

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: P208744

Luminaire Tested: **LDSQA6A30927D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208744
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: LDSQA6A30927D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1863.3 lumens
Efficiency: N/A
Efficacy: 41.8 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

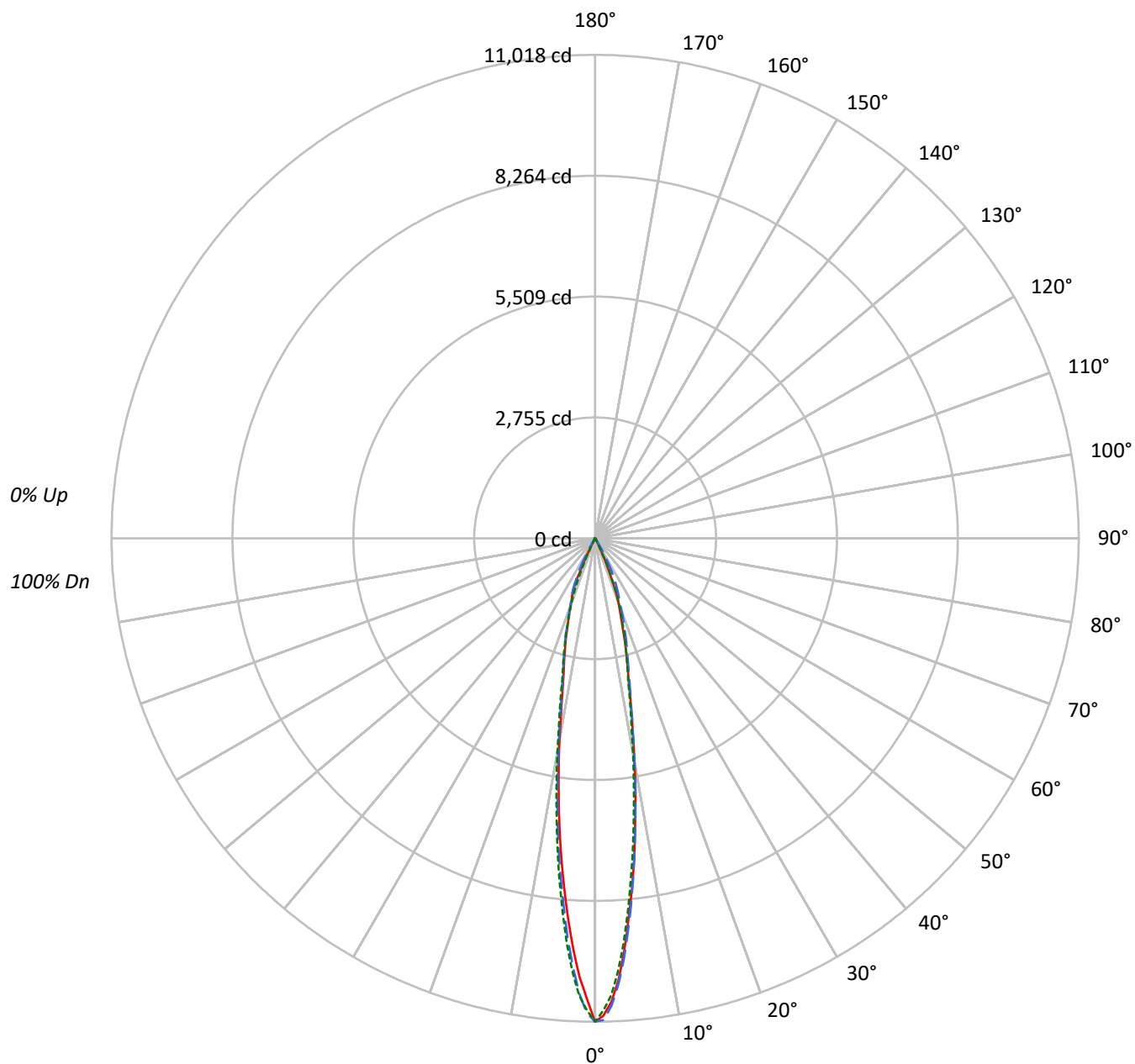
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	115	113	111	110	113	111	109	108	107	106	105		103	102	101		100
2	112	108	105	103	109	106	104	102	103	101	99		100	99	97		98
3	108	104	100	97	106	102	99	97	100	97	95		98	95	94		96
4	105	100	96	93	103	99	95	93	97	94	91		95	92	90		93
5	102	96	92	89	101	95	92	89	94	91	88		92	90	88		91
6	99	93	89	86	98	92	89	86	91	88	85		90	87	85		89
7	97	90	86	83	95	90	86	83	89	85	83		88	85	82		87
8	94	88	84	81	93	87	83	81	86	83	80		85	82	80		85
9	92	85	81	79	91	85	81	79	84	81	78		83	80	78		83
10	89	83	79	77	89	83	79	76	82	79	76		81	78	76		81

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	474370	474370	474370
5°	377113	369065	347196
10°	224681	216409	203608
15°	122767	122972	119116
20°	70337	72284	74300
25°	18570	19307	34685
30°	2536	2342	2267
35°	1014	972	936
40°	393	393	393
45°	189	140	189
50°	100	54	154
55°	60	0	113
60°	69	0	0
65°	82	0	0
70°	101	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°	699.7	37.5
10°-20°	787.4	42.3
20°-30°	350.6	18.8
30°-40°	21.4	1.1
40°-50°	3.4	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°	1837.6	98.6
0°-40°	1859.0	99.8
0°-60°	1863.1	100.0
0°-90°	1863.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1863.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	11018	11018	11018	11018	11018	
5°	8725	8827	8539	8339	8033	717
15°	2754	2874	2759	2740	2672	776
25°	391	1044	406	1009	730	230
35°	19	31	18	32	18	14
45°	3	5	2	5	3	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	11017.6	11017.6	11017.6	11017.6	11017.6	11017.6	11017.6	11017.6	11017.6
1°	10882.4	10982.1	10982.1	10958.1	10759.6	10907.1	10823.7	10734.1	10500.8
2°	10569.5	10670.7	10660.7	10569.5	10425.8	10486.9	10372.5	10261.3	10016.4
3°	10086.7	10195.6	10175.5	10080.5	9888.9	9926.0	9762.2	9678.0	9396.8
4°	9437.7	9576.0	9552.1	9447.0	9254.6	9252.3	9080.8	8991.9	8731.6
5°	8725.4	8869.9	8827.4	8740.9	8539.2	8502.9	8339.1	8275.8	8033.2
6°	8040.9	8131.3	8087.3	8015.4	7797.6	7775.1	7619.9	7565.8	7341.7
7°	7311.6	7374.2	7330.9	7275.3	7055.1	7025.8	6899.1	6856.6	6637.9
8°	6542.9	6632.5	6570.7	6535.9	6328.1	6288.0	6160.5	6131.9	5956.5
9°	5886.2	5916.3	5850.7	5746.4	5625.9	5584.9	5449.7	5421.9	5299.1
10°	5139.1	5232.6	5181.6	5092.0	4949.9	4980.8	4784.5	4761.4	4657.1
11°	4489.4	4587.5	4533.4	4453.1	4324.8	4342.6	4181.9	4084.6	4068.4
12°	3953.2	3998.1	3981.8	3916.9	3813.4	3818.8	3675.9	3597.9	3581.6
13°	3431.0	3511.3	3519.1	3465.8	3341.4	3398.5	3291.9	3228.6	3203.1
14°	3077.1	3138.2	3162.9	3161.4	3026.9	3077.1	2992.9	2941.9	2916.5
15°	2754.2	2833.8	2874.0	2871.6	2758.8	2809.8	2739.5	2699.4	2672.3
16°	2451.4	2560.3	2626.0	2615.2	2510.1	2562.6	2493.1	2453.7	2423.6
17°	2147.0	2296.9	2393.4	2372.6	2262.9	2329.3	2262.9	2228.9	2197.2
18°	1912.9	2035.7	2171.7	2126.9	2004.8	2108.3	2051.2	2024.1	1994.8
19°	1702.7	1787.0	1963.9	1884.3	1773.8	1891.3	1848.8	1827.1	1799.3
20°	1535.1	1607.7	1765.3	1671.1	1577.6	1673.4	1661.8	1644.8	1621.6
21°	1320.3	1458.6	1585.3	1498.0	1375.2	1510.4	1525.1	1515.8	1498.8
22°	1045.3	1294.1	1454.8	1295.6	1134.9	1391.4	1421.5	1414.6	1402.2
23°	813.5	1100.1	1334.2	1109.4	883.8	1259.3	1304.1	1299.5	1258.5
24°	593.3	900.8	1182.8	890.8	635.8	1079.3	1165.0	1157.3	1009.0
25°	390.9	701.5	1044.5	668.3	406.4	873.0	1009.0	995.8	730.1
26°	251.1	513.0	920.1	456.6	216.3	652.0	843.6	806.6	452.7
27°	120.5	357.7	767.9	268.9	105.1	435.0	676.8	594.1	218.6
28°	75.7	187.7	610.3	133.7	71.1	241.8	518.4	377.0	85.8
29°	61.8	92.7	452.0	75.7	57.9	111.3	371.6	183.9	59.5
30°	51.0	61.8	308.3	57.9	47.1	61.8	244.1	71.8	45.6
32.5°	32.4	38.6	71.1	36.3	30.9	35.5	57.9	34.8	28.6
35°	19.3	24.7	30.9	23.9	18.5	23.2	31.7	22.4	17.8
37.5°	11.6	14.7	20.1	14.7	11.6	14.7	20.1	14.7	10.8
40°	7.0	9.3	13.9	9.3	7.0	9.3	13.9	9.3	7.0
42.5°	4.6	5.4	9.3	5.4	3.9	5.4	9.3	6.2	4.6
45°	3.1	3.9	5.4	3.1	2.3	3.1	5.4	3.9	3.1
47.5°	2.3	2.3	3.1	1.5	1.5	2.3	3.9	3.1	2.3
50°	1.5	1.5	2.3	0.8	0.8	0.8	2.3	2.3	2.3
52.5°	0.8	0.8	0.8	0.0	0.0	0.0	1.5	1.5	1.5
55°	0.8	0.8	0.8	0.0	0.0	0.0	0.8	1.5	1.5
57.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.5	1.5
60°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.5	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.8	0.8	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°







62.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)