

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: P1212523

Luminaire Tested: **LDSQA6A35927D010TE LARL20NF 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: P1212523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29055)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A35927D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

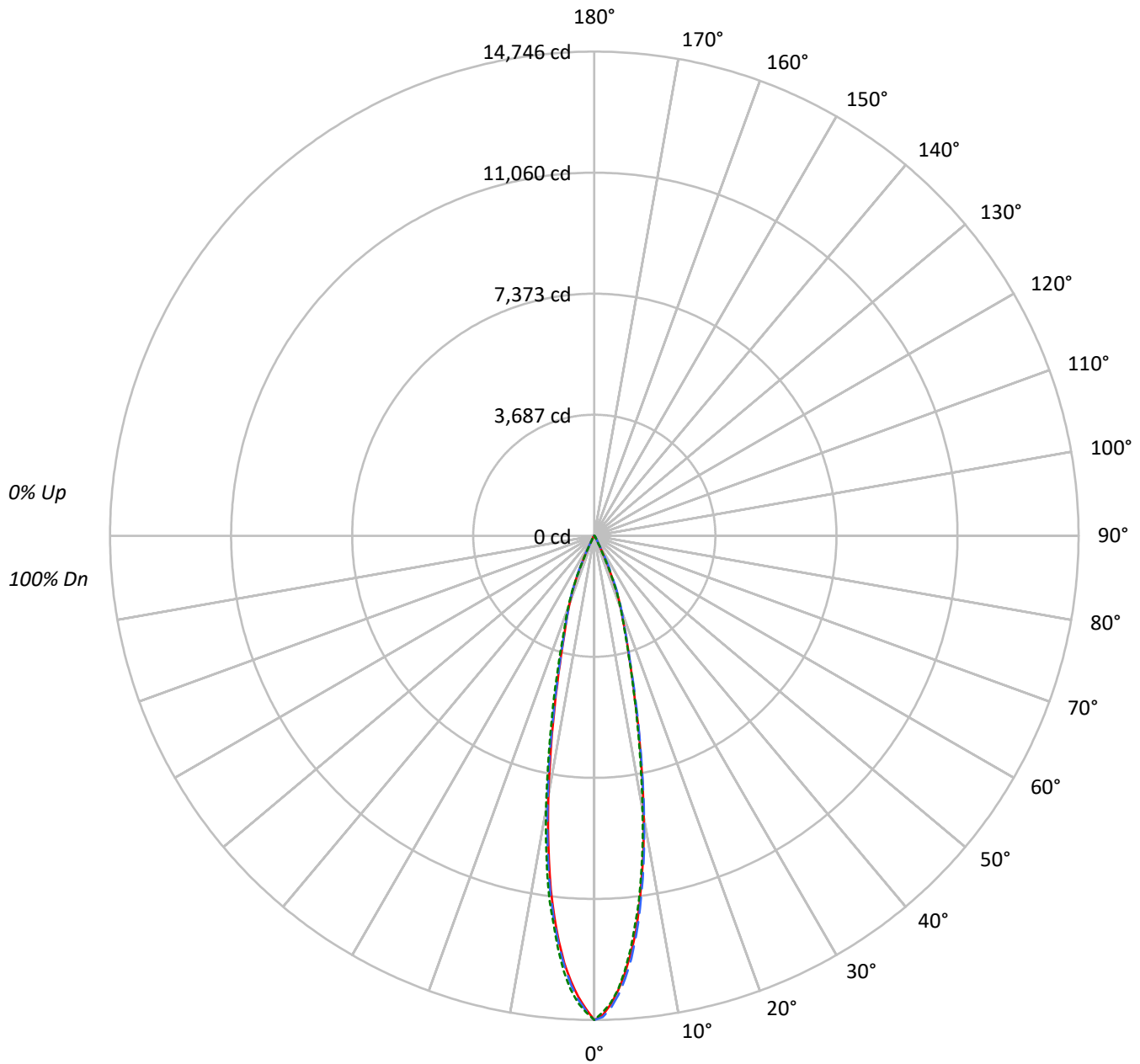
Lumens per Lamp: N/A
Luminaire Lumens: 2815.2 lumens
Efficiency: N/A
Efficacy: 59.0 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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					0
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			0
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			100
1	115	113	111	110	113	111	109	108		107	106	105			103	102	102			97
2	112	108	105	103	110	107	104	102		103	101	100			101	99	97			94
3	108	104	100	98	107	103	99	97		100	98	95			98	96	94			91
4	105	100	96	93	104	99	96	93		97	94	92			95	93	91			89
5	102	97	93	90	101	96	92	89		94	91	89			93	90	88			86
6	99	94	90	87	98	93	89	86		92	88	86			90	88	85			84
7	97	91	87	84	96	90	86	84		89	86	83			88	85	83			82
8	94	88	84	82	93	88	84	81		87	83	81			86	83	81			80
9	92	86	82	79	91	85	82	79		85	81	79			84	81	79			78
10	90	84	80	77	89	83	80	77		83	79	77			82	79	77			76

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	634899	634899	634899
5°	551761	546112	536267
10°	379060	369839	351307
15°	197398	195651	180206
20°	109764	107413	101617
25°	36319	33639	39464
30°	8034	7438	6642
35°	3007	2954	2639
40°	1186	1135	1074
45°	359	359	359
50°	74	74	134
55°	83	0	83
60°	0	0	0
65°	0	0	0
70°	0	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°	1077.0	38.3
10°-20°	1248.4	44.3
20°-30°	433.8	15.4
30°-40°	46.2	1.6
40°-50°	8.8	0.3
50°-60°	1.0	0.0
60°-70°	0.0	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°	2759.2	98.0
0°-40°	2805.4	99.7
0°-60°	2815.2	100.0
0°-90°	2815.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14746	14746	14746	14746	14746	
5°	12766	12921	12636	12480	12408	1085
15°	4428	4525	4389	4134	4043	1274
25°	764	993	708	868	831	414
35°	57	80	56	72	50	43
45°	6	16	6	15	6	6
55°	1	1	0	1	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°	14746.0	14746.0	14746.0	14746.0	14746.0	14746.0	14746.0	14746.0	14746.0
1°	14610.4	14608.4	14660.6	14674.7	14515.9	14733.0	14474.9	14738.9	14420.5
2°	14281.9	14300.1	14389.4	14377.3	14238.7	14429.7	14126.2	14334.1	14047.9
3°	13865.2	13897.3	14000.8	13992.7	13831.0	13994.6	13673.3	13859.1	13590.0
4°	13354.9	13430.2	13516.6	13539.8	13293.5	13441.3	13128.8	13302.7	13046.6
5°	12766.3	12865.7	12920.9	12889.8	12635.6	12771.4	12479.9	12727.1	12407.8
6°	12101.4	12178.6	12219.8	12164.6	11883.4	12037.1	11764.8	11974.9	11662.4
7°	11309.9	11397.2	11430.4	11376.2	11181.2	11243.5	10971.4	11147.2	10854.9
8°	10431.0	10562.6	10567.6	10518.3	10316.5	10248.1	10092.4	10221.1	9943.9
9°	9568.3	9666.5	9664.6	9628.4	9405.5	9306.0	9154.4	9245.7	8999.6
10°	8670.2	8758.6	8728.6	8695.3	8459.3	8348.8	8203.1	8251.4	8035.4
11°	7719.1	7831.6	7783.4	7751.2	7516.1	7407.7	7262.1	7275.1	7085.2
12°	6757.7	6917.6	6860.2	6839.1	6622.2	6516.7	6385.1	6371.1	6191.3
13°	5951.2	6049.6	5993.5	5982.3	5791.5	5700.1	5488.2	5544.4	5380.7
14°	5090.4	5262.1	5211.9	5207.0	5050.3	4964.9	4769.1	4813.2	4670.6
15°	4428.5	4565.2	4525.0	4522.9	4389.3	4307.9	4134.2	4170.4	4042.8
16°	3825.9	3954.4	3925.3	3930.3	3811.9	3740.6	3589.7	3620.0	3517.6
17°	3406.0	3452.2	3425.0	3425.0	3326.6	3282.5	3152.9	3182.0	3101.8
18°	2988.2	3005.3	3022.4	3025.3	2939.0	2908.8	2800.3	2826.5	2760.1
19°	2645.6	2686.9	2696.9	2698.9	2622.6	2605.5	2512.1	2532.2	2477.9
20°	2395.6	2419.7	2422.6	2417.6	2344.3	2330.3	2246.9	2264.9	2217.8
21°	2106.4	2148.5	2139.5	2131.4	2055.1	2044.1	1973.7	1976.8	1930.5
22°	1783.8	1859.2	1849.1	1835.1	1731.6	1716.5	1698.5	1691.5	1647.2
23°	1389.1	1564.9	1555.9	1535.8	1385.1	1430.3	1419.3	1406.2	1364.9
24°	1065.8	1272.6	1267.6	1236.4	1036.6	1149.1	1137.1	1125.9	1093.9
25°	764.5	992.3	993.4	945.2	708.1	910.1	867.8	859.9	830.7
26°	546.5	738.2	743.2	673.9	434.9	656.8	626.8	615.8	592.6
27°	332.5	514.3	524.3	441.9	271.3	441.0	421.9	409.9	343.4
28°	229.0	335.5	347.6	273.2	211.9	294.3	271.3	257.2	199.8
29°	195.8	218.9	228.1	192.8	178.7	195.8	184.9	178.7	161.6
30°	161.6	166.7	170.8	159.7	149.6	154.6	149.6	144.7	133.6
32.5°	102.4	111.4	114.5	106.4	97.4	100.4	100.4	93.4	84.4
35°	57.2	71.3	80.3	70.4	56.2	67.3	72.4	62.3	50.2
37.5°	35.1	44.3	56.2	44.3	34.2	43.2	52.2	39.2	32.2
40°	21.1	27.2	40.1	27.2	20.2	26.1	36.2	24.1	19.1
42.5°	12.1	16.0	26.1	16.0	11.0	15.1	24.1	14.0	11.0
45°	5.9	9.0	16.0	9.0	5.9	9.0	15.1	8.1	5.9
47.5°	3.1	5.0	9.0	5.0	3.1	5.0	8.1	5.0	3.1
50°	1.1	2.0	5.0	2.0	1.1	2.0	5.0	2.0	2.0
52.5°	1.1	1.1	3.1	1.1	1.1	1.1	2.0	1.1	1.1
55°	1.1	1.1	1.1	1.1	0.0	1.1	1.1	1.1	1.1
57.5°	1.1	0.0	1.1	0.0	0.0	0.0	1.1	1.1	1.1
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0

Classified

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CANDELA DISTRIBUTION (continued):

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

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

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