

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: P208742

Luminaire Tested: **LDSQA6A30835D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208742
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: LDSQA6A30835D010TE 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: 2412.0 lumens
Efficiency: N/A
Efficacy: 54.1 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

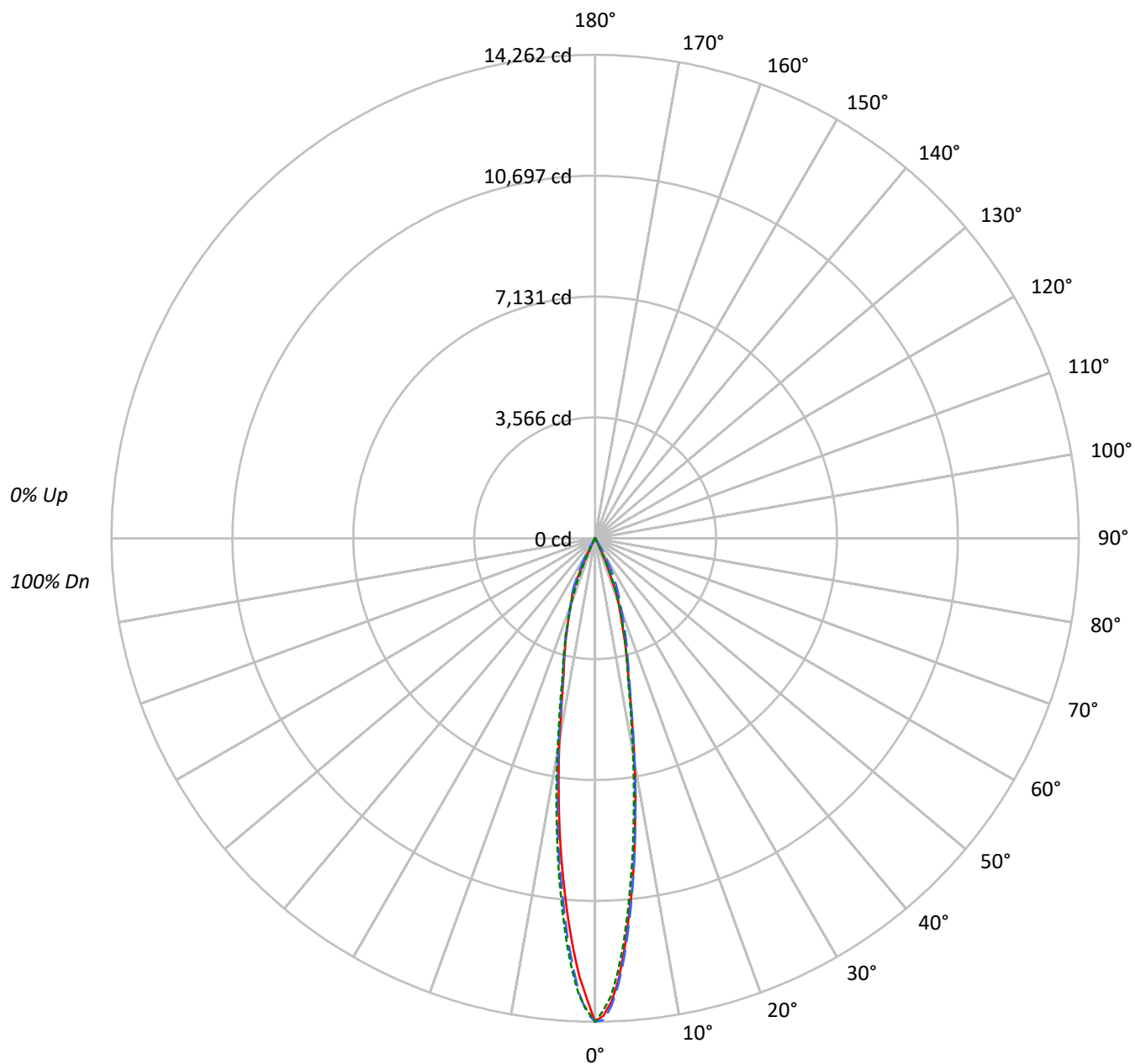
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	614064	614064	614064
5°	488167	477747	449437
10°	290846	280135	263565
15°	158921	159189	154197
20°	91051	93571	96183
25°	24038	24989	44899
30°	3281	3033	2933
35°	1314	1261	1209
40°	506	506	506
45°	244	183	244
50°	134	67	201
55°	75	0	150
60°	86	0	0
65°	102	0	0
70°	126	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°	905.7	37.6
10°-20°	1019.2	42.3
20°-30°	453.9	18.8
30°-40°	27.7	1.1
40°-50°	4.4	0.2
50°-60°	0.8	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°	2378.8	98.6
0°-40°	2406.5	99.8
0°-60°	2411.7	100.0
0°-90°	2412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2412.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14262	14262	14262	14262	14262	
5°	11295	11427	11054	10795	10399	928
15°	3565	3720	3571	3546	3459	1005
25°	506	1352	526	1306	945	298
35°	25	40	24	41	23	18
45°	4	7	3	7	4	4
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°	14262.1	14262.1	14262.1	14262.1	14262.1	14262.1	14262.1	14262.1	14262.1
1°	14087.1	14216.1	14216.1	14185.1	13928.1	14119.1	14011.1	13895.1	13593.0
2°	13682.0	13813.0	13800.0	13682.0	13496.0	13575.0	13427.0	13283.0	12966.0
3°	13057.0	13198.0	13172.0	13049.0	12801.0	12849.0	12637.0	12527.9	12163.9
4°	12216.9	12395.9	12364.9	12228.9	11979.9	11976.9	11754.9	11639.9	11302.9
5°	11294.9	11481.9	11426.9	11314.9	11053.8	11006.8	10794.8	10712.8	10398.8
6°	10408.8	10525.8	10468.8	10375.8	10093.8	10064.8	9863.7	9793.7	9503.7
7°	9464.7	9545.7	9489.7	9417.7	9132.7	9094.7	8930.7	8875.7	8592.6
8°	8469.6	8585.6	8505.6	8460.6	8191.6	8139.6	7974.6	7937.6	7710.6
9°	7619.6	7658.6	7573.6	7438.6	7282.6	7229.5	7054.5	7018.5	6859.5
10°	6652.5	6773.5	6707.5	6591.5	6407.5	6447.5	6193.5	6163.5	6028.5
11°	5811.4	5938.4	5868.4	5764.4	5598.4	5621.4	5413.4	5287.4	5266.4
12°	5117.4	5175.4	5154.4	5070.4	4936.4	4943.4	4758.4	4657.4	4636.4
13°	4441.3	4545.3	4555.3	4486.3	4325.3	4399.3	4261.3	4179.3	4146.3
14°	3983.3	4062.3	4094.3	4092.3	3918.3	3983.3	3874.3	3808.3	3775.3
15°	3565.3	3668.3	3720.3	3717.3	3571.3	3637.3	3546.3	3494.3	3459.3
16°	3173.2	3314.3	3399.3	3385.3	3249.2	3317.3	3227.2	3176.2	3137.2
17°	2779.2	2973.2	3098.2	3071.2	2929.2	3015.2	2929.2	2885.2	2844.2
18°	2476.2	2635.2	2811.2	2753.2	2595.2	2729.2	2655.2	2620.2	2582.2
19°	2204.2	2313.2	2542.2	2439.2	2296.2	2448.2	2393.2	2365.2	2329.2
20°	1987.2	2081.2	2285.2	2163.2	2042.2	2166.2	2151.2	2129.2	2099.2
21°	1709.1	1888.1	2052.2	1939.1	1780.1	1955.1	1974.1	1962.1	1940.1
22°	1353.1	1675.1	1883.1	1677.1	1469.1	1801.1	1840.1	1831.1	1815.1
23°	1053.1	1424.1	1727.1	1436.1	1144.1	1630.1	1688.1	1682.1	1629.1
24°	768.1	1166.1	1531.1	1153.1	823.1	1397.1	1508.1	1498.1	1306.1
25°	506.0	908.1	1352.1	865.1	526.0	1130.1	1306.1	1289.1	945.1
26°	325.0	664.1	1191.1	591.0	280.0	844.1	1092.1	1044.1	586.0
27°	156.0	463.0	994.1	348.0	136.0	563.0	876.1	769.1	283.0
28°	98.0	243.0	790.1	173.0	92.0	313.0	671.1	488.0	111.0
29°	80.0	120.0	585.0	98.0	75.0	144.0	481.0	238.0	77.0
30°	66.0	80.0	399.0	75.0	61.0	80.0	316.0	93.0	59.0
32.5°	42.0	50.0	92.0	47.0	40.0	46.0	75.0	45.0	37.0
35°	25.0	32.0	40.0	31.0	24.0	30.0	41.0	29.0	23.0
37.5°	15.0	19.0	26.0	19.0	15.0	19.0	26.0	19.0	14.0
40°	9.0	12.0	18.0	12.0	9.0	12.0	18.0	12.0	9.0
42.5°	6.0	7.0	12.0	7.0	5.0	7.0	12.0	8.0	6.0
45°	4.0	5.0	7.0	4.0	3.0	4.0	7.0	5.0	4.0
47.5°	3.0	3.0	4.0	2.0	2.0	3.0	5.0	4.0	3.0
50°	2.0	2.0	3.0	1.0	1.0	1.0	3.0	3.0	3.0
52.5°	1.0	1.0	1.0	0.0	0.0	0.0	2.0	2.0	2.0
55°	1.0	1.0	1.0	0.0	0.0	0.0	1.0	2.0	2.0
57.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
60°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1.0	1.0	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°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)