

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: P282554

Luminaire Tested: **LDA2B159027D010 EU2B15SP159027 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282554  
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: LDA2B159027D010 EU2B15SP159027 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1113.0 lumens  
Efficiency: N/A  
Efficacy: 78.9 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

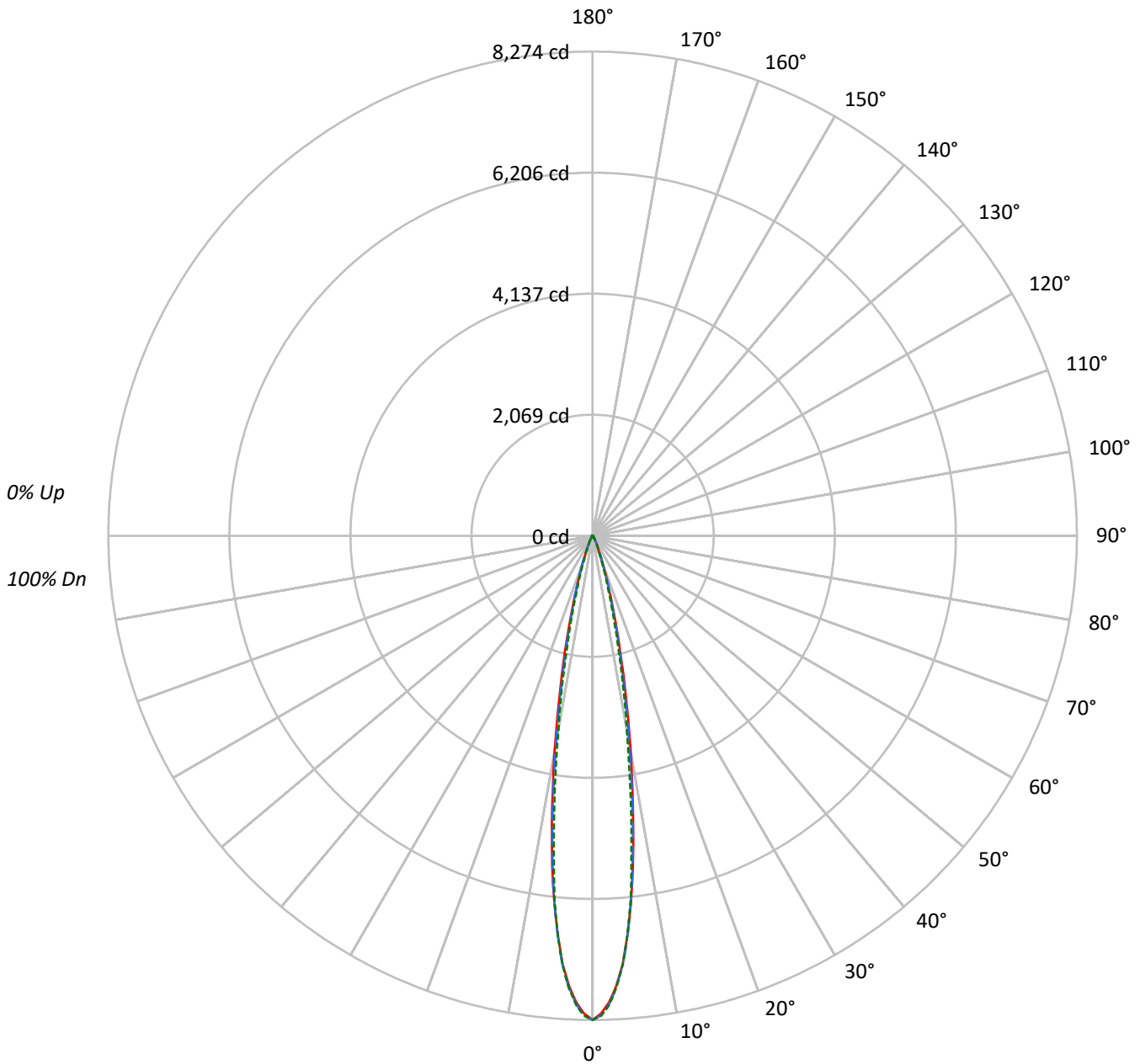
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	94	96	94	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	94	92	90	89															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	92	89	88	87	92	89	88	87															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	90	88	86	85															
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°	4082075	4082075	4082075
5°	3386495	3397489	3384613
10°	1874289	1806608	1682918
15°	758742	725696	644331
20°	254217	269548	218200
25°	96734	97060	91889
30°	43353	42669	41188
35°	21020	18731	14876
40°	13911	17582	12237
45°	3558	5721	5303
50°	998	1458	1919
55°	8774	7655	12042
60°	12531	10065	16281
65°	5954	15526	14826
70°	5481	4616	5481
75°	2478	6100	16965
80°	28980	39776	36083
85°	0	18114	21511



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	541.9	48.7
10°-20°	410.5	36.9
20°-30°	93.3	8.4
30°-40°	27.6	2.5
40°-50°	9.2	0.8
50°-60°	8.1	0.7
60°-70°	9.7	0.9
70°-80°	6.2	0.6
80°-90°	6.5	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°	1045.7	94.0
0°-40°	1073.3	96.4
0°-60°	1090.6	98.0
0°-90°	1113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1113.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8274	8274	8274	8274	8274	
5°	6838	6892	6860	6771	6834	548
15°	1486	1506	1421	1288	1262	432
25°	178	191	178	176	169	93
35°	35	39	31	36	25	27
45°	5	15	8	15	8	8
55°	10	15	9	13	14	4
65°	5	11	13	13	13	5
75°	1	4	3	6	9	3
85°	0	0	3	3	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8274.0	8274.0	8274.0	8274.0	8274.0
1°	8167.4	8200.4	8197.2	8183.9	8207.3
2°	7979.5	8019.5	8015.7	7986.5	8028.4
3°	7704.1	7739.7	7734.0	7692.1	7737.8
4°	7336.1	7376.7	7360.8	7298.0	7356.4
5°	6838.0	6891.9	6860.2	6770.7	6834.2
6°	6285.9	6331.6	6281.5	6162.8	6225.0
7°	5667.8	5696.4	5630.4	5478.1	5436.2
8°	4993.3	5030.8	4938.7	4761.1	4715.4
9°	4348.6	4361.3	4249.6	4060.5	4002.8
10°	3741.3	3731.8	3606.2	3414.5	3359.3
11°	3165.8	3153.1	3020.5	2843.4	2861.2
12°	2642.3	2667.0	2512.8	2352.3	2355.5
13°	2212.1	2214.6	2082.0	1929.0	1920.2
14°	1811.0	1834.5	1720.9	1583.8	1558.5
15°	1485.5	1505.8	1420.8	1287.5	1261.5
16°	1189.2	1214.5	1153.6	1033.1	998.8
17°	957.5	989.9	949.9	849.0	809.7
18°	765.9	790.7	781.1	677.1	644.7
19°	604.7	639.0	641.5	554.6	515.9
20°	484.2	515.3	513.4	446.1	415.6
22.5°	277.9	294.4	295.1	263.3	245.6
25°	177.7	191.0	178.3	176.4	168.8
26°	154.2	165.0	151.0	151.0	144.0
27°	125.0	134.5	121.2	126.9	117.4
28°	105.3	115.5	104.1	102.8	101.5
29°	87.6	97.1	82.5	88.8	85.0
30°	76.1	83.1	74.9	84.4	72.3
32.5°	59.0	64.7	50.1	63.5	47.6
35°	34.9	38.7	31.1	36.2	24.7
37.5°	36.2	37.4	33.6	37.4	34.9
40°	21.6	22.2	27.3	27.3	19.0
42.5°	20.3	19.7	12.1	19.0	15.2
45°	5.1	14.6	8.2	14.6	7.6
47.5°	3.8	5.1	5.1	10.2	10.2
50°	1.3	5.1	1.9	3.8	2.5
52.5°	0.0	12.1	2.5	8.9	7.6
55°	10.2	14.6	8.9	13.3	14.0
57.5°	1.3	10.2	5.1	10.8	7.6
60°	12.7	17.1	10.2	18.4	16.5
62.5°	1.3	11.4	13.3	10.2	8.9
65°	5.1	10.8	13.3	12.7	12.7
67.5°	6.3	10.8	8.2	8.2	11.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	1.3	4.4	3.2	5.7	8.9
77.5°	1.3	5.1	4.4	10.2	7.6
80°	10.2	11.4	14.0	18.4	12.7
82.5°	8.9	8.9	14.0	10.2	7.6
85°	0.0	0.0	3.2	3.2	3.8
87.5°	0.0	2.5	6.3	5.1	8.9
90°	0.0	0.0	0.0	0.0	0.0



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







70°	3.8	1.3	3.2	3.2	3.8
72.5°	1.3	5.7	5.1	3.2	6.3



(END OF REPORT)