

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: P182630

Luminaire Tested: **LDSQA4A28827D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26829)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28827D010TE LAR15SP 4LSQA1H-LSF-20
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT WITH SOLITE LENS
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2595.8 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 0.35 / 0.35 / 0.39
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

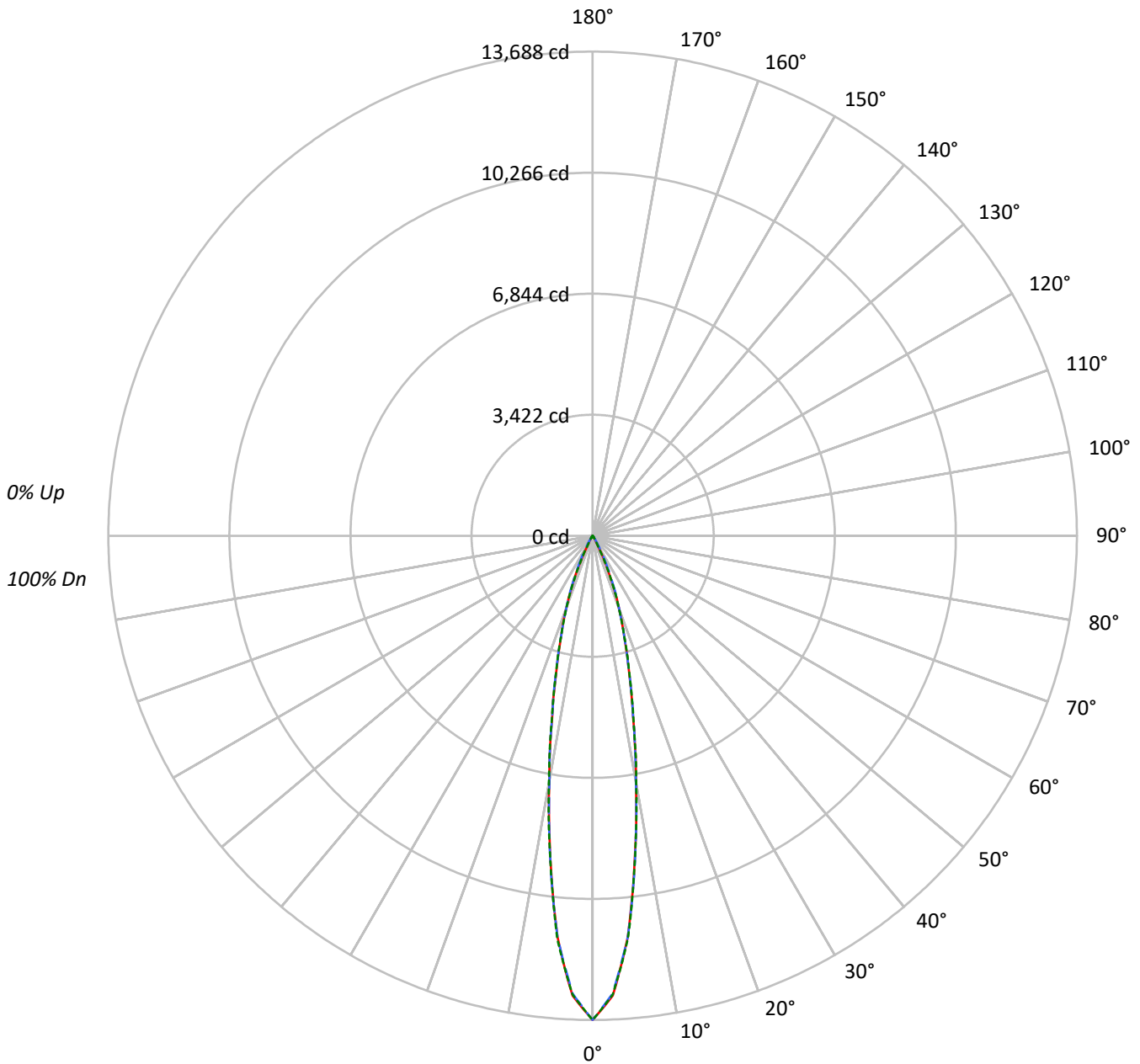
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1326021	1326021	1326021
5°	1107149	1107149	1112401
10°	693596	692042	699046
15°	395816	398062	398724
20°	224093	223412	222453
25°	84112	108771	85950
30°	17249	36422	17395
35°	6859	11850	6706
40°	3503	5172	3339
45°	2343	2713	1987
50°	1387	1387	995
55°	676	895	439
60°	504	504	252
65°	298	298	298
70°	368	368	368
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	945.8	36.4
10°-20°	1124.9	43.3
20°-30°	448.5	17.3
30°-40°	56.6	2.2
40°-50°	13.9	0.5
50°-60°	4.1	0.2
60°-70°	1.4	0.1
70°-80°	0.6	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°	2519.2	97.1
0°-40°	2575.8	99.2
0°-60°	2593.8	99.9
0°-90°	2595.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2595.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13688	13688	13688	13688	13688	
5°	11385	11489	11385	11396	11439	943
15°	3947	3970	3969	3969	3976	1122
25°	787	966	1018	927	804	405
35°	58	70	100	67	57	42
45°	17	17	20	16	14	13
55°	4	4	5	4	3	5
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13687.9	13687.9	13687.9	13687.9	13687.9
2.5°	13015.6	13085.5	12951.0	12964.2	12981.4
5°	11385.1	11489.2	11385.1	11395.6	11439.1
7.5°	9161.3	9252.2	9192.9	9219.3	9171.8
10°	7050.9	7083.9	7035.1	7058.8	7106.3
12.5°	5301.7	5338.6	5303.0	5304.3	5325.4
15°	3946.6	3970.3	3969.0	3969.0	3975.6
17.5°	2947.4	2979.1	2944.8	2947.4	2955.3
20°	2173.7	2194.8	2167.1	2163.1	2157.8
22.5°	1482.9	1527.8	1544.9	1522.5	1451.3
25°	786.9	966.2	1017.6	926.7	804.1
27.5°	316.4	481.1	594.5	470.6	344.0
30°	154.2	209.6	325.6	214.9	155.5
32.5°	91.0	113.4	178.0	112.0	89.6
35°	58.0	69.9	100.2	67.2	56.7
37.5°	38.2	46.1	62.0	44.8	36.9
40°	27.7	31.6	40.9	30.3	26.4
42.5°	21.1	22.4	27.7	22.4	19.8
45°	17.1	17.1	19.8	15.8	14.5
47.5°	13.2	13.2	13.2	11.9	9.2
50°	9.2	9.2	9.2	7.9	6.6
52.5°	6.6	6.6	6.6	5.3	4.0
55°	4.0	4.0	5.3	4.0	2.6
57.5°	4.0	2.6	4.0	2.6	2.6
60°	2.6	2.6	2.6	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	1.3
70°	1.3	1.3	1.3	1.3	1.3
72.5°	1.3	1.3	1.3	1.3	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



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







(END OF REPORT)