

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: P182537

Luminaire Tested: **LDSQA4A28840D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28840D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2790.8 lumens
Efficiency: N/A
Efficacy: 62.7 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

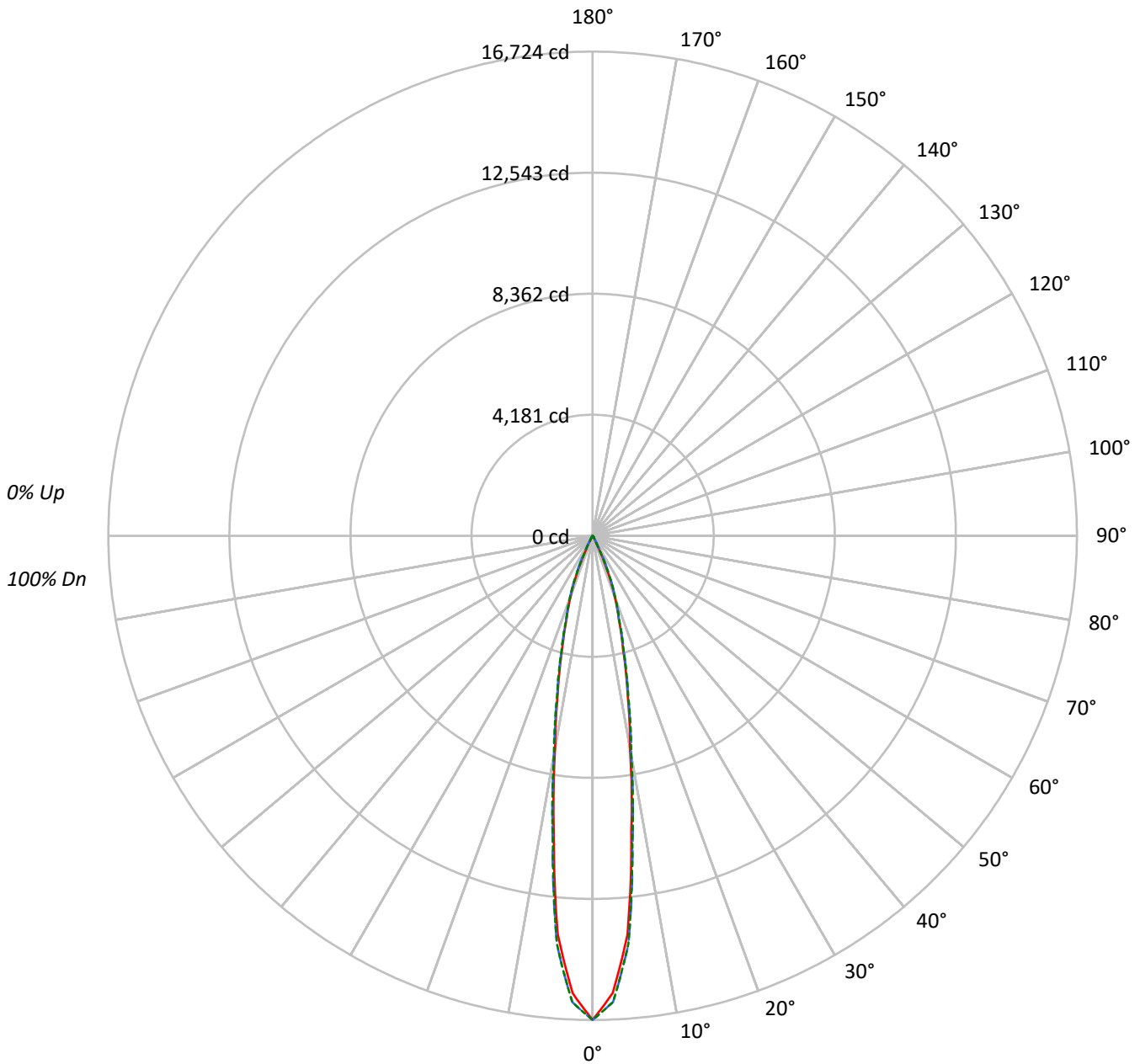
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97				97				
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94				94				
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91				91				
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89				89				
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86				86				
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84				84				
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82				82				
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80				80				
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78				78				
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76				76				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1620106	1620106	1620106
5°	1343835	1378620	1376665
10°	732256	753877	757684
15°	407139	418813	420969
20°	229546	236062	239020
25°	69094	101802	68784
30°	13021	18636	13021
35°	5606	8669	5771
40°	2719	4540	2719
45°	1767	2356	1384
50°	1085	1296	648
55°	726	726	490
60°	562	271	271
65°	321	321	321
70°	0	397	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1113.4	39.9
10°-20°	1186.8	42.5
20°-30°	432.9	15.5
30°-40°	41.3	1.5
40°-50°	11.4	0.4
50°-60°	3.4	0.1
60°-70°	1.4	0.0
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°	2733.1	97.9
0°-40°	2774.4	99.4
0°-60°	2789.1	99.9
0°-90°	2790.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2790.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16724	16724	16724	16724	16724	
5°	13819	14168	14177	14029	14157	1092
15°	4060	4156	4176	4167	4197	1161
25°	646	935	952	944	644	373
35°	47	58	73	58	49	34
45°	13	13	17	13	10	10
55°	4	4	4	3	3	4
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°	16723.6	16723.6	16723.6	16723.6	16723.6
2.5°	15811.4	16144.7	16120.3	16045.6	16120.3
5°	13819.0	14168.1	14176.7	14028.7	14156.6
7.5°	10272.3	10542.4	10589.8	10444.7	10541.0
10°	7443.9	7685.2	7663.7	7634.9	7702.4
12.5°	5560.6	5682.7	5669.8	5701.4	5705.7
15°	4059.5	4155.8	4175.9	4167.3	4197.4
17.5°	2989.3	3041.0	3031.0	3046.8	3058.3
20°	2226.6	2308.4	2289.8	2304.1	2318.5
22.5°	1476.7	1627.5	1608.9	1631.9	1618.9
25°	646.4	935.2	952.4	943.8	643.5
27.5°	198.2	334.7	429.5	327.5	198.2
30°	116.4	139.3	166.6	136.5	116.4
32.5°	73.3	87.6	104.9	86.2	71.8
35°	47.4	57.5	73.3	57.5	48.8
37.5°	31.6	38.8	51.7	38.8	33.0
40°	21.5	25.9	35.9	27.3	21.5
42.5°	15.8	18.7	24.4	18.7	14.4
45°	12.9	12.9	17.2	12.9	10.1
47.5°	10.1	10.1	11.5	8.6	7.2
50°	7.2	7.2	8.6	5.7	4.3
52.5°	4.3	5.7	5.7	4.3	2.9
55°	4.3	4.3	4.3	2.9	2.9
57.5°	2.9	2.9	2.9	1.4	1.4
60°	2.9	2.9	1.4	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°	0.0	1.4	1.4	0.0	0.0
72.5°	0.0	1.4	0.0	0.0	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)