

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 236P184

Luminaire Tested: **I8-332-UNV-EB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P184
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I8-332-UNV-EB81
Description: I8 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM
DISTRIBUTION REFLECTOR
Light Source: THREE 32-WATT T8 LAMPS - 3000 LUMENS EA - PHILIPS - F32T8/TL835
Ballast/Driver: GE PROLINE GE-432-MV-N

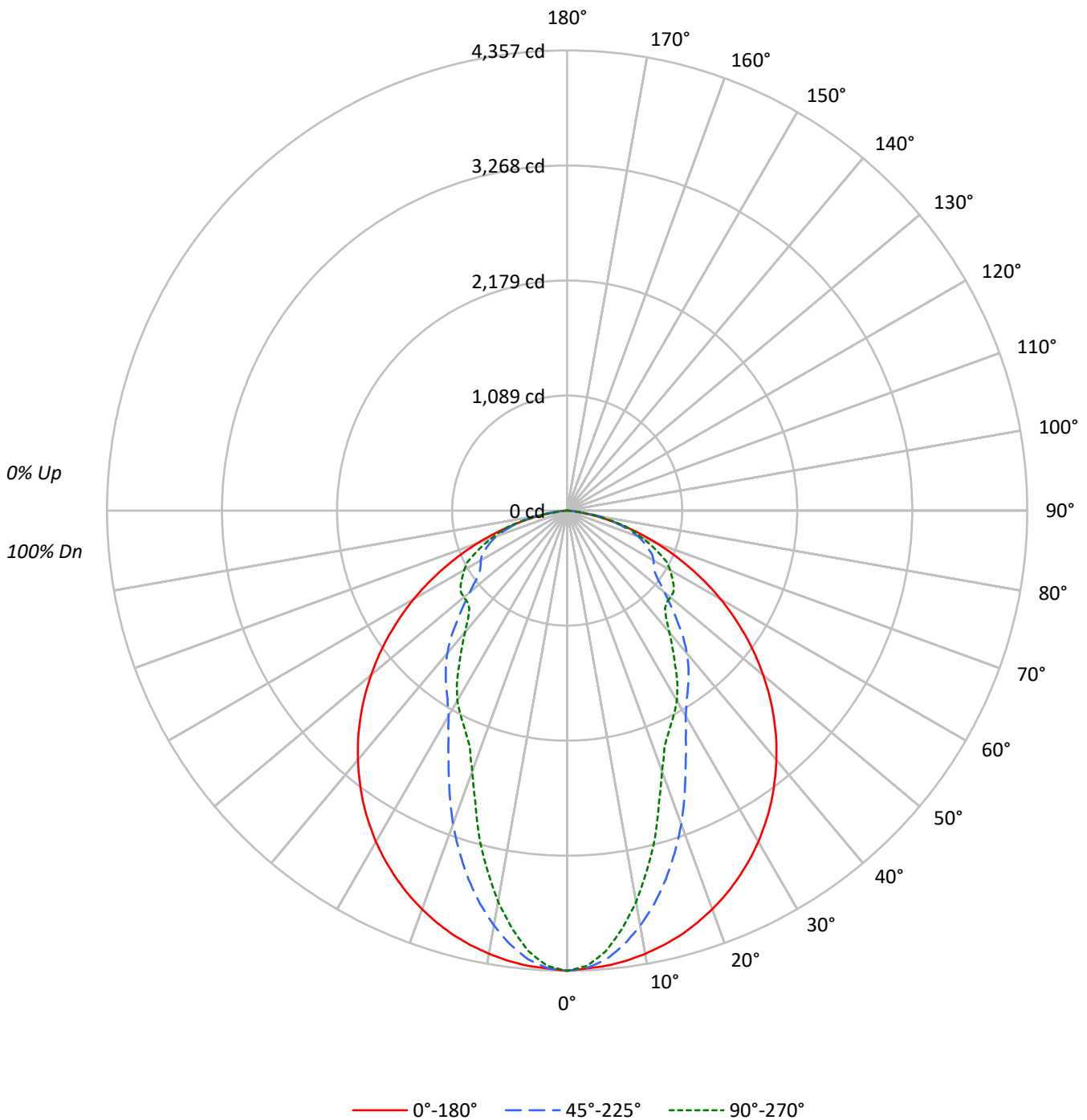
Summary

Lumens per Lamp: 3000 (3 lamps)
Luminaire Lumens: 8056.9 lumens
Efficiency: 89.5%
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.73 / 0.99
Luminous Opening: Rectangular (W 0.84' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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 | 107 | 107 | 107 | 107 | 104 | 104 | 104 | 104 | 99 | 99 | 99 | 95 | 95 | 95 | 91 | 91 | 91 | 90 |
| 1 | 98 | 94 | 90 | 87 | 96 | 92 | 89 | 86 | 88 | 86 | 83 | 85 | 83 | 81 | 82 | 80 | 78 | 76 |
| 2 | 90 | 83 | 77 | 72 | 87 | 81 | 76 | 71 | 78 | 73 | 70 | 75 | 71 | 68 | 72 | 69 | 66 | 65 |
| 3 | 82 | 73 | 66 | 61 | 80 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 65 | 61 | 57 | 55 |
| 4 | 76 | 66 | 58 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 58 | 54 | 50 | 48 |
| 5 | 70 | 59 | 51 | 46 | 68 | 58 | 51 | 45 | 56 | 50 | 45 | 54 | 49 | 45 | 53 | 48 | 44 | 42 |
| 6 | 65 | 54 | 46 | 40 | 63 | 53 | 46 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 48 | 43 | 39 | 38 |
| 7 | 61 | 49 | 41 | 36 | 59 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 44 | 39 | 35 | 34 |
| 8 | 57 | 45 | 38 | 33 | 55 | 44 | 37 | 33 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 32 | 30 |
| 9 | 53 | 42 | 35 | 30 | 52 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 33 | 29 | 38 | 33 | 29 | 28 |
| 10 | 50 | 39 | 32 | 27 | 49 | 38 | 32 | 27 | 37 | 31 | 27 | 37 | 31 | 27 | 36 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13896 | 13896 | 13896 |
| 5° | 13850 | 13651 | 13411 |
| 10° | 13799 | 12918 | 12180 |
| 15° | 13736 | 11926 | 10602 |
| 20° | 13634 | 10722 | 8913 |
| 25° | 13499 | 9339 | 8051 |
| 30° | 13331 | 8264 | 7653 |
| 35° | 13117 | 7787 | 6934 |
| 40° | 12831 | 7352 | 6270 |
| 45° | 12485 | 6639 | 5904 |
| 50° | 12032 | 5964 | 6331 |
| 55° | 11449 | 5622 | 6839 |
| 60° | 10710 | 6021 | 7176 |
| 65° | 9712 | 6392 | 7290 |
| 70° | 8392 | 6667 | 7087 |
| 75° | 6605 | 6297 | 6975 |
| 80° | 4334 | 5712 | 4426 |
| 85° | 1683 | 1756 | 439 |



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CATALOG NUMBER: I8-332-UNV-EB81

ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|-----|------|-------|------|-------|------|------|
| 0°-10° | 398.3 | 4.9 | 4.4 | 0° | 4357 | 4357 | 4357 | 4357 | 4357 | |
| 10°-20° | 1019.0 | 12.6 | 11.3 | 5° | 4326 | 4311 | 4264 | 4209 | 4189 | 411 |
| 20°-30° | 1320.0 | 16.4 | 14.7 | 15° | 4160 | 3974 | 3612 | 3318 | 3211 | 1173 |
| 30°-40° | 1409.5 | 17.5 | 15.7 | 25° | 3836 | 3380 | 2654 | 2327 | 2288 | 1767 |
| 40°-50° | 1284.5 | 15.9 | 14.3 | 35° | 3369 | 2601 | 2000 | 1861 | 1781 | 2105 |
| 50°-60° | 1128.1 | 14.0 | 12.5 | 45° | 2768 | 1771 | 1472 | 1318 | 1309 | 2132 |
| 60°-70° | 887.8 | 11.0 | 9.9 | 55° | 2059 | 1202 | 1011 | 1187 | 1230 | 1839 |
| 70°-80° | 520.2 | 6.5 | 5.8 | 65° | 1287 | 668 | 847 | 956 | 966 | 1273 |
| 80°-90° | 89.6 | 1.1 | 1.0 | 75° | 536 | 394 | 511 | 556 | 566 | 577 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 46 | 89 | 48 | 22 | 12 | 82 |
| 100°-110° | 0.0 | 0.0 | 0.0 | 90° | 0 | 0 | 0 | 0 | 0 | |
| 110°-120° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 120°-130° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 130°-140° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 140°-150° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 150°-160° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 160°-170° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 170°-180° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 0°-30° | 2737.3 | 34.0 | 30.4 | | | | | | | |
| 0°-40° | 4146.7 | 51.5 | 46.1 | | | | | | | |
| 0°-60° | 6559.4 | 81.4 | 72.9 | | | | | | | |
| 0°-90° | 8056.9 | 100.0 | 89.5 | | | | | | | |
| 90°-120° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-150° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-180° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 0°-180° | 8056.9 | 100.0 | 89.5 | | | | | | | |



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CATALOG NUMBER: I8-332-UNV-EB81

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 4357 | 4357 | 4357 | 4357 | 4357 |
| 2.5° | 4340 | 4343 | 4335 | 4322 | 4316 |
| 5° | 4326 | 4311 | 4264 | 4209 | 4189 |
| 7.5° | 4298 | 4258 | 4143 | 4032 | 3992 |
| 10° | 4261 | 4186 | 3989 | 3821 | 3761 |
| 12.5° | 4215 | 4090 | 3812 | 3580 | 3489 |
| 15° | 4160 | 3974 | 3612 | 3318 | 3211 |
| 17.5° | 4093 | 3845 | 3391 | 3029 | 2892 |
| 20° | 4017 | 3704 | 3159 | 2744 | 2626 |
| 22.5° | 3932 | 3549 | 2906 | 2506 | 2410 |
| 25° | 3836 | 3380 | 2654 | 2327 | 2288 |
| 27.5° | 3733 | 3200 | 2433 | 2222 | 2185 |
| 30° | 3620 | 3011 | 2244 | 2114 | 2078 |
| 32.5° | 3499 | 2810 | 2109 | 2000 | 1943 |
| 35° | 3369 | 2601 | 2000 | 1861 | 1781 |
| 37.5° | 3228 | 2387 | 1887 | 1700 | 1637 |
| 40° | 3082 | 2172 | 1766 | 1561 | 1506 |
| 42.5° | 2929 | 1960 | 1625 | 1431 | 1388 |
| 45° | 2768 | 1771 | 1472 | 1318 | 1309 |
| 47.5° | 2599 | 1605 | 1331 | 1242 | 1282 |
| 50° | 2425 | 1462 | 1202 | 1212 | 1276 |
| 52.5° | 2245 | 1333 | 1090 | 1207 | 1269 |
| 55° | 2059 | 1202 | 1011 | 1187 | 1230 |
| 57.5° | 1870 | 1069 | 970 | 1137 | 1177 |
| 60° | 1679 | 926 | 944 | 1082 | 1125 |
| 62.5° | 1484 | 791 | 908 | 1028 | 1067 |
| 65° | 1287 | 668 | 847 | 956 | 966 |
| 67.5° | 1091 | 567 | 786 | 851 | 860 |
| 70° | 900 | 496 | 715 | 749 | 760 |
| 72.5° | 713 | 446 | 611 | 649 | 660 |
| 75° | 536 | 394 | 511 | 556 | 566 |
| 77.5° | 375 | 330 | 416 | 424 | 403 |
| 80° | 236 | 252 | 311 | 265 | 241 |
| 82.5° | 122 | 171 | 165 | 117 | 98 |
| 85° | 46 | 89 | 48 | 22 | 12 |
| 87.5° | 14 | 14 | 7 | 5 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)