

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: P281342

Luminaire Tested: **LDA2B208030D010 EU2B20SP158030 2LBALD1WMH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281342  
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: LDA2B208030D010 EU2B20SP158030 2LBALD1WMH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, WMH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2002.8 lumens  
Efficiency: N/A  
Efficacy: 97.2 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

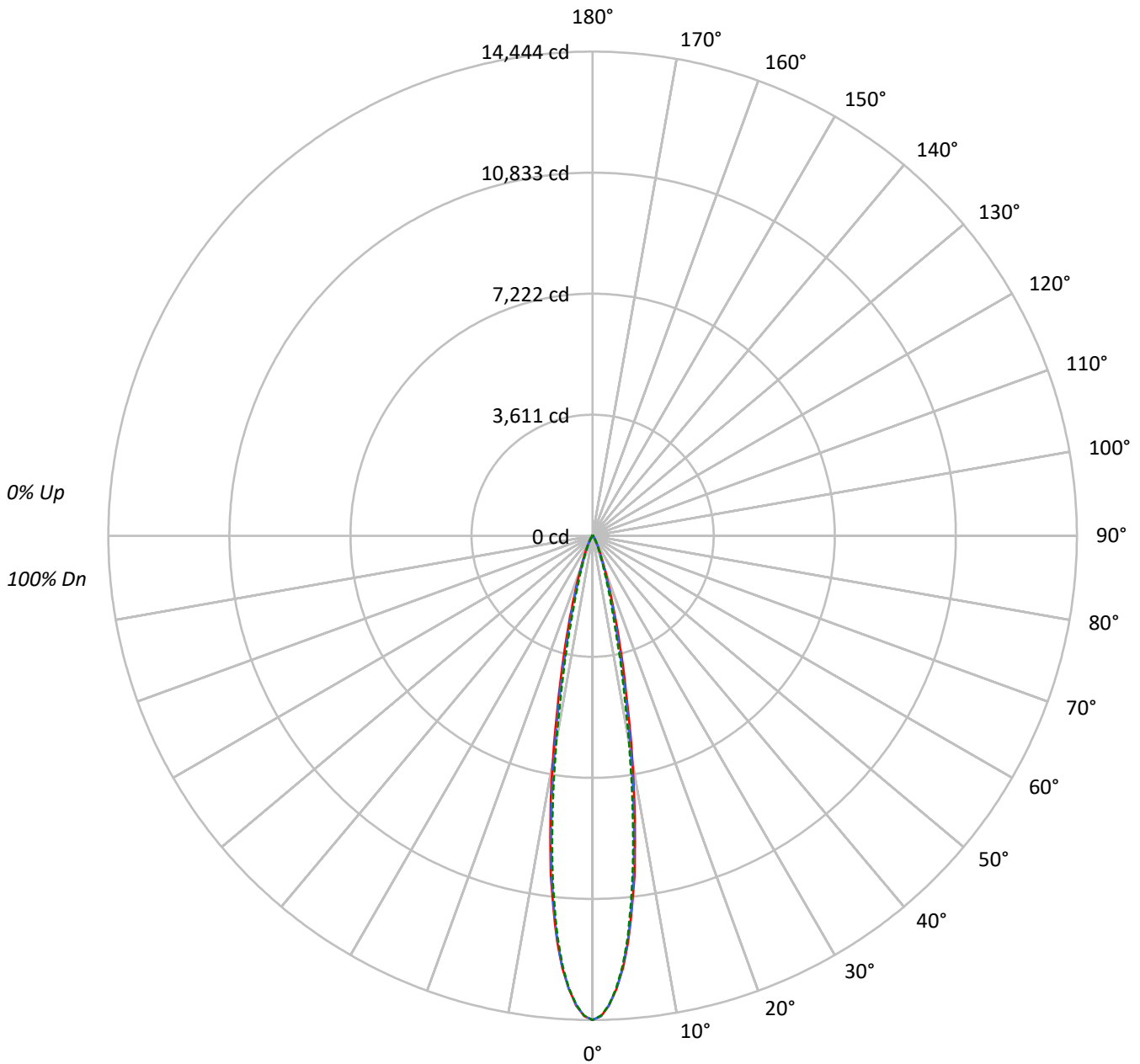
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	100	100	100	100	100		
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97	97	97	97	97		
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95	95	95	95	95	95	95		
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92	92	92	92	92	92	92		
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	93	91	90	90	90	90	90	90	90		
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	93	90	89	88	88	88	88	88	88	88		
6	101	95	91	88	99	94	91	88	93	90	88	92	89	87	91	88	87	86	86	86	86	86	86	86		
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	87	85	84	84	84	84	84	84	84		
8	96	90	86	84	95	90	86	84	89	86	83	88	85	83	87	85	83	82	82	82	82	82	82	82		
9	94	88	84	82	93	88	84	82	87	84	82	86	83	81	86	83	81	80	80	80	80	80	80	80		
10	92	86	83	80	91	86	82	80	85	82	80	85	82	80	84	81	80	79	79	79	79	79	79	79		

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

	0°	45°	90°
0°	7126167	7126167	7126167
5°	6020908	5988766	5944591
10°	3427054	3276161	3109537
15°	1419163	1257045	1107340
20°	539830	472785	432830
25°	238486	229069	203701
30°	110348	121913	97074
35°	58000	68419	54386
40°	25440	29368	17003
45°	9908	7814	11303
50°	4682	5449	7752
55°	0	3527	0
60°	0	0	1973
65°	0	0	0
70°	0	1442	0
75°	0	0	0
80°	5682	0	0
85°	57173	51512	23209



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	965.8	48.2
10°-20°	738.3	36.9
20°-30°	205.3	10.3
30°-40°	66.7	3.3
40°-50°	14.7	0.7
50°-60°	4.5	0.2
60°-70°	2.6	0.1
70°-80°	1.5	0.1
80°-90°	3.2	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°	1909.4	95.3
0°-40°	1976.2	98.7
0°-60°	1995.4	99.6
0°-90°	2002.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2002.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	14444	14444	14444	14444	14444	
5°	12157	12068	12092	12002	12003	983
15°	2778	2682	2461	2272	2168	811
25°	438	443	421	396	374	220
35°	96	104	114	86	90	63
45°	14	20	11	11	16	14
55°	0	6	4	2	0	4
65°	0	4	0	0	0	3
75°	0	0	0	2	0	1
85°	10	5	9	5	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	14444.1	14444.1	14444.1	14444.1	14444.1
1°	14333.6	14279.9	14331.6	14301.2	14318.4
2°	14022.3	13955.4	14009.1	13966.5	14002.0
3°	13537.6	13485.9	13533.5	13479.8	13508.2
4°	12930.2	12855.1	12902.8	12830.8	12848.0
5°	12157.4	12068.2	12092.5	12002.3	12003.3
6°	11184.0	11122.1	11136.3	10995.3	10985.2
7°	10231.8	10085.7	10070.5	9909.3	9877.9
8°	9075.7	8942.9	8899.3	8709.7	8642.8
9°	7967.4	7802.1	7712.9	7492.8	7414.7
10°	6840.8	6673.5	6539.6	6291.2	6207.0
11°	5798.3	5647.2	5480.9	5215.3	5133.1
12°	4830.9	4712.3	4529.8	4273.2	4187.0
13°	4041.0	3904.1	3708.4	3470.1	3396.1
14°	3356.5	3209.5	3013.8	2809.9	2665.9
15°	2778.5	2682.2	2461.1	2271.5	2168.0
16°	2270.5	2188.3	1997.7	1833.4	1760.4
17°	1861.8	1795.9	1633.6	1504.9	1444.0
18°	1536.3	1454.1	1326.4	1242.2	1194.6
19°	1246.3	1182.4	1089.1	1024.2	976.5
20°	1028.2	975.5	900.5	842.7	824.4
22.5°	664.2	655.1	606.4	575.0	559.8
25°	438.1	443.1	420.8	396.5	374.2
26°	374.2	377.2	356.9	342.7	314.4
27°	320.4	321.5	321.5	295.1	267.7
28°	261.6	272.8	262.6	250.5	224.1
29°	224.1	238.3	233.2	221.1	195.7
30°	193.7	203.8	214.0	194.7	170.4
32.5°	135.9	145.0	156.2	146.0	125.7
35°	96.3	104.4	113.6	86.2	90.3
37.5°	65.9	80.1	77.1	70.0	59.8
40°	39.5	41.6	45.6	48.7	26.4
42.5°	28.4	33.5	30.4	34.5	12.2
45°	14.2	20.3	11.2	11.2	16.2
47.5°	10.1	17.2	6.1	6.1	2.0
50°	6.1	13.2	7.1	3.0	10.1
52.5°	10.1	12.2	8.1	9.1	2.0
55°	0.0	6.1	4.1	2.0	0.0
57.5°	4.1	7.1	4.1	2.0	4.1
60°	0.0	0.0	0.0	1.0	2.0
62.5°	0.0	2.0	0.0	3.0	4.1
65°	0.0	4.1	0.0	0.0	0.0
67.5°	6.1	7.1	4.1	8.1	12.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	2.0	0.0
77.5°	0.0	10.1	3.0	3.0	4.1
80°	2.0	0.0	0.0	1.0	0.0
82.5°	0.0	8.1	1.0	4.1	6.1
85°	10.1	5.1	9.1	5.1	4.1
87.5°	0.0	1.0	2.0	1.0	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	1.0	1.0	0.0
72.5°	2.0	0.0	0.0	0.0	0.0



(END OF REPORT)