

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: P182439

Luminaire Tested: **LDSQA4A28830D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182439
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: LDSQA4A28830D010TE 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: 2814.6 lumens
Efficiency: N/A
Efficacy: 63.3 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

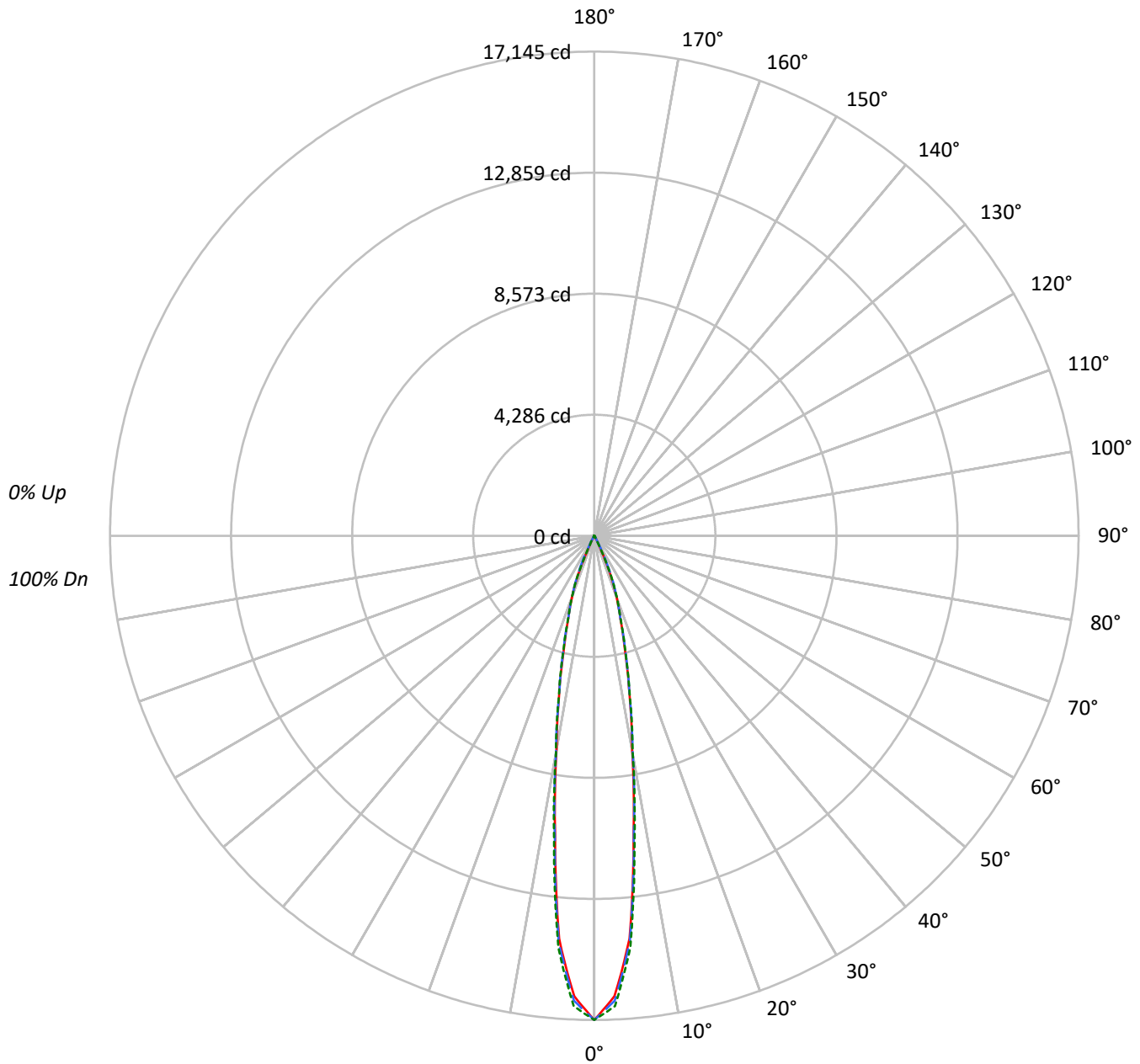
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182439

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P182439

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97		
2	112	108	105	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94		
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	92		
4	105	100	97	94	104	99	96	93	97	95	92	96	93	91	94	92	90	89		
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87		
6	100	94	90	87	99	93	90	87	92	89	87	91	88	86	90	87	86	85		
7	97	91	88	85	96	91	87	85	90	87	84	89	86	84	88	85	83	82		
8	95	89	85	82	94	88	85	82	88	84	82	87	84	82	86	83	81	80		
9	93	87	83	80	92	86	83	80	85	82	80	85	82	80	84	81	79	79		
10	91	84	81	78	90	84	81	78	83	80	78	83	80	78	82	80	78	77		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1660890	1660890	1660890
5°	1392108	1403884	1424286
10°	757369	768613	771525
15°	418803	425552	427167
20°	237165	237855	239237
25°	64711	101375	63557
30°	10381	15806	10079
35°	3501	5890	3347
40°	1530	2377	1530
45°	918	1110	740
50°	603	603	407
55°	456	456	220
60°	252	252	252
65°	298	298	298
70°	368	368	368
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P182439

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1142.8	40.6
10°-20°	1208.5	42.9
20°-30°	425.2	15.1
30°-40°	28.6	1.0
40°-50°	5.9	0.2
50°-60°	1.9	0.1
60°-70°	1.2	0.0
70°-80°	0.5	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°	2776.4	98.6
0°-40°	2805.0	99.7
0°-60°	2812.9	99.9
0°-90°	2814.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2814.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17145	17145	17145	17145	17145	
5°	14315	14531	14436	14463	14646	1130
15°	4176	4246	4243	4234	4259	1197
25°	605	919	948	904	595	375
35°	30	36	50	36	28	23
45°	7	7	8	7	5	6
55°	3	3	3	1	1	2
65°	1	1	1	1	1	1
75°	0	1	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P182439

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	17144.6	17144.6	17144.6	17144.6	17144.6
2.5°	16321.2	16535.1	16481.3	16446.3	16671.0
5°	14315.4	14530.6	14436.5	14463.4	14646.3
7.5°	10642.7	10824.3	10727.5	10767.8	10907.7
10°	7699.2	7879.4	7813.5	7835.1	7843.1
12.5°	5740.4	5819.8	5767.3	5782.1	5809.0
15°	4175.8	4245.8	4243.1	4233.7	4259.2
17.5°	3064.6	3098.2	3064.6	3063.3	3080.7
20°	2300.5	2347.6	2307.2	2312.6	2320.6
22.5°	1545.8	1639.9	1623.8	1603.6	1582.1
25°	605.4	918.8	948.4	904.0	594.6
27.5°	173.5	286.5	407.6	281.2	168.2
30°	92.8	110.3	141.3	107.6	90.1
32.5°	49.8	63.2	80.7	61.9	48.4
35°	29.6	36.3	49.8	36.3	28.3
37.5°	18.8	22.9	30.9	22.9	18.8
40°	12.1	14.8	18.8	14.8	12.1
42.5°	9.4	10.8	12.1	9.4	8.1
45°	6.7	6.7	8.1	6.7	5.4
47.5°	5.4	5.4	5.4	4.0	4.0
50°	4.0	4.0	4.0	2.7	2.7
52.5°	2.7	2.7	2.7	2.7	2.7
55°	2.7	2.7	2.7	1.3	1.3
57.5°	2.7	1.3	1.3	1.3	1.3
60°	1.3	1.3	1.3	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	1.3	1.3	1.3	1.3	1.3
67.5°	1.3	1.3	1.3	1.3	0.0
70°	1.3	1.3	1.3	1.3	1.3
72.5°	1.3	1.3	1.3	0.0	0.0
75°	0.0	1.3	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)