

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: P182461

Luminaire Tested: **LDSQA4A09940D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182461
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: LDSQA4A09940D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1108.4 lumens
Efficiency: N/A
Efficacy: 80.1 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

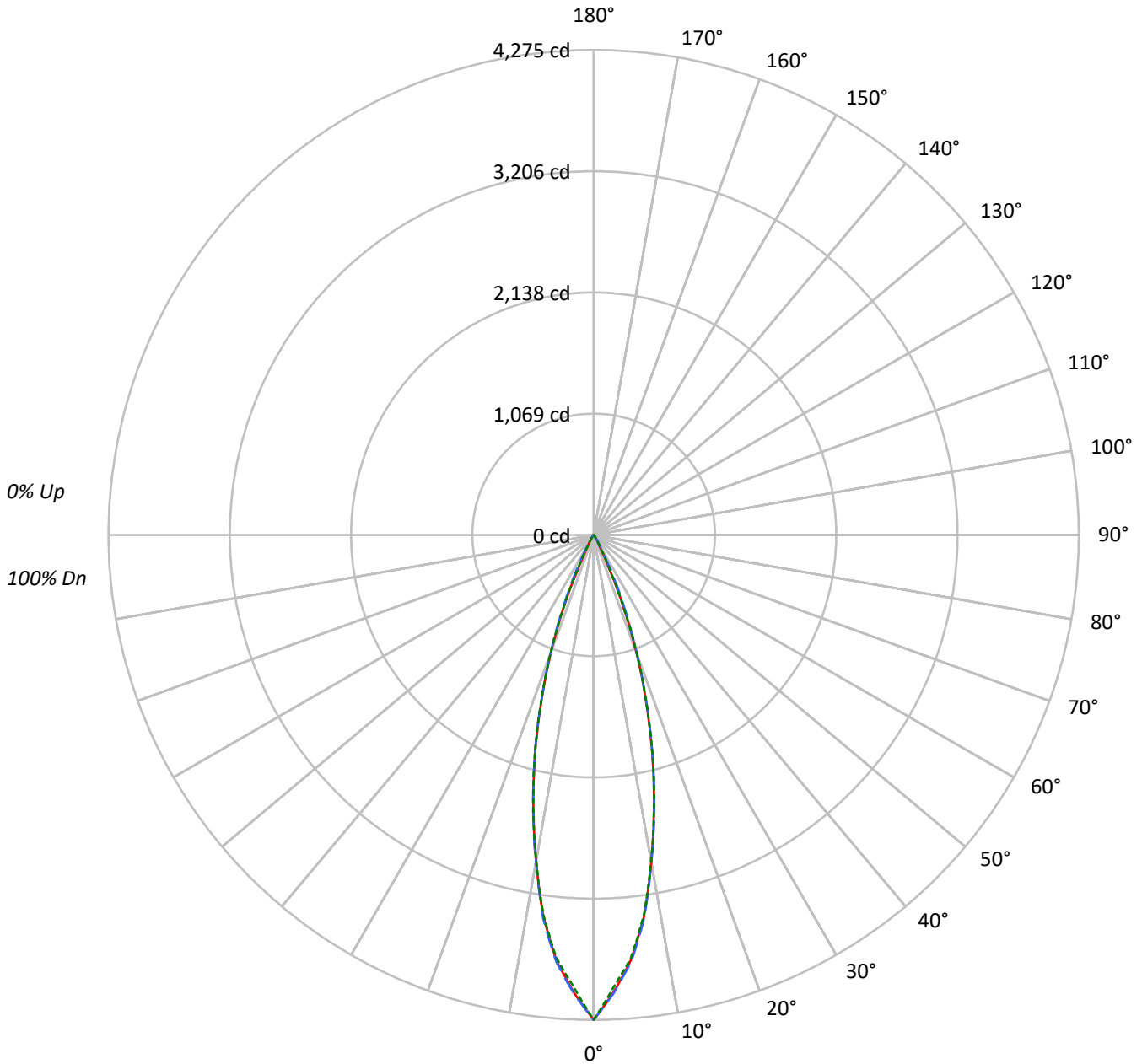
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	414113	414113	414113
5°	366051	367306	364194
10°	287712	288037	286817
15°	200285	200856	200997
20°	113618	114361	114752
25°	30624	46348	34451
30°	7584	10358	7797
35°	2259	4742	2424
40°	911	1568	911
45°	452	658	397
50°	286	286	151
55°	236	169	84
60°	194	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°	335.4	30.3
10°-20°	545.4	49.2
20°-30°	202.7	18.3
30°-40°	20.1	1.8
40°-50°	3.4	0.3
50°-60°	0.9	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°	1083.4	97.7
0°-40°	1103.5	99.6
0°-60°	1107.8	99.9
0°-90°	1108.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1108.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4275	4275	4275	4275	4275	
5°	3764	3802	3777	3822	3745	333
15°	1997	2019	2003	2036	2004	540
25°	286	421	434	405	322	179
35°	19	24	40	25	20	15
45°	3	4	5	4	3	3
55°	1	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°	4274.7	4274.7	4274.7	4274.7	4274.7
2.5°	4034.0	4055.5	4042.2	4078.0	3991.5
5°	3764.2	3802.0	3777.1	3821.5	3745.1
7.5°	3393.7	3432.8	3407.5	3450.5	3382.2
10°	2924.8	2953.9	2928.1	2969.7	2915.7
12.5°	2455.9	2485.0	2465.9	2504.1	2461.1
15°	1997.0	2019.4	2002.7	2035.6	2004.1
17.5°	1530.9	1552.4	1537.1	1563.9	1540.0
20°	1102.1	1120.7	1109.3	1131.7	1113.1
22.5°	684.3	733.9	742.1	744.0	690.0
25°	286.5	420.7	433.6	404.9	322.3
27.5°	117.9	154.7	206.3	162.8	124.2
30°	67.8	78.8	92.6	81.2	69.7
32.5°	33.9	43.9	60.6	46.3	35.8
35°	19.1	23.9	40.1	24.8	20.5
37.5°	11.5	13.8	20.1	14.3	11.9
40°	7.2	8.6	12.4	9.1	7.2
42.5°	4.8	5.7	7.6	5.7	4.8
45°	3.3	3.8	4.8	3.8	2.9
47.5°	2.4	2.4	2.9	2.4	1.9
50°	1.9	1.9	1.9	1.4	1.0
52.5°	1.4	1.4	1.4	1.0	1.0
55°	1.4	1.0	1.0	1.0	0.5
57.5°	1.0	1.0	1.0	0.5	0.5
60°	1.0	1.0	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)