

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: P314855

Luminaire Tested: **LDA2B20SP9035D010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P314855  
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: LDA2B20SP9035D010 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: 1677.1 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

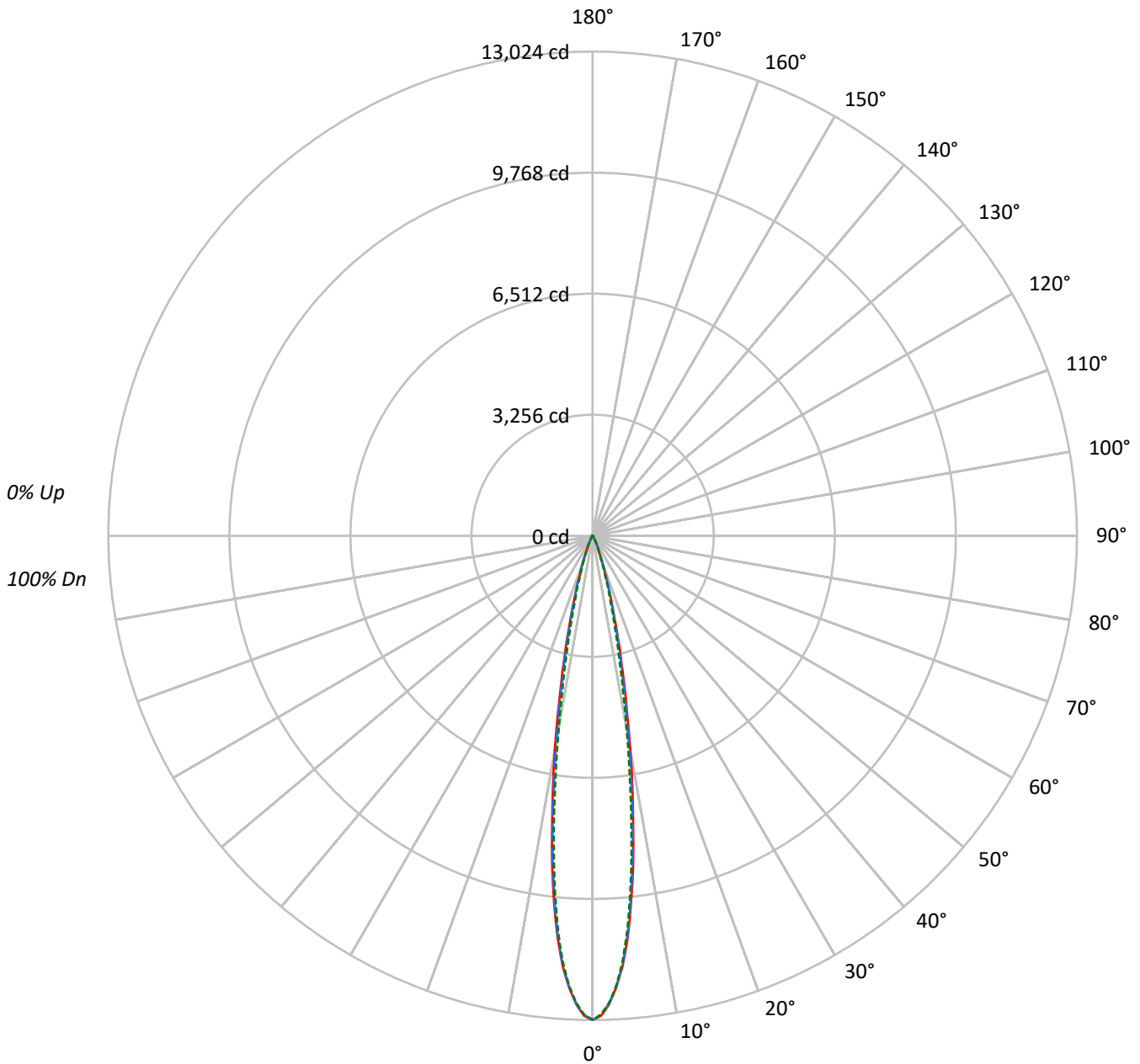
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P314855

CATALOG NUMBER: LDA2B2OSP9035D010 PIN1MB

### 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°	6425495	6425495	6425495
5°	5368223	5342520	5279277
10°	2924779	2810858	2630958
15°	1159540	1130018	970046
20°	389621	416345	344049
25°	135220	146053	129776
30°	49449	54006	52867
35°	31861	37221	28247
40°	16681	19901	20545
45°	15280	11861	11164
50°	9210	6140	4605
55°	0	0	0
60°	5920	5920	1973
65°	4670	1167	0
70°	0	4327	5770
75°	0	9531	0
80°	0	0	0
85°	0	5661	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	851.5	50.8
10°-20°	633.8	37.8
20°-30°	140.2	8.4
30°-40°	31.1	1.9
40°-50°	12.7	0.8
50°-60°	2.1	0.1
60°-70°	2.2	0.1
70°-80°	1.7	0.1
80°-90°	1.6	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°	1625.5	96.9
0°-40°	1656.7	98.8
0°-60°	1671.5	99.7
0°-90°	1677.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1677.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13024	13024	13024	13024	13024	
5°	10840	10795	10788	10747	10660	864
15°	2270	2263	2212	2006	1899	667
25°	248	277	268	248	238	135
35°	53	53	62	50	47	30
45°	22	18	17	17	16	13
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°	13023.9	13023.9	13023.9	13023.9	13023.9
1°	12917.2	12864.3	12890.3	12905.2	12883.3
2°	12616.0	12552.1	12593.0	12597.0	12575.1
3°	12167.1	12138.2	12151.1	12156.1	12112.2
4°	11592.6	11550.7	11559.7	11548.7	11494.8
5°	10839.5	10794.6	10787.6	10746.7	10659.9
6°	9918.8	9892.9	9846.0	9776.2	9660.5
7°	8932.3	8911.4	8830.6	8704.9	8571.2
8°	7851.1	7851.1	7734.4	7560.8	7408.2
9°	6827.7	6789.8	6641.1	6431.7	6284.0
10°	5838.2	5787.3	5610.8	5398.3	5251.7
11°	4901.6	4847.7	4678.1	4460.7	4325.0
12°	4092.6	4063.7	3932.0	3692.6	3557.0
13°	3409.3	3371.4	3255.7	3029.3	2913.6
14°	2813.9	2766.0	2673.2	2465.7	2353.0
15°	2270.2	2263.3	2212.4	2005.9	1899.2
16°	1855.3	1851.3	1803.4	1601.9	1558.0
17°	1489.2	1510.2	1496.2	1310.7	1260.8
18°	1159.1	1201.0	1210.9	1043.4	993.5
19°	932.6	972.5	989.5	842.9	801.0
20°	742.1	780.0	793.0	683.3	655.3
22.5°	420.9	471.8	473.8	416.9	388.0
25°	248.4	277.3	268.3	248.4	238.4
26°	208.5	236.4	222.4	216.5	208.5
27°	175.6	194.5	183.5	173.6	180.5
28°	145.6	158.6	147.6	150.6	139.6
29°	115.7	137.7	121.7	124.7	115.7
30°	86.8	106.7	94.8	99.7	92.8
32.5°	64.8	70.8	62.8	70.8	70.8
35°	52.9	52.9	61.8	49.9	46.9
37.5°	23.9	19.0	20.9	17.0	19.9
40°	25.9	28.9	30.9	25.9	31.9
42.5°	18.0	23.9	23.9	16.0	27.9
45°	21.9	18.0	17.0	17.0	16.0
47.5°	10.0	7.0	8.0	9.0	14.0
50°	12.0	5.0	8.0	12.0	6.0
52.5°	4.0	0.0	5.0	0.0	2.0
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	1.0	2.0	0.0
60°	6.0	7.0	6.0	4.0	2.0
62.5°	10.0	2.0	3.0	4.0	0.0
65°	4.0	2.0	1.0	0.0	0.0
67.5°	0.0	0.0	3.0	0.0	0.0



TEST NUMBER: P314855

CATALOG NUMBER: LDA2B20SP9035D010 PIN1MB

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	5.0	0.0	0.0
77.5°	2.0	0.0	4.0	0.0	0.0
80°	0.0	2.0	0.0	0.0	0.0
82.5°	0.0	0.0	5.0	4.0	0.0
85°	0.0	1.0	1.0	3.0	0.0
87.5°	0.0	3.0	4.0	1.0	2.0
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	3.0	2.0	4.0
72.5°	0.0	1.0	4.0	6.0	2.0



(END OF REPORT)