

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: P182422

Luminaire Tested: **LDSQA4A09827D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182422
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: LDSQA4A09827D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1091.3 lumens
Efficiency: N/A
Efficacy: 78.9 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

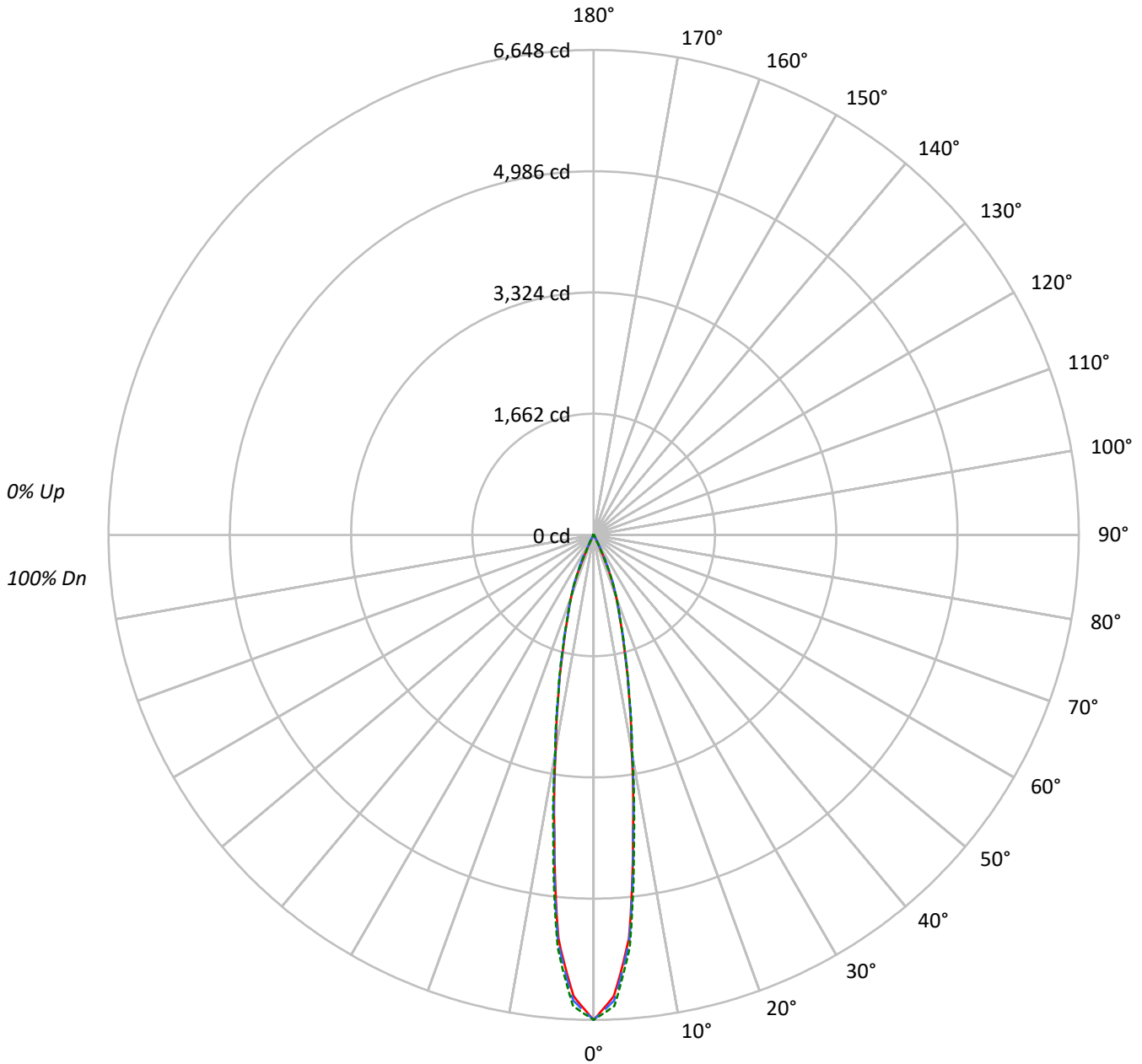
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182422

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P182422

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H

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	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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	643989	643989	643989
5°	539771	544341	552247
10°	293664	298021	299153
15°	162384	165002	165634
20°	91959	92227	92763
25°	25087	39304	24649
30°	4027	6130	3904
35°	1360	2282	1301
40°	594	923	594
45°	356	425	288
50°	241	241	151
55°	169	169	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



TEST NUMBER: P182422

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.1	40.6
10°-20°	468.6	42.9
20°-30°	164.9	15.1
30°-40°	11.1	1.0
40°-50°	2.3	0.2
50°-60°	0.7	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°	1076.5	98.6
0°-40°	1087.6	99.7
0°-60°	1090.7	99.9
0°-90°	1091.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6648	6648	6648	6648	6648	
5°	5551	5634	5598	5608	5679	438
15°	1619	1646	1645	1642	1652	464
25°	235	356	368	350	231	145
35°	12	14	19	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



TEST NUMBER: P182422

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6647.6	6647.6	6647.6	6647.6	6647.6
2.5°	6328.4	6411.3	6390.4	6376.9	6464.0
5°	5550.6	5634.1	5597.6	5608.0	5678.9
7.5°	4126.6	4197.0	4159.4	4175.1	4229.3
10°	2985.3	3055.2	3029.6	3037.9	3041.1
12.5°	2225.8	2256.6	2236.2	2241.9	2252.4
15°	1619.1	1646.3	1645.2	1641.6	1651.5
17.5°	1188.3	1201.3	1188.3	1187.7	1194.5
20°	892.0	910.2	894.6	896.7	899.8
22.5°	599.3	635.9	629.6	621.8	613.4
25°	234.7	356.3	367.7	350.5	230.6
27.5°	67.3	111.1	158.1	109.0	65.2
30°	36.0	42.8	54.8	41.7	34.9
32.5°	19.3	24.5	31.3	24.0	18.8
35°	11.5	14.1	19.3	14.1	11.0
37.5°	7.3	8.9	12.0	8.9	7.3
40°	4.7	5.7	7.3	5.7	4.7
42.5°	3.7	4.2	4.7	3.7	3.1
45°	2.6	2.6	3.1	2.6	2.1
47.5°	2.1	2.1	2.1	1.6	1.6
50°	1.6	1.6	1.6	1.0	1.0
52.5°	1.0	1.0	1.0	1.0	1.0
55°	1.0	1.0	1.0	0.5	0.5
57.5°	1.0	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)