

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: P182455

Luminaire Tested: **LDSQA4A09830D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26785)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09830D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1235.8 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.49
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

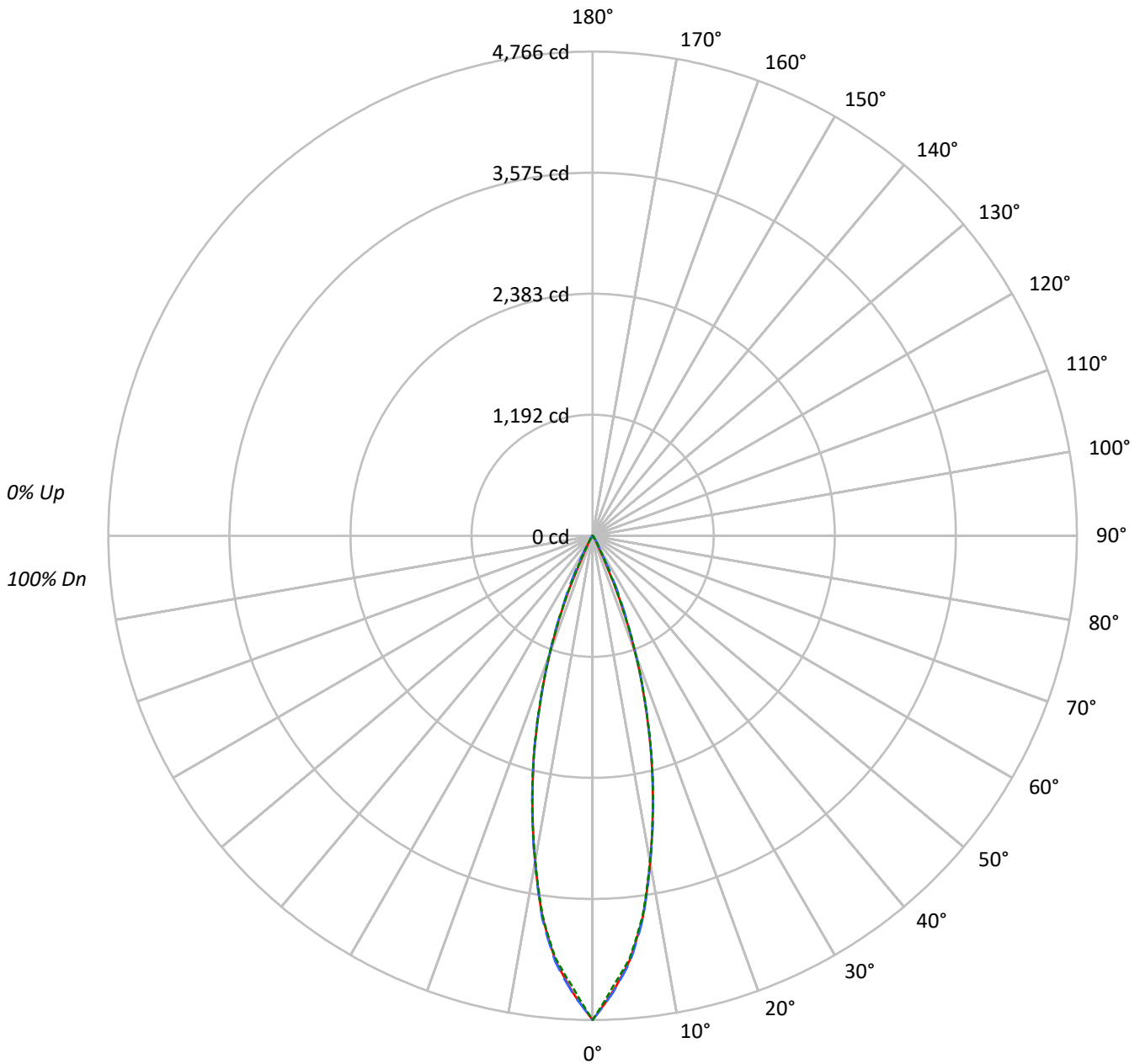
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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	97	97	96	95	95	93	91	91	88	87	97																		
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93	95	93	91	91	88	87	85	84	93	93																		
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	95	93	91	88	87	85	84	87	87	87																		
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87	92	90	88	87	85	84	87	87	87	87																		
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84	90	87	85	84	87	87	87	87	87	87																		
6	98	92	88	84	97	91	87	84	90	86	84	88	85	83	87	85	83	82	87	85	83	82	81	80	79	82	82	82																		
7	95	89	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	85	82	80	79	78	77	76	75	74	74																		
8	92	86	82	79	91	85	81	79	84	81	78	84	80	78	83	80	78	77	83	80	78	77	76	75	74	73	72	72																		
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75	74	80	78	75	74	73	72	71	70	69	69																		
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72	78	75	73	72	71	70	69	68	68	68																		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	461699	461699	461699
5°	408120	409520	406048
10°	320774	321138	319781
15°	223292	223934	224094
20°	126680	127495	127938
25°	34141	51671	38416
30°	8457	11555	8692
35°	2519	5286	2708
40°	1012	1745	1012
45°	507	726	438
50°	316	316	166
55°	270	186	84
60°	213	97	97
65°	115	115	115
70°	142	142	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.9	30.3
10°-20°	608.0	49.2
20°-30°	226.0	18.3
30°-40°	22.4	1.8
40°-50°	3.8	0.3
50°-60°	1.0	0.1
60°-70°	0.5	0.0
70°-80°	0.1	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°	1207.9	97.7
0°-40°	1230.4	99.6
0°-60°	1235.1	100.0
0°-90°	1235.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4766	4766	4766	4766	4766	
5°	4197	4239	4211	4261	4176	372
15°	2226	2252	2233	2270	2234	602
25°	319	469	483	452	359	200
35°	21	27	45	28	23	17
45°	4	4	5	4	3	3
55°	2	1	1	1	0	1
65°	0	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4765.9	4765.9	4765.9	4765.9	4765.9
2.5°	4497.6	4521.6	4506.7	4546.6	4450.2
5°	4196.8	4238.9	4211.2	4260.7	4175.5
7.5°	3783.7	3827.3	3799.1	3847.0	3770.9
10°	3260.9	3293.3	3264.6	3310.9	3250.8
12.5°	2738.1	2770.5	2749.2	2791.8	2743.9
15°	2226.4	2251.5	2232.8	2269.6	2234.4
17.5°	1706.8	1730.8	1713.8	1743.6	1716.9
20°	1228.8	1249.5	1236.7	1261.8	1241.0
22.5°	762.9	818.3	827.3	829.5	769.3
25°	319.4	469.0	483.4	451.5	359.4
27.5°	131.5	172.5	230.0	181.5	138.4
30°	75.6	87.8	103.3	90.5	77.7
32.5°	37.8	49.0	67.6	51.6	39.9
35°	21.3	26.6	44.7	27.7	22.9
37.5°	12.8	15.4	22.4	16.0	13.3
40°	8.0	9.6	13.8	10.1	8.0
42.5°	5.3	6.4	8.5	6.4	5.3
45°	3.7	4.3	5.3	4.3	3.2
47.5°	2.7	2.7	3.2	2.7	2.1
50°	2.1	2.1	2.1	1.6	1.1
52.5°	1.6	1.6	1.6	1.1	1.1
55°	1.6	1.1	1.1	1.1	0.5
57.5°	1.1	1.1	1.1	0.5	0.5
60°	1.1	1.1	0.5	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.5	0.0	0.0	0.0
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)