

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: P182534

Luminaire Tested: **LDSQA4A28827D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28827D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2561.5 lumens
Efficiency: N/A
Efficacy: 57.6 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

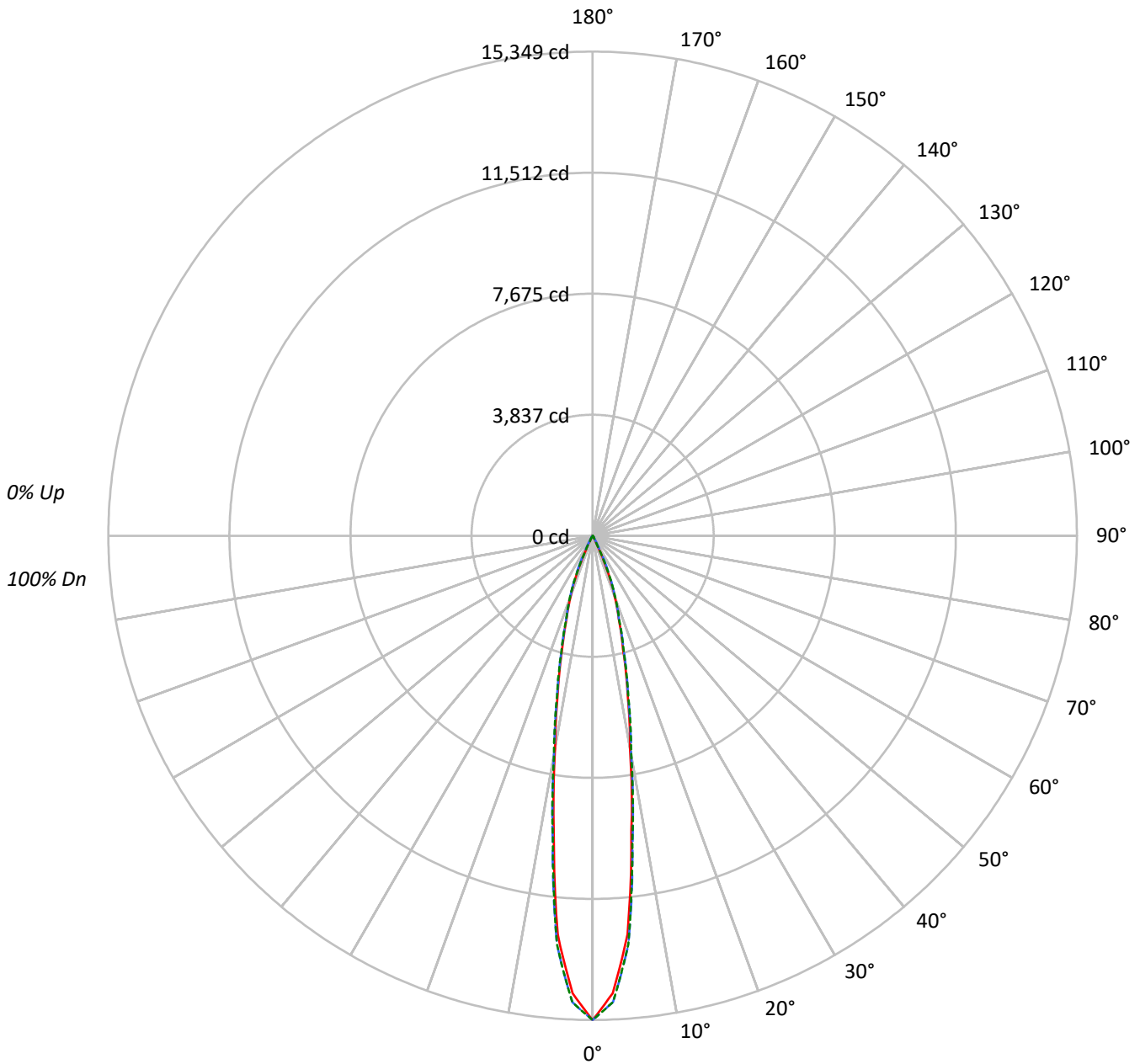
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97	97	97	97		
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94	94	94	94	94	94		
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91	91	91	91	91		
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89	89	89	89		
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86	86	86	86	86	86	86		
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84	84	84	84	84	84	84		
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82	82	82	82	82	82	82		
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80	80	80	80	80	80	80		
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78	78	78	78		
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76	76	76	76	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1486980	1486980	1486980
5°	1233413	1265339	1263549
10°	672083	691924	695426
15°	373681	384392	386378
20°	210680	216660	219381
25°	63418	93433	63140
30°	11947	17104	11947
35°	5144	7947	5298
40°	2504	4173	2504
45°	1630	2165	1260
50°	995	1191	603
55°	676	676	439
60°	504	252	252
65°	298	298	298
70°	0	368	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1021.9	39.9
10°-20°	1089.3	42.5
20°-30°	397.3	15.5
30°-40°	37.9	1.5
40°-50°	10.4	0.4
50°-60°	3.1	0.1
60°-70°	1.3	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°	2508.5	97.9
0°-40°	2546.4	99.4
0°-60°	2560.0	99.9
0°-90°	2561.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2561.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15349	15349	15349	15349	15349	
5°	12684	13004	13012	12876	12993	1002
15°	3726	3814	3833	3825	3852	1066
25°	593	858	874	866	591	342
35°	44	53	67	53	45	31
45°	12	12	16	12	9	9
55°	4	4	4	3	3	3
65°	1	1	1	1	1	1
75°	0	1	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°	15349.4	15349.4	15349.4	15349.4	15349.4
2.5°	14512.2	14818.1	14795.7	14727.1	14795.7
5°	12683.5	13003.9	13011.8	12876.0	12993.4
7.5°	9428.3	9676.1	9719.6	9586.5	9674.8
10°	6832.2	7053.7	7033.9	7007.6	7069.5
12.5°	5103.7	5215.8	5203.9	5232.9	5236.9
15°	3725.9	3814.3	3832.7	3824.8	3852.5
17.5°	2743.7	2791.2	2781.9	2796.4	2807.0
20°	2043.6	2118.8	2101.6	2114.8	2128.0
22.5°	1355.4	1493.8	1476.7	1497.8	1485.9
25°	593.3	858.3	874.1	866.2	590.7
27.5°	181.9	307.2	394.2	300.6	181.9
30°	106.8	127.9	152.9	125.3	106.8
32.5°	67.2	80.4	96.2	79.1	65.9
35°	43.5	52.7	67.2	52.7	44.8
37.5°	29.0	35.6	47.5	35.6	30.3
40°	19.8	23.7	33.0	25.1	19.8
42.5°	14.5	17.1	22.4	17.1	13.2
45°	11.9	11.9	15.8	11.9	9.2
47.5°	9.2	9.2	10.5	7.9	6.6
50°	6.6	6.6	7.9	5.3	4.0
52.5°	4.0	5.3	5.3	4.0	2.6
55°	4.0	4.0	4.0	2.6	2.6
57.5°	2.6	2.6	2.6	1.3	1.3
60°	2.6	2.6	1.3	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	1.3	1.3	1.3	1.3	1.3
67.5°	1.3	1.3	1.3	1.3	1.3
70°	0.0	1.3	1.3	0.0	0.0
72.5°	0.0	1.3	0.0	0.0	0.0
75°	0.0	1.3	0.0	0.0	0.0
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)