

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: P281425

Luminaire Tested: **LDA2B209727D010 EU2B20SP159727 2LBALD1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281425  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209727D010 EU2B20SP159727 2LBALD1GPH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, GPH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1393.2 lumens  
Efficiency: N/A  
Efficacy: 67.6 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

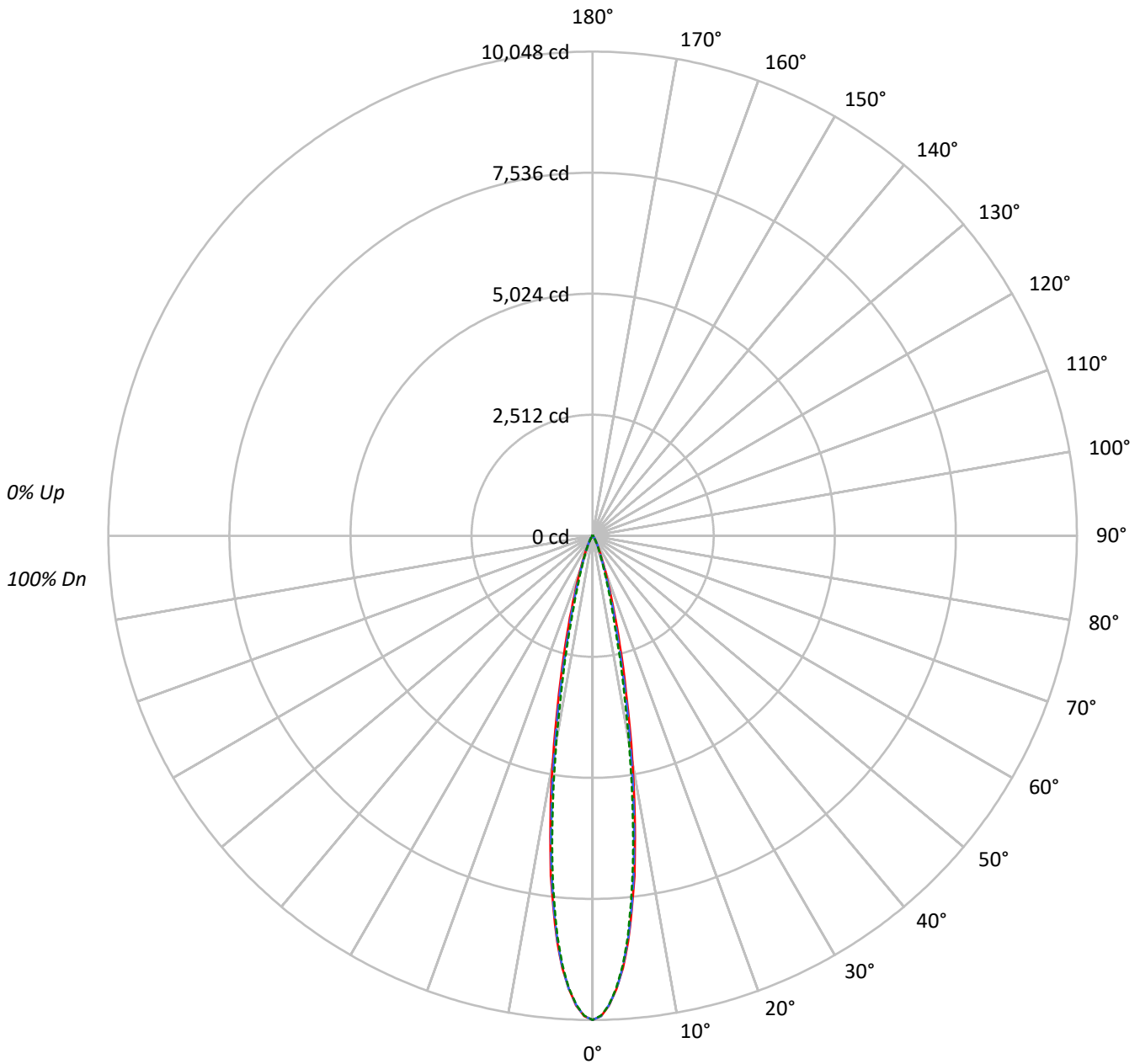
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97																			
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95																			
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92																			
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	93	91	90																			
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	93	90	89	88																			
6	101	95	91	89	99	94	91	88	93	90	88	92	89	87	91	88	87	86																			
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	87	85	84																			
8	96	90	86	84	95	90	86	84	89	86	83	88	85	83	87	85	83	82																			
9	94	88	84	82	93	88	84	82	87	84	82	86	83	81	86	83	81	80																			
10	92	86	83	80	91	86	82	80	85	82	80	85	82	80	84	81	80	79																			

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

	0°	45°	90°
0°	4957299	4957299	4957299
5°	4188447	4166111	4135357
10°	2384029	2279075	2163150
15°	987259	874482	770337
20°	375550	328875	301102
25°	165868	159390	141698
30°	76737	84769	67508
35°	40353	47580	37823
40°	17711	20416	11786
45°	6907	5442	7884
50°	3224	3761	5449
55°	0	2408	0
60°	0	0	1381
65°	0	0	0
70°	0	1010	0
75°	0	0	0
80°	3978	0	0
85°	40191	35662	15850



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	671.8	48.2
10°-20°	513.6	36.9
20°-30°	142.8	10.3
30°-40°	46.4	3.3
40°-50°	10.2	0.7
50°-60°	3.1	0.2
60°-70°	1.8	0.1
70°-80°	1.1	0.1
80°-90°	2.2	0.2
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°	1328.3	95.3
0°-40°	1374.7	98.7
0°-60°	1388.1	99.6
0°-90°	1393.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1393.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10048	10048	10048	10048	10048	
5°	8457	8395	8412	8349	8350	684
15°	1933	1866	1712	1580	1508	564
25°	305	308	293	276	260	153
35°	67	73	79	60	63	44
45°	10	14	8	8	11	10
55°	0	4	3	1	0	3
65°	0	3	0	0	0	2
75°	0	0	0	1	0	1
85°	7	4	6	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10048.0	10048.0	10048.0	10048.0	10048.0
1°	9971.1	9933.8	9969.7	9948.6	9960.6
2°	9754.6	9708.0	9745.4	9715.8	9740.5
3°	9417.4	9381.4	9414.6	9377.2	9396.9
4°	8994.8	8942.6	8975.8	8925.7	8937.7
5°	8457.3	8395.2	8412.2	8349.4	8350.1
6°	7780.1	7737.1	7746.9	7648.9	7641.8
7°	7117.7	7016.1	7005.5	6893.4	6871.5
8°	6313.5	6221.1	6190.8	6058.9	6012.3
9°	5542.5	5427.5	5365.4	5212.4	5158.0
10°	4758.8	4642.4	4549.3	4376.4	4317.9
11°	4033.6	3928.5	3812.8	3628.0	3570.8
12°	3360.6	3278.1	3151.1	2972.6	2912.7
13°	2811.1	2715.9	2579.7	2414.0	2362.5
14°	2334.9	2232.7	2096.5	1954.7	1854.6
15°	1932.9	1865.8	1712.1	1580.1	1508.2
16°	1579.4	1522.3	1389.7	1275.4	1224.6
17°	1295.2	1249.3	1136.4	1046.8	1004.5
18°	1068.7	1011.6	922.7	864.1	831.0
19°	867.0	822.5	757.6	712.5	679.3
20°	715.3	678.6	626.4	586.2	573.5
22.5°	462.1	455.7	421.8	400.0	389.4
25°	304.7	308.3	292.8	275.8	260.3
26°	260.3	262.4	248.3	238.4	218.7
27°	222.9	223.6	223.6	205.3	186.2
28°	182.0	189.8	182.7	174.2	155.9
29°	155.9	165.8	162.2	153.8	136.1
30°	134.7	141.8	148.8	135.4	118.5
32.5°	94.5	100.9	108.6	101.6	87.5
35°	67.0	72.7	79.0	60.0	62.8
37.5°	45.9	55.7	53.6	48.7	41.6
40°	27.5	28.9	31.7	33.9	18.3
42.5°	19.8	23.3	21.2	24.0	8.5
45°	9.9	14.1	7.8	7.8	11.3
47.5°	7.1	12.0	4.2	4.2	1.4
50°	4.2	9.2	4.9	2.1	7.1
52.5°	7.1	8.5	5.6	6.3	1.4
55°	0.0	4.2	2.8	1.4	0.0
57.5°	2.8	4.9	2.8	1.4	2.8
60°	0.0	0.0	0.0	0.7	1.4
62.5°	0.0	1.4	0.0	2.1	2.8
65°	0.0	2.8	0.0	0.0	0.0
67.5°	4.2	4.9	2.8	5.6	8.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.4	0.0
77.5°	0.0	7.1	2.1	2.1	2.8
80°	1.4	0.0	0.0	0.7	0.0
82.5°	0.0	5.6	0.7	2.8	4.2
85°	7.1	3.5	6.3	3.5	2.8
87.5°	0.0	0.7	1.4	0.7	0.0
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	0.7	0.7	0.0
72.5°	1.4	0.0	0.0	0.0	0.0



(END OF REPORT)