

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: P208733

Luminaire Tested: **LDSQA6A20830D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208733
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: LDSQA6A20830D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1703.0 lumens
Efficiency: N/A
Efficacy: 59.1 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

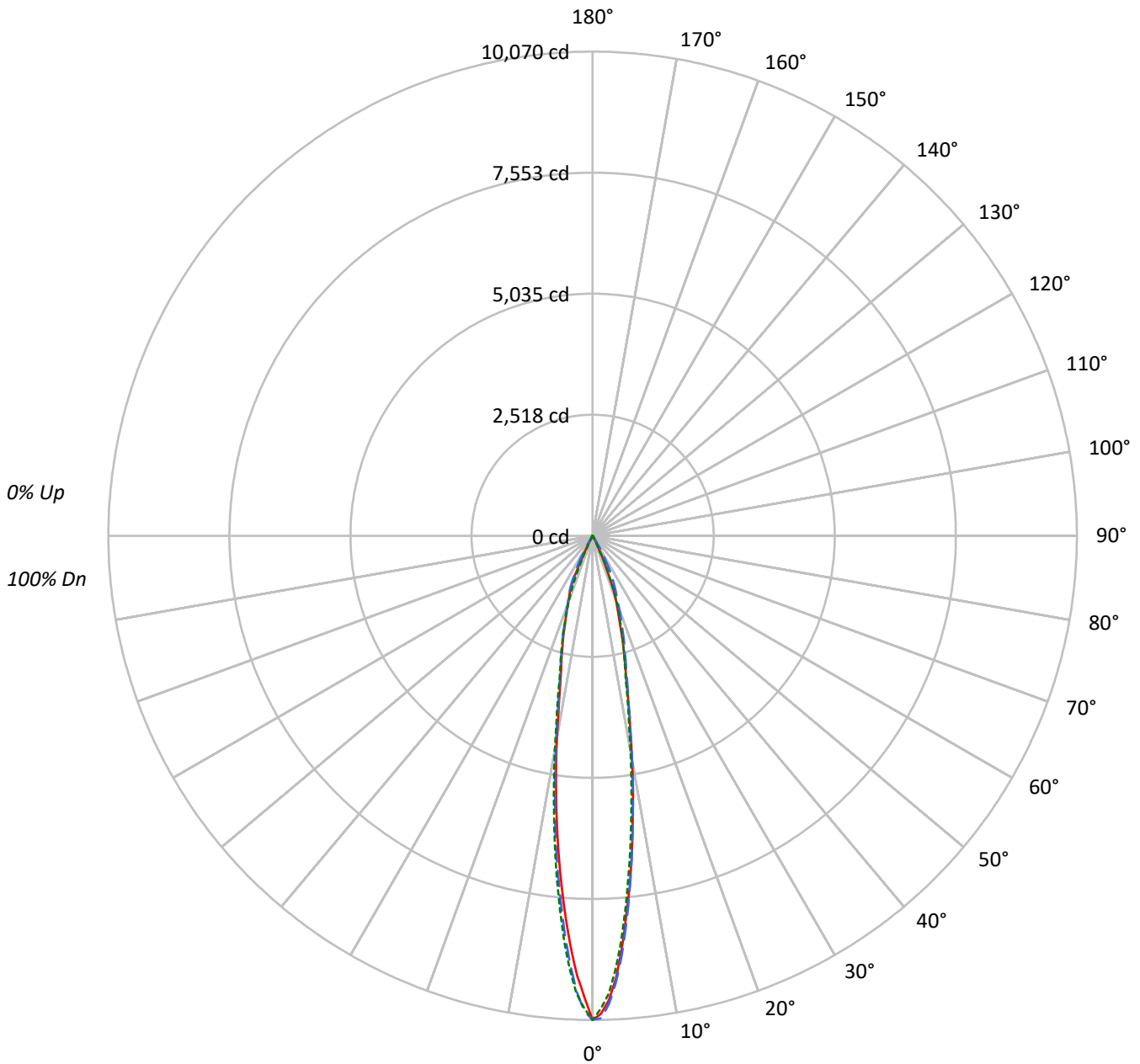
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	433562	433562	433562
5°	344672	337316	317326
10°	205352	197789	186089
15°	112207	112395	108869
20°	64284	66066	67908
25°	16974	17644	31701
30°	2317	2143	2073
35°	930	888	851
40°	360	360	360
45°	170	128	170
50°	94	47	141
55°	53	0	105
60°	60	0	0
65°	71	0	0
70°	88	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°	639.5	37.6
10°-20°	719.6	42.3
20°-30°	320.5	18.8
30°-40°	19.5	1.1
40°-50°	3.1	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°	1679.6	98.6
0°-40°	1699.1	99.8
0°-60°	1702.8	100.0
0°-90°	1703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1703.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10070	10070	10070	10070	10070	
5°	7975	8068	7805	7622	7342	656
15°	2517	2627	2522	2504	2442	710
25°	357	955	371	922	667	211
35°	18	28	17	29	16	13
45°	3	5	2	5	3	2
55°	1	1	0	1	1	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°	10069.8	10069.8	10069.8	10069.8	10069.8	10069.8	10069.8	10069.8	10069.8
1°	9946.2	10037.3	10037.3	10015.4	9833.9	9968.8	9892.6	9810.6	9597.4
2°	9660.2	9752.7	9743.6	9660.2	9528.9	9584.7	9480.2	9378.5	9154.7
3°	9218.9	9318.5	9300.1	9213.3	9038.2	9072.1	8922.4	8845.4	8588.4
4°	8625.8	8752.2	8730.3	8634.3	8458.5	8456.3	8299.6	8218.4	7980.4
5°	7974.8	8106.8	8068.0	7988.9	7804.6	7771.4	7621.7	7563.8	7342.1
6°	7349.2	7431.8	7391.5	7325.9	7126.7	7106.3	6964.3	6914.9	6710.1
7°	6682.6	6739.8	6700.2	6649.4	6448.2	6421.3	6305.5	6266.7	6066.9
8°	5980.0	6061.9	6005.4	5973.7	5783.7	5747.0	5630.5	5604.4	5444.1
9°	5379.8	5407.4	5347.3	5252.0	5141.9	5104.4	4980.9	4955.5	4843.2
10°	4697.0	4782.5	4735.9	4653.9	4524.0	4552.3	4372.9	4351.7	4256.4
11°	4103.2	4192.9	4143.4	4070.0	3952.8	3969.0	3822.2	3733.2	3718.4
12°	3613.1	3654.1	3639.3	3580.0	3485.3	3490.3	3359.7	3288.3	3273.5
13°	3135.8	3209.3	3216.3	3167.6	3053.9	3106.2	3008.7	2950.8	2927.5
14°	2812.4	2868.2	2890.8	2889.4	2766.5	2812.4	2735.5	2688.9	2665.6
15°	2517.3	2590.0	2626.7	2624.6	2521.5	2568.1	2503.9	2467.1	2442.4
16°	2240.5	2340.0	2400.1	2390.2	2294.1	2342.2	2278.6	2242.6	2215.1
17°	1962.3	2099.3	2187.5	2168.5	2068.2	2128.9	2068.2	2037.1	2008.2
18°	1748.3	1860.6	1984.9	1943.9	1832.3	1927.0	1874.7	1850.0	1823.2
19°	1556.3	1633.2	1794.9	1722.2	1621.2	1728.5	1689.7	1669.9	1644.5
20°	1403.0	1469.4	1613.5	1527.3	1441.9	1529.4	1518.8	1503.3	1482.1
21°	1206.7	1333.1	1448.9	1369.1	1256.9	1380.4	1393.9	1385.4	1369.8
22°	955.4	1182.7	1329.6	1184.1	1037.3	1271.7	1299.2	1292.9	1281.6
23°	743.5	1005.5	1219.4	1014.0	807.8	1151.0	1191.9	1187.7	1150.2
24°	542.3	823.3	1081.0	814.1	581.1	986.4	1064.8	1057.7	922.2
25°	357.3	641.1	954.7	610.8	371.4	797.9	922.2	910.2	667.3
26°	229.5	468.9	841.0	417.3	197.7	596.0	771.1	737.2	413.8
27°	110.2	326.9	701.9	245.7	96.0	397.5	618.5	543.0	199.8
28°	69.2	171.6	557.8	122.2	65.0	221.0	473.8	344.6	78.4
29°	56.5	84.7	413.1	69.2	53.0	101.7	339.6	168.1	54.4
30°	46.6	56.5	281.7	53.0	43.1	56.5	223.1	65.7	41.7
32.5°	29.7	35.3	65.0	33.2	28.2	32.5	53.0	31.8	26.1
35°	17.7	22.6	28.2	21.9	16.9	21.2	29.0	20.5	16.2
37.5°	10.6	13.4	18.4	13.4	10.6	13.4	18.4	13.4	9.9
40°	6.4	8.5	12.7	8.5	6.4	8.5	12.7	8.5	6.4
42.5°	4.2	4.9	8.5	4.9	3.5	4.9	8.5	5.6	4.2
45°	2.8	3.5	4.9	2.8	2.1	2.8	4.9	3.5	2.8
47.5°	2.1	2.1	2.8	1.4	1.4	2.1	3.5	2.8	2.1
50°	1.4	1.4	2.1	0.7	0.7	0.7	2.1	2.1	2.1
52.5°	0.7	0.7	0.7	0.0	0.0	0.0	1.4	1.4	1.4
55°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	1.4	1.4
57.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	1.4
60°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.7	0.7	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°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)