

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: P208745

Luminaire Tested: **LDSQA6A30930D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29053)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A30930D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
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: 1949.5 lumens
Efficiency: N/A
Efficacy: 43.7 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

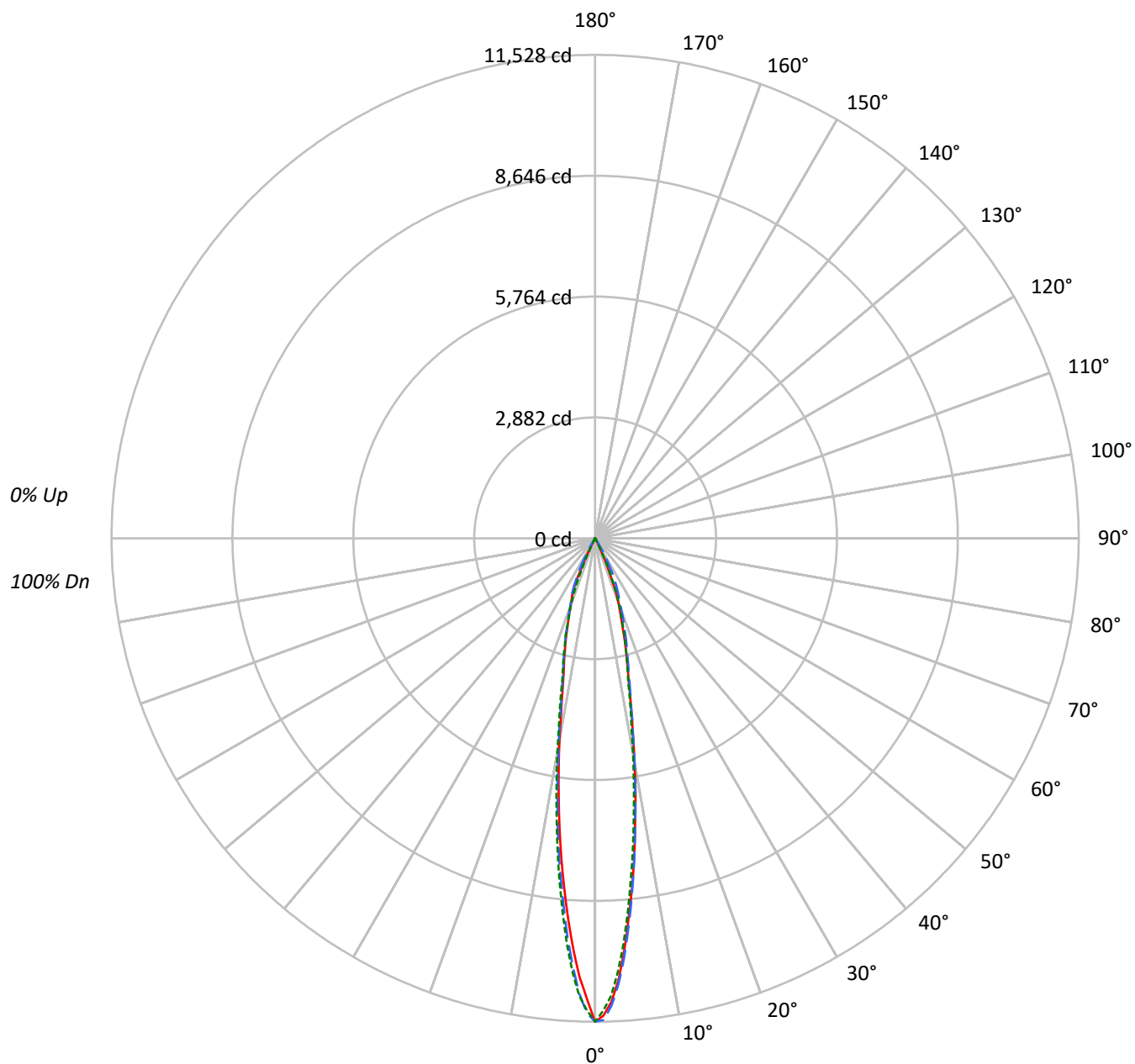
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	97
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	94
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	91	91
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	88	88
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	86	86
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	83	83
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	79	79
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	77	77
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	75	75

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	496328	496328	496328
5°	394569	386150	363265
10°	235082	226425	213029
15°	128450	128669	124630
20°	73594	75629	77741
25°	19430	20200	36290
30°	2650	2451	2371
35°	1062	1020	978
40°	410	410	410
45°	195	146	195
50°	107	54	161
55°	60	0	120
60°	69	0	0
65°	82	0	0
70°	101	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	732.1	37.6
10°-20°	823.8	42.3
20°-30°	366.8	18.8
30°-40°	22.4	1.1
40°-50°	3.6	0.2
50°-60°	0.6	0.0
60°-70°	0.2	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°	1922.7	98.6
0°-40°	1945.1	99.8
0°-60°	1949.3	100.0
0°-90°	1949.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1949.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	11528	11528	11528	11528	11528	
5°	9129	9236	8934	8725	8405	750
15°	2882	3007	2887	2866	2796	812
25°	409	1093	425	1056	764	241
35°	20	32	19	33	19	15
45°	3	6	2	6	3	3
55°	1	1	0	1	2	1
65°	1	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	11527.6	11527.6	11527.6	11527.6	11527.6	11527.6	11527.6	11527.6	11527.6
1°	11386.2	11490.5	11490.5	11465.4	11257.7	11412.0	11324.7	11231.0	10986.9
2°	11058.8	11164.7	11154.2	11058.8	10908.5	10972.3	10852.7	10736.3	10480.0
3°	10553.6	10667.6	10646.6	10547.1	10346.7	10385.5	10214.1	10126.0	9831.8
4°	9874.6	10019.3	9994.2	9884.3	9683.0	9680.6	9501.1	9408.2	9135.8
5°	9129.3	9280.5	9236.0	9145.5	8934.5	8896.5	8725.1	8658.9	8405.0
6°	8413.1	8507.7	8461.6	8386.5	8158.5	8135.1	7972.6	7916.0	7681.6
7°	7650.1	7715.5	7670.3	7612.1	7381.7	7351.0	7218.4	7174.0	6945.2
8°	6845.8	6939.5	6874.9	6838.5	6621.1	6579.0	6445.6	6415.7	6232.2
9°	6158.7	6190.2	6121.5	6012.4	5886.3	5843.4	5702.0	5672.9	5544.4
10°	5377.0	5474.8	5421.5	5327.7	5179.0	5211.3	5006.0	4981.8	4872.6
11°	4697.2	4799.9	4743.3	4659.2	4525.0	4543.6	4375.5	4273.7	4256.7
12°	4136.2	4183.1	4166.1	4098.2	3989.9	3995.6	3846.0	3764.4	3747.4
13°	3589.8	3673.9	3682.0	3626.2	3496.0	3555.9	3444.3	3378.0	3351.3
14°	3219.6	3283.4	3309.3	3307.7	3167.0	3219.6	3131.5	3078.1	3051.5
15°	2881.7	2965.0	3007.0	3004.6	2886.6	2939.9	2866.3	2824.3	2796.0
16°	2564.8	2678.8	2747.5	2736.2	2626.3	2681.2	2608.5	2567.3	2535.7
17°	2246.4	2403.2	2504.2	2482.4	2367.6	2437.1	2367.6	2332.0	2298.9
18°	2001.4	2130.0	2272.2	2225.3	2097.6	2205.9	2146.1	2117.8	2087.1
19°	1781.6	1869.7	2054.8	1971.5	1855.9	1978.8	1934.3	1911.7	1882.6
20°	1606.2	1682.1	1847.0	1748.4	1650.6	1750.8	1738.7	1720.9	1696.7
21°	1381.4	1526.1	1658.7	1567.4	1438.8	1580.3	1595.6	1585.9	1568.2
22°	1093.7	1354.0	1522.1	1355.6	1187.4	1455.8	1487.3	1480.1	1467.1
23°	851.2	1151.1	1396.0	1160.8	924.7	1317.6	1364.5	1359.6	1316.8
24°	620.8	942.5	1237.6	932.0	665.3	1129.2	1219.0	1210.9	1055.7
25°	409.0	734.0	1092.9	699.2	425.2	913.4	1055.7	1041.9	763.9
26°	262.7	536.7	962.7	477.7	226.3	682.2	882.7	843.9	473.7
27°	126.1	374.3	803.5	281.3	109.9	455.1	708.1	621.6	228.8
28°	79.2	196.4	638.6	139.8	74.4	253.0	542.4	394.5	89.7
29°	64.7	97.0	472.9	79.2	60.6	116.4	388.8	192.4	62.2
30°	53.3	64.7	322.5	60.6	49.3	64.7	255.4	75.2	47.7
32.5°	33.9	40.4	74.4	38.0	32.3	37.2	60.6	36.4	29.9
35°	20.2	25.9	32.3	25.1	19.4	24.2	33.1	23.4	18.6
37.5°	12.1	15.4	21.0	15.4	12.1	15.4	21.0	15.4	11.3
40°	7.3	9.7	14.5	9.7	7.3	9.7	14.5	9.7	7.3
42.5°	4.8	5.7	9.7	5.7	4.0	5.7	9.7	6.5	4.8
45°	3.2	4.0	5.7	3.2	2.4	3.2	5.7	4.0	3.2
47.5°	2.4	2.4	3.2	1.6	1.6	2.4	4.0	3.2	2.4
50°	1.6	1.6	2.4	0.8	0.8	0.8	2.4	2.4	2.4
52.5°	0.8	0.8	0.8	0.0	0.0	0.0	1.6	1.6	1.6
55°	0.8	0.8	0.8	0.0	0.0	0.0	0.8	1.6	1.6
57.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.6	1.6
60°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.6	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°







62.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)