

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: P182518

Luminaire Tested: **LDSQA4A09827D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182518
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: LDSQA4A09827D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

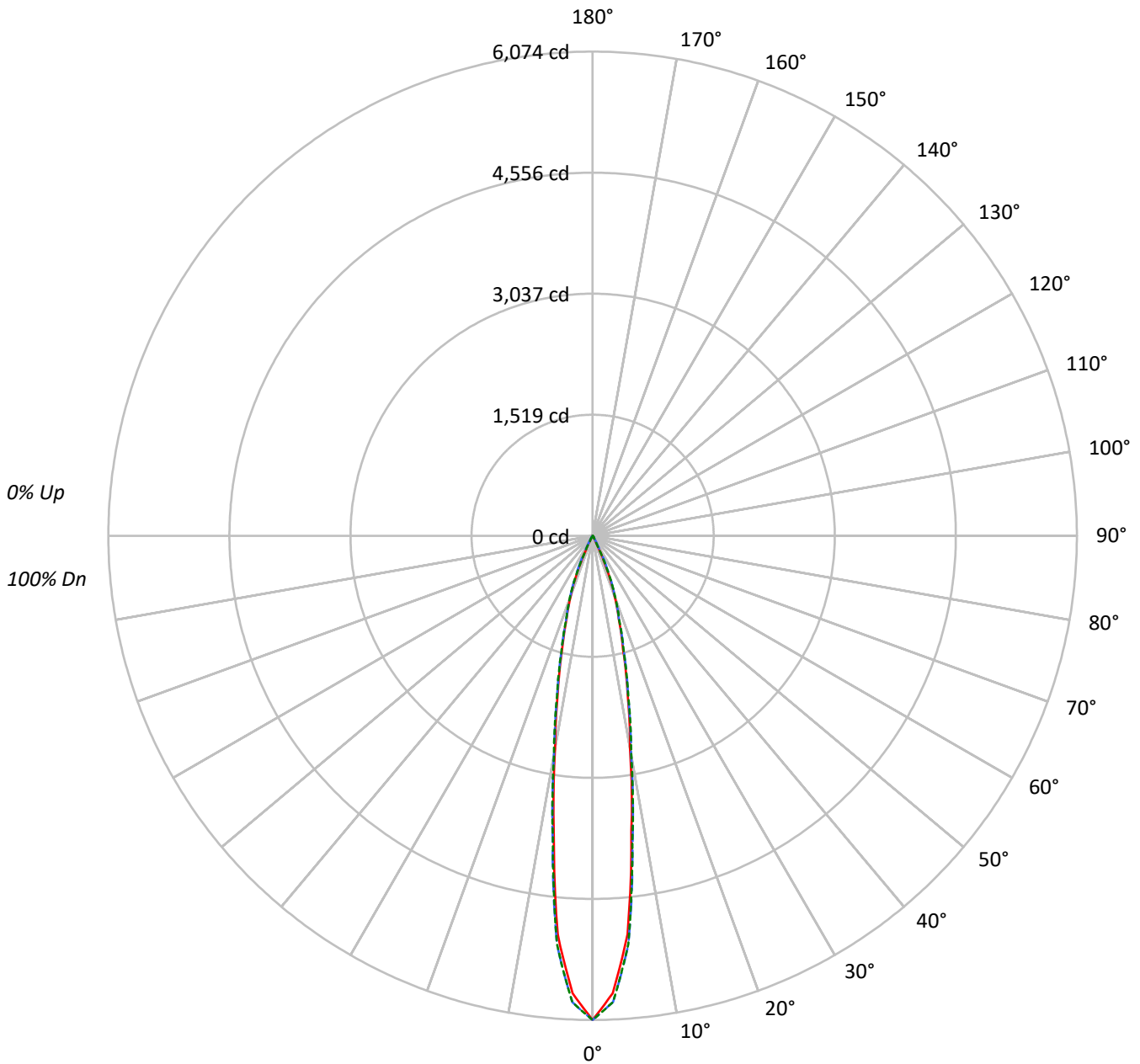
Lumens per Lamp: N/A
Luminaire Lumens: 1013.6 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	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
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	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
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	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
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	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
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	588431	588431	588431
5°	488085	500727	500017
10°	265963	273813	275200
15°	147872	152114	152896
20°	83371	85742	86814
25°	25098	36973	24980
30°	4732	6768	4732
35°	2034	3146	2093
40°	986	1644	986
45°	644	863	507
50°	392	467	241
55°	270	270	169
60°	194	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°	404.4	39.9
10°-20°	431.1	42.5
20°-30°	157.2	15.5
30°-40°	15.0	1.5
40°-50°	4.1	0.4
50°-60°	1.2	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°	992.7	97.9
0°-40°	1007.7	99.4
0°-60°	1013.0	99.9
0°-90°	1013.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1013.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6074	6074	6074	6074	6074	
5°	5019	5146	5149	5095	5142	397
15°	1474	1509	1517	1514	1524	422
25°	235	340	346	343	234	136
35°	17	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	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°	6074.1	6074.1	6074.1	6074.1	6074.1
2.5°	5742.8	5863.8	5855.0	5827.8	5855.0
5°	5019.1	5145.9	5149.1	5095.3	5141.8
7.5°	3731.0	3829.1	3846.3	3793.6	3828.5
10°	2703.7	2791.3	2783.5	2773.1	2797.6
12.5°	2019.7	2064.0	2059.3	2070.8	2072.4
15°	1474.4	1509.4	1516.7	1513.6	1524.5
17.5°	1085.7	1104.5	1100.9	1106.6	1110.8
20°	808.7	838.4	831.7	836.9	842.1
22.5°	536.3	591.1	584.3	592.7	588.0
25°	234.8	339.7	345.9	342.8	233.7
27.5°	72.0	121.6	156.0	119.0	72.0
30°	42.3	50.6	60.5	49.6	42.3
32.5°	26.6	31.8	38.1	31.3	26.1
35°	17.2	20.9	26.6	20.9	17.7
37.5°	11.5	14.1	18.8	14.1	12.0
40°	7.8	9.4	13.0	9.9	7.8
42.5°	5.7	6.8	8.9	6.8	5.2
45°	4.7	4.7	6.3	4.7	3.7
47.5°	3.7	3.7	4.2	3.1	2.6
50°	2.6	2.6	3.1	2.1	1.6
52.5°	1.6	2.1	2.1	1.6	1.0
55°	1.6	1.6	1.6	1.0	1.0
57.5°	1.0	1.0	1.0	0.5	0.5
60°	1.0	1.0	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)