

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: P184472

Luminaire Tested: **66EN-LD2-39-UNV-L835-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184472
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-LD2-39-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: 3741.6 lumens
Efficiency: N/A
Efficacy: 112.4 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

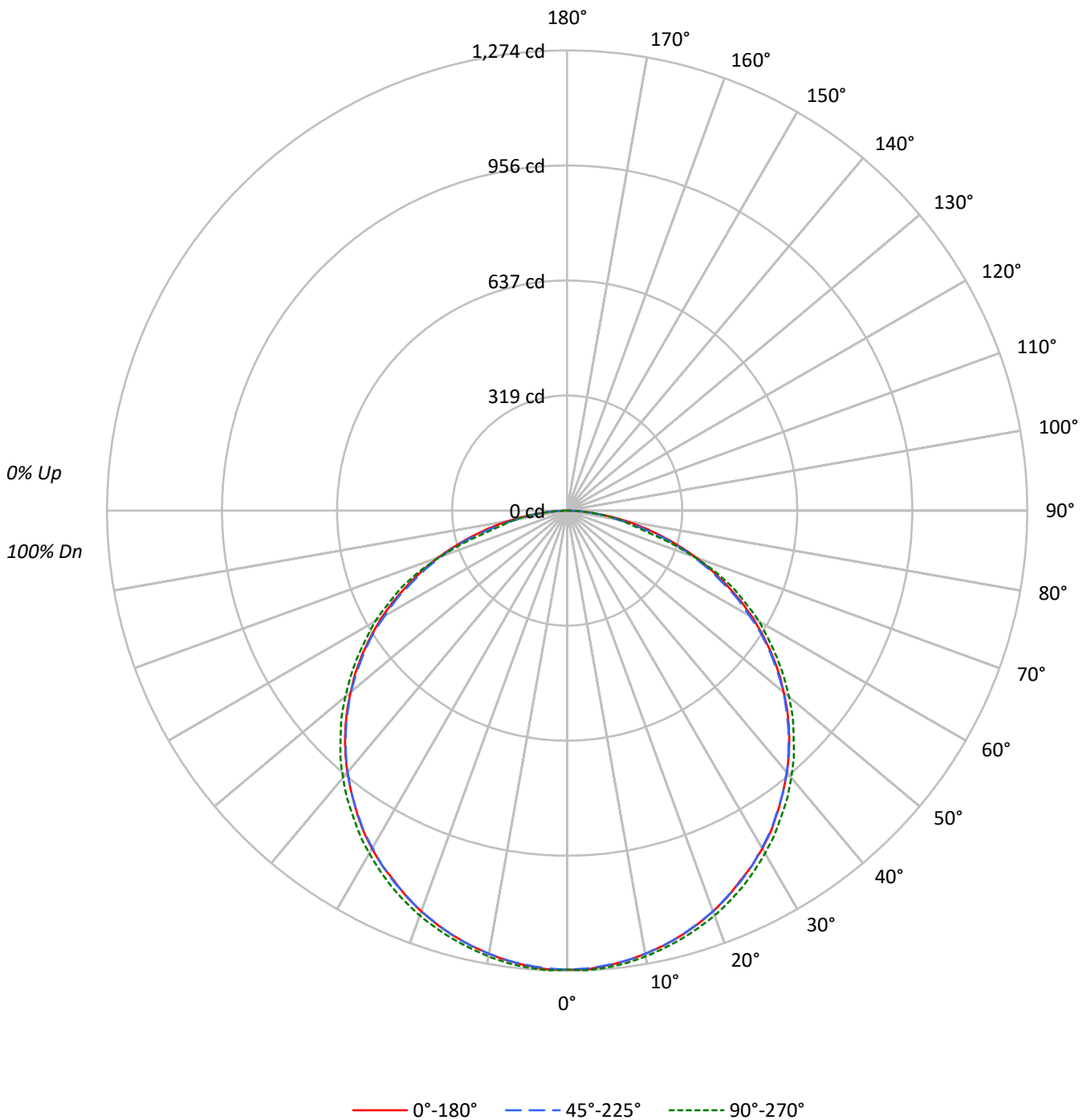
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 3420 | 3420 | 3420 |
| 5° | 3416 | 3413 | 3430 |
| 10° | 3404 | 3404 | 3425 |
| 15° | 3394 | 3394 | 3419 |
| 20° | 3381 | 3381 | 3417 |
| 25° | 3361 | 3369 | 3413 |
| 30° | 3358 | 3350 | 3405 |
| 35° | 3340 | 3336 | 3394 |
| 40° | 3326 | 3321 | 3391 |
| 45° | 3307 | 3298 | 3374 |
| 50° | 3276 | 3271 | 3355 |
| 55° | 3243 | 3219 | 3325 |
| 60° | 3188 | 3140 | 3302 |
| 65° | 3094 | 3038 | 3229 |
| 70° | 2985 | 2917 | 2946 |
| 75° | 2786 | 2655 | 2356 |
| 80° | 2503 | 2173 | 2329 |
| 85° | 1856 | 1896 | 1933 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 120.2 | 3.2 |
| 10°-20° | 344.4 | 9.2 |
| 20°-30° | 524.3 | 14.0 |
| 30°-40° | 638.4 | 17.1 |
| 40°-50° | 672.6 | 18.0 |
| 50°-60° | 618.7 | 16.5 |
| 60°-70° | 480.6 | 12.8 |
| 70°-80° | 269.4 | 7.2 |
| 80°-90° | 72.9 | 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° | 989.0 | 26.4 |
| 0°-40° | 1627.4 | 43.5 |
| 0°-60° | 2918.7 | 78.0 |
| 0°-90° | 3741.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3741.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1271 | 1271 | 1271 | 1271 | 1271 | |
| 5° | 1265 | 1264 | 1264 | 1267 | 1270 | 120 |
| 15° | 1218 | 1217 | 1218 | 1223 | 1227 | 344 |
| 25° | 1132 | 1132 | 1134 | 1141 | 1150 | 523 |
| 35° | 1017 | 1014 | 1016 | 1024 | 1033 | 636 |
| 45° | 869 | 868 | 866 | 876 | 887 | 670 |
| 55° | 691 | 689 | 686 | 696 | 709 | 617 |
| 65° | 486 | 482 | 477 | 491 | 507 | 482 |
| 75° | 268 | 264 | 255 | 234 | 227 | 284 |
| 85° | 60 | 60 | 61 | 61 | 63 | 76 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184472

CATALOG NUMBER: 66EN-LD2-39-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1271.0 | 1271.0 | 1271.0 | 1271.0 | 1271.0 |
| 2.5° | 1271.0 | 1269.7 | 1268.5 | 1271.0 | 1273.5 |
| 5° | 1264.7 | 1263.5 | 1263.5 | 1267.2 | 1269.7 |
| 7.5° | 1257.2 | 1256.0 | 1256.0 | 1259.7 | 1263.5 |
| 10° | 1245.9 | 1245.9 | 1245.9 | 1249.7 | 1253.5 |
| 12.5° | 1233.4 | 1232.2 | 1233.4 | 1237.2 | 1240.9 |
| 15° | 1218.4 | 1217.1 | 1218.4 | 1223.4 | 1227.2 |
| 17.5° | 1200.9 | 1198.4 | 1199.6 | 1205.9 | 1210.9 |
| 20° | 1180.8 | 1179.6 | 1180.8 | 1187.1 | 1193.3 |
| 22.5° | 1158.3 | 1157.0 | 1157.0 | 1164.5 | 1172.1 |
| 25° | 1132.0 | 1132.0 | 1134.5 | 1140.8 | 1149.5 |
| 27.5° | 1108.2 | 1105.7 | 1108.2 | 1115.7 | 1123.2 |
| 30° | 1080.6 | 1078.1 | 1078.1 | 1088.2 | 1095.7 |
| 32.5° | 1050.6 | 1046.8 | 1049.3 | 1056.9 | 1066.9 |
| 35° | 1016.8 | 1014.3 | 1015.5 | 1024.3 | 1033.1 |
| 37.5° | 981.7 | 980.5 | 981.7 | 990.5 | 1001.8 |
| 40° | 946.7 | 944.2 | 945.4 | 955.4 | 965.4 |
| 42.5° | 909.1 | 907.8 | 906.6 | 916.6 | 929.1 |
| 45° | 869.0 | 867.8 | 866.5 | 876.5 | 886.6 |
| 47.5° | 827.7 | 825.2 | 823.9 | 834.0 | 847.7 |
| 50° | 782.6 | 782.6 | 781.4 | 788.9 | 801.4 |
| 52.5° | 738.8 | 736.3 | 733.8 | 742.6 | 756.3 |
| 55° | 691.2 | 688.7 | 686.2 | 696.2 | 708.7 |
| 57.5° | 642.4 | 639.9 | 637.4 | 644.9 | 659.9 |
| 60° | 592.3 | 589.8 | 583.5 | 596.0 | 613.6 |
| 62.5° | 540.9 | 535.9 | 533.4 | 544.7 | 558.5 |
| 65° | 485.9 | 482.1 | 477.1 | 490.9 | 507.1 |
| 67.5° | 433.3 | 427.0 | 424.5 | 434.5 | 445.8 |
| 70° | 379.4 | 374.4 | 370.7 | 371.9 | 374.4 |
| 72.5° | 323.1 | 320.6 | 316.8 | 305.5 | 303.0 |
| 75° | 268.0 | 264.2 | 255.4 | 234.2 | 226.6 |
| 77.5° | 215.4 | 212.9 | 195.3 | 177.8 | 180.3 |
| 80° | 161.5 | 159.0 | 140.2 | 144.0 | 150.3 |
| 82.5° | 112.7 | 106.4 | 103.9 | 102.7 | 106.4 |
| 85° | 60.1 | 60.1 | 61.4 | 61.4 | 62.6 |
| 87.5° | 25.0 | 25.0 | 27.5 | 27.5 | 27.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)