

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: P182456

Luminaire Tested: **LDSQA4A09835D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26785)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09835D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1258.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.49
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

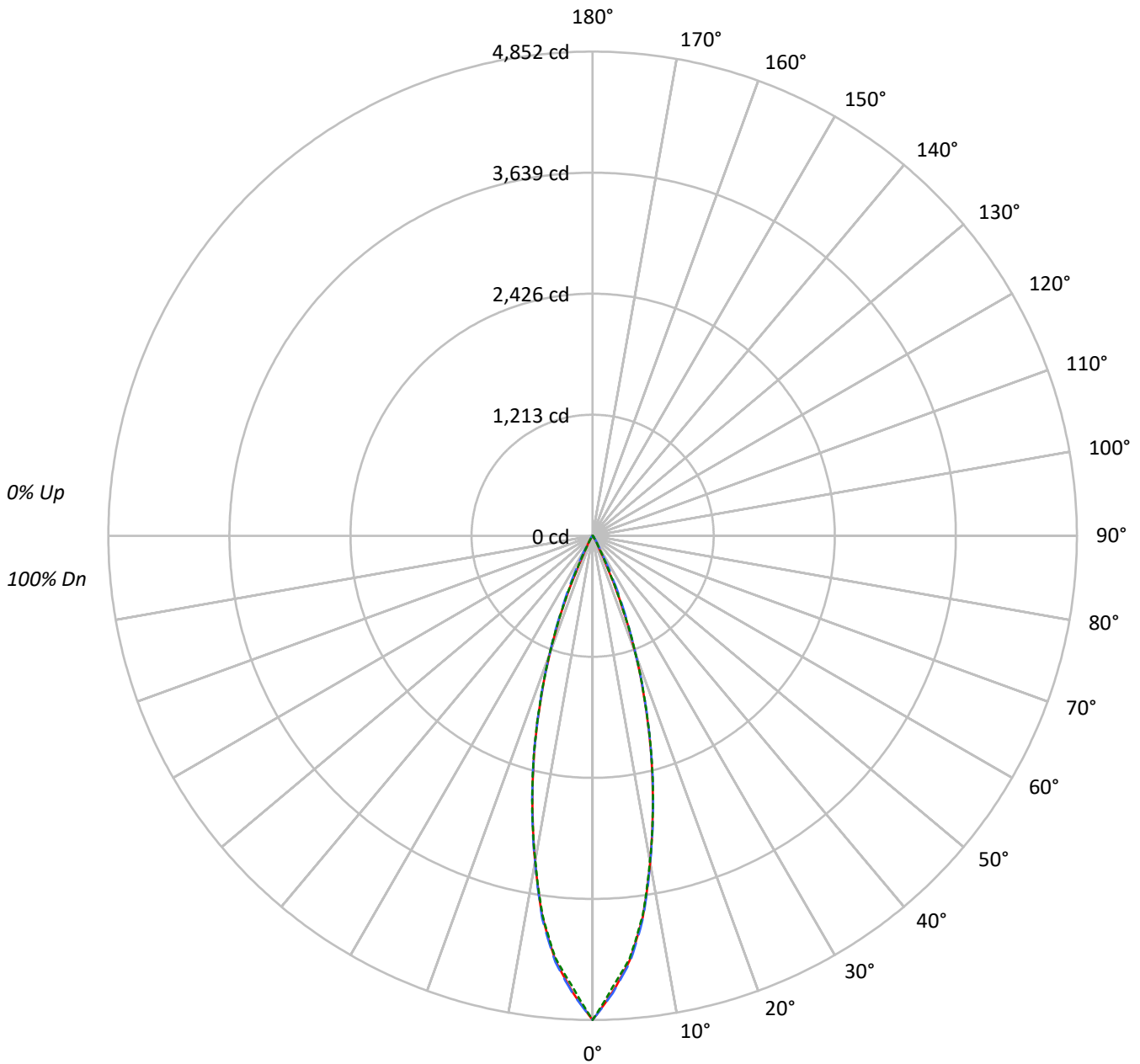
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182456

CATALOG NUMBER: LDSQA4A09835D010TE LAR25NF 4LSQA1H

Luminous Intensity Polar Plot





TEST NUMBER: P182456

CATALOG NUMBER: LDSQA4A09835D010TE LAR25NF 4LSQA1H

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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	97	97	96	95	93															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93	95	93	91	90															
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	95	93	91	90															
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87	92	90	88	87															
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84	90	87	85	84															
6	98	92	88	84	97	91	87	84	90	86	84	88	85	83	87	85	83	82	87	85	83	82															
7	95	89	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	85	82	80	79															
8	92	86	82	79	91	85	81	79	84	81	78	84	80	78	83	80	78	77	83	80	78	77															
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75	74	80	78	75	74															
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72	78	75	73	72															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	470001	470001	470001
5°	415462	416882	413352
10°	326539	326913	325526
15°	227314	227966	228126
20°	128948	129794	130237
25°	34761	52601	39100
30°	8613	11757	8848
35°	2566	5381	2756
40°	1024	1783	1024
45°	521	740	452
50°	332	332	166
55°	270	186	84
60°	213	97	97
65°	115	115	115
70°	142	142	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P182456

CATALOG NUMBER: LDSQA4A09835D010TE LAR25NF 4LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.6	30.3
10°-20°	619.0	49.2
20°-30°	230.1	18.3
30°-40°	22.8	1.8
40°-50°	3.8	0.3
50°-60°	1.0	0.1
60°-70°	0.5	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°	1229.6	97.7
0°-40°	1252.5	99.6
0°-60°	1257.3	100.0
0°-90°	1258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1258.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4852	4852	4852	4852	4852	
5°	4272	4315	4287	4337	4251	378
15°	2266	2292	2273	2310	2275	613
25°	325	478	492	460	366	203
35°	22	27	46	28	23	17
45°	4	4	5	4	3	3
55°	2	1	1	1	0	1
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P182456

CATALOG NUMBER: LDSQA4A09835D010TE LAR25NF 4LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4851.6	4851.6	4851.6	4851.6	4851.6
2.5°	4578.5	4602.9	4587.7	4628.3	4530.3
5°	4272.3	4315.1	4286.9	4337.3	4250.6
7.5°	3851.7	3896.2	3867.4	3916.2	3838.7
10°	3319.5	3352.6	3323.3	3370.5	3309.2
12.5°	2787.3	2820.4	2798.7	2842.0	2793.3
15°	2266.5	2292.0	2273.0	2310.4	2274.6
17.5°	1737.5	1761.9	1744.6	1774.9	1747.8
20°	1250.8	1272.0	1259.0	1284.4	1263.3
22.5°	776.6	833.0	842.2	844.4	783.1
25°	325.2	477.5	492.1	459.6	365.8
27.5°	133.9	175.6	234.1	184.8	140.9
30°	77.0	89.4	105.1	92.1	79.1
32.5°	38.5	49.9	68.8	52.6	40.6
35°	21.7	27.1	45.5	28.2	23.3
37.5°	13.0	15.7	22.8	16.3	13.5
40°	8.1	9.8	14.1	10.3	8.1
42.5°	5.4	6.5	8.7	6.5	5.4
45°	3.8	4.3	5.4	4.3	3.3
47.5°	2.7	2.7	3.3	2.7	2.2
50°	2.2	2.2	2.2	1.6	1.1
52.5°	1.6	1.6	1.6	1.1	1.1
55°	1.6	1.1	1.1	1.1	0.5
57.5°	1.1	1.1	1.1	0.5	0.5
60°	1.1	1.1	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°	0.5	0.5	0.5	0.5	0.0
72.5°	0.0	0.0	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



Report Generated By E9808895 / USPTCWHP6082093





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







(END OF REPORT)