

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: P182570

Luminaire Tested: **LDSQA4A28927D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182570  
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: LDSQA4A28927D010TE LAR25NF 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

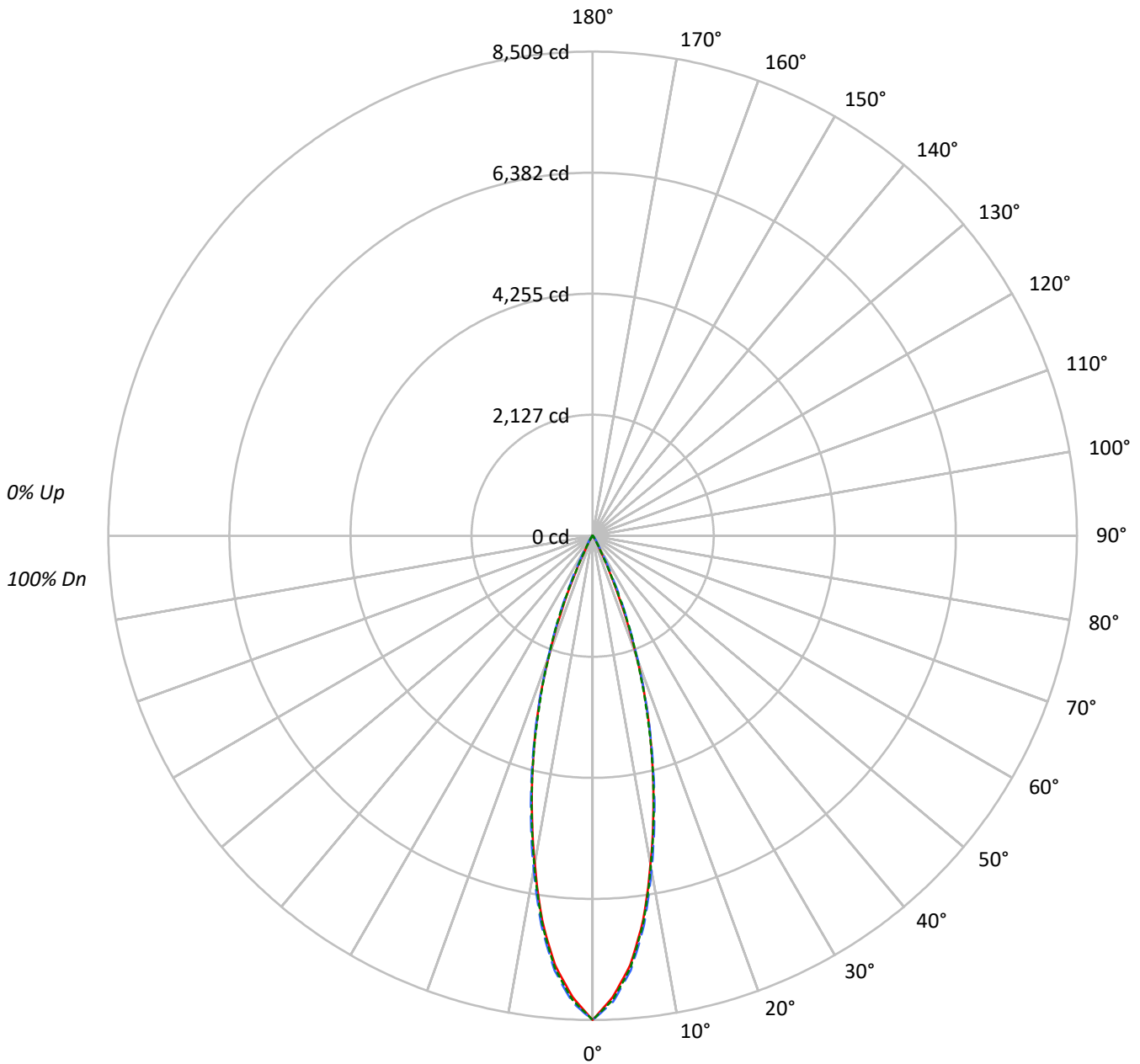
Lumens per Lamp: N/A  
Luminaire Lumens: 2269.6 lumens  
Efficiency: N/A  
Efficacy: 51.0 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.5  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 44.49  
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	96															
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	96	94	94	93															
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	95	93	91	90															
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	92	90	88	87															
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	89	87	85	84															
6	98	91	87	84	96	91	87	84	89	86	83	88	85	83	87	84	82	81	87	84	82	81															
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	85	82	80	79															
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	82	79	77	76															
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	80	77	75	74															
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	78	75	73	72															

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

	0°	45°	90°
0°	824342	824342	824342
5°	736207	745464	740835
10°	576290	586599	579408
15°	404682	407660	402455
20°	232268	237062	232051
25°	73530	96714	75903
30°	19531	24263	18826
35°	6635	12016	6753
40°	2947	4818	2947
45°	1589	2178	1302
50°	949	1115	633
55°	540	540	355
60°	407	407	213
65°	252	252	252
70°	312	312	312
75°	0	412	412
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	674.9	29.7
10°-20°	1100.5	48.5
20°-30°	426.2	18.8
30°-40°	52.2	2.3
40°-50°	11.0	0.5
50°-60°	2.9	0.1
60°-70°	1.2	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°	2201.7	97.0
0°-40°	2253.9	99.3
0°-60°	2267.8	99.9
0°-90°	2269.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2269.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8509	8509	8509	8509	8509	
5°	7571	7681	7666	7619	7618	669
15°	4035	4089	4065	4035	4013	1094
25°	688	861	905	889	710	386
35°	56	68	102	67	57	43
45°	12	13	16	12	10	10
55°	3	3	3	2	2	3
65°	1	1	1	1	1	1
75°	0	1	1	1	1	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°	8509.3	8509.3	8509.3	8509.3	8509.3
2.5°	8111.4	8224.6	8198.1	8145.2	8159.0
5°	7570.6	7680.7	7665.8	7619.3	7618.2
7.5°	6807.6	6915.6	6902.9	6846.8	6841.5
10°	5858.4	5956.8	5963.2	5881.7	5890.1
12.5°	4931.4	5011.8	5015.0	4958.9	4947.2
15°	4035.0	4089.0	4064.7	4035.0	4012.8
17.5°	3151.4	3163.1	3157.8	3114.4	3098.5
20°	2253.0	2303.8	2299.5	2262.5	2250.9
22.5°	1403.2	1495.3	1537.6	1503.8	1521.7
25°	687.9	861.4	904.8	888.9	710.1
27.5°	279.4	365.1	455.0	359.8	269.8
30°	174.6	190.5	216.9	183.1	168.3
32.5°	92.1	115.3	147.1	112.2	92.1
35°	56.1	67.7	101.6	66.7	57.1
37.5°	36.0	42.3	59.3	42.3	37.0
40°	23.3	27.5	38.1	27.5	23.3
42.5°	15.9	18.0	24.3	18.0	14.8
45°	11.6	12.7	15.9	11.6	9.5
47.5°	8.5	9.5	10.6	7.4	6.3
50°	6.3	6.3	7.4	5.3	4.2
52.5°	4.2	5.3	5.3	3.2	3.2
55°	3.2	3.2	3.2	2.1	2.1
57.5°	3.2	2.1	2.1	2.1	2.1
60°	2.1	2.1	2.1	1.1	1.1
62.5°	1.1	1.1	1.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1	0.0
75°	0.0	1.1	1.1	1.1	1.1
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)