

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: P182533

Luminaire Tested: **LDSQA4A13940D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182533
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: LDSQA4A13940D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1374.1 lumens
Efficiency: N/A
Efficacy: 61.7 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

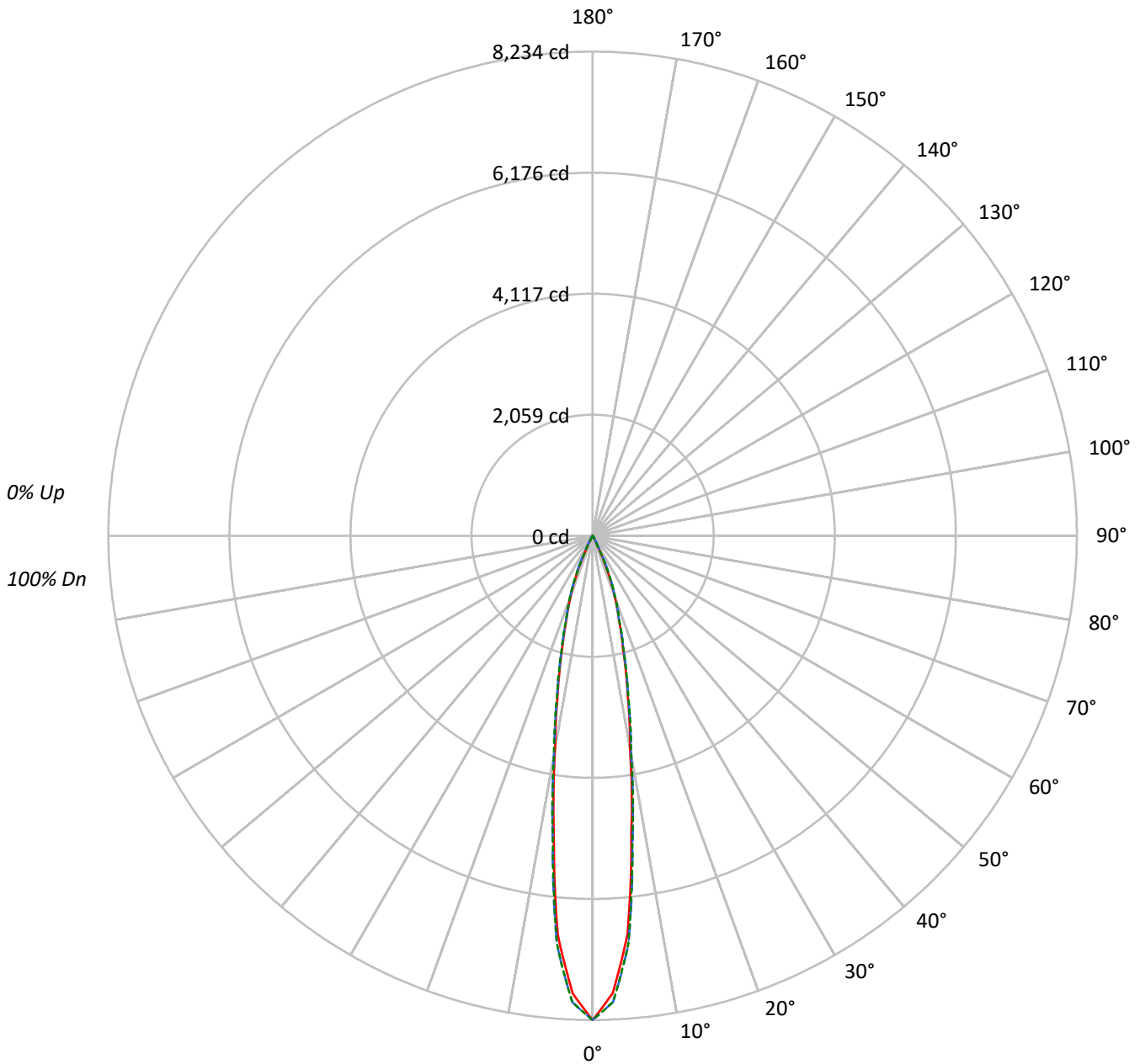
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182533

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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	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°	797701	797701	797701
5°	661668	678793	677830
10°	360545	371189	373068
15°	200465	206212	207275
20°	113021	116227	117691
25°	34023	50121	33874
30°	6410	9173	6410
35°	2756	4269	2838
40°	1340	2238	1340
45°	877	1165	685
50°	527	633	316
55°	355	355	236
60°	271	136	136
65°	160	160	160
70°	0	198	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	548.2	39.9
10°-20°	584.4	42.5
20°-30°	213.1	15.5
30°-40°	20.3	1.5
40°-50°	5.6	0.4
50°-60°	1.7	0.1
60°-70°	0.7	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°	1345.7	97.9
0°-40°	1366.0	99.4
0°-60°	1373.3	99.9
0°-90°	1374.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8234	8234	8234	8234	8234	
5°	6804	6976	6980	6907	6970	538
15°	1999	2046	2056	2052	2067	572
25°	318	460	469	465	317	184
35°	23	28	36	28	24	17
45°	6	6	8	6	5	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8234.3	8234.3	8234.3	8234.3	8234.3
2.5°	7785.1	7949.2	7937.2	7900.4	7937.2
5°	6804.1	6976.0	6980.2	6907.4	6970.3
7.5°	5057.8	5190.8	5214.1	5142.7	5190.1
10°	3665.2	3784.0	3773.4	3759.2	3792.5
12.5°	2737.9	2798.0	2791.7	2807.2	2809.4
15°	1998.8	2046.2	2056.1	2051.8	2066.7
17.5°	1471.9	1497.3	1492.4	1500.2	1505.8
20°	1096.3	1136.6	1127.4	1134.5	1141.6
22.5°	727.1	801.4	792.2	803.5	797.1
25°	318.3	460.4	468.9	464.7	316.9
27.5°	97.6	164.8	211.5	161.3	97.6
30°	57.3	68.6	82.0	67.2	57.3
32.5°	36.1	43.1	51.6	42.4	35.4
35°	23.3	28.3	36.1	28.3	24.0
37.5°	15.6	19.1	25.5	19.1	16.3
40°	10.6	12.7	17.7	13.4	10.6
42.5°	7.8	9.2	12.0	9.2	7.1
45°	6.4	6.4	8.5	6.4	5.0
47.5°	5.0	5.0	5.7	4.2	3.5
50°	3.5	3.5	4.2	2.8	2.1
52.5°	2.1	2.8	2.8	2.1	1.4
55°	2.1	2.1	2.1	1.4	1.4
57.5°	1.4	1.4	1.4	0.7	0.7
60°	1.4	1.4	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	0.7
70°	0.0	0.7	0.7	0.0	0.0
72.5°	0.0	0.7	0.0	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



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







(END OF REPORT)