

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: P182614

Luminaire Tested: **LDSQA4A09827D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182614
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: LDSQA4A09827D010TE 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 / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1027.2 lumens
Efficiency: N/A
Efficacy: 74.2 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

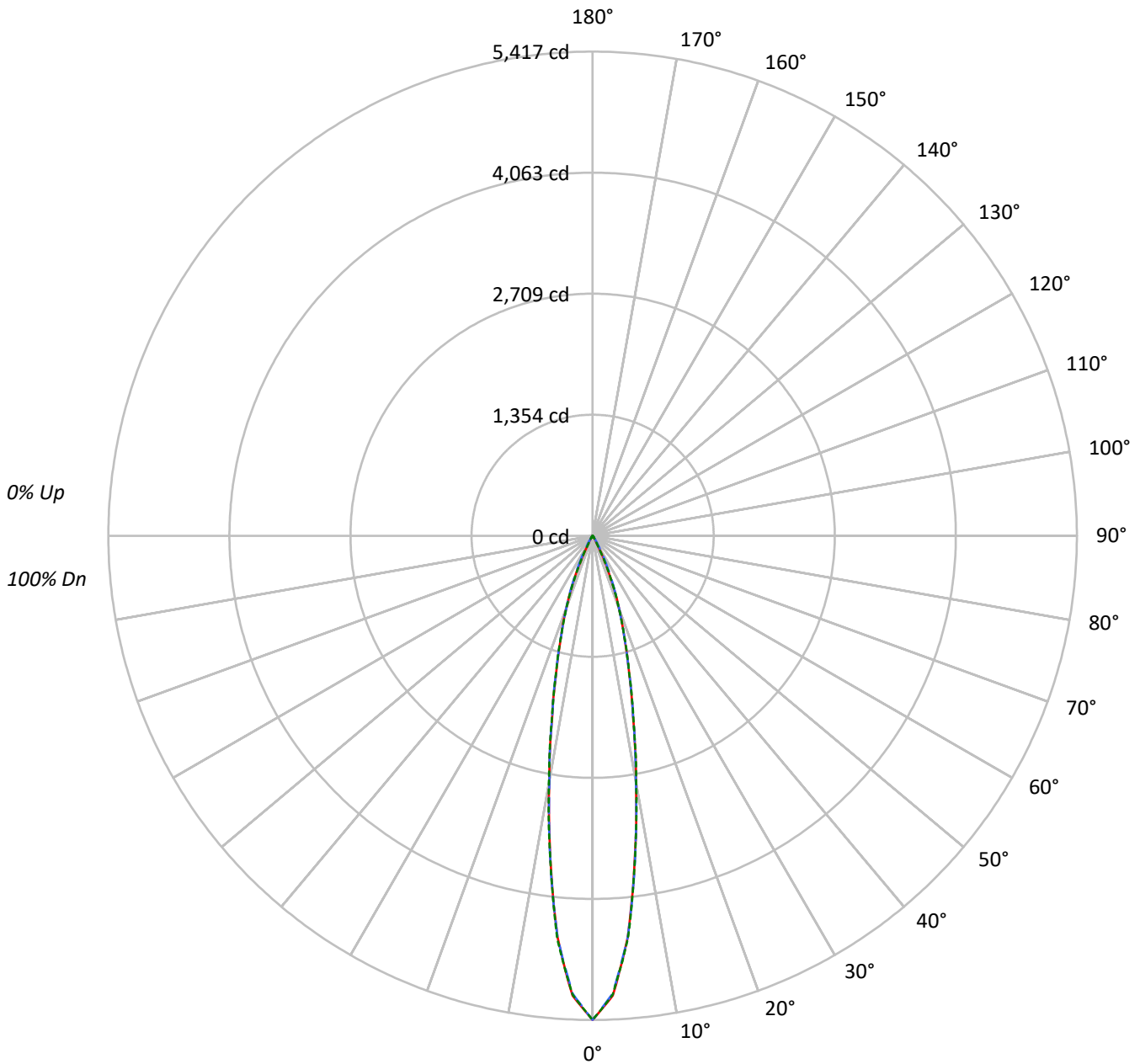
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	97	97																
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	94	94																
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	91	91																
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	88	88																
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85	85	85	85																
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	83	83	83																
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	80	80	80																
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78	78	78	78																
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	76	76	76																
10	89	82	78	76	88	82	78	76	81	78	76	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	524735	524735	524735
5°	438120	438120	440201
10°	274472	273852	276626
15°	156637	157520	157781
20°	88680	88412	88031
25°	33286	43045	34012
30°	6824	14408	6891
35°	2720	4683	2649
40°	1391	2049	1315
45°	932	1069	781
50°	558	558	392
55°	270	355	169
60°	194	194	97
65°	115	115	115
70°	142	142	142
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.3	36.4
10°-20°	445.1	43.3
20°-30°	177.5	17.3
30°-40°	22.4	2.2
40°-50°	5.5	0.5
50°-60°	1.6	0.2
60°-70°	0.5	0.1
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°	996.9	97.1
0°-40°	1019.3	99.2
0°-60°	1026.4	99.9
0°-90°	1027.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1027.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5417	5417	5417	5417	5417	
5°	4505	4546	4505	4510	4527	373
15°	1562	1571	1571	1571	1573	444
25°	311	382	403	367	318	160
35°	23	28	40	27	22	17
45°	7	7	8	6	6	5
55°	2	2	2	2	1	2
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
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°	5416.6	5416.6	5416.6	5416.6	5416.6
2.5°	5150.6	5178.2	5125.0	5130.2	5137.0
5°	4505.3	4546.5	4505.3	4509.5	4526.7
7.5°	3625.3	3661.3	3637.8	3648.3	3629.5
10°	2790.2	2803.2	2783.9	2793.3	2812.1
12.5°	2098.0	2112.6	2098.5	2099.0	2107.4
15°	1561.8	1571.1	1570.6	1570.6	1573.2
17.5°	1166.4	1178.9	1165.3	1166.4	1169.5
20°	860.2	868.5	857.6	856.0	853.9
22.5°	586.8	604.6	611.3	602.5	574.3
25°	311.4	382.4	402.7	366.7	318.2
27.5°	125.2	190.4	235.3	186.2	136.1
30°	61.0	82.9	128.8	85.0	61.6
32.5°	36.0	44.9	70.4	44.3	35.5
35°	23.0	27.6	39.6	26.6	22.4
37.5°	15.1	18.3	24.5	17.7	14.6
40°	11.0	12.5	16.2	12.0	10.4
42.5°	8.3	8.9	11.0	8.9	7.8
45°	6.8	6.8	7.8	6.3	5.7
47.5°	5.2	5.2	5.2	4.7	3.7
50°	3.7	3.7	3.7	3.1	2.6
52.5°	2.6	2.6	2.6	2.1	1.6
55°	1.6	1.6	2.1	1.6	1.0
57.5°	1.6	1.0	1.6	1.0	1.0
60°	1.0	1.0	1.0	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.0
75°	0.0	0.5	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)