

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: P282600

Luminaire Tested: **LDA2B209030D010 EU2B20SP159030 2LBALPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282600  
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: LDA2B209030D010 EU2B20SP159030 2LBALPINSQ1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MB  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1615.5 lumens  
Efficiency: N/A  
Efficacy: 78.4 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

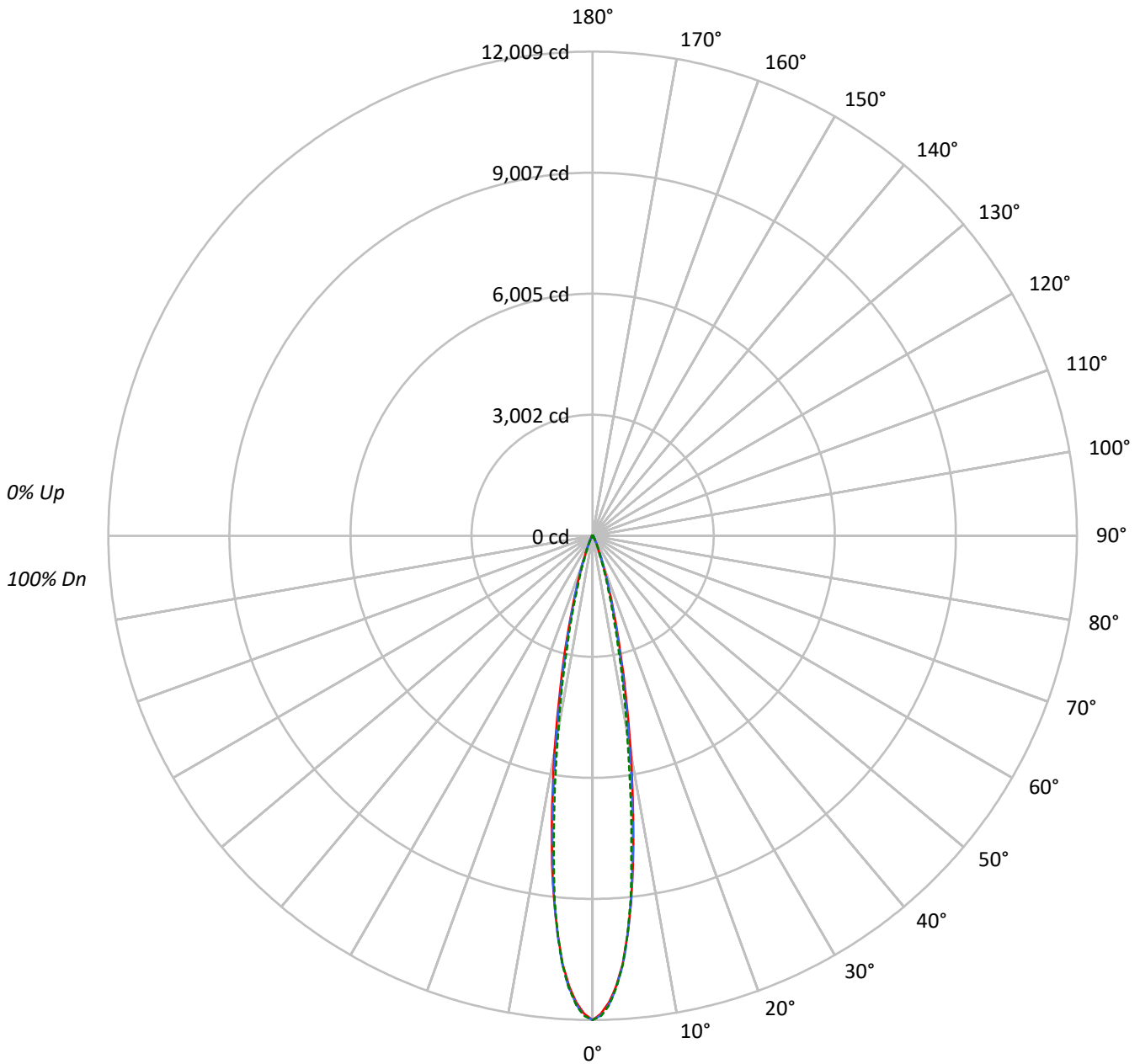
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					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	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	95	94	93	92	91	90		
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	93	92	91	90	89	88		
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	90	89	88	87	86	85		
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	88	87	86	85	84	83		
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	86	85	84	83	82	81		
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	84	83	82	81	80	79		
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	82	81	80	79	78	77		
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	80	79	78	77	76	75		
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	79	78	77	76	75	74		
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	77	76	75	74	73	72		

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

	0°	45°	90°
0°	5924880	5924880	5924880
5°	4915320	4931267	4912547
10°	2720482	2622191	2442693
15°	1101262	1053301	935212
20°	368935	391196	316747
25°	140392	140882	133369
30°	62950	61925	59817
35°	30536	27163	21622
40°	20158	25504	17775
45°	5163	8373	7745
50°	1382	2149	2840
55°	12644	11096	17461
60°	18156	14505	23583
65°	8639	22531	21480
70°	7934	6635	7934
75°	3431	8769	24590
80°	41765	57675	52277
85°	0	26039	31134



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	786.5	48.7
10°-20°	595.8	36.9
20°-30°	135.4	8.4
30°-40°	40.0	2.5
40°-50°	13.3	0.8
50°-60°	11.7	0.7
60°-70°	14.1	0.9
70°-80°	9.0	0.6
80°-90°	9.4	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°	1517.8	94.0
0°-40°	1557.8	96.4
0°-60°	1582.9	98.0
0°-90°	1615.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12009	12009	12009	12009	12009	
5°	9925	10003	9957	9827	9919	796
15°	2156	2186	2062	1869	1831	627
25°	258	277	259	256	245	135
35°	51	56	45	52	36	40
45°	7	21	12	21	11	11
55°	15	21	13	19	20	6
65°	7	16	19	18	18	8
75°	2	6	5	8	13	4
85°	0	0	5	5	6	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12009.2	12009.2	12009.2	12009.2	12009.2
1°	11854.5	11902.4	11897.8	11878.4	11912.5
2°	11581.9	11639.9	11634.4	11592.0	11652.8
3°	11182.2	11233.7	11225.4	11164.7	11231.0
4°	10648.0	10706.9	10683.9	10592.7	10677.4
5°	9925.0	10003.2	9957.2	9827.3	9919.4
6°	9123.7	9190.0	9117.2	8945.0	9035.2
7°	8226.6	8268.0	8172.2	7951.2	7890.4
8°	7247.5	7301.9	7168.3	6910.4	6844.1
9°	6311.8	6330.2	6168.1	5893.6	5809.8
10°	5430.4	5416.5	5234.2	4956.0	4875.9
11°	4595.0	4576.6	4384.1	4127.1	4152.9
12°	3835.1	3871.1	3647.3	3414.2	3418.8
13°	3210.7	3214.4	3021.9	2799.9	2787.0
14°	2628.6	2662.7	2497.8	2298.9	2262.0
15°	2156.1	2185.6	2062.2	1868.8	1831.0
16°	1726.0	1762.8	1674.4	1499.4	1449.7
17°	1389.8	1436.8	1378.8	1232.3	1175.2
18°	1111.7	1147.6	1133.8	982.7	935.8
19°	877.7	927.5	931.2	805.0	748.8
20°	702.7	747.9	745.1	647.5	603.3
22.5°	403.4	427.4	428.3	382.2	356.4
25°	257.9	277.2	258.8	256.0	245.0
26°	223.8	239.5	219.2	219.2	209.1
27°	181.4	195.3	175.9	184.2	170.4
28°	152.9	167.6	151.0	149.2	147.4
29°	127.1	140.9	119.7	128.9	123.4
30°	110.5	120.7	108.7	122.5	105.0
32.5°	85.7	93.9	72.8	92.1	69.1
35°	50.7	56.2	45.1	52.5	35.9
37.5°	52.5	54.3	48.8	54.3	50.7
40°	31.3	32.2	39.6	39.6	27.6
42.5°	29.5	28.6	17.5	27.6	22.1
45°	7.4	21.2	12.0	21.2	11.1
47.5°	5.5	7.4	7.4	14.7	14.7
50°	1.8	7.4	2.8	5.5	3.7
52.5°	0.0	17.5	3.7	12.9	11.1
55°	14.7	21.2	12.9	19.3	20.3
57.5°	1.8	14.7	7.4	15.7	11.1
60°	18.4	24.9	14.7	26.7	23.9
62.5°	1.8	16.6	19.3	14.7	12.9
65°	7.4	15.7	19.3	18.4	18.4
67.5°	9.2	15.7	12.0	12.0	16.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	1.8	6.4	4.6	8.3	12.9
77.5°	1.8	7.4	6.4	14.7	11.1
80°	14.7	16.6	20.3	26.7	18.4
82.5°	12.9	12.9	20.3	14.7	11.1
85°	0.0	0.0	4.6	4.6	5.5
87.5°	0.0	3.7	9.2	7.4	12.9
90°	0.0	0.0	0.0	0.0	0.0



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







70°	5.5	1.8	4.6	4.6	5.5
72.5°	1.8	8.3	7.4	4.6	9.2



(END OF REPORT)