

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: P1212521

Luminaire Tested: **LDSQA6A35927D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1212521
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: LDSQA6A35927D010TE 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

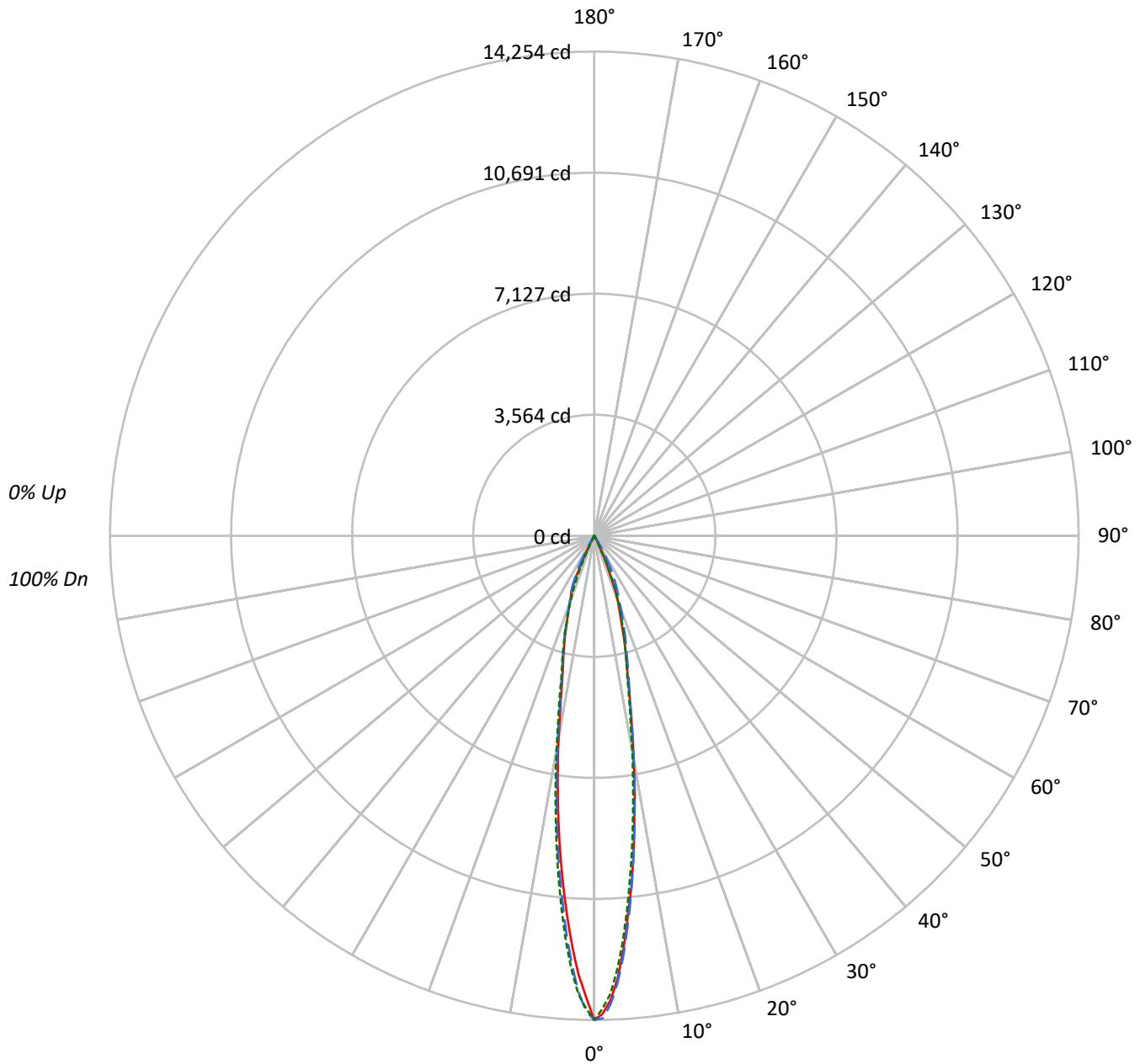
Lumens per Lamp: N/A
Luminaire Lumens: 2410.7 lumens
Efficiency: N/A
Efficacy: 50.5 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
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		
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97		
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94		
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91		
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88		
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86		
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83		
7	96	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81		
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79		
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77		
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	613715	613715	613715
5°	487890	477483	449187
10°	290685	279978	263417
15°	158832	159095	154107
20°	91001	93516	96123
25°	24029	24979	44870
30°	3276	3033	2933
35°	1314	1256	1209
40°	506	506	506
45°	244	189	244
50°	134	74	208
55°	83	0	150
60°	95	0	0
65°	112	0	0
70°	138	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°	905.2	37.5
10°-20°	1018.7	42.3
20°-30°	453.6	18.8
30°-40°	27.7	1.1
40°-50°	4.5	0.2
50°-60°	0.8	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°	2377.5	98.6
0°-40°	2405.1	99.8
0°-60°	2410.4	100.0
0°-90°	2410.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2410.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14254	14254	14254	14254	14254	
5°	11288	11420	11048	10789	10393	928
15°	3563	3718	3569	3544	3457	1005
25°	506	1351	526	1305	944	298
35°	25	40	24	41	23	18
45°	4	7	3	7	4	4
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°	14254.0	14254.0	14254.0	14254.0	14254.0	14254.0	14254.0	14254.0	14254.0
1°	14079.1	14208.1	14208.1	14177.2	13920.3	14111.1	14003.1	13887.2	13585.3
2°	13674.4	13805.3	13792.3	13674.4	13488.5	13567.3	13419.5	13275.5	12958.7
3°	13049.6	13190.6	13164.7	13041.7	12793.7	12841.7	12629.9	12521.0	12157.0
4°	12210.1	12389.0	12357.9	12222.0	11973.2	11970.2	11748.2	11633.4	11296.4
5°	11288.5	11475.4	11420.5	11308.5	11047.7	11000.7	10788.7	10706.8	10393.0
6°	10402.9	10519.9	10462.9	10370.0	10088.1	10059.1	9858.2	9788.2	9498.4
7°	9459.4	9540.4	9484.4	9412.4	9127.6	9089.6	8925.7	8870.8	8587.8
8°	8464.9	8580.8	8500.9	8455.9	8186.9	8135.1	7970.0	7933.1	7706.2
9°	7615.3	7654.3	7569.4	7434.4	7278.5	7225.6	7050.6	7014.6	6855.7
10°	6648.8	6769.6	6703.7	6587.8	6403.9	6443.8	6190.0	6160.0	6025.1
11°	5808.2	5935.1	5865.1	5761.3	5595.3	5618.3	5410.4	5284.4	5263.4
12°	5114.5	5172.5	5151.4	5067.5	4933.6	4940.6	4755.6	4654.8	4633.7
13°	4438.8	4542.8	4552.7	4483.8	4322.9	4396.9	4259.0	4176.9	4144.0
14°	3981.1	4060.1	4091.9	4090.0	3916.1	3981.1	3872.2	3806.1	3773.2
15°	3563.3	3666.2	3718.3	3715.2	3569.2	3635.3	3544.2	3492.4	3457.3
16°	3171.4	3312.4	3397.3	3383.3	3247.4	3315.4	3225.4	3174.5	3135.4
17°	2777.6	2971.6	3096.5	3069.5	2927.5	3013.6	2927.5	2883.6	2842.6
18°	2474.8	2633.8	2809.6	2751.7	2593.8	2727.7	2653.7	2618.6	2580.7
19°	2202.8	2311.9	2540.7	2437.7	2294.8	2446.7	2391.8	2363.8	2327.9
20°	1986.1	2079.9	2283.8	2162.0	2041.0	2164.9	2149.9	2128.0	2097.9
21°	1708.2	1887.1	2050.9	1938.1	1779.1	1954.1	1973.0	1961.1	1939.1
22°	1352.3	1674.2	1882.1	1676.2	1468.3	1800.2	1839.1	1830.1	1814.0
23°	1052.5	1423.3	1726.2	1435.3	1143.4	1629.2	1687.1	1681.2	1628.3
24°	767.7	1165.5	1530.2	1152.4	822.6	1396.3	1507.3	1497.2	1305.4
25°	505.8	907.6	1351.3	864.5	525.8	1129.5	1305.4	1288.4	944.5
26°	324.9	663.7	1190.3	590.8	279.9	843.7	1091.5	1043.5	585.7
27°	155.9	462.8	993.6	347.8	135.9	562.7	875.5	768.6	282.8
28°	97.9	242.8	789.7	173.0	92.0	312.8	670.7	487.8	110.9
29°	79.9	119.9	584.6	97.9	74.9	144.0	480.8	238.0	77.0
30°	65.9	79.9	398.9	74.9	61.0	79.9	315.9	92.9	59.0
32.5°	41.9	50.0	92.0	47.0	40.0	45.9	74.9	45.0	36.9
35°	25.0	32.0	40.0	31.0	23.9	30.1	41.0	29.0	23.0
37.5°	14.9	19.1	25.9	19.1	14.9	19.1	25.9	19.1	14.0
40°	9.0	12.1	18.0	12.1	9.0	12.1	18.0	12.1	9.0
42.5°	5.9	7.0	12.1	7.0	5.0	7.0	12.1	7.9	5.9
45°	4.0	5.0	7.0	4.0	3.1	4.0	7.0	5.0	4.0
47.5°	3.1	3.1	4.0	2.0	2.0	3.1	5.0	4.0	3.1
50°	2.0	2.0	3.1	1.1	1.1	1.1	3.1	3.1	3.1
52.5°	1.1	1.1	1.1	0.0	0.0	0.0	2.0	2.0	2.0
55°	1.1	1.1	1.1	0.0	0.0	0.0	1.1	2.0	2.0
57.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	2.0	2.0
60°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	2.0	0.0

Classified

Scaled Data Report

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1.1	1.1	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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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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62.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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