

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: P182539

Luminaire Tested: **LDSQA4A28930D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182539
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: LDSQA4A28930D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2151.0 lumens
Efficiency: N/A
Efficacy: 48.3 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

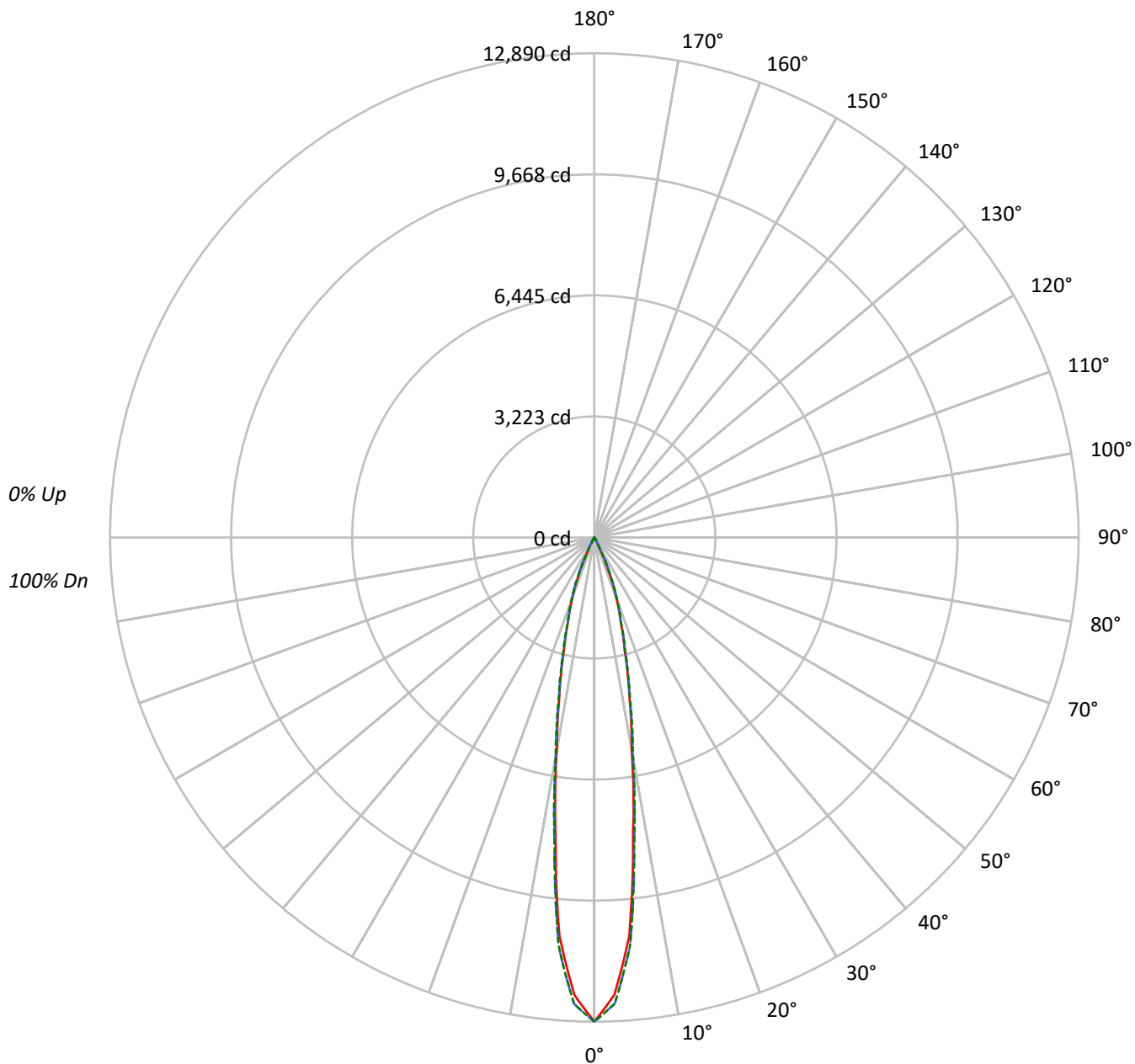
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97		
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94		
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91		
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89		
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86		
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84		
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82		
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80		
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78		
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1248695	1248695	1248695
5°	1035762	1062572	1061065
10°	564387	581051	583983
15°	313806	322792	324467
20°	176917	181938	184227
25°	53253	78468	53018
30°	10034	14363	10034
35°	4317	6682	4447
40°	2099	3503	2099
45°	1370	1822	1069
50°	829	995	497
55°	557	557	372
60°	426	213	213
65°	252	252	252
70°	0	312	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	858.2	39.9
10°-20°	914.7	42.5
20°-30°	333.6	15.5
30°-40°	31.8	1.5
40°-50°	8.8	0.4
50°-60°	2.6	0.1
60°-70°	1.1	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°	2106.5	97.9
0°-40°	2138.4	99.4
0°-60°	2149.7	99.9
0°-90°	2151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2151.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12890	12890	12890	12890	12890	
5°	10651	10920	10927	10813	10911	842
15°	3129	3203	3218	3212	3235	895
25°	498	721	734	727	496	288
35°	36	44	56	44	38	26
45°	10	10	13	10	8	8
55°	3	3	3	2	2	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°	12889.7	12889.7	12889.7	12889.7	12889.7
2.5°	12186.6	12443.5	12424.7	12367.1	12424.7
5°	10651.0	10920.0	10926.7	10812.6	10911.2
7.5°	7917.4	8125.5	8162.1	8050.2	8124.4
10°	5737.4	5923.4	5906.8	5884.6	5936.6
12.5°	4285.9	4380.0	4370.0	4394.4	4397.7
15°	3128.9	3203.0	3218.5	3211.9	3235.2
17.5°	2304.0	2343.9	2336.1	2348.3	2357.2
20°	1716.1	1779.2	1764.8	1775.9	1787.0
22.5°	1138.2	1254.4	1240.0	1257.7	1247.8
25°	498.2	720.8	734.1	727.4	496.0
27.5°	152.8	258.0	331.0	252.4	152.8
30°	89.7	107.4	128.4	105.2	89.7
32.5°	56.5	67.5	80.8	66.4	55.4
35°	36.5	44.3	56.5	44.3	37.6
37.5°	24.4	29.9	39.9	29.9	25.5
40°	16.6	19.9	27.7	21.0	16.6
42.5°	12.2	14.4	18.8	14.4	11.1
45°	10.0	10.0	13.3	10.0	7.8
47.5°	7.8	7.8	8.9	6.6	5.5
50°	5.5	5.5	6.6	4.4	3.3
52.5°	3.3	4.4	4.4	3.3	2.2
55°	3.3	3.3	3.3	2.2	2.2
57.5°	2.2	2.2	2.2	1.1	1.1
60°	2.2	2.2	1.1	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°	0.0	1.1	1.1	0.0	0.0
72.5°	0.0	1.1	0.0	0.0	0.0
75°	0.0	1.1	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)