

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: INVUE

Report Number: P184436

Luminaire Tested: **612EN-LD2-67-UNV-L830-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184436
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34470)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: 612EN-LD2-67-UNV-L830-CD1-U
Description: METALUX ENCOUNTER 600X1200 TROFFER

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6274.7 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.27 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

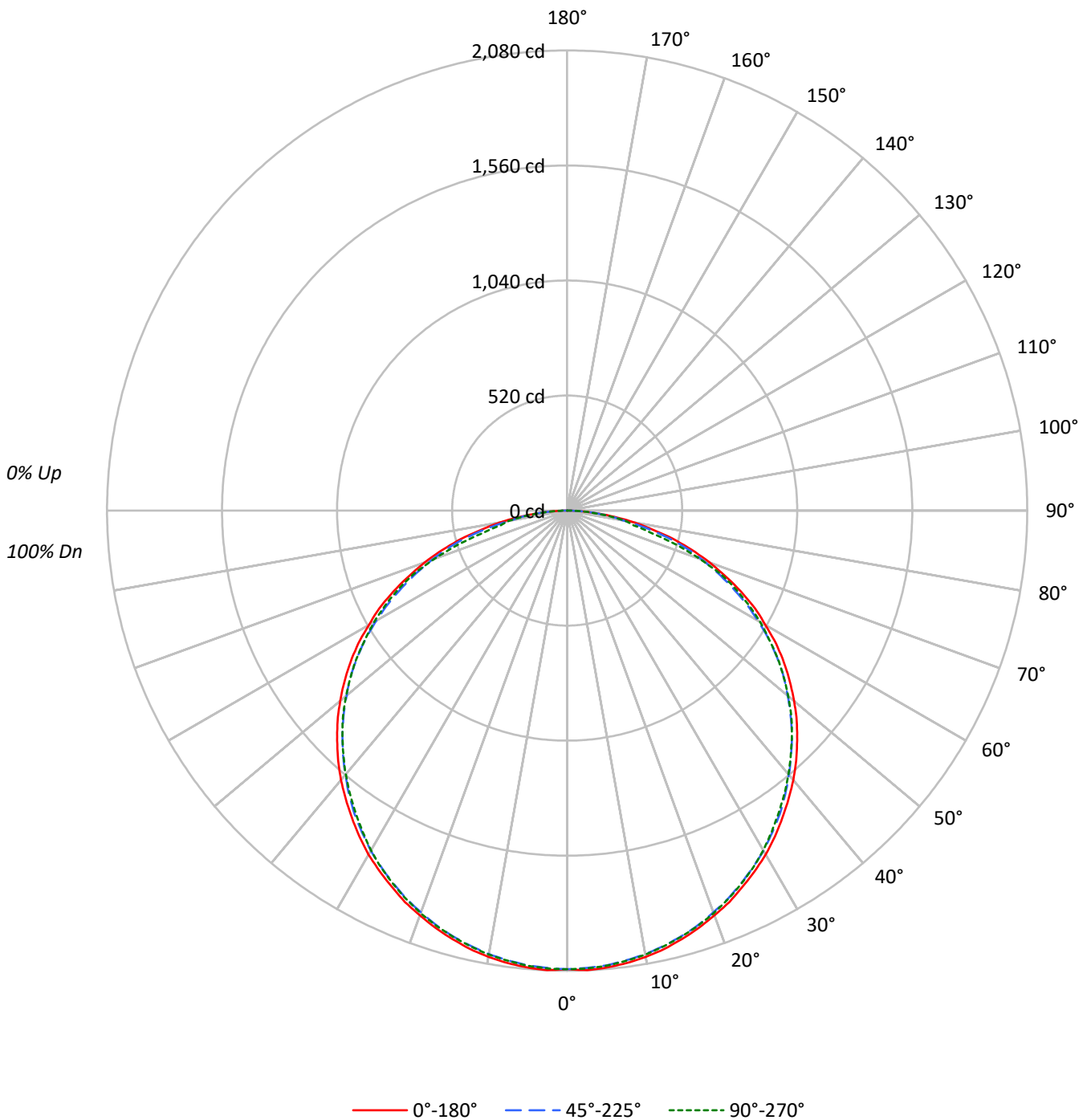
Input Watts (W): 56.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 88 | 89 | 87 | 85 |
| 2 | 98 | 90 | 83 | 77 | 95 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 78 | 74 | 71 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 60 | 68 | 64 | 59 |
| 4 | 82 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 51 | 61 | 55 | 51 |
| 5 | 75 | 62 | 52 | 46 | 73 | 61 | 52 | 45 | 58 | 51 | 45 | 56 | 50 | 44 | 54 | 49 | 44 |
| 6 | 69 | 55 | 46 | 40 | 67 | 54 | 46 | 39 | 53 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 38 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 45 | 39 | 34 |
| 8 | 59 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 30 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2790 | 2790 | 2790 |
| 5° | 2800 | 2786 | 2789 |
| 10° | 2799 | 2782 | 2784 |
| 15° | 2793 | 2775 | 2778 |
| 20° | 2788 | 2767 | 2773 |
| 25° | 2786 | 2761 | 2764 |
| 30° | 2790 | 2757 | 2754 |
| 35° | 2786 | 2752 | 2738 |
| 40° | 2793 | 2738 | 2735 |
| 45° | 2797 | 2734 | 2734 |
| 50° | 2803 | 2725 | 2730 |
| 55° | 2806 | 2719 | 2723 |
| 60° | 2784 | 2678 | 2711 |
| 65° | 2759 | 2621 | 2680 |
| 70° | 2692 | 2553 | 2504 |
| 75° | 2576 | 2436 | 2070 |
| 80° | 2377 | 1992 | 2073 |
| 85° | 1984 | 1888 | 1792 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 196.2 | 3.1 |
| 10°-20° | 563.1 | 9.0 |
| 20°-30° | 859.0 | 13.7 |
| 30°-40° | 1049.4 | 16.7 |
| 40°-50° | 1114.6 | 17.8 |
| 50°-60° | 1042.2 | 16.6 |
| 60°-70° | 827.5 | 13.2 |
| 70°-80° | 482.7 | 7.7 |
| 80°-90° | 140.0 | 2.2 |
| 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° | 1618.2 | 25.8 |
| 0°-40° | 2667.6 | 42.5 |
| 0°-60° | 4824.4 | 76.9 |
| 0°-90° | 6274.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6274.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2073 | 2073 | 2073 | 2073 | 2073 | |
| 5° | 2073 | 2065 | 2063 | 2059 | 2065 | 197 |
| 15° | 2005 | 1999 | 1992 | 1986 | 1994 | 566 |
| 25° | 1876 | 1866 | 1860 | 1856 | 1862 | 866 |
| 35° | 1696 | 1686 | 1675 | 1663 | 1667 | 1062 |
| 45° | 1470 | 1458 | 1437 | 1431 | 1437 | 1135 |
| 55° | 1196 | 1184 | 1159 | 1153 | 1161 | 1068 |
| 65° | 867 | 846 | 823 | 831 | 842 | 856 |
| 75° | 496 | 477 | 469 | 417 | 398 | 522 |
| 85° | 128 | 122 | 122 | 120 | 116 | 149 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184436

CATALOG NUMBER: 612EN-LD2-67-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2073.3 | 2073.3 | 2073.3 | 2073.3 | 2073.3 |
| 2.5° | 2079.5 | 2071.2 | 2069.1 | 2065.0 | 2071.2 |
| 5° | 2073.3 | 2065.0 | 2062.9 | 2058.8 | 2065.0 |
| 7.5° | 2062.9 | 2054.6 | 2050.5 | 2046.3 | 2052.5 |
| 10° | 2048.4 | 2040.1 | 2036.0 | 2031.8 | 2038.0 |
| 12.5° | 2029.7 | 2019.4 | 2015.2 | 2011.1 | 2017.3 |
| 15° | 2004.9 | 1998.6 | 1992.4 | 1986.2 | 1994.5 |
| 17.5° | 1977.9 | 1969.6 | 1965.5 | 1961.3 | 1967.5 |
| 20° | 1946.8 | 1940.6 | 1932.3 | 1930.2 | 1936.4 |
| 22.5° | 1915.7 | 1903.3 | 1899.1 | 1892.9 | 1901.2 |
| 25° | 1876.3 | 1865.9 | 1859.7 | 1855.6 | 1861.8 |
| 27.5° | 1836.9 | 1826.6 | 1818.3 | 1814.1 | 1820.3 |
| 30° | 1795.5 | 1783.0 | 1774.7 | 1766.4 | 1772.7 |
| 32.5° | 1747.8 | 1735.3 | 1725.0 | 1716.7 | 1720.8 |
| 35° | 1695.9 | 1685.6 | 1675.2 | 1662.8 | 1666.9 |
| 37.5° | 1644.1 | 1633.7 | 1619.2 | 1608.9 | 1613.0 |
| 40° | 1590.2 | 1579.8 | 1559.1 | 1552.9 | 1557.0 |
| 42.5° | 1532.2 | 1519.7 | 1499.0 | 1492.8 | 1496.9 |
| 45° | 1470.0 | 1457.5 | 1436.8 | 1430.6 | 1436.8 |
| 47.5° | 1407.8 | 1393.2 | 1370.4 | 1366.3 | 1374.6 |
| 50° | 1339.3 | 1324.8 | 1302.0 | 1299.9 | 1304.1 |
| 52.5° | 1268.8 | 1252.3 | 1233.6 | 1227.4 | 1233.6 |
| 55° | 1196.3 | 1183.8 | 1159.0 | 1152.7 | 1161.0 |
| 57.5° | 1119.6 | 1100.9 | 1080.2 | 1074.0 | 1082.3 |
| 60° | 1034.6 | 1018.0 | 995.2 | 993.1 | 1007.6 |
| 62.5° | 957.9 | 935.0 | 912.2 | 910.2 | 926.8 |
| 65° | 866.6 | 845.9 | 823.1 | 831.4 | 841.8 |
| 67.5° | 773.3 | 756.7 | 736.0 | 742.2 | 752.6 |
| 70° | 684.2 | 663.4 | 648.9 | 644.8 | 636.5 |
| 72.5° | 590.9 | 574.3 | 566.0 | 532.8 | 522.5 |
| 75° | 495.5 | 476.9 | 468.6 | 416.7 | 398.1 |
| 77.5° | 396.0 | 387.7 | 367.0 | 315.1 | 308.9 |
| 80° | 306.8 | 302.7 | 257.1 | 261.2 | 267.5 |
| 82.5° | 213.5 | 211.5 | 197.0 | 192.8 | 190.7 |
| 85° | 128.5 | 122.3 | 122.3 | 120.3 | 116.1 |
| 87.5° | 51.8 | 56.0 | 53.9 | 51.8 | 53.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)