

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: P182521

Luminaire Tested: **LDSQA4A09840D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182521
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: LDSQA4A09840D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1104.4 lumens
Efficiency: N/A
Efficacy: 79.8 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

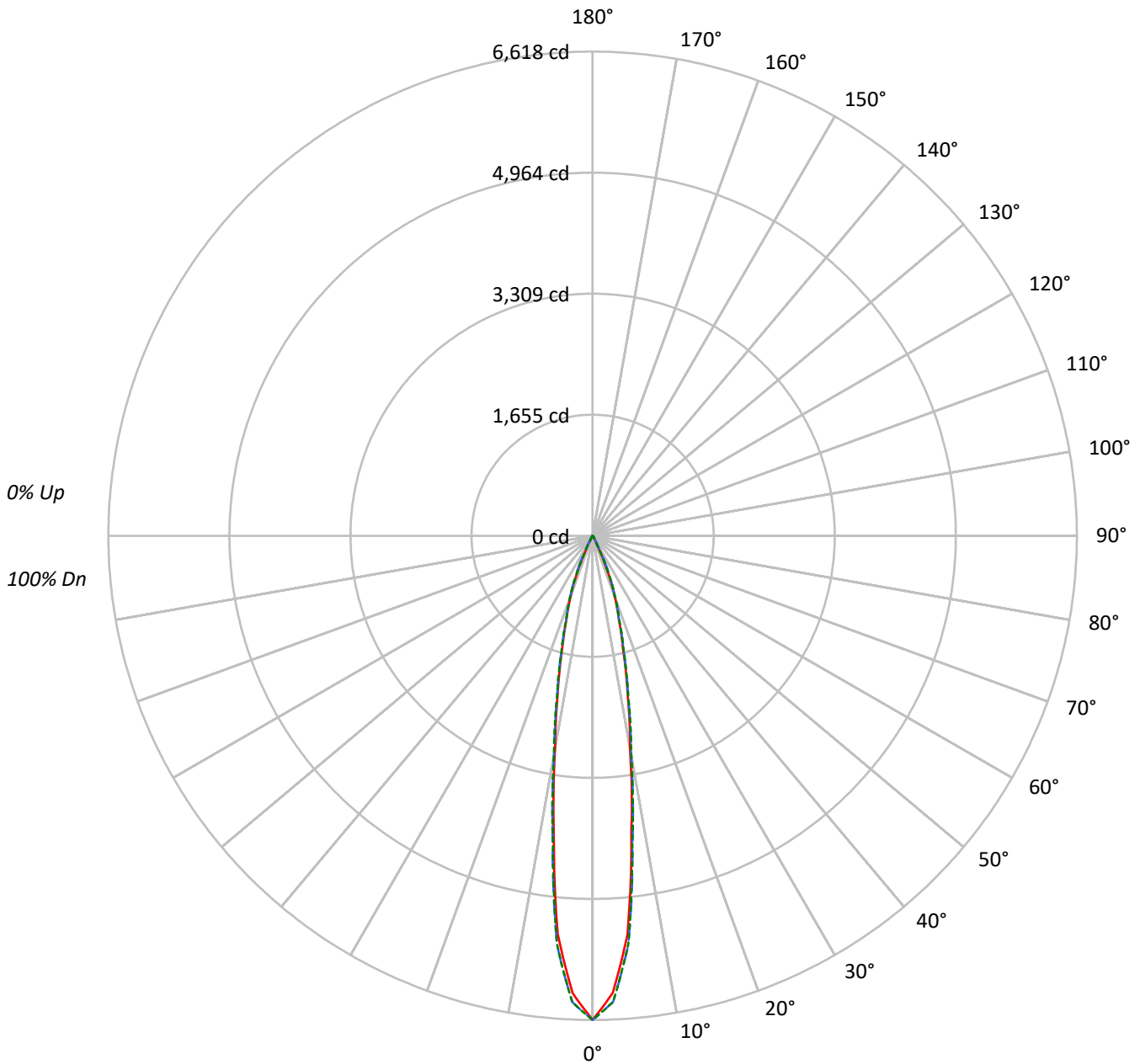
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	641112	641112	641112
5°	531787	545547	544779
10°	289768	298326	299831
15°	161110	165734	166586
20°	90835	93412	94588
25°	27343	40287	27225
30°	5146	7372	5146
35°	2223	3430	2282
40°	1075	1796	1075
45°	699	932	548
50°	422	512	256
55°	287	287	186
60°	213	116	116
65°	138	138	138
70°	0	170	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.6	39.9
10°-20°	469.7	42.5
20°-30°	171.3	15.5
30°-40°	16.3	1.5
40°-50°	4.5	0.4
50°-60°	1.3	0.1
60°-70°	0.6	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°	1081.6	97.9
0°-40°	1097.9	99.4
0°-60°	1103.7	99.9
0°-90°	1104.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1104.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6618	6618	6618	6618	6618	
5°	5468	5607	5610	5552	5602	432
15°	1606	1644	1652	1649	1661	460
25°	256	370	377	374	255	148
35°	19	23	29	23	19	13
45°	5	5	7	5	4	4
55°	2	2	2	1	1	1
65°	1	1	1	1	1	1
75°	0	1	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°	6617.9	6617.9	6617.9	6617.9	6617.9
2.5°	6256.9	6388.8	6379.1	6349.6	6379.1
5°	5468.5	5606.6	5610.0	5551.5	5602.1
7.5°	4065.0	4171.9	4190.6	4133.2	4171.3
10°	2945.7	3041.2	3032.7	3021.3	3048.0
12.5°	2200.5	2248.8	2243.7	2256.2	2257.9
15°	1606.4	1644.5	1652.5	1649.1	1661.0
17.5°	1182.9	1203.4	1199.4	1205.7	1210.2
20°	881.1	913.5	906.1	911.8	917.5
22.5°	584.4	644.1	636.7	645.8	640.6
25°	255.8	370.1	376.9	373.5	254.7
27.5°	78.4	132.4	170.0	129.6	78.4
30°	46.0	55.1	65.9	54.0	46.0
32.5°	29.0	34.7	41.5	34.1	28.4
35°	18.8	22.7	29.0	22.7	19.3
37.5°	12.5	15.3	20.5	15.3	13.1
40°	8.5	10.2	14.2	10.8	8.5
42.5°	6.3	7.4	9.7	7.4	5.7
45°	5.1	5.1	6.8	5.1	4.0
47.5°	4.0	4.0	4.5	3.4	2.8
50°	2.8	2.8	3.4	2.3	1.7
52.5°	1.7	2.3	2.3	1.7	1.1
55°	1.7	1.7	1.7	1.1	1.1
57.5°	1.1	1.1	1.1	0.6	0.6
60°	1.1	1.1	0.6	0.6	0.6
62.5°	0.6	0.6	0.6	0.6	0.6
65°	0.6	0.6	0.6	0.6	0.6
67.5°	0.6	0.6	0.6	0.6	0.6
70°	0.0	0.6	0.6	0.0	0.0
72.5°	0.0	0.6	0.0	0.0	0.0
75°	0.0	0.6	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)