

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: iO LED

Report Number: P295358

Luminaire Tested: **LM-05L-935-120-UNV-S-STD-2F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1813892A001)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: LM-05L-935-120-UNV-S-STD-2F
Description: CoviO LED ARCHITECTURAL COVE LUMINAIRE.
500 LUMENS PER FOOT, 24 INCH FIXTURE.
Light Source: (90) 3500K CCT, 90 CRI LEDS
Ballast/Driver: INTEGRAL ELECTRONIC DRIVER

Summary

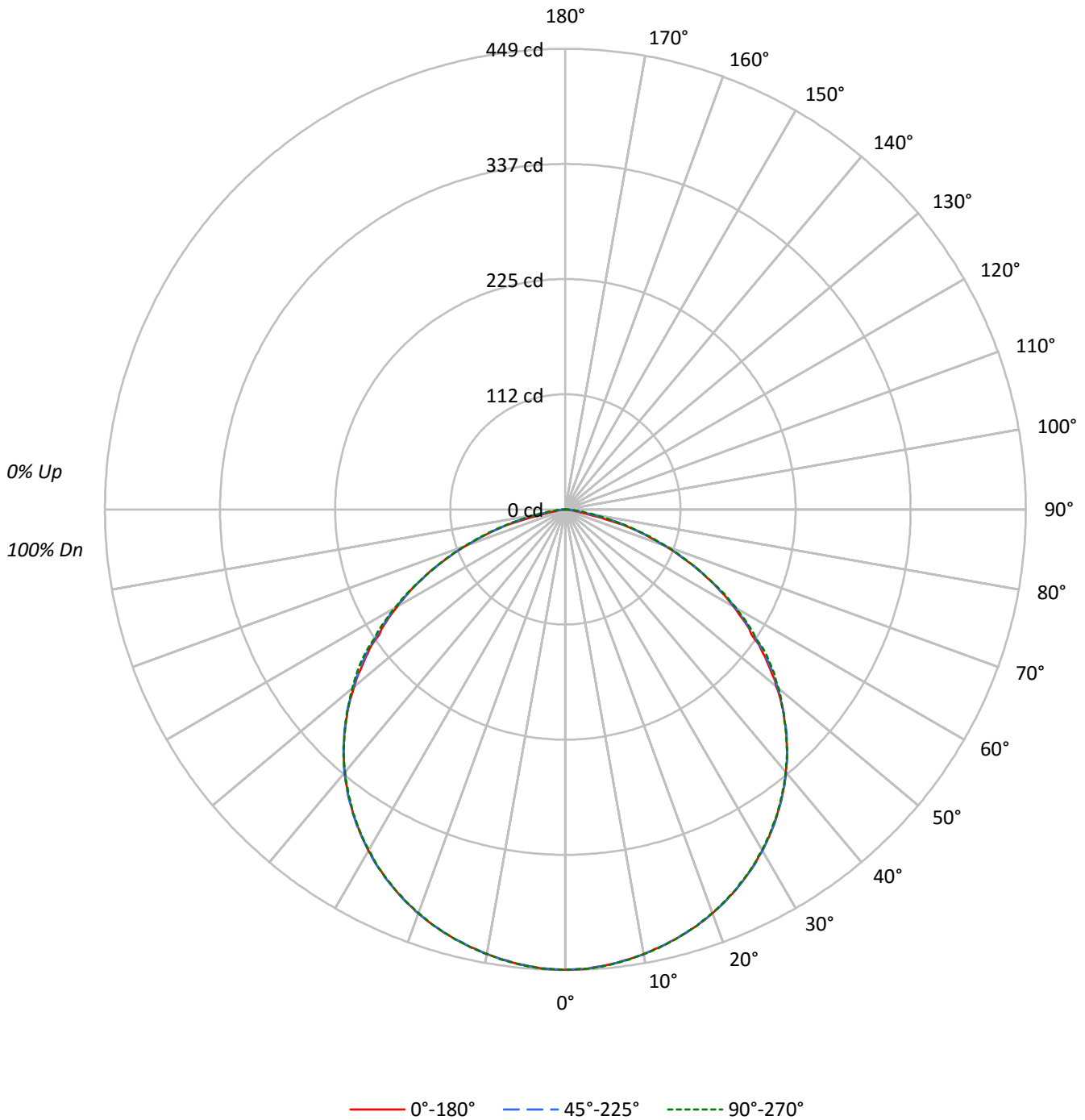
Lumens per Lamp: N/A
Luminaire Lumens: 1231.9 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Rectangular (W 0.04m x L: 0.6m x H: 0m)
CIE Type: Direct

Input Watts (W): 9.9
Input Voltage (V): 120
Input Current (A_{in}): 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 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 88 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 83 | 79 | 76 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 56 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 58 | 54 | 52 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 48 | 59 | 53 | 48 | 57 | 52 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 42 | 53 | 47 | 42 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 38 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 33 | 46 | 38 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 40 | 33 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19522 | 19522 | 19522 |
| 5° | 19483 | 19489 | 19500 |
| 10° | 19434 | 19445 | 19456 |
| 15° | 19418 | 19415 | 19413 |
| 20° | 19400 | 19397 | 19386 |
| 25° | 19356 | 19363 | 19332 |
| 30° | 19287 | 19299 | 19257 |
| 35° | 19180 | 19188 | 19169 |
| 40° | 19005 | 19030 | 18976 |
| 45° | 18713 | 18719 | 18700 |
| 50° | 18190 | 18284 | 18352 |
| 55° | 17480 | 17601 | 17806 |
| 60° | 16477 | 16577 | 16746 |
| 65° | 15191 | 15155 | 15212 |
| 70° | 13023 | 13042 | 13265 |
| 75° | 9916 | 10243 | 10386 |
| 80° | 2505 | 5110 | 6813 |
| 85° | 1148 | 1447 | 3094 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 42.4 | 3.4 |
| 10°-20° | 121.8 | 9.9 |
| 20°-30° | 185.9 | 15.1 |
| 30°-40° | 225.9 | 18.3 |
| 40°-50° | 234.5 | 19.0 |
| 50°-60° | 206.9 | 16.8 |
| 60°-70° | 145.6 | 11.8 |
| 70°-80° | 63.0 | 5.1 |
| 80°-90° | 6.0 | 0.5 |
| 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° | 350.1 | 28.4 |
| 0°-40° | 576.0 | 46.8 |
| 0°-60° | 1017.3 | 82.6 |
| 0°-90° | 1231.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1231.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 449 | 449 | 449 | 449 | 449 | |
| 5° | 446 | 446 | 446 | 447 | 447 | 42 |
| 15° | 431 | 431 | 431 | 431 | 431 | 122 |
| 25° | 403 | 403 | 403 | 403 | 403 | 186 |
| 35° | 361 | 361 | 361 | 361 | 361 | 226 |
| 45° | 304 | 304 | 304 | 304 | 304 | 234 |
| 55° | 230 | 231 | 232 | 234 | 235 | 205 |
| 65° | 148 | 147 | 147 | 148 | 148 | 145 |
| 75° | 59 | 61 | 61 | 61 | 62 | 57 |
| 85° | 2 | 3 | 3 | 4 | 6 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 30° | 60° | 90° |
|-----|-------|-------|-------|-------|
| 0° | 448.8 | 448.8 | 448.8 | 448.8 |
| 1° | 448.8 | 448.6 | 448.6 | 448.6 |
| 2° | 448.6 | 448.4 | 448.3 | 448.4 |
| 3° | 448.0 | 447.8 | 448.0 | 448.2 |
| 4° | 447.1 | 447.1 | 447.4 | 447.4 |
| 5° | 446.2 | 446.2 | 446.5 | 446.6 |
| 6° | 445.2 | 445.1 | 445.5 | 445.6 |
| 7° | 444.2 | 444.0 | 444.4 | 444.5 |
| 8° | 442.8 | 442.7 | 443.1 | 443.4 |
| 9° | 441.6 | 441.5 | 441.6 | 441.8 |
| 10° | 440.0 | 440.1 | 440.4 | 440.5 |
| 11° | 438.4 | 438.5 | 438.7 | 438.8 |
| 12° | 436.8 | 436.8 | 437.0 | 437.2 |
| 13° | 435.0 | 435.0 | 435.2 | 435.0 |
| 14° | 433.1 | 433.1 | 433.2 | 433.4 |
| 15° | 431.2 | 431.2 | 431.1 | 431.1 |
| 16° | 429.2 | 429.0 | 428.9 | 429.1 |
| 17° | 426.8 | 426.8 | 426.8 | 426.7 |
| 18° | 424.4 | 424.4 | 424.2 | 424.4 |
| 19° | 422.0 | 421.7 | 421.8 | 421.6 |
| 20° | 419.1 | 419.1 | 419.0 | 418.8 |
| 21° | 416.2 | 416.3 | 416.2 | 416.0 |
| 22° | 413.2 | 413.5 | 413.2 | 413.0 |
| 23° | 410.1 | 410.2 | 410.1 | 409.6 |
| 24° | 406.8 | 406.8 | 406.9 | 406.6 |
| 25° | 403.3 | 403.5 | 403.4 | 402.8 |
| 26° | 399.8 | 400.0 | 399.9 | 399.4 |
| 27° | 395.8 | 396.1 | 396.2 | 395.8 |
| 28° | 392.4 | 392.4 | 392.3 | 392.0 |
| 29° | 388.0 | 388.3 | 388.4 | 387.6 |
| 30° | 384.0 | 384.2 | 384.3 | 383.4 |
| 31° | 379.8 | 379.8 | 380.0 | 379.2 |
| 32° | 375.2 | 375.5 | 375.6 | 374.8 |
| 33° | 370.8 | 371.0 | 370.9 | 370.2 |
| 34° | 366.0 | 366.3 | 366.2 | 365.3 |
| 35° | 361.2 | 361.5 | 361.2 | 361.0 |
| 36° | 356.0 | 356.4 | 356.2 | 355.4 |
| 37° | 351.2 | 351.4 | 351.0 | 350.5 |
| 38° | 345.6 | 346.2 | 345.8 | 345.0 |
| 39° | 340.4 | 340.7 | 340.2 | 339.8 |
| 40° | 334.7 | 335.3 | 335.0 | 334.2 |
| 41° | 329.0 | 329.3 | 329.0 | 328.5 |
| 42° | 323.0 | 323.6 | 323.1 | 322.9 |
| 43° | 316.9 | 317.3 | 317.1 | 316.7 |
| 44° | 310.5 | 311.0 | 310.8 | 310.2 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 30° | 60° | 90° |
|-----|-------|-------|-------|-------|
| 45° | 304.2 | 304.2 | 304.4 | 304.0 |
| 46° | 297.2 | 298.0 | 298.1 | 297.2 |
| 47° | 290.8 | 291.0 | 291.4 | 291.2 |
| 48° | 283.8 | 284.0 | 284.6 | 284.2 |
| 49° | 276.4 | 277.0 | 277.7 | 278.2 |
| 50° | 268.8 | 269.7 | 270.7 | 271.2 |
| 51° | 261.8 | 262.2 | 263.2 | 264.4 |
| 52° | 253.6 | 254.6 | 256.4 | 257.8 |
| 53° | 246.1 | 246.8 | 249.0 | 250.4 |
| 54° | 238.2 | 238.8 | 241.3 | 242.8 |
| 55° | 230.5 | 230.7 | 233.5 | 234.8 |
| 56° | 219.2 | 222.2 | 223.5 | 224.1 |
| 57° | 213.8 | 213.7 | 217.4 | 217.5 |
| 58° | 205.5 | 205.6 | 209.3 | 209.2 |
| 59° | 197.7 | 197.0 | 201.1 | 200.5 |
| 60° | 189.4 | 188.7 | 192.4 | 192.5 |
| 61° | 181.5 | 180.2 | 183.9 | 183.6 |
| 62° | 172.9 | 172.0 | 174.8 | 175.4 |
| 63° | 164.6 | 163.2 | 166.4 | 166.2 |
| 64° | 156.1 | 154.6 | 157.1 | 157.1 |
| 65° | 147.6 | 146.4 | 148.1 | 147.8 |
| 66° | 138.8 | 137.8 | 138.8 | 139.4 |
| 67° | 129.8 | 129.6 | 129.6 | 130.3 |
| 68° | 120.8 | 121.0 | 120.2 | 122.0 |
| 69° | 111.6 | 112.6 | 111.0 | 113.0 |
| 70° | 102.4 | 103.1 | 102.0 | 104.3 |
| 71° | 93.3 | 94.2 | 93.0 | 95.2 |
| 72° | 84.3 | 85.0 | 84.6 | 86.6 |
| 73° | 76.4 | 76.3 | 76.2 | 78.4 |
| 74° | 67.3 | 68.3 | 68.2 | 69.4 |
| 75° | 59.0 | 61.5 | 60.4 | 61.8 |
| 76° | 42.3 | 54.2 | 54.2 | 54.0 |
| 77° | 28.6 | 41.5 | 46.5 | 46.4 |
| 78° | 22.1 | 28.9 | 40.2 | 39.3 |
| 79° | 15.8 | 19.7 | 33.6 | 33.2 |
| 80° | 10.0 | 13.4 | 27.4 | 27.2 |
| 81° | 7.2 | 8.9 | 20.9 | 22.0 |
| 82° | 5.4 | 6.2 | 14.6 | 17.2 |
| 83° | 4.3 | 4.8 | 7.9 | 13.0 |
| 84° | 3.3 | 3.7 | 4.3 | 9.5 |
| 85° | 2.3 | 2.7 | 3.1 | 6.2 |
| 86° | 1.6 | 1.8 | 2.1 | 3.8 |
| 87° | 1.0 | 1.2 | 1.4 | 2.0 |
| 88° | 0.5 | 0.6 | 0.8 | 1.0 |
| 89° | 0.1 | 0.2 | 0.4 | 0.2 |



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CANDELA DISTRIBUTION (continued):

| | | | | |
|-----|-----|-----|-----|-----|
| | 0° | 30° | 60° | 90° |
| 90° | 0.0 | 0.0 | 0.2 | 0.0 |

(END OF REPORT)