

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: P208720

Luminaire Tested: **LDSQA6A10927D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208720
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: LDSQA6A10927D010TE 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: 739.0 lumens
Efficiency: N/A
Efficacy: 53.8 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

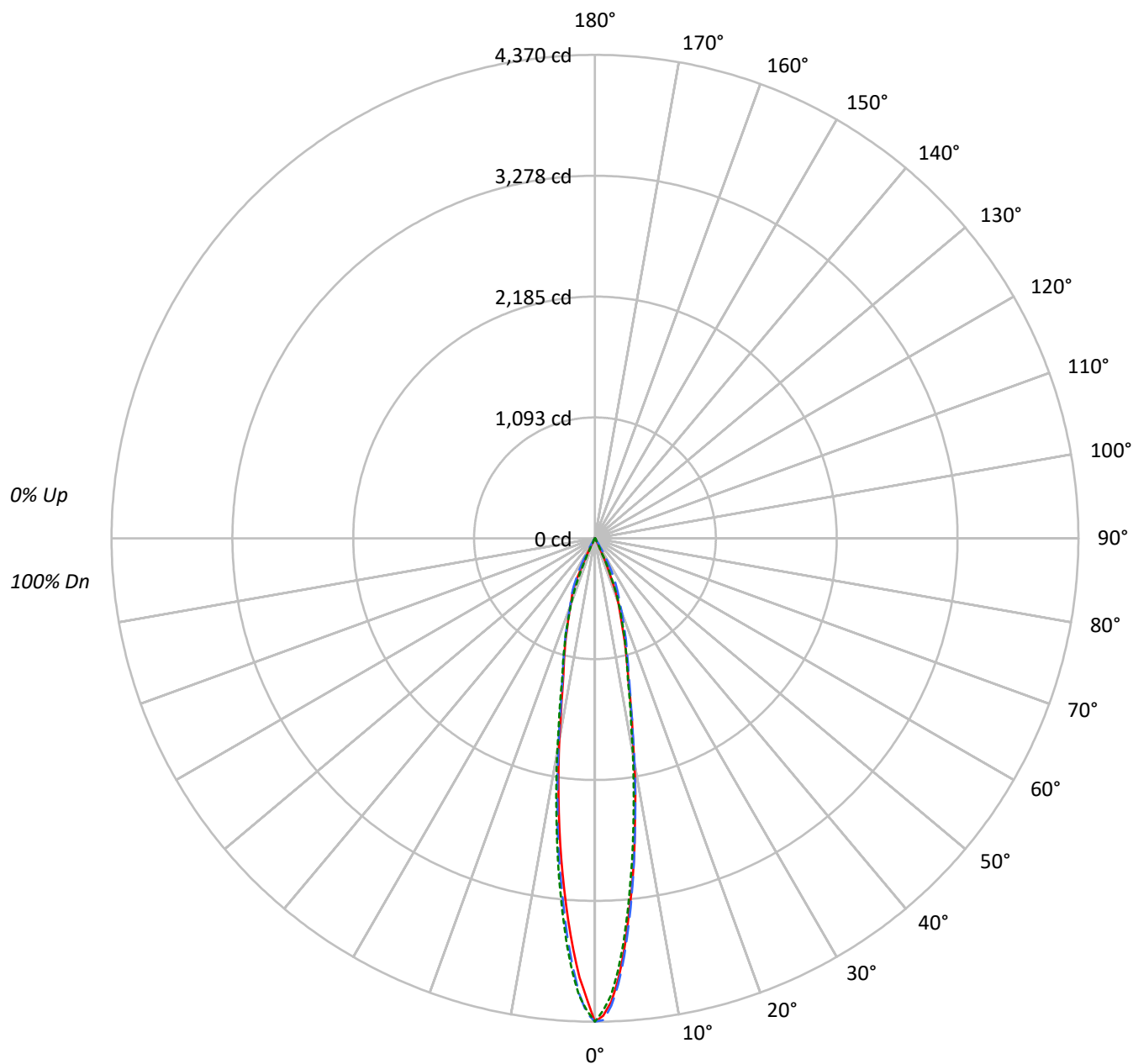
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	188136	188136	188136
5°	149563	146369	137699
10°	89110	85826	80751
15°	48689	48773	47240
20°	27895	28669	29466
25°	7364	7658	13753
30°	1004	930	900
35°	405	389	368
40°	157	157	157
45°	73	55	73
50°	40	20	60
55°	23	0	45
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°	277.5	37.6
10°-20°	312.3	42.3
20°-30°	139.1	18.8
30°-40°	8.5	1.1
40°-50°	1.4	0.2
50°-60°	0.2	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°	728.8	98.6
0°-40°	737.3	99.8
0°-60°	738.9	100.0
0°-90°	739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	739.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4370	4370	4370	4370	4370	
5°	3460	3501	3387	3307	3186	284
15°	1092	1140	1094	1086	1060	308
25°	155	414	161	400	290	91
35°	8	12	7	13	7	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°	4369.6	4369.6	4369.6	4369.6	4369.6	4369.6	4369.6	4369.6	4369.6
1°	4316.0	4355.5	4355.5	4346.0	4267.2	4325.8	4292.7	4257.1	4164.6
2°	4191.9	4232.0	4228.0	4191.9	4134.9	4159.1	4113.7	4069.6	3972.5
3°	4000.4	4043.6	4035.6	3997.9	3921.9	3936.6	3871.7	3838.3	3726.8
4°	3743.0	3797.8	3788.3	3746.7	3670.4	3669.5	3601.4	3566.2	3462.9
5°	3460.5	3517.8	3500.9	3466.6	3386.6	3372.2	3307.3	3282.2	3186.0
6°	3189.0	3224.9	3207.4	3178.9	3092.5	3083.6	3022.0	3000.6	2911.7
7°	2899.8	2924.6	2907.4	2885.4	2798.1	2786.4	2736.2	2719.3	2632.6
8°	2594.9	2630.5	2605.9	2592.2	2509.7	2493.8	2443.2	2431.9	2362.4
9°	2334.5	2346.4	2320.4	2279.0	2231.2	2215.0	2161.4	2150.3	2101.6
10°	2038.2	2075.3	2055.0	2019.5	1963.1	1975.4	1897.5	1888.3	1847.0
11°	1780.5	1819.4	1798.0	1766.1	1715.2	1722.3	1658.5	1619.9	1613.5
12°	1567.9	1585.6	1579.2	1553.5	1512.4	1514.5	1457.9	1426.9	1420.5
13°	1360.7	1392.6	1395.7	1374.5	1325.2	1347.9	1305.6	1280.4	1270.3
14°	1220.4	1244.6	1254.4	1253.8	1200.5	1220.4	1187.0	1166.8	1156.7
15°	1092.3	1123.9	1139.8	1138.9	1094.2	1114.4	1086.5	1070.6	1059.8
16°	972.2	1015.4	1041.5	1037.2	995.5	1016.3	988.8	973.1	961.2
17°	851.5	910.9	949.2	941.0	897.4	923.8	897.4	884.0	871.4
18°	758.6	807.4	861.3	843.5	795.1	836.2	813.5	802.8	791.1
19°	675.3	708.7	778.9	747.3	703.5	750.1	733.2	724.6	713.6
20°	608.8	637.6	700.1	662.7	625.7	663.7	659.1	652.3	643.1
21°	523.6	578.5	628.7	594.1	545.4	599.0	604.8	601.2	594.4
22°	414.6	513.2	577.0	513.8	450.1	551.8	563.8	561.0	556.1
23°	322.6	436.3	529.2	440.0	350.5	499.4	517.2	515.4	499.1
24°	235.3	357.3	469.1	353.3	252.2	428.0	462.1	459.0	400.2
25°	155.0	278.2	414.3	265.0	161.2	346.2	400.2	395.0	289.5
26°	99.6	203.5	364.9	181.1	85.8	258.6	334.6	319.9	179.6
27°	47.8	141.9	304.6	106.6	41.7	172.5	268.4	235.6	86.7
28°	30.0	74.5	242.1	53.0	28.2	95.9	205.6	149.5	34.0
29°	24.5	36.8	179.2	30.0	23.0	44.1	147.4	72.9	23.6
30°	20.2	24.5	122.3	23.0	18.7	24.5	96.8	28.5	18.1
32.5°	12.9	15.3	28.2	14.4	12.3	14.1	23.0	13.8	11.3
35°	7.7	9.8	12.3	9.5	7.4	9.2	12.6	8.9	7.0
37.5°	4.6	5.8	8.0	5.8	4.6	5.8	8.0	5.8	4.3
40°	2.8	3.7	5.5	3.7	2.8	3.7	5.5	3.7	2.8
42.5°	1.8	2.1	3.7	2.1	1.5	2.1	3.7	2.5	1.8
45°	1.2	1.5	2.1	1.2	0.9	1.2	2.1	1.5	1.2
47.5°	0.9	0.9	1.2	0.6	0.6	0.9	1.5	1.2	0.9
50°	0.6	0.6	0.9	0.3	0.3	0.3	0.9	0.9	0.9
52.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.6	0.6	0.6
55°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.6	0.6
57.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.6
60°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	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)