

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: P184457

Luminaire Tested: **66EN-LD2-25-UNV-L835-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34466)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: 66EN-LD2-25-UNV-L835-CD1-U
Description: METALUX ENCOUNTER 600X600 TROFFER

Light Source: EATON LED 3500K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2490.2 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

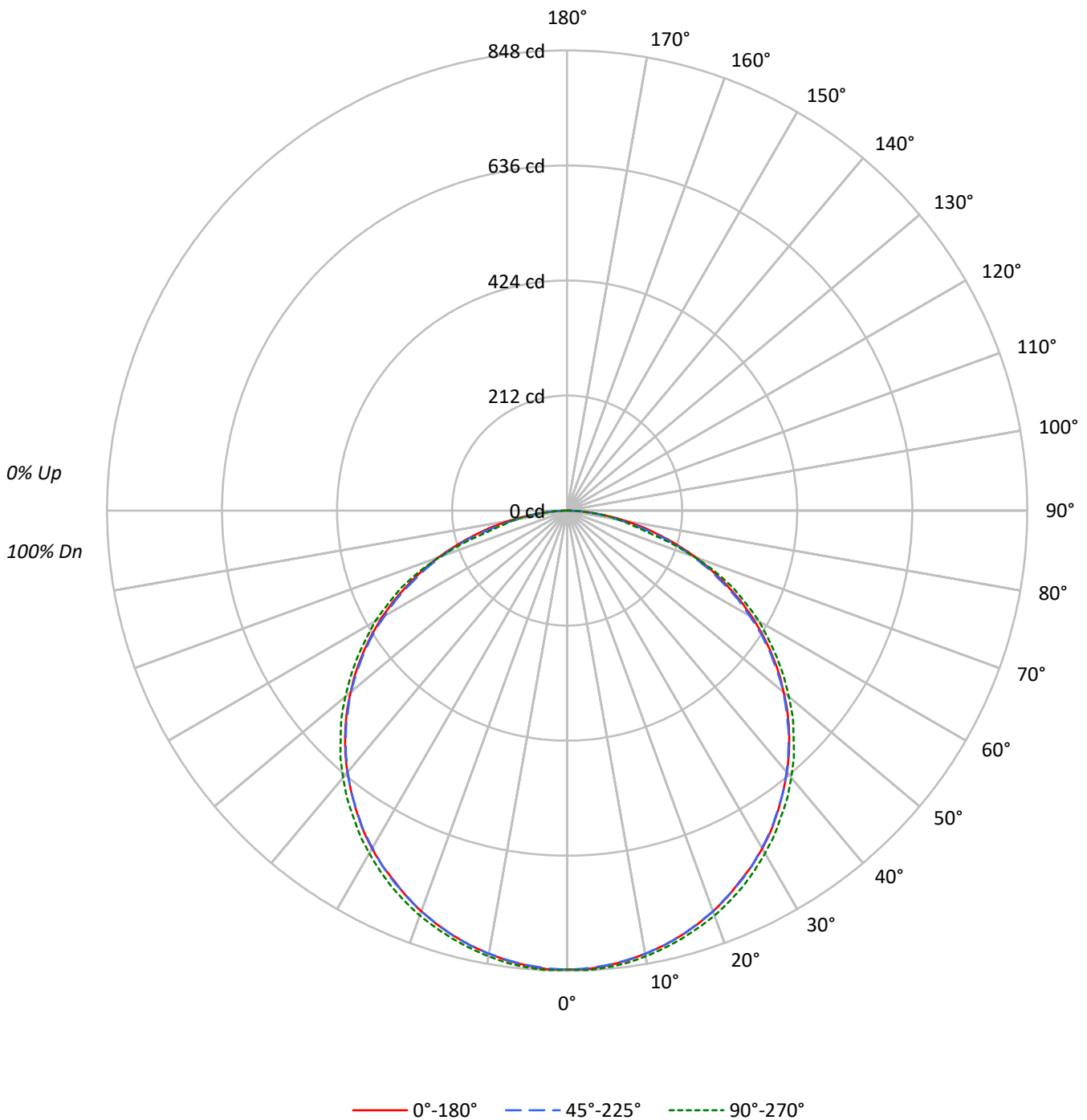
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 69 | 56 | 47 | 40 | 68 | 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° | 2276 | 2276 | 2276 |
| 5° | 2274 | 2271 | 2283 |
| 10° | 2266 | 2266 | 2279 |
| 15° | 2259 | 2259 | 2275 |
| 20° | 2251 | 2251 | 2274 |
| 25° | 2237 | 2242 | 2272 |
| 30° | 2235 | 2230 | 2266 |
| 35° | 2223 | 2220 | 2259 |
| 40° | 2213 | 2210 | 2257 |
| 45° | 2201 | 2195 | 2245 |
| 50° | 2181 | 2177 | 2233 |
| 55° | 2158 | 2143 | 2213 |
| 60° | 2122 | 2090 | 2198 |
| 65° | 2059 | 2022 | 2149 |
| 70° | 1987 | 1941 | 1961 |
| 75° | 1854 | 1768 | 1568 |
| 80° | 1666 | 1446 | 1550 |
| 85° | 1235 | 1260 | 1288 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.0 | 3.2 |
| 10°-20° | 229.2 | 9.2 |
| 20°-30° | 349.0 | 14.0 |
| 30°-40° | 424.9 | 17.1 |
| 40°-50° | 447.7 | 18.0 |
| 50°-60° | 411.8 | 16.5 |
| 60°-70° | 319.9 | 12.8 |
| 70°-80° | 179.3 | 7.2 |
| 80°-90° | 48.5 | 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° | 658.2 | 26.4 |
| 0°-40° | 1083.1 | 43.5 |
| 0°-60° | 1942.6 | 78.0 |
| 0°-90° | 2490.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2490.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 846 | 846 | 846 | 846 | 846 | |
| 5° | 842 | 841 | 841 | 843 | 845 | 80 |
| 15° | 811 | 810 | 811 | 814 | 817 | 229 |
| 25° | 753 | 753 | 755 | 759 | 765 | 348 |
| 35° | 677 | 675 | 676 | 682 | 688 | 424 |
| 45° | 578 | 578 | 577 | 583 | 590 | 446 |
| 55° | 460 | 458 | 457 | 463 | 472 | 411 |
| 65° | 323 | 321 | 318 | 327 | 338 | 320 |
| 75° | 178 | 176 | 170 | 156 | 151 | 189 |
| 85° | 40 | 40 | 41 | 41 | 42 | 50 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 845.9 | 845.9 | 845.9 | 845.9 | 845.9 |
| 2.5° | 845.9 | 845.1 | 844.2 | 845.9 | 847.6 |
| 5° | 841.7 | 840.9 | 840.9 | 843.4 | 845.1 |
| 7.5° | 836.7 | 835.9 | 835.9 | 838.4 | 840.9 |
| 10° | 829.2 | 829.2 | 829.2 | 831.7 | 834.2 |
| 12.5° | 820.9 | 820.1 | 820.9 | 823.4 | 825.9 |
| 15° | 810.9 | 810.1 | 810.9 | 814.2 | 816.7 |
| 17.5° | 799.2 | 797.6 | 798.4 | 802.6 | 805.9 |
| 20° | 785.9 | 785.1 | 785.9 | 790.1 | 794.2 |
| 22.5° | 770.9 | 770.1 | 770.1 | 775.1 | 780.1 |
| 25° | 753.4 | 753.4 | 755.1 | 759.2 | 765.1 |
| 27.5° | 737.6 | 735.9 | 737.6 | 742.6 | 747.6 |
| 30° | 719.2 | 717.6 | 717.6 | 724.2 | 729.2 |
| 32.5° | 699.2 | 696.7 | 698.4 | 703.4 | 710.1 |
| 35° | 676.7 | 675.0 | 675.9 | 681.7 | 687.6 |
| 37.5° | 653.4 | 652.5 | 653.4 | 659.2 | 666.7 |
| 40° | 630.0 | 628.4 | 629.2 | 635.9 | 642.5 |
| 42.5° | 605.0 | 604.2 | 603.4 | 610.0 | 618.4 |
| 45° | 578.4 | 577.5 | 576.7 | 583.4 | 590.0 |
| 47.5° | 550.9 | 549.2 | 548.4 | 555.0 | 564.2 |
| 50° | 520.9 | 520.9 | 520.0 | 525.0 | 533.4 |
| 52.5° | 491.7 | 490.0 | 488.4 | 494.2 | 503.4 |
| 55° | 460.0 | 458.4 | 456.7 | 463.4 | 471.7 |
| 57.5° | 427.5 | 425.9 | 424.2 | 429.2 | 439.2 |
| 60° | 394.2 | 392.5 | 388.4 | 396.7 | 408.4 |
| 62.5° | 360.0 | 356.7 | 355.0 | 362.5 | 371.7 |
| 65° | 323.4 | 320.9 | 317.5 | 326.7 | 337.5 |
| 67.5° | 288.4 | 284.2 | 282.5 | 289.2 | 296.7 |
| 70° | 252.5 | 249.2 | 246.7 | 247.5 | 249.2 |
| 72.5° | 215.0 | 213.3 | 210.8 | 203.3 | 201.7 |
| 75° | 178.3 | 175.8 | 170.0 | 155.8 | 150.8 |
| 77.5° | 143.3 | 141.7 | 130.0 | 118.3 | 120.0 |
| 80° | 107.5 | 105.8 | 93.3 | 95.8 | 100.0 |
| 82.5° | 75.0 | 70.8 | 69.2 | 68.3 | 70.8 |
| 85° | 40.0 | 40.0 | 40.8 | 40.8 | 41.7 |
| 87.5° | 16.7 | 16.7 | 18.3 | 18.3 | 18.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)