

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: P208803

Luminaire Tested: **LDSQA6A20940D010TE LAR35FL 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208803
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29057)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A20940D010TE LAR35FL 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 35° FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2063.9 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 0.6 / 0.59 / 0.55
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

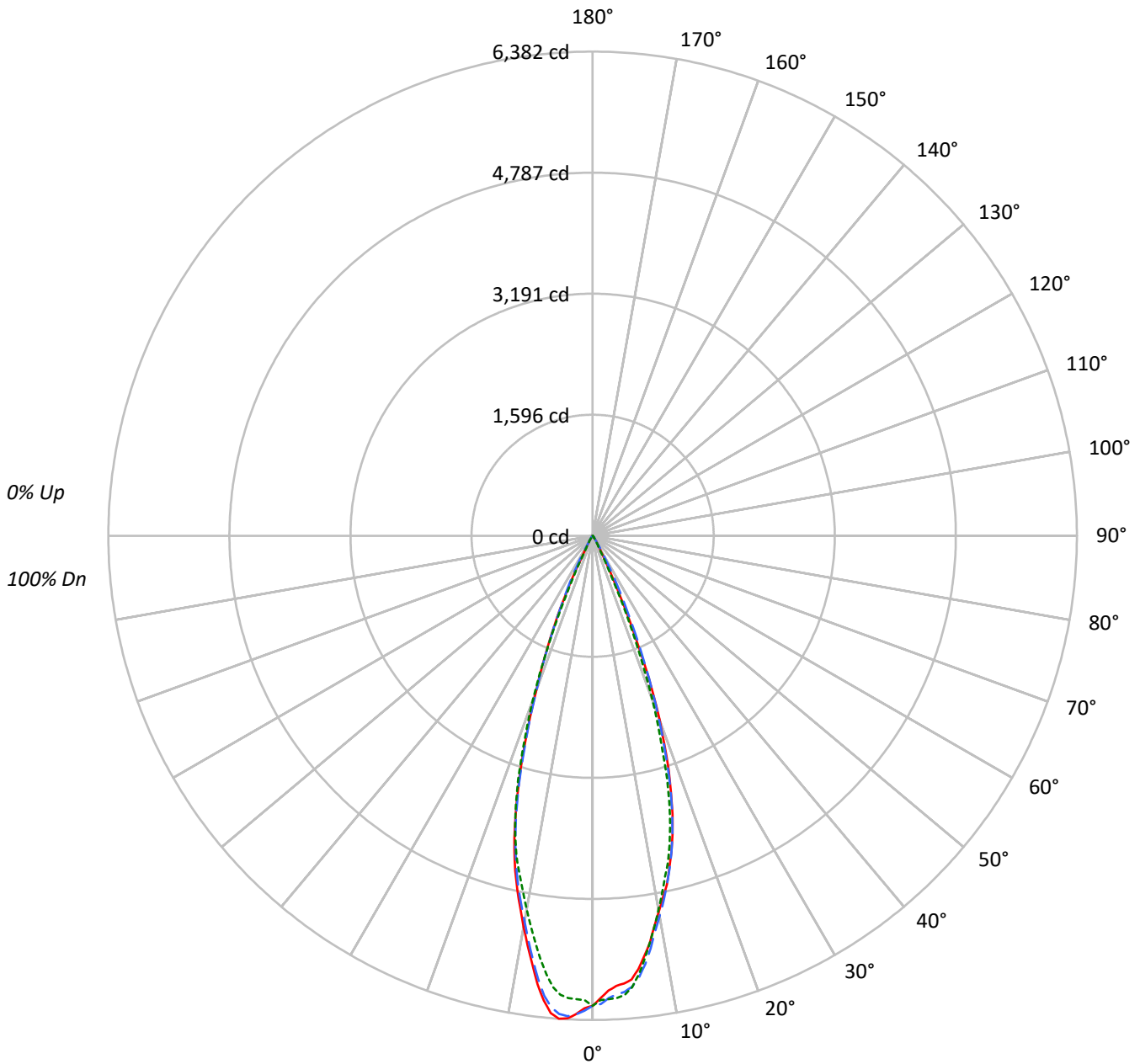
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P208803

CATALOG NUMBER: LDSQA6A20940D010TE LAR35FL 6LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P208803

CATALOG NUMBER: LDSQA6A20940D010TE LAR35FL 6LSQA1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96				96															
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93				93															
3	107	103	99	96	106	101	98	95	99	96	94	96	94	92	94	92	91	90				90															
4	104	98	94	91	102	97	94	91	95	92	90	93	91	89	92	89	88	86				86															
5	101	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83				83															
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	81				81															
7	94	88	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78				78															
8	92	85	80	77	91	84	80	77	83	80	77	82	79	77	82	79	76	75				75															
9	89	82	78	75	88	82	78	75	81	77	75	80	77	74	79	76	74	73				73															
10	86	79	75	72	86	79	75	72	78	75	72	78	74	72	77	74	72	71				71															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	266803	266803	266803
5°	253810	258214	272939
10°	219902	218713	228869
15°	181583	175882	176618
20°	118103	105223	100288
25°	35492	27131	36124
30°	7746	5633	5981
35°	2765	1698	1866
40°	821	534	641
45°	231	152	195
50°	40	40	87
55°	45	0	98
60°	52	0	0
65°	61	0	0
70°	76	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P208803

CATALOG NUMBER: LDSQA6A20940D010TE LAR35FL 6LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	545.8	26.4
10°-20°	1059.5	51.3
20°-30°	418.6	20.3
30°-40°	34.4	1.7
40°-50°	4.7	0.2
50°-60°	0.5	0.0
60°-70°	0.1	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°	2024.0	98.1
0°-40°	2058.4	99.7
0°-60°	2063.7	100.0
0°-90°	2063.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2063.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6197	6197	6197	6197	6197	
5°	5872	5966	5974	6243	6315	531
15°	4074	4063	3946	3914	3962	1089
25°	747	1010	571	837	760	420
35°	53	53	32	45	36	39
45°	4	9	2	7	3	4
55°	1	1	0	1	1	1
65°	1	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P208803

CATALOG NUMBER: LDSQA6A20940D010TE LAR35FL 6LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	6196.7	6196.7	6196.7	6196.7	6196.7	6196.7	6196.7	6196.7	6196.7
1°	6096.6	6027.0	6172.6	6166.9	6121.3	6249.9	6263.2	6346.1	6228.3
2°	5998.5	5943.4	6096.6	6112.5	6112.5	6272.7	6314.5	6418.3	6310.0
3°	5941.5	5895.9	6055.5	6097.3	6101.7	6280.3	6341.7	6458.2	6369.5
4°	5916.8	5875.0	6026.4	6058.7	6065.0	6253.7	6318.3	6451.2	6381.6
5°	5872.5	5825.7	5966.2	5971.3	5974.4	6167.6	6242.9	6374.6	6315.1
6°	5747.1	5722.5	5851.0	5823.1	5814.3	6020.7	6097.3	6220.1	6160.0
7°	5583.2	5566.7	5687.6	5645.2	5623.0	5815.5	5886.4	6002.9	5955.5
8°	5415.4	5375.5	5490.7	5454.0	5416.6	5582.5	5644.6	5752.2	5707.9
9°	5205.8	5185.5	5271.0	5259.0	5208.3	5378.6	5401.4	5506.5	5470.5
10°	5029.8	5005.1	5091.2	5068.4	5002.6	5151.3	5167.2	5267.8	5234.9
11°	4858.8	4826.5	4900.0	4870.9	4796.8	4930.4	4941.1	5034.8	5001.3
12°	4701.8	4649.3	4706.9	4672.0	4593.5	4711.3	4716.4	4804.4	4773.4
13°	4494.1	4459.3	4504.9	4467.5	4417.5	4484.0	4473.9	4557.4	4529.0
14°	4294.1	4250.4	4292.2	4247.2	4194.7	4239.0	4209.8	4282.7	4260.5
15°	4073.7	4030.0	4063.0	4007.9	3945.8	3962.3	3913.5	3981.3	3962.3
16°	3817.3	3773.6	3802.1	3735.0	3661.5	3652.0	3587.5	3647.0	3627.3
17°	3527.9	3496.3	3515.9	3431.7	3354.5	3321.5	3236.1	3288.6	3269.0
18°	3252.5	3190.5	3198.7	3105.0	2987.2	2967.0	2870.7	2920.7	2901.1
19°	2891.6	2862.5	2866.9	2761.2	2642.2	2604.8	2509.2	2553.5	2531.4
20°	2577.6	2533.3	2529.5	2414.9	2296.5	2257.2	2164.8	2210.3	2188.8
21°	2218.6	2245.8	2198.3	2077.4	1931.1	1934.9	1853.2	1857.7	1872.2
22°	1814.6	1914.0	1873.5	1730.4	1547.4	1631.6	1558.2	1563.3	1575.9
23°	1415.1	1518.3	1555.0	1381.5	1182.7	1350.5	1292.3	1296.1	1304.3
24°	1050.4	1196.0	1261.9	1063.1	851.6	1086.5	1053.6	1058.0	1049.1
25°	747.1	918.1	1009.9	785.1	571.1	844.0	837.0	844.0	760.4
26°	504.6	692.0	796.5	550.8	353.3	623.7	666.1	650.9	493.2
27°	322.9	526.2	612.3	360.3	224.1	429.3	497.0	492.6	283.0
28°	227.3	365.3	452.1	221.6	172.9	269.7	355.2	324.2	181.1
29°	191.8	237.4	315.3	157.7	140.6	159.6	238.1	189.3	148.2
30°	155.8	157.7	207.0	127.3	113.3	114.0	152.0	124.1	120.3
32.5°	95.0	94.3	89.3	74.7	66.5	66.5	74.1	71.5	70.9
35°	52.6	57.6	53.2	45.0	32.3	39.9	45.0	42.4	35.5
37.5°	28.5	33.6	36.7	24.7	17.7	23.4	30.4	24.7	20.3
40°	14.6	18.4	26.0	13.9	9.5	13.3	20.9	13.9	11.4
42.5°	7.6	10.1	16.5	7.6	4.4	7.6	13.3	7.6	5.7
45°	3.8	5.1	8.9	3.8	2.5	3.8	7.0	4.4	3.2
47.5°	1.9	2.5	4.4	1.9	0.6	1.9	3.8	1.9	1.9
50°	0.6	1.3	2.5	0.6	0.6	0.6	1.9	1.3	1.3
52.5°	0.6	0.6	1.3	0.6	0.0	0.6	1.3	0.6	1.3
55°	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	1.3
57.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.6	0.6	1.3
60°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.0



TEST NUMBER: P208803

CATALOG NUMBER: LDSQA6A20940D010TE LAR35FL 6LSQA1H

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.6	0.6	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°







62.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)