

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: P393226

Luminaire Tested: **22EN-LD2-19-UNV-L83050-W2A-1-U (2700K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-7)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-19-UNV-L83050-W2A-1-U (2700K)
Description: 2X2 ENCOUNTER, 1900 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2137.4 lumens
Efficiency: N/A
Efficacy: 135.3 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

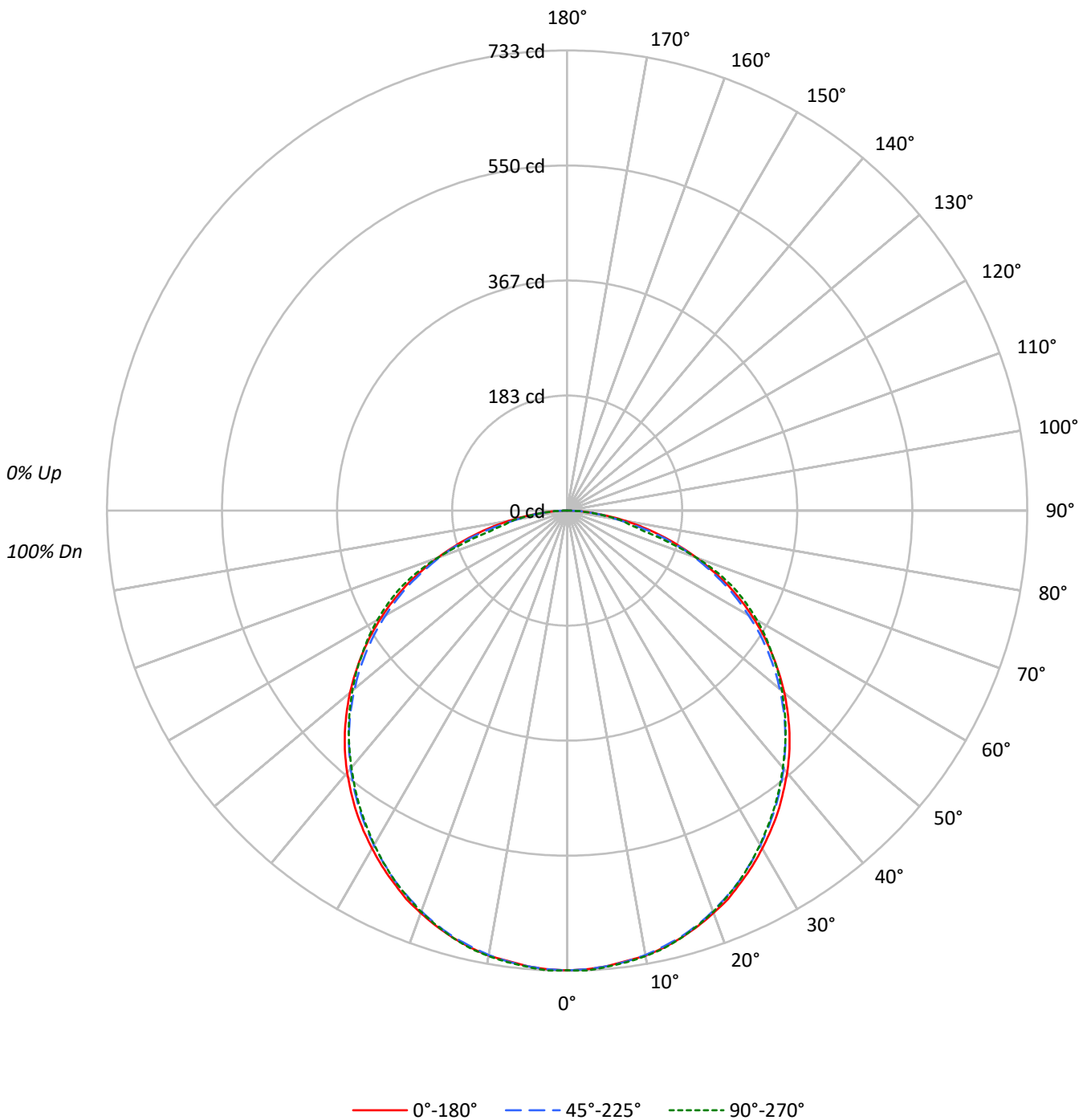
Input Watts (W): 15.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P393226

CATALOG NUMBER: 22EN-LD2-19-UNV-L83050-W2A-1-U (2700K)

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 | 97 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 | | | | | 42 | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1971 | 1971 | 1971 |
| 5° | 1968 | 1968 | 1970 |
| 10° | 1967 | 1964 | 1969 |
| 15° | 1962 | 1957 | 1962 |
| 20° | 1953 | 1945 | 1948 |
| 25° | 1942 | 1931 | 1931 |
| 30° | 1931 | 1913 | 1910 |
| 35° | 1924 | 1898 | 1892 |
| 40° | 1915 | 1884 | 1878 |
| 45° | 1905 | 1869 | 1873 |
| 50° | 1890 | 1850 | 1870 |
| 55° | 1870 | 1829 | 1870 |
| 60° | 1843 | 1796 | 1880 |
| 65° | 1806 | 1757 | 1874 |
| 70° | 1723 | 1693 | 1723 |
| 75° | 1625 | 1545 | 1325 |
| 80° | 1466 | 1255 | 1331 |
| 85° | 1071 | 1102 | 1071 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.2 | 3.2 |
| 10°-20° | 198.3 | 9.3 |
| 20°-30° | 299.8 | 14.0 |
| 30°-40° | 362.3 | 17.0 |
| 40°-50° | 380.4 | 17.8 |
| 50°-60° | 352.2 | 16.5 |
| 60°-70° | 277.8 | 13.0 |
| 70°-80° | 155.3 | 7.3 |
| 80°-90° | 42.0 | 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° | 567.4 | 26.5 |
| 0°-40° | 929.7 | 43.5 |
| 0°-60° | 1662.4 | 77.8 |
| 0°-90° | 2137.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2137.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 732 | 732 | 732 | 732 | 732 | |
| 5° | 728 | 728 | 728 | 728 | 729 | 69 |
| 15° | 704 | 702 | 702 | 702 | 704 | 199 |
| 25° | 654 | 652 | 650 | 648 | 650 | 302 |
| 35° | 586 | 583 | 578 | 574 | 576 | 366 |
| 45° | 501 | 497 | 491 | 488 | 492 | 386 |
| 55° | 398 | 396 | 390 | 392 | 398 | 356 |
| 65° | 284 | 280 | 276 | 286 | 294 | 279 |
| 75° | 156 | 153 | 149 | 134 | 127 | 165 |
| 85° | 35 | 35 | 36 | 36 | 35 | 44 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393226

CATALOG NUMBER: 22EN-LD2-19-UNV-L83050-W2A-1-U (2700K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 732.3 | 732.3 | 732.3 | 732.3 | 732.3 |
| 2.5° | 731.3 | 730.4 | 731.3 | 731.3 | 733.3 |
| 5° | 728.4 | 727.5 | 728.4 | 728.4 | 729.4 |
| 7.5° | 723.6 | 723.6 | 724.6 | 724.6 | 725.5 |
| 10° | 719.8 | 718.8 | 718.8 | 718.8 | 720.7 |
| 12.5° | 713.0 | 711.1 | 711.1 | 712.0 | 714.0 |
| 15° | 704.3 | 702.4 | 702.4 | 702.4 | 704.3 |
| 17.5° | 693.7 | 692.7 | 691.8 | 691.8 | 692.7 |
| 20° | 682.1 | 680.2 | 679.2 | 679.2 | 680.2 |
| 22.5° | 669.6 | 666.7 | 664.8 | 663.8 | 665.7 |
| 25° | 654.1 | 652.2 | 650.3 | 648.4 | 650.3 |
| 27.5° | 638.7 | 635.8 | 632.9 | 631.0 | 632.9 |
| 30° | 621.3 | 619.4 | 615.6 | 612.7 | 614.6 |
| 32.5° | 604.0 | 602.0 | 597.2 | 594.3 | 595.3 |
| 35° | 585.6 | 582.8 | 577.9 | 574.1 | 576.0 |
| 37.5° | 565.4 | 563.5 | 557.7 | 553.8 | 555.7 |
| 40° | 545.1 | 542.2 | 536.4 | 532.6 | 534.5 |
| 42.5° | 523.9 | 520.0 | 514.2 | 510.4 | 513.3 |
| 45° | 500.7 | 496.9 | 491.1 | 488.2 | 492.1 |
| 47.5° | 476.6 | 472.8 | 467.0 | 465.0 | 469.9 |
| 50° | 451.5 | 448.6 | 441.9 | 441.9 | 446.7 |
| 52.5° | 425.5 | 421.6 | 416.8 | 417.8 | 423.6 |
| 55° | 398.5 | 395.6 | 389.8 | 391.7 | 398.5 |
| 57.5° | 371.5 | 367.6 | 362.8 | 366.6 | 375.3 |
| 60° | 342.5 | 338.7 | 333.8 | 340.6 | 349.3 |
| 62.5° | 313.6 | 309.7 | 305.8 | 313.6 | 322.2 |
| 65° | 283.7 | 279.8 | 275.9 | 285.6 | 294.3 |
| 67.5° | 250.9 | 247.0 | 244.1 | 253.7 | 260.5 |
| 70° | 219.0 | 215.2 | 215.2 | 216.1 | 219.0 |
| 72.5° | 187.2 | 185.2 | 183.3 | 176.6 | 172.7 |
| 75° | 156.3 | 153.4 | 148.6 | 134.1 | 127.4 |
| 77.5° | 124.5 | 121.6 | 112.9 | 100.3 | 101.3 |
| 80° | 94.6 | 91.7 | 81.0 | 83.9 | 85.9 |
| 82.5° | 63.7 | 62.7 | 59.8 | 58.9 | 58.9 |
| 85° | 34.7 | 34.7 | 35.7 | 35.7 | 34.7 |
| 87.5° | 14.5 | 14.5 | 15.4 | 15.4 | 15.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)