

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: P1219618

Luminaire Tested: **LDSQA6A35950D010TE 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: P1219618
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: LDSQA6A35950D010TE 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

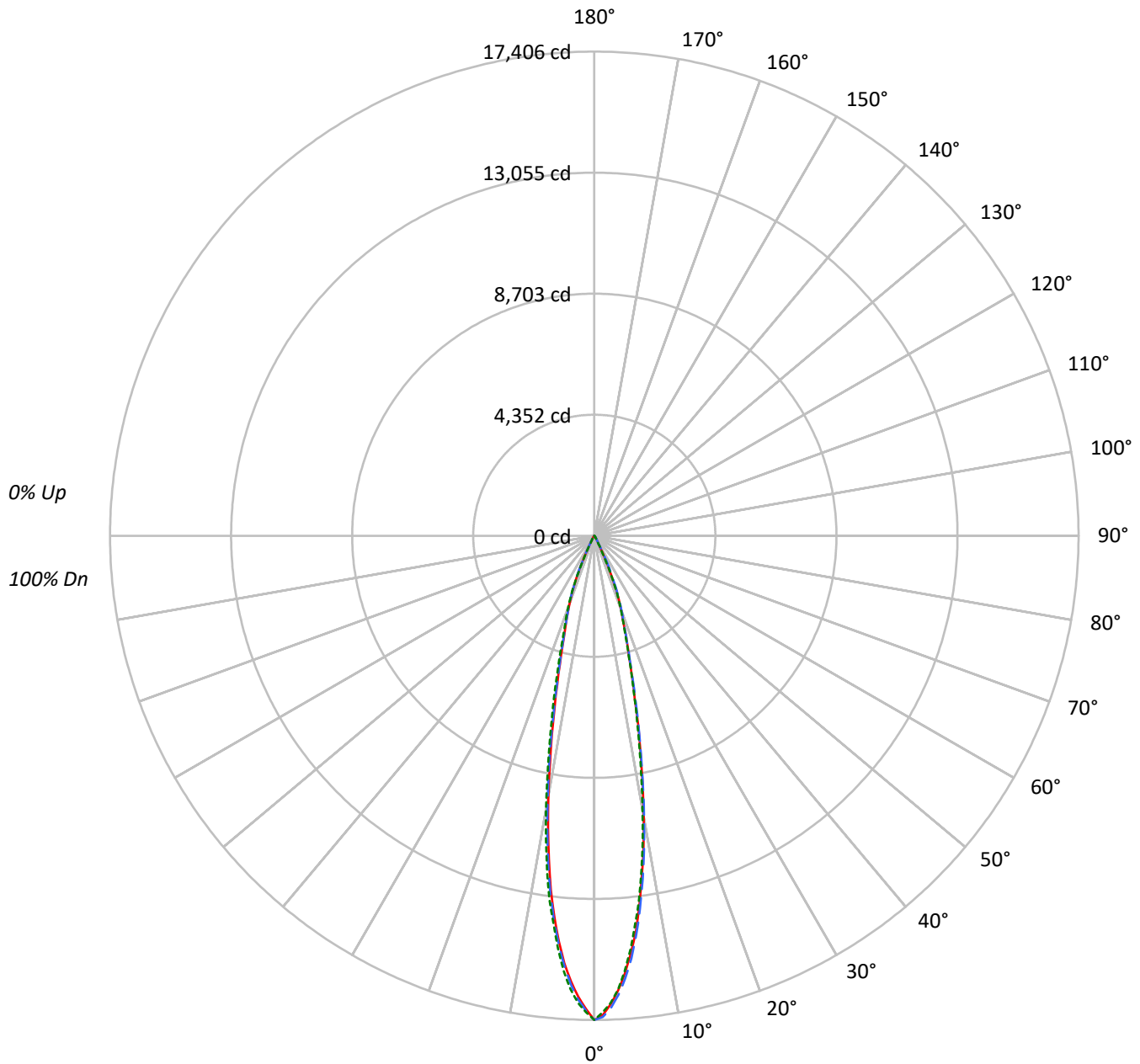
Lumens per Lamp: N/A
Luminaire Lumens: 3323.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	749410	749410	749410
5°	651280	644615	632985
10°	447429	436543	414679
15°	233009	230949	212714
20°	129562	126790	119945
25°	42865	39706	46580
30°	9491	8785	7840
35°	3553	3495	3122
40°	1400	1338	1265
45°	432	432	432
50°	74	74	161
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°	1271.3	38.3
10°-20°	1473.5	44.3
20°-30°	512.1	15.4
30°-40°	54.5	1.6
40°-50°	10.5	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°	3256.9	98.0
0°-40°	3311.5	99.7
0°-60°	3322.9	100.0
0°-90°	3323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3323.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17406	17406	17406	17406	17406	
5°	15069	15252	14915	14731	14646	1281
15°	5227	5341	5181	4880	4772	1504
25°	902	1173	836	1024	980	489
35°	68	95	66	85	59	51
45°	7	19	7	18	7	7
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°	17405.6	17405.6	17405.6	17405.6	17405.6	17405.6	17405.6	17405.6	17405.6
1°	17245.6	17243.4	17305.0	17321.6	17134.2	17390.4	17085.5	17397.4	17021.6
2°	16857.9	16879.3	16984.9	16970.6	16807.0	17032.2	16674.3	16919.7	16581.8
3°	16366.0	16403.9	16526.0	16516.4	16325.7	16518.9	16139.4	16358.9	16041.2
4°	15763.7	15852.6	15954.5	15981.8	15691.3	15865.6	15496.9	15701.9	15399.6
5°	15068.9	15186.2	15251.6	15214.7	14914.7	15074.8	14731.0	15022.6	14645.6
6°	14284.1	14375.3	14424.0	14358.8	14026.7	14208.1	13886.9	14134.7	13766.0
7°	13349.8	13452.9	13492.0	13428.1	13198.0	13271.5	12950.3	13157.8	12812.7
8°	12312.4	12467.7	12473.7	12415.5	12177.2	12096.7	11912.9	12064.6	11737.4
9°	11294.0	11410.3	11407.8	11365.1	11101.9	10984.5	10805.6	10913.3	10623.1
10°	10234.0	10338.5	10303.0	10263.8	9985.0	9854.7	9682.7	9739.6	9484.9
11°	9111.4	9244.1	9187.3	9149.2	8871.8	8743.7	8571.9	8587.3	8363.2
12°	7976.8	8165.2	8097.8	8072.8	7816.7	7692.3	7536.9	7520.2	7308.1
13°	7024.7	7141.0	7074.5	7061.4	6836.1	6728.4	6478.1	6544.5	6351.3
14°	6008.6	6211.3	6152.1	6146.2	5961.2	5860.5	5629.3	5681.3	5513.0
15°	5227.4	5388.6	5341.2	5338.7	5181.2	5085.1	4879.9	4922.6	4772.1
16°	4516.0	4667.6	4633.4	4639.2	4499.4	4415.1	4237.3	4272.8	4151.9
17°	4020.3	4074.9	4043.0	4043.0	3926.7	3874.5	3721.5	3756.0	3661.1
18°	3527.3	3547.2	3567.5	3571.0	3469.0	3433.5	3305.4	3336.3	3258.0
19°	3122.9	3171.6	3183.3	3185.7	3095.6	3075.5	2965.2	2988.9	2924.8
20°	2827.7	2856.2	2859.7	2853.7	2767.2	2750.5	2652.2	2673.6	2617.8
21°	2486.2	2536.0	2525.3	2515.8	2425.7	2412.6	2329.7	2333.2	2278.7
22°	2105.6	2194.5	2182.8	2166.1	2044.0	2026.2	2004.9	1996.5	1944.5
23°	1639.7	1847.1	1836.4	1812.8	1635.0	1688.3	1675.2	1659.9	1611.3
24°	1258.0	1502.1	1496.2	1459.4	1223.6	1356.3	1342.0	1329.1	1291.2
25°	902.3	1171.4	1172.6	1115.7	835.8	1074.1	1024.4	1014.8	980.5
26°	644.9	871.4	877.4	795.6	513.3	775.4	739.9	726.8	699.6
27°	392.4	607.0	618.9	521.8	320.1	520.4	498.0	483.7	405.5
28°	270.3	395.9	410.2	322.5	250.1	347.5	320.1	303.5	235.9
29°	231.2	258.5	269.2	227.7	211.0	231.2	218.1	211.0	190.9
30°	190.9	196.8	201.7	188.6	176.7	182.5	176.7	170.8	157.7
32.5°	121.0	131.6	135.2	125.6	114.9	118.5	118.5	110.2	99.6
35°	67.6	84.2	95.0	82.9	66.5	79.4	85.4	73.5	59.4
37.5°	41.6	52.2	66.5	52.2	40.2	51.0	61.6	46.3	38.0
40°	24.9	32.0	47.3	32.0	23.8	30.9	42.6	28.5	22.5
42.5°	14.2	18.9	30.9	18.9	13.1	17.8	28.5	16.6	13.1
45°	7.1	10.7	18.9	10.7	7.1	10.7	17.8	9.6	7.1
47.5°	3.5	6.0	10.7	6.0	3.5	6.0	9.6	6.0	3.5
50°	1.1	2.4	6.0	2.4	1.1	2.4	6.0	2.4	2.4
52.5°	1.1	1.1	3.5	1.1	1.1	1.1	2.4	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

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°	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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Scaled Data Report





— 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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