

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: P281360

Luminaire Tested: **LDA2B208040D010 EU2B20SP158040 2LBALD1WHH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281360  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B208040D010 EU2B20SP158040 2LBALD1WHH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, WHH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2107.8 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

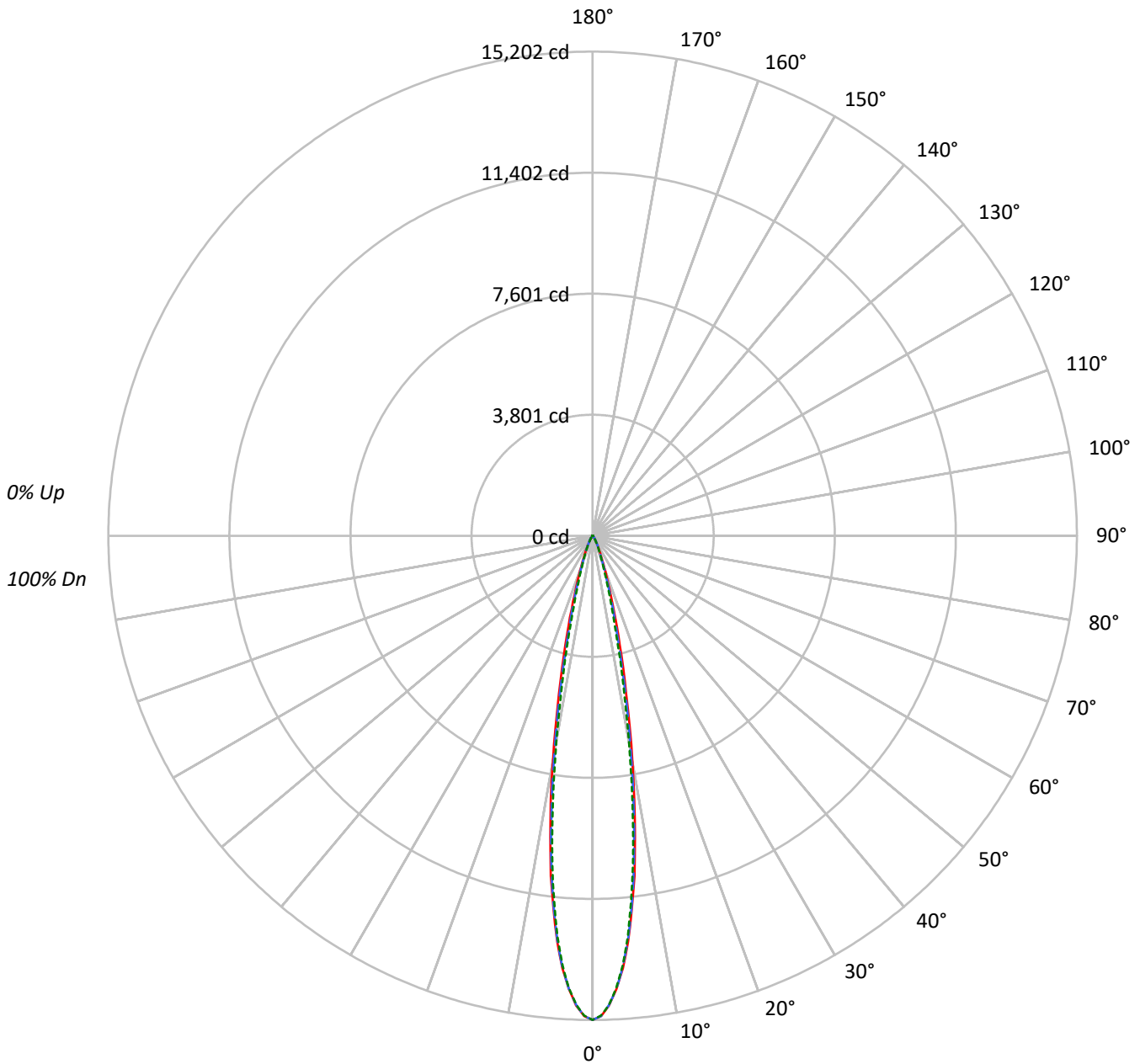
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97				97															
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95				95															
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92				92															
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	93	91	90				90															
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	93	90	89	88				88															
6	101	95	91	88	99	94	91	88	93	90	88	92	89	87	91	88	87	86				86															
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	87	85	84				84															
8	96	90	86	84	95	90	86	84	89	86	83	88	85	83	87	85	83	82				82															
9	94	88	84	82	93	88	84	82	87	84	82	86	83	81	86	83	81	80				80															
10	92	86	83	80	91	86	82	80	85	82	80	85	82	80	84	81	80	79				79															

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7499938	7499938	7499938
5°	6336727	6302901	6256398
10°	3606803	3447995	3272654
15°	1493581	1322985	1165465
20°	568182	497566	455564
25°	250952	241099	214371
30°	116102	128293	102145
35°	61072	71973	57217
40°	26792	30914	17840
45°	10396	8163	11931
50°	4912	5757	8213
55°	0	3699	0
60°	0	0	2072
65°	0	0	0
70°	0	1587	0
75°	0	0	0
80°	5966	0	0
85°	60569	54343	24341



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1016.4	48.2
10°-20°	777.0	36.9
20°-30°	216.1	10.3
30°-40°	70.2	3.3
40°-50°	15.5	0.7
50°-60°	4.7	0.2
60°-70°	2.7	0.1
70°-80°	1.6	0.1
80°-90°	3.4	0.2
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°	2009.6	95.3
0°-40°	2079.8	98.7
0°-60°	2100.0	99.6
0°-90°	2107.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2107.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15202	15202	15202	15202	15202	
5°	12795	12701	12727	12632	12633	1034
15°	2924	2823	2590	2391	2282	854
25°	461	466	443	417	394	231
35°	101	110	120	91	95	67
45°	15	21	12	12	17	15
55°	0	6	4	2	0	4
65°	0	4	0	0	0	3
75°	0	0	0	2	0	1
85°	11	5	10	5	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15201.7	15201.7	15201.7	15201.7	15201.7
1°	15085.4	15028.8	15083.3	15051.3	15069.4
2°	14757.8	14687.3	14743.9	14699.1	14736.4
3°	14247.6	14193.2	14243.4	14186.8	14216.7
4°	13608.4	13529.4	13579.5	13503.8	13521.9
5°	12795.1	12701.2	12726.8	12631.8	12632.9
6°	11770.6	11705.5	11720.4	11572.1	11561.4
7°	10768.4	10614.8	10598.7	10429.1	10396.0
8°	9551.8	9412.0	9366.1	9166.5	9096.1
9°	8385.3	8211.3	8117.4	7885.8	7803.6
10°	7199.6	7023.5	6882.6	6621.1	6532.6
11°	6102.5	5943.4	5768.4	5488.8	5402.4
12°	5084.3	4959.5	4767.4	4497.3	4406.6
13°	4252.9	4108.9	3902.9	3652.1	3574.2
14°	3532.6	3377.8	3171.8	2957.3	2805.8
15°	2924.2	2822.8	2590.2	2390.6	2281.8
16°	2389.5	2303.1	2102.5	1929.6	1852.7
17°	1959.4	1890.1	1719.3	1583.8	1519.7
18°	1616.9	1530.4	1395.9	1307.4	1257.2
19°	1311.6	1244.4	1146.2	1077.9	1027.8
20°	1082.2	1026.7	947.7	886.9	867.7
22.5°	699.0	689.4	638.2	605.1	589.1
25°	461.0	466.4	442.9	417.3	393.8
26°	393.8	397.0	375.7	360.7	330.8
27°	337.2	338.3	338.3	310.6	281.8
28°	275.3	287.1	276.4	263.6	235.9
29°	235.9	250.8	245.5	232.7	206.0
30°	203.8	214.5	225.2	204.9	179.3
32.5°	143.0	152.6	164.4	153.7	132.3
35°	101.4	109.9	119.5	90.7	95.0
37.5°	69.4	84.3	81.1	73.6	63.0
40°	41.6	43.8	48.0	51.2	27.7
42.5°	29.9	35.2	32.0	36.3	12.8
45°	14.9	21.3	11.7	11.7	17.1
47.5°	10.7	18.1	6.4	6.4	2.1
50°	6.4	13.9	7.5	3.2	10.7
52.5°	10.7	12.8	8.5	9.6	2.1
55°	0.0	6.4	4.3	2.1	0.0
57.5°	4.3	7.5	4.3	2.1	4.3
60°	0.0	0.0	0.0	1.1	2.1
62.5°	0.0	2.1	0.0	3.2	4.3
65°	0.0	4.3	0.0	0.0	0.0
67.5°	6.4	7.5	4.3	8.5	12.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	2.1	0.0
77.5°	0.0	10.7	3.2	3.2	4.3
80°	2.1	0.0	0.0	1.1	0.0
82.5°	0.0	8.5	1.1	4.3	6.4
85°	10.7	5.3	9.6	5.3	4.3
87.5°	0.0	1.1	2.1	1.1	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	0.0	1.1	1.1	0.0
72.5°	2.1	0.0	0.0	0.0	0.0



(END OF REPORT)