

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: P182522

Luminaire Tested: **LDSQA4A09927D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182522
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: LDSQA4A09927D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 813.5 lumens
Efficiency: N/A
Efficacy: 58.8 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

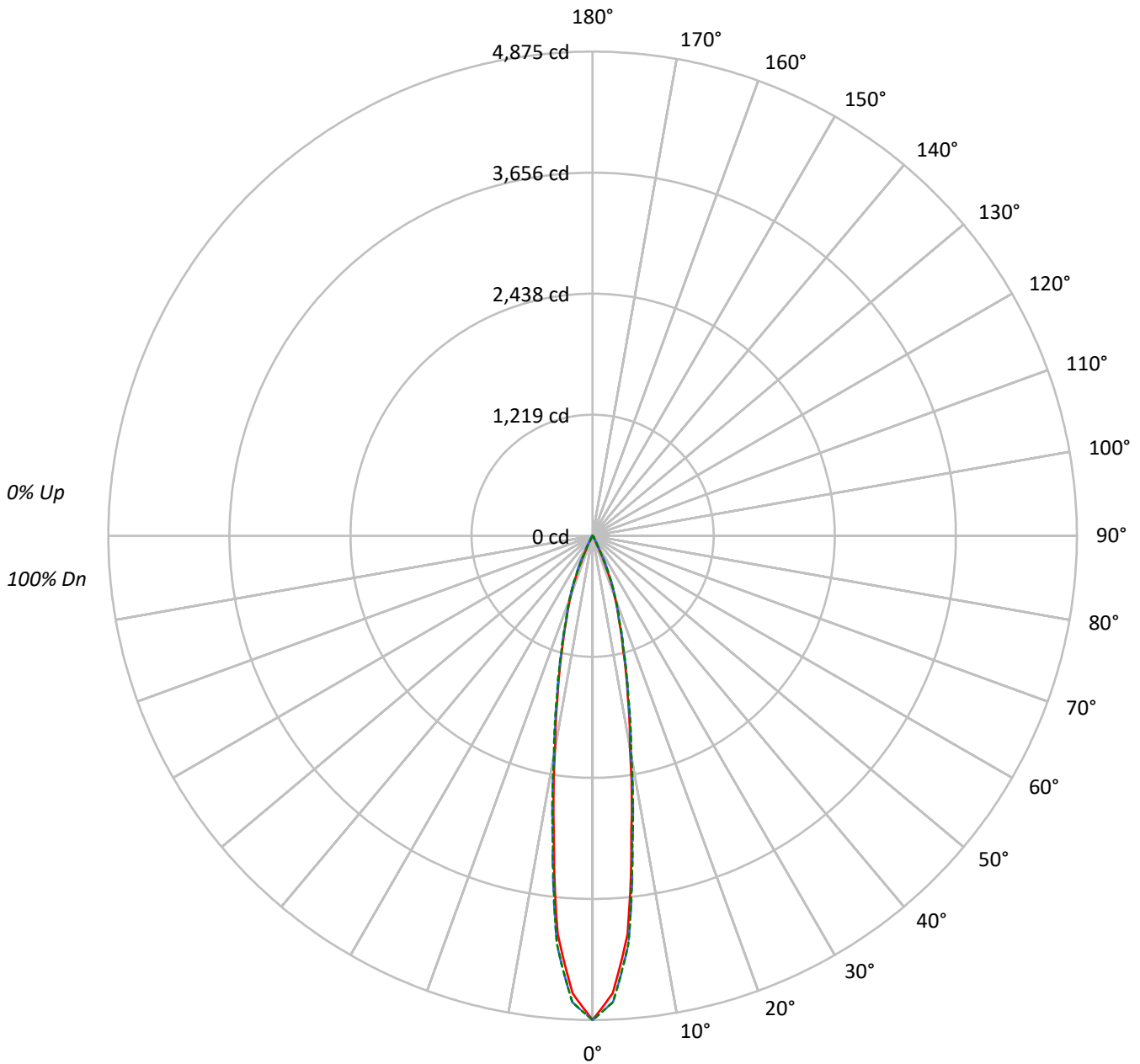
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	472277	472277	472277
5°	391734	401877	401313
10°	213453	219758	220870
15°	118687	122086	122718
20°	66917	68814	69680
25°	20138	29673	20053
30°	3792	5436	3792
35°	1632	2531	1679
40°	797	1328	797
45°	521	685	397
50°	316	377	196
55°	220	220	135
60°	155	78	78
65°	92	92	92
70°	0	113	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.6	39.9
10°-20°	346.0	42.5
20°-30°	126.2	15.5
30°-40°	12.0	1.5
40°-50°	3.3	0.4
50°-60°	1.0	0.1
60°-70°	0.4	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°	796.7	97.9
0°-40°	808.8	99.4
0°-60°	813.1	99.9
0°-90°	813.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	813.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4875	4875	4875	4875	4875	
5°	4028	4130	4133	4090	4127	318
15°	1183	1211	1217	1215	1224	339
25°	188	273	278	275	188	109
35°	14	17	21	17	14	10
45°	4	4	5	4	3	3
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	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°	4875.1	4875.1	4875.1	4875.1	4875.1
2.5°	4609.2	4706.3	4699.2	4677.4	4699.2
5°	4028.3	4130.1	4132.6	4089.5	4126.8
7.5°	2994.5	3073.2	3087.0	3044.7	3072.8
10°	2169.9	2240.3	2234.0	2225.6	2245.3
12.5°	1621.0	1656.6	1652.8	1662.0	1663.3
15°	1183.4	1211.4	1217.3	1214.8	1223.6
17.5°	871.4	886.5	883.6	888.2	891.5
20°	649.1	672.9	667.5	671.7	675.9
22.5°	430.5	474.4	469.0	475.7	471.9
25°	188.4	272.6	277.6	275.1	187.6
27.5°	57.8	97.6	125.2	95.5	57.8
30°	33.9	40.6	48.6	39.8	33.9
32.5°	21.4	25.5	30.6	25.1	20.9
35°	13.8	16.7	21.4	16.7	14.2
37.5°	9.2	11.3	15.1	11.3	9.6
40°	6.3	7.5	10.5	8.0	6.3
42.5°	4.6	5.4	7.1	5.4	4.2
45°	3.8	3.8	5.0	3.8	2.9
47.5°	2.9	2.9	3.3	2.5	2.1
50°	2.1	2.1	2.5	1.7	1.3
52.5°	1.3	1.7	1.7	1.3	0.8
55°	1.3	1.3	1.3	0.8	0.8
57.5°	0.8	0.8	0.8	0.4	0.4
60°	0.8	0.8	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.0	0.4	0.4	0.0	0.0
72.5°	0.0	0.4	0.0	0.0	0.0
75°	0.0	0.4	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)