

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: P282454

Luminaire Tested: **LDA2B058027D010 EU2B05SP158027 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282454  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B058027D010 EU2B05SP158027 2LBALPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 781.3 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

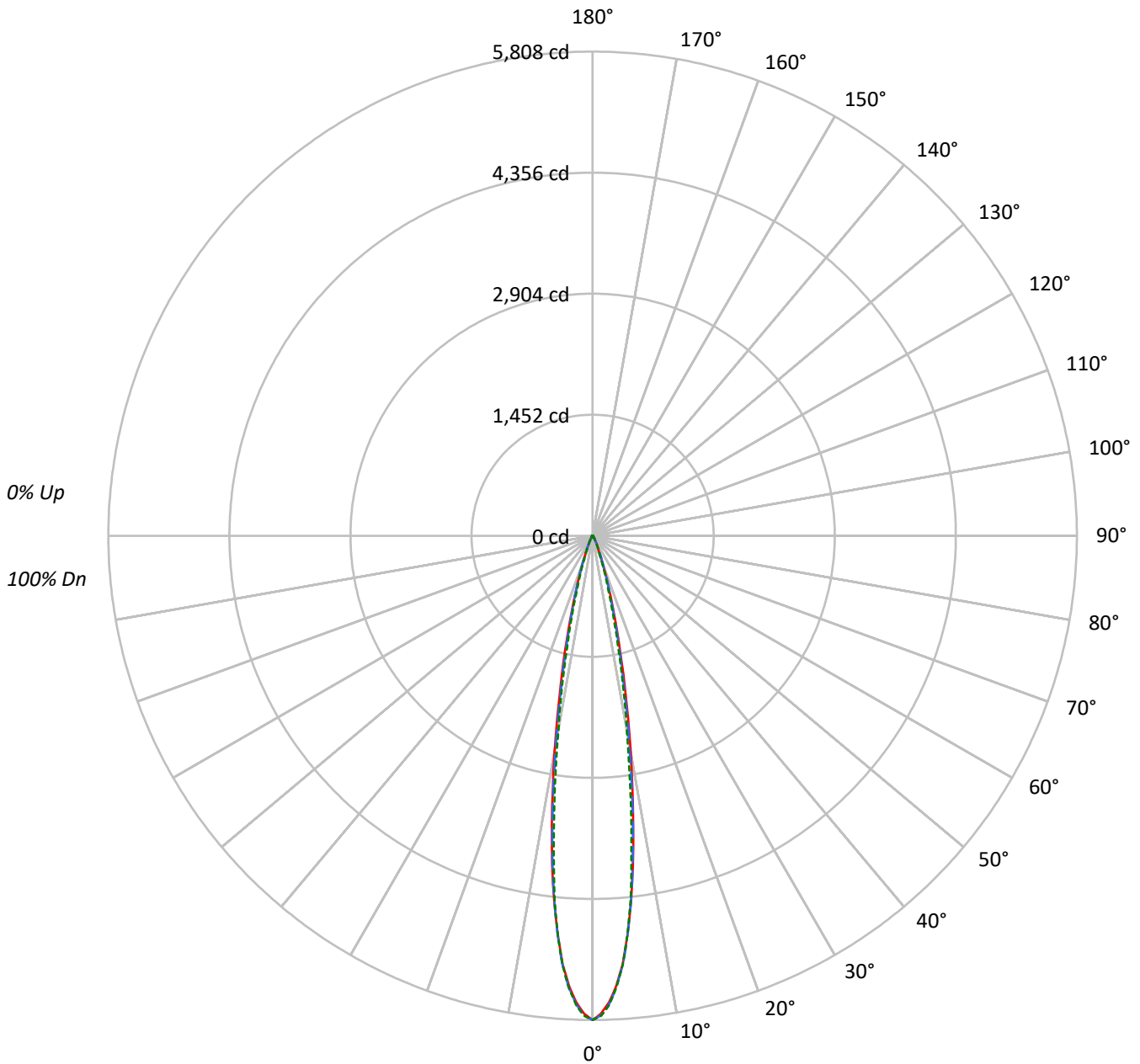
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	96	94	92	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

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

	0°	45°	90°
0°	2865544	2865544	2865544
5°	2377232	2384958	2375944
10°	1315755	1268212	1181394
15°	532626	509438	452283
20°	178456	189219	153202
25°	67882	68154	64507
30°	30478	29965	28940
35°	14756	13130	10480
40°	9725	12366	8630
45°	2512	4047	3698
50°	691	998	1382
55°	6107	5333	8429
60°	8782	7006	11446
65°	4203	10973	10390
70°	3895	3173	3895
75°	1716	4194	11818
80°	20172	27843	25286
85°	0	12454	15284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	380.4	48.7
10°-20°	288.2	36.9
20°-30°	65.5	8.4
30°-40°	19.4	2.5
40°-50°	6.5	0.8
50°-60°	5.7	0.7
60°-70°	6.8	0.9
70°-80°	4.4	0.6
80°-90°	4.6	0.6
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°	734.1	94.0
0°-40°	753.4	96.4
0°-60°	765.6	98.0
0°-90°	781.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	781.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5808	5808	5808	5808	5808	
5°	4800	4838	4816	4753	4798	385
15°	1043	1057	997	904	886	303
25°	125	134	125	124	118	65
35°	24	27	22	25	17	19
45°	4	10	6	10	5	5
55°	7	10	6	9	10	3
65°	4	8	9	9	9	4
75°	1	3	2	4	6	2
85°	0	0	2	2	3	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5808.2	5808.2	5808.2	5808.2	5808.2
1°	5733.3	5756.5	5754.3	5744.9	5761.4
2°	5601.5	5629.6	5626.9	5606.4	5635.8
3°	5408.2	5433.1	5429.1	5399.7	5431.8
4°	5149.8	5178.3	5167.2	5123.1	5164.1
5°	4800.1	4838.0	4815.7	4752.9	4797.5
6°	4412.6	4444.7	4409.5	4326.2	4369.8
7°	3978.7	3998.8	3952.5	3845.5	3816.1
8°	3505.2	3531.5	3466.9	3342.2	3310.1
9°	3052.6	3061.6	2983.2	2850.4	2809.9
10°	2626.4	2619.7	2531.5	2397.0	2358.2
11°	2222.3	2213.4	2120.3	1996.0	2008.5
12°	1854.8	1872.2	1764.0	1651.3	1653.5
13°	1552.8	1554.6	1461.5	1354.2	1347.9
14°	1271.3	1287.8	1208.1	1111.8	1094.0
15°	1042.8	1057.0	997.4	903.8	885.5
16°	834.8	852.6	809.8	725.2	701.1
17°	672.2	694.9	666.8	596.0	568.4
18°	537.7	555.0	548.3	475.3	452.6
19°	424.5	448.6	450.3	389.3	362.1
20°	339.9	361.7	360.4	313.1	291.8
22.5°	195.1	206.7	207.1	184.9	172.4
25°	124.7	134.1	125.2	123.8	118.5
26°	108.2	115.8	106.0	106.0	101.1
27°	87.8	94.4	85.1	89.1	82.4
28°	73.9	81.1	73.1	72.2	71.3
29°	61.5	68.2	57.9	62.4	59.7
30°	53.5	58.4	52.6	59.2	50.8
32.5°	41.4	45.4	35.2	44.5	33.4
35°	24.5	27.2	21.8	25.4	17.4
37.5°	25.4	26.3	23.6	26.3	24.5
40°	15.1	15.6	19.2	19.2	13.4
42.5°	14.3	13.8	8.5	13.4	10.7
45°	3.6	10.2	5.8	10.2	5.3
47.5°	2.7	3.6	3.6	7.1	7.1
50°	0.9	3.6	1.3	2.7	1.8
52.5°	0.0	8.5	1.8	6.2	5.3
55°	7.1	10.2	6.2	9.4	9.8
57.5°	0.9	7.1	3.6	7.6	5.3
60°	8.9	12.0	7.1	12.9	11.6
62.5°	0.9	8.0	9.4	7.1	6.2
65°	3.6	7.6	9.4	8.9	8.9
67.5°	4.5	7.6	5.8	5.8	8.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.9	3.1	2.2	4.0	6.2
77.5°	0.9	3.6	3.1	7.1	5.3
80°	7.1	8.0	9.8	12.9	8.9
82.5°	6.2	6.2	9.8	7.1	5.3
85°	0.0	0.0	2.2	2.2	2.7
87.5°	0.0	1.8	4.5	3.6	6.2
90°	0.0	0.0	0.0	0.0	0.0



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







70°	2.7	0.9	2.2	2.2	2.7
72.5°	0.9	4.0	3.6	2.2	4.5



(END OF REPORT)