

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: P208718

Luminaire Tested: **LDSQA6A10835D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208718
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: LDSQA6A10835D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 956.6 lumens
Efficiency: N/A
Efficacy: 69.7 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

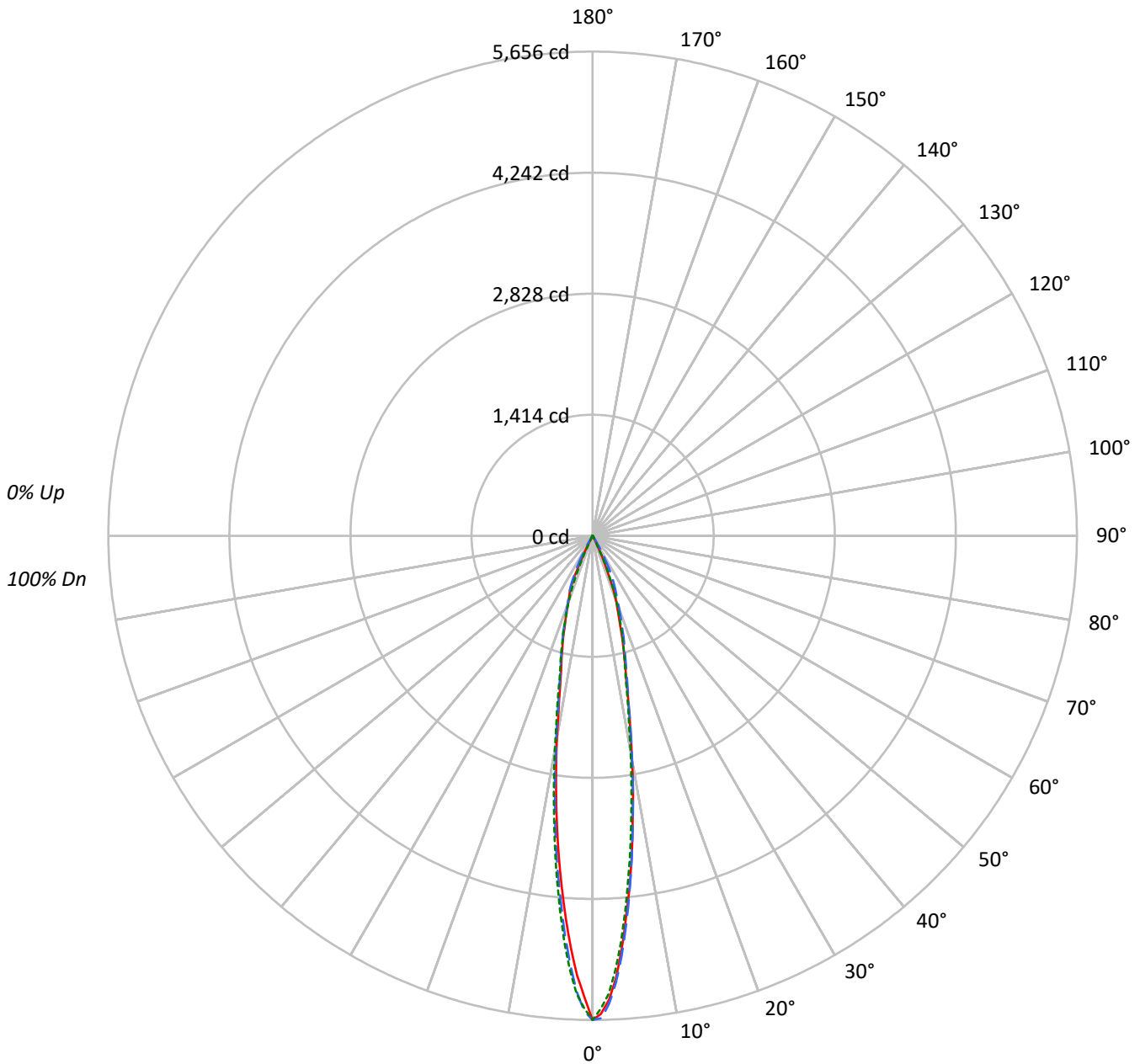
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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															
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	99	97																
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	95	97	94																
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	92	97	91																
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	90	97	88																
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	88	97	86																
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	85	97	83																
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	83	97	81																
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	80	97	79																
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	78	97	77																
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	76	97	75																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	243536	243536	243536
5°	193605	189473	178248
10°	115350	111101	104530
15°	63028	63135	61152
20°	36110	37109	38144
25°	9535	9910	17805
30°	1303	1203	1163
35°	520	499	478
40°	202	202	202
45°	97	73	97
50°	54	27	80
55°	30	0	60
60°	34	0	0
65°	41	0	0
70°	50	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°	359.2	37.5
10°-20°	404.2	42.3
20°-30°	180.0	18.8
30°-40°	11.0	1.1
40°-50°	1.8	0.2
50°-60°	0.3	0.0
60°-70°	0.1	0.0
70°-80°	0.0	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°	943.4	98.6
0°-40°	954.4	99.8
0°-60°	956.5	100.0
0°-90°	956.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	956.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5656	5656	5656	5656	5656	
5°	4480	4532	4384	4281	4124	368
15°	1414	1476	1416	1406	1372	399
25°	201	536	209	518	375	118
35°	10	16	10	16	9	7
45°	2	3	1	3	2	1
55°	0	0	0	0	1	0
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°	112.5°	135°	157.5°	180°
0°	5656.3	5656.3	5656.3	5656.3	5656.3	5656.3	5656.3	5656.3	5656.3
1°	5586.9	5638.1	5638.1	5625.8	5523.9	5599.6	5556.8	5510.8	5391.0
2°	5426.3	5478.2	5473.1	5426.3	5352.5	5383.8	5325.1	5268.0	5142.3
3°	5178.4	5234.3	5224.0	5175.2	5076.9	5095.9	5011.8	4968.6	4824.2
4°	4845.2	4916.2	4903.9	4850.0	4751.2	4750.0	4662.0	4616.4	4482.7
5°	4479.5	4553.7	4531.9	4487.5	4383.9	4365.3	4281.2	4248.7	4124.2
6°	4128.1	4174.5	4151.9	4115.0	4003.2	3991.7	3912.0	3884.2	3769.2
7°	3753.7	3785.8	3763.6	3735.1	3622.0	3606.9	3541.9	3520.1	3407.8
8°	3359.1	3405.1	3373.3	3355.5	3248.8	3228.2	3162.7	3148.0	3058.0
9°	3021.9	3037.4	3003.7	2950.1	2888.3	2867.2	2797.8	2783.5	2720.5
10°	2638.4	2686.4	2660.2	2614.2	2541.2	2557.1	2456.3	2444.4	2390.9
11°	2304.8	2355.2	2327.4	2286.2	2220.3	2229.5	2147.0	2097.0	2088.6
12°	2029.6	2052.6	2044.2	2010.9	1957.8	1960.5	1887.2	1847.1	1838.8
13°	1761.4	1802.7	1806.6	1779.3	1715.4	1744.8	1690.0	1657.5	1644.4
14°	1579.8	1611.1	1623.8	1623.0	1554.0	1579.8	1536.5	1510.4	1497.3
15°	1414.0	1454.8	1475.5	1474.3	1416.4	1442.5	1406.4	1385.8	1371.9
16°	1258.5	1314.4	1348.1	1342.6	1288.6	1315.6	1279.9	1259.7	1244.2
17°	1102.2	1179.2	1228.8	1218.0	1161.7	1195.8	1161.7	1144.3	1128.0
18°	982.1	1045.1	1114.9	1091.9	1029.3	1082.4	1053.1	1039.2	1024.1
19°	874.2	917.4	1008.2	967.4	910.7	970.9	949.1	938.0	923.7
20°	788.1	825.4	906.3	857.9	809.9	859.1	853.1	844.4	832.5
21°	677.8	748.8	813.9	769.1	706.0	775.4	782.9	778.2	769.5
22°	536.6	664.4	746.9	665.1	582.6	714.3	729.8	726.2	719.9
23°	417.7	564.8	685.0	569.6	453.7	646.5	669.5	667.1	646.1
24°	304.6	462.5	607.2	457.3	326.4	554.1	598.1	594.2	518.0
25°	200.7	360.1	536.2	343.1	208.6	448.2	518.0	511.3	374.8
26°	128.9	263.4	472.4	234.4	111.1	334.8	433.1	414.1	232.4
27°	61.9	183.6	394.2	138.0	53.9	223.3	347.4	305.0	112.2
28°	38.9	96.4	313.3	68.6	36.5	124.1	266.1	193.6	44.0
29°	31.7	47.6	232.0	38.9	29.7	57.1	190.8	94.4	30.5
30°	26.2	31.7	158.3	29.7	24.2	31.7	125.3	36.9	23.4
32.5°	16.7	19.8	36.5	18.6	15.9	18.2	29.7	17.8	14.7
35°	9.9	12.7	15.9	12.3	9.5	11.9	16.3	11.5	9.1
37.5°	5.9	7.5	10.3	7.5	5.9	7.5	10.3	7.5	5.6
40°	3.6	4.8	7.1	4.8	3.6	4.8	7.1	4.8	3.6
42.5°	2.4	2.8	4.8	2.8	2.0	2.8	4.8	3.2	2.4
45°	1.6	2.0	2.8	1.6	1.2	1.6	2.8	2.0	1.6
47.5°	1.2	1.2	1.6	0.8	0.8	1.2	2.0	1.6	1.2
50°	0.8	0.8	1.2	0.4	0.4	0.4	1.2	1.2	1.2
52.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.8	0.8	0.8
55°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.8	0.8
57.5°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.8
60°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.4	0.4	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°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)