

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: P316034

Luminaire Tested: **LDA2B20SP9040D010 PINW1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P316034  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20SP9040D010 PINW1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj PinHole, White oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1712.8 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

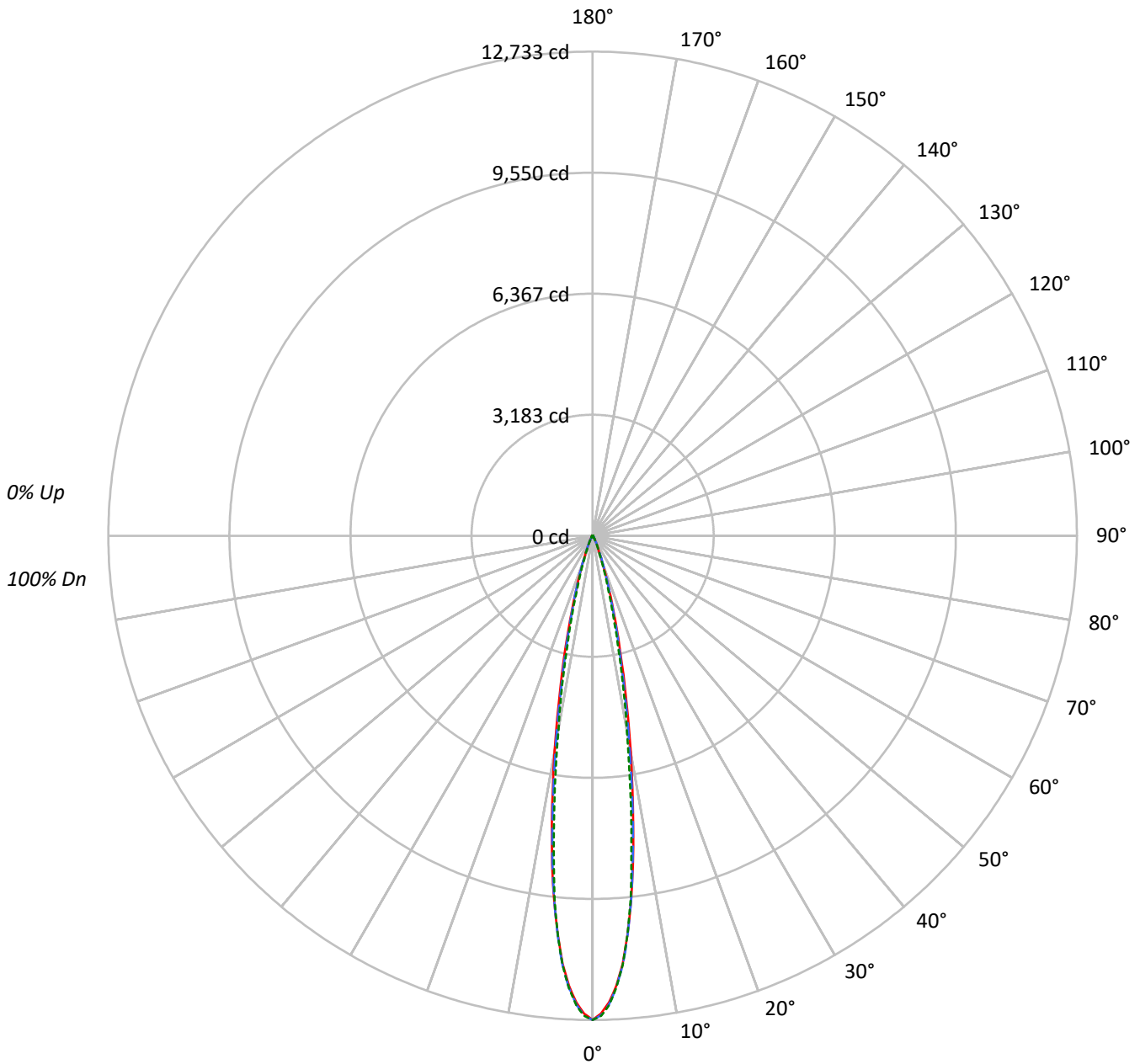
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	98	99	98	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	98	96	95	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

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

	0°	45°	90°
0°	6281778	6281778	6281778
5°	5211378	5228316	5208456
10°	2884350	2780148	2589828
15°	1167610	1116738	991549
20°	391196	414769	335806
25°	148829	149374	141371
30°	66767	65628	63406
35°	32343	28789	22947
40°	21382	27050	18870
45°	5442	8861	8163
50°	1535	2226	2993
55°	13418	11784	18493
60°	19241	15393	25063
65°	9106	23932	22764
70°	8511	7068	8511
75°	3812	9340	26115
80°	44322	61085	55403
85°	0	27737	33398



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	833.9	48.7
10°-20°	631.7	36.9
20°-30°	143.6	8.4
30°-40°	42.4	2.5
40°-50°	14.2	0.8
50°-60°	12.5	0.7
60°-70°	15.0	0.9
70°-80°	9.6	0.6
80°-90°	10.0	0.6
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°	1609.2	94.0
0°-40°	1651.6	96.4
0°-60°	1678.2	98.0
0°-90°	1712.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1712.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12733	12733	12733	12733	12733	
5°	10523	10606	10557	10419	10517	844
15°	2286	2317	2186	1981	1941	664
25°	273	294	274	272	260	143
35°	54	60	48	56	38	42
45°	8	22	13	22	12	12
55°	16	22	14	20	22	6
65°	8	17	20	20	20	8
75°	2	7	5	9	14	4
85°	0	0	5	5	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12732.6	12732.6	12732.6	12732.6	12732.6
1°	12568.6	12619.4	12614.5	12594.0	12630.1
2°	12279.5	12341.1	12335.2	12290.3	12354.7
3°	11855.7	11910.4	11901.6	11837.2	11907.5
4°	11289.4	11351.9	11327.4	11230.8	11320.6
5°	10522.8	10605.8	10557.0	10419.3	10516.9
6°	9673.2	9743.6	9666.4	9483.8	9579.5
7°	8722.1	8766.1	8664.5	8430.2	8365.7
8°	7684.1	7741.7	7600.1	7326.7	7256.4
9°	6692.0	6711.5	6539.6	6248.6	6159.8
10°	5757.5	5742.8	5549.5	5254.6	5169.6
11°	4871.8	4852.2	4648.2	4375.7	4403.1
12°	4066.2	4104.2	3867.0	3619.9	3624.8
13°	3404.1	3408.0	3203.9	2968.6	2954.9
14°	2786.9	2823.1	2648.3	2437.4	2398.3
15°	2286.0	2317.2	2186.4	1981.3	1941.3
16°	1830.0	1869.0	1775.3	1589.7	1537.0
17°	1473.5	1523.3	1461.8	1306.6	1246.0
18°	1178.6	1216.7	1202.1	1041.9	992.1
19°	930.6	983.3	987.2	853.5	793.9
20°	745.1	792.9	790.0	686.5	639.6
22.5°	427.7	453.1	454.1	405.2	377.9
25°	273.4	293.9	274.4	271.5	259.7
26°	237.3	253.9	232.4	232.4	221.7
27°	192.4	207.0	186.5	195.3	180.7
28°	162.1	177.7	160.1	158.2	156.2
29°	134.8	149.4	126.9	136.7	130.9
30°	117.2	127.9	115.2	129.9	111.3
32.5°	90.8	99.6	77.1	97.7	73.2
35°	53.7	59.6	47.8	55.7	38.1
37.5°	55.7	57.6	51.8	57.6	53.7
40°	33.2	34.2	42.0	42.0	29.3
42.5°	31.2	30.3	18.6	29.3	23.4
45°	7.8	22.5	12.7	22.5	11.7
47.5°	5.9	7.8	7.8	15.6	15.6
50°	2.0	7.8	2.9	5.9	3.9
52.5°	0.0	18.6	3.9	13.7	11.7
55°	15.6	22.5	13.7	20.5	21.5
57.5°	2.0	15.6	7.8	16.6	11.7
60°	19.5	26.4	15.6	28.3	25.4
62.5°	2.0	17.6	20.5	15.6	13.7
65°	7.8	16.6	20.5	19.5	19.5
67.5°	9.8	16.6	12.7	12.7	17.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	2.0	6.8	4.9	8.8	13.7
77.5°	2.0	7.8	6.8	15.6	11.7
80°	15.6	17.6	21.5	28.3	19.5
82.5°	13.7	13.7	21.5	15.6	11.7
85°	0.0	0.0	4.9	4.9	5.9
87.5°	0.0	3.9	9.8	7.8	13.7
90°	0.0	0.0	0.0	0.0	0.0



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







70°	5.9	2.0	4.9	4.9	5.9
72.5°	2.0	8.8	7.8	4.9	9.8



(END OF REPORT)