

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: P182590

Luminaire Tested: **LDSQA4A13827D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182590  
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: LDSQA4A13827D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1687.3 lumens  
Efficiency: N/A  
Efficacy: 75.8 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

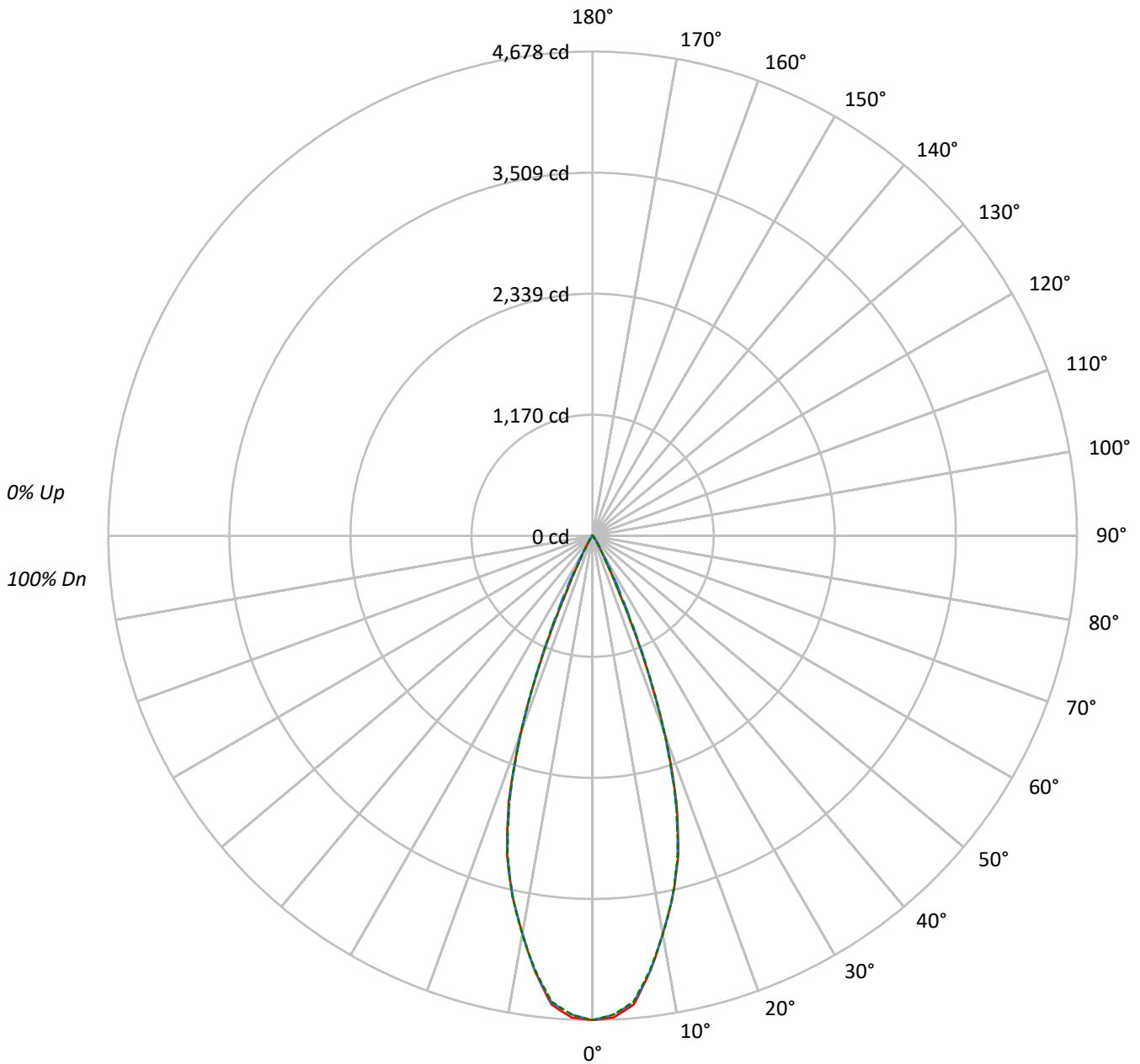
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	73	71	77	73	71	76	73	70	76	72	70	69																			

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

	0°	45°	90°
0°	453222	453222	453222
5°	442263	440308	439481
10°	384056	383987	384439
15°	320355	318650	318490
20°	210134	208453	210288
25°	64252	81269	64006
30°	16075	19442	15728
35°	5204	8042	5121
40°	2441	3807	2150
45°	1274	1589	959
50°	693	814	467
55°	388	524	253
60°	291	291	291
65°	183	183	183
70°	227	227	227
75°	0	299	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	411.0	24.4
10°-20°	851.6	50.5
20°-30°	371.9	22.0
30°-40°	40.6	2.4
40°-50°	8.4	0.5
50°-60°	2.3	0.1
60°-70°	1.0	0.1
70°-80°	0.6	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°	1634.5	96.9
0°-40°	1675.1	99.3
0°-60°	1685.8	99.9
0°-90°	1687.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1687.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4678	4678	4678	4678	4678	
5°	4548	4536	4528	4539	4519	412
15°	3194	3180	3177	3182	3176	854
25°	601	741	760	748	599	348
35°	44	52	68	52	43	35
45°	9	10	12	8	7	8
55°	2	2	3	2	2	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4678.4	4678.4	4678.4	4678.4	4678.4
2.5°	4657.6	4640.6	4631.3	4651.4	4631.3
5°	4547.9	4535.5	4527.8	4539.4	4519.3
7.5°	4247.3	4234.9	4245.7	4245.7	4235.7
10°	3904.2	3897.3	3903.5	3919.7	3908.1
12.5°	3571.2	3565.8	3568.1	3585.1	3572.0
15°	3194.2	3180.3	3177.2	3181.8	3175.6
17.5°	2691.9	2671.1	2657.9	2668.8	2671.8
20°	2038.3	2038.3	2022.0	2031.3	2039.8
22.5°	1303.5	1333.6	1336.7	1335.2	1329.7
25°	601.1	741.0	760.3	747.9	598.8
27.5°	243.4	300.6	374.0	309.8	234.9
30°	143.7	151.4	173.8	149.1	140.6
32.5°	75.7	91.2	106.6	90.4	73.4
35°	44.0	52.5	68.0	51.8	43.3
37.5°	28.6	33.2	45.6	33.2	27.0
40°	19.3	21.6	30.1	20.9	17.0
42.5°	13.1	14.7	19.3	13.1	10.8
45°	9.3	10.0	11.6	8.5	7.0
47.5°	6.2	7.0	7.7	5.4	4.6
50°	4.6	4.6	5.4	3.9	3.1
52.5°	3.1	3.9	3.9	2.3	2.3
55°	2.3	2.3	3.1	1.5	1.5
57.5°	2.3	2.3	2.3	1.5	1.5
60°	1.5	1.5	1.5	1.5	1.5
62.5°	0.8	1.5	1.5	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.0	0.8	0.8	0.0	0.0
77.5°	0.0	0.8	0.8	0.8	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



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







(END OF REPORT)