

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: P208723

Luminaire Tested: **LDSQA6A10940D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208723
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: LDSQA6A10940D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 842.8 lumens
Efficiency: N/A
Efficacy: 61.4 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

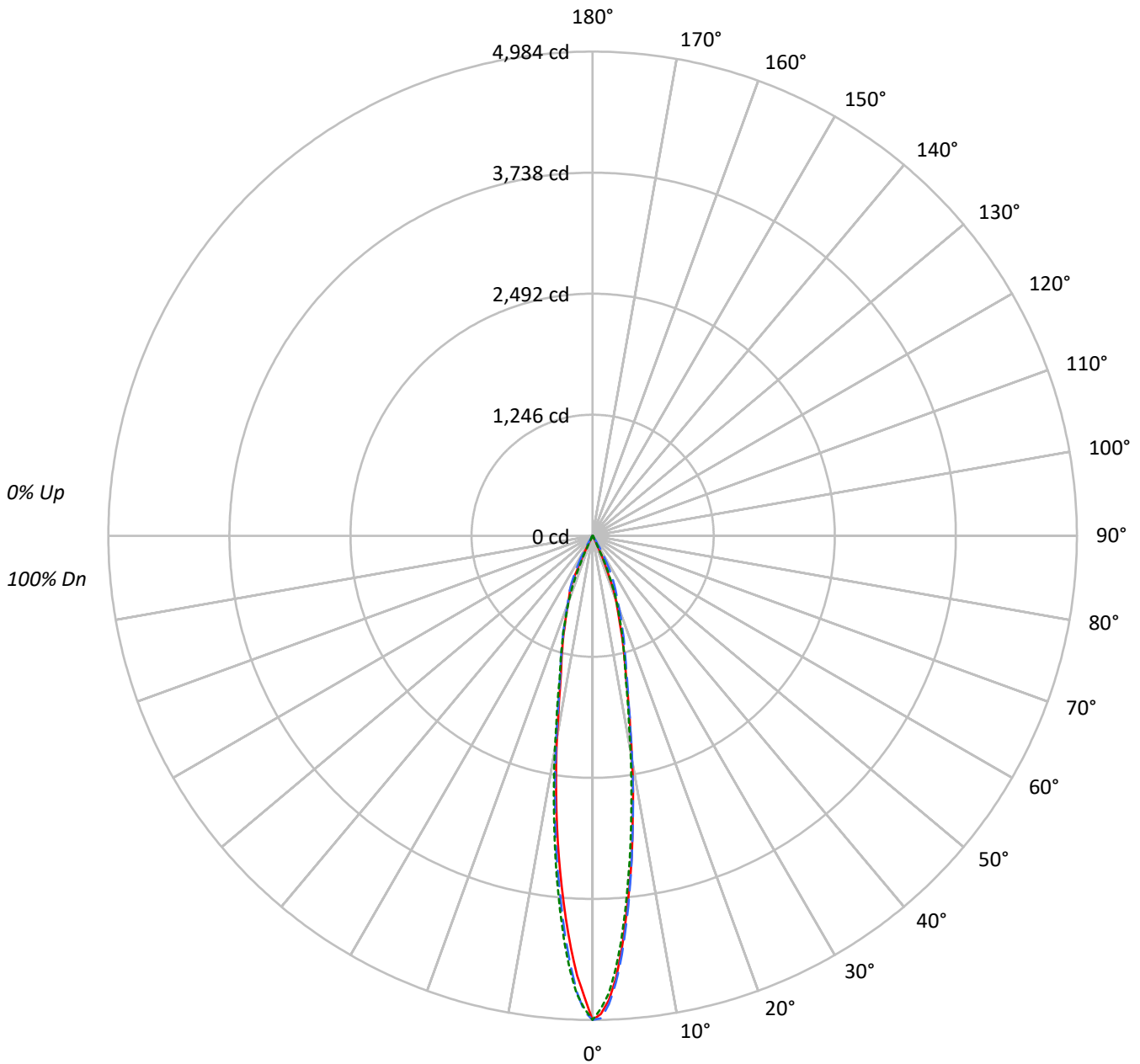
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	95	94																
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	92	91	91																
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	90	89	87																
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	87	86	84																
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	85	84	81																
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	83	82	79																
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	80	79	77																
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	78	77	75																
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	76	75	73																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	214576	214576	214576
5°	170586	166942	157049
10°	101631	97889	92100
15°	55531	55625	53882
20°	31817	32696	33608
25°	8399	8732	15687
30°	1148	1059	1024
35°	457	442	420
40°	174	174	174
45°	85	61	85
50°	47	20	67
55°	23	0	53
60°	26	0	0
65°	31	0	0
70°	38	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°	316.5	37.6
10°-20°	356.2	42.3
20°-30°	158.6	18.8
30°-40°	9.7	1.1
40°-50°	1.5	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°	831.2	98.6
0°-40°	840.9	99.8
0°-60°	842.7	100.0
0°-90°	842.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	842.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4984	4984	4984	4984	4984	
5°	3947	3993	3863	3772	3634	324
15°	1246	1300	1248	1239	1209	351
25°	177	472	184	456	330	104
35°	9	14	8	14	8	6
45°	1	2	1	2	1	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4983.7	4983.7	4983.7	4983.7	4983.7	4983.7	4983.7	4983.7	4983.7
1°	4922.6	4967.7	4967.7	4956.8	4867.0	4933.8	4896.0	4855.5	4749.9
2°	4781.0	4826.8	4822.3	4781.0	4716.0	4743.7	4691.9	4641.6	4530.8
3°	4562.6	4611.9	4602.8	4559.8	4473.2	4489.9	4415.9	4377.8	4250.6
4°	4269.1	4331.6	4320.8	4273.3	4186.3	4185.2	4107.6	4067.4	3949.7
5°	3946.9	4012.2	3993.0	3953.9	3862.6	3846.2	3772.1	3743.5	3633.7
6°	3637.2	3678.1	3658.2	3625.7	3527.2	3517.0	3446.8	3422.3	3321.0
7°	3307.3	3335.7	3316.1	3290.9	3191.3	3178.0	3120.7	3101.5	3002.6
8°	2959.6	3000.2	2972.2	2956.5	2862.5	2844.3	2786.6	2773.7	2694.4
9°	2662.6	2676.2	2646.5	2599.3	2544.8	2526.3	2465.1	2452.6	2397.0
10°	2324.6	2366.9	2343.9	2303.3	2239.0	2253.0	2164.2	2153.8	2106.6
11°	2030.7	2075.1	2050.7	2014.3	1956.3	1964.3	1891.7	1847.6	1840.3
12°	1788.2	1808.5	1801.1	1771.8	1725.0	1727.4	1662.8	1627.5	1620.1
13°	1552.0	1588.3	1591.8	1567.7	1511.4	1537.3	1489.1	1460.4	1448.9
14°	1391.9	1419.5	1430.7	1430.0	1369.2	1391.9	1353.8	1330.8	1319.2
15°	1245.8	1281.8	1300.0	1299.0	1247.9	1271.0	1239.2	1221.0	1208.8
16°	1108.9	1158.1	1187.8	1182.9	1135.4	1159.2	1127.7	1109.9	1096.3
17°	971.2	1039.0	1082.6	1073.2	1023.6	1053.6	1023.6	1008.2	993.9
18°	865.3	920.8	982.3	962.1	906.9	953.7	927.8	915.6	902.3
19°	770.2	808.3	888.3	852.3	802.4	855.5	836.3	826.5	813.9
20°	694.4	727.2	798.5	755.9	713.6	756.9	751.7	744.0	733.5
21°	597.2	659.8	717.1	677.6	622.0	683.2	689.8	685.7	678.0
22°	472.8	585.4	658.0	586.1	513.4	629.4	643.0	639.9	634.3
23°	368.0	497.6	603.5	501.8	399.8	569.6	589.9	587.8	569.3
24°	268.4	407.5	535.0	402.9	287.6	488.2	527.0	523.5	456.4
25°	176.8	317.3	472.5	302.3	183.8	394.9	456.4	450.5	330.2
26°	113.6	232.0	416.2	206.5	97.9	294.9	381.6	364.8	204.8
27°	54.5	161.8	347.4	121.6	47.5	196.7	306.1	268.7	98.9
28°	34.2	84.9	276.1	60.5	32.2	109.4	234.5	170.5	38.8
29°	28.0	41.9	204.4	34.2	26.2	50.3	168.1	83.2	26.9
30°	23.1	28.0	139.4	26.2	21.3	28.0	110.4	32.5	20.6
32.5°	14.7	17.5	32.2	16.4	14.0	16.1	26.2	15.7	12.9
35°	8.7	11.2	14.0	10.8	8.4	10.5	14.3	10.1	8.0
37.5°	5.2	6.6	9.1	6.6	5.2	6.6	9.1	6.6	4.9
40°	3.1	4.2	6.3	4.2	3.1	4.2	6.3	4.2	3.1
42.5°	2.1	2.4	4.2	2.4	1.7	2.4	4.2	2.8	2.1
45°	1.4	1.7	2.4	1.4	1.0	1.4	2.4	1.7	1.4
47.5°	1.0	1.0	1.4	0.7	0.7	1.0	1.7	1.4	1.0
50°	0.7	0.7	1.0	0.3	0.3	0.3	1.0	1.0	1.0
52.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.7	0.7	0.7
55°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.7	0.7
57.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.7
60°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.3	0.3	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°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)