

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: P182436

Luminaire Tested: **LDSQA4A13935D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182436
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26794)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13935D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1370.3 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

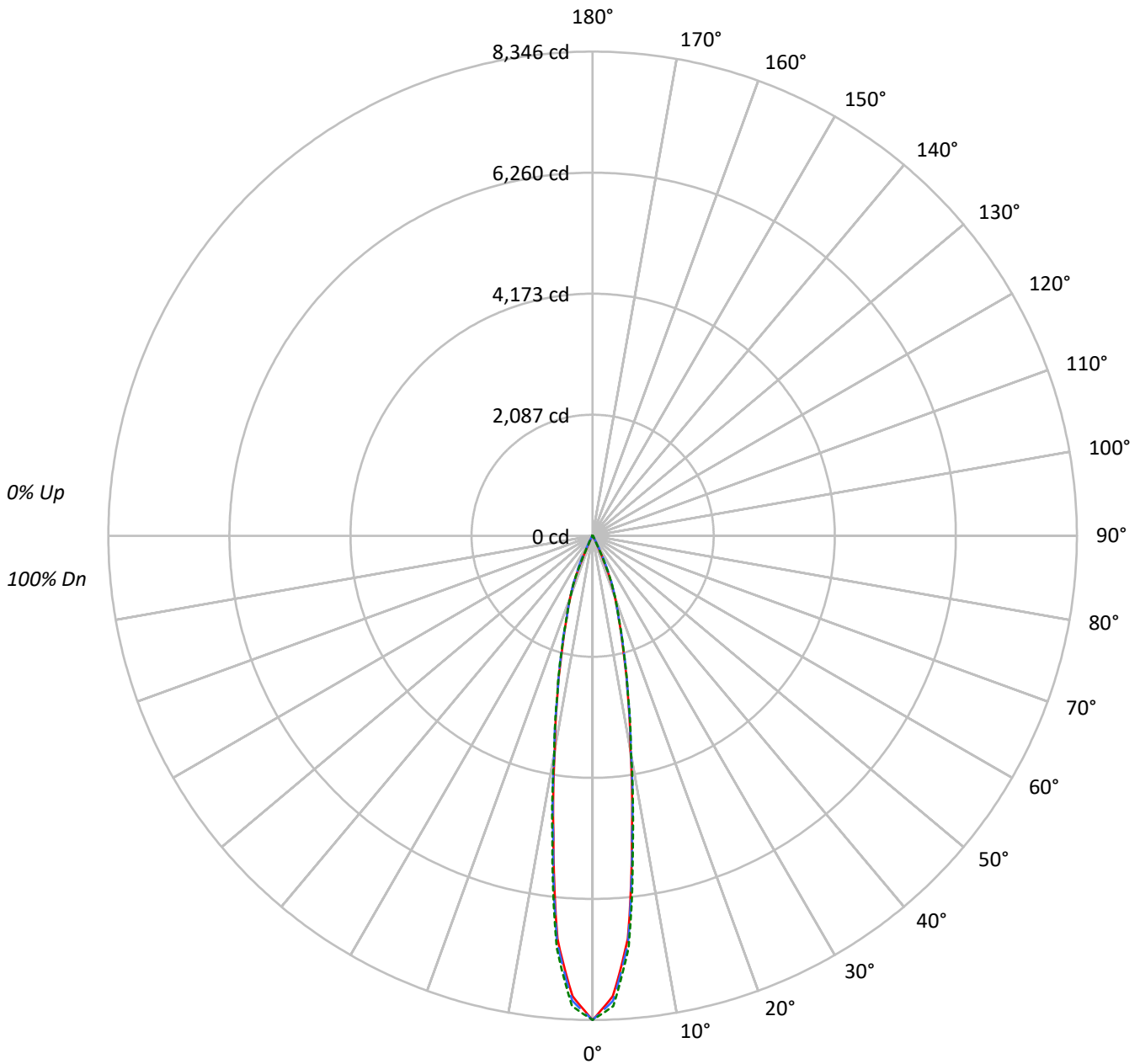
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182436

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P182436

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	808551	808551	808551
5°	677704	683431	693370
10°	368700	374179	375596
15°	203885	207165	207957
20°	115453	115794	116464
25°	31501	49351	30945
30°	5056	7696	4911
35°	1703	2862	1632
40°	746	1163	746
45°	452	534	356
50°	301	301	196
55°	220	220	118
60°	136	136	136
65°	160	160	160
70°	198	198	198
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P182436

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.3	40.6
10°-20°	588.3	42.9
20°-30°	207.0	15.1
30°-40°	13.9	1.0
40°-50°	2.9	0.2
50°-60°	1.0	0.1
60°-70°	0.7	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°	1351.6	98.6
0°-40°	1365.5	99.7
0°-60°	1369.4	99.9
0°-90°	1370.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1370.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8346	8346	8346	8346	8346	
5°	6969	7074	7028	7041	7130	550
15°	2033	2067	2066	2061	2074	582
25°	295	447	462	440	290	182
35°	14	18	24	18	14	11
45°	3	3	4	3	3	3
55°	1	1	1	1	1	1
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: P182436

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8346.3	8346.3	8346.3	8346.3	8346.3
2.5°	7945.5	8049.6	8023.4	8006.4	8115.8
5°	6969.0	7073.8	7027.9	7041.0	7130.1
7.5°	5181.1	5269.5	5222.3	5242.0	5310.1
10°	3748.1	3835.9	3803.8	3814.3	3818.2
12.5°	2794.5	2833.2	2807.6	2814.8	2827.9
15°	2032.9	2066.9	2065.6	2061.0	2073.5
17.5°	1491.9	1508.3	1491.9	1491.3	1499.8
20°	1119.9	1142.8	1123.2	1125.8	1129.7
22.5°	752.5	798.3	790.5	780.7	770.2
25°	294.7	447.3	461.7	440.1	289.5
27.5°	84.5	139.5	198.4	136.9	81.9
30°	45.2	53.7	68.8	52.4	43.9
32.5°	24.2	30.8	39.3	30.1	23.6
35°	14.4	17.7	24.2	17.7	13.8
37.5°	9.2	11.1	15.1	11.1	9.2
40°	5.9	7.2	9.2	7.2	5.9
42.5°	4.6	5.2	5.9	4.6	3.9
45°	3.3	3.3	3.9	3.3	2.6
47.5°	2.6	2.6	2.6	2.0	2.0
50°	2.0	2.0	2.0	1.3	1.3
52.5°	1.3	1.3	1.3	1.3	1.3
55°	1.3	1.3	1.3	0.7	0.7
57.5°	1.3	0.7	0.7	0.7	0.7
60°	0.7	0.7	0.7	0.7	0.7
62.5°	0.7	0.7	0.7	0.7	0.7
65°	0.7	0.7	0.7	0.7	0.7
67.5°	0.7	0.7	0.7	0.7	0.0
70°	0.7	0.7	0.7	0.7	0.7
72.5°	0.7	0.7	0.7	0.0	0.0
75°	0.0	0.7	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)