

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: P182622

Luminaire Tested: **LDSQA4A13827D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182622
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: LDSQA4A13827D010TE 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: 1521.2 lumens
Efficiency: N/A
Efficacy: 68.3 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

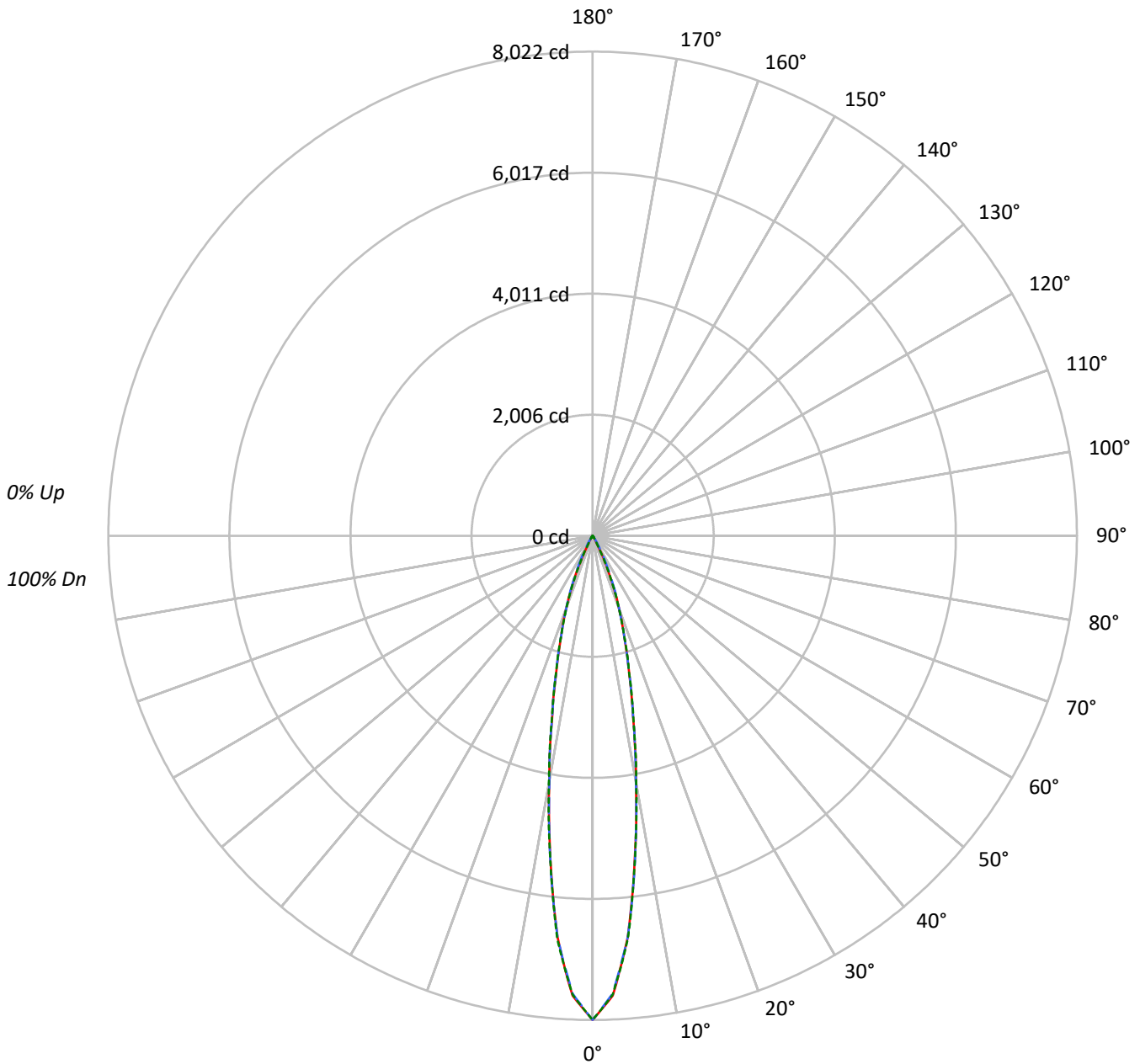
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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																			
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97	97																		
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94																			
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91																			
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88																			
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85																			
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83																			
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80																			
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78																			
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76																			
10	89	82	78	76	88	82	78	76	81	78	75	81	78	75	80	77	75	74																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	777096	777096	777096
5°	648822	648822	651905
10°	406474	405559	409661
15°	231957	233281	233662
20°	131319	130928	130371
25°	49298	63749	50367
30°	10112	21343	10202
35°	4021	6942	3926
40°	2049	3022	1948
45°	1370	1589	1165
50°	814	814	588
55°	388	524	253
60°	291	291	155
65°	183	183	183
70°	227	227	227
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	554.3	36.4
10°-20°	659.2	43.3
20°-30°	262.8	17.3
30°-40°	33.1	2.2
40°-50°	8.2	0.5
50°-60°	2.4	0.2
60°-70°	0.8	0.1
70°-80°	0.3	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°	1476.3	97.0
0°-40°	1509.5	99.2
0°-60°	1520.0	99.9
0°-90°	1521.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1521.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8022	8022	8022	8022	8022	
5°	6672	6733	6672	6678	6704	553
15°	2313	2327	2326	2326	2330	657
25°	461	566	596	543	471	237
35°	34	41	59	39	33	25
45°	10	10	12	9	8	8
55°	2	2	3	2	2	3
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°	8021.6	8021.6	8021.6	8021.6	8021.6
2.5°	7627.6	7668.5	7589.7	7597.5	7607.5
5°	6672.0	6733.0	6672.0	6678.2	6703.7
7.5°	5368.8	5422.1	5387.4	5402.8	5375.0
10°	4132.1	4151.4	4122.8	4136.7	4164.5
12.5°	3107.0	3128.6	3107.7	3108.5	3120.9
15°	2312.8	2326.7	2326.0	2326.0	2329.8
17.5°	1727.3	1745.8	1725.7	1727.3	1731.9
20°	1273.8	1286.2	1270.0	1267.7	1264.6
22.5°	869.1	895.3	905.4	892.2	850.5
25°	461.2	566.2	596.4	543.1	471.2
27.5°	185.4	282.0	348.4	275.8	201.6
30°	90.4	122.8	190.8	125.9	91.2
32.5°	53.3	66.4	104.3	65.7	52.5
35°	34.0	40.9	58.7	39.4	33.2
37.5°	22.4	27.0	36.3	26.3	21.6
40°	16.2	18.5	23.9	17.8	15.4
42.5°	12.4	13.1	16.2	13.1	11.6
45°	10.0	10.0	11.6	9.3	8.5
47.5°	7.7	7.7	7.7	7.0	5.4
50°	5.4	5.4	5.4	4.6	3.9
52.5°	3.9	3.9	3.9	3.1	2.3
55°	2.3	2.3	3.1	2.3	1.5
57.5°	2.3	1.5	2.3	1.5	1.5
60°	1.5	1.5	1.5	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.8	0.0
75°	0.0	0.8	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)