

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: P182531

Luminaire Tested: **LDSQA4A13930D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182531
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: LDSQA4A13930D010TE 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: 1260.5 lumens
Efficiency: N/A
Efficacy: 56.6 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

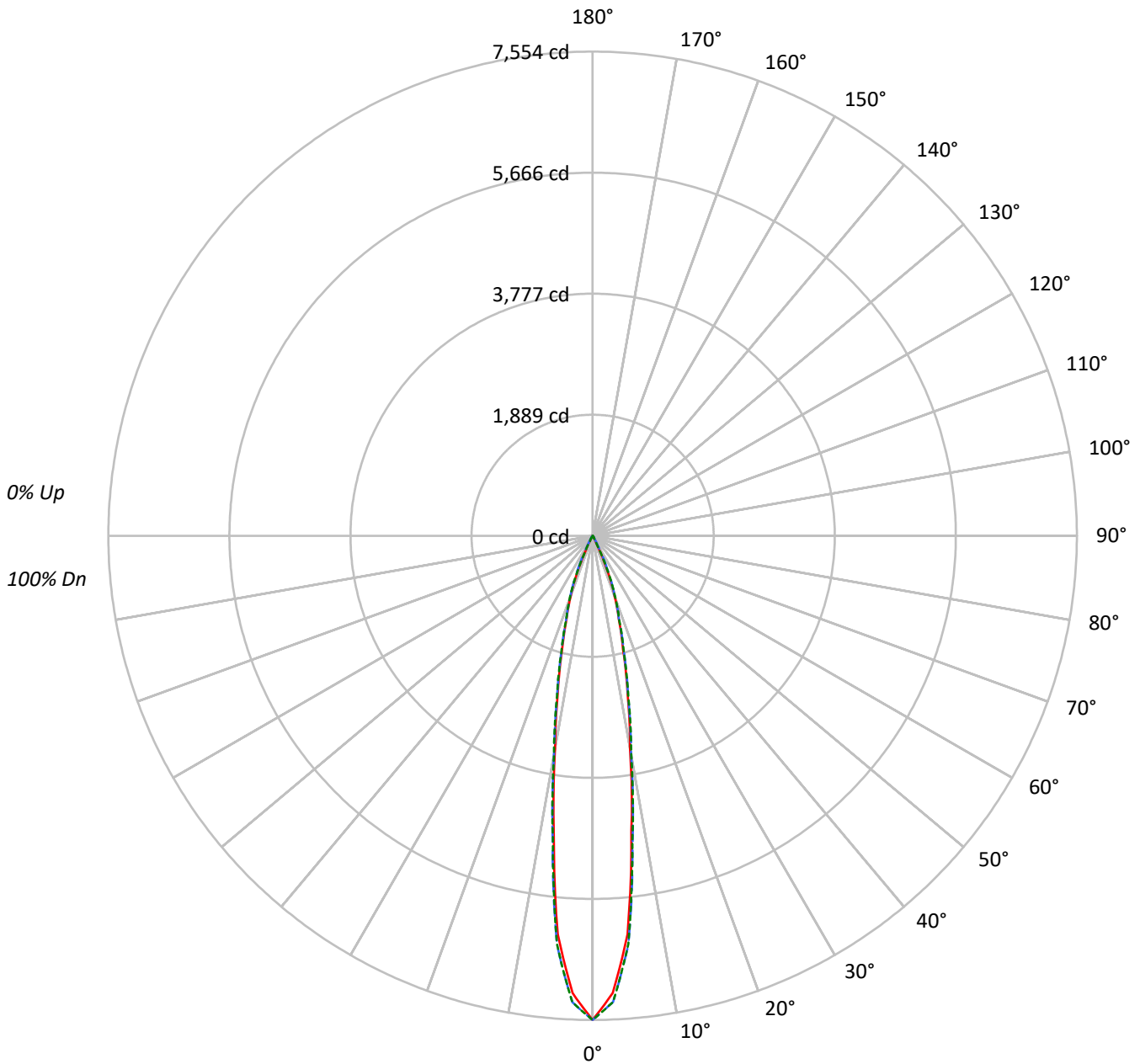
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182531

CATALOG NUMBER: LDSQA4A13930D010TE LAR15SP 4LSQAL1H

Luminous Intensity Polar Plot





TEST NUMBER: P182531

CATALOG NUMBER: LDSQA4A13930D010TE LAR15SP 4LSQAL1H

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°	731778	731778	731778
5°	606987	622702	621817
10°	330749	340517	342239
15°	183897	189172	190145
20°	103680	106618	107959
25°	31212	45984	31073
30°	5884	8423	5884
35°	2531	3915	2614
40°	1227	2049	1227
45°	795	1069	617
50°	482	588	286
55°	321	321	220
60°	252	116	116
65°	138	138	138
70°	0	170	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P182531

CATALOG NUMBER: LDSQA4A13930D010TE LAR15SP 4LSQAL1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.9	39.9
10°-20°	536.1	42.5
20°-30°	195.5	15.5
30°-40°	18.6	1.5
40°-50°	5.1	0.4
50°-60°	1.5	0.1
60°-70°	0.6	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°	1234.5	97.9
0°-40°	1253.1	99.4
0°-60°	1259.8	99.9
0°-90°	1260.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1260.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7554	7554	7554	7554	7554	
5°	6242	6400	6403	6337	6394	493
15°	1834	1877	1886	1882	1896	525
25°	292	422	430	426	291	169
35°	21	26	33	26	22	15
45°	6	6	8	6	4	5
55°	2	2	2	1	1	2
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



TEST NUMBER: P182531

CATALOG NUMBER: LDSQA4A13930D010TE LAR15SP 4LSQAL1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7553.8	7553.8	7553.8	7553.8	7553.8
2.5°	7141.8	7292.3	7281.3	7247.5	7281.3
5°	6241.8	6399.5	6403.4	6336.6	6394.3
7.5°	4639.8	4761.8	4783.2	4717.7	4761.2
10°	3362.3	3471.3	3461.6	3448.6	3479.1
12.5°	2511.7	2566.8	2561.0	2575.2	2577.2
15°	1833.6	1877.1	1886.2	1882.3	1895.9
17.5°	1350.2	1373.6	1369.0	1376.2	1381.4
20°	1005.7	1042.7	1034.2	1040.7	1047.2
22.5°	667.0	735.1	726.7	737.1	731.2
25°	292.0	422.4	430.2	426.3	290.7
27.5°	89.5	151.2	194.0	147.9	89.5
30°	52.6	62.9	75.3	61.6	52.6
32.5°	33.1	39.6	47.4	38.9	32.4
35°	21.4	26.0	33.1	26.0	22.1
37.5°	14.3	17.5	23.4	17.5	14.9
40°	9.7	11.7	16.2	12.3	9.7
42.5°	7.1	8.4	11.0	8.4	6.5
45°	5.8	5.8	7.8	5.8	4.5
47.5°	4.5	4.5	5.2	3.9	3.2
50°	3.2	3.2	3.9	2.6	1.9
52.5°	1.9	2.6	2.6	1.9	1.3
55°	1.9	1.9	1.9	1.3	1.3
57.5°	1.3	1.3	1.3	0.6	0.6
60°	1.3	1.3	0.6	0.6	0.6
62.5°	0.6	0.6	0.6	0.6	0.6
65°	0.6	0.6	0.6	0.6	0.6
67.5°	0.6	0.6	0.6	0.6	0.6
70°	0.0	0.6	0.6	0.0	0.0
72.5°	0.0	0.6	0.0	0.0	0.0
75°	0.0	0.6	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)