

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: P282488

Luminaire Tested: **LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282488  
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: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 589.6 lumens  
Efficiency: N/A  
Efficacy: 84.2 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

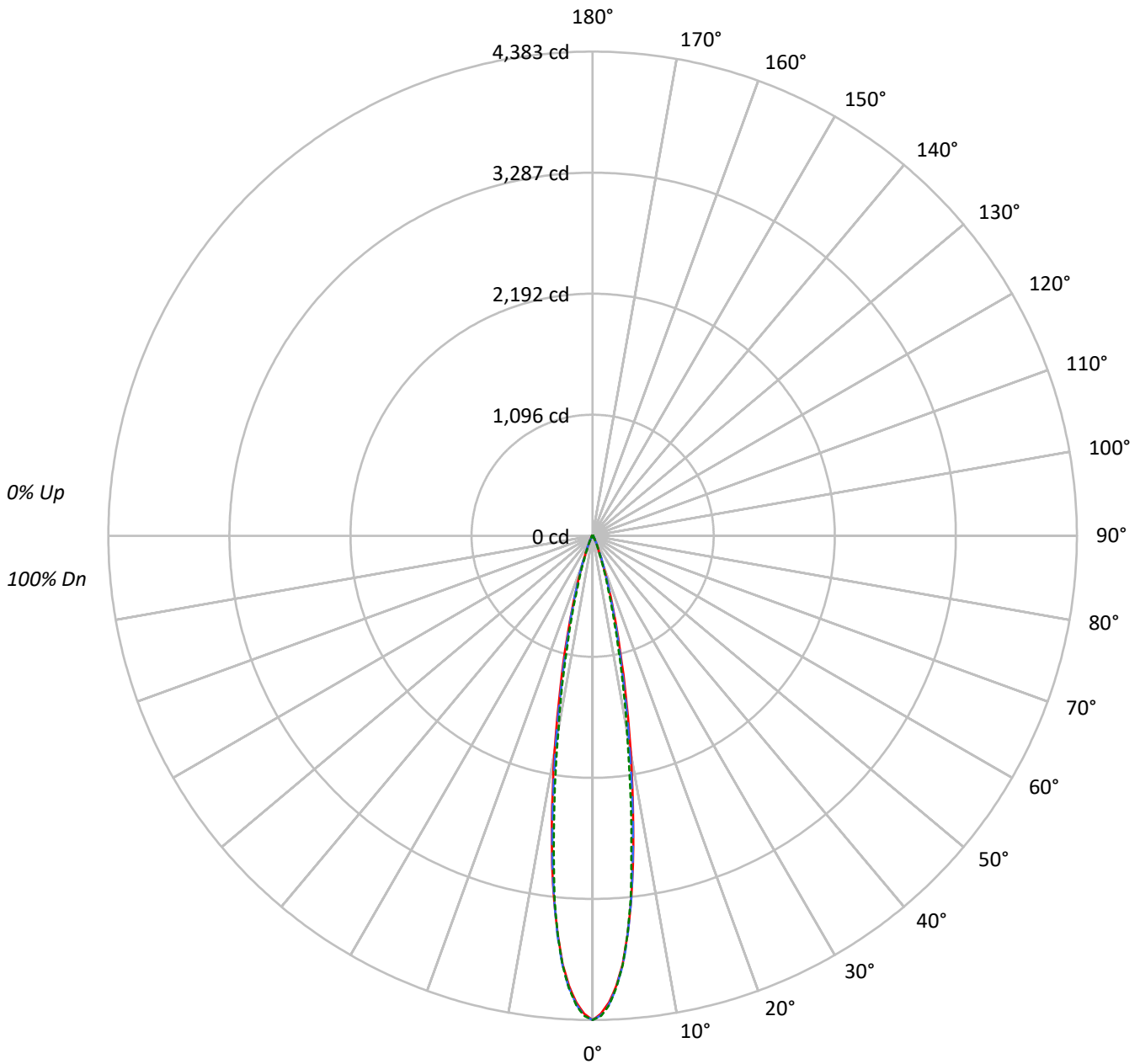
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P282488

CATALOG NUMBER: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P282488

CATALOG NUMBER: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW

**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	96	98	96	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	96	94	92	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°	2162454	2162454	2162454
5°	1793980	1799824	1792990
10°	992928	957058	891531
15°	401922	384453	341345
20°	134669	142754	115610
25°	51225	51442	48666
30°	22958	22616	21819
35°	11142	9938	7890
40°	7342	9339	6505
45°	1884	3070	2791
50°	537	768	998
55°	4645	4043	6365
60°	6611	5328	8584
65°	3152	8288	7822
70°	2885	2452	2885
75°	1334	3241	8959
80°	15342	21025	19036
85°	0	9623	11321



TEST NUMBER: P282488

CATALOG NUMBER: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.1	48.7
10°-20°	217.5	36.9
20°-30°	49.4	8.4
30°-40°	14.6	2.5
40°-50°	4.9	0.8
50°-60°	4.3	0.7
60°-70°	5.2	0.9
70°-80°	3.3	0.6
80°-90°	3.4	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°	554.0	93.9
0°-40°	568.6	96.4
0°-60°	577.7	98.0
0°-90°	589.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	589.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4383	4383	4383	4383	4383	
5°	3622	3651	3634	3587	3620	290
15°	787	798	753	682	668	229
25°	94	101	94	94	89	49
35°	18	20	16	19	13	15
45°	3	8	4	8	4	4
55°	5	8	5	7	7	2
65°	3	6	7	7	7	3
75°	1	2	2	3	5	2
85°	0	0	2	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P282488

CATALOG NUMBER: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4383.1	4383.1	4383.1	4383.1	4383.1
1°	4326.7	4344.1	4342.5	4335.4	4347.8
2°	4227.2	4248.3	4246.3	4230.8	4253.0
3°	4081.3	4100.1	4097.1	4074.9	4099.1
4°	3886.3	3907.8	3899.4	3866.1	3897.0
5°	3622.4	3651.0	3634.2	3586.8	3620.4
6°	3330.0	3354.2	3327.6	3264.7	3297.7
7°	3002.5	3017.7	2982.7	2902.0	2879.8
8°	2645.2	2665.0	2616.3	2522.2	2498.0
9°	2303.7	2310.4	2251.2	2151.1	2120.5
10°	1982.0	1976.9	1910.4	1808.9	1779.6
11°	1677.1	1670.4	1600.1	1506.3	1515.7
12°	1399.8	1412.9	1331.2	1246.1	1247.8
13°	1171.8	1173.2	1102.9	1021.9	1017.2
14°	959.4	971.8	911.7	839.0	825.6
15°	786.9	797.7	752.7	682.1	668.3
16°	630.0	643.4	611.1	547.3	529.1
17°	507.3	524.4	503.2	449.8	428.9
18°	405.7	418.8	413.8	358.7	341.5
19°	320.4	338.5	339.9	293.8	273.3
20°	256.5	273.0	271.9	236.3	220.2
22.5°	147.2	156.0	156.3	139.5	130.1
25°	94.1	101.2	94.5	93.5	89.4
26°	81.7	87.4	80.0	80.0	76.3
27°	66.2	71.3	64.2	67.2	62.2
28°	55.8	61.2	55.1	54.5	53.8
29°	46.4	51.4	43.7	47.1	45.0
30°	40.3	44.0	39.7	44.7	38.3
32.5°	31.3	34.3	26.6	33.6	25.2
35°	18.5	20.5	16.5	19.2	13.1
37.5°	19.2	19.8	17.8	19.8	18.5
40°	11.4	11.8	14.5	14.5	10.1
42.5°	10.8	10.4	6.4	10.1	8.1
45°	2.7	7.7	4.4	7.7	4.0
47.5°	2.0	2.7	2.7	5.4	5.4
50°	0.7	2.7	1.0	2.0	1.3
52.5°	0.0	6.4	1.3	4.7	4.0
55°	5.4	7.7	4.7	7.1	7.4
57.5°	0.7	5.4	2.7	5.7	4.0
60°	6.7	9.1	5.4	9.7	8.7
62.5°	0.7	6.1	7.1	5.4	4.7
65°	2.7	5.7	7.1	6.7	6.7
67.5°	3.4	5.7	4.4	4.4	6.1



TEST NUMBER: P282488

CATALOG NUMBER: LDA2B059730D010 EU2B05SP159730 2LBALPINSQ1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.7	2.4	1.7	3.0	4.7
77.5°	0.7	2.7	2.4	5.4	4.0
80°	5.4	6.1	7.4	9.7	6.7
82.5°	4.7	4.7	7.4	5.4	4.0
85°	0.0	0.0	1.7	1.7	2.0
87.5°	0.0	1.3	3.4	2.7	4.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	2.0	0.7	1.7	1.7	2.0
72.5°	0.7	3.0	2.7	1.7	3.4



(END OF REPORT)