

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: P182554

Luminaire Tested: **LDSQA4A09927D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182554
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: LDSQA4A09927D010TE 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: 898.1 lumens
Efficiency: N/A
Efficacy: 64.9 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

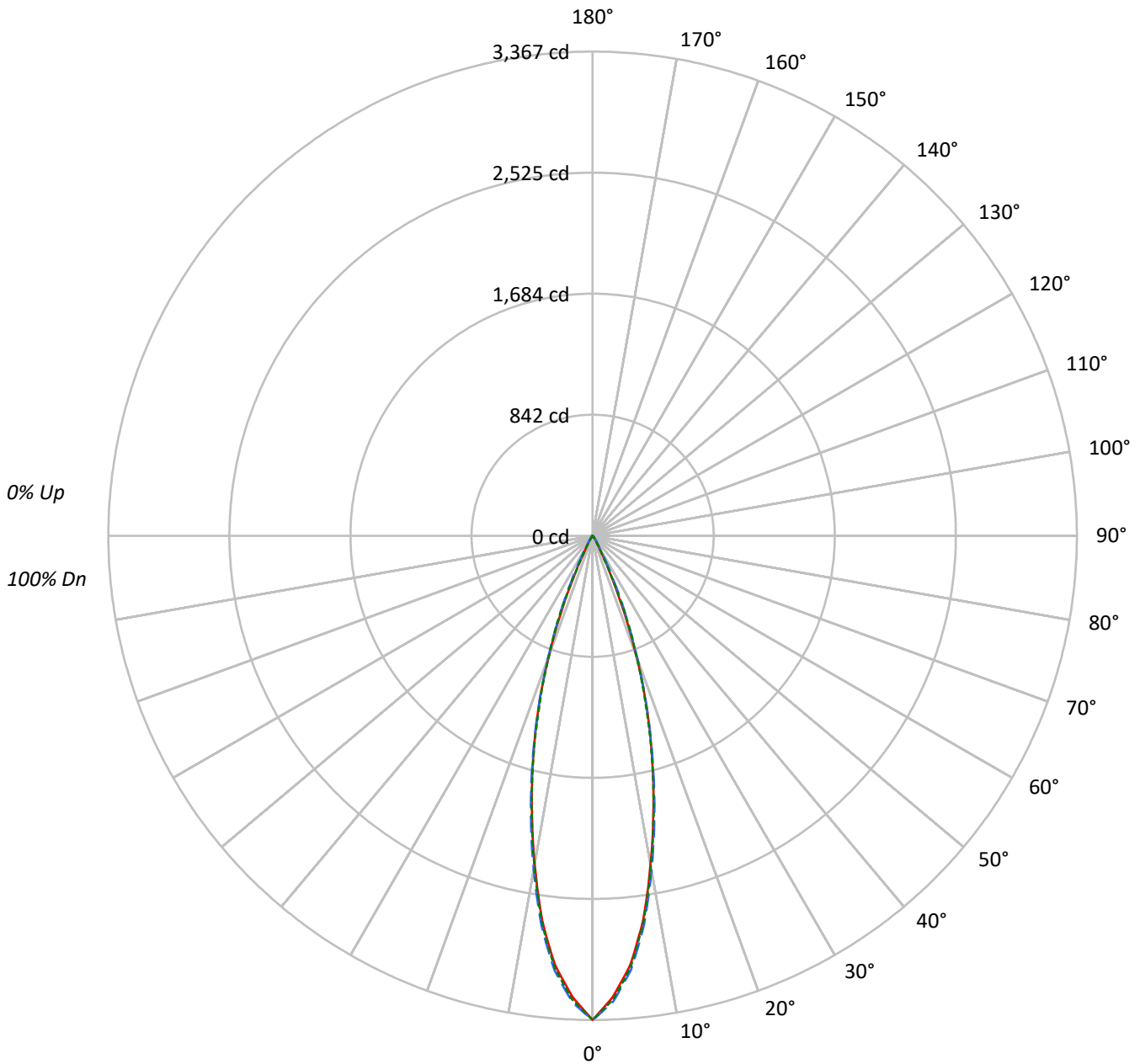
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96	96		
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	93	93	93	93	93	93		
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	90	90	90	90	90	90		
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	87	87	87	87	87	87		
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	84	84	84	84	84	84		
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	81	81	81	81	81	81		
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	79	79	79	79	79	79		
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	76	76	76	76	76	76		
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	74	74	74	74	74	74		
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	72	72	72	72	72	72		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	326209	326209	326209
5°	291338	294994	293166
10°	228051	232123	229290
15°	160148	161321	159265
20°	91917	93814	91825
25°	29096	38267	30036
30°	7730	9598	7450
35°	2625	4754	2673
40°	1163	1910	1163
45°	630	863	521
50°	377	437	256
55°	220	220	135
60°	155	155	78
65°	92	92	92
70°	113	113	113
75°	0	150	150
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.1	29.7
10°-20°	435.5	48.5
20°-30°	168.7	18.8
30°-40°	20.7	2.3
40°-50°	4.3	0.5
50°-60°	1.2	0.1
60°-70°	0.4	0.0
70°-80°	0.2	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°	871.2	97.0
0°-40°	891.9	99.3
0°-60°	897.4	99.9
0°-90°	898.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	898.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3367	3367	3367	3367	3367	
5°	2996	3039	3034	3015	3015	265
15°	1597	1618	1608	1597	1588	433
25°	272	341	358	352	281	153
35°	22	27	40	26	23	17
45°	5	5	6	5	4	4
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	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°	3367.3	3367.3	3367.3	3367.3	3367.3
2.5°	3209.8	3254.7	3244.2	3223.2	3228.7
5°	2995.9	3039.4	3033.5	3015.1	3014.7
7.5°	2693.9	2736.6	2731.6	2709.4	2707.3
10°	2318.3	2357.2	2359.7	2327.5	2330.9
12.5°	1951.5	1983.3	1984.5	1962.3	1957.7
15°	1596.8	1618.1	1608.5	1596.8	1588.0
17.5°	1247.1	1251.7	1249.6	1232.4	1226.1
20°	891.6	911.7	910.0	895.3	890.7
22.5°	555.3	591.7	608.5	595.1	602.2
25°	272.2	340.9	358.0	351.8	281.0
27.5°	110.6	144.5	180.1	142.4	106.8
30°	69.1	75.4	85.8	72.4	66.6
32.5°	36.4	45.6	58.2	44.4	36.4
35°	22.2	26.8	40.2	26.4	22.6
37.5°	14.2	16.8	23.5	16.8	14.7
40°	9.2	10.9	15.1	10.9	9.2
42.5°	6.3	7.1	9.6	7.1	5.9
45°	4.6	5.0	6.3	4.6	3.8
47.5°	3.4	3.8	4.2	2.9	2.5
50°	2.5	2.5	2.9	2.1	1.7
52.5°	1.7	2.1	2.1	1.3	1.3
55°	1.3	1.3	1.3	0.8	0.8
57.5°	1.3	0.8	0.8	0.8	0.8
60°	0.8	0.8	0.8	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.0
75°	0.0	0.4	0.4	0.4	0.4
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)