

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: P208773

Luminaire Tested: **LDSQA6A30830D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208773
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: LDSQA6A30830D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2753.5 lumens
Efficiency: N/A
Efficacy: 61.7 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

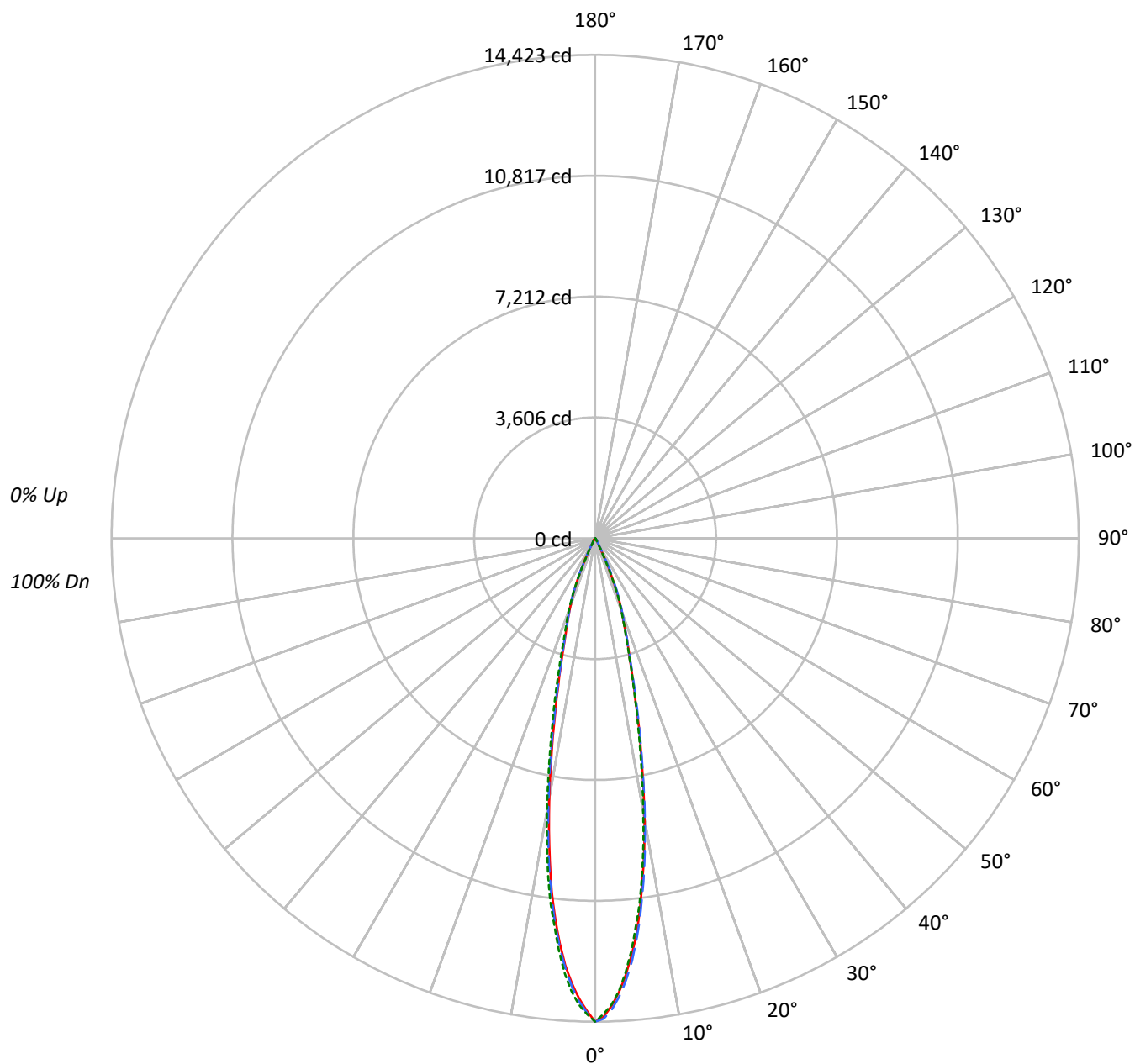
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	620983	620983	620983
5°	539664	534145	524506
10°	370753	361734	343608
15°	193070	191363	176256
20°	107354	105058	99390
25°	35516	32903	38599
30°	7865	7278	6498
35°	2943	2891	2581
40°	1158	1102	1051
45°	359	359	359
50°	67	67	134
55°	75	0	75
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°	1053.4	38.3
10°-20°	1221.0	44.3
20°-30°	424.3	15.4
30°-40°	45.2	1.6
40°-50°	8.7	0.3
50°-60°	0.9	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°	2698.7	98.0
0°-40°	2743.9	99.7
0°-60°	2753.5	100.0
0°-90°	2753.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2753.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14423	14423	14423	14423	14423	
5°	12486	12638	12359	12206	12136	1061
15°	4331	4426	4293	4044	3954	1246
25°	748	972	693	849	812	405
35°	56	79	55	71	49	42
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	14422.8	14422.8	14422.8	14422.8	14422.8	14422.8	14422.8	14422.8	14422.8
1°	14290.1	14288.2	14339.3	14353.0	14197.8	14410.0	14157.5	14415.9	14104.5
2°	13968.9	13986.6	14074.0	14062.2	13926.6	14113.3	13816.6	14020.0	13740.0
3°	13561.2	13592.6	13693.8	13685.9	13527.8	13687.9	13373.5	13555.3	13292.0
4°	13062.1	13135.8	13220.3	13242.9	13002.2	13146.6	12841.1	13011.0	12760.5
5°	12486.4	12583.7	12637.7	12607.3	12358.7	12491.3	12206.4	12448.1	12135.7
6°	11836.1	11911.7	11952.0	11898.0	11622.9	11773.2	11507.0	11712.3	11406.8
7°	11061.9	11147.4	11179.8	11126.8	10936.2	10997.1	10730.9	10902.8	10616.9
8°	10202.3	10331.0	10335.9	10287.8	10090.3	10023.5	9871.3	9997.0	9725.9
9°	9358.4	9454.7	9452.7	9417.4	9199.3	9102.0	8953.7	9043.1	8802.4
10°	8480.2	8566.6	8537.1	8504.7	8273.9	8165.8	8023.3	8070.5	7859.3
11°	7549.8	7659.8	7612.7	7581.3	7351.4	7245.3	7102.8	7115.6	6929.9
12°	6609.7	6765.9	6709.9	6689.2	6477.0	6373.9	6245.2	6231.4	6055.6
13°	5820.8	5917.1	5862.0	5851.2	5664.6	5575.2	5367.9	5422.9	5262.8
14°	4978.9	5146.8	5097.7	5092.8	4939.6	4856.1	4664.5	4707.7	4568.2
15°	4331.4	4465.1	4425.8	4423.8	4293.1	4213.6	4043.6	4079.0	3954.2
16°	3742.0	3867.7	3839.3	3844.2	3728.2	3658.5	3511.1	3540.6	3440.4
17°	3331.4	3376.5	3350.0	3350.0	3253.7	3210.5	3083.8	3112.3	3033.7
18°	2922.7	2939.4	2956.1	2959.0	2874.5	2845.1	2739.0	2764.5	2699.7
19°	2587.7	2627.9	2637.8	2639.7	2565.1	2548.4	2457.0	2476.7	2423.6
20°	2343.0	2366.6	2369.6	2364.7	2292.9	2279.2	2197.7	2215.3	2169.2
21°	2060.1	2101.4	2092.5	2084.7	2010.0	1999.2	1930.4	1933.4	1888.2
22°	1744.8	1818.4	1808.6	1794.9	1693.7	1678.9	1661.3	1654.4	1611.2
23°	1358.7	1530.6	1521.8	1502.1	1354.7	1399.0	1388.1	1375.4	1335.1
24°	1042.3	1244.7	1239.8	1209.3	1013.8	1123.9	1112.1	1101.3	1069.8
25°	747.6	970.6	971.6	924.4	692.6	890.1	848.8	840.9	812.5
26°	534.4	722.1	727.0	659.2	425.4	642.5	613.0	602.2	579.6
27°	325.2	503.0	512.8	432.3	265.3	431.3	412.6	400.8	336.0
28°	224.0	328.1	339.9	267.2	207.3	287.8	265.3	251.5	195.5
29°	191.6	214.2	223.0	188.6	174.9	191.6	180.8	174.9	158.2
30°	158.2	163.1	167.0	156.2	146.4	151.3	146.4	141.5	130.7
32.5°	100.2	109.0	112.0	104.1	95.3	98.2	98.2	91.4	82.5
35°	56.0	69.8	78.6	68.8	55.0	65.8	70.7	60.9	49.1
37.5°	34.4	43.2	55.0	43.2	33.4	42.2	51.1	38.3	31.4
40°	20.6	26.5	39.3	26.5	19.6	25.5	35.4	23.6	18.7
42.5°	11.8	15.7	25.5	15.7	10.8	14.7	23.6	13.8	10.8
45°	5.9	8.8	15.7	8.8	5.9	8.8	14.7	7.9	5.9
47.5°	2.9	4.9	8.8	4.9	2.9	4.9	7.9	4.9	2.9
50°	1.0	2.0	4.9	2.0	1.0	2.0	4.9	2.0	2.0
52.5°	1.0	1.0	2.9	1.0	1.0	1.0	2.0	1.0	1.0
55°	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0
57.5°	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0
60°	0.0	0.0	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°	0.0	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°







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



(END OF REPORT)