

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: P314848

Luminaire Tested: **LDA2B20SP9027D010 PIN1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P314848  
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: LDA2B20SP9027D010 PIN1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
Adj PinHole, Black oculus, matte metallic silver finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1548.4 lumens  
Efficiency: N/A  
Efficacy: 75.2 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

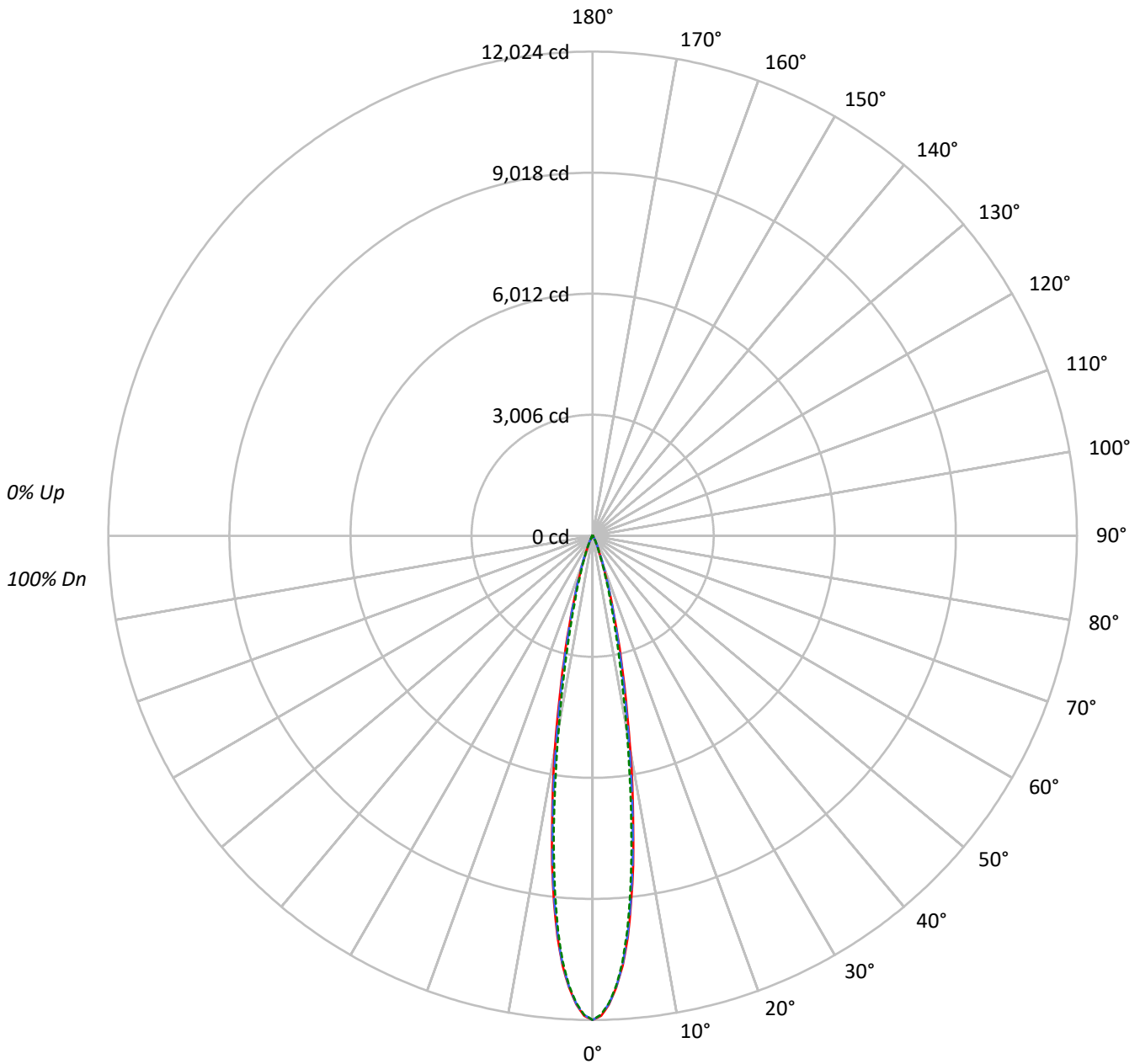
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	94	91	95	92	91	94	92	90	89				89															
6	101	96	92	90	100	95	92	90	94	91	89	93	90	89	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°	5932429	5932429	5932429
5°	4956277	4932555	4874165
10°	2700343	2595139	2429066
15°	1070565	1043290	895577
20°	359747	384371	317640
25°	124823	134839	119815
30°	45632	49847	48765
35°	29391	34390	26079
40°	15393	18355	18999
45°	14164	10954	10256
50°	8520	5680	4221
55°	0	0	0
60°	5427	5427	1776
65°	4319	1051	0
70°	0	4039	5337
75°	0	8769	0
80°	0	0	0
85°	0	5095	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	786.2	50.8
10°-20°	585.2	37.8
20°-30°	129.4	8.4
30°-40°	28.8	1.9
40°-50°	11.8	0.8
50°-60°	2.0	0.1
60°-70°	2.0	0.1
70°-80°	1.6	0.1
80°-90°	1.5	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°	1500.8	96.9
0°-40°	1529.5	98.8
0°-60°	1543.3	99.7
0°-90°	1548.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1548.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12024	12024	12024	12024	12024	
5°	10008	9966	9960	9922	9842	798
15°	2096	2090	2043	1852	1753	616
25°	229	256	248	229	220	125
35°	49	49	57	46	43	28
45°	20	17	16	16	15	12
55°	0	0	0	0	0	3
65°	4	2	1	0	0	4
75°	0	0	5	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°	12024.5	12024.5	12024.5	12024.5	12024.5
1°	11926.0	11877.2	11901.1	11914.9	11894.7
2°	11647.9	11588.9	11626.7	11630.4	11610.1
3°	11233.5	11206.7	11218.7	11223.3	11182.8
4°	10703.0	10664.3	10672.6	10662.5	10612.8
5°	10007.7	9966.3	9959.8	9922.1	9841.9
6°	9157.7	9133.7	9090.5	9026.0	8919.2
7°	8246.9	8227.6	8153.0	8036.9	7913.5
8°	7248.6	7248.6	7140.9	6980.6	6839.7
9°	6303.7	6268.7	6131.5	5938.1	5801.8
10°	5390.2	5343.2	5180.2	4984.1	4848.7
11°	4525.4	4475.7	4319.1	4118.4	3993.1
12°	3778.6	3751.9	3630.3	3409.3	3284.0
13°	3147.7	3112.7	3005.9	2796.9	2690.0
14°	2597.9	2553.7	2468.1	2276.5	2172.5
15°	2096.0	2089.6	2042.6	1852.0	1753.4
16°	1712.9	1709.2	1665.0	1479.0	1438.5
17°	1374.9	1394.3	1381.4	1210.1	1164.1
18°	1070.1	1108.8	1118.0	963.3	917.2
19°	861.1	897.9	913.6	778.2	739.5
20°	685.2	720.2	732.1	630.8	605.0
22.5°	388.6	435.6	437.4	384.9	358.2
25°	229.3	256.0	247.7	229.3	220.1
26°	192.5	218.3	205.4	199.8	192.5
27°	162.1	179.6	169.5	160.2	166.7
28°	134.5	146.4	136.3	139.1	128.9
29°	106.8	127.1	112.4	115.1	106.8
30°	80.1	98.5	87.5	92.1	85.6
32.5°	59.9	65.4	58.0	65.4	65.4
35°	48.8	48.8	57.1	46.0	43.3
37.5°	22.1	17.5	19.3	15.7	18.4
40°	23.9	26.7	28.5	23.9	29.5
42.5°	16.6	22.1	22.1	14.7	25.8
45°	20.3	16.6	15.7	15.7	14.7
47.5°	9.2	6.4	7.4	8.3	12.9
50°	11.1	4.6	7.4	11.1	5.5
52.5°	3.7	0.0	4.6	0.0	1.8
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.9	1.8	0.0
60°	5.5	6.4	5.5	3.7	1.8
62.5°	9.2	1.8	2.8	3.7	0.0
65°	3.7	1.8	0.9	0.0	0.0
67.5°	0.0	0.0	2.8	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	4.6	0.0	0.0
77.5°	1.8	0.0	3.7	0.0	0.0
80°	0.0	1.8	0.0	0.0	0.0
82.5°	0.0	0.0	4.6	3.7	0.0
85°	0.0	0.9	0.9	2.8	0.0
87.5°	0.0	2.8	3.7	0.9	1.8
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	2.8	1.8	3.7
72.5°	0.0	0.9	3.7	5.5	1.8



(END OF REPORT)