

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: **LDA2B159050D010 EU2B15SP159050 2LBALSQC1MMS**

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: LDA2B159050D010 EU2B15SP159050 2LBALSQC1MMS  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim w/lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1264.8 lumens  
Efficiency: N/A  
Efficacy: 89.7 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

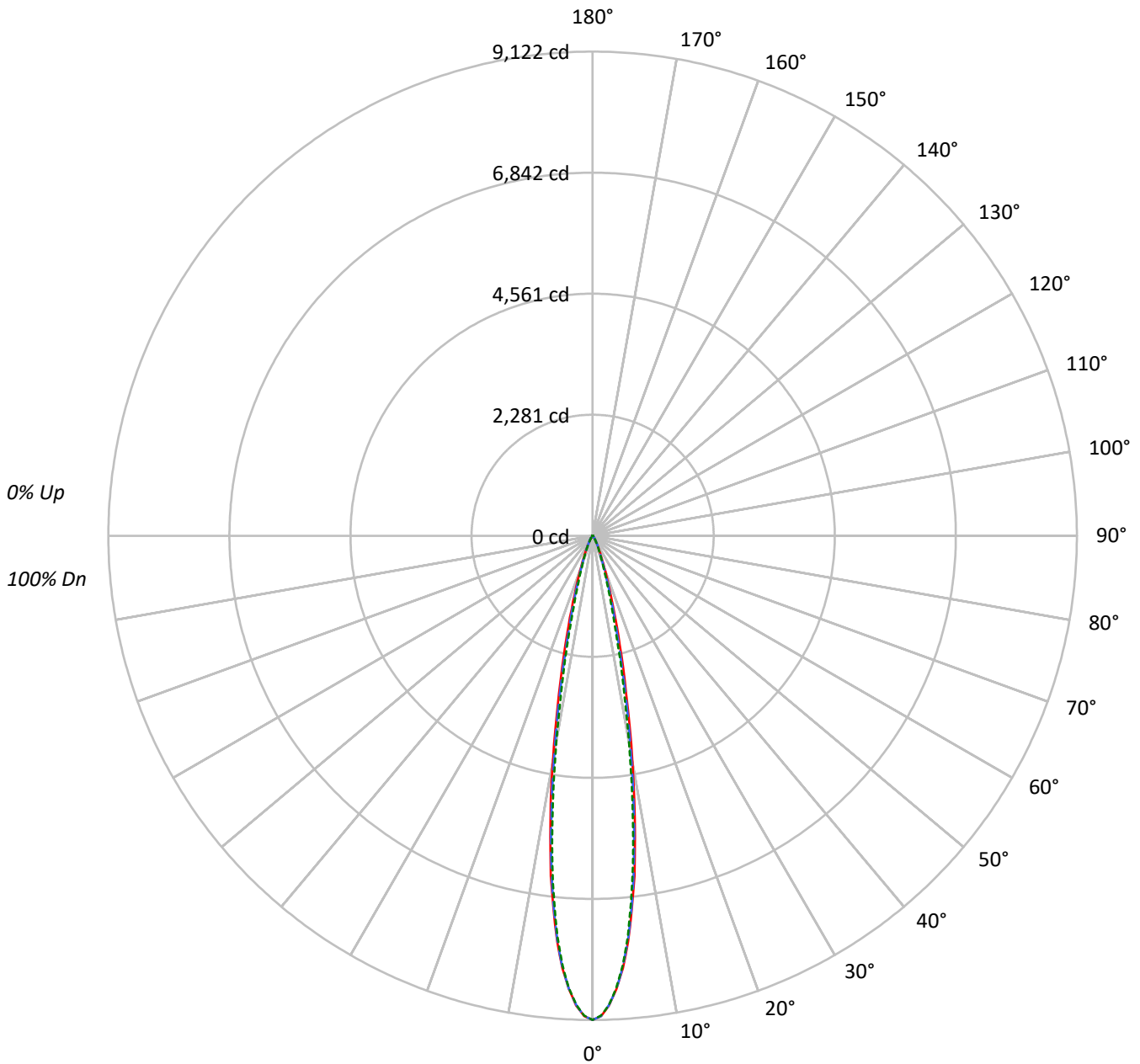
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	88	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°	4500397	4500397	4500397
5°	3802402	3782097	3754165
10°	2164302	2069017	1963763
15°	896241	793883	699340
20°	340951	298582	273328
25°	150626	144692	128633
30°	69672	76964	61298
35°	36619	43184	34330
40°	16101	18548	10755
45°	6279	4884	7117
50°	2917	3454	4912
55°	0	2236	0
60°	0	0	1283
65°	0	0	0
70°	0	865	0
75°	0	0	0
80°	3694	0	0
85°	36228	32832	14718



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	609.9	48.2
10°-20°	466.3	36.9
20°-30°	129.7	10.3
30°-40°	42.1	3.3
40°-50°	9.3	0.7
50°-60°	2.9	0.2
60°-70°	1.6	0.1
70°-80°	1.0	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°	1205.9	95.3
0°-40°	1248.0	98.7
0°-60°	1260.1	99.6
0°-90°	1264.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1264.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9122	9122	9122	9122	9122	
5°	7678	7621	7637	7580	7580	621
15°	1755	1694	1554	1434	1369	512
25°	277	280	266	250	236	139
35°	61	66	72	54	57	40
45°	9	13	7	7	10	9
55°	0	4	3	1	0	2
65°	0	3	0	0	0	2
75°	0	0	0	1	0	1
85°	6	3	6	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9121.9	9121.9	9121.9	9121.9	9121.9
1°	9052.1	9018.1	9050.8	9031.6	9042.5
2°	8855.5	8813.2	8847.2	8820.3	8842.7
3°	8549.4	8516.7	8546.8	8512.9	8530.8
4°	8165.8	8118.4	8148.5	8103.0	8113.9
5°	7677.8	7621.4	7636.8	7579.8	7580.4
6°	7063.0	7023.9	7032.9	6943.9	6937.5
7°	6461.7	6369.4	6359.8	6258.0	6238.2
8°	5731.6	5647.7	5620.2	5500.4	5458.2
9°	5031.6	4927.3	4870.9	4731.9	4682.6
10°	4320.2	4214.5	4130.0	3973.1	3919.9
11°	3661.8	3566.4	3461.4	3293.6	3241.7
12°	3050.9	2976.0	2860.7	2698.7	2644.2
13°	2552.0	2465.5	2342.0	2191.5	2144.7
14°	2119.7	2026.9	1903.3	1774.6	1683.6
15°	1754.7	1693.9	1554.3	1434.5	1369.2
16°	1433.9	1382.0	1261.6	1157.8	1111.7
17°	1175.8	1134.2	1031.7	950.4	911.9
18°	970.2	918.3	837.6	784.5	754.4
19°	787.1	746.7	687.8	646.8	616.7
20°	649.4	616.1	568.7	532.2	520.6
22.5°	419.5	413.7	383.0	363.1	353.5
25°	276.7	279.9	265.8	250.4	236.3
26°	236.3	238.2	225.4	216.5	198.5
27°	202.4	203.0	203.0	186.4	169.1
28°	165.2	172.3	165.9	158.2	141.5
29°	141.5	150.5	147.3	139.6	123.6
30°	122.3	128.7	135.1	123.0	107.6
32.5°	85.8	91.6	98.6	92.2	79.4
35°	60.8	66.0	71.7	54.4	57.0
37.5°	41.6	50.6	48.7	44.2	37.8
40°	25.0	26.3	28.8	30.7	16.7
42.5°	17.9	21.1	19.2	21.8	7.7
45°	9.0	12.8	7.0	7.0	10.2
47.5°	6.4	10.9	3.8	3.8	1.3
50°	3.8	8.3	4.5	1.9	6.4
52.5°	6.4	7.7	5.1	5.8	1.3
55°	0.0	3.8	2.6	1.3	0.0
57.5°	2.6	4.5	2.6	1.3	2.6
60°	0.0	0.0	0.0	0.6	1.3
62.5°	0.0	1.3	0.0	1.9	2.6
65°	0.0	2.6	0.0	0.0	0.0
67.5°	3.8	4.5	2.6	5.1	7.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.3	0.0
77.5°	0.0	6.4	1.9	1.9	2.6
80°	1.3	0.0	0.0	0.6	0.0
82.5°	0.0	5.1	0.6	2.6	3.8
85°	6.4	3.2	5.8	3.2	2.6
87.5°	0.0	0.6	1.3	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°	1.3	0.0	0.0	0.0	0.0



(END OF REPORT)