

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: P#

Luminaire Tested: **LD2B20D010 EU2B20WFL559030 2LBDSQC*MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14813)
Test Lab: INNOVATION CENTER (G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B20D010 EU2B20WFL559030 2LBDSQC*MB
Description: 2000 Lumen, 2inch Portfolio LED Downlight
WIDE FLOOD OPTIC
SQUARE CAST TRIM WITH MATTE BLACK FINISH
Light Source: -
Ballast/Driver: -

Summary

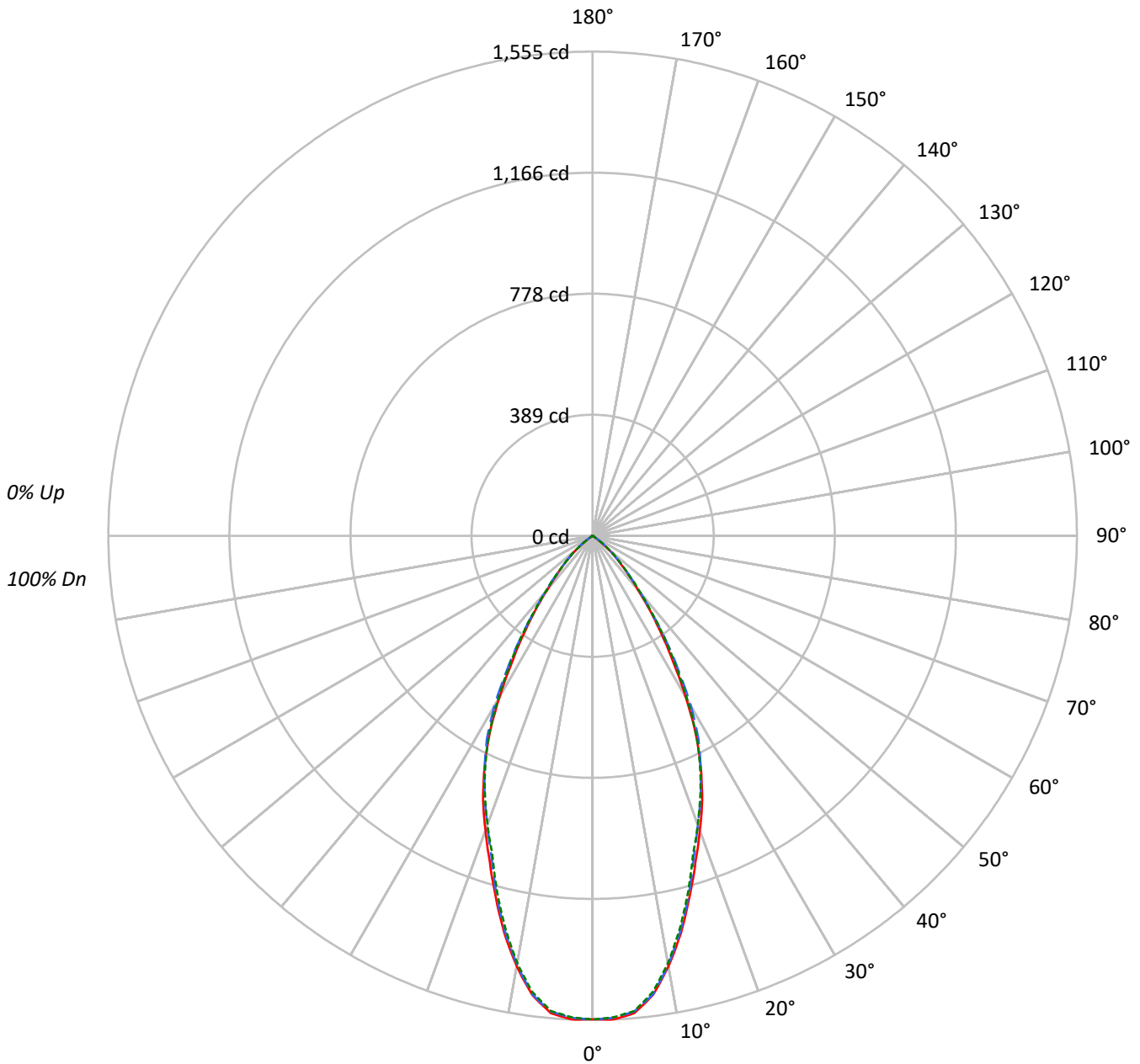
Lumens per Lamp: N/A
Luminaire Lumens: 1225.8 lumens
Efficiency: N/A
Efficacy: 58.7 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.77 / 0.83
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 20.9
Input Voltage (V): NR
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 94 | | | | | | | | | | | | | | | | | | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 94 | 98 | 95 | 92 | 95 | 93 | 90 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 95 | 90 | 86 | 92 | 88 | 85 | 89 | 86 | 84 | 87 | 85 | 82 | 81 | | | | | | | | | | | | | | | | | | | |
| 4 | 97 | 90 | 84 | 80 | 95 | 88 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 79 | 77 | 75 | | | | | | | | | | | | | | | | | | | |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 77 | 73 | 81 | 76 | 73 | 79 | 75 | 72 | 78 | 74 | 71 | 70 | | | | | | | | | | | | | | | | | | | |
| 6 | 87 | 79 | 73 | 68 | 86 | 78 | 72 | 68 | 76 | 71 | 68 | 75 | 70 | 67 | 74 | 70 | 67 | 65 | | | | | | | | | | | | | | | | | | | |
| 7 | 83 | 74 | 68 | 64 | 82 | 73 | 67 | 63 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 65 | 62 | 61 | | | | | | | | | | | | | | | | | | | |
| 8 | 79 | 70 | 64 | 59 | 78 | 69 | 63 | 59 | 68 | 63 | 59 | 67 | 62 | 59 | 66 | 62 | 58 | 57 | | | | | | | | | | | | | | | | | | | |
| 9 | 75 | 66 | 60 | 56 | 74 | 65 | 59 | 56 | 64 | 59 | 55 | 63 | 59 | 55 | 62 | 58 | 55 | 54 | | | | | | | | | | | | | | | | | | | |
| 10 | 72 | 62 | 56 | 52 | 71 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 59 | 55 | 52 | 51 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 601587 | 601587 | 601587 |
| 5° | 598364 | 596303 | 595603 |
| 10° | 552223 | 550139 | 548015 |
| 15° | 481854 | 478325 | 474756 |
| 20° | 414843 | 406805 | 406805 |
| 25° | 351228 | 350459 | 348963 |
| 30° | 267556 | 281824 | 272297 |
| 35° | 182146 | 193022 | 191367 |
| 40° | 114882 | 121152 | 120242 |
| 45° | 70994 | 71925 | 72911 |
| 50° | 36337 | 40615 | 39591 |
| 55° | 4795 | 14384 | 6010 |
| 60° | 1394 | 1394 | 1394 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 142.1 | 11.6 |
| 10°-20° | 332.1 | 27.1 |
| 20°-30° | 372.7 | 30.4 |
| 30°-40° | 253.1 | 20.6 |
| 40°-50° | 105.8 | 8.6 |
| 50°-60° | 19.8 | 1.6 |
| 60°-70° | 0.3 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 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° | 846.8 | 69.1 |
| 0°-40° | 1099.9 | 89.7 |
| 0°-60° | 1225.5 | 100.0 |
| 0°-90° | 1225.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1225.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1553 | 1553 | 1553 | 1553 | 1553 | |
| 5° | 1539 | 1537 | 1534 | 1530 | 1532 | 142 |
| 15° | 1202 | 1198 | 1193 | 1182 | 1184 | 335 |
| 25° | 822 | 829 | 820 | 818 | 816 | 372 |
| 35° | 385 | 398 | 408 | 399 | 405 | 244 |
| 45° | 130 | 128 | 131 | 133 | 133 | 103 |
| 55° | 7 | 16 | 21 | 16 | 9 | 14 |
| 65° | 0 | 0 | 0 | 0 | 0 | 1 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1553.1 | 1553.1 | 1553.1 | 1553.1 | 1553.1 |
| 2.5° | 1554.9 | 1551.3 | 1549.5 | 1547.8 | 1547.8 |
| 5° | 1538.9 | 1537.1 | 1533.6 | 1530.0 | 1531.8 |
| 7.5° | 1487.4 | 1485.6 | 1485.6 | 1478.5 | 1478.5 |
| 10° | 1404.0 | 1404.0 | 1398.7 | 1398.7 | 1393.3 |
| 12.5° | 1308.1 | 1301.0 | 1301.0 | 1295.7 | 1292.2 |
| 15° | 1201.6 | 1198.1 | 1192.8 | 1182.1 | 1183.9 |
| 17.5° | 1098.7 | 1091.6 | 1080.9 | 1075.6 | 1072.1 |
| 20° | 1006.4 | 1004.6 | 986.9 | 983.3 | 986.9 |
| 22.5° | 919.4 | 921.2 | 907.0 | 903.4 | 903.4 |
| 25° | 821.8 | 828.9 | 820.0 | 818.3 | 816.5 |
| 27.5° | 717.1 | 729.5 | 734.8 | 722.4 | 720.6 |
| 30° | 598.2 | 619.5 | 630.1 | 617.7 | 608.8 |
| 32.5° | 482.8 | 504.1 | 514.7 | 505.9 | 500.5 |
| 35° | 385.2 | 397.6 | 408.2 | 399.4 | 404.7 |
| 37.5° | 301.7 | 308.8 | 312.4 | 312.4 | 312.4 |
| 40° | 227.2 | 234.3 | 239.6 | 241.4 | 237.8 |
| 42.5° | 172.2 | 175.7 | 179.3 | 181.0 | 179.3 |
| 45° | 129.6 | 127.8 | 131.3 | 133.1 | 133.1 |
| 47.5° | 94.1 | 94.1 | 95.8 | 97.6 | 97.6 |
| 50° | 60.3 | 63.9 | 67.4 | 65.7 | 65.7 |
| 52.5° | 26.6 | 37.3 | 44.4 | 37.3 | 30.2 |
| 55° | 7.1 | 16.0 | 21.3 | 16.0 | 8.9 |
| 57.5° | 1.8 | 5.3 | 7.1 | 5.3 | 3.5 |
| 60° | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| 62.5° | 1.8 | 0.0 | 0.0 | 0.0 | 1.8 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 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)