

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: P182550

Luminaire Tested: **LDSQA4A09827D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182550  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26797)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A09827D010TE LAR25NF 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1119.0 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.5  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

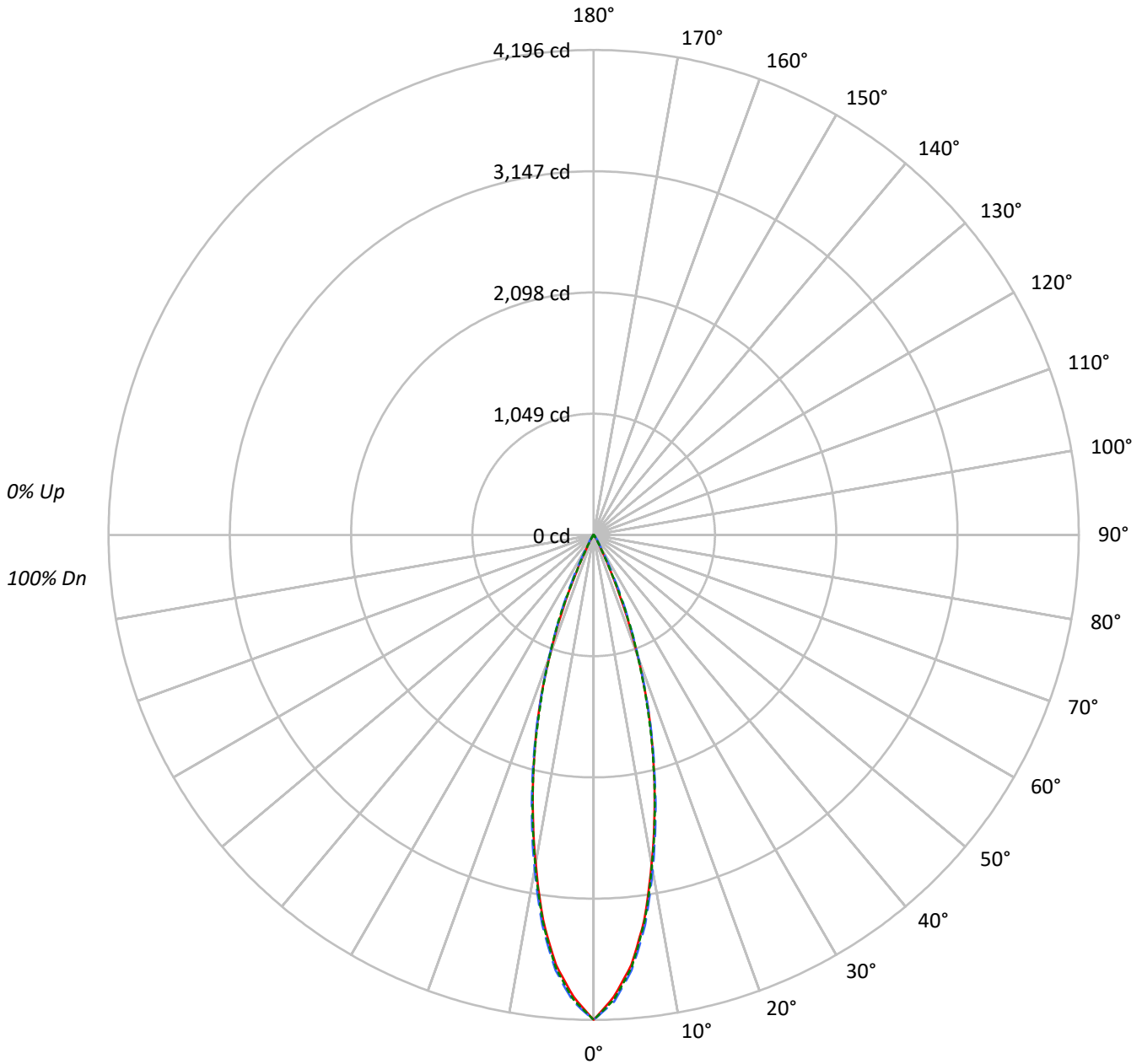
Input Watts (W): 13.84  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96																
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	96	94	93																
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	95	93	91																
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	92	90	88																
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	89	87	85																
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	87	84	82																
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	85	82	80																
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	82	79	77																
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	80	77	75																
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	78	75	73																

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

	0°	45°	90°
0°	406441	406441	406441
5°	362988	367559	365273
10°	284141	289217	285676
15°	199533	200997	198429
20°	114515	116886	114412
25°	36246	47684	37422
30°	9631	11969	9285
35°	3276	5925	3335
40°	1454	2377	1454
45°	781	1069	644
50°	467	558	316
55°	270	270	169
60°	194	194	97
65°	115	115	115
70°	142	142	142
75°	0	187	187
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	332.8	29.7
10°-20°	542.6	48.5
20°-30°	210.2	18.8
30°-40°	25.8	2.3
40°-50°	5.4	0.5
50°-60°	1.4	0.1
60°-70°	0.5	0.0
70°-80°	0.3	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°	1085.5	97.0
0°-40°	1111.3	99.3
0°-60°	1118.2	99.9
0°-90°	1119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4196	4196	4196	4196	4196	
5°	3733	3787	3780	3757	3756	330
15°	1990	2016	2004	1990	1978	540
25°	339	425	446	438	350	190
35°	28	33	50	33	28	21
45°	6	6	8	6	5	5
55°	2	2	2	1	1	2
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4195.5	4195.5	4195.5	4195.5	4195.5
2.5°	3999.3	4055.2	4042.1	4016.0	4022.8
5°	3732.7	3787.0	3779.7	3756.7	3756.2
7.5°	3356.5	3409.7	3403.5	3375.8	3373.2
10°	2888.5	2937.0	2940.1	2900.0	2904.1
12.5°	2431.4	2471.1	2472.6	2445.0	2439.3
15°	1989.5	2016.1	2004.1	1989.5	1978.5
17.5°	1553.8	1559.6	1556.9	1535.6	1527.7
20°	1110.8	1135.9	1133.8	1115.5	1109.8
22.5°	691.9	737.3	758.1	741.4	750.3
25°	339.1	424.7	446.1	438.3	350.1
27.5°	137.7	180.0	224.4	177.4	133.1
30°	86.1	93.9	107.0	90.3	83.0
32.5°	45.4	56.9	72.5	55.3	45.4
35°	27.7	33.4	50.1	32.9	28.2
37.5°	17.7	20.9	29.2	20.9	18.3
40°	11.5	13.6	18.8	13.6	11.5
42.5°	7.8	8.9	12.0	8.9	7.3
45°	5.7	6.3	7.8	5.7	4.7
47.5°	4.2	4.7	5.2	3.7	3.1
50°	3.1	3.1	3.7	2.6	2.1
52.5°	2.1	2.6	2.6	1.6	1.6
55°	1.6	1.6	1.6	1.0	1.0
57.5°	1.6	1.0	1.0	1.0	1.0
60°	1.0	1.0	1.0	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.0
75°	0.0	0.5	0.5	0.5	0.5
77.5°	0.0	0.0	0.0	0.0	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)