

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: P182519

Luminaire Tested: **LDSQA4A09830D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182519
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: LDSQA4A09830D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1034.5 lumens
Efficiency: N/A
Efficacy: 74.7 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

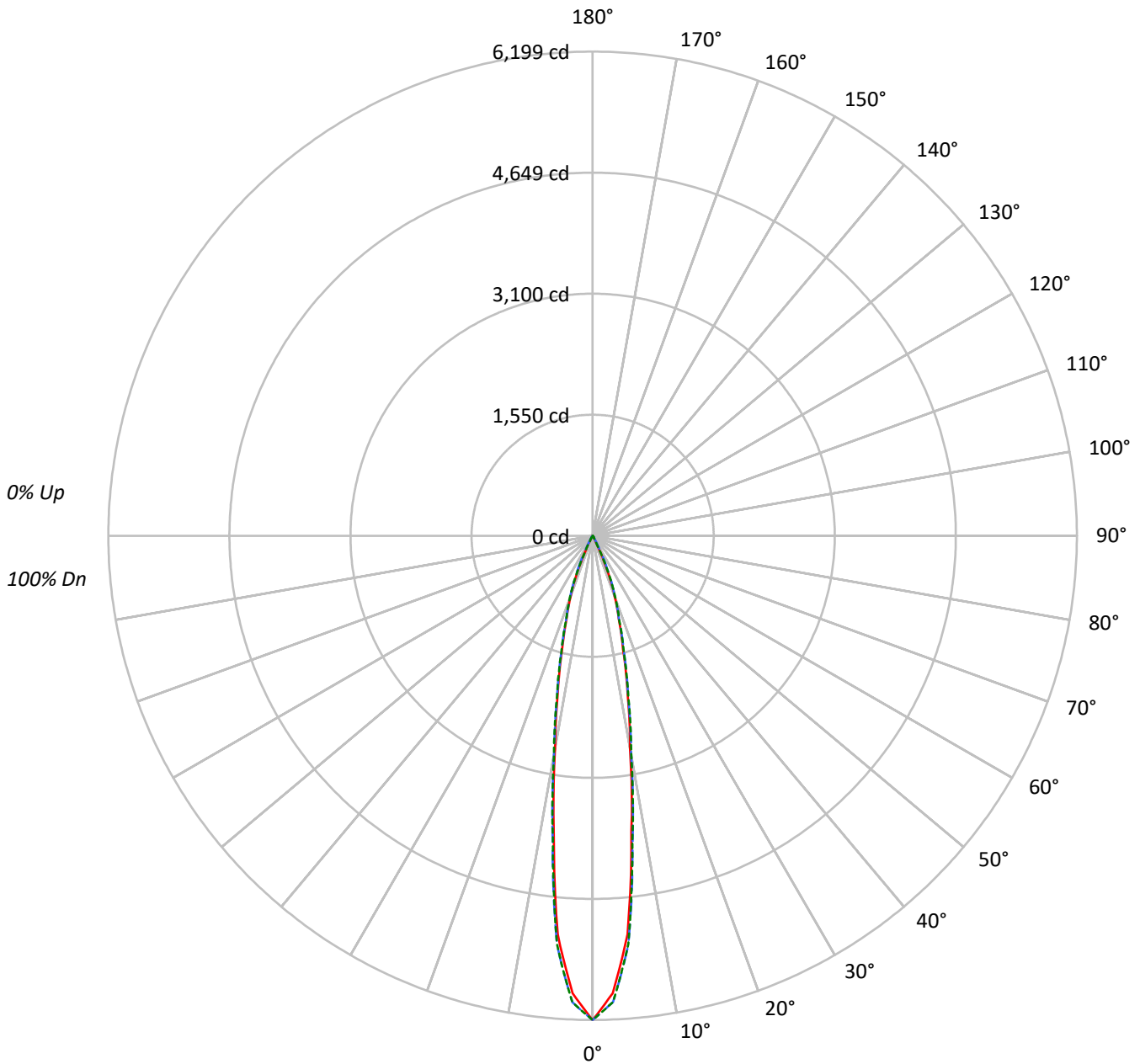
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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			
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°	600550	600550	600550
5°	498140	511035	510305
10°	271432	279449	280866
15°	150921	155243	156046
20°	85093	87505	88598
25°	25611	37732	25504
30°	4821	6913	4821
35°	2081	3217	2141
40°	1012	1682	1012
45°	658	877	507
50°	407	482	241
55°	270	270	186
60°	213	97	97
65°	115	115	115
70°	0	142	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	412.7	39.9
10°-20°	439.9	42.5
20°-30°	160.5	15.5
30°-40°	15.3	1.5
40°-50°	4.2	0.4
50°-60°	1.3	0.1
60°-70°	0.5	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°	1013.1	97.9
0°-40°	1028.4	99.4
0°-60°	1033.9	99.9
0°-90°	1034.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1034.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6199	6199	6199	6199	6199	
5°	5122	5252	5255	5200	5248	405
15°	1505	1540	1548	1545	1556	430
25°	240	347	353	350	239	138
35°	18	21	27	21	18	12
45°	5	5	6	5	4	4
55°	2	2	2	1	1	1
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6199.2	6199.2	6199.2	6199.2	6199.2
2.5°	5861.1	5984.6	5975.5	5947.8	5975.5
5°	5122.5	5251.9	5255.1	5200.2	5247.6
7.5°	3807.8	3907.9	3925.5	3871.7	3907.4
10°	2759.3	2848.8	2840.8	2830.2	2855.2
12.5°	2061.2	2106.5	2101.7	2113.4	2115.0
15°	1504.8	1540.5	1547.9	1544.7	1555.9
17.5°	1108.1	1127.3	1123.5	1129.4	1133.7
20°	825.4	855.7	848.8	854.1	859.4
22.5°	547.4	603.3	596.4	604.9	600.1
25°	239.6	346.6	353.0	349.8	238.6
27.5°	73.5	124.1	159.2	121.4	73.5
30°	43.1	51.7	61.8	50.6	43.1
32.5°	27.2	32.5	38.9	31.9	26.6
35°	17.6	21.3	27.2	21.3	18.1
37.5°	11.7	14.4	19.2	14.4	12.2
40°	8.0	9.6	13.3	10.1	8.0
42.5°	5.9	6.9	9.1	6.9	5.3
45°	4.8	4.8	6.4	4.8	3.7
47.5°	3.7	3.7	4.3	3.2	2.7
50°	2.7	2.7	3.2	2.1	1.6
52.5°	1.6	2.1	2.1	1.6	1.1
55°	1.6	1.6	1.6	1.1	1.1
57.5°	1.1	1.1	1.1	0.5	0.5
60°	1.1	1.1	0.5	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.0	0.5	0.5	0.0	0.0
72.5°	0.0	0.5	0.0	0.0	0.0
75°	0.0	0.5	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)