

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: P281778

Luminaire Tested: **LDA2B159035D010 EU2B15SP159035 2LBALSQC1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B159035D010 EU2B15SP159035 2LBALSQC1MB  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim w/lens, MB  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1205.5 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

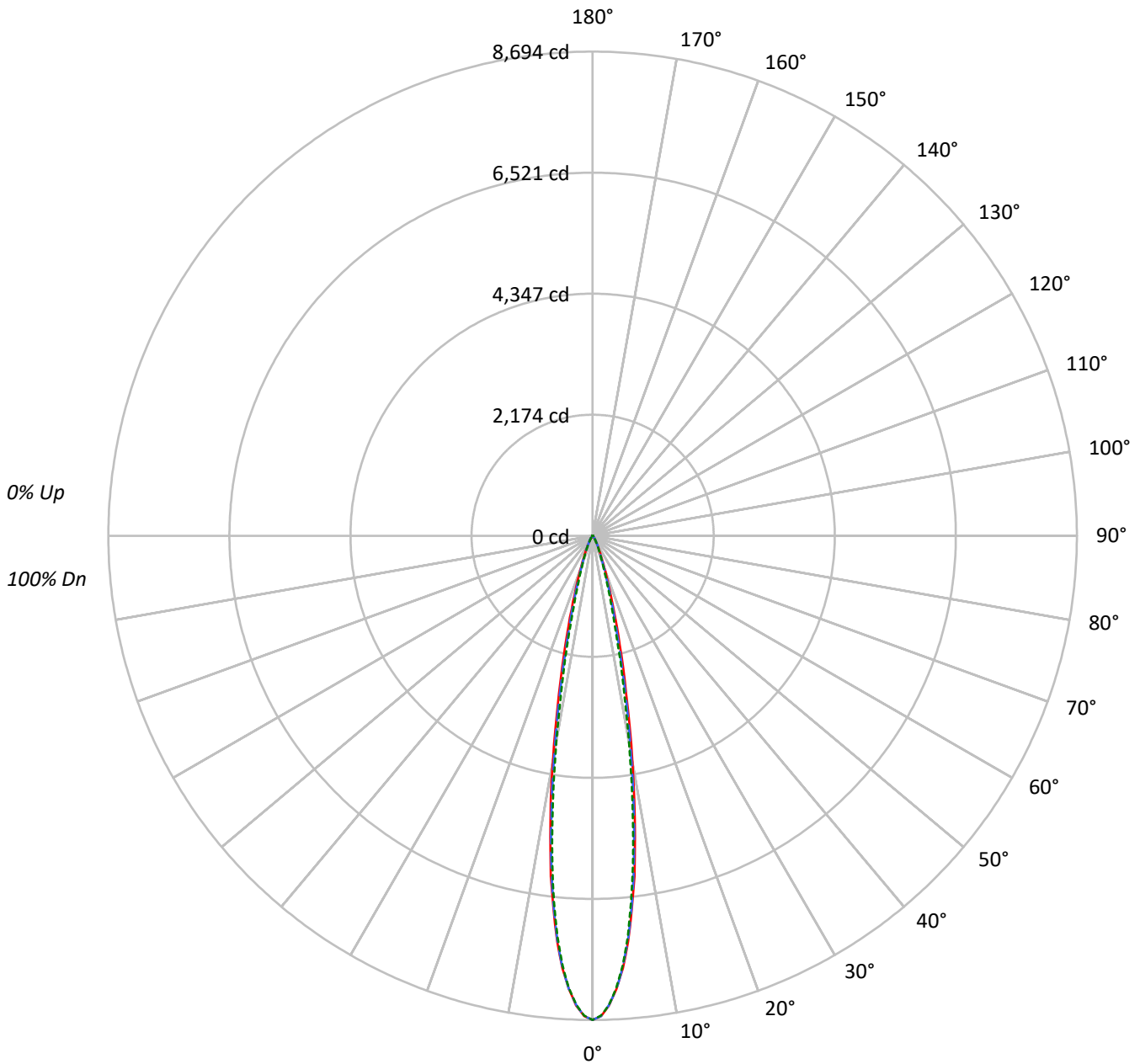
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97																			
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95																			
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92																			
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	93	91	90																			
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	93	90	89	88																			
6	101	95	91	89	99	94	91	88	93	90	88	92	89	87	91	88	87	86																			
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	87	85	84																			
8	96	90	86	84	95	90	86	84	89	86	83	88	85	83	87	85	83	82																			
9	94	88	84	82	93	88	84	82	87	84	82	86	83	81	86	83	81	80																			
10	92	86	83	80	91	86	82	80	85	82	80	85	82	80	84	81	80	79																			

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

	0°	45°	90°
0°	4289337	4289337	4289337
5°	3624064	3604750	3578155
10°	2062805	1971979	1871684
15°	854205	756648	666549
20°	324938	284563	260517
25°	143549	137888	122591
30°	66425	73375	58393
35°	34932	41196	32704
40°	15328	17711	10240
45°	5931	4675	6838
50°	2840	3300	4682
55°	0	2064	0
60°	0	0	1184
65°	0	0	0
70°	0	865	0
75°	0	0	0
80°	3409	0	0
85°	34530	31134	13586



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	581.3	48.2
10°-20°	444.4	36.9
20°-30°	123.6	10.3
30°-40°	40.2	3.3
40°-50°	8.9	0.7
50°-60°	2.7	0.2
60°-70°	1.6	0.1
70°-80°	0.9	0.1
80°-90°	2.0	0.2
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°	1149.3	95.3
0°-40°	1189.5	98.7
0°-60°	1201.0	99.6
0°-90°	1205.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1205.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8694	8694	8694	8694	8694	
5°	7318	7264	7279	7224	7225	592
15°	1672	1614	1481	1367	1305	488
25°	264	267	253	239	225	132
35°	58	63	68	52	54	38
45°	8	12	7	7	10	9
55°	0	4	2	1	0	2
65°	0	2	0	0	0	2
75°	0	0	0	1	0	0
85°	6	3	6	3	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8694.1	8694.1	8694.1	8694.1	8694.1
1°	8627.6	8595.3	8626.4	8608.1	8618.4
2°	8440.2	8399.9	8432.3	8406.6	8428.0
3°	8148.5	8117.3	8146.0	8113.7	8130.8
4°	7782.8	7737.7	7766.4	7723.0	7733.4
5°	7317.7	7264.0	7278.7	7224.4	7225.0
6°	6731.8	6694.6	6703.1	6618.3	6612.2
7°	6158.7	6070.8	6061.6	5964.6	5945.6
8°	5462.8	5382.9	5356.6	5242.5	5202.2
9°	4795.7	4696.2	4642.5	4510.0	4463.0
10°	4117.6	4016.9	3936.3	3786.7	3736.1
11°	3490.1	3399.2	3299.1	3139.1	3089.7
12°	2907.8	2836.4	2726.5	2572.1	2520.2
13°	2432.3	2349.9	2232.1	2088.7	2044.1
14°	2020.3	1931.8	1814.0	1691.3	1604.7
15°	1672.4	1614.4	1481.4	1367.2	1305.0
16°	1366.6	1317.2	1202.4	1103.6	1059.6
17°	1120.6	1081.0	983.3	905.8	869.2
18°	924.7	875.3	798.4	747.7	719.0
19°	750.1	711.7	655.5	616.5	587.8
20°	618.9	587.2	542.0	507.2	496.2
22.5°	399.8	394.3	365.0	346.1	336.9
25°	263.7	266.7	253.3	238.7	225.2
26°	225.2	227.1	214.9	206.3	189.2
27°	192.9	193.5	193.5	177.6	161.1
28°	157.5	164.2	158.1	150.8	134.9
29°	134.9	143.4	140.4	133.1	117.8
30°	116.6	122.7	128.8	117.2	102.5
32.5°	81.8	87.3	94.0	87.9	75.7
35°	58.0	62.9	68.4	51.9	54.3
37.5°	39.7	48.2	46.4	42.1	36.0
40°	23.8	25.0	27.5	29.3	15.9
42.5°	17.1	20.1	18.3	20.8	7.3
45°	8.5	12.2	6.7	6.7	9.8
47.5°	6.1	10.4	3.7	3.7	1.2
50°	3.7	7.9	4.3	1.8	6.1
52.5°	6.1	7.3	4.9	5.5	1.2
55°	0.0	3.7	2.4	1.2	0.0
57.5°	2.4	4.3	2.4	1.2	2.4
60°	0.0	0.0	0.0	0.6	1.2
62.5°	0.0	1.2	0.0	1.8	2.4
65°	0.0	2.4	0.0	0.0	0.0
67.5°	3.7	4.3	2.4	4.9	7.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.2	0.0
77.5°	0.0	6.1	1.8	1.8	2.4
80°	1.2	0.0	0.0	0.6	0.0
82.5°	0.0	4.9	0.6	2.4	3.7
85°	6.1	3.1	5.5	3.1	2.4
87.5°	0.0	0.6	1.2	0.6	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	0.0	0.6	0.6	0.0
72.5°	1.2	0.0	0.0	0.0	0.0



(END OF REPORT)