

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: P182623

Luminaire Tested: **LDSQA4A13830D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182623
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: LDSQA4A13830D010TE 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1552.6 lumens
Efficiency: N/A
Efficacy: 69.7 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

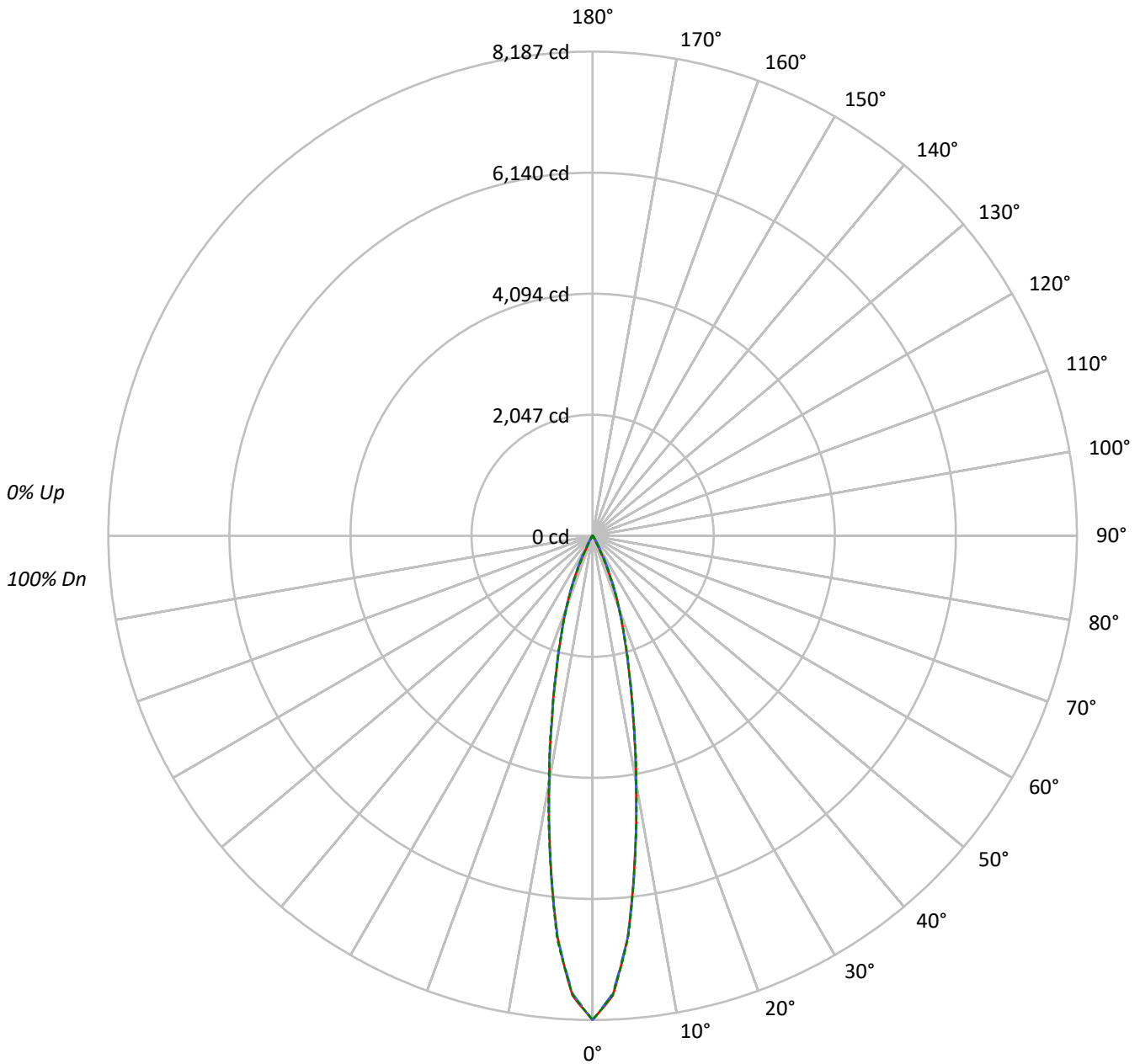
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	793090	793090	793090
5°	662183	662183	665324
10°	414836	413911	418102
15°	236741	238085	238476
20°	134031	133618	133051
25°	50313	65053	51404
30°	10314	21780	10403
35°	4104	7084	4009
40°	2099	3086	1998
45°	1397	1617	1192
50°	829	829	588
55°	405	540	270
60°	310	310	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°	565.7	36.4
10°-20°	672.8	43.3
20°-30°	268.2	17.3
30°-40°	33.8	2.2
40°-50°	8.3	0.5
50°-60°	2.5	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°	1506.7	97.0
0°-40°	1540.6	99.2
0°-60°	1551.4	99.9
0°-90°	1552.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1552.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8187	8187	8187	8187	8187	
5°	6809	6872	6809	6816	6842	564
15°	2360	2375	2374	2374	2378	671
25°	471	578	609	554	481	242
35°	35	42	60	40	34	25
45°	10	10	12	10	9	8
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°	8186.7	8186.7	8186.7	8186.7	8186.7
2.5°	7784.7	7826.4	7746.0	7753.9	7764.2
5°	6809.4	6871.7	6809.4	6815.7	6841.7
7.5°	5479.4	5533.8	5498.3	5514.1	5485.7
10°	4217.1	4236.9	4207.7	4221.9	4250.3
12.5°	3170.9	3193.0	3171.7	3172.5	3185.1
15°	2360.5	2374.7	2373.9	2373.9	2377.8
17.5°	1762.9	1781.8	1761.3	1762.9	1767.6
20°	1300.1	1312.7	1296.1	1293.8	1290.6
22.5°	886.9	913.8	924.0	910.6	868.0
25°	470.7	577.9	608.6	554.2	480.9
27.5°	189.2	287.8	355.6	281.5	205.8
30°	92.2	125.4	194.7	128.5	93.0
32.5°	54.4	67.8	106.4	67.0	53.6
35°	34.7	41.8	59.9	40.2	33.9
37.5°	22.9	27.6	37.1	26.8	22.1
40°	16.6	18.9	24.4	18.1	15.8
42.5°	12.6	13.4	16.6	13.4	11.8
45°	10.2	10.2	11.8	9.5	8.7
47.5°	7.9	7.9	7.9	7.1	5.5
50°	5.5	5.5	5.5	4.7	3.9
52.5°	3.9	3.9	3.9	3.2	2.4
55°	2.4	2.4	3.2	2.4	1.6
57.5°	2.4	1.6	2.4	1.6	1.6
60°	1.6	1.6	1.6	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)