

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: **LDA2B159040D010 EU2B15SP159040 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: LDA2B159040D010 EU2B15SP159040 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: 1231.1 lumens  
Efficiency: N/A  
Efficacy: 87.3 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

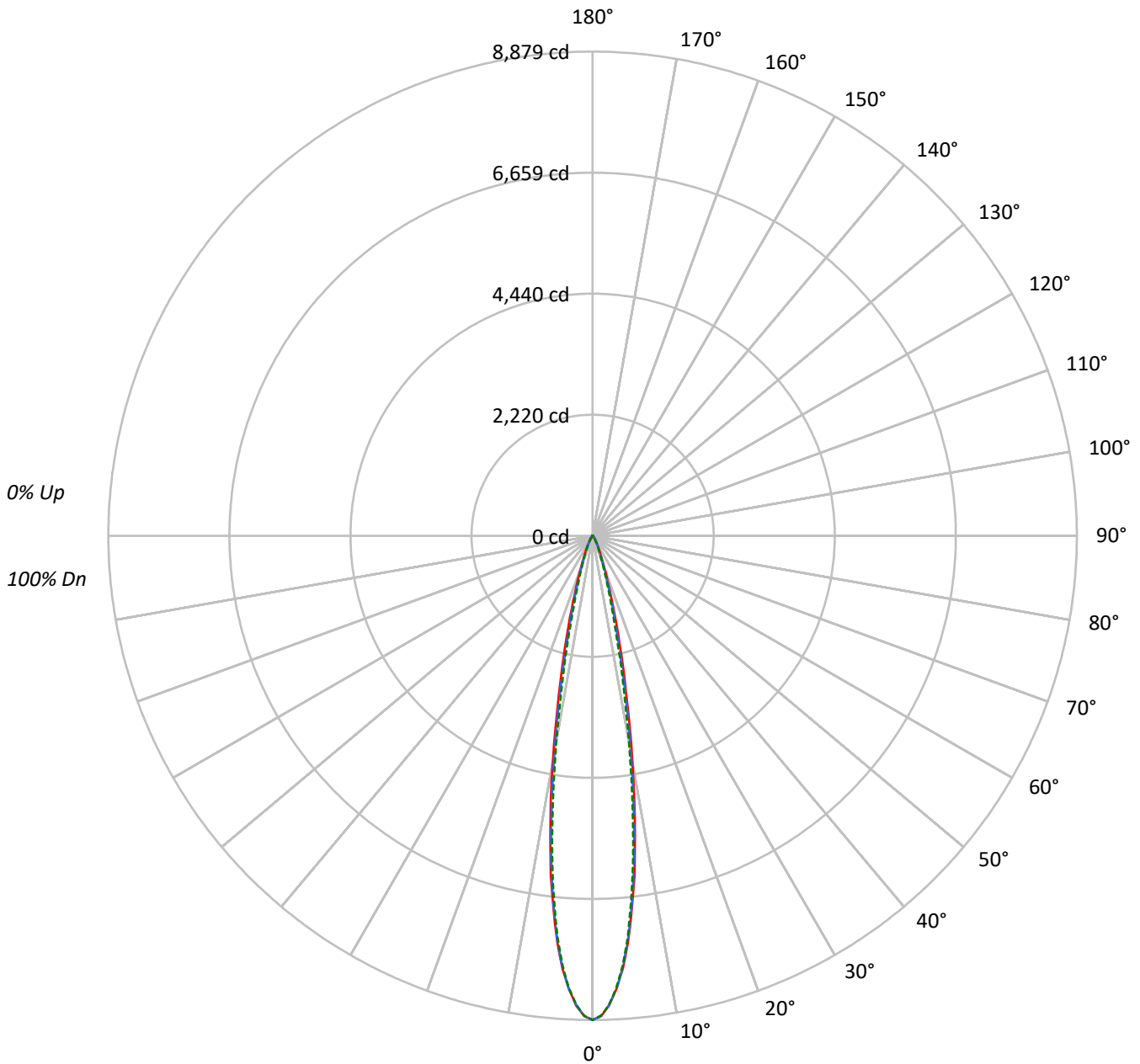
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97				97															
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95				95															
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92				92															
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	93	91	90				90															
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	93	90	89	88				88															
6	101	95	91	89	99	94	91	88	93	90	88	92	89	87	91	88	87	86				86															
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	87	85	84				84															
8	96	90	86	84	95	90	86	84	89	86	83	88	85	83	87	85	83	82				82															
9	94	88	84	82	93	88	84	82	87	84	82	86	83	81	86	83	81	80				80															
10	92	86	83	80	91	86	82	80	85	82	80	85	82	80	84	81	80	79				79															

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

	0°	45°	90°
0°	4380559	4380559	4380559
5°	3701125	3681364	3654225
10°	2106640	2013910	1911461
15°	872388	772737	680697
20°	331868	290601	266082
25°	146597	140827	125204
30°	67849	74914	59646
35°	35655	42039	33427
40°	15650	18097	10433
45°	6070	4814	6977
50°	2840	3377	4759
55°	0	2150	0
60°	0	0	1184
65°	0	0	0
70°	0	865	0
75°	0	0	0
80°	3409	0	0
85°	35096	31700	14152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	593.7	48.2
10°-20°	453.9	36.9
20°-30°	126.2	10.3
30°-40°	41.0	3.3
40°-50°	9.0	0.7
50°-60°	2.8	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°	1173.7	95.3
0°-40°	1214.8	98.7
0°-60°	1226.6	99.6
0°-90°	1231.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1231.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8879	8879	8879	8879	8879	
5°	7473	7418	7433	7378	7379	604
15°	1708	1649	1513	1396	1333	499
25°	269	272	259	244	230	135
35°	59	64	70	53	56	39
45°	9	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°	8879.0	8879.0	8879.0	8879.0	8879.0
1°	8811.0	8778.0	8809.8	8791.1	8801.7
2°	8619.7	8578.5	8611.6	8585.4	8607.2
3°	8321.7	8289.9	8319.2	8286.2	8303.6
4°	7948.3	7902.2	7931.5	7887.2	7897.8
5°	7473.3	7418.5	7433.4	7377.9	7378.6
6°	6874.9	6836.9	6845.6	6759.0	6752.7
7°	6289.6	6199.8	6190.5	6091.4	6072.0
8°	5579.0	5497.3	5470.5	5353.9	5312.8
9°	4897.6	4796.0	4741.2	4605.9	4557.9
10°	4205.1	4102.3	4020.0	3867.3	3815.5
11°	3564.3	3471.4	3369.2	3205.9	3155.4
12°	2969.6	2896.7	2784.5	2626.8	2573.8
13°	2484.0	2399.9	2279.6	2133.1	2087.6
14°	2063.3	1972.9	1852.6	1727.3	1638.8
15°	1708.0	1648.8	1512.9	1396.3	1332.7
16°	1395.7	1345.2	1228.0	1127.0	1082.1
17°	1144.5	1103.9	1004.2	925.0	887.6
18°	944.4	893.9	815.3	763.6	734.3
19°	766.1	726.8	669.5	629.6	600.3
20°	632.1	599.7	553.5	518.0	506.8
22.5°	408.3	402.7	372.8	353.4	344.1
25°	269.3	272.4	258.7	243.7	230.0
26°	230.0	231.9	219.4	210.7	193.2
27°	197.0	197.6	197.6	181.4	164.6
28°	160.8	167.7	161.4	154.0	137.8
29°	137.8	146.5	143.4	135.9	120.3
30°	119.1	125.3	131.5	119.7	104.7
32.5°	83.5	89.1	96.0	89.8	77.3
35°	59.2	64.2	69.8	53.0	55.5
37.5°	40.5	49.2	47.4	43.0	36.8
40°	24.3	25.6	28.1	29.9	16.2
42.5°	17.5	20.6	18.7	21.2	7.5
45°	8.7	12.5	6.9	6.9	10.0
47.5°	6.2	10.6	3.7	3.7	1.2
50°	3.7	8.1	4.4	1.9	6.2
52.5°	6.2	7.5	5.0	5.6	1.2
55°	0.0	3.7	2.5	1.2	0.0
57.5°	2.5	4.4	2.5	1.2	2.5
60°	0.0	0.0	0.0	0.6	1.2
62.5°	0.0	1.2	0.0	1.9	2.5
65°	0.0	2.5	0.0	0.0	0.0
67.5°	3.7	4.4	2.5	5.0	7.5



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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	6.2	1.9	1.9	2.5
80°	1.2	0.0	0.0	0.6	0.0
82.5°	0.0	5.0	0.6	2.5	3.7
85°	6.2	3.1	5.6	3.1	2.5
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)