

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: P182515

Luminaire Tested: **LDSQA4A18930D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182515
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: LDSQA4A18930D010TE 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: 1570.5 lumens
Efficiency: N/A
Efficacy: 53.9 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

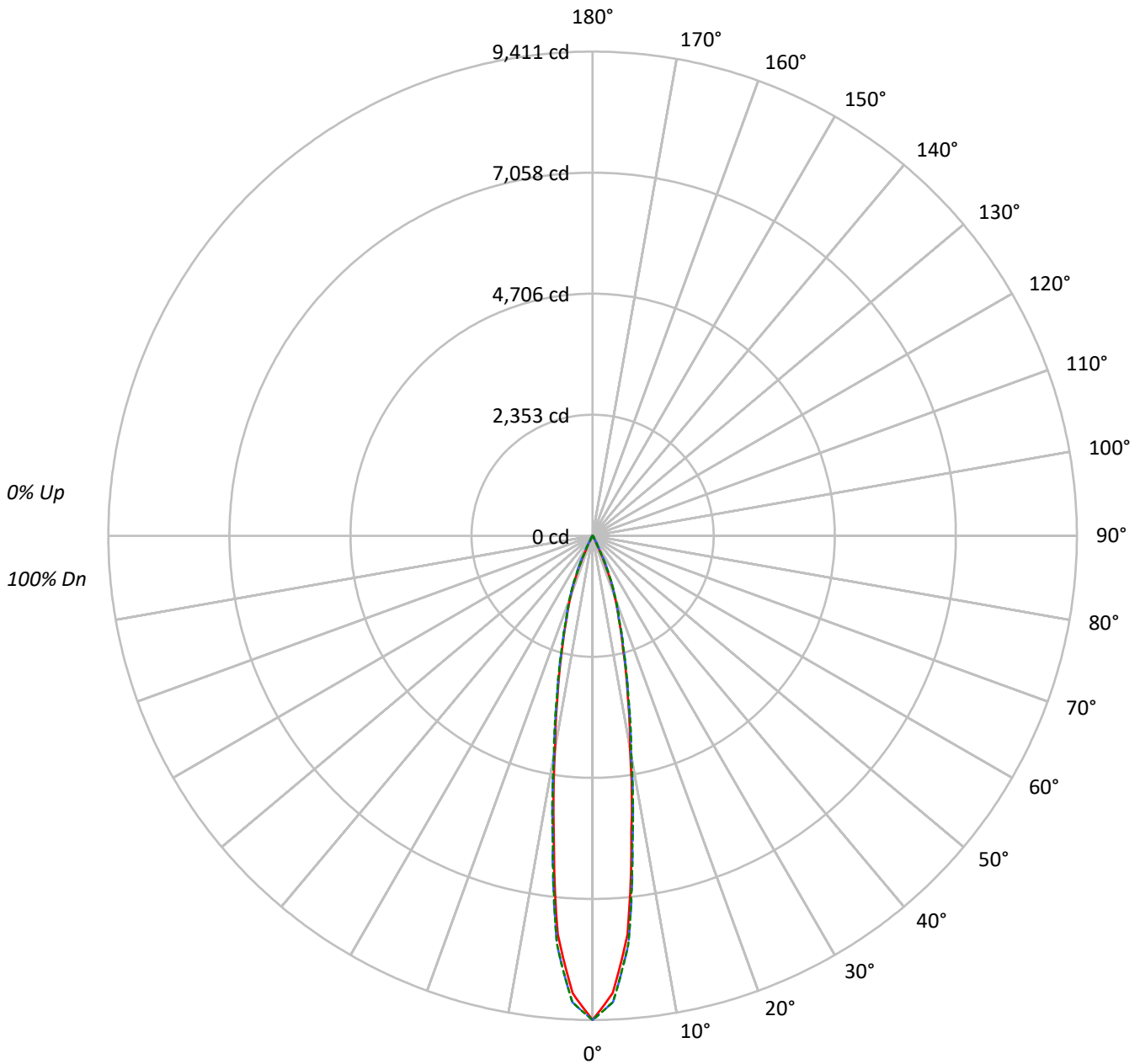
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	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°	911675	911675	911675
5°	756210	775786	774687
10°	412062	424220	426374
15°	229109	235678	236892
20°	129165	132835	134505
25°	38887	57282	38705
30°	7327	10493	7327
35°	3158	4872	3252
40°	1530	2555	1530
45°	1000	1329	781
50°	603	738	362
55°	405	405	270
60°	310	155	155
65°	183	183	183
70°	0	227	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	626.6	39.9
10°-20°	667.9	42.5
20°-30°	243.6	15.5
30°-40°	23.2	1.5
40°-50°	6.4	0.4
50°-60°	1.9	0.1
60°-70°	0.8	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°	1538.0	97.9
0°-40°	1561.2	99.4
0°-60°	1569.5	99.9
0°-90°	1570.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9411	9411	9411	9411	9411	
5°	7776	7973	7978	7894	7966	614
15°	2284	2339	2350	2345	2362	654
25°	364	526	536	531	362	210
35°	27	32	41	32	28	19
45°	7	7	10	7	6	6
55°	2	2	2	2	2	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9410.8	9410.8	9410.8	9410.8	9410.8
2.5°	8897.5	9085.0	9071.3	9029.3	9071.3
5°	7776.3	7972.7	7977.6	7894.3	7966.3
7.5°	5780.5	5932.5	5959.1	5877.5	5931.7
10°	4188.9	4324.7	4312.5	4296.4	4334.4
12.5°	3129.1	3197.8	3190.6	3208.3	3210.8
15°	2284.4	2338.6	2349.9	2345.0	2362.0
17.5°	1682.2	1711.3	1705.6	1714.5	1721.0
20°	1252.9	1299.0	1288.5	1296.6	1304.7
22.5°	831.0	915.9	905.4	918.3	911.0
25°	363.8	526.2	535.9	531.1	362.1
27.5°	111.6	188.3	241.7	184.3	111.6
30°	65.5	78.4	93.8	76.8	65.5
32.5°	41.2	49.3	59.0	48.5	40.4
35°	26.7	32.3	41.2	32.3	27.5
37.5°	17.8	21.8	29.1	21.8	18.6
40°	12.1	14.6	20.2	15.4	12.1
42.5°	8.9	10.5	13.7	10.5	8.1
45°	7.3	7.3	9.7	7.3	5.7
47.5°	5.7	5.7	6.5	4.9	4.0
50°	4.0	4.0	4.9	3.2	2.4
52.5°	2.4	3.2	3.2	2.4	1.6
55°	2.4	2.4	2.4	1.6	1.6
57.5°	1.6	1.6	1.6	0.8	0.8
60°	1.6	1.6	0.8	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.0	0.8	0.8	0.0	0.0
72.5°	0.0	0.8	0.0	0.0	0.0
75°	0.0	0.8	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)