

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: P314860

Luminaire Tested: **LDA2B20SP9050D010 PIN1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P314860  
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: LDA2B20SP9050D010 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**

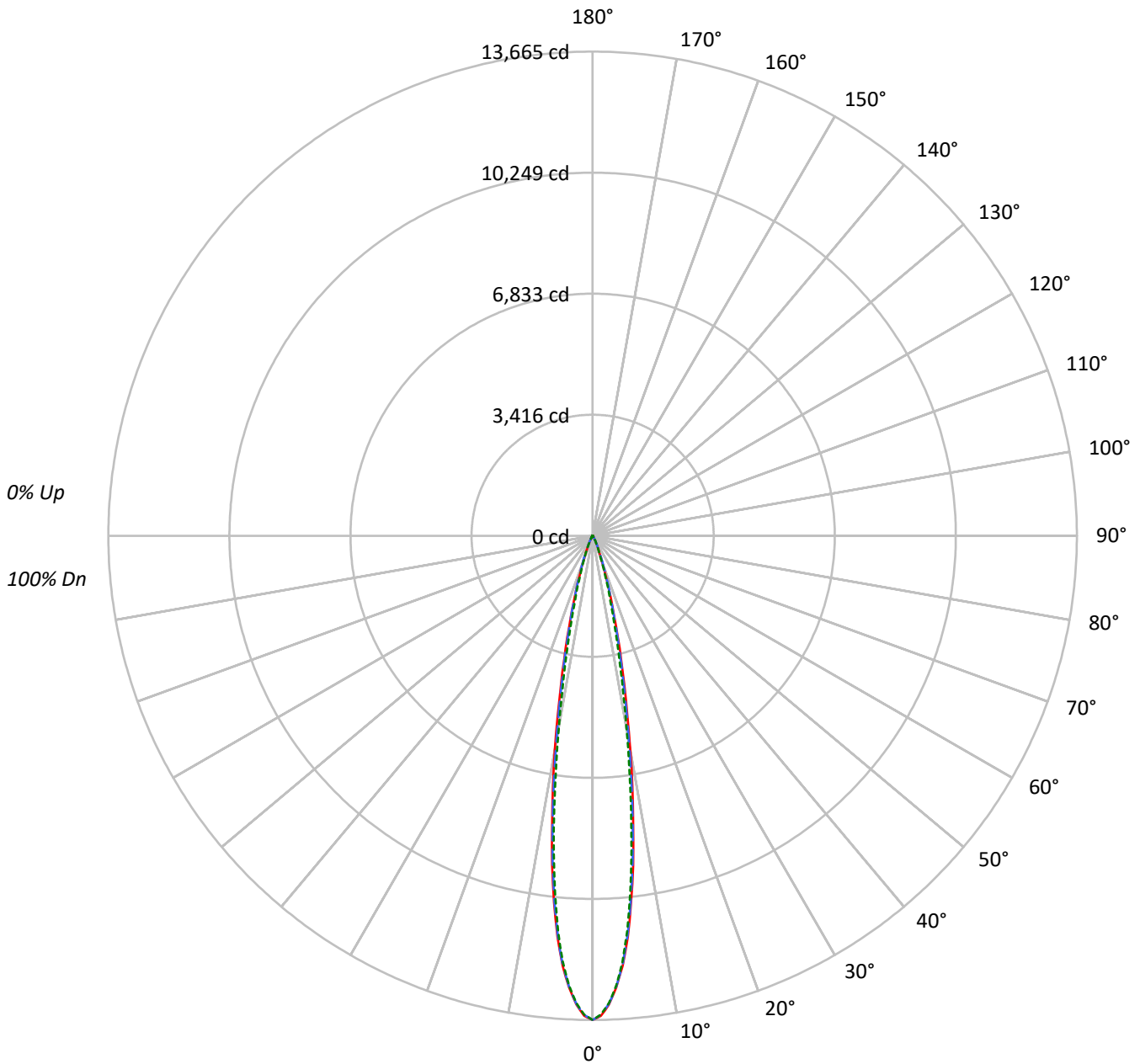
Lumens per Lamp: N/A  
Luminaire Lumens: 1759.6 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

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: P314860  
CATALOG NUMBER: LDA2B2OSP9050D010 PIN1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P314860

CATALOG NUMBER: LDA2B2OSP9050D010 PIN1MMS

**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°	6741641	6741641	6741641
5°	5632338	5605396	5539033
10°	3068658	2949126	2760410
15°	1216593	1185589	1017752
20°	408784	436821	361007
25°	141861	153239	136146
30°	51841	56627	55430
35°	33427	39088	29632
40°	17518	20867	21575
45°	16048	12419	11652
50°	9671	6447	4835
55°	0	0	0
60°	6216	6216	2072
65°	4903	1167	0
70°	0	4472	6058
75°	0	9912	0
80°	0	0	0
85°	0	5661	0



TEST NUMBER: P314860

CATALOG NUMBER: LDA2B2OSP9050D010 PIN1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	893.4	50.8
10°-20°	665.0	37.8
20°-30°	147.1	8.4
30°-40°	32.7	1.9
40°-50°	13.3	0.8
50°-60°	2.2	0.1
60°-70°	2.3	0.1
70°-80°	1.8	0.1
80°-90°	1.7	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°	1705.5	96.9
0°-40°	1738.2	98.8
0°-60°	1753.8	99.7
0°-90°	1759.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1759.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13665	13665	13665	13665	13665	
5°	11373	11326	11318	11276	11184	907
15°	2382	2375	2321	2105	1993	700
25°	261	291	282	261	250	142
35°	56	56	65	52	49	32
45°	23	19	18	18	17	14
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	



TEST NUMBER: P314860

CATALOG NUMBER: LDA2B2OSP9050D010 PIN1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13664.7	13664.7	13664.7	13664.7	13664.7
1°	13552.7	13497.3	13524.5	13540.2	13517.2
2°	13236.7	13169.7	13212.6	13216.8	13193.8
3°	12765.7	12735.4	12749.0	12754.2	12708.2
4°	12162.9	12119.0	12128.4	12116.9	12060.4
5°	11372.8	11325.7	11318.4	11275.5	11184.4
6°	10406.8	10379.6	10330.4	10257.2	10135.8
7°	9371.8	9349.8	9265.1	9133.2	8993.0
8°	8237.3	8237.3	8114.9	7932.8	7772.7
9°	7163.6	7123.8	6967.9	6748.1	6593.2
10°	6125.4	6072.0	5886.8	5663.9	5510.1
11°	5142.7	5086.2	4908.3	4680.1	4537.8
12°	4294.0	4263.6	4125.5	3874.3	3732.0
13°	3577.1	3537.3	3415.9	3178.4	3057.0
14°	2952.3	2902.1	2804.7	2587.1	2468.8
15°	2381.9	2374.6	2321.2	2104.6	1992.6
16°	1946.6	1942.4	1892.2	1680.7	1634.7
17°	1562.5	1584.5	1569.8	1375.2	1322.8
18°	1216.1	1260.0	1270.5	1094.7	1042.4
19°	978.5	1020.4	1038.2	884.3	840.4
20°	778.6	818.4	832.0	716.9	687.6
22.5°	441.6	495.0	497.1	437.5	407.1
25°	260.6	290.9	281.5	260.6	250.1
26°	218.7	248.0	233.4	227.1	218.7
27°	184.2	204.1	192.6	182.1	189.4
28°	152.8	166.4	154.9	158.0	146.5
29°	121.4	144.4	127.7	130.8	121.4
30°	91.0	112.0	99.4	104.7	97.3
32.5°	68.0	74.3	65.9	74.3	74.3
35°	55.5	55.5	64.9	52.3	49.2
37.5°	25.1	19.9	22.0	17.8	20.9
40°	27.2	30.3	32.4	27.2	33.5
42.5°	18.8	25.1	25.1	16.7	29.3
45°	23.0	18.8	17.8	17.8	16.7
47.5°	10.5	7.3	8.4	9.4	14.7
50°	12.6	5.2	8.4	12.6	6.3
52.5°	4.2	0.0	5.2	0.0	2.1
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	1.0	2.1	0.0
60°	6.3	7.3	6.3	4.2	2.1
62.5°	10.5	2.1	3.1	4.2	0.0
65°	4.2	2.1	1.0	0.0	0.0
67.5°	0.0	0.0	3.1	0.0	0.0



TEST NUMBER: P314860

CATALOG NUMBER: LDA2B20SP9050D010 PIN1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	5.2	0.0	0.0
77.5°	2.1	0.0	4.2	0.0	0.0
80°	0.0	2.1	0.0	0.0	0.0
82.5°	0.0	0.0	5.2	4.2	0.0
85°	0.0	1.0	1.0	3.1	0.0
87.5°	0.0	3.1	4.2	1.0	2.1
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	0.0	0.0	3.1	2.1	4.2
72.5°	0.0	1.0	4.2	6.3	2.1



(END OF REPORT)