

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: P208729

Luminaire Tested: **LDSQA6A15930D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208729
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: LDSQA6A15930D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1156.7 lumens
Efficiency: N/A
Efficacy: 53.1 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

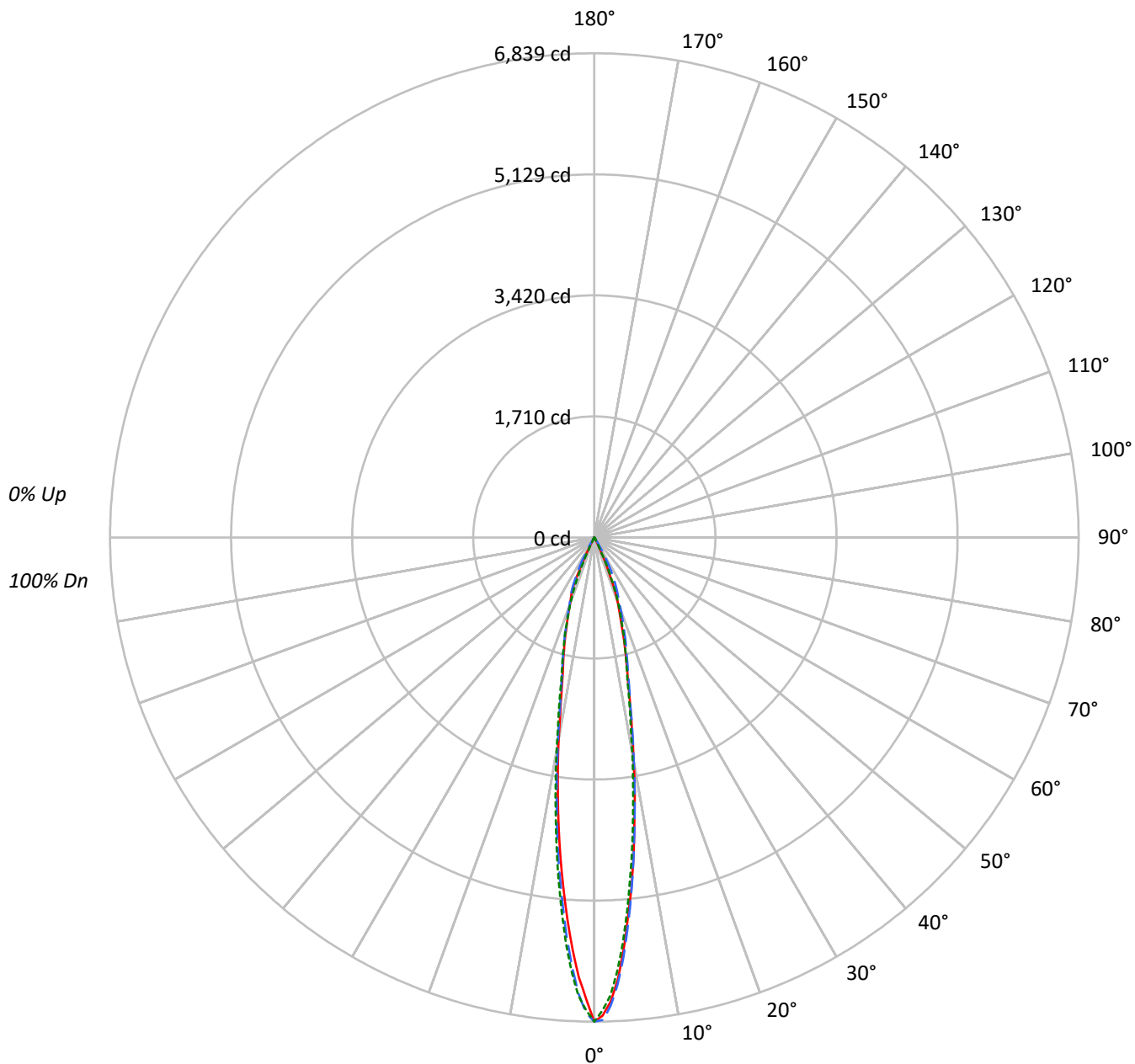
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	294466	294466	294466
5°	234093	229101	215521
10°	139471	134334	126390
15°	76209	76338	73945
20°	43661	44870	46121
25°	11530	11986	21530
30°	1576	1457	1407
35°	631	604	578
40°	242	242	242
45°	116	85	116
50°	67	33	94
55°	38	0	75
60°	43	0	0
65°	51	0	0
70°	63	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°	434.3	37.5
10°-20°	488.8	42.3
20°-30°	217.6	18.8
30°-40°	13.3	1.1
40°-50°	2.1	0.2
50°-60°	0.4	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°	1140.7	98.6
0°-40°	1154.0	99.8
0°-60°	1156.5	100.0
0°-90°	1156.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1156.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6839	6839	6839	6839	6839	
5°	5416	5480	5301	5176	4987	445
15°	1710	1784	1713	1701	1659	482
25°	243	648	252	626	453	143
35°	12	19	12	20	11	9
45°	2	3	1	3	2	2
55°	0	0	0	0	1	1
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°	6839.2	6839.2	6839.2	6839.2	6839.2	6839.2	6839.2	6839.2	6839.2
1°	6755.3	6817.2	6817.2	6802.3	6679.1	6770.7	6718.9	6663.2	6518.4
2°	6561.1	6623.9	6617.7	6561.1	6471.9	6509.8	6438.8	6369.7	6217.7
3°	6261.3	6329.0	6316.5	6257.5	6138.6	6161.6	6059.9	6007.7	5833.1
4°	5858.5	5944.3	5929.5	5864.3	5744.8	5743.4	5636.9	5581.8	5420.2
5°	5416.3	5506.0	5479.6	5425.9	5300.8	5278.2	5176.5	5137.2	4986.6
6°	4991.4	5047.5	5020.2	4975.6	4840.4	4826.5	4730.1	4696.5	4557.4
7°	4538.7	4577.6	4550.7	4516.2	4379.5	4361.3	4282.6	4256.2	4120.5
8°	4061.5	4117.2	4078.8	4057.2	3928.2	3903.3	3824.1	3806.4	3697.5
9°	3653.9	3672.6	3631.8	3567.1	3492.3	3466.9	3382.9	3365.7	3289.4
10°	3190.1	3248.2	3216.5	3160.9	3072.6	3091.8	2970.0	2955.6	2890.9
11°	2786.8	2847.7	2814.2	2764.3	2684.7	2695.7	2595.9	2535.5	2525.4
12°	2454.0	2481.8	2471.7	2431.5	2367.2	2370.5	2281.8	2233.4	2223.3
13°	2129.8	2179.7	2184.5	2151.4	2074.2	2109.7	2043.5	2004.1	1988.3
14°	1910.2	1948.0	1963.4	1962.4	1879.0	1910.2	1857.9	1826.2	1810.4
15°	1709.7	1759.1	1784.0	1782.6	1712.6	1744.2	1700.6	1675.6	1658.9
16°	1521.7	1589.3	1630.1	1623.4	1558.1	1590.8	1547.6	1523.1	1504.4
17°	1332.7	1425.8	1485.7	1472.8	1404.7	1445.9	1404.7	1383.6	1363.9
18°	1187.4	1263.7	1348.1	1320.3	1244.5	1308.8	1273.3	1256.5	1238.3
19°	1057.0	1109.3	1219.1	1169.7	1101.1	1174.0	1147.6	1134.2	1116.9
20°	952.9	998.0	1095.8	1037.3	979.3	1038.8	1031.6	1021.0	1006.6
21°	819.6	905.4	984.1	929.9	853.6	937.6	946.7	940.9	930.4
22°	648.9	803.3	903.0	804.2	704.5	863.7	882.4	878.1	870.4
23°	505.0	682.9	828.2	688.7	548.6	781.7	809.5	806.6	781.2
24°	368.3	559.2	734.2	553.0	394.7	670.0	723.2	718.4	626.3
25°	242.7	435.5	648.4	414.8	252.3	541.9	626.3	618.2	453.2
26°	155.9	318.4	571.2	283.4	134.3	404.8	523.7	500.7	281.0
27°	74.8	222.0	476.7	166.9	65.2	270.0	420.1	368.8	135.7
28°	47.0	116.5	378.9	83.0	44.1	150.1	321.8	234.0	53.2
29°	38.4	57.5	280.6	47.0	36.0	69.1	230.7	114.1	36.9
30°	31.7	38.4	191.4	36.0	29.3	38.4	151.5	44.6	28.3
32.5°	20.1	24.0	44.1	22.5	19.2	22.1	36.0	21.6	17.7
35°	12.0	15.3	19.2	14.9	11.5	14.4	19.7	13.9	11.0
37.5°	7.2	9.1	12.5	9.1	7.2	9.1	12.5	9.1	6.7
40°	4.3	5.8	8.6	5.8	4.3	5.8	8.6	5.8	4.3
42.5°	2.9	3.4	5.8	3.4	2.4	3.4	5.8	3.8	2.9
45°	1.9	2.4	3.4	1.9	1.4	1.9	3.4	2.4	1.9
47.5°	1.4	1.4	1.9	1.0	1.0	1.4	2.4	1.9	1.4
50°	1.0	1.0	1.4	0.5	0.5	0.5	1.4	1.4	1.4
52.5°	0.5	0.5	0.5	0.0	0.0	0.0	1.0	1.0	1.0
55°	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.0	1.0
57.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	1.0
60°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.5	0.5	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°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)