

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: P208800

Luminaire Tested: **LDSQA6A20927D010TE LAR35FL 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208800
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: LDSQA6A20927D010TE LAR35FL 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 35° FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1809.6 lumens
Efficiency: N/A
Efficacy: 62.8 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

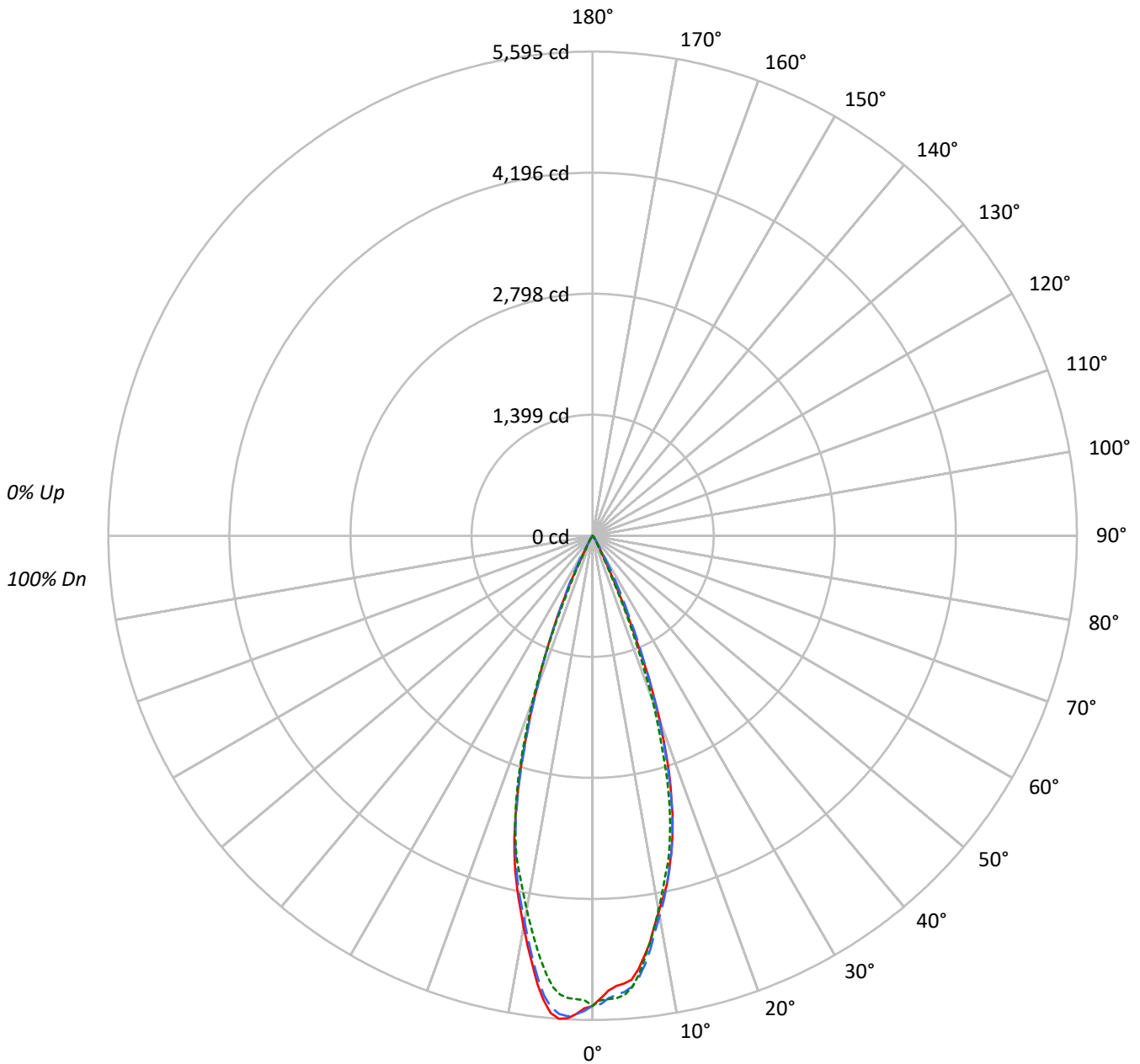
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P208800

CATALOG NUMBER: LDSQA6A20927D010TE LAR35FL 6LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P208800

CATALOG NUMBER: LDSQA6A20927D010TE LAR35FL 6LSQA1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	98	99	98	94	93	93	92	91	88	86	83																
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93	92	91	89	88	86	83	81	78	75	73	71																	
3	107	103	99	96	106	101	98	95	99	96	94	96	94	92	94	92	91	89	88	85	83	81	78	75	73	71	69	67	65																	
4	104	98	94	91	102	97	93	91	95	92	90	93	91	89	92	89	88	86	84	82	80	78	76	74	72	70	68	66	64																	
5	101	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61																	
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	80	78	76	74	72	70	68	66	64	62	60	58																	
7	94	88	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	77	75	73	71	69	67	65	63	61	59	57	55																	
8	92	85	80	77	91	84	80	77	83	80	77	82	79	77	82	79	76	74	72	70	68	66	64	62	60	58	56	54	52																	
9	89	82	78	75	88	82	78	75	81	77	75	80	77	74	79	76	74	72	70	68	66	64	62	60	58	56	54	52	50																	
10	86	79	75	72	86	79	75	72	78	75	72	78	74	72	77	74	72	70	68	66	64	62	60	58	56	54	52	50	48																	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	233926	233926	233926
5°	222532	226396	239306
10°	192805	191760	200665
15°	159207	154210	154852
20°	103546	92256	87931
25°	31122	23787	31673
30°	6791	4942	5245
35°	2423	1487	1635
40°	719	467	562
45°	201	134	170
50°	40	40	74
55°	45	0	83
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: P208800

CATALOG NUMBER: LDSQA6A20927D010TE LAR35FL 6LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	478.6	26.4
10°-20°	929.0	51.3
20°-30°	367.1	20.3
30°-40°	30.2	1.7
40°-50°	4.1	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°	1774.6	98.1
0°-40°	1804.8	99.7
0°-60°	1809.4	100.0
0°-90°	1809.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1809.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5433	5433	5433	5433	5433	
5°	5149	5231	5238	5474	5537	466
15°	3572	3562	3460	3431	3474	954
25°	655	885	501	734	667	368
35°	46	47	28	39	31	34
45°	3	8	2	6	3	3
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: P208800

CATALOG NUMBER: LDSQA6A20927D010TE LAR35FL 6LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	5433.1	5433.1	5433.1	5433.1	5433.1	5433.1	5433.1	5433.1	5433.1
1°	5345.3	5284.3	5412.0	5407.0	5367.0	5479.7	5491.3	5564.1	5460.8
2°	5259.3	5211.0	5345.3	5359.2	5359.2	5499.7	5536.3	5627.4	5532.4
3°	5209.3	5169.4	5309.3	5345.9	5349.8	5506.3	5560.2	5662.3	5584.6
4°	5187.7	5151.1	5283.7	5312.0	5317.6	5483.0	5539.6	5656.2	5595.2
5°	5148.8	5107.8	5231.0	5235.4	5238.2	5407.5	5473.6	5589.1	5536.9
6°	5038.9	5017.3	5130.0	5105.5	5097.8	5278.7	5345.9	5453.6	5400.9
7°	4895.1	4880.7	4986.7	4949.5	4930.1	5098.9	5161.0	5263.2	5221.6
8°	4748.0	4713.1	4814.1	4781.9	4749.1	4894.6	4949.0	5043.4	5004.5
9°	4564.3	4546.5	4621.5	4610.9	4566.5	4715.8	4735.8	4828.0	4796.3
10°	4410.0	4388.3	4463.8	4443.8	4386.1	4516.5	4530.4	4618.7	4589.8
11°	4260.1	4231.8	4296.2	4270.6	4205.7	4322.8	4332.2	4414.4	4385.0
12°	4122.4	4076.3	4126.8	4096.3	4027.5	4130.7	4135.2	4212.3	4185.1
13°	3940.3	3909.8	3949.8	3917.0	3873.1	3931.4	3922.6	3995.8	3970.8
14°	3764.9	3726.6	3763.2	3723.8	3677.7	3716.6	3691.1	3754.9	3735.5
15°	3571.7	3533.4	3562.3	3514.0	3459.6	3474.0	3431.3	3490.7	3474.0
16°	3346.9	3308.6	3333.6	3274.7	3210.3	3202.0	3145.4	3197.5	3180.3
17°	3093.2	3065.4	3082.6	3008.8	2941.1	2912.2	2837.3	2883.3	2866.1
18°	2851.7	2797.3	2804.5	2722.4	2619.1	2601.3	2517.0	2560.8	2543.6
19°	2535.3	2509.7	2513.6	2420.9	2316.6	2283.8	2200.0	2238.8	2219.4
20°	2259.9	2221.1	2217.7	2117.3	2013.5	1979.0	1898.0	1938.0	1919.1
21°	1945.2	1969.0	1927.4	1821.4	1693.1	1696.5	1624.9	1628.8	1641.5
22°	1591.0	1678.2	1642.6	1517.2	1356.7	1430.6	1366.2	1370.6	1381.7
23°	1240.7	1331.2	1363.4	1211.3	1037.0	1184.1	1133.0	1136.4	1143.6
24°	921.0	1048.6	1106.4	932.1	746.7	952.6	923.7	927.6	919.9
25°	655.1	804.9	885.4	688.4	500.7	740.0	733.9	740.0	666.7
26°	442.4	606.8	698.4	483.0	309.8	546.8	584.0	570.7	432.4
27°	283.1	461.3	536.8	315.9	196.5	376.4	435.8	431.9	248.1
28°	199.3	320.3	396.4	194.3	151.6	236.5	311.4	284.2	158.8
29°	168.2	208.2	276.5	138.2	123.2	139.9	208.7	166.0	129.9
30°	136.6	138.2	181.5	111.6	99.4	99.9	133.2	108.8	105.5
32.5°	83.3	82.7	78.3	65.5	58.3	58.3	65.0	62.7	62.2
35°	46.1	50.5	46.6	39.4	28.3	35.0	39.4	37.2	31.1
37.5°	25.0	29.4	32.2	21.7	15.5	20.5	26.6	21.7	17.8
40°	12.8	16.1	22.8	12.2	8.3	11.7	18.3	12.2	10.0
42.5°	6.7	8.9	14.4	6.7	3.9	6.7	11.7	6.7	5.0
45°	3.3	4.4	7.8	3.3	2.2	3.3	6.1	3.9	2.8
47.5°	1.7	2.2	3.9	1.7	0.6	1.7	3.3	1.7	1.7
50°	0.6	1.1	2.2	0.6	0.6	0.6	1.7	1.1	1.1
52.5°	0.6	0.6	1.1	0.6	0.0	0.6	1.1	0.6	1.1
55°	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	1.1
57.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.6	0.6	1.1
60°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.0



TEST NUMBER: P208800

CATALOG NUMBER: LDSQA6A20927D010TE 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
65°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)