

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: P283783

Luminaire Tested: **LDA2B209727D010 EU2B20FL409727 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P283783  
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: LDA2B209727D010 EU2B20FL409727 2LBALPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MMS

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1131.8 lumens  
Efficiency: N/A  
Efficacy: 54.9 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

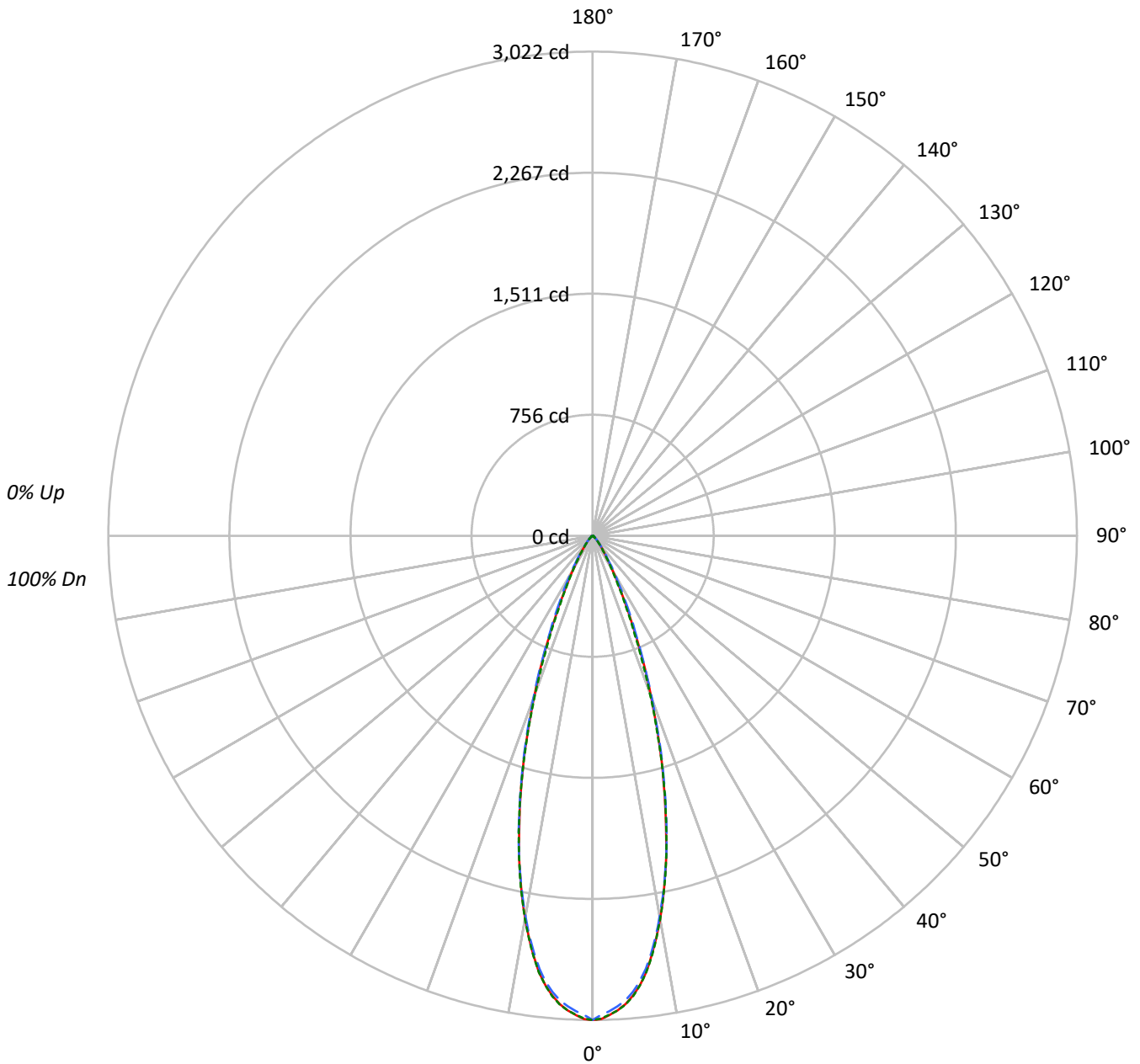
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20					20					20					20					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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90					90			
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86					86			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82					82			
5	98	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	79					79			
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75					75			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72					72			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69					69			
9	84	77	72	69	83	76	72	68	75	71	68	74	71	68	74	70	68	67					67			
10	82	74	69	66	81	73	69	66	73	69	66	72	68	65	71	68	65	64					64			

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

	0°	45°	90°
0°	1491186	1491186	1491186
5°	1427052	1416355	1429281
10°	1215811	1208146	1217063
15°	896087	901961	899050
20°	559414	569757	547076
25°	288949	310070	274469
30°	138547	158828	132053
35°	71491	79140	66914
40°	40059	42120	38063
45°	24350	24350	23513
50°	12664	15581	12664
55°	6537	10408	7139
60°	7499	7499	7499
65°	8172	8172	8172
70°	10097	9088	10097
75°	9722	9722	9722
80°	9092	9092	9092
85°	7359	7359	7359



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.0	23.0
10°-20°	477.5	42.2
20°-30°	258.9	22.9
30°-40°	83.1	7.3
40°-50°	28.3	2.5
50°-60°	9.9	0.9
60°-70°	7.2	0.6
70°-80°	5.3	0.5
80°-90°	1.5	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°	996.4	88.0
0°-40°	1079.5	95.4
0°-60°	1117.8	98.8
0°-90°	1131.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1131.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	2882	2864	2860	2888	2886	261
15°	1754	1769	1766	1774	1760	476
25°	531	555	570	530	504	254
35°	119	124	131	119	111	80
45°	35	36	35	35	34	28
55°	8	10	12	10	8	8
65°	7	8	7	8	7	7
75°	5	5	5	5	5	5
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3022.5	3022.5	3022.5	3022.5	3022.5
1°	3017.4	2995.8	2992.6	3020.6	3014.2
2°	2993.3	2973.0	2969.8	2997.7	2992.0
3°	2966.6	2948.2	2941.8	2971.1	2967.2
4°	2931.1	2913.9	2908.2	2937.4	2934.2
5°	2881.5	2863.7	2859.9	2888.5	2886.0
6°	2820.6	2806.0	2799.0	2827.6	2822.5
7°	2744.4	2731.0	2723.4	2744.4	2746.9
8°	2645.3	2639.0	2630.1	2651.0	2651.0
9°	2539.9	2534.2	2524.7	2543.7	2543.7
10°	2426.9	2423.1	2411.6	2429.4	2429.4
11°	2303.1	2301.2	2292.9	2307.5	2307.5
12°	2172.9	2177.3	2169.7	2182.4	2178.0
13°	2042.7	2040.8	2041.4	2051.0	2044.0
14°	1895.4	1906.8	1908.7	1914.5	1903.7
15°	1754.4	1769.0	1765.9	1774.1	1760.2
16°	1610.3	1626.8	1626.2	1628.1	1614.7
17°	1475.7	1485.2	1485.8	1483.9	1467.4
18°	1332.2	1345.5	1345.5	1342.3	1322.7
19°	1191.9	1202.0	1209.0	1202.0	1179.2
20°	1065.5	1072.5	1085.2	1067.4	1042.0
21°	944.2	950.6	961.4	940.4	912.5
22°	828.0	836.3	846.4	822.3	793.1
23°	719.4	738.5	742.3	709.3	684.5
24°	619.7	641.3	647.7	614.0	588.0
25°	530.8	555.0	569.6	530.2	504.2
26°	454.0	477.5	495.3	455.9	431.1
27°	386.7	411.5	429.9	393.1	369.6
28°	328.9	353.0	372.1	337.8	315.6
29°	285.7	299.7	318.8	290.2	269.9
30°	243.2	258.4	278.8	249.5	231.8
32.5°	167.0	175.3	191.1	173.3	159.4
35°	118.7	123.8	131.4	119.4	111.1
37.5°	84.5	87.0	91.4	84.5	80.0
40°	62.2	63.5	65.4	61.6	59.1
42.5°	46.4	47.0	47.0	45.7	44.4
45°	34.9	35.6	34.9	34.9	33.7
47.5°	25.4	27.3	26.7	26.7	24.8
50°	16.5	20.3	20.3	19.7	16.5
52.5°	10.2	14.0	15.9	14.0	10.8
55°	7.6	9.5	12.1	9.5	8.3
57.5°	7.6	7.6	8.9	7.6	7.6
60°	7.6	7.6	7.6	7.6	7.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	7.0	7.0	7.0	7.0	7.0
70°	7.0	7.0	6.3	7.0	7.0
72.5°	6.3	6.3	5.7	6.3	5.7
75°	5.1	5.1	5.1	5.1	5.1
77.5°	3.8	3.8	3.8	3.8	3.8
80°	3.2	3.2	3.2	3.2	3.2
82.5°	1.9	1.9	1.9	2.5	1.9
85°	1.3	1.3	1.3	1.3	1.3
87.5°	0.6	0.6	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0



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







62.5°	7.6	7.6	7.6	7.6	7.6
65°	7.0	7.6	7.0	7.6	7.0



(END OF REPORT)