

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: P182530

Luminaire Tested: **LDSQA4A13927D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13927D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1204.8 lumens
Efficiency: N/A
Efficacy: 54.1 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

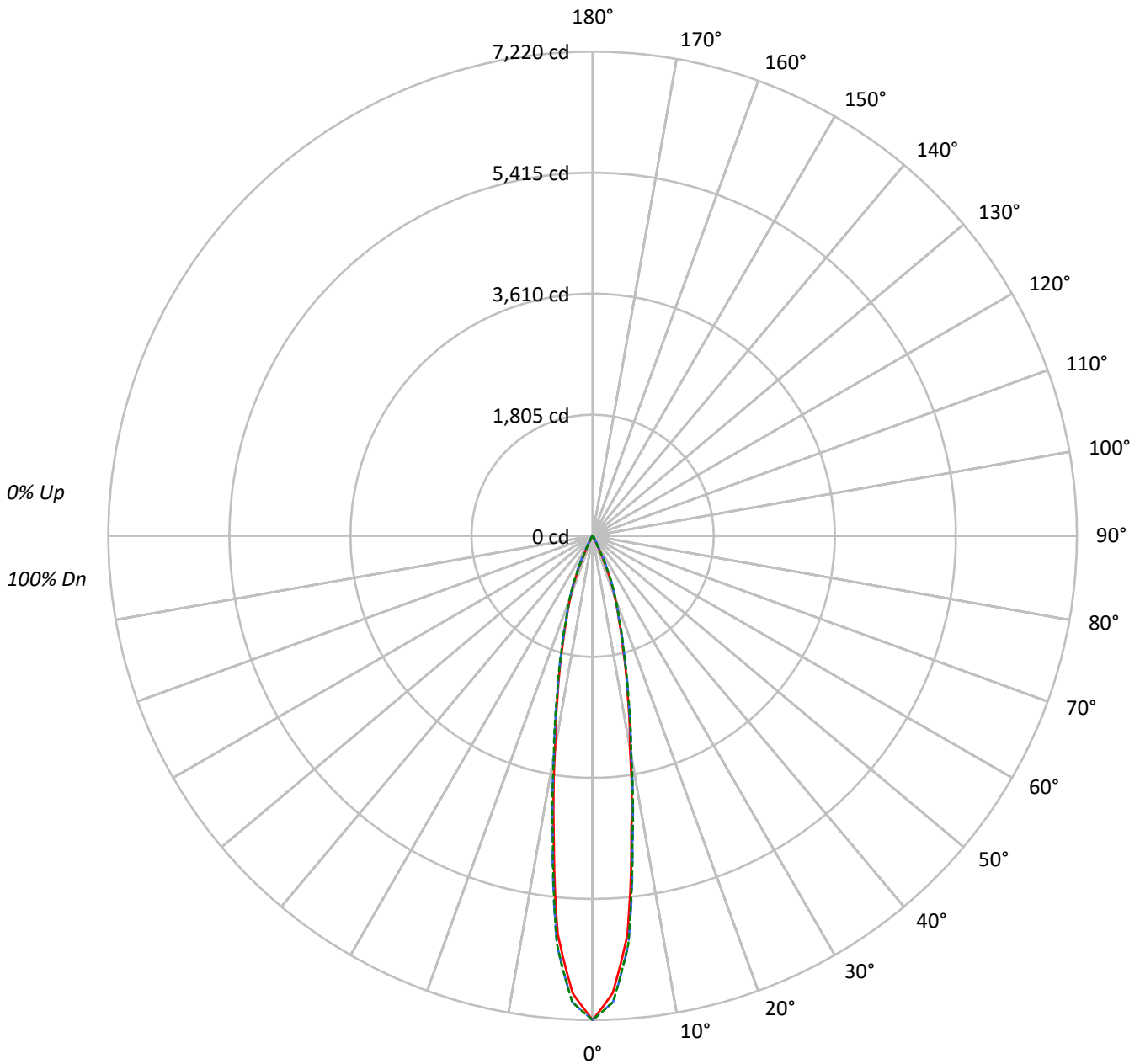
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97				97															
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94				94															
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91				91															
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89				89															
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86				86															
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84				84															
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82				82															
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80				80															
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78				78															
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76				76															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	699402	699402	699402
5°	580137	595152	594306
10°	316112	325447	327090
15°	175763	180798	181731
20°	99093	101907	103185
25°	29833	43943	29694
30°	5615	8043	5615
35°	2424	3737	2495
40°	1176	1960	1176
45°	767	1014	589
50°	467	558	286
55°	321	321	203
60°	233	116	116
65°	138	138	138
70°	0	170	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.7	39.9
10°-20°	512.4	42.5
20°-30°	186.9	15.5
30°-40°	17.8	1.5
40°-50°	4.9	0.4
50°-60°	1.5	0.1
60°-70°	0.6	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°	1179.9	97.9
0°-40°	1197.7	99.4
0°-60°	1204.1	99.9
0°-90°	1204.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1204.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7220	7220	7220	7220	7220	
5°	5966	6116	6120	6056	6111	471
15°	1752	1794	1803	1799	1812	501
25°	279	404	411	407	278	161
35°	20	25	32	25	21	15
45°	6	6	7	6	4	4
55°	2	2	2	1	1	2
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°	7219.6	7219.6	7219.6	7219.6	7219.6
2.5°	6825.8	6969.7	6959.1	6926.9	6959.1
5°	5965.7	6116.4	6120.1	6056.2	6111.4
7.5°	4434.6	4551.1	4571.6	4509.0	4550.5
10°	3213.5	3317.7	3308.4	3296.0	3325.1
12.5°	2400.5	2453.2	2447.7	2461.3	2463.2
15°	1752.5	1794.0	1802.7	1799.0	1812.0
17.5°	1290.5	1312.8	1308.5	1315.3	1320.3
20°	961.2	996.6	988.5	994.7	1000.9
22.5°	637.5	702.6	694.5	704.5	698.9
25°	279.1	403.7	411.1	407.4	277.8
27.5°	85.6	144.5	185.4	141.4	85.6
30°	50.2	60.2	71.9	58.9	50.2
32.5°	31.6	37.8	45.3	37.2	31.0
35°	20.5	24.8	31.6	24.8	21.1
37.5°	13.6	16.7	22.3	16.7	14.3
40°	9.3	11.2	15.5	11.8	9.3
42.5°	6.8	8.1	10.5	8.1	6.2
45°	5.6	5.6	7.4	5.6	4.3
47.5°	4.3	4.3	5.0	3.7	3.1
50°	3.1	3.1	3.7	2.5	1.9
52.5°	1.9	2.5	2.5	1.9	1.2
55°	1.9	1.9	1.9	1.2	1.2
57.5°	1.2	1.2	1.2	0.6	0.6
60°	1.2	1.2	0.6	0.6	0.6
62.5°	0.6	0.6	0.6	0.6	0.6
65°	0.6	0.6	0.6	0.6	0.6
67.5°	0.6	0.6	0.6	0.6	0.6
70°	0.0	0.6	0.6	0.0	0.0
72.5°	0.0	0.6	0.0	0.0	0.0
75°	0.0	0.6	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)