

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: P182631

Luminaire Tested: **LDSQA4A28830D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182631
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: LDSQA4A28830D010TE 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2649.2 lumens
Efficiency: N/A
Efficacy: 59.5 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

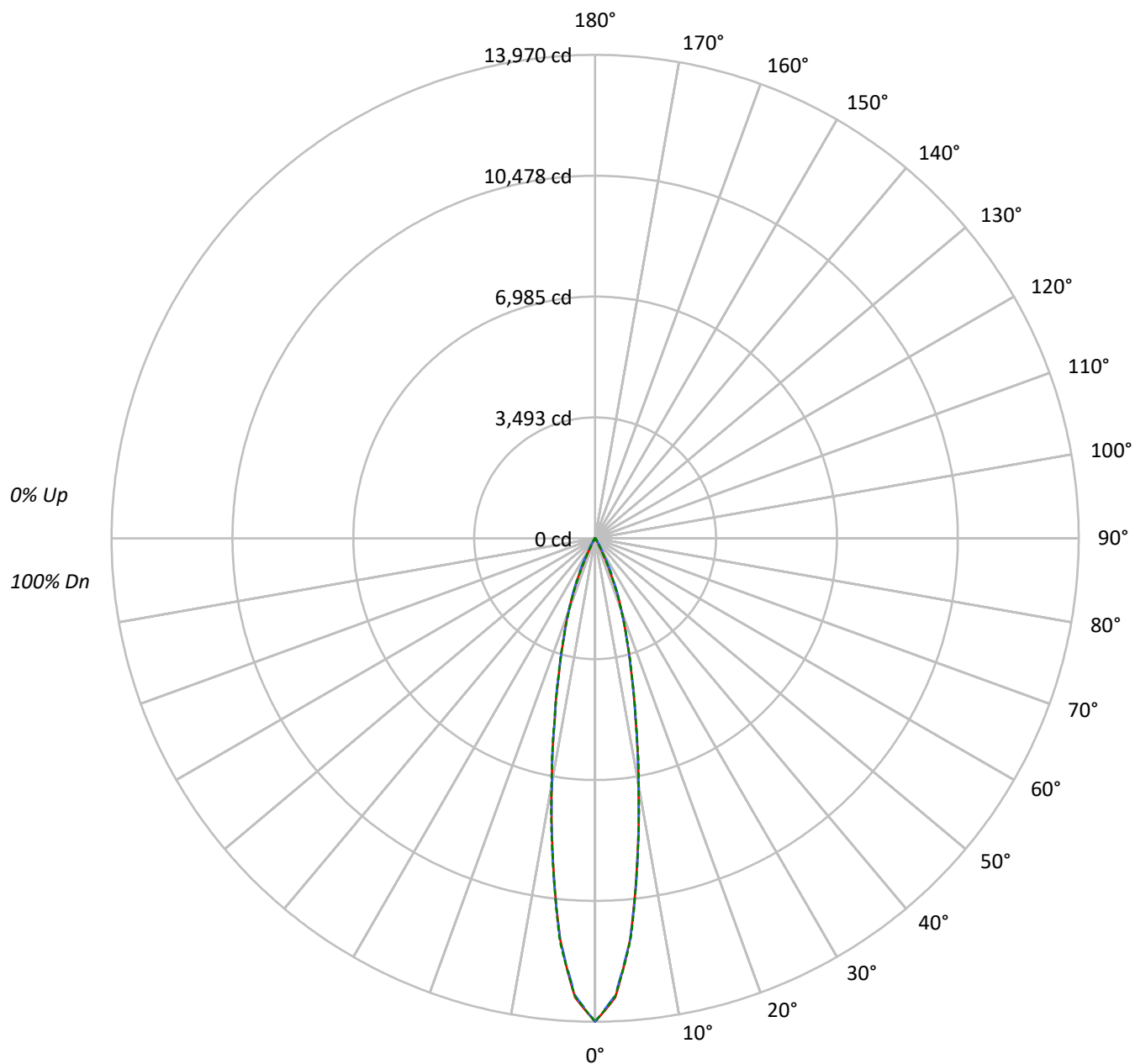
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1353321	1353321	1353321
5°	1129944	1129944	1135302
10°	707880	706286	713437
15°	403969	406256	406938
20°	228701	228010	227041
25°	85854	111016	87714
30°	17607	37172	17753
35°	7001	12086	6836
40°	3579	5273	3402
45°	2398	2767	2028
50°	1417	1417	1010
55°	676	912	456
60°	523	523	252
65°	298	298	298
70°	368	368	368
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	965.3	36.4
10°-20°	1148.1	43.3
20°-30°	457.7	17.3
30°-40°	57.7	2.2
40°-50°	14.2	0.5
50°-60°	4.2	0.2
60°-70°	1.4	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°	2571.1	97.1
0°-40°	2628.8	99.2
0°-60°	2647.2	99.9
0°-90°	2649.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2649.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13970	13970	13970	13970	13970	
5°	11620	11726	11620	11630	11675	963
15°	4028	4052	4051	4051	4058	1145
25°	803	986	1039	946	821	413
35°	59	71	102	69	58	43
45°	18	18	20	16	15	14
55°	4	4	5	4	3	5
65°	1	1	1	1	1	1
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°	13969.7	13969.7	13969.7	13969.7	13969.7
2.5°	13283.6	13354.9	13217.7	13231.2	13248.7
5°	11619.5	11725.8	11619.5	11630.2	11674.6
7.5°	9349.9	9442.8	9382.2	9409.1	9360.7
10°	7196.1	7229.7	7179.9	7204.2	7252.6
12.5°	5410.9	5448.5	5412.2	5413.5	5435.1
15°	4027.9	4052.1	4050.7	4050.7	4057.5
17.5°	3008.1	3040.4	3005.4	3008.1	3016.2
20°	2218.4	2239.9	2211.7	2207.7	2202.3
22.5°	1513.5	1559.2	1576.7	1553.8	1481.2
25°	803.2	986.1	1038.6	945.8	820.6
27.5°	322.9	491.0	606.7	480.3	351.1
30°	157.4	213.9	332.3	219.3	158.7
32.5°	92.8	115.7	181.6	114.4	91.5
35°	59.2	71.3	102.2	68.6	57.8
37.5°	39.0	47.1	63.2	45.7	37.7
40°	28.3	32.3	41.7	30.9	26.9
42.5°	21.5	22.9	28.3	22.9	20.2
45°	17.5	17.5	20.2	16.1	14.8
47.5°	13.5	13.5	13.5	12.1	9.4
50°	9.4	9.4	9.4	8.1	6.7
52.5°	6.7	6.7	6.7	5.4	4.0
55°	4.0	4.0	5.4	4.0	2.7
57.5°	4.0	2.7	4.0	2.7	2.7
60°	2.7	2.7	2.7	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	1.3
72.5°	1.3	1.3	1.3	1.3	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)