

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: P182423

Luminaire Tested: **LDSQA4A09830D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26794)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09830D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1113.8 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

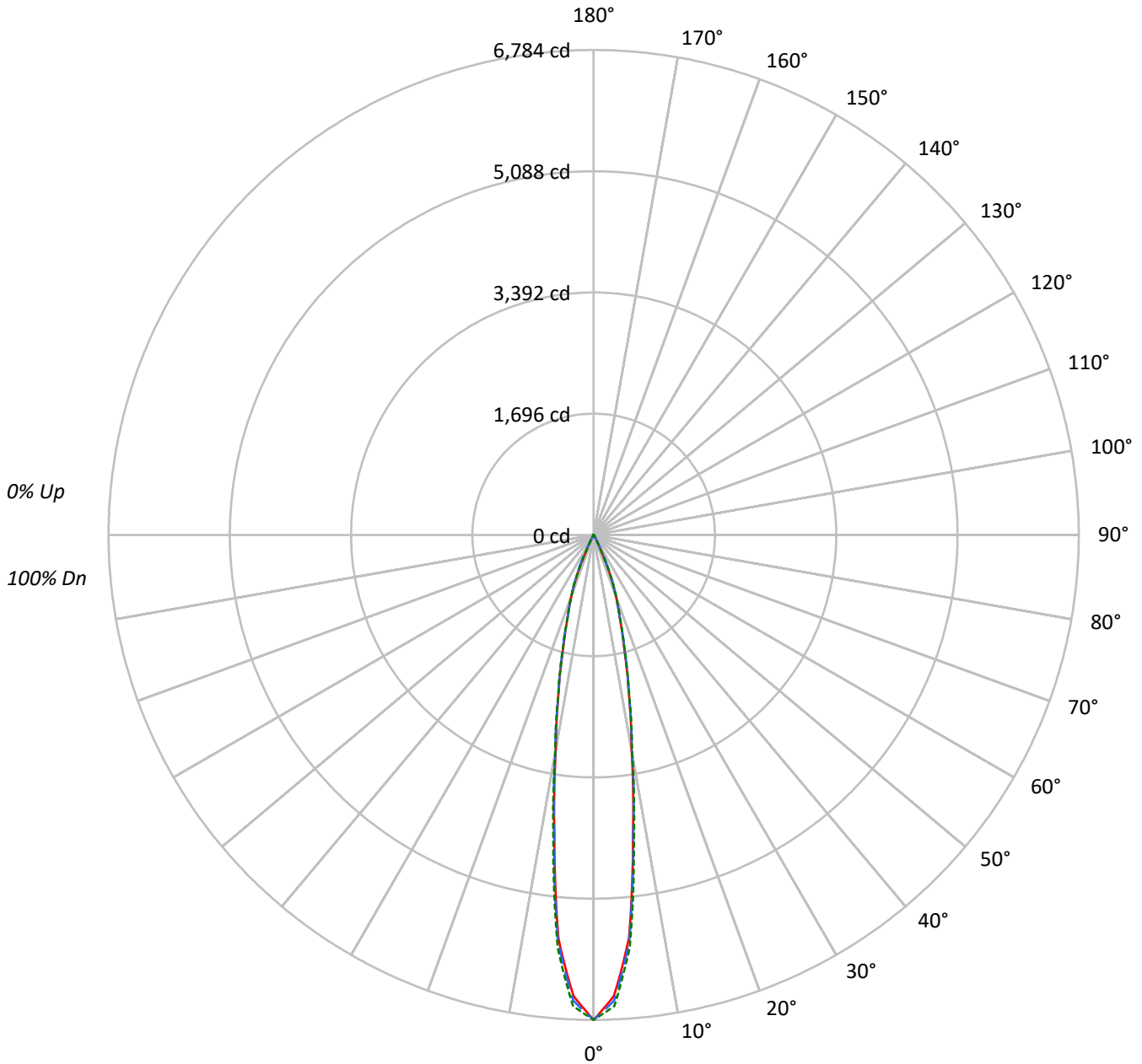
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	657251	657251	657251
5°	550886	555544	563625
10°	299704	304160	305311
15°	165734	168402	169044
20°	93845	94124	94670
25°	25611	40116	25151
30°	4105	6253	3993
35°	1384	2330	1325
40°	607	948	607
45°	370	438	288
50°	241	241	166
55°	186	186	84
60°	97	97	97
65°	115	115	115
70°	142	142	142
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.2	40.6
10°-20°	478.2	42.9
20°-30°	168.3	15.1
30°-40°	11.3	1.0
40°-50°	2.4	0.2
50°-60°	0.8	0.1
60°-70°	0.5	0.0
70°-80°	0.2	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°	1098.7	98.6
0°-40°	1110.0	99.7
0°-60°	1113.2	99.9
0°-90°	1113.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1113.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6784	6784	6784	6784	6784	
5°	5665	5750	5713	5724	5796	447
15°	1652	1680	1679	1675	1686	473
25°	240	364	375	358	235	148
35°	12	14	20	14	11	9
45°	3	3	3	3	2	2
55°	1	1	1	0	0	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°	6784.5	6784.5	6784.5	6784.5	6784.5
2.5°	6458.7	6543.3	6522.0	6508.2	6597.1
5°	5664.9	5750.1	5712.8	5723.5	5795.9
7.5°	4211.6	4283.4	4245.1	4261.1	4316.4
10°	3046.7	3118.1	3092.0	3100.5	3103.7
12.5°	2271.6	2303.0	2282.3	2288.1	2298.8
15°	1652.5	1680.1	1679.1	1675.4	1685.5
17.5°	1212.7	1226.0	1212.7	1212.2	1219.1
20°	910.3	929.0	913.0	915.1	918.3
22.5°	611.7	649.0	642.6	634.6	626.1
25°	239.6	363.6	375.3	357.8	235.3
27.5°	68.7	113.4	161.3	111.3	66.5
30°	36.7	43.7	55.9	42.6	35.7
32.5°	19.7	25.0	31.9	24.5	19.2
35°	11.7	14.4	19.7	14.4	11.2
37.5°	7.5	9.1	12.2	9.1	7.5
40°	4.8	5.9	7.5	5.9	4.8
42.5°	3.7	4.3	4.8	3.7	3.2
45°	2.7	2.7	3.2	2.7	2.1
47.5°	2.1	2.1	2.1	1.6	1.6
50°	1.6	1.6	1.6	1.1	1.1
52.5°	1.1	1.1	1.1	1.1	1.1
55°	1.1	1.1	1.1	0.5	0.5
57.5°	1.1	0.5	0.5	0.5	0.5
60°	0.5	0.5	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	0.0
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	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)