

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: P182632

Luminaire Tested: **LDSQA4A28835D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182632
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: LDSQA4A28835D010TE 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2696.9 lumens
Efficiency: N/A
Efficacy: 60.6 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

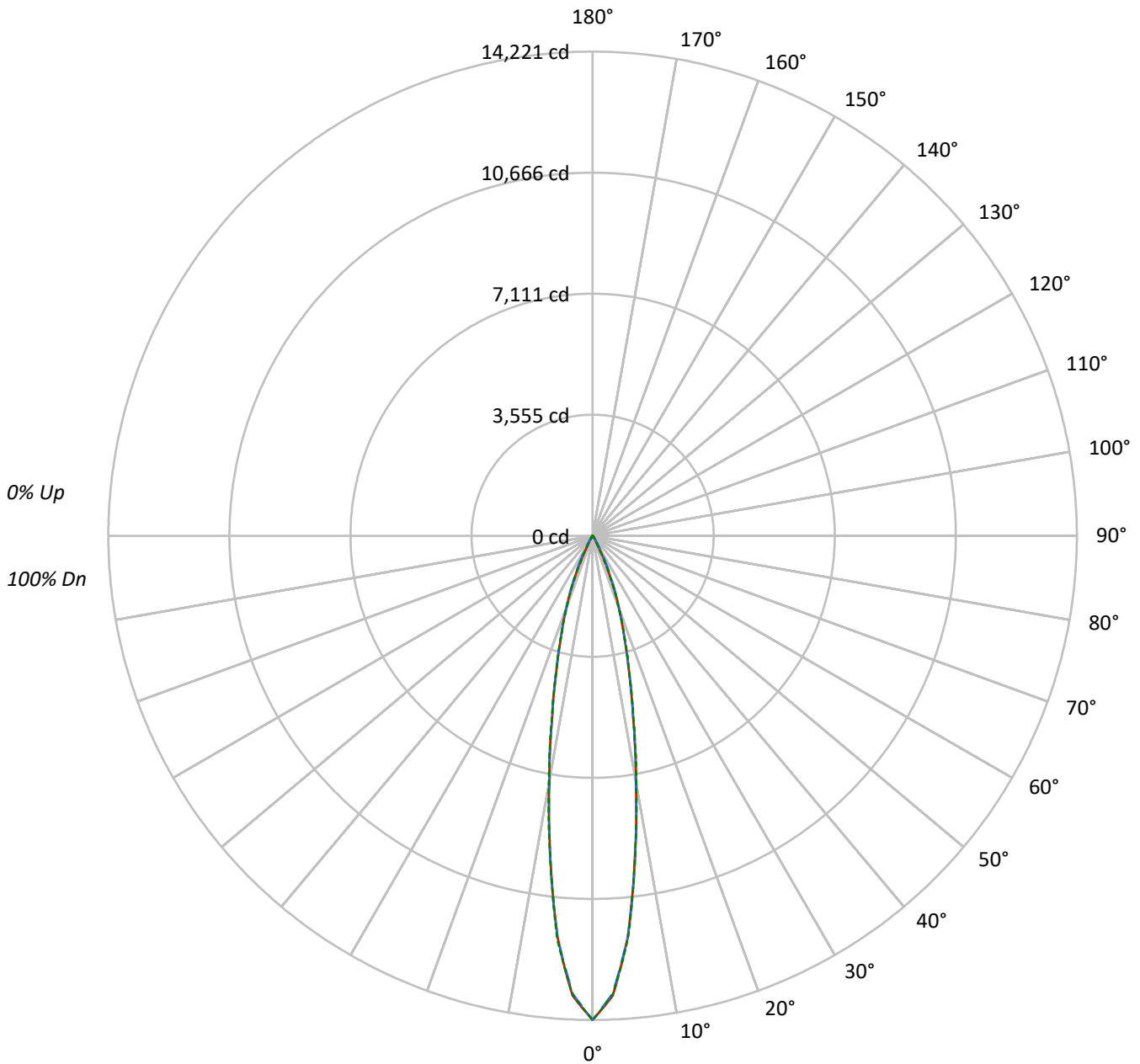
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182632

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1377665	1377665	1377665
5°	1150258	1150258	1155724
10°	720609	718995	726265
15°	411231	413567	414249
20°	232814	232113	231123
25°	87393	113015	89296
30°	17920	37843	18077
35°	7131	12311	6966
40°	3642	5375	3465
45°	2439	2809	2069
50°	1447	1447	1025
55°	692	929	456
60°	523	523	271
65°	321	321	321
70°	397	397	397
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	982.7	36.4
10°-20°	1168.7	43.3
20°-30°	466.0	17.3
30°-40°	58.8	2.2
40°-50°	14.5	0.5
50°-60°	4.3	0.2
60°-70°	1.5	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°	2617.3	97.0
0°-40°	2676.1	99.2
0°-60°	2694.8	99.9
0°-90°	2696.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14221	14221	14221	14221	14221	
5°	11828	11937	11828	11839	11885	980
15°	4100	4125	4124	4124	4130	1165
25°	818	1004	1057	963	835	421
35°	60	73	104	70	59	44
45°	18	18	20	16	15	14
55°	4	4	6	4	3	5
65°	1	1	1	1	1	2
75°	0	1	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14221.0	14221.0	14221.0	14221.0	14221.0
2.5°	13522.5	13595.1	13455.4	13469.1	13486.9
5°	11828.4	11936.6	11828.4	11839.4	11884.6
7.5°	9518.1	9612.6	9550.9	9578.3	9529.0
10°	7325.5	7359.7	7309.1	7333.7	7383.0
12.5°	5508.2	5546.5	5509.5	5510.9	5532.8
15°	4100.3	4125.0	4123.6	4123.6	4130.4
17.5°	3062.2	3095.1	3059.5	3062.2	3070.4
20°	2258.3	2280.2	2251.5	2247.4	2241.9
22.5°	1540.7	1587.3	1605.1	1581.8	1507.8
25°	817.6	1003.8	1057.3	962.8	835.4
27.5°	328.7	499.9	617.6	488.9	357.4
30°	160.2	217.8	338.3	223.2	161.6
32.5°	94.5	117.8	184.9	116.4	93.1
35°	60.3	72.6	104.1	69.8	58.9
37.5°	39.7	47.9	64.4	46.6	38.3
40°	28.8	32.9	42.5	31.5	27.4
42.5°	21.9	23.3	28.8	23.3	20.5
45°	17.8	17.8	20.5	16.4	15.1
47.5°	13.7	13.7	13.7	12.3	9.6
50°	9.6	9.6	9.6	8.2	6.8
52.5°	6.8	6.8	6.8	5.5	4.1
55°	4.1	4.1	5.5	4.1	2.7
57.5°	4.1	2.7	4.1	2.7	2.7
60°	2.7	2.7	2.7	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4
70°	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	1.4	0.0
75°	0.0	1.4	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)