

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: io LED

Report Number: P274475

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBCSSQ1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274475
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-19)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBCSSQ1MB
Description: PORTFOLIO 6" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE BLACK FINISH
Light Source: W2N 2000K-5000K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1418.8 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

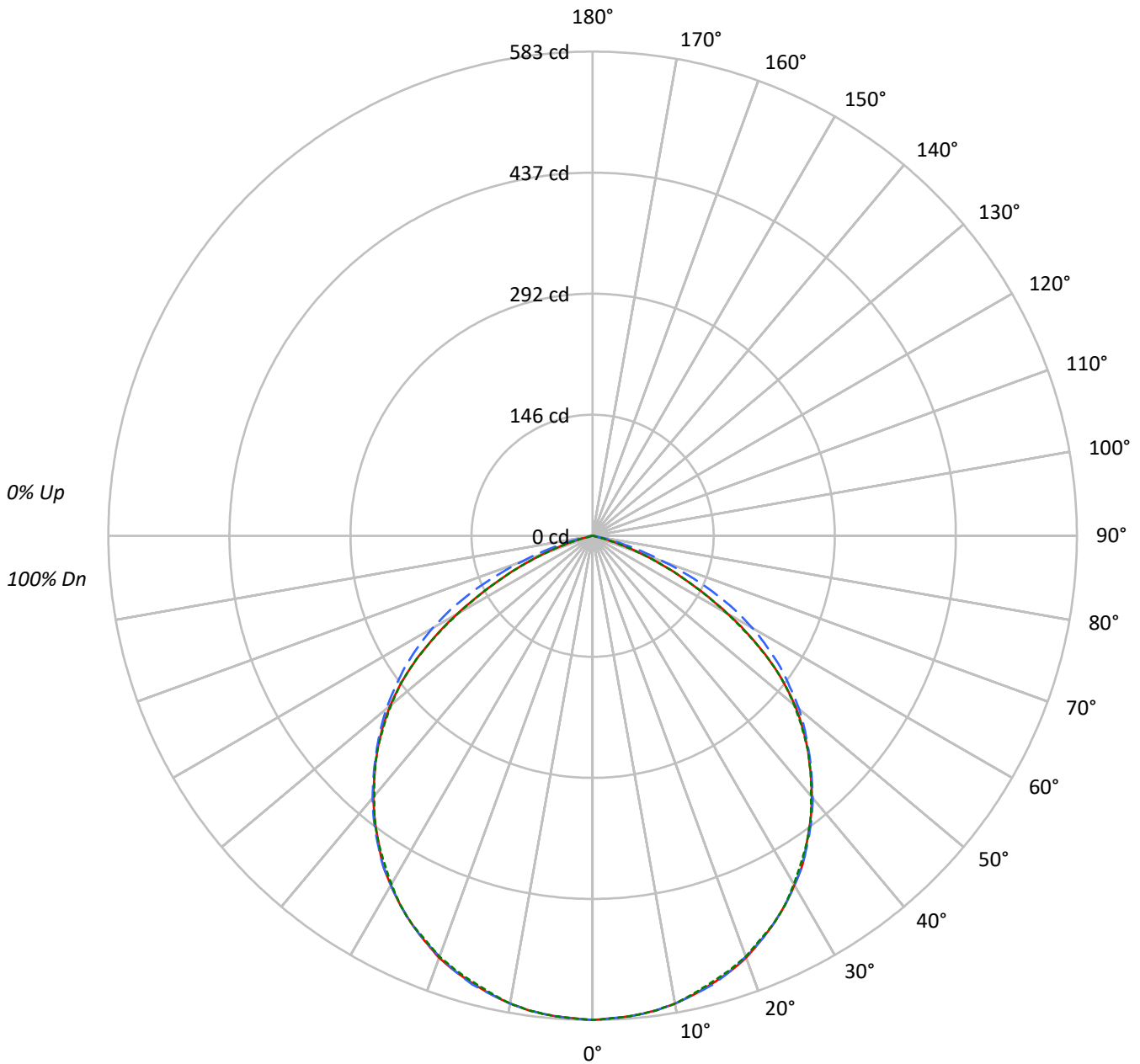
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | | | | | 100 | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | | 87 | | | |
| 2 | 102 | 94 | 88 | 83 | 99 | 93 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | | | | | 75 | | | |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 | | | | | 64 | | | |
| 4 | 86 | 75 | 67 | 60 | 84 | 73 | 66 | 60 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 56 | | | | | 56 | | | |
| 5 | 79 | 67 | 59 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 48 | | | | | 48 | | | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 8 | 63 | 50 | 42 | 36 | 62 | 50 | 42 | 36 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | 42 | 37 | 32 | 31 | | | | | 31 | | | |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 34 | 29 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 25097 | 25097 | 25097 |
| 5° | 25059 | 25059 | 25059 |
| 10° | 25008 | 25008 | 25008 |
| 15° | 24868 | 24935 | 24797 |
| 20° | 24770 | 24701 | 24701 |
| 25° | 24490 | 24490 | 24490 |
| 30° | 24152 | 24152 | 24073 |
| 35° | 23637 | 23721 | 23637 |
| 40° | 23078 | 23162 | 22988 |
| 45° | 22328 | 22420 | 22328 |
| 50° | 21307 | 21729 | 21200 |
| 55° | 19412 | 20703 | 19412 |
| 60° | 16189 | 19160 | 16060 |
| 65° | 12134 | 16280 | 12134 |
| 70° | 7692 | 11443 | 7490 |
| 75° | 2612 | 5739 | 2612 |
| 80° | 0 | 769 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 55.1 | 3.9 |
| 10°-20° | 157.5 | 11.1 |
| 20°-30° | 237.2 | 16.7 |
| 30°-40° | 281.8 | 19.9 |
| 40°-50° | 283.3 | 20.0 |
| 50°-60° | 236.9 | 16.7 |
| 60°-70° | 136.3 | 9.6 |
| 70°-80° | 30.8 | 2.2 |
| 80°-90° | 0.1 | 0.0 |
| 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° | 449.7 | 31.7 |
| 0°-40° | 731.5 | 51.6 |
| 0°-60° | 1251.7 | 88.2 |
| 0°-90° | 1418.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1418.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 583 | 583 | 583 | 583 | 583 | |
| 5° | 580 | 580 | 580 | 580 | 580 | 55 |
| 15° | 558 | 559 | 559 | 558 | 556 | 158 |
| 25° | 516 | 516 | 516 | 514 | 516 | 237 |
| 35° | 450 | 451 | 451 | 450 | 450 | 282 |
| 45° | 367 | 368 | 368 | 367 | 367 | 282 |
| 55° | 259 | 266 | 276 | 266 | 259 | 229 |
| 65° | 119 | 135 | 160 | 136 | 119 | 119 |
| 75° | 16 | 24 | 34 | 24 | 16 | 22 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P274475

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 582.9 | 582.9 | 582.9 | 582.9 | 582.9 |
| 2.5° | 581.4 | 582.9 | 581.4 | 582.9 | 581.4 |
| 5° | 579.8 | 579.8 | 579.8 | 579.8 | 579.8 |
| 7.5° | 576.7 | 576.7 | 576.7 | 576.7 | 576.7 |
| 10° | 572.0 | 572.0 | 572.0 | 570.4 | 572.0 |
| 12.5° | 565.7 | 565.7 | 565.7 | 564.1 | 564.1 |
| 15° | 557.9 | 559.4 | 559.4 | 557.9 | 556.3 |
| 17.5° | 550.0 | 550.0 | 550.0 | 548.5 | 548.5 |
| 20° | 540.6 | 539.1 | 539.1 | 539.1 | 539.1 |
| 22.5° | 528.1 | 528.1 | 528.1 | 526.5 | 526.5 |
| 25° | 515.5 | 515.5 | 515.5 | 514.0 | 515.5 |
| 27.5° | 501.4 | 499.9 | 501.4 | 499.9 | 501.4 |
| 30° | 485.8 | 485.8 | 485.8 | 485.8 | 484.2 |
| 32.5° | 470.1 | 470.1 | 470.1 | 468.5 | 467.0 |
| 35° | 449.7 | 451.3 | 451.3 | 449.7 | 449.7 |
| 37.5° | 430.9 | 432.5 | 432.5 | 430.9 | 430.9 |
| 40° | 410.6 | 412.1 | 412.1 | 412.1 | 409.0 |
| 42.5° | 388.6 | 390.2 | 390.2 | 390.2 | 388.6 |
| 45° | 366.7 | 368.2 | 368.2 | 366.7 | 366.7 |
| 47.5° | 343.2 | 344.7 | 346.3 | 344.7 | 341.6 |
| 50° | 318.1 | 321.2 | 324.4 | 321.2 | 316.5 |
| 52.5° | 289.9 | 296.2 | 299.3 | 296.2 | 289.9 |
| 55° | 258.6 | 266.4 | 275.8 | 266.4 | 258.6 |
| 57.5° | 224.1 | 236.6 | 249.2 | 235.1 | 222.5 |
| 60° | 188.0 | 203.7 | 222.5 | 202.1 | 186.5 |
| 62.5° | 152.0 | 169.2 | 192.7 | 169.2 | 152.0 |
| 65° | 119.1 | 134.8 | 159.8 | 136.3 | 119.1 |
| 67.5° | 87.8 | 103.4 | 125.4 | 103.4 | 87.8 |
| 70° | 61.1 | 73.6 | 90.9 | 73.6 | 59.5 |
| 72.5° | 36.0 | 47.0 | 61.1 | 47.0 | 34.5 |
| 75° | 15.7 | 23.5 | 34.5 | 23.5 | 15.7 |
| 77.5° | 3.1 | 6.3 | 14.1 | 7.8 | 3.1 |
| 80° | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)