

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: P182458

Luminaire Tested: **LDSQA4A09927D010TE LAR25NF 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182458
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: LDSQA4A09927D010TE LAR25NF 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 971.8 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

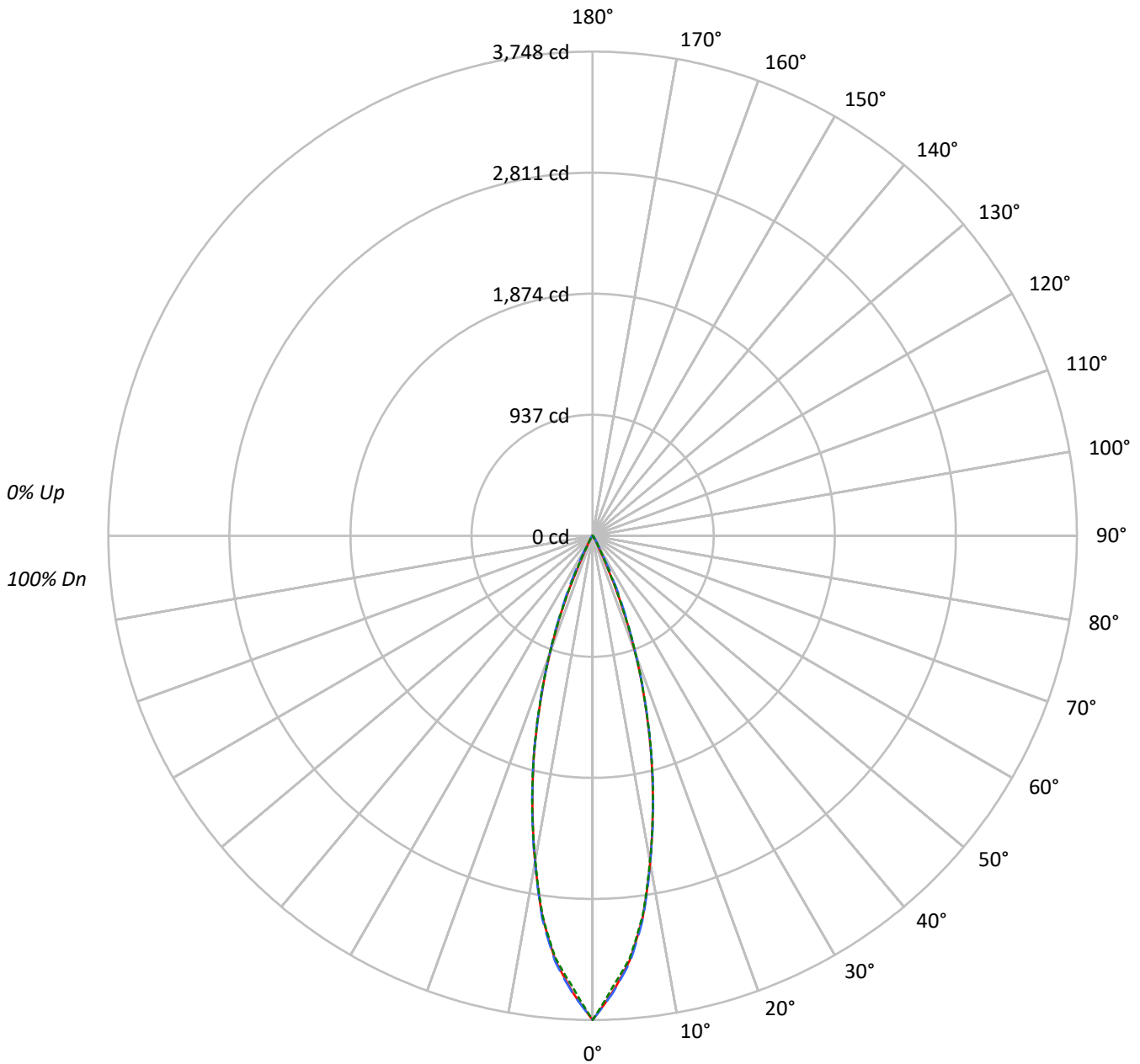
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	363079	363079	363079
5°	320949	322048	319315
10°	252260	252545	251473
15°	175603	176104	176235
20°	99618	100268	100608
25°	26851	40640	30207
30°	6656	9083	6835
35°	1975	4163	2129
40°	797	1378	797
45°	397	575	343
50°	256	256	121
55°	220	135	68
60°	155	78	78
65°	92	92	92
70°	113	113	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.0	30.3
10°-20°	478.2	49.2
20°-30°	177.7	18.3
30°-40°	17.6	1.8
40°-50°	2.9	0.3
50°-60°	0.8	0.1
60°-70°	0.4	0.0
70°-80°	0.1	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°	949.9	97.7
0°-40°	967.6	99.6
0°-60°	971.3	100.0
0°-90°	971.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	971.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3748	3748	3748	3748	3748	
5°	3300	3334	3312	3351	3284	292
15°	1751	1771	1756	1785	1757	474
25°	251	369	380	355	283	157
35°	17	21	35	22	18	13
45°	3	3	4	3	2	3
55°	1	1	1	1	0	1
65°	0	0	0	0	0	0
75°	0	0	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°	3747.9	3747.9	3747.9	3747.9	3747.9
2.5°	3536.9	3555.8	3544.1	3575.5	3499.7
5°	3300.4	3333.5	3311.7	3350.6	3283.6
7.5°	2975.5	3009.8	2987.6	3025.3	2965.4
10°	2564.4	2589.9	2567.3	2603.7	2556.4
12.5°	2153.2	2178.8	2162.0	2195.5	2157.8
15°	1750.9	1770.6	1755.9	1784.8	1757.2
17.5°	1342.3	1361.1	1347.7	1371.1	1350.2
20°	966.3	982.6	972.6	992.3	975.9
22.5°	600.0	643.5	650.6	652.3	605.0
25°	251.2	368.8	380.2	355.0	282.6
27.5°	103.4	135.6	180.9	142.8	108.9
30°	59.5	69.1	81.2	71.2	61.1
32.5°	29.7	38.5	53.2	40.6	31.4
35°	16.7	20.9	35.2	21.8	18.0
37.5°	10.0	12.1	17.6	12.6	10.5
40°	6.3	7.5	10.9	8.0	6.3
42.5°	4.2	5.0	6.7	5.0	4.2
45°	2.9	3.3	4.2	3.3	2.5
47.5°	2.1	2.1	2.5	2.1	1.7
50°	1.7	1.7	1.7	1.3	0.8
52.5°	1.3	1.3	1.3	0.8	0.8
55°	1.3	0.8	0.8	0.8	0.4
57.5°	0.8	0.8	0.8	0.4	0.4
60°	0.8	0.8	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.4	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)