

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: P208747

Luminaire Tested: **LDSQA6A30940D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208747
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: LDSQA6A30940D010TE 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: 2125.2 lumens
Efficiency: N/A
Efficacy: 47.6 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

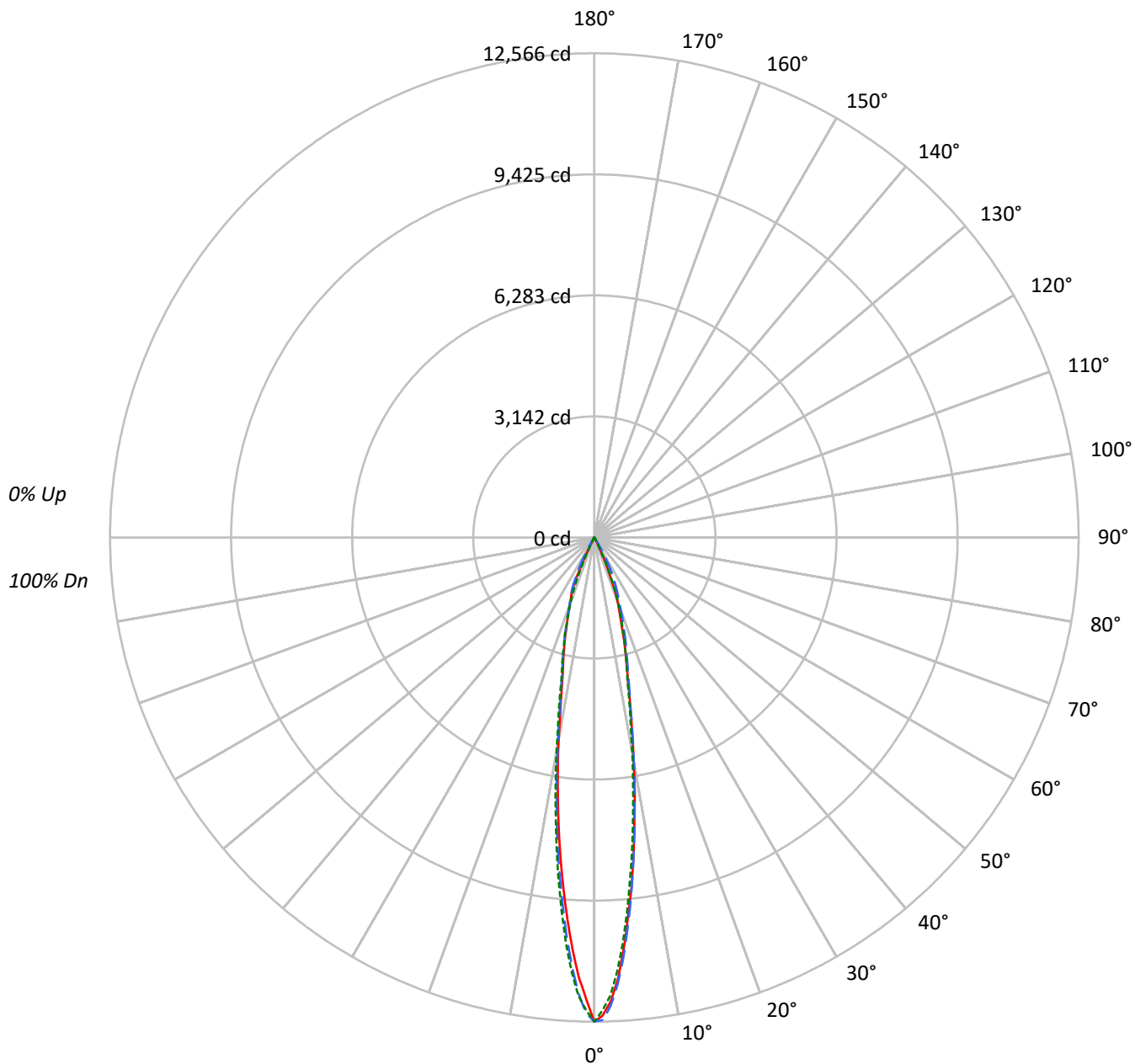
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
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°	541046	541046	541046
5°	430118	420938	395996
10°	256264	246825	232222
15°	140022	140258	135859
20°	80224	82442	84742
25°	21183	22019	39559
30°	2893	2675	2585
35°	1156	1109	1067
40°	444	444	444
45°	213	158	213
50°	121	60	174
55°	68	0	135
60°	78	0	0
65°	92	0	0
70°	113	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°	798.0	37.5
10°-20°	898.0	42.3
20°-30°	399.9	18.8
30°-40°	24.4	1.1
40°-50°	3.9	0.2
50°-60°	0.7	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°	2095.9	98.6
0°-40°	2120.3	99.8
0°-60°	2124.9	100.0
0°-90°	2125.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2125.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12566	12566	12566	12566	12566	
5°	9952	10068	9739	9511	9162	818
15°	3141	3278	3147	3125	3048	886
25°	446	1191	464	1151	833	263
35°	22	35	21	36	20	16
45°	4	6	3	6	4	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°	12566.2	12566.2	12566.2	12566.2	12566.2	12566.2	12566.2	12566.2	12566.2
1°	12412.0	12525.6	12525.6	12498.3	12271.9	12440.2	12345.0	12242.8	11976.7
2°	12055.1	12170.5	12159.1	12055.1	11891.2	11960.8	11830.4	11703.5	11424.2
3°	11504.4	11628.6	11605.7	11497.3	11278.8	11321.1	11134.3	11038.2	10717.5
4°	10764.2	10921.9	10894.6	10774.8	10555.4	10552.7	10357.1	10255.8	9958.8
5°	9951.8	10116.6	10068.1	9969.4	9739.4	9698.0	9511.2	9438.9	9162.3
6°	9171.1	9274.2	9223.9	9142.0	8893.5	8868.0	8690.8	8629.2	8373.6
7°	8339.3	8410.6	8361.3	8297.9	8046.7	8013.2	7868.7	7820.3	7570.9
8°	7462.5	7564.7	7494.2	7454.6	7217.6	7171.7	7026.3	6993.7	6793.7
9°	6713.5	6747.9	6673.0	6554.0	6416.6	6369.9	6215.7	6184.0	6043.9
10°	5861.5	5968.1	5909.9	5807.7	5645.6	5680.8	5457.0	5430.6	5311.6
11°	5120.4	5232.3	5170.6	5079.0	4932.7	4953.0	4769.7	4658.7	4640.2
12°	4508.9	4560.0	4541.5	4467.5	4349.4	4355.6	4192.5	4103.5	4085.0
13°	3913.2	4004.9	4013.7	3952.9	3811.0	3876.2	3754.6	3682.4	3653.3
14°	3509.6	3579.3	3607.5	3605.7	3452.4	3509.6	3413.6	3355.4	3326.4
15°	3141.3	3232.1	3277.9	3275.3	3146.6	3204.8	3124.6	3078.8	3047.9
16°	2795.9	2920.2	2995.1	2982.7	2862.9	2922.8	2843.5	2798.6	2764.2
17°	2448.7	2619.7	2729.8	2706.0	2580.9	2656.7	2580.9	2542.1	2506.0
18°	2181.7	2321.8	2476.9	2425.8	2286.6	2404.7	2339.5	2308.6	2275.1
19°	1942.1	2038.1	2239.9	2149.1	2023.1	2157.1	2108.6	2083.9	2052.2
20°	1750.9	1833.7	2013.4	1905.9	1799.3	1908.6	1895.4	1876.0	1849.5
21°	1505.9	1663.6	1808.1	1708.6	1568.5	1722.7	1739.4	1728.8	1709.4
22°	1192.2	1475.9	1659.2	1477.7	1294.4	1587.0	1621.3	1613.4	1599.3
23°	927.9	1254.8	1521.8	1265.3	1008.0	1436.3	1487.4	1482.1	1435.4
24°	676.7	1027.4	1349.1	1016.0	725.2	1231.0	1328.8	1320.0	1150.8
25°	445.9	800.1	1191.3	762.2	463.5	995.7	1150.8	1135.8	832.7
26°	286.4	585.1	1049.5	520.8	246.7	743.7	962.2	919.9	516.4
27°	137.5	408.0	875.9	306.6	119.8	496.1	771.9	677.6	249.4
28°	86.4	214.1	696.1	152.4	81.1	275.8	591.3	430.0	97.8
29°	70.5	105.7	515.5	86.4	66.1	126.9	423.8	209.7	67.8
30°	58.2	70.5	351.6	66.1	53.8	70.5	278.4	81.9	52.0
32.5°	37.0	44.1	81.1	41.4	35.2	40.5	66.1	39.7	32.6
35°	22.0	28.2	35.2	27.3	21.1	26.4	36.1	25.6	20.3
37.5°	13.2	16.7	22.9	16.7	13.2	16.7	22.9	16.7	12.3
40°	7.9	10.6	15.9	10.6	7.9	10.6	15.9	10.6	7.9
42.5°	5.3	6.2	10.6	6.2	4.4	6.2	10.6	7.0	5.3
45°	3.5	4.4	6.2	3.5	2.6	3.5	6.2	4.4	3.5
47.5°	2.6	2.6	3.5	1.8	1.8	2.6	4.4	3.5	2.6
50°	1.8	1.8	2.6	0.9	0.9	0.9	2.6	2.6	2.6
52.5°	0.9	0.9	0.9	0.0	0.0	0.0	1.8	1.8	1.8
55°	0.9	0.9	0.9	0.0	0.0	0.0	0.9	1.8	1.8
57.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	1.8	1.8
60°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	1.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.9	0.9	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°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)