

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: P182597

Luminaire Tested: **LDSQA4A13940D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182597  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26798)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A13940D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1544.5 lumens  
Efficiency: N/A  
Efficacy: 69.4 lumens/watt  
Spacing Criteria (0/90/45): 0.63 / 0.63 / 0.57  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

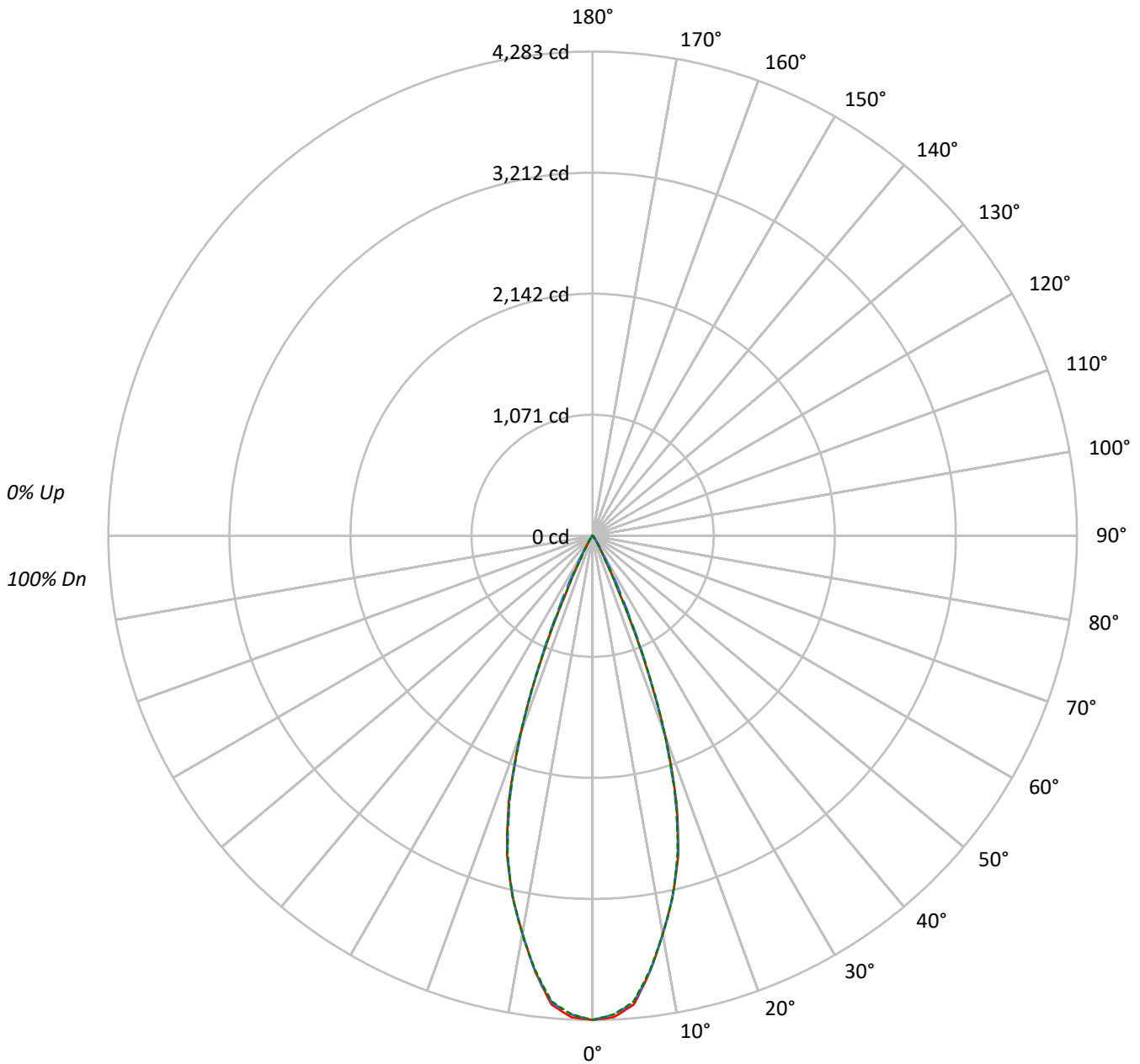
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P182597

CATALOG NUMBER: LDSQA4A13940D010TE LAR35FL 4LSQAL1H

### Luminous Intensity Polar Plot





TEST NUMBER: P182597

CATALOG NUMBER: LDSQA4A13940D010TE LAR35FL 4LSQAL1H

**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	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96																			
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94	92																			
3	107	102	98	95	105	101	97	94	98	95	93	96	94	92	94	92	90	89																			
4	103	98	93	90	102	97	93	90	95	91	89	93	90	88	91	89	87	86																			
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	84	82																			
6	97	90	86	82	95	89	85	82	88	84	82	87	83	81	85	83	81	79																			
7	94	87	82	79	92	86	82	79	85	81	78	84	81	78	83	80	78	77																			
8	91	84	79	76	90	83	79	76	82	78	76	81	78	75	80	77	75	74																			
9	88	81	76	73	87	80	76	73	79	76	73	79	75	73	78	75	73	72																			
10	85	78	74	71	84	78	74	71	77	73	71	76	73	70	76	72	70	69																			

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

	0°	45°	90°
0°	414879	414879	414879
5°	404843	403053	402295
10°	351564	351495	351918
15°	293246	291692	291551
20°	192350	190825	192495
25°	58822	74396	58587
30°	14721	17797	14397
35°	4766	7356	4683
40°	2238	3490	1973
45°	1165	1452	877
50°	633	754	422
55°	355	473	236
60°	271	271	271
65°	160	160	160
70°	198	198	198
75°	0	262	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P182597

CATALOG NUMBER: LDSQA4A13940D010TE LAR35FL 4LSQAL1H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	376.2	24.4
10°-20°	779.6	50.5
20°-30°	340.4	22.0
30°-40°	37.2	2.4
40°-50°	7.7	0.5
50°-60°	2.1	0.1
60°-70°	0.9	0.1
70°-80°	0.5	0.0
80°-90°	0.0	0.0
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°	1496.2	96.9
0°-40°	1533.4	99.3
0°-60°	1543.2	99.9
0°-90°	1544.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1544.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4283	4283	4283	4283	4283	
5°	4163	4152	4145	4155	4137	377
15°	2924	2911	2908	2913	2907	782
25°	550	678	696	685	548	318
35°	40	48	62	47	40	32
45°	8	9	11	8	6	7
55°	2	2	3	1	1	2
65°	1	1	1	1	1	1
75°	0	1	1	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P182597

CATALOG NUMBER: LDSQA4A13940D010TE LAR35FL 4LSQAL1H

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4282.6	4282.6	4282.6	4282.6	4282.6
2.5°	4263.5	4248.0	4239.5	4257.9	4239.5
5°	4163.1	4151.8	4144.7	4155.3	4136.9
7.5°	3888.0	3876.7	3886.6	3886.6	3877.4
10°	3573.9	3567.6	3573.2	3588.1	3577.5
12.5°	3269.1	3264.1	3266.3	3281.8	3269.8
15°	2923.9	2911.2	2908.4	2912.6	2907.0
17.5°	2464.2	2445.1	2433.1	2443.0	2445.8
20°	1865.8	1865.8	1851.0	1859.5	1867.2
22.5°	1193.2	1220.8	1223.6	1222.2	1217.2
25°	550.3	678.3	696.0	684.7	548.1
27.5°	222.8	275.1	342.3	283.6	215.0
30°	131.6	138.6	159.1	136.5	128.7
32.5°	69.3	83.5	97.6	82.8	67.2
35°	40.3	48.1	62.2	47.4	39.6
37.5°	26.2	30.4	41.7	30.4	24.8
40°	17.7	19.8	27.6	19.1	15.6
42.5°	12.0	13.4	17.7	12.0	9.9
45°	8.5	9.2	10.6	7.8	6.4
47.5°	5.7	6.4	7.1	5.0	4.2
50°	4.2	4.2	5.0	3.5	2.8
52.5°	2.8	3.5	3.5	2.1	2.1
55°	2.1	2.1	2.8	1.4	1.4
57.5°	2.1	2.1	2.1	1.4	1.4
60°	1.4	1.4	1.4	1.4	1.4
62.5°	0.7	1.4	1.4	0.7	0.7
65°	0.7	0.7	0.7	0.7	0.7
67.5°	0.7	0.7	0.7	0.7	0.7
70°	0.7	0.7	0.7	0.7	0.7
72.5°	0.7	0.7	0.7	0.7	0.7
75°	0.0	0.7	0.7	0.0	0.0
77.5°	0.0	0.7	0.7	0.7	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







(END OF REPORT)