

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: P182525

Luminaire Tested: **LDSQA4A09940D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182525
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: LDSQA4A09940D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 927.9 lumens
Efficiency: N/A
Efficacy: 67.0 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

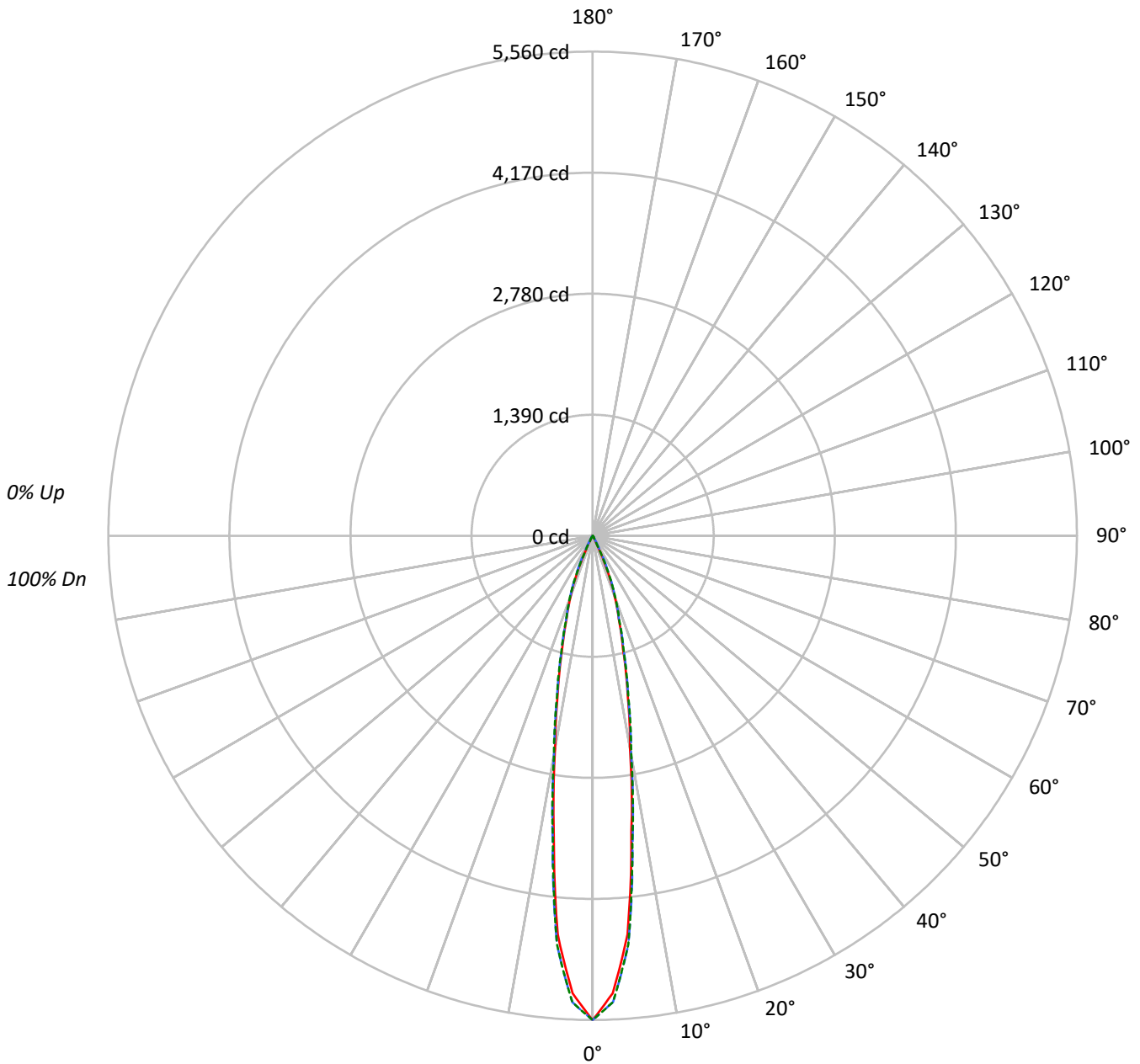
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94	94	94
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91	91
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86	86	86	86
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84	84	84	84
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82	82	82	82
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80	80	80	80
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	538647	538647	538647
5°	446794	458357	457715
10°	243456	250646	251915
15°	135365	139247	139959
20°	76320	78484	79464
25°	22971	33841	22875
30°	4329	6197	4329
35°	1869	2886	1916
40°	911	1505	911
45°	589	781	452
50°	362	437	211
55°	236	236	169
60°	194	97	97
65°	115	115	115
70°	0	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°	370.2	39.9
10°-20°	394.6	42.5
20°-30°	143.9	15.5
30°-40°	13.7	1.5
40°-50°	3.8	0.4
50°-60°	1.1	0.1
60°-70°	0.5	0.1
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°	908.7	97.9
0°-40°	922.4	99.4
0°-60°	927.3	99.9
0°-90°	927.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	927.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5560	5560	5560	5560	5560	
5°	4594	4711	4713	4664	4707	363
15°	1350	1382	1388	1386	1396	386
25°	215	311	317	314	214	124
35°	16	19	24	19	16	11
45°	4	4	6	4	3	3
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	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°	5560.2	5560.2	5560.2	5560.2	5560.2
2.5°	5257.0	5367.8	5359.6	5334.8	5359.6
5°	4594.5	4710.6	4713.4	4664.2	4706.8
7.5°	3415.3	3505.1	3520.9	3472.6	3504.6
10°	2474.9	2555.2	2548.0	2538.4	2560.9
12.5°	1848.8	1889.4	1885.1	1895.6	1897.0
15°	1349.7	1381.7	1388.4	1385.5	1395.5
17.5°	993.9	1011.1	1007.7	1013.0	1016.8
20°	740.3	767.5	761.3	766.1	770.8
22.5°	491.0	541.1	534.9	542.6	538.3
25°	214.9	310.9	316.6	313.8	214.0
27.5°	65.9	111.3	142.8	108.9	65.9
30°	38.7	46.3	55.4	45.4	38.7
32.5°	24.4	29.1	34.9	28.7	23.9
35°	15.8	19.1	24.4	19.1	16.2
37.5°	10.5	12.9	17.2	12.9	11.0
40°	7.2	8.6	11.9	9.1	7.2
42.5°	5.3	6.2	8.1	6.2	4.8
45°	4.3	4.3	5.7	4.3	3.3
47.5°	3.3	3.3	3.8	2.9	2.4
50°	2.4	2.4	2.9	1.9	1.4
52.5°	1.4	1.9	1.9	1.4	1.0
55°	1.4	1.4	1.4	1.0	1.0
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°	0.0	0.5	0.5	0.0	0.0
72.5°	0.0	0.5	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)