

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: P314839

Luminaire Tested: **LDA2B20SP8040D010 PIN1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P314839  
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: LDA2B20SP8040D010 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: 2107.8 lumens  
Efficiency: N/A  
Efficacy: 102.3 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

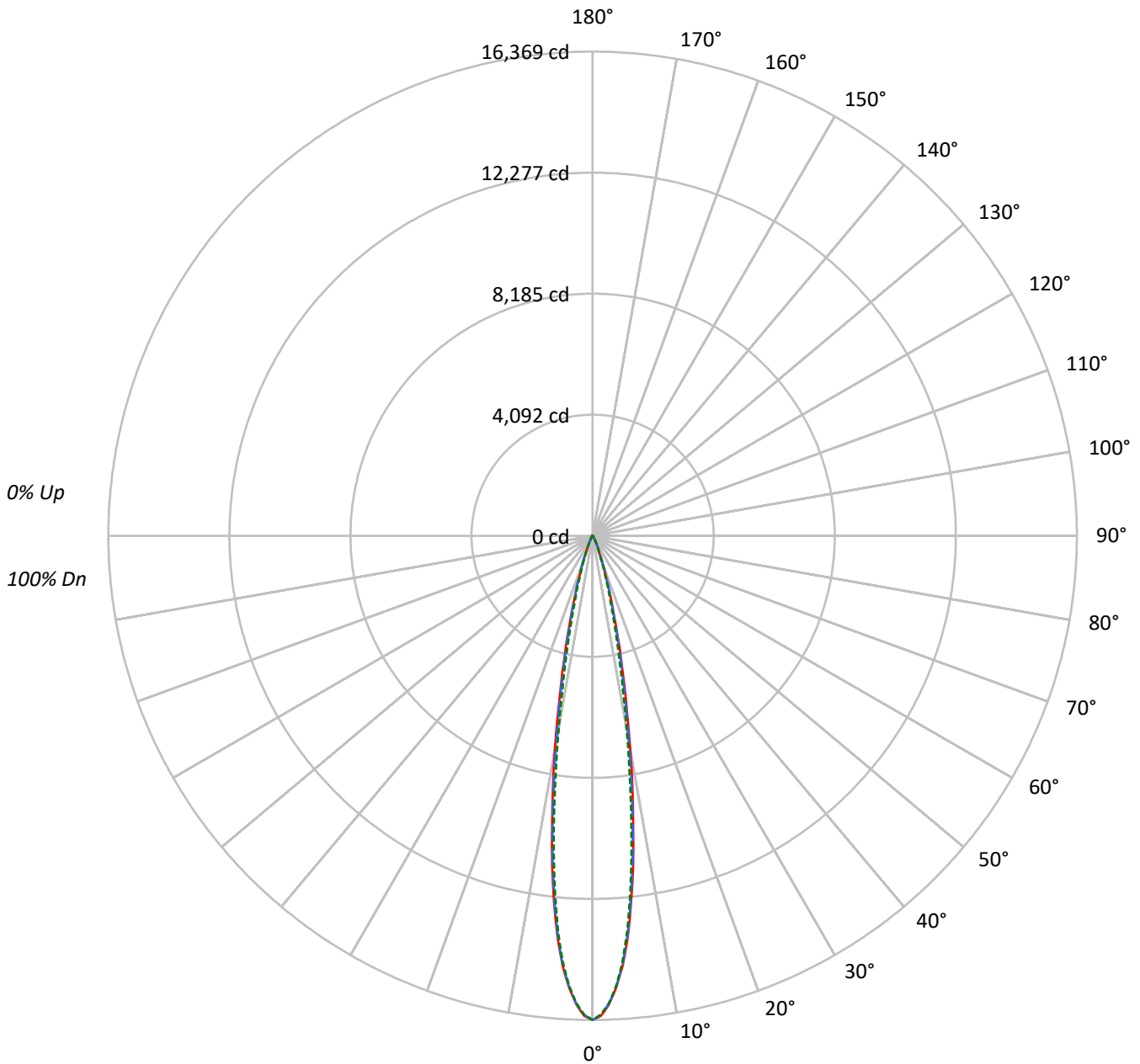
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8075691	8075691	8075691
5°	6746890	6714600	6635112
10°	3675887	3532709	3306620
15°	1457368	1420235	1219147
20°	489690	523240	432410
25°	169951	183560	163092
30°	62153	67849	66425
35°	39992	46797	35475
40°	20996	25053	25826
45°	19257	14861	14024
50°	11513	7675	5757
55°	0	0	0
60°	7400	7400	2467
65°	5837	1518	0
70°	0	5481	7212
75°	0	12009	0
80°	0	0	0
85°	0	7359	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1070.2	50.8
10°-20°	796.6	37.8
20°-30°	176.2	8.4
30°-40°	39.1	1.9
40°-50°	16.0	0.8
50°-60°	2.7	0.1
60°-70°	2.8	0.1
70°-80°	2.2	0.1
80°-90°	2.1	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°	2043.0	96.9
0°-40°	2082.1	98.8
0°-60°	2100.8	99.7
0°-90°	2107.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2107.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	16369	16369	16369	16369	16369	
5°	13623	13567	13558	13507	13398	1086
15°	2853	2844	2781	2521	2387	839
25°	312	348	337	312	300	170
35°	66	66	78	63	59	38
45°	28	23	21	21	20	17
55°	0	0	0	0	0	4
65°	5	2	1	0	0	5
75°	0	0	6	0	0	1
85°	0	1	1	4	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	16368.7	16368.7	16368.7	16368.7	16368.7
1°	16234.6	16168.1	16200.7	16219.5	16192.0
2°	15856.0	15775.8	15827.2	15832.2	15804.6
3°	15291.9	15255.5	15271.8	15278.1	15222.9
4°	14569.8	14517.1	14528.4	14514.6	14446.9
5°	13623.3	13566.9	13558.1	13506.7	13397.6
6°	12466.2	12433.6	12374.6	12286.9	12141.5
7°	11226.3	11200.0	11098.4	10940.5	10772.5
8°	9867.4	9867.4	9720.7	9502.6	9310.8
9°	8581.1	8533.5	8346.7	8083.4	7897.9
10°	7337.5	7273.6	7051.7	6784.7	6600.4
11°	6160.4	6092.7	5879.6	5606.3	5435.8
12°	5143.7	5107.3	4941.8	4641.0	4470.5
13°	4284.9	4237.3	4091.9	3807.3	3661.9
14°	3536.5	3476.3	3359.7	3099.0	2957.3
15°	2853.3	2844.5	2780.6	2521.1	2386.9
16°	2331.8	2326.7	2266.6	2013.3	1958.2
17°	1871.7	1898.0	1880.5	1647.3	1584.6
18°	1456.7	1509.4	1521.9	1311.3	1248.6
19°	1172.1	1222.3	1243.6	1059.3	1006.7
20°	932.7	980.3	996.6	858.7	823.6
22.5°	529.0	593.0	595.5	524.0	487.7
25°	312.2	348.5	337.2	312.2	299.6
26°	262.0	297.1	279.6	272.0	262.0
27°	220.6	244.5	230.7	218.1	226.9
28°	183.0	199.3	185.5	189.3	175.5
29°	145.4	173.0	152.9	156.7	145.4
30°	109.1	134.1	119.1	125.4	116.6
32.5°	81.5	89.0	79.0	89.0	89.0
35°	66.4	66.4	77.7	62.7	58.9
37.5°	30.1	23.8	26.3	21.3	25.1
40°	32.6	36.4	38.9	32.6	40.1
42.5°	22.6	30.1	30.1	20.1	35.1
45°	27.6	22.6	21.3	21.3	20.1
47.5°	12.5	8.8	10.0	11.3	17.6
50°	15.0	6.3	10.0	15.0	7.5
52.5°	5.0	0.0	6.3	0.0	2.5
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	1.3	2.5	0.0
60°	7.5	8.8	7.5	5.0	2.5
62.5°	12.5	2.5	3.8	5.0	0.0
65°	5.0	2.5	1.3	0.0	0.0
67.5°	0.0	0.0	3.8	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	6.3	0.0	0.0
77.5°	2.5	0.0	5.0	0.0	0.0
80°	0.0	2.5	0.0	0.0	0.0
82.5°	0.0	0.0	6.3	5.0	0.0
85°	0.0	1.3	1.3	3.8	0.0
87.5°	0.0	3.8	5.0	1.3	2.5
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	3.8	2.5	5.0
72.5°	0.0	1.3	5.0	7.5	2.5



(END OF REPORT)