

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: P281433

Luminaire Tested: **LDA2B209730D010 EU2B20SP159730 2LBALD1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281433  
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: LDA2B209730D010 EU2B20SP159730 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: 1482.9 lumens  
Efficiency: N/A  
Efficacy: 72.0 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

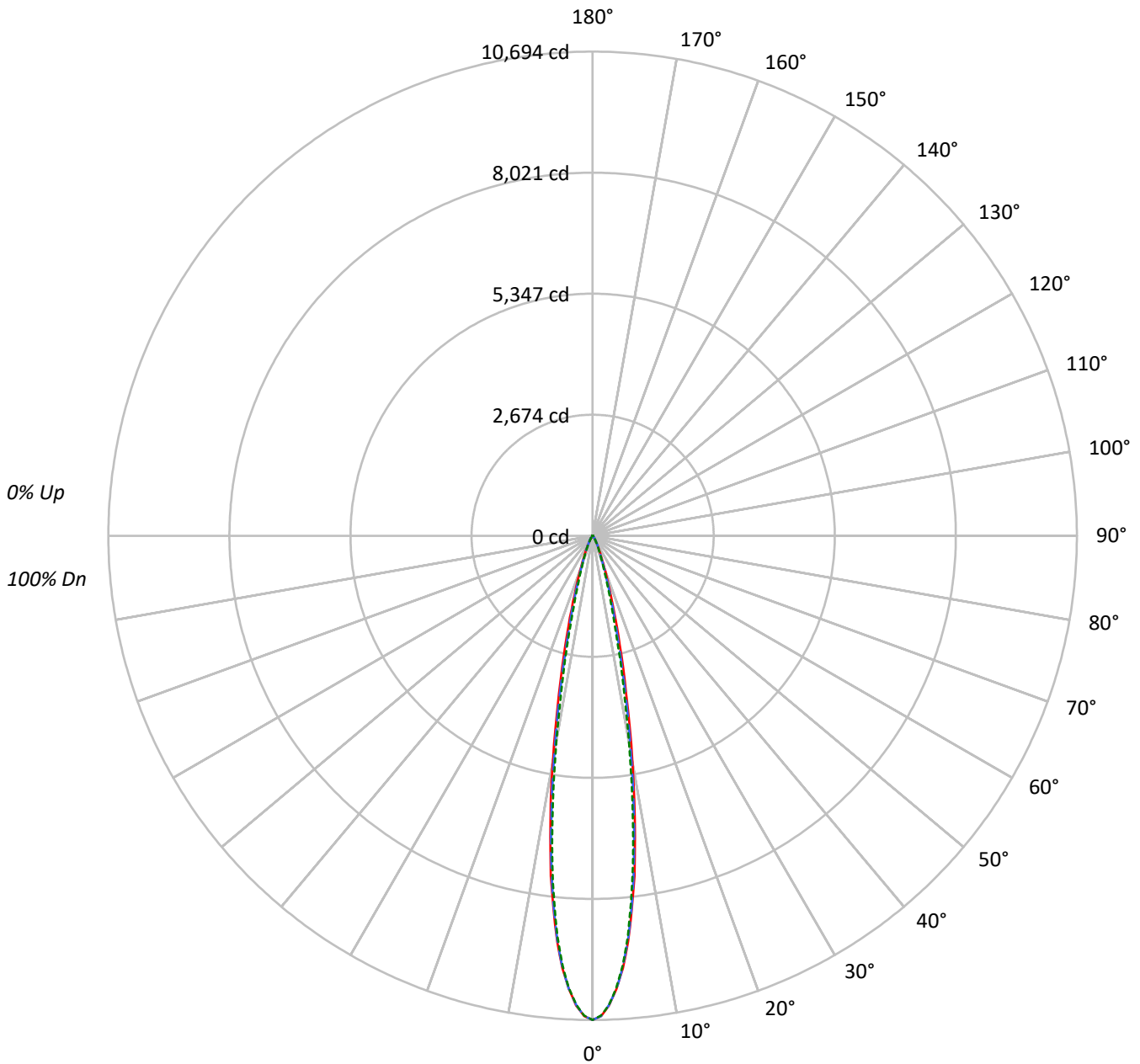
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	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°	5276011	5276011	5276011
5°	4457712	4433941	4401205
10°	2537276	2425559	2302220
15°	1050696	930666	819881
20°	399701	350034	320475
25°	176537	169624	150789
30°	81693	90238	71837
35°	42943	50652	40233
40°	18870	21768	12559
45°	7326	5791	8373
50°	3454	4068	5757
55°	0	2580	0
60°	0	0	1480
65°	0	0	0
70°	0	1154	0
75°	0	0	0
80°	4262	0	0
85°	42455	38493	16982



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	715.0	48.2
10°-20°	546.6	36.9
20°-30°	152.0	10.3
30°-40°	49.4	3.3
40°-50°	10.9	0.7
50°-60°	3.3	0.2
60°-70°	1.9	0.1
70°-80°	1.2	0.1
80°-90°	2.4	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°	1413.7	95.3
0°-40°	1463.1	98.7
0°-60°	1477.3	99.6
0°-90°	1482.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1482.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10694	10694	10694	10694	10694	
5°	9001	8935	8953	8886	8887	728
15°	2057	1986	1822	1682	1605	601
25°	324	328	312	294	277	163
35°	71	77	84	64	67	47
45°	10	15	8	8	12	11
55°	0	4	3	2	0	3
65°	0	3	0	0	0	2
75°	0	0	0	2	0	1
85°	8	4	7	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10694.0	10694.0	10694.0	10694.0	10694.0
1°	10612.2	10572.4	10610.7	10588.2	10600.9
2°	10381.7	10332.2	10372.0	10340.4	10366.7
3°	10022.8	9984.6	10019.8	9980.0	10001.1
4°	9573.1	9517.6	9552.9	9499.6	9512.3
5°	9001.0	8935.0	8953.0	8886.2	8886.9
6°	8280.3	8234.5	8245.0	8140.6	8133.1
7°	7575.3	7467.2	7455.9	7336.6	7313.3
8°	6719.4	6621.1	6588.8	6448.4	6398.9
9°	5898.8	5776.5	5710.4	5547.5	5489.7
10°	5064.7	4940.8	4841.7	4657.8	4595.5
11°	4292.9	4181.1	4057.9	3861.2	3800.4
12°	3576.7	3488.8	3353.7	3163.8	3099.9
13°	2991.8	2890.5	2745.6	2569.2	2514.3
14°	2485.1	2376.2	2231.3	2080.4	1973.8
15°	2057.1	1985.8	1822.1	1681.7	1605.2
16°	1681.0	1620.2	1479.0	1357.4	1303.3
17°	1378.4	1329.6	1209.5	1114.1	1069.1
18°	1137.4	1076.6	982.0	919.7	884.4
19°	922.7	875.4	806.3	758.3	723.0
20°	761.3	722.2	666.7	623.9	610.4
22.5°	491.8	485.0	449.0	425.7	414.4
25°	324.3	328.1	311.6	293.6	277.0
26°	277.0	279.3	264.3	253.8	232.7
27°	237.2	238.0	238.0	218.5	198.2
28°	193.7	202.0	194.5	185.4	165.9
29°	165.9	176.4	172.7	163.7	144.9
30°	143.4	150.9	158.4	144.1	126.1
32.5°	100.6	107.4	115.6	108.1	93.1
35°	71.3	77.3	84.1	63.8	66.8
37.5°	48.8	59.3	57.1	51.8	44.3
40°	29.3	30.8	33.8	36.0	19.5
42.5°	21.0	24.8	22.5	25.5	9.0
45°	10.5	15.0	8.3	8.3	12.0
47.5°	7.5	12.8	4.5	4.5	1.5
50°	4.5	9.8	5.3	2.3	7.5
52.5°	7.5	9.0	6.0	6.8	1.5
55°	0.0	4.5	3.0	1.5	0.0
57.5°	3.0	5.3	3.0	1.5	3.0
60°	0.0	0.0	0.0	0.8	1.5
62.5°	0.0	1.5	0.0	2.3	3.0
65°	0.0	3.0	0.0	0.0	0.0
67.5°	4.5	5.3	3.0	6.0	9.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.5	0.0
77.5°	0.0	7.5	2.3	2.3	3.0
80°	1.5	0.0	0.0	0.8	0.0
82.5°	0.0	6.0	0.8	3.0	4.5
85°	7.5	3.8	6.8	3.8	3.0
87.5°	0.0	0.8	1.5	0.8	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	0.8	0.8	0.0
72.5°	1.5	0.0	0.0	0.0	0.0



(END OF REPORT)