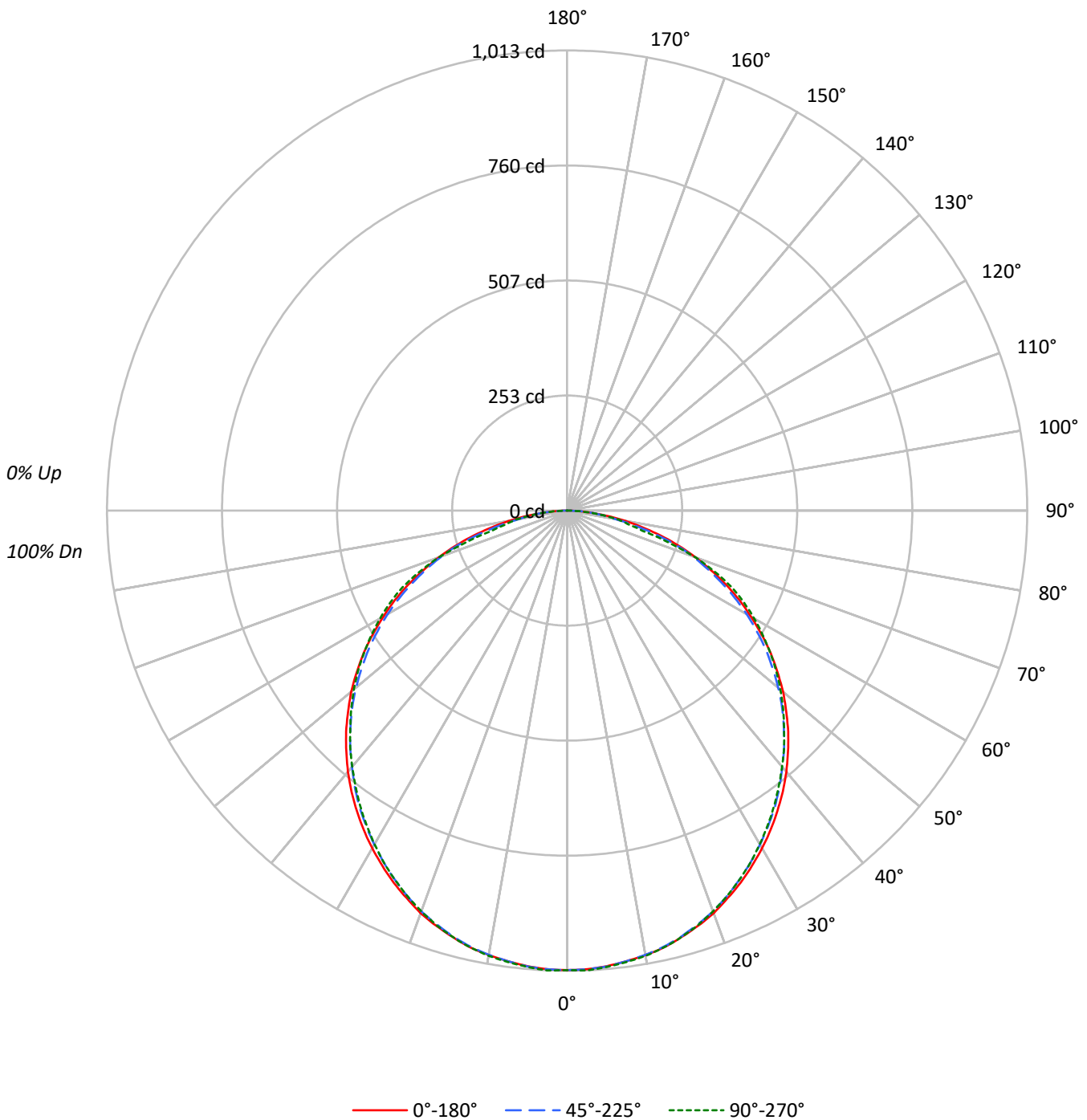
Input Watts (W): 25.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 91 | 88 | 90 | 87 | 85 | 83 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 52 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 70 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 29 | 55 | 42 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2722 | 2722 | 2722 |
| 5° | 2719 | 2721 | 2723 |
| 10° | 2715 | 2713 | 2720 |
| 15° | 2709 | 2704 | 2709 |
| 20° | 2701 | 2689 | 2689 |
| 25° | 2684 | 2663 | 2663 |
| 30° | 2667 | 2638 | 2636 |
| 35° | 2651 | 2618 | 2609 |
| 40° | 2637 | 2589 | 2585 |
| 45° | 2619 | 2567 | 2570 |
| 50° | 2598 | 2540 | 2565 |
| 55° | 2566 | 2506 | 2562 |
| 60° | 2515 | 2460 | 2561 |
| 65° | 2458 | 2387 | 2550 |
| 70° | 2364 | 2310 | 2364 |
| 75° | 2216 | 2091 | 1788 |
| 80° | 1990 | 1671 | 1790 |
| 85° | 1479 | 1507 | 1479 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.7 | 3.3 |
| 10°-20° | 274.0 | 9.3 |
| 20°-30° | 414.1 | 14.1 |
| 30°-40° | 499.5 | 17.0 |
| 40°-50° | 523.1 | 17.8 |
| 50°-60° | 482.3 | 16.4 |
| 60°-70° | 378.6 | 12.9 |
| 70°-80° | 211.2 | 7.2 |
| 80°-90° | 56.5 | 1.9 |
| 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° | 783.8 | 26.7 |
| 0°-40° | 1283.2 | 43.7 |
| 0°-60° | 2288.6 | 78.0 |
| 0°-90° | 2934.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2934.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1012 | 1012 | 1012 | 1012 | 1012 | |
| 5° | 1006 | 1006 | 1007 | 1007 | 1008 | 96 |
| 15° | 972 | 971 | 971 | 971 | 972 | 275 |
| 25° | 904 | 900 | 897 | 896 | 897 | 417 |
| 35° | 807 | 804 | 797 | 792 | 794 | 505 |
| 45° | 688 | 683 | 674 | 672 | 675 | 531 |
| 55° | 547 | 541 | 534 | 538 | 546 | 488 |
| 65° | 386 | 380 | 375 | 388 | 400 | 381 |
| 75° | 213 | 209 | 201 | 181 | 172 | 225 |
| 85° | 48 | 46 | 49 | 47 | 48 | 59 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: 22EN-LD2-34-UNV-L92765-W2A-1-U (5700K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1011.6 | 1011.6 | 1011.6 | 1011.6 | 1011.6 |
| 2.5° | 1010.8 | 1009.9 | 1010.8 | 1011.6 | 1013.3 |
| 5° | 1006.5 | 1005.6 | 1007.4 | 1007.4 | 1008.2 |
| 7.5° | 1000.5 | 999.7 | 1000.5 | 1001.4 | 1002.2 |
| 10° | 993.7 | 992.8 | 992.8 | 993.7 | 995.4 |
| 12.5° | 985.1 | 983.4 | 983.4 | 983.4 | 985.1 |
| 15° | 972.3 | 970.6 | 970.6 | 970.6 | 972.3 |
| 17.5° | 958.6 | 956.9 | 955.1 | 955.1 | 956.9 |
| 20° | 943.2 | 940.6 | 938.9 | 938.0 | 938.9 |
| 22.5° | 923.5 | 921.8 | 919.2 | 917.5 | 919.2 |
| 25° | 903.8 | 900.4 | 896.9 | 896.1 | 896.9 |
| 27.5° | 881.5 | 878.1 | 873.8 | 872.1 | 873.8 |
| 30° | 858.4 | 854.2 | 849.0 | 846.5 | 848.2 |
| 32.5° | 833.6 | 830.2 | 823.3 | 820.8 | 821.6 |
| 35° | 807.1 | 803.7 | 796.8 | 792.5 | 794.2 |
| 37.5° | 779.7 | 775.4 | 767.7 | 763.4 | 765.1 |
| 40° | 750.6 | 745.5 | 736.9 | 733.5 | 736.0 |
| 42.5° | 719.8 | 715.5 | 706.9 | 703.5 | 706.9 |
| 45° | 688.1 | 683.0 | 674.4 | 671.9 | 675.3 |
| 47.5° | 653.9 | 650.5 | 641.9 | 641.0 | 644.5 |
| 50° | 620.5 | 614.5 | 606.8 | 607.7 | 612.8 |
| 52.5° | 583.7 | 578.6 | 570.0 | 573.4 | 580.3 |
| 55° | 546.9 | 540.9 | 534.1 | 537.5 | 546.0 |
| 57.5° | 507.5 | 503.3 | 495.5 | 500.7 | 511.0 |
| 60° | 467.3 | 463.9 | 457.0 | 465.6 | 475.9 |
| 62.5° | 427.9 | 421.9 | 416.0 | 427.1 | 439.1 |
| 65° | 386.0 | 380.0 | 374.9 | 387.7 | 400.5 |
| 67.5° | 342.3 | 338.1 | 333.8 | 344.1 | 352.6 |
| 70° | 300.4 | 296.1 | 293.6 | 295.3 | 300.4 |
| 72.5° | 257.6 | 253.3 | 250.8 | 241.4 | 235.4 |
| 75° | 213.1 | 208.8 | 201.1 | 180.6 | 172.0 |
| 77.5° | 169.5 | 166.9 | 151.5 | 133.5 | 136.1 |
| 80° | 128.4 | 124.1 | 107.8 | 111.3 | 115.5 |
| 82.5° | 87.3 | 83.0 | 81.3 | 78.7 | 79.6 |
| 85° | 47.9 | 46.2 | 48.8 | 47.1 | 47.9 |
| 87.5° | 18.8 | 19.7 | 21.4 | 20.5 | 20.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)