

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: P208787

Luminaire Tested: **LDSQA6A10940D010TE LAR35FL 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208787
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29057)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A10940D010TE LAR35FL 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 35° FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1138.8 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 0.6 / 0.59 / 0.55
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

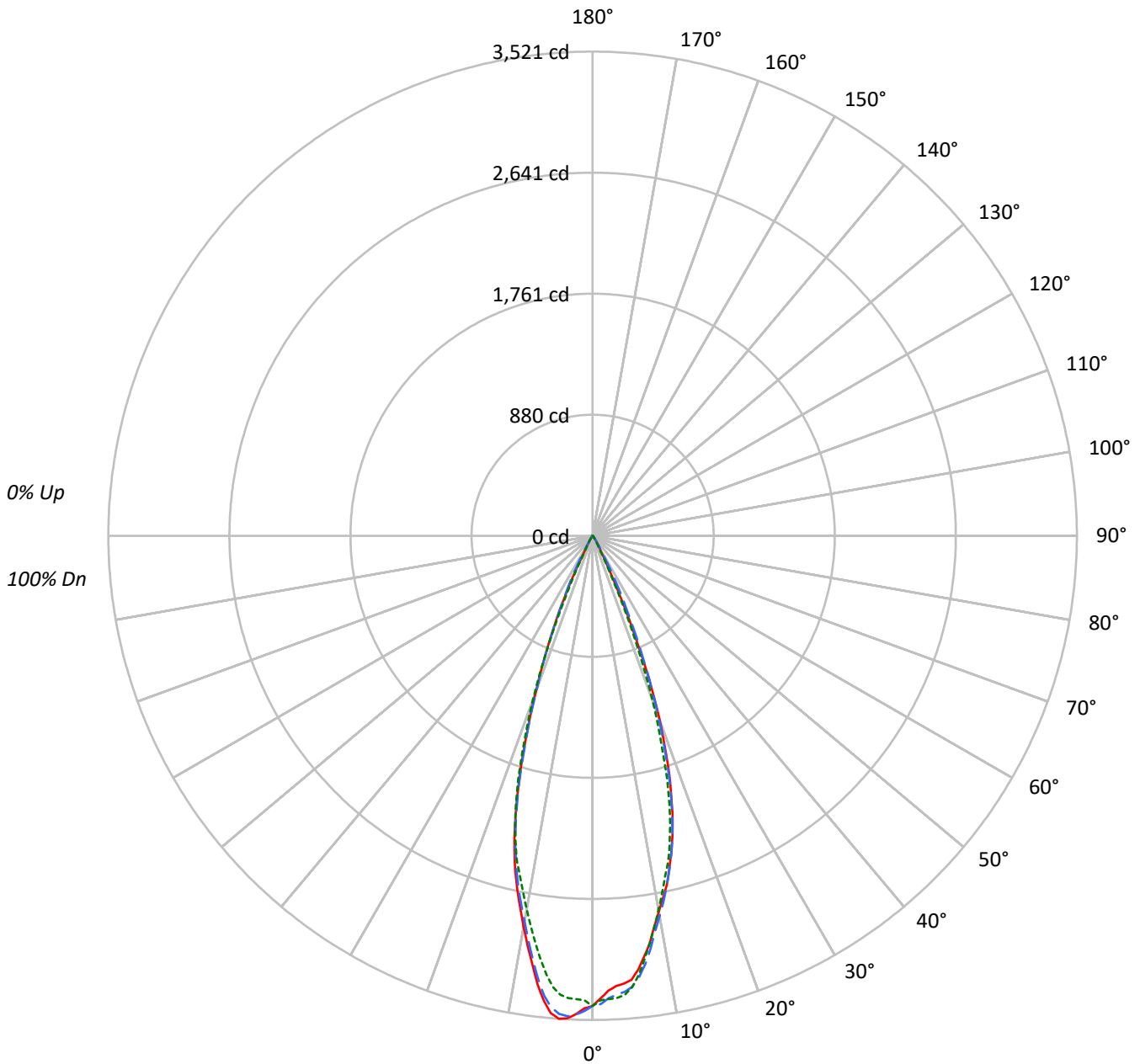
Input Watts (W): 13.73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96				96															
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93				93															
3	107	103	99	96	106	101	98	95	99	96	94	96	94	92	94	92	91	90				90															
4	104	98	94	91	102	97	94	91	95	92	90	93	91	89	92	89	88	86				86															
5	101	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83				83															
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	81				81															
7	94	88	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78				78															
8	92	85	80	77	91	84	80	77	83	80	77	82	79	77	82	79	76	75				75															
9	89	82	78	75	88	82	78	75	81	77	75	80	77	74	79	76	74	73				73															
10	86	79	75	72	86	79	75	72	78	75	72	78	74	72	77	74	72	71				71															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	147220	147220	147220
5°	140050	142479	150605
10°	121340	120684	126289
15°	100195	97052	97453
20°	65168	58062	55340
25°	19587	14969	19934
30°	4271	3107	3301
35°	1524	936	1030
40°	450	292	354
45°	128	85	104
50°	20	20	47
55°	23	0	53
60°	26	0	0
65°	31	0	0
70°	38	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.2	26.4
10°-20°	584.6	51.3
20°-30°	231.0	20.3
30°-40°	19.0	1.7
40°-50°	2.6	0.2
50°-60°	0.3	0.0
60°-70°	0.1	0.0
70°-80°	0.0	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°	1116.8	98.1
0°-40°	1135.8	99.7
0°-60°	1138.7	100.0
0°-90°	1138.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1138.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3419	3419	3419	3419	3419	
5°	3240	3292	3297	3445	3485	293
15°	2248	2242	2177	2159	2186	601
25°	412	557	315	462	420	232
35°	29	29	18	25	20	22
45°	2	5	1	4	2	2
55°	0	0	0	0	1	0
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°	112.5°	135°	157.5°	180°
0°	3419.3	3419.3	3419.3	3419.3	3419.3	3419.3	3419.3	3419.3	3419.3
1°	3364.1	3325.6	3406.0	3402.9	3377.7	3448.6	3456.0	3501.7	3436.7
2°	3309.9	3279.5	3364.1	3372.8	3372.8	3461.2	3484.3	3541.6	3481.8
3°	3278.5	3253.3	3341.4	3364.4	3366.9	3465.4	3499.3	3563.6	3514.6
4°	3264.9	3241.8	3325.3	3343.1	3346.6	3450.7	3486.3	3559.7	3521.3
5°	3240.4	3214.5	3292.1	3294.9	3296.6	3403.2	3444.8	3517.4	3484.6
6°	3171.2	3157.6	3228.5	3213.1	3208.3	3322.1	3364.4	3432.2	3399.0
7°	3080.7	3071.6	3138.4	3115.0	3102.7	3209.0	3248.1	3312.4	3286.2
8°	2988.2	2966.1	3029.7	3009.5	2988.8	3080.4	3114.6	3174.0	3149.6
9°	2872.5	2861.3	2908.5	2901.9	2873.9	2967.9	2980.5	3038.5	3018.5
10°	2775.4	2761.8	2809.3	2796.7	2760.4	2842.5	2851.2	2906.7	2888.6
11°	2681.1	2663.2	2703.8	2687.7	2646.8	2720.5	2726.5	2778.2	2759.7
12°	2594.4	2565.4	2597.2	2578.0	2534.7	2599.7	2602.4	2651.0	2633.9
13°	2479.8	2460.6	2485.8	2465.1	2437.5	2474.2	2468.6	2514.8	2499.0
14°	2369.4	2345.3	2368.4	2343.6	2314.6	2339.0	2323.0	2363.1	2350.9
15°	2247.8	2223.7	2241.9	2211.5	2177.3	2186.3	2159.4	2196.8	2186.3
16°	2106.3	2082.2	2098.0	2060.9	2020.4	2015.2	1979.5	2012.4	2001.5
17°	1946.7	1929.2	1940.0	1893.6	1851.0	1832.8	1785.6	1814.6	1803.8
18°	1794.7	1760.5	1765.0	1713.3	1648.3	1637.1	1584.0	1611.6	1600.8
19°	1595.6	1579.5	1581.9	1523.6	1457.9	1437.3	1384.5	1409.0	1396.8
20°	1422.3	1397.8	1395.7	1332.5	1267.2	1245.5	1194.5	1219.6	1207.8
21°	1224.2	1239.2	1213.0	1146.3	1065.6	1067.7	1022.6	1025.0	1033.1
22°	1001.3	1056.1	1033.8	954.8	853.9	900.3	859.8	862.6	869.6
23°	780.8	837.8	858.0	762.3	652.6	745.2	713.1	715.2	719.7
24°	579.6	660.0	696.3	586.6	469.9	599.5	581.3	583.8	578.9
25°	412.3	506.6	557.2	433.2	315.1	465.7	461.9	465.7	419.6
26°	278.4	381.9	439.5	304.0	194.9	344.1	367.5	359.2	272.2
27°	178.2	290.3	337.8	198.8	123.7	236.9	274.3	271.8	156.2
28°	125.4	201.6	249.4	122.3	95.4	148.8	196.0	178.9	99.9
29°	105.9	131.0	174.0	87.0	77.6	88.0	131.4	104.5	81.8
30°	85.9	87.0	114.2	70.2	62.5	62.9	83.8	68.5	66.4
32.5°	52.4	52.1	49.3	41.2	36.7	36.7	40.9	39.5	39.1
35°	29.0	31.8	29.3	24.8	17.8	22.0	24.8	23.4	19.6
37.5°	15.7	18.5	20.3	13.6	9.8	12.9	16.8	13.6	11.2
40°	8.0	10.1	14.3	7.7	5.2	7.3	11.5	7.7	6.3
42.5°	4.2	5.6	9.1	4.2	2.4	4.2	7.3	4.2	3.1
45°	2.1	2.8	4.9	2.1	1.4	2.1	3.8	2.4	1.7
47.5°	1.0	1.4	2.4	1.0	0.3	1.0	2.1	1.0	1.0
50°	0.3	0.7	1.4	0.3	0.3	0.3	1.0	0.7	0.7
52.5°	0.3	0.3	0.7	0.3	0.0	0.3	0.7	0.3	0.7
55°	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.7
57.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.7
60°	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







62.5°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)