

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: P314846

Luminaire Tested: **LDA2B20SP9024D010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P314846  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-8)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20SP9024D010 PIN1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
Adj PinHole, Black oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1437.1 lumens  
Efficiency: N/A  
Efficacy: 69.8 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

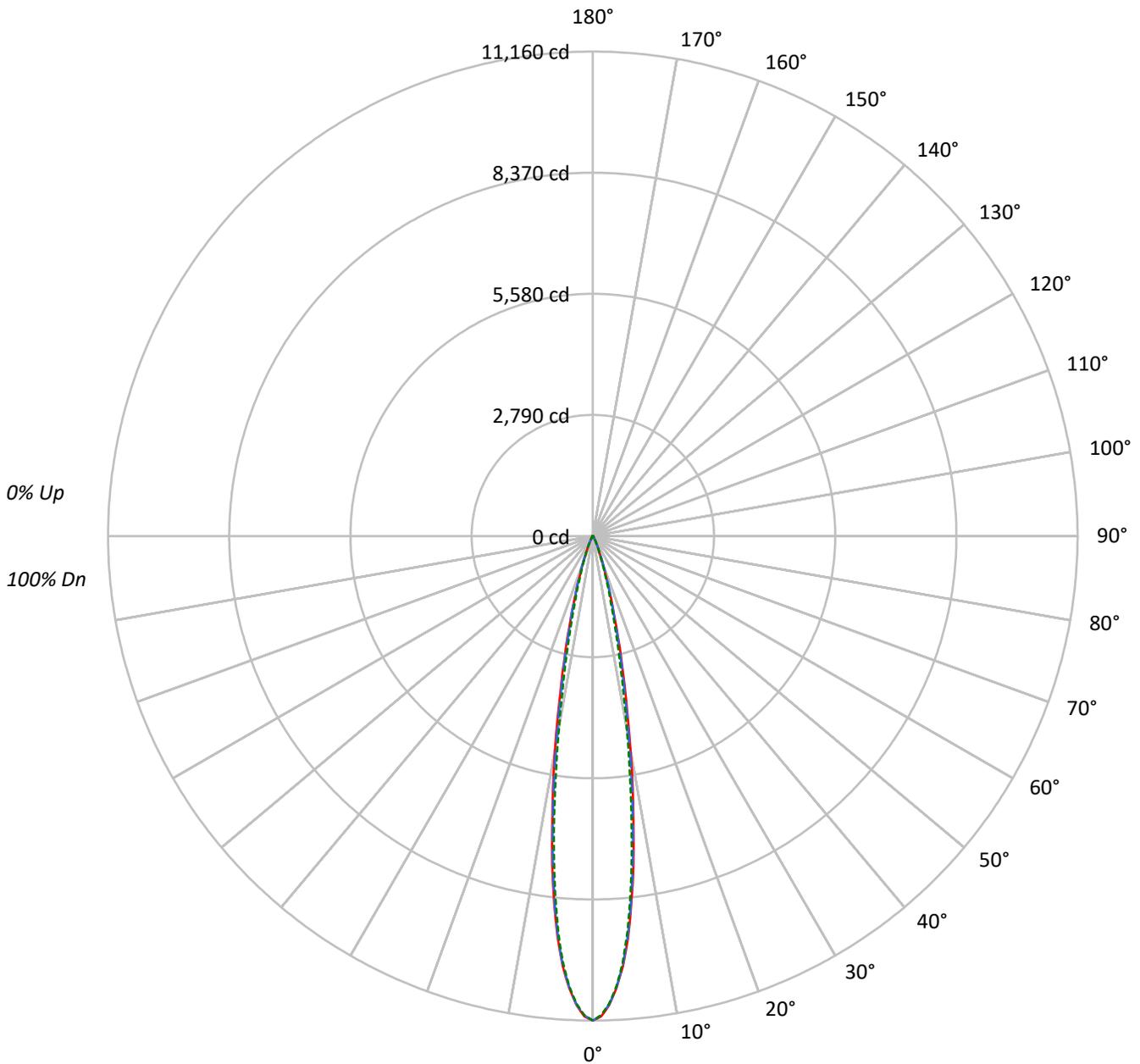
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	5505770	5505770	5505770
5°	4599848	4577810	4523630
10°	2506116	2408526	2254377
15°	993593	968259	831169
20°	333863	356754	294801
25°	115841	125149	111214
30°	42385	46258	45290
35°	27283	31921	24212
40°	14298	17067	17647
45°	13117	10117	9559
50°	7906	5219	3914
55°	0	0	0
60°	5032	5032	1677
65°	3969	1051	0
70°	0	3750	4904
75°	0	8197	0
80°	0	0	0
85°	0	5095	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	729.7	50.8
10°-20°	543.1	37.8
20°-30°	120.1	8.4
30°-40°	26.7	1.9
40°-50°	10.9	0.8
50°-60°	1.8	0.1
60°-70°	1.9	0.1
70°-80°	1.5	0.1
80°-90°	1.4	0.1
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°	1392.9	96.9
0°-40°	1419.6	98.8
0°-60°	1432.3	99.7
0°-90°	1437.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11160	11160	11160	11160	11160	
5°	9288	9250	9244	9208	9134	740
15°	1945	1939	1896	1719	1627	572
25°	213	238	230	213	204	116
35°	45	45	53	43	40	26
45°	19	15	14	14	14	11
55°	0	0	0	0	0	2
65°	3	2	1	0	0	4
75°	0	0	4	0	0	1
85°	0	1	1	3	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11159.7	11159.7	11159.7	11159.7	11159.7
1°	11068.3	11023.0	11045.2	11058.0	11039.2
2°	10810.2	10755.5	10790.5	10793.9	10775.1
3°	10425.5	10400.8	10411.9	10416.1	10378.5
4°	9933.2	9897.3	9905.0	9895.6	9849.5
5°	9288.0	9249.5	9243.5	9208.5	9134.1
6°	8499.1	8476.8	8436.7	8376.8	8277.7
7°	7653.8	7635.8	7566.6	7458.9	7344.4
8°	6727.3	6727.3	6627.3	6478.6	6347.8
9°	5850.4	5817.9	5690.5	5511.1	5384.6
10°	5002.5	4958.9	4807.7	4625.6	4500.0
11°	4200.0	4153.8	4008.5	3822.2	3706.0
12°	3506.8	3482.0	3369.2	3164.1	3047.8
13°	2921.3	2888.9	2789.7	2595.7	2496.6
14°	2411.1	2370.1	2290.6	2112.8	2016.2
15°	1945.3	1939.3	1895.7	1718.8	1627.3
16°	1589.7	1586.3	1545.3	1372.6	1335.0
17°	1276.1	1294.0	1282.0	1123.1	1080.3
18°	993.2	1029.1	1037.6	894.0	851.3
19°	799.1	833.3	847.9	722.2	686.3
20°	635.9	668.4	679.5	585.5	561.5
22.5°	360.7	404.3	406.0	357.3	332.5
25°	212.8	237.6	229.9	212.8	204.3
26°	178.6	202.6	190.6	185.5	178.6
27°	150.4	166.7	157.3	148.7	154.7
28°	124.8	135.9	126.5	129.1	119.7
29°	99.1	117.9	104.3	106.8	99.1
30°	74.4	91.5	81.2	85.5	79.5
32.5°	55.6	60.7	53.8	60.7	60.7
35°	45.3	45.3	53.0	42.7	40.2
37.5°	20.5	16.2	17.9	14.5	17.1
40°	22.2	24.8	26.5	22.2	27.4
42.5°	15.4	20.5	20.5	13.7	23.9
45°	18.8	15.4	14.5	14.5	13.7
47.5°	8.5	6.0	6.8	7.7	12.0
50°	10.3	4.3	6.8	10.3	5.1
52.5°	3.4	0.0	4.3	0.0	1.7
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.9	1.7	0.0
60°	5.1	6.0	5.1	3.4	1.7
62.5°	8.5	1.7	2.6	3.4	0.0
65°	3.4	1.7	0.9	0.0	0.0
67.5°	0.0	0.0	2.6	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	4.3	0.0	0.0
77.5°	1.7	0.0	3.4	0.0	0.0
80°	0.0	1.7	0.0	0.0	0.0
82.5°	0.0	0.0	4.3	3.4	0.0
85°	0.0	0.9	0.9	2.6	0.0
87.5°	0.0	2.6	3.4	0.9	1.7
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	2.6	1.7	3.4
72.5°	0.0	0.9	3.4	5.1	1.7



(END OF REPORT)