

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: P182547

Luminaire Tested: **LDSQA4A18930D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182547  
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: LDSQA4A18930D010TE LAR25NF 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1733.7 lumens  
Efficiency: N/A  
Efficacy: 59.5 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

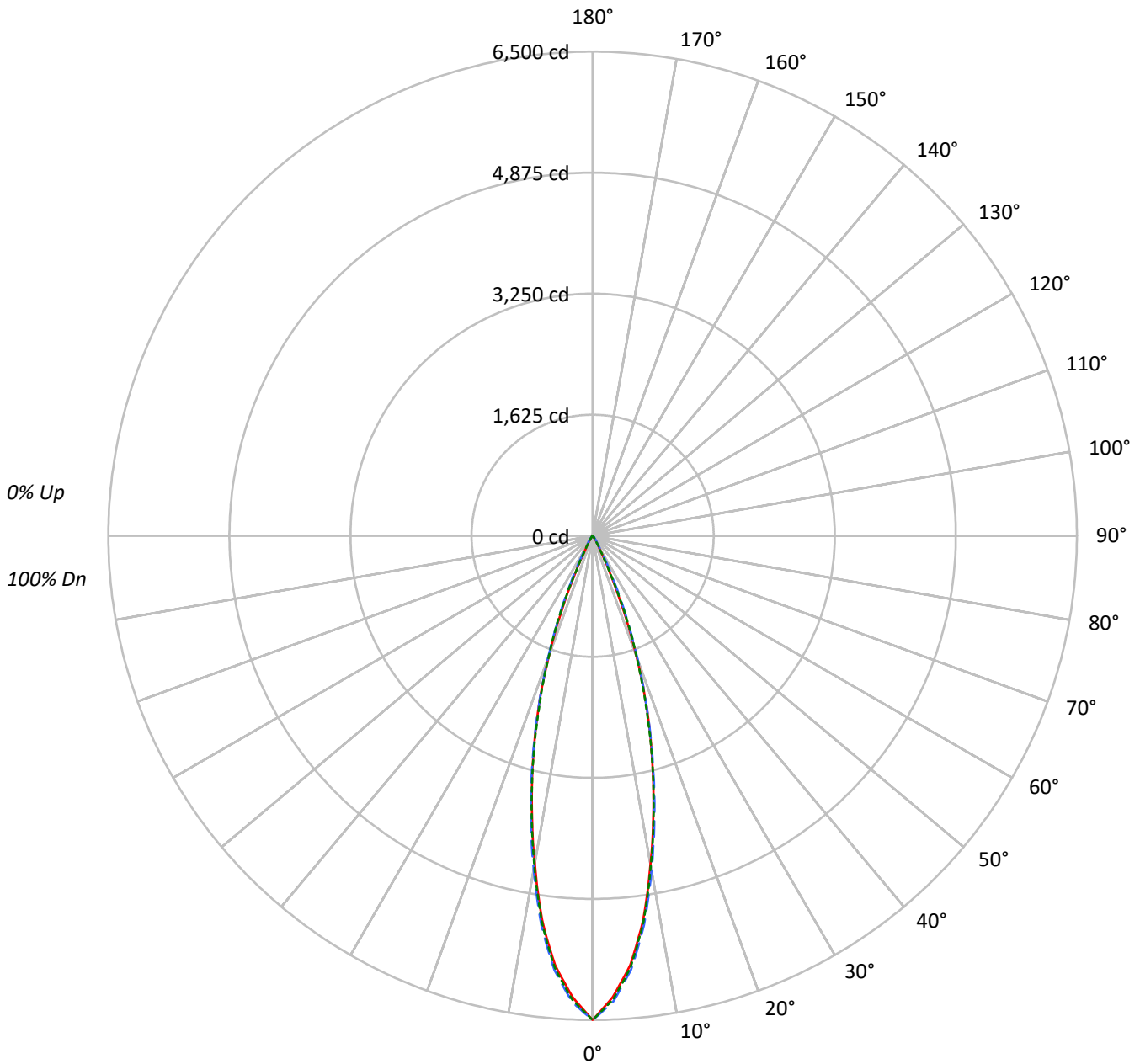
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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									70									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	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	97	96	94	93	92	91	90	89	87	84																		
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	92	91	90	89	88	87	86	85	84	81																		
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	89	88	87	86	85	84	83	82	81	79																		
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	86	85	84	83	82	81	80	79	78	76																		
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	83	82	81	80	79	78	77	76	75	74																		
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	80	79	78	77	76	75	74	73	72	71																		
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	78	77	76	75	74	73	72	71	70	69																		
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	75	74	73	72	71	70	69	68	67	66																		
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	73	72	71	70	69	68	67	66	65	64	63																	
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	71	70	69	68	67	66	65	64	63	62	61																	

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

	0°	45°	90°
0°	629710	629710	629710
5°	562390	569470	565930
10°	440225	448104	442615
15°	309143	311409	307438
20°	177433	181093	177258
25°	56171	73883	57977
30°	14922	18536	14374
35°	5062	9177	5168
40°	2251	3680	2251
45°	1219	1658	1000
50°	738	859	482
55°	405	405	270
60°	310	310	155
65°	183	183	183
70°	227	227	227
75°	0	299	299
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	515.6	29.7
10°-20°	840.7	48.5
20°-30°	325.6	18.8
30°-40°	39.9	2.3
40°-50°	8.4	0.5
50°-60°	2.2	0.1
60°-70°	0.9	0.0
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°	1681.9	97.0
0°-40°	1721.8	99.3
0°-60°	1732.4	99.9
0°-90°	1733.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1733.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6500	6500	6500	6500	6500	
5°	5783	5867	5856	5820	5820	511
15°	3082	3124	3105	3082	3065	836
25°	526	658	691	679	542	295
35°	43	52	78	51	44	33
45°	9	10	12	9	7	7
55°	2	2	2	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°	6500.2	6500.2	6500.2	6500.2	6500.2
2.5°	6196.3	6282.8	6262.6	6222.2	6232.7
5°	5783.2	5867.3	5856.0	5820.4	5819.6
7.5°	5200.3	5282.8	5273.1	5230.3	5226.2
10°	4475.2	4550.4	4555.3	4493.0	4499.5
12.5°	3767.1	3828.5	3830.9	3788.1	3779.2
15°	3082.4	3123.6	3105.0	3082.4	3065.4
17.5°	2407.4	2416.3	2412.2	2379.1	2367.0
20°	1721.1	1759.9	1756.6	1728.3	1719.4
22.5°	1071.9	1142.2	1174.6	1148.7	1162.5
25°	525.5	658.0	691.2	679.0	542.4
27.5°	213.4	278.9	347.6	274.9	206.1
30°	133.4	145.5	165.7	139.9	128.5
32.5°	70.3	88.1	112.4	85.7	70.3
35°	42.8	51.7	77.6	50.9	43.7
37.5°	27.5	32.3	45.3	32.3	28.3
40°	17.8	21.0	29.1	21.0	17.8
42.5°	12.1	13.7	18.6	13.7	11.3
45°	8.9	9.7	12.1	8.9	7.3
47.5°	6.5	7.3	8.1	5.7	4.9
50°	4.9	4.9	5.7	4.0	3.2
52.5°	3.2	4.0	4.0	2.4	2.4
55°	2.4	2.4	2.4	1.6	1.6
57.5°	2.4	1.6	1.6	1.6	1.6
60°	1.6	1.6	1.6	0.8	0.8
62.5°	0.8	0.8	0.8	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	0.0
75°	0.0	0.8	0.8	0.8	0.8
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)