

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: P182569

Luminaire Tested: **LDSQA4A28840D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182569
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: LDSQA4A28840D010TE LAR25NF 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3080.9 lumens
Efficiency: N/A
Efficacy: 69.2 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

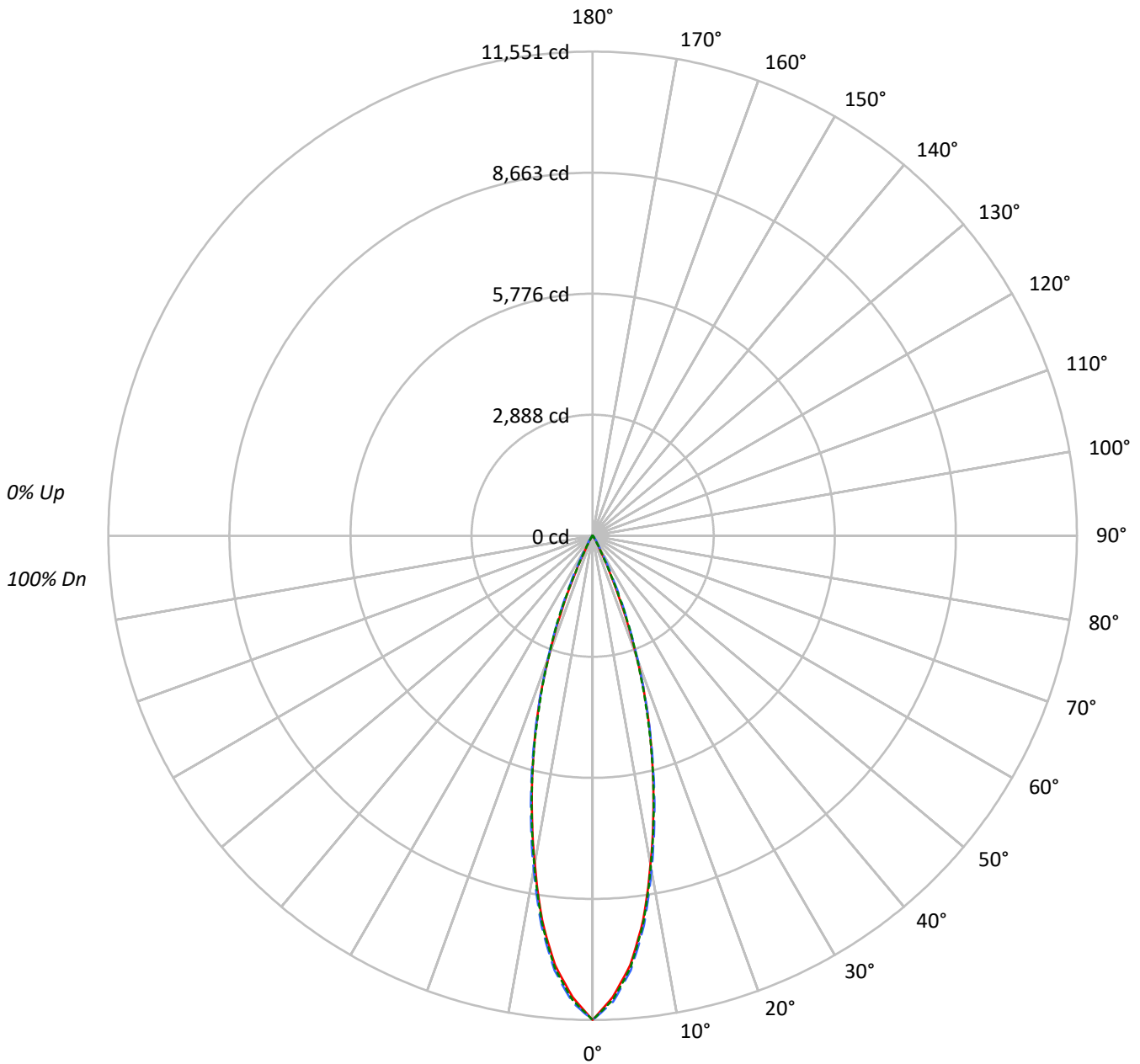
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1119037	1119037	1119037
5°	999401	1011975	1005693
10°	782316	796304	786556
15°	549364	553396	546335
20°	315299	321814	315010
25°	99814	131293	103031
30°	26511	32943	25549
35°	9000	16308	9177
40°	3996	6538	3996
45°	2165	2946	1767
50°	1296	1522	859
55°	726	726	490
60°	562	562	271
65°	321	321	321
70°	397	397	397
75°	0	524	524
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	916.2	29.7
10°-20°	1493.9	48.5
20°-30°	578.6	18.8
30°-40°	70.9	2.3
40°-50°	14.9	0.5
50°-60°	4.0	0.1
60°-70°	1.5	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°	2988.8	97.0
0°-40°	3059.7	99.3
0°-60°	3078.6	99.9
0°-90°	3080.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3080.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11551	11551	11551	11551	11551	
5°	10277	10426	10406	10343	10342	908
15°	5478	5551	5518	5478	5447	1486
25°	934	1169	1228	1207	964	524
35°	76	92	138	90	78	58
45°	16	17	22	16	13	13
55°	4	4	4	3	3	4
65°	1	1	1	1	1	2
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°	11551.3	11551.3	11551.3	11551.3	11551.3
2.5°	11011.2	11164.9	11129.0	11057.2	11075.8
5°	10277.1	10426.5	10406.4	10343.2	10341.8
7.5°	9241.4	9387.9	9370.6	9294.5	9287.3
10°	7952.8	8086.4	8095.0	7984.4	7995.9
12.5°	6694.3	6803.5	6807.8	6731.7	6715.9
15°	5477.6	5550.8	5517.8	5477.6	5447.4
17.5°	4278.1	4293.9	4286.7	4227.8	4206.2
20°	3058.4	3127.4	3121.6	3071.4	3055.6
22.5°	1904.9	2029.9	2087.3	2041.3	2065.8
25°	933.8	1169.4	1228.3	1206.7	963.9
27.5°	379.3	495.6	617.7	488.4	366.3
30°	237.0	258.6	294.5	248.5	228.4
32.5°	125.0	156.6	199.7	152.3	125.0
35°	76.1	91.9	137.9	90.5	77.6
37.5°	48.8	57.5	80.4	57.5	50.3
40°	31.6	37.4	51.7	37.4	31.6
42.5°	21.5	24.4	33.0	24.4	20.1
45°	15.8	17.2	21.5	15.8	12.9
47.5°	11.5	12.9	14.4	10.1	8.6
50°	8.6	8.6	10.1	7.2	5.7
52.5°	5.7	7.2	7.2	4.3	4.3
55°	4.3	4.3	4.3	2.9	2.9
57.5°	4.3	2.9	2.9	2.9	2.9
60°	2.9	2.9	2.9	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4
70°	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	1.4	0.0
75°	0.0	1.4	1.4	1.4	1.4
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)