

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: P283770

Luminaire Tested: **LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P283770  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-15)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209040D010 EU2B20FL409040 2LBALPINSQ1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MB  
  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1370.2 lumens  
Efficiency: N/A  
Efficacy: 66.5 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.55  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

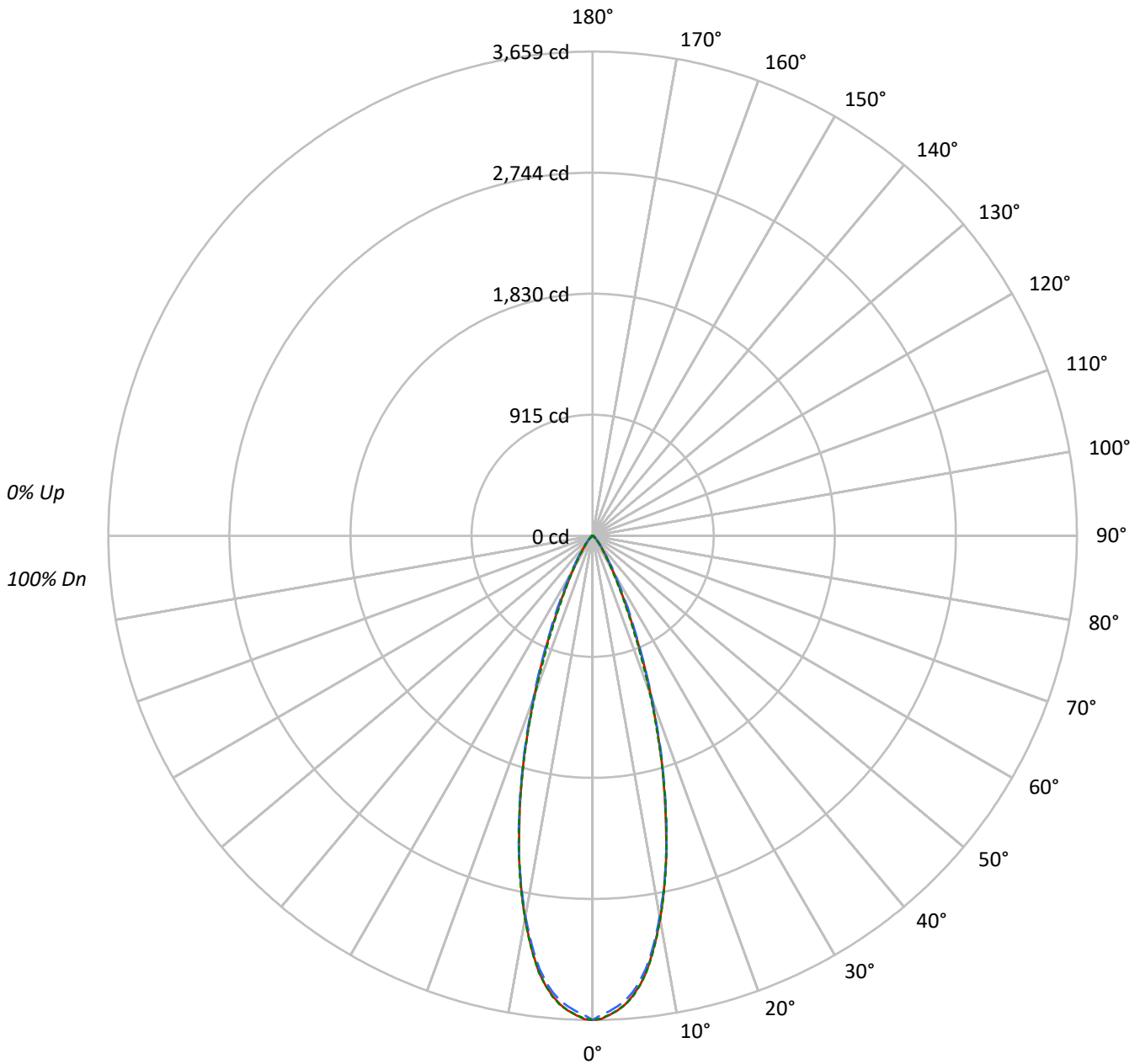
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90																			
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86																			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82																			
5	98	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	79																			
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75																			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72																			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69																			
9	84	77	72	69	83	76	72	68	75	71	68	74	71	68	74	70	68	67																			
10	82	74	69	66	81	73	69	66	73	69	66	72	68	65	71	68	65	64																			

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

	0°	45°	90°
0°	1805309	1805309	1805309
5°	1727716	1714741	1730341
10°	1471908	1462690	1473461
15°	1084866	1091966	1088442
20°	677282	689777	662319
25°	349863	375394	332280
30°	167715	192269	159854
35°	86608	95823	81007
40°	48496	51008	46049
45°	29514	29514	28397
50°	15351	18881	15351
55°	7913	12558	8602
60°	9078	9078	9078
65°	9923	9923	9923
70°	12261	11107	12261
75°	11628	11628	11628
80°	10796	10796	10796
85°	8491	8491	8491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	314.7	23.0
10°-20°	578.1	42.2
20°-30°	313.4	22.9
30°-40°	100.6	7.3
40°-50°	34.3	2.5
50°-60°	12.0	0.9
60°-70°	8.8	0.6
70°-80°	6.4	0.5
80°-90°	1.8	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°	1206.3	88.0
0°-40°	1306.9	95.4
0°-60°	1353.2	98.8
0°-90°	1370.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1370.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3659	3659	3659	3659	3659	
5°	3489	3467	3462	3497	3494	315
15°	2124	2142	2138	2148	2131	576
25°	643	672	690	642	610	308
35°	144	150	159	144	134	97
45°	42	43	42	42	41	34
55°	9	12	15	12	10	10
65°	8	9	8	9	8	9
75°	6	6	6	6	6	6
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3659.2	3659.2	3659.2	3659.2	3659.2
1°	3653.1	3626.9	3623.1	3656.9	3649.2
2°	3623.9	3599.3	3595.4	3629.2	3622.3
3°	3591.6	3569.3	3561.6	3597.0	3592.3
4°	3548.5	3527.8	3520.9	3556.2	3552.4
5°	3488.6	3467.0	3462.4	3497.0	3493.9
6°	3414.8	3397.1	3388.6	3423.2	3417.1
7°	3322.5	3306.4	3297.1	3322.5	3325.6
8°	3202.6	3194.9	3184.1	3209.5	3209.5
9°	3075.0	3068.1	3056.5	3079.6	3079.6
10°	2938.1	2933.5	2919.7	2941.2	2941.2
11°	2788.2	2785.9	2775.9	2793.6	2793.6
12°	2630.6	2636.0	2626.8	2642.2	2636.8
13°	2473.1	2470.7	2471.5	2483.0	2474.6
14°	2294.7	2308.5	2310.8	2317.8	2304.7
15°	2124.0	2141.7	2137.9	2147.9	2131.0
16°	1949.5	1969.5	1968.8	1971.1	1954.9
17°	1786.6	1798.1	1798.9	1796.6	1776.6
18°	1612.8	1629.0	1629.0	1625.1	1601.3
19°	1442.9	1455.2	1463.7	1455.2	1427.6
20°	1290.0	1298.4	1313.8	1292.3	1261.5
21°	1143.1	1150.8	1163.9	1138.5	1104.7
22°	1002.4	1012.4	1024.7	995.5	960.2
23°	871.0	894.1	898.7	858.7	828.7
24°	750.3	776.4	784.1	743.4	711.9
25°	642.7	671.9	689.6	641.9	610.4
26°	549.7	578.1	599.6	552.0	522.0
27°	468.2	498.1	520.4	475.9	447.4
28°	398.2	427.4	450.5	409.0	382.1
29°	345.9	362.8	385.9	351.3	326.7
30°	294.4	312.9	337.5	302.1	280.6
32.5°	202.2	212.2	231.4	209.9	193.0
35°	143.8	149.9	159.1	144.5	134.5
37.5°	102.2	105.3	110.7	102.2	96.9
40°	75.3	76.9	79.2	74.6	71.5
42.5°	56.1	56.9	56.9	55.3	53.8
45°	42.3	43.0	42.3	42.3	40.7
47.5°	30.7	33.1	32.3	32.3	30.0
50°	20.0	24.6	24.6	23.8	20.0
52.5°	12.3	16.9	19.2	16.9	13.1
55°	9.2	11.5	14.6	11.5	10.0
57.5°	9.2	9.2	10.8	9.2	9.2
60°	9.2	9.2	9.2	9.2	9.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	8.5	8.5	8.5	8.5	8.5
70°	8.5	8.5	7.7	8.5	8.5
72.5°	7.7	7.7	6.9	7.7	6.9
75°	6.1	6.1	6.1	6.1	6.1
77.5°	4.6	4.6	4.6	4.6	4.6
80°	3.8	3.8	3.8	3.8	3.8
82.5°	2.3	2.3	2.3	3.1	2.3
85°	1.5	1.5	1.5	1.5	1.5
87.5°	0.8	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0



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







62.5°	9.2	9.2	9.2	9.2	9.2
65°	8.5	9.2	8.5	9.2	8.5



(END OF REPORT)