

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: P1219612

Luminaire Tested: **LDSQA6A30950D010TE 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: P1219612
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: LDSQA6A30950D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

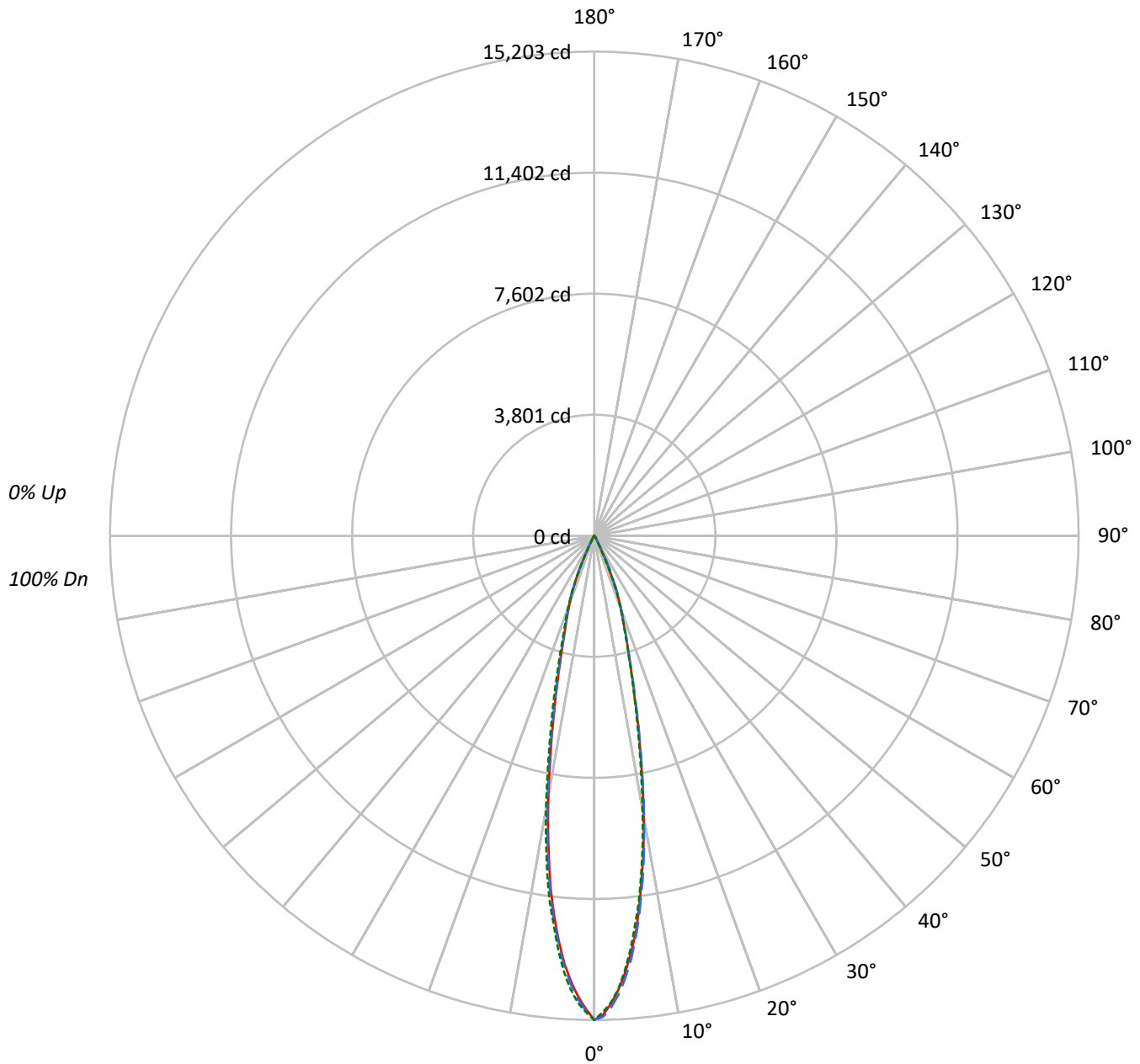
Lumens per Lamp: N/A
Luminaire Lumens: 2902.4 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 39.8
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	115	113	111	110	113	111	109	108	107	106	105		103	102	102		100
2	112	108	105	103	110	107	104	102	103	101	100		101	99	97		98
3	108	104	100	98	107	103	99	97	100	98	95		98	96	94		96
4	105	100	96	93	104	99	96	93	97	94	92		95	93	91		94
5	102	97	93	90	101	96	92	89	94	91	89		93	90	88		91
6	99	94	90	87	98	93	89	86	92	88	86		90	88	85		89
7	97	91	87	84	96	90	86	84	89	86	83		88	85	83		87
8	94	88	84	82	93	88	84	81	87	83	81		86	83	81		85
9	92	86	82	79	91	85	82	79	85	81	79		84	81	79		83
10	90	84	80	77	89	83	80	77	83	79	77		82	79	77		81

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	654562	654562	654562
5°	568846	563029	552868
10°	390799	381290	362188
15°	203509	201717	185791
20°	113163	110744	104760
25°	37440	34685	40680
30°	8288	7671	6846
35°	3101	3043	2723
40°	1220	1163	1107
45°	378	378	378
50°	67	67	141
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°	1110.4	38.3
10°-20°	1287.0	44.3
20°-30°	447.3	15.4
30°-40°	47.6	1.6
40°-50°	9.1	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°	2844.7	98.0
0°-40°	2892.3	99.7
0°-60°	2902.3	100.0
0°-90°	2902.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2902.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15203	15203	15203	15203	15203	
5°	13162	13321	13027	12867	12792	1119
15°	4566	4665	4525	4262	4168	1314
25°	788	1024	730	895	856	427
35°	59	83	58	74	52	45
45°	6	16	6	16	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°	15202.7	15202.7	15202.7	15202.7	15202.7	15202.7	15202.7	15202.7	15202.7
1°	15062.8	15060.8	15114.7	15129.2	14965.6	15189.2	14923.2	15195.4	14867.2
2°	14724.3	14742.8	14835.2	14822.7	14679.8	14876.5	14563.7	14778.1	14483.0
3°	14294.6	14327.7	14434.3	14426.0	14259.3	14428.1	14096.8	14288.4	14010.9
4°	13768.6	13846.0	13935.2	13959.0	13705.3	13857.5	13535.5	13714.6	13450.5
5°	13161.6	13264.2	13321.2	13289.0	13027.0	13166.8	12866.6	13121.3	12791.9
6°	12476.2	12555.8	12598.4	12541.4	12251.4	12409.9	12129.2	12345.7	12023.5
7°	11660.1	11750.2	11784.4	11728.5	11527.6	11591.8	11311.1	11492.4	11191.1
8°	10754.0	10889.6	10894.9	10844.2	10636.1	10565.6	10405.1	10537.7	10251.9
9°	9864.5	9966.0	9963.9	9926.7	9696.9	9594.2	9437.9	9532.0	9278.5
10°	8938.7	9029.9	8998.8	8964.7	8721.2	8607.4	8457.2	8506.9	8284.3
11°	7958.1	8074.1	8024.4	7991.3	7748.9	7637.0	7487.0	7500.4	7304.6
12°	6967.1	7131.7	7072.7	7051.0	6827.3	6718.5	6582.9	6568.4	6383.1
13°	6135.6	6237.0	6179.1	6167.7	5971.0	5876.7	5658.1	5716.2	5547.5
14°	5248.0	5425.2	5373.4	5368.2	5206.8	5118.7	4916.7	4962.3	4815.3
15°	4565.6	4706.5	4665.0	4662.9	4525.4	4441.4	4262.2	4299.6	4168.1
16°	3944.3	4076.9	4047.0	4052.0	3929.8	3856.3	3701.0	3732.0	3626.5
17°	3511.5	3559.1	3531.1	3531.1	3429.7	3384.1	3250.6	3280.6	3197.7
18°	3080.7	3098.3	3115.9	3119.0	3030.0	2998.8	2887.1	2914.0	2845.6
19°	2727.6	2770.0	2780.4	2782.5	2703.8	2686.1	2589.9	2610.6	2554.7
20°	2469.8	2494.6	2497.8	2492.5	2417.0	2402.5	2316.4	2335.1	2286.4
21°	2171.5	2215.0	2205.7	2197.4	2118.7	2107.4	2034.9	2037.9	1990.4
22°	1839.0	1916.7	1906.4	1892.0	1785.3	1769.8	1751.0	1743.9	1698.3
23°	1432.1	1613.4	1604.0	1583.3	1428.0	1474.6	1463.3	1449.8	1407.3
24°	1098.7	1312.0	1306.9	1274.7	1068.7	1184.6	1172.3	1160.8	1127.7
25°	788.1	1023.2	1024.2	974.5	730.1	938.2	894.7	886.5	856.3
26°	563.3	761.2	766.4	694.9	448.3	677.2	646.2	634.7	611.0
27°	342.8	530.3	540.6	455.6	279.6	454.6	434.9	422.4	354.2
28°	236.1	345.9	358.3	281.7	218.5	303.5	279.6	265.1	206.1
29°	201.9	225.8	235.0	198.8	184.3	201.9	190.5	184.3	166.7
30°	166.7	171.9	176.1	164.6	154.3	159.4	154.3	149.1	137.7
32.5°	105.7	114.9	118.1	109.7	100.5	103.6	103.6	96.2	86.9
35°	59.0	73.5	82.9	72.5	57.9	69.4	74.5	64.2	51.8
37.5°	36.2	45.6	57.9	45.6	35.3	44.5	53.9	40.5	33.2
40°	21.7	28.0	41.4	28.0	20.7	26.9	37.2	24.8	19.7
42.5°	12.5	16.5	26.9	16.5	11.4	15.5	24.8	14.5	11.4
45°	6.2	9.3	16.5	9.3	6.2	9.3	15.5	8.2	6.2
47.5°	3.0	5.2	9.3	5.2	3.0	5.2	8.2	5.2	3.0
50°	1.0	2.1	5.2	2.1	1.0	2.1	5.2	2.1	2.1
52.5°	1.0	1.0	3.0	1.0	1.0	1.0	2.1	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°

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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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