

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: P283764

Luminaire Tested: **LDA2B209035D010 EU2B20FL409035 2LBALPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P283764  
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: LDA2B209035D010 EU2B20FL409035 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: 1341.7 lumens  
Efficiency: N/A  
Efficacy: 65.1 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

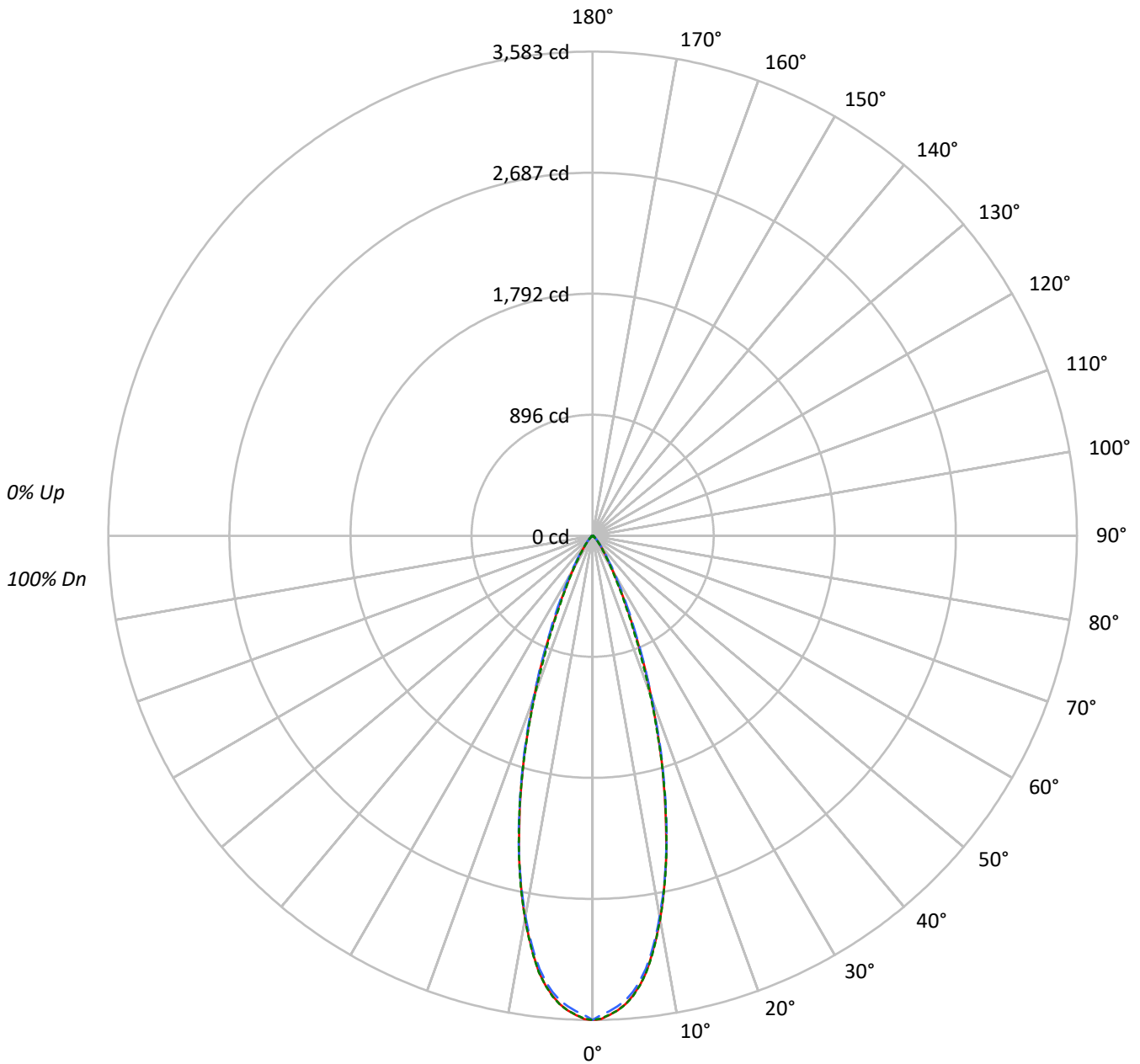
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1767765	1767765	1767765
5°	1691712	1679083	1694337
10°	1441298	1432231	1442801
15°	1062291	1069237	1065764
20°	663159	675392	648563
25°	342569	367555	325367
30°	164240	188281	156549
35°	84802	93836	79321
40°	47530	49913	45083
45°	28886	28886	27839
50°	15044	18498	15044
55°	7741	12300	8429
60°	8881	8881	8881
65°	9689	9689	9689
70°	11973	10819	11973
75°	11437	11437	11437
80°	10796	10796	10796
85°	8491	8491	8491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.2	23.0
10°-20°	566.1	42.2
20°-30°	306.9	22.9
30°-40°	98.5	7.3
40°-50°	33.6	2.5
50°-60°	11.8	0.9
60°-70°	8.6	0.6
70°-80°	6.2	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°	1181.2	88.0
0°-40°	1279.7	95.4
0°-60°	1325.1	98.8
0°-90°	1341.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1341.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3583	3583	3583	3583	3583	
5°	3416	3395	3390	3424	3421	309
15°	2080	2097	2093	2103	2087	564
25°	629	658	675	628	598	302
35°	141	147	156	142	132	95
45°	41	42	41	41	40	33
55°	9	11	14	11	10	10
65°	8	9	8	9	8	8
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°	3583.1	3583.1	3583.1	3583.1	3583.1
1°	3577.0	3551.4	3547.7	3580.8	3573.3
2°	3548.4	3524.3	3520.6	3553.7	3546.9
3°	3516.8	3495.0	3487.5	3522.1	3517.6
4°	3474.7	3454.3	3447.6	3482.2	3478.4
5°	3415.9	3394.9	3390.4	3424.2	3421.2
6°	3343.7	3326.4	3318.1	3352.0	3345.9
7°	3253.4	3237.5	3228.5	3253.4	3256.4
8°	3135.9	3128.4	3117.9	3142.7	3142.7
9°	3011.0	3004.2	2992.9	3015.5	3015.5
10°	2877.0	2872.5	2858.9	2880.0	2880.0
11°	2730.2	2727.9	2718.2	2735.5	2735.5
12°	2575.9	2581.2	2572.1	2587.2	2581.9
13°	2421.6	2419.3	2420.1	2431.4	2423.1
14°	2246.9	2260.5	2262.7	2269.5	2256.7
15°	2079.8	2097.1	2093.4	2103.2	2086.6
16°	1909.0	1928.5	1927.8	1930.0	1914.2
17°	1749.4	1760.7	1761.4	1759.2	1739.6
18°	1579.3	1595.1	1595.1	1591.3	1568.0
19°	1412.9	1424.9	1433.2	1424.9	1397.8
20°	1263.1	1271.4	1286.4	1265.4	1235.3
21°	1119.3	1126.9	1139.7	1114.8	1081.7
22°	981.6	991.4	1003.4	974.8	940.2
23°	852.9	875.4	880.0	840.8	811.5
24°	734.7	760.3	767.8	727.9	697.0
25°	629.3	657.9	675.2	628.5	597.7
26°	538.2	566.1	587.1	540.5	511.1
27°	458.4	487.8	509.6	465.9	438.1
28°	389.9	418.5	441.1	400.5	374.1
29°	338.7	355.3	377.9	344.0	319.9
30°	288.3	306.4	330.5	295.8	274.8
32.5°	198.0	207.8	226.6	205.5	188.9
35°	140.8	146.8	155.8	141.5	131.7
37.5°	100.1	103.1	108.4	100.1	94.8
40°	73.8	75.3	77.5	73.0	70.0
42.5°	55.0	55.7	55.7	54.2	52.7
45°	41.4	42.2	41.4	41.4	39.9
47.5°	30.1	32.4	31.6	31.6	29.4
50°	19.6	24.1	24.1	23.3	19.6
52.5°	12.0	16.6	18.8	16.6	12.8
55°	9.0	11.3	14.3	11.3	9.8
57.5°	9.0	9.0	10.5	9.0	9.0
60°	9.0	9.0	9.0	9.0	9.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	8.3	8.3	8.3	8.3	8.3
70°	8.3	8.3	7.5	8.3	8.3
72.5°	7.5	7.5	6.8	7.5	6.8
75°	6.0	6.0	6.0	6.0	6.0
77.5°	4.5	4.5	4.5	4.5	4.5
80°	3.8	3.8	3.8	3.8	3.8
82.5°	2.3	2.3	2.3	3.0	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°	9.0	9.0	9.0	9.0	9.0
65°	8.3	9.0	8.3	9.0	8.3



(END OF REPORT)