

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: P208754

Luminaire Tested: **LDSQA6A10935D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208754
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: LDSQA6A10935D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 907.1 lumens
Efficiency: N/A
Efficacy: 66.1 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

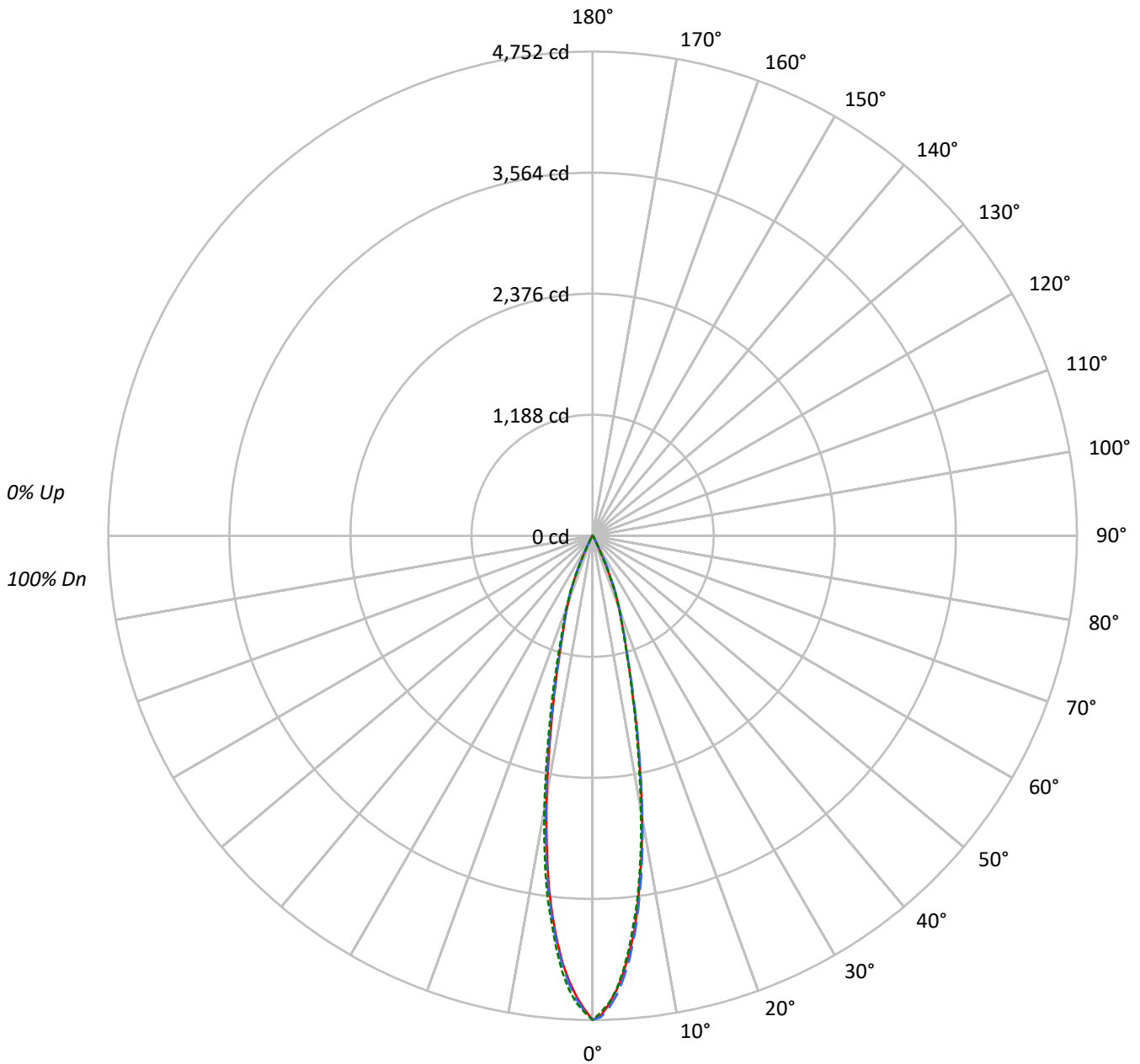
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	204588	204588	204588
5°	177795	175979	172803
10°	122145	119176	113204
15°	63608	63046	58067
20°	35368	34612	32742
25°	11701	10841	12718
30°	2590	2396	2138
35°	967	951	851
40°	382	365	343
45°	116	116	116
50°	20	20	40
55°	23	0	23
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°	347.1	38.3
10°-20°	402.3	44.3
20°-30°	139.8	15.4
30°-40°	14.9	1.6
40°-50°	2.9	0.3
50°-60°	0.3	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°	889.1	98.0
0°-40°	904.0	99.7
0°-60°	907.1	100.0
0°-90°	907.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	907.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4752	4752	4752	4752	4752	
5°	4114	4164	4072	4022	3998	350
15°	1427	1458	1414	1332	1303	411
25°	246	320	228	280	268	133
35°	18	26	18	23	16	14
45°	2	5	2	5	2	2
55°	0	0	0	0	0	0
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°	4751.7	4751.7	4751.7	4751.7	4751.7	4751.7	4751.7	4751.7	4751.7
1°	4708.0	4707.3	4724.2	4728.7	4677.5	4747.5	4664.3	4749.4	4646.8
2°	4602.1	4608.0	4636.8	4632.9	4588.2	4649.7	4552.0	4619.0	4526.7
3°	4467.8	4478.2	4511.5	4508.9	4456.8	4509.6	4406.0	4465.9	4379.1
4°	4303.4	4327.7	4355.5	4362.9	4283.6	4331.2	4230.6	4286.6	4204.0
5°	4113.7	4145.8	4163.6	4153.5	4071.7	4115.3	4021.5	4101.1	3998.2
6°	3899.5	3924.4	3937.7	3919.9	3829.2	3878.7	3791.0	3858.7	3758.0
7°	3644.4	3672.6	3683.3	3665.8	3603.0	3623.1	3535.3	3592.0	3497.8
8°	3361.2	3403.6	3405.2	3389.4	3324.3	3302.3	3252.1	3293.6	3204.2
9°	3083.2	3114.9	3114.3	3102.6	3030.8	2998.7	2949.8	2979.3	2900.0
10°	2793.8	2822.3	2812.6	2801.9	2725.9	2690.3	2643.3	2658.9	2589.3
11°	2487.3	2523.6	2508.0	2497.7	2422.0	2387.0	2340.1	2344.3	2283.1
12°	2177.6	2229.1	2210.6	2203.8	2133.9	2099.9	2057.5	2053.0	1995.0
13°	1917.7	1949.4	1931.3	1927.7	1866.2	1836.8	1768.5	1786.6	1733.9
14°	1640.3	1695.7	1679.5	1677.9	1627.4	1599.9	1536.7	1551.0	1505.0
15°	1427.0	1471.0	1458.1	1457.4	1414.4	1388.2	1332.2	1343.8	1302.7
16°	1232.8	1274.3	1264.9	1266.5	1228.3	1205.3	1156.8	1166.5	1133.5
17°	1097.5	1112.4	1103.7	1103.7	1072.0	1057.7	1016.0	1025.4	999.5
18°	962.9	968.4	973.9	974.9	947.0	937.3	902.4	910.8	889.4
19°	852.5	865.8	869.0	869.7	845.1	839.6	809.5	815.9	798.5
20°	771.9	779.7	780.7	779.1	755.4	750.9	724.0	729.9	714.6
21°	678.7	692.3	689.4	686.8	662.2	658.6	636.0	637.0	622.1
22°	574.8	599.1	595.9	591.3	558.0	553.1	547.3	545.0	530.8
23°	447.6	504.3	501.4	494.9	446.3	460.9	457.3	453.1	439.9
24°	343.4	410.1	408.5	398.4	334.0	370.3	366.4	362.8	352.5
25°	246.3	319.8	320.1	304.6	228.2	293.2	279.6	277.1	267.7
26°	176.1	237.9	239.5	217.2	140.1	211.7	202.0	198.4	191.0
27°	107.1	165.7	169.0	142.4	87.4	142.1	135.9	132.1	110.7
28°	73.8	108.1	112.0	88.0	68.3	94.8	87.4	82.9	64.4
29°	63.1	70.6	73.5	62.1	57.6	63.1	59.6	57.6	52.1
30°	52.1	53.7	55.0	51.5	48.2	49.8	48.2	46.6	43.0
32.5°	33.0	35.9	36.9	34.3	31.4	32.4	32.4	30.1	27.2
35°	18.4	23.0	25.9	22.7	18.1	21.7	23.3	20.1	16.2
37.5°	11.3	14.2	18.1	14.2	11.0	13.9	16.8	12.6	10.4
40°	6.8	8.7	12.9	8.7	6.5	8.4	11.7	7.8	6.1
42.5°	3.9	5.2	8.4	5.2	3.6	4.9	7.8	4.5	3.6
45°	1.9	2.9	5.2	2.9	1.9	2.9	4.9	2.6	1.9
47.5°	1.0	1.6	2.9	1.6	1.0	1.6	2.6	1.6	1.0
50°	0.3	0.6	1.6	0.6	0.3	0.6	1.6	0.6	0.6
52.5°	0.3	0.3	1.0	0.3	0.3	0.3	0.6	0.3	0.3
55°	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3
57.5°	0.3	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.3
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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)