

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: P282486

Luminaire Tested: **LDA2B059727D010 EU2B05SP159727 2LBALPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282486  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B059727D010 EU2B05SP159727 2LBALPINSQ1MB  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MB  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 554.0 lumens  
Efficiency: N/A  
Efficacy: 79.1 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

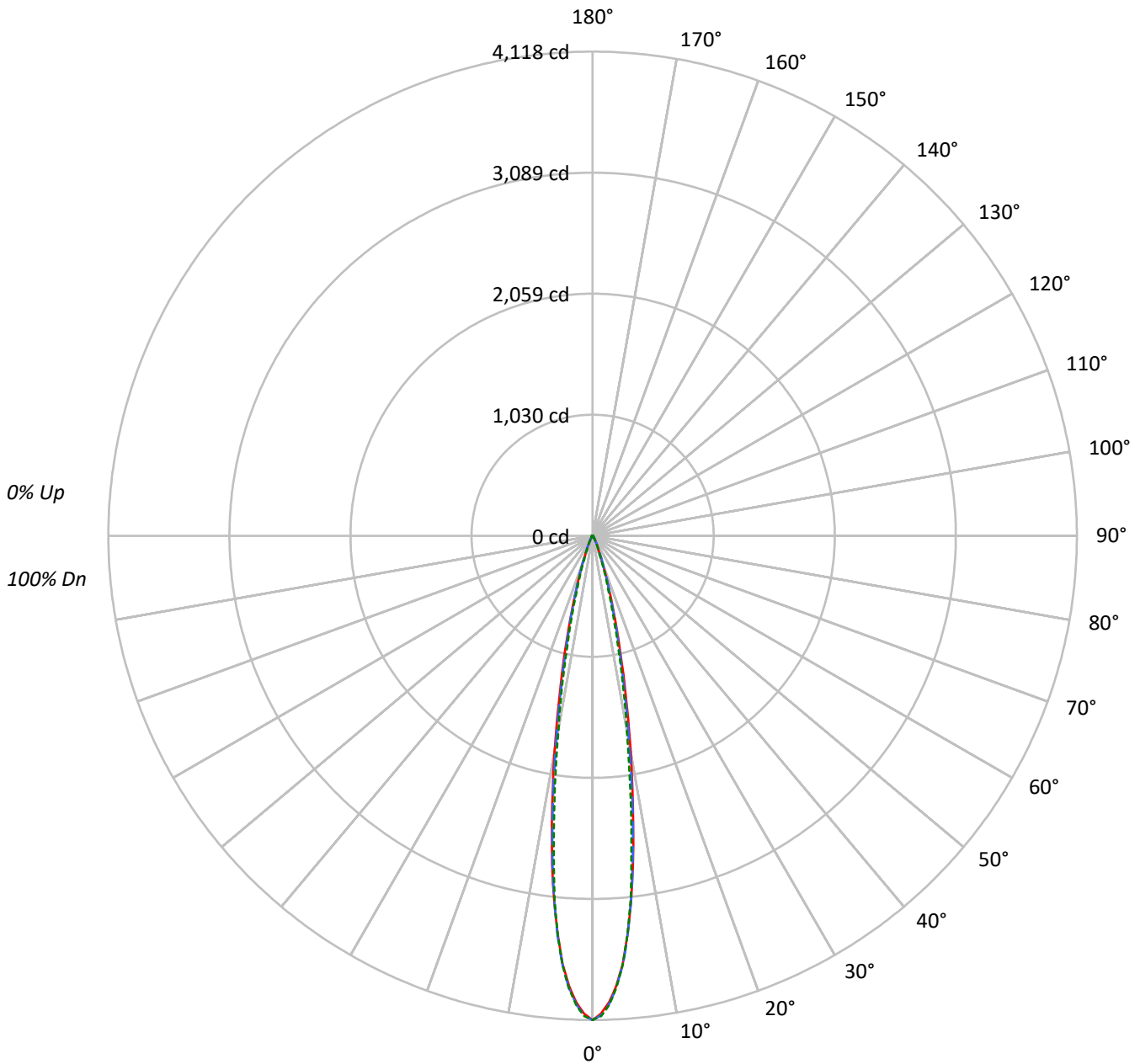
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	98	99	98	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	98	96	95	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

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

	0°	45°	90°
0°	2031861	2031861	2031861
5°	1685620	1691068	1684680
10°	932911	899246	837676
15°	377660	361214	320710
20°	126531	134144	108628
25°	48122	48340	45727
30°	21591	21249	20509
35°	10480	9335	7408
40°	6891	8759	6118
45°	1744	2861	2651
50°	461	691	998
55°	4387	3785	5935
60°	6216	5032	8091
65°	2918	7705	7355
70°	2741	2308	2741
75°	1144	3050	8387
80°	14490	19604	17899
85°	0	9057	10755



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.7	48.7
10°-20°	204.3	36.9
20°-30°	46.4	8.4
30°-40°	13.7	2.5
40°-50°	4.6	0.8
50°-60°	4.0	0.7
60°-70°	4.8	0.9
70°-80°	3.1	0.6
80°-90°	3.2	0.6
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°	520.5	94.0
0°-40°	534.2	96.4
0°-60°	542.8	98.0
0°-90°	554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	554.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4118	4118	4118	4118	4118	
5°	3404	3430	3415	3370	3402	273
15°	739	750	707	641	628	215
25°	88	95	89	88	84	46
35°	17	19	16	18	12	14
45°	2	7	4	7	4	4
55°	5	7	4	7	7	2
65°	2	5	7	6	6	3
75°	1	2	2	3	4	1
85°	0	0	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4118.4	4118.4	4118.4	4118.4	4118.4
1°	4065.3	4081.7	4080.1	4073.5	4085.2
2°	3971.8	3991.7	3989.8	3975.3	3996.1
3°	3834.7	3852.4	3849.6	3828.7	3851.5
4°	3651.5	3671.7	3663.8	3632.6	3661.6
5°	3403.6	3430.4	3414.6	3370.1	3401.7
6°	3128.8	3151.5	3126.6	3067.5	3098.5
7°	2821.2	2835.4	2802.5	2726.7	2705.9
8°	2485.4	2504.0	2458.3	2369.8	2347.1
9°	2164.5	2170.8	2115.2	2021.1	1992.4
10°	1862.2	1857.5	1795.0	1699.6	1672.1
11°	1575.8	1569.5	1503.4	1415.3	1424.2
12°	1315.2	1327.5	1250.8	1170.9	1172.4
13°	1101.0	1102.3	1036.3	960.2	955.8
14°	901.4	913.1	856.6	788.4	775.7
15°	739.4	749.5	707.2	640.9	627.9
16°	591.9	604.5	574.2	514.2	497.1
17°	476.6	492.7	472.8	422.6	403.0
18°	381.2	393.5	388.8	337.0	320.9
19°	301.0	318.1	319.3	276.1	256.8
20°	241.0	256.5	255.5	222.0	206.9
22.5°	138.3	146.6	146.9	131.1	122.2
25°	88.4	95.1	88.8	87.8	84.0
26°	76.8	82.1	75.2	75.2	71.7
27°	62.2	67.0	60.3	63.2	58.4
28°	52.4	57.5	51.8	51.2	50.5
29°	43.6	48.3	41.1	44.2	42.3
30°	37.9	41.4	37.3	42.0	36.0
32.5°	29.4	32.2	25.0	31.6	23.7
35°	17.4	19.3	15.5	18.0	12.3
37.5°	18.0	18.6	16.7	18.6	17.4
40°	10.7	11.1	13.6	13.6	9.5
42.5°	10.1	9.8	6.0	9.5	7.6
45°	2.5	7.3	4.1	7.3	3.8
47.5°	1.9	2.5	2.5	5.1	5.1
50°	0.6	2.5	0.9	1.9	1.3
52.5°	0.0	6.0	1.3	4.4	3.8
55°	5.1	7.3	4.4	6.6	6.9
57.5°	0.6	5.1	2.5	5.4	3.8
60°	6.3	8.5	5.1	9.2	8.2
62.5°	0.6	5.7	6.6	5.1	4.4
65°	2.5	5.4	6.6	6.3	6.3
67.5°	3.2	5.4	4.1	4.1	5.7



TEST NUMBER: P282486

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.6	2.2	1.6	2.8	4.4
77.5°	0.6	2.5	2.2	5.1	3.8
80°	5.1	5.7	6.9	9.2	6.3
82.5°	4.4	4.4	6.9	5.1	3.8
85°	0.0	0.0	1.6	1.6	1.9
87.5°	0.0	1.3	3.2	2.5	4.4
90°	0.0	0.0	0.0	0.0	0.0



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







70°	1.9	0.6	1.6	1.6	1.9
72.5°	0.6	2.8	2.5	1.6	3.2



(END OF REPORT)