

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: P182470

Luminaire Tested: **LDSQA4A28827D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182470
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: LDSQA4A28827D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3059.8 lumens
Efficiency: N/A
Efficacy: 68.8 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

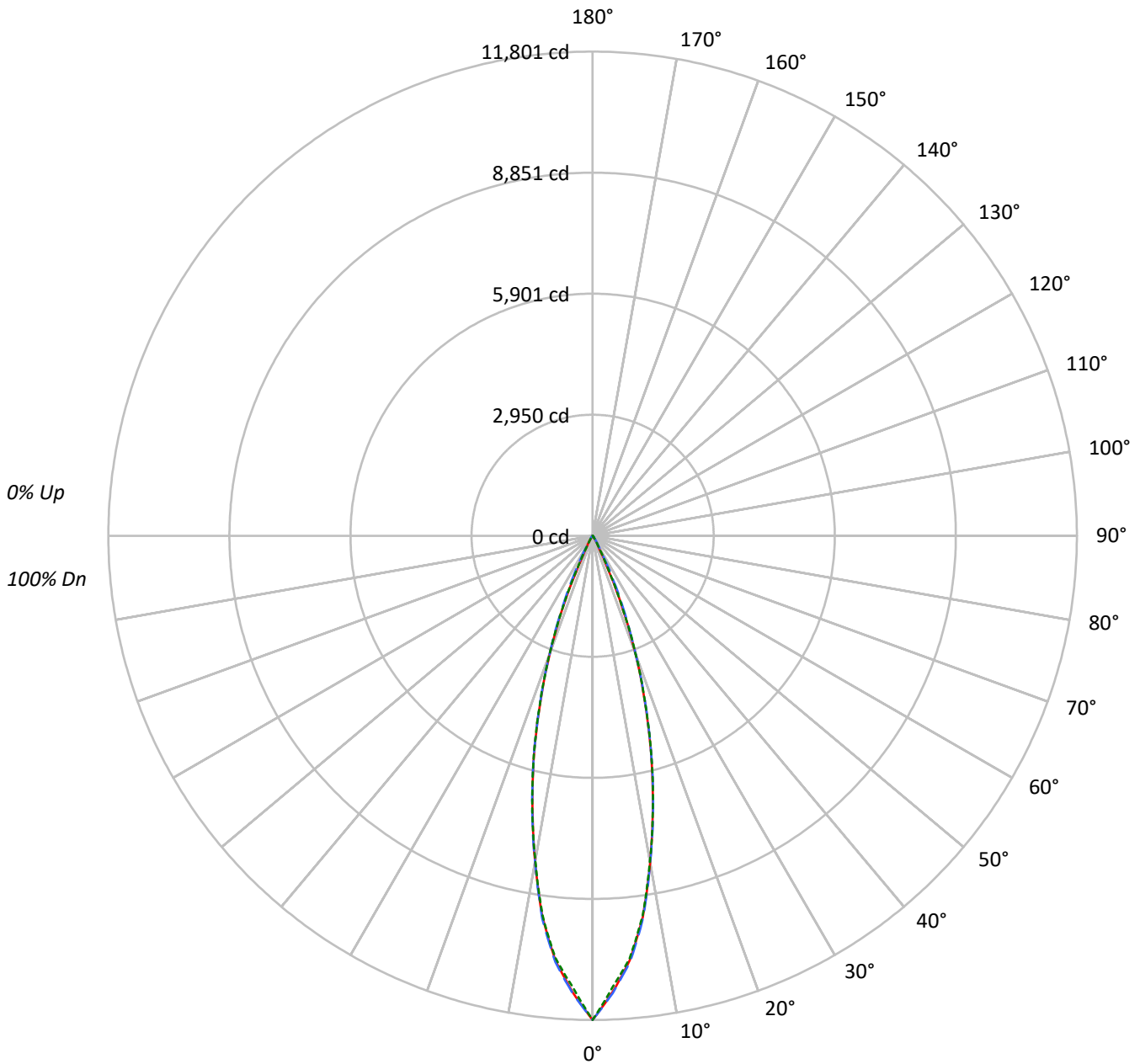
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	105	104	103	102	101	100	99	98	97	97	96	95	93	93	93		
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93	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	97	96	95	93	93	93		
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87	97	96	95	93	93	93		
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84	97	96	95	93	93	93		
6	98	92	88	84	97	91	87	84	90	86	84	88	85	83	87	85	83	82	97	96	95	93	93	93		
7	95	89	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	97	96	95	93	93	93		
8	92	86	82	79	91	85	81	79	84	81	78	84	80	78	83	80	78	77	97	96	95	93	93	93		
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75	74	97	96	95	93	93	93		
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72	97	96	95	93	93	93		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1143198	1143198	1143198
5°	1010526	1013988	1005402
10°	794248	795153	791779
15°	552894	554479	554870
20°	313649	315690	316783
25°	84539	127937	95111
30°	20941	28603	21533
35°	6232	13092	6706
40°	2504	4338	2504
45°	1260	1808	1082
50°	799	799	392
55°	676	439	220
60°	504	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°	925.8	30.3
10°-20°	1505.5	49.2
20°-30°	559.6	18.3
30°-40°	55.5	1.8
40°-50°	9.3	0.3
50°-60°	2.5	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°	2990.9	97.7
0°-40°	3046.4	99.6
0°-60°	3058.2	99.9
0°-90°	3059.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3059.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11801	11801	11801	11801	11801	
5°	10392	10496	10427	10550	10339	920
15°	5513	5575	5529	5620	5532	1491
25°	791	1161	1197	1118	890	494
35°	53	66	111	68	57	42
45°	9	10	13	10	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°	11800.7	11800.7	11800.7	11800.7	11800.7
2.5°	11136.3	11195.6	11158.7	11257.5	11019.0
5°	10391.5	10495.6	10427.1	10549.7	10338.8
7.5°	9368.5	9476.6	9406.8	9525.4	9336.9
10°	8074.1	8154.5	8083.3	8198.0	8049.0
12.5°	6779.6	6860.0	6807.3	6912.7	6794.1
15°	5512.8	5574.7	5528.6	5619.5	5532.5
17.5°	4226.2	4285.5	4243.3	4317.2	4251.2
20°	3042.4	3093.8	3062.2	3124.2	3072.8
22.5°	1889.0	2026.1	2048.5	2053.8	1904.8
25°	790.9	1161.3	1196.9	1117.8	889.8
27.5°	325.6	427.1	569.5	449.5	342.7
30°	187.2	217.5	255.7	224.1	192.5
32.5°	93.6	121.3	167.4	127.9	98.9
35°	52.7	65.9	110.7	68.5	56.7
37.5°	31.6	38.2	55.4	39.5	33.0
40°	19.8	23.7	34.3	25.0	19.8
42.5°	13.2	15.8	21.1	15.8	13.2
45°	9.2	10.5	13.2	10.5	7.9
47.5°	6.6	6.6	7.9	6.6	5.3
50°	5.3	5.3	5.3	4.0	2.6
52.5°	4.0	4.0	4.0	2.6	2.6
55°	4.0	2.6	2.6	2.6	1.3
57.5°	2.6	2.6	2.6	1.3	1.3
60°	2.6	2.6	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)