

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: P182471

Luminaire Tested: **LDSQA4A28830D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182471
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: LDSQA4A28830D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3122.8 lumens
Efficiency: N/A
Efficacy: 70.2 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

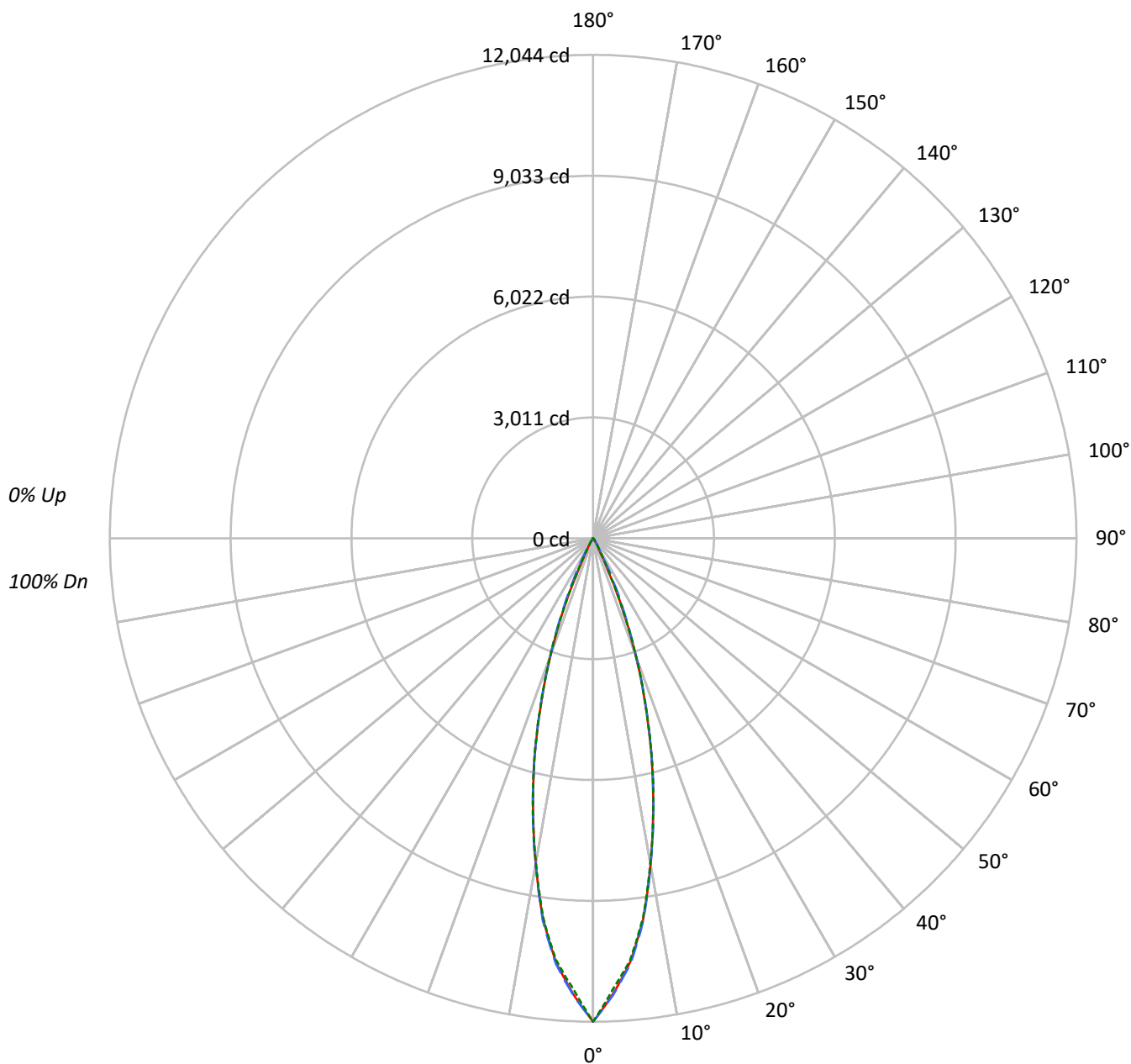
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	97	97	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93	93	93
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	90	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87	87	87
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84	84	84
6	98	92	88	84	97	91	87	84	90	86	84	88	85	83	87	85	83	82	82	82
7	95	89	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	79	79
8	92	86	82	79	91	85	81	79	84	81	78	84	80	78	83	80	78	77	77	77
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75	74	74	74
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72	72	72

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1166729	1166729	1166729
5°	1031337	1034867	1026095
10°	810597	811522	808089
15°	564278	565892	566303
20°	320113	322196	323299
25°	86282	130577	97067
30°	21366	29196	21970
35°	6363	13364	6847
40°	2555	4426	2555
45°	1288	1850	1110
50°	814	814	407
55°	676	456	220
60°	523	252	252
65°	298	298	298
70°	368	368	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	944.9	30.3
10°-20°	1536.5	49.2
20°-30°	571.1	18.3
30°-40°	56.7	1.8
40°-50°	9.5	0.3
50°-60°	2.6	0.1
60°-70°	1.3	0.0
70°-80°	0.2	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°	3052.5	97.7
0°-40°	3109.2	99.6
0°-60°	3121.2	99.9
0°-90°	3122.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3122.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12044	12044	12044	12044	12044	
5°	10606	10712	10642	10767	10552	939
15°	5626	5690	5642	5735	5646	1522
25°	807	1185	1222	1141	908	505
35°	54	67	113	70	58	43
45°	9	11	14	11	8	8
55°	4	3	3	3	1	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°	12043.6	12043.6	12043.6	12043.6	12043.6
2.5°	11365.6	11426.1	11388.4	11489.4	11245.8
5°	10605.5	10711.7	10641.8	10766.9	10551.6
7.5°	9561.5	9671.8	9600.5	9721.6	9529.2
10°	8240.3	8322.4	8249.7	8366.8	8214.8
12.5°	6919.2	7001.2	6947.4	7055.1	6934.0
15°	5626.3	5689.5	5642.4	5735.3	5646.5
17.5°	4313.2	4373.8	4330.7	4406.0	4338.8
20°	3105.1	3157.6	3125.3	3188.5	3136.0
22.5°	1927.9	2067.8	2090.7	2096.1	1944.0
25°	807.2	1185.3	1221.6	1140.9	908.1
27.5°	332.3	435.9	581.2	458.8	349.8
30°	191.0	222.0	261.0	228.7	196.4
32.5°	95.5	123.8	170.9	130.5	100.9
35°	53.8	67.3	113.0	70.0	57.9
37.5°	32.3	39.0	56.5	40.4	33.6
40°	20.2	24.2	35.0	25.6	20.2
42.5°	13.5	16.1	21.5	16.1	13.5
45°	9.4	10.8	13.5	10.8	8.1
47.5°	6.7	6.7	8.1	6.7	5.4
50°	5.4	5.4	5.4	4.0	2.7
52.5°	4.0	4.0	4.0	2.7	2.7
55°	4.0	2.7	2.7	2.7	1.3
57.5°	2.7	2.7	2.7	1.3	1.3
60°	2.7	2.7	1.3	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	0.0
72.5°	0.0	0.0	0.0	0.0	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)