

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: P281717

Luminaire Tested: **LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281717  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-10)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1161.1 lumens  
Efficiency: N/A  
Efficacy: 82.4 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

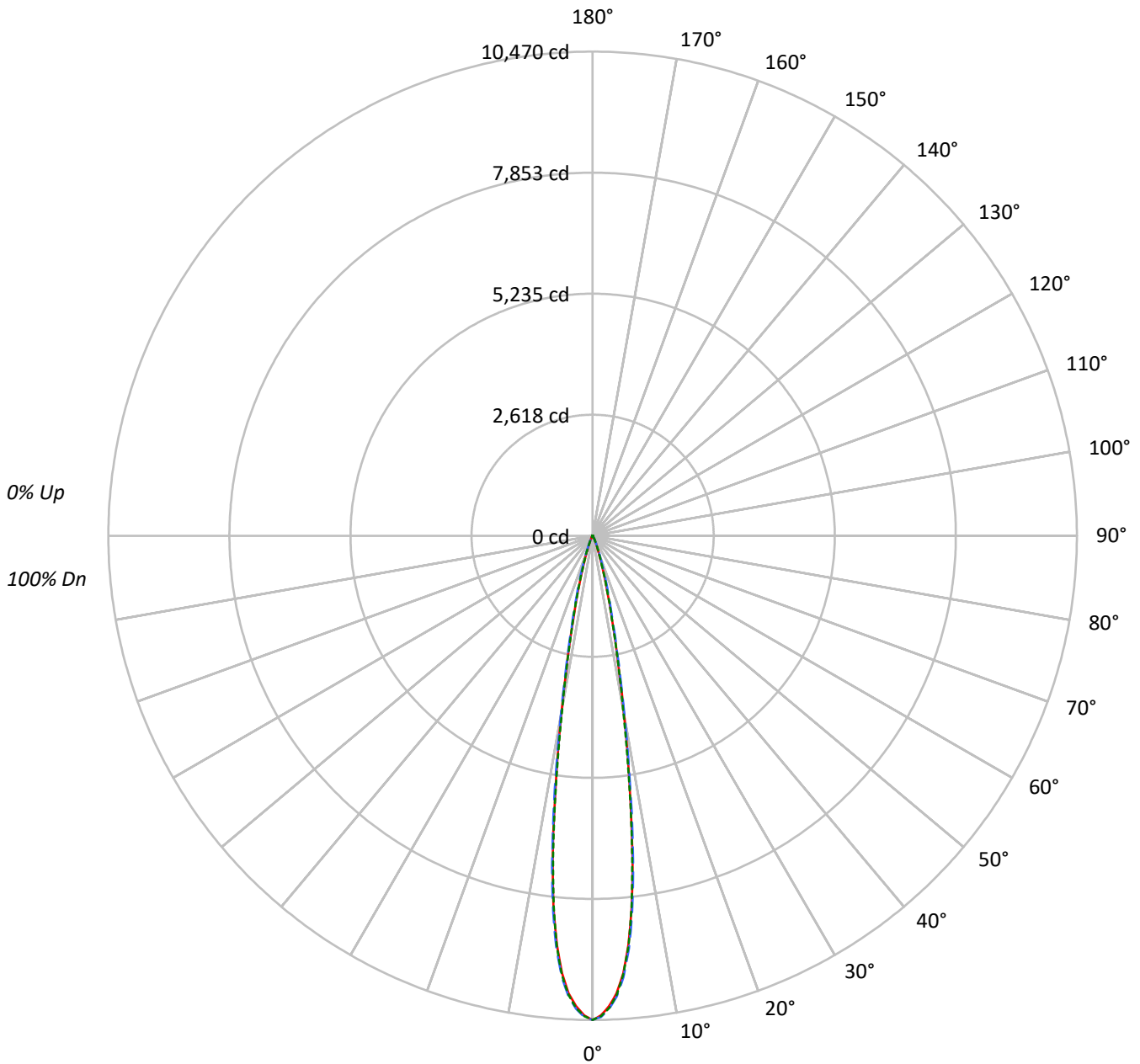
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P281717

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P281717

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS

**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	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98					98			
2	113	110	107	105	111	108	106	104	105	103	102	102	101	99	99	98	97	96					96			
3	110	106	103	101	108	105	102	100	102	100	98	100	98	97	98	97	95	94					94			
4	107	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93					93			
5	105	100	97	95	104	100	96	94	98	95	93	97	94	93	95	93	92	91					91			
6	103	98	95	92	102	97	94	92	96	93	91	95	93	91	94	92	90	89					89			
7	101	96	93	90	100	95	92	90	94	92	90	93	91	89	93	90	89	88					88			
8	99	94	91	89	98	94	91	88	93	90	88	92	90	88	91	89	88	87					87			
9	98	92	89	87	97	92	89	87	91	89	87	91	88	86	90	88	86	85					85			
10	96	91	88	86	95	90	88	86	90	87	85	89	87	85	89	87	85	84					84			

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

	0°	45°	90°
0°	5165301	5165301	5165301
5°	4398431	4444242	4406752
10°	1941820	1986257	1896432
15°	589219	675794	598464
20°	176303	235054	197042
25°	68699	67610	72183
30°	30592	27630	29111
35°	6264	5481	5481
40°	0	386	1674
45°	5442	4535	8094
50°	0	1458	4989
55°	0	0	2236
60°	0	592	2565
65°	0	0	1518
70°	0	3750	7501
75°	0	0	0
80°	0	0	0
85°	0	3396	14718



TEST NUMBER: P281717

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.7	58.5
10°-20°	387.6	33.4
20°-30°	73.6	6.3
30°-40°	13.4	1.2
40°-50°	3.4	0.3
50°-60°	2.6	0.2
60°-70°	0.4	0.0
70°-80°	0.6	0.0
80°-90°	0.8	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°	1139.9	98.2
0°-40°	1153.3	99.3
0°-60°	1159.3	99.8
0°-90°	1161.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1161.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10470	10470	10470	10470	10470	
5°	8881	8940	8974	8958	8898	674
15°	1154	1254	1323	1243	1172	367
25°	126	136	124	142	133	66
35°	10	13	9	11	9	14
45°	8	12	6	7	12	4
55°	0	1	0	1	3	1
65°	0	0	0	0	1	0
75°	0	0	0	0	0	0
85°	0	1	1	1	3	0
90°	0	0	0	0	0	



TEST NUMBER: P281717

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10469.6	10469.6	10469.6	10469.6	10469.6
1°	10370.6	10381.6	10404.9	10428.9	10391.3
2°	10176.5	10203.1	10236.1	10258.1	10217.3
3°	9904.8	9941.7	9976.6	9981.1	9943.0
4°	9484.9	9530.2	9567.1	9562.5	9514.7
5°	8881.3	8939.5	8973.8	8958.2	8898.1
6°	8083.5	8139.8	8183.8	8139.2	8058.3
7°	7089.7	7154.4	7201.0	7124.7	7025.7
8°	5938.1	6028.7	6075.3	5968.5	5866.9
9°	4847.3	4910.0	4957.2	4840.8	4737.3
10°	3876.1	3991.3	3964.8	3874.8	3785.5
11°	3048.6	3152.8	3157.3	3096.5	3009.2
12°	2386.8	2496.7	2524.6	2478.0	2400.3
13°	1886.0	1968.1	2014.1	1966.2	1892.5
14°	1501.0	1574.1	1633.0	1570.9	1497.1
15°	1153.6	1254.5	1323.1	1242.9	1171.7
16°	917.4	1000.9	1082.4	991.2	934.3
17°	704.6	779.0	863.1	780.3	733.7
18°	557.7	616.6	709.1	623.7	582.9
19°	436.7	481.4	567.4	492.4	459.4
20°	335.8	385.0	447.7	396.6	375.3
22.5°	203.2	230.3	248.4	232.9	221.9
25°	126.2	135.9	124.2	141.7	132.6
26°	110.0	117.1	114.5	126.2	115.2
27°	88.0	97.0	89.9	99.0	95.8
28°	80.2	91.2	77.0	88.0	82.8
29°	56.3	60.8	55.0	58.9	58.9
30°	53.7	55.0	48.5	53.1	51.1
32.5°	42.1	39.5	32.3	34.3	33.0
35°	10.4	12.9	9.1	11.0	9.1
37.5°	15.5	14.2	16.8	16.2	15.5
40°	0.0	0.6	0.6	0.6	2.6
42.5°	11.6	7.1	6.5	4.5	7.8
45°	7.8	12.3	6.5	7.1	11.6
47.5°	0.0	0.6	0.0	1.3	1.3
50°	0.0	1.3	1.9	2.6	6.5
52.5°	1.3	7.8	3.9	7.1	10.4
55°	0.0	0.6	0.0	0.6	2.6
57.5°	2.6	1.3	2.6	2.6	11.6
60°	0.0	1.3	0.6	0.6	2.6
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	1.3
67.5°	0.0	0.6	0.0	0.0	0.0



TEST NUMBER: P281717

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.6	0.0	0.0
80°	0.0	0.6	0.0	0.0	0.0
82.5°	0.0	0.6	1.3	1.9	1.3
85°	0.0	0.6	0.6	0.6	2.6
87.5°	0.0	1.3	1.9	0.0	1.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	0.0	1.9	2.6	0.0	5.2
72.5°	0.0	3.2	0.6	0.6	0.0



(END OF REPORT)