

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: P393277

Luminaire Tested: **22EN-LD2-25-UNV-L93050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-25-UNV-L93050-W2A-1-U (4000K)
Description: 2X2 ENCOUNTER, 2500 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2185.5 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

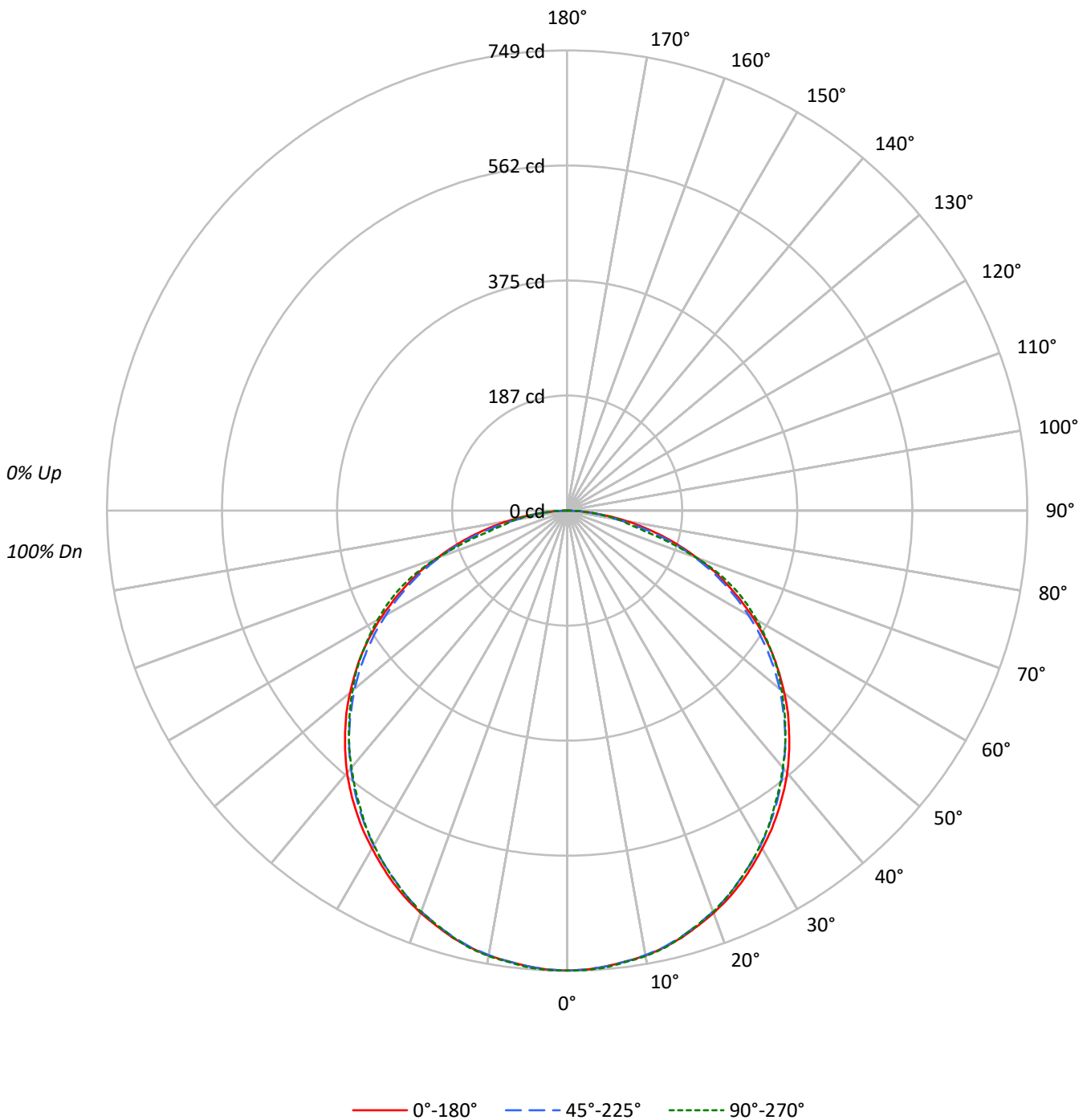
Input Watts (W): 17.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2014 | 2014 | 2014 |
| 5° | 2010 | 2010 | 2015 |
| 10° | 2010 | 2007 | 2012 |
| 15° | 2005 | 2000 | 2003 |
| 20° | 1996 | 1989 | 1991 |
| 25° | 1987 | 1971 | 1971 |
| 30° | 1973 | 1957 | 1954 |
| 35° | 1966 | 1940 | 1931 |
| 40° | 1958 | 1924 | 1918 |
| 45° | 1945 | 1908 | 1912 |
| 50° | 1931 | 1891 | 1909 |
| 55° | 1918 | 1869 | 1914 |
| 60° | 1885 | 1834 | 1918 |
| 65° | 1841 | 1796 | 1913 |
| 70° | 1766 | 1725 | 1759 |
| 75° | 1671 | 1580 | 1371 |
| 80° | 1516 | 1272 | 1354 |
| 85° | 1105 | 1133 | 1105 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 70.8 | 3.2 |
| 10°-20° | 202.7 | 9.3 |
| 20°-30° | 306.5 | 14.0 |
| 30°-40° | 370.2 | 16.9 |
| 40°-50° | 388.6 | 17.8 |
| 50°-60° | 360.0 | 16.5 |
| 60°-70° | 284.3 | 13.0 |
| 70°-80° | 159.4 | 7.3 |
| 80°-90° | 43.0 | 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° | 579.9 | 26.5 |
| 0°-40° | 950.2 | 43.5 |
| 0°-60° | 1698.8 | 77.7 |
| 0°-90° | 2185.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2185.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 749 | 749 | 749 | 749 | 749 | |
| 5° | 744 | 743 | 744 | 745 | 746 | 71 |
| 15° | 720 | 718 | 718 | 718 | 719 | 203 |
| 25° | 669 | 666 | 664 | 662 | 664 | 308 |
| 35° | 598 | 596 | 590 | 587 | 588 | 374 |
| 45° | 511 | 507 | 501 | 499 | 502 | 394 |
| 55° | 409 | 404 | 398 | 402 | 408 | 365 |
| 65° | 289 | 286 | 282 | 292 | 300 | 286 |
| 75° | 161 | 158 | 152 | 137 | 132 | 170 |
| 85° | 36 | 36 | 37 | 36 | 36 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 748.6 | 748.6 | 748.6 | 748.6 | 748.6 |
| 2.5° | 747.7 | 746.8 | 747.7 | 747.7 | 748.6 |
| 5° | 744.2 | 743.4 | 744.2 | 745.1 | 746.0 |
| 7.5° | 739.9 | 739.0 | 739.9 | 740.7 | 740.7 |
| 10° | 735.5 | 733.7 | 734.6 | 735.5 | 736.4 |
| 12.5° | 728.5 | 727.6 | 727.6 | 727.6 | 729.4 |
| 15° | 719.8 | 718.0 | 718.0 | 718.0 | 718.9 |
| 17.5° | 708.4 | 707.5 | 706.7 | 706.7 | 706.7 |
| 20° | 697.1 | 695.3 | 694.4 | 693.6 | 695.3 |
| 22.5° | 684.0 | 682.2 | 680.5 | 678.7 | 680.5 |
| 25° | 669.1 | 666.5 | 663.9 | 662.1 | 663.9 |
| 27.5° | 652.5 | 650.8 | 647.3 | 644.6 | 647.3 |
| 30° | 635.0 | 632.4 | 629.8 | 627.2 | 628.9 |
| 32.5° | 617.6 | 614.9 | 610.6 | 607.1 | 609.7 |
| 35° | 598.4 | 595.7 | 590.5 | 587.0 | 587.9 |
| 37.5° | 578.3 | 574.8 | 569.5 | 566.0 | 567.8 |
| 40° | 557.3 | 553.8 | 547.7 | 543.3 | 545.9 |
| 42.5° | 534.6 | 531.1 | 525.0 | 522.4 | 525.0 |
| 45° | 511.0 | 506.6 | 501.4 | 498.8 | 502.3 |
| 47.5° | 487.4 | 483.9 | 476.1 | 476.1 | 479.6 |
| 50° | 461.2 | 457.7 | 451.6 | 451.6 | 456.0 |
| 52.5° | 435.0 | 430.6 | 425.4 | 427.1 | 433.3 |
| 55° | 408.8 | 404.4 | 398.3 | 401.8 | 407.9 |
| 57.5° | 380.0 | 376.5 | 370.4 | 375.6 | 382.6 |
| 60° | 350.3 | 345.9 | 340.7 | 347.7 | 356.4 |
| 62.5° | 319.7 | 316.2 | 311.8 | 320.6 | 330.2 |
| 65° | 289.1 | 285.6 | 282.1 | 291.8 | 300.5 |
| 67.5° | 259.4 | 255.1 | 251.6 | 260.3 | 266.4 |
| 70° | 224.5 | 221.9 | 219.3 | 221.0 | 223.6 |
| 72.5° | 193.0 | 190.4 | 187.8 | 180.8 | 178.2 |
| 75° | 160.7 | 158.1 | 152.0 | 137.1 | 131.9 |
| 77.5° | 129.3 | 126.7 | 115.3 | 102.2 | 103.1 |
| 80° | 97.8 | 95.2 | 82.1 | 84.7 | 87.4 |
| 82.5° | 67.3 | 63.8 | 61.1 | 60.3 | 60.3 |
| 85° | 35.8 | 35.8 | 36.7 | 35.8 | 35.8 |
| 87.5° | 14.8 | 15.7 | 15.7 | 15.7 | 15.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)