

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: P182625

Luminaire Tested: **LDSQA4A13840D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26829)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13840D010TE LAR15SP 4LSQA1H-LSF-20
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT WITH SOLITE LENS
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1657.3 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 0.35 / 0.35 / 0.39
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

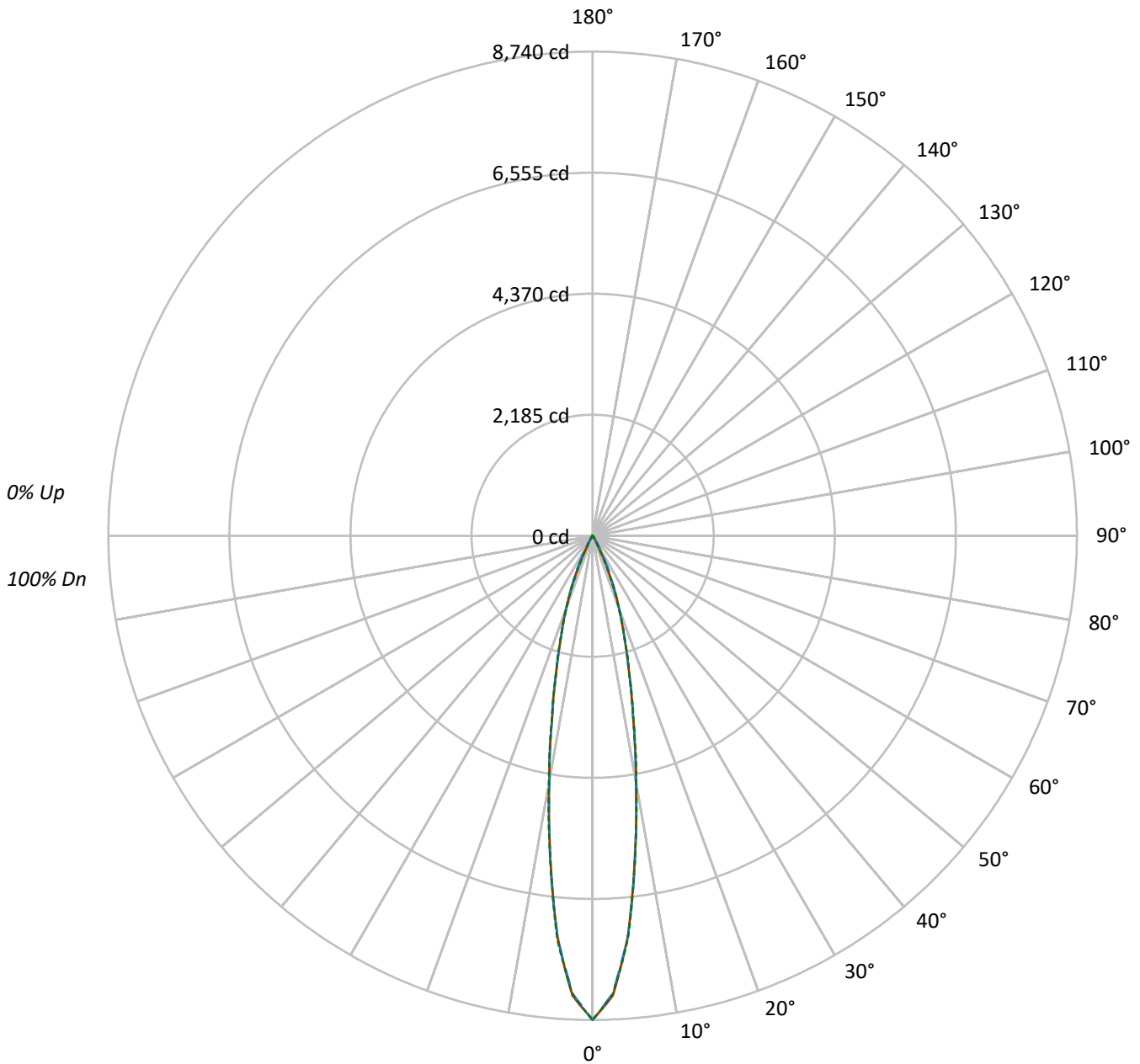
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	107	106	104	103	102	101	100	99	98	97	97	98	98	97															
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	98	96	95															
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	98	93	92															
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	93	91	89															
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85	85	91	88	86															
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	83	88	86	84															
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	80	86	83	81															
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78	78	84	81	79															
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	76	82	79	77															
10	89	82	78	76	88	82	78	76	81	78	76	81	78	75	80	77	75	74	74	80	77	75															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	846662	846662	846662
5°	706907	706907	710262
10°	442861	441868	446334
15°	252728	254162	254583
20°	143082	142649	142041
25°	53712	69457	54877
30°	11018	23256	11108
35°	4376	7569	4281
40°	2238	3301	2125
45°	1493	1726	1274
50°	889	889	633
55°	422	574	287
60°	329	329	155
65°	183	183	183
70°	227	227	227
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	603.9	36.4
10°-20°	718.2	43.3
20°-30°	286.4	17.3
30°-40°	36.1	2.2
40°-50°	8.9	0.5
50°-60°	2.6	0.2
60°-70°	0.9	0.1
70°-80°	0.3	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°	1608.5	97.1
0°-40°	1644.6	99.2
0°-60°	1656.1	99.9
0°-90°	1657.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1657.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8740	8740	8740	8740	8740	
5°	7269	7336	7269	7276	7304	602
15°	2520	2535	2534	2534	2538	716
25°	502	617	650	592	513	259
35°	37	45	64	43	36	27
45°	11	11	13	10	9	9
55°	2	2	3	2	2	3
65°	1	1	1	1	1	1
75°	0	1	0	0	0	0
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°	8739.7	8739.7	8739.7	8739.7	8739.7
2.5°	8310.5	8355.1	8269.2	8277.6	8288.6
5°	7269.3	7335.8	7269.3	7276.1	7303.8
7.5°	5849.5	5907.5	5869.7	5886.5	5856.2
10°	4502.0	4523.0	4491.9	4507.0	4537.3
12.5°	3385.1	3408.7	3386.0	3386.8	3400.3
15°	2519.9	2535.1	2534.2	2534.2	2538.4
17.5°	1881.9	1902.1	1880.2	1881.9	1887.0
20°	1387.9	1401.3	1383.7	1381.1	1377.8
22.5°	946.9	975.5	986.4	972.1	926.7
25°	502.5	616.9	649.8	591.7	513.4
27.5°	202.0	307.2	379.6	300.5	219.7
30°	98.5	133.8	207.9	137.2	99.3
32.5°	58.1	72.4	113.6	71.5	57.2
35°	37.0	44.6	64.0	42.9	36.2
37.5°	24.4	29.5	39.6	28.6	23.6
40°	17.7	20.2	26.1	19.4	16.8
42.5°	13.5	14.3	17.7	14.3	12.6
45°	10.9	10.9	12.6	10.1	9.3
47.5°	8.4	8.4	8.4	7.6	5.9
50°	5.9	5.9	5.9	5.0	4.2
52.5°	4.2	4.2	4.2	3.4	2.5
55°	2.5	2.5	3.4	2.5	1.7
57.5°	2.5	1.7	2.5	1.7	1.7
60°	1.7	1.7	1.7	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.8	0.0
75°	0.0	0.8	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)