

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: P182566

Luminaire Tested: **LDSQA4A28827D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26797)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28827D010TE LAR25NF 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2827.8 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.5
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

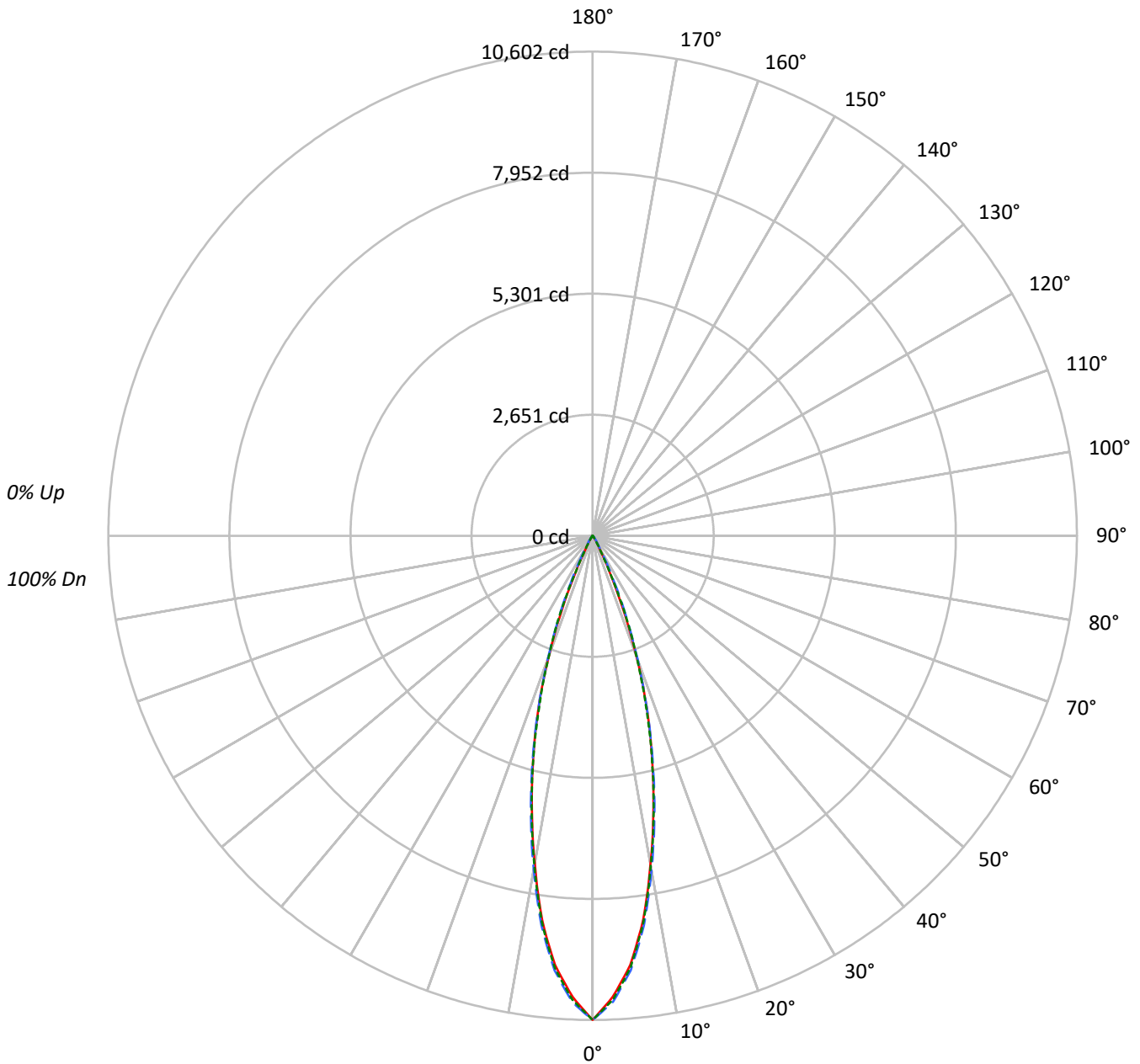
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	97	96	94	93	92	91	89	88	87	85	84	81																
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	91	90	89	87	85	84	81	80	79	78	76	74																
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	88	87	85	84	81	80	79	78	76	74	72																	
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	85	84	81	80	79	78	76	74	72	71	69	67																
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	81	80	79	78	76	74	72	71	69	67	65	63																
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	79	78	76	74	72	71	69	67	65	63	61	59																
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	78	76	74	72	71	69	67	65	63	61	59	57																
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	75	74	72	71	69	67	65	63	61	59	57	55																
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	73	72	71	69	67	65	63	61	59	57	55	53																
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	71	70	69	67	65	63	61	59	57	55	53	51																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1027093	1027093	1027093
5°	917278	928821	923054
10°	718031	730869	721917
15°	504222	507923	501444
20°	289391	295371	289123
25°	91605	120497	94566
30°	24341	30236	23446
35°	8267	14972	8420
40°	3667	6007	3667
45°	1987	2713	1630
50°	1191	1387	799
55°	676	676	439
60°	504	504	252
65°	298	298	298
70°	368	368	368
75°	0	487	487
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	841.0	29.7
10°-20°	1371.1	48.5
20°-30°	531.1	18.8
30°-40°	65.1	2.3
40°-50°	13.7	0.5
50°-60°	3.7	0.1
60°-70°	1.4	0.0
70°-80°	0.8	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°	2743.2	97.0
0°-40°	2808.3	99.3
0°-60°	2825.6	99.9
0°-90°	2827.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2827.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10602	10602	10602	10602	10602	
5°	9433	9570	9551	9493	9492	833
15°	5028	5095	5064	5028	5000	1364
25°	857	1073	1127	1108	885	480
35°	70	84	127	83	71	53
45°	14	16	20	14	12	12
55°	4	4	4	3	3	4
65°	1	1	1	1	1	1
75°	0	1	1	1	1	1
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°
0°	10602.2	10602.2	10602.2	10602.2	10602.2
2.5°	10106.4	10247.5	10214.5	10148.6	10165.7
5°	9432.6	9569.8	9551.3	9493.3	9492.0
7.5°	8482.0	8616.5	8600.7	8530.8	8524.2
10°	7299.3	7421.9	7429.8	7328.3	7338.8
12.5°	6144.3	6244.5	6248.4	6178.6	6164.1
15°	5027.5	5094.7	5064.4	5027.5	4999.8
17.5°	3926.5	3941.0	3934.4	3880.4	3860.6
20°	2807.1	2870.4	2865.1	2819.0	2804.5
22.5°	1748.3	1863.1	1915.8	1873.6	1896.0
25°	857.0	1073.3	1127.3	1107.6	884.7
27.5°	348.1	454.9	567.0	448.3	336.2
30°	217.6	237.3	270.3	228.1	209.6
32.5°	114.7	143.7	183.3	139.8	114.7
35°	69.9	84.4	126.6	83.1	71.2
37.5°	44.8	52.7	73.8	52.7	46.1
40°	29.0	34.3	47.5	34.3	29.0
42.5°	19.8	22.4	30.3	22.4	18.5
45°	14.5	15.8	19.8	14.5	11.9
47.5°	10.5	11.9	13.2	9.2	7.9
50°	7.9	7.9	9.2	6.6	5.3
52.5°	5.3	6.6	6.6	4.0	4.0
55°	4.0	4.0	4.0	2.6	2.6
57.5°	4.0	2.6	2.6	2.6	2.6
60°	2.6	2.6	2.6	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	1.3	1.3	1.3	1.3	1.3
67.5°	1.3	1.3	1.3	1.3	1.3
70°	1.3	1.3	1.3	1.3	1.3
72.5°	1.3	1.3	1.3	1.3	0.0
75°	0.0	1.3	1.3	1.3	1.3
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)