

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: P182520

Luminaire Tested: **LDSQA4A09835D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182520
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: LDSQA4A09835D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1053.1 lumens
Efficiency: N/A
Efficacy: 76.1 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

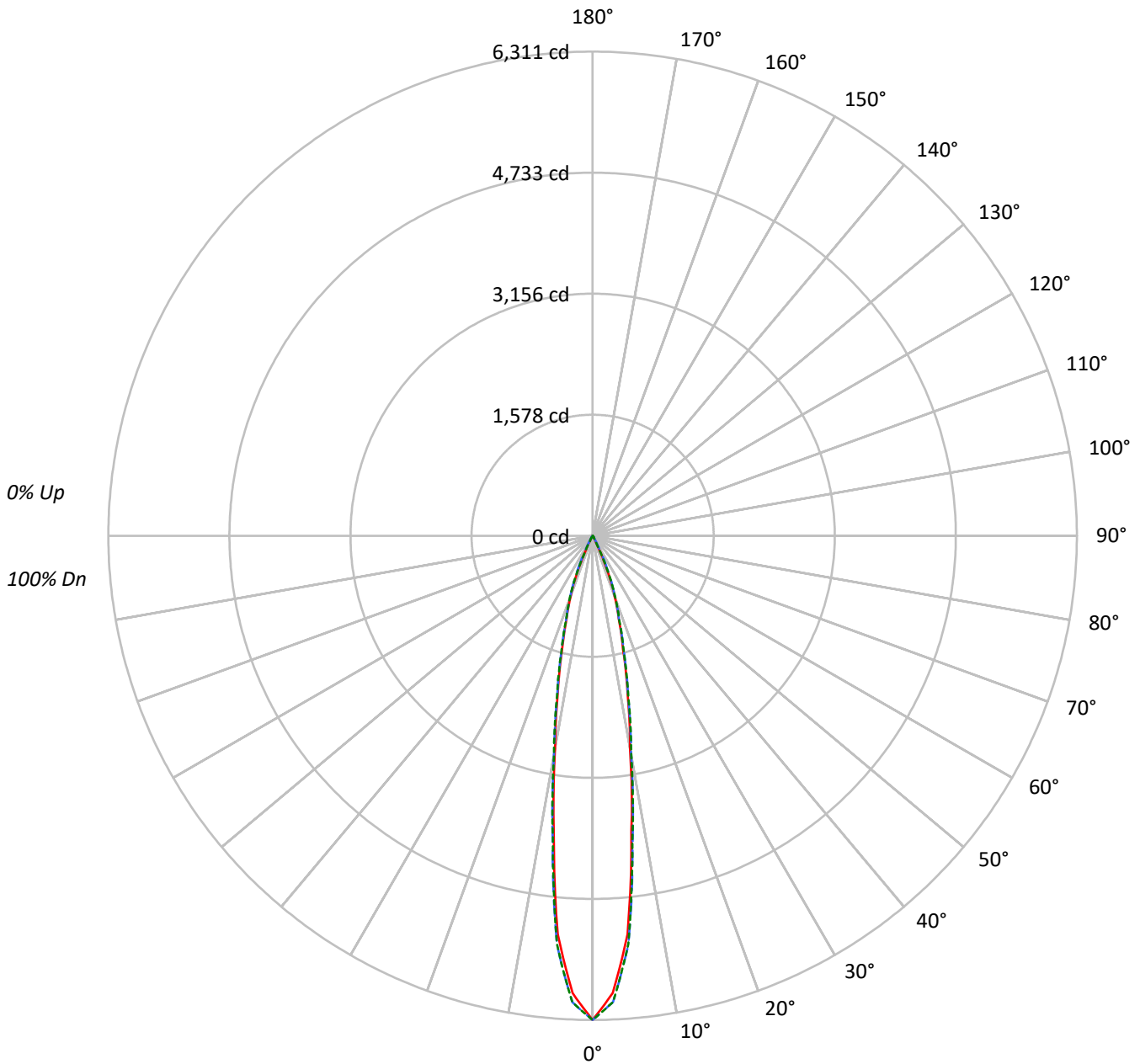
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	611352	611352	611352
5°	507096	520224	519485
10°	276321	284476	285912
15°	153639	158041	158854
20°	86618	89072	90196
25°	26071	38416	25953
30°	4911	7036	4911
35°	2117	3264	2176
40°	1024	1720	1024
45°	671	891	521
50°	407	497	241
55°	270	270	186
60°	213	97	97
65°	115	115	115
70°	0	142	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.2	39.9
10°-20°	447.8	42.5
20°-30°	163.3	15.5
30°-40°	15.6	1.5
40°-50°	4.3	0.4
50°-60°	1.3	0.1
60°-70°	0.5	0.0
70°-80°	0.1	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°	1031.3	97.9
0°-40°	1046.9	99.4
0°-60°	1052.5	99.9
0°-90°	1053.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1053.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6311	6311	6311	6311	6311	
5°	5215	5346	5350	5294	5342	412
15°	1532	1568	1576	1572	1584	438
25°	244	353	359	356	243	141
35°	18	22	28	22	18	13
45°	5	5	6	5	4	4
55°	2	2	2	1	1	1
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°	6310.7	6310.7	6310.7	6310.7	6310.7
2.5°	5966.4	6092.2	6083.0	6054.8	6083.0
5°	5214.6	5346.3	5349.6	5293.8	5342.0
7.5°	3876.3	3978.2	3996.1	3941.3	3977.6
10°	2809.0	2900.0	2891.9	2881.0	2906.5
12.5°	2098.3	2144.4	2139.5	2151.4	2153.1
15°	1531.9	1568.2	1575.8	1572.5	1583.9
17.5°	1128.0	1147.5	1143.7	1149.7	1154.0
20°	840.2	871.1	864.0	869.5	874.9
22.5°	557.2	614.2	607.1	615.8	610.9
25°	243.9	352.9	359.4	356.1	242.8
27.5°	74.8	126.3	162.1	123.6	74.8
30°	43.9	52.6	62.9	51.5	43.9
32.5°	27.6	33.1	39.6	32.5	27.1
35°	17.9	21.7	27.6	21.7	18.4
37.5°	11.9	14.6	19.5	14.6	12.5
40°	8.1	9.8	13.6	10.3	8.1
42.5°	6.0	7.0	9.2	7.0	5.4
45°	4.9	4.9	6.5	4.9	3.8
47.5°	3.8	3.8	4.3	3.3	2.7
50°	2.7	2.7	3.3	2.2	1.6
52.5°	1.6	2.2	2.2	1.6	1.1
55°	1.6	1.6	1.6	1.1	1.1
57.5°	1.1	1.1	1.1	0.5	0.5
60°	1.1	1.1	0.5	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°	0.0	0.5	0.5	0.0	0.0
72.5°	0.0	0.5	0.0	0.0	0.0
75°	0.0	0.5	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)