

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: P136926

Luminaire Tested: **LDSQ6A30D010TE ESQ6A30835 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23674)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6A30D010TE ESQ6A30835 6LSQ1H
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2778.0 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.02 / 1.05
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

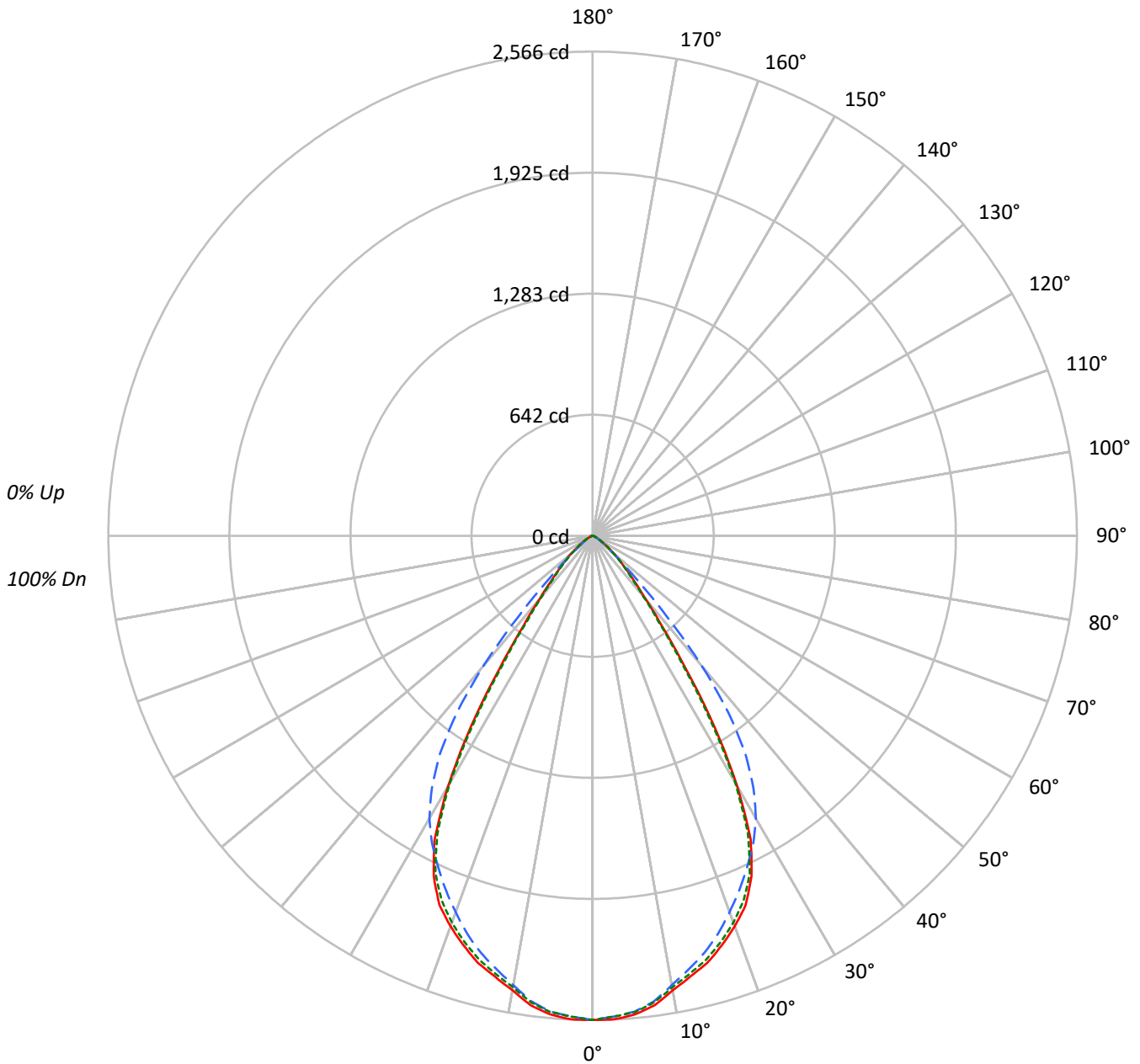
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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																			
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93																			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85																			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79																			
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72																			
5	90	81	75	71	89	80	75	70	79	74	70	77	73	69	75	72	68	67																			
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62																			
7	81	71	65	60	79	70	64	60	69	64	60	68	63	59	67	62	59	57																			
8	77	66	60	56	75	66	60	56	65	59	55	64	59	55	63	58	55	53																			
9	73	62	56	52	71	62	56	52	61	55	52	60	55	51	59	55	51	50																			
10	69	59	53	49	68	58	52	48	57	52	48	57	52	48	56	51	48	47																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	110477	110477	110477
5°	110099	109429	109563
10°	106921	105706	106248
15°	104474	102000	103649
20°	100889	97218	99903
25°	94643	92006	93621
30°	76200	86014	75126
35°	45224	74080	43116
40°	24438	50439	23230
45°	15210	21220	14644
50°	10121	8266	9505
55°	6020	4399	5788
60°	3720	2919	3453
65°	2201	1885	2201
70°	1548	1548	1171
75°	1031	1031	1031
80°	769	769	769
85°	0	1531	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.4	8.6
10°-20°	648.2	23.3
20°-30°	886.5	31.9
30°-40°	671.4	24.2
40°-50°	233.1	8.4
50°-60°	69.8	2.5
60°-70°	22.1	0.8
70°-80°	6.9	0.2
80°-90°	1.7	0.1
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°	1773.1	63.8
0°-40°	2444.5	88.0
0°-60°	2747.3	98.9
0°-90°	2778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2566	2566	2566	2566	2566	
5°	2547	2538	2532	2535	2535	240
15°	2344	2314	2288	2308	2325	658
25°	1992	1963	1937	1952	1971	893
35°	860	1050	1409	1036	820	559
45°	250	267	348	262	240	203
55°	80	77	59	76	77	76
65°	22	22	18	22	22	24
75°	6	6	6	6	6	6
85°	0	0	3	2	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9
2.5°	2565.9	2553.5	2541.2	2550.4	2562.8	2547.4	2550.4	2550.4	2541.2	2550.4	2544.3
5°	2547.4	2538.1	2525.8	2535.0	2544.3	2531.9	2531.9	2531.9	2525.8	2531.9	2528.9
7.5°	2510.3	2498.0	2485.7	2494.9	2504.2	2491.8	2488.8	2491.8	2482.6	2488.8	2485.7
10°	2445.6	2436.3	2424.0	2433.2	2439.4	2424.0	2420.9	2424.0	2411.7	2417.8	2417.8
12.5°	2393.2	2387.0	2371.6	2377.7	2380.8	2365.4	2359.2	2359.2	2346.9	2353.1	2350.0
15°	2343.8	2334.6	2319.1	2322.2	2325.3	2303.7	2297.6	2294.5	2282.1	2288.3	2285.2
17.5°	2276.0	2269.8	2251.3	2254.4	2251.3	2232.8	2220.5	2217.4	2205.0	2211.2	2205.0
20°	2201.9	2192.7	2174.2	2171.1	2164.9	2143.4	2134.1	2131.0	2115.6	2121.8	2118.7
22.5°	2118.7	2106.3	2087.8	2084.8	2078.6	2053.9	2044.7	2038.5	2026.2	2032.3	2026.2
25°	1992.2	1983.0	1967.6	1967.6	1970.7	1955.2	1952.1	1949.1	1933.6	1936.7	1933.6
27.5°	1813.4	1807.2	1801.0	1804.1	1819.5	1819.5	1835.0	1841.1	1835.0	1841.1	1835.0
30°	1532.7	1535.8	1554.3	1572.8	1609.8	1637.6	1674.6	1702.3	1714.7	1730.1	1717.8
32.5°	1205.8	1196.6	1233.6	1276.8	1335.4	1397.0	1471.1	1529.6	1569.7	1585.2	1566.7
35°	860.4	857.3	891.3	937.5	1005.4	1094.8	1205.8	1307.6	1378.5	1409.4	1378.5
37.5°	601.4	604.5	623.0	653.8	706.2	783.3	900.5	1027.0	1134.9	1181.2	1128.7
40°	434.8	431.8	444.1	462.6	493.4	542.8	623.0	727.8	835.8	897.4	829.6
42.5°	326.9	323.8	330.0	339.2	354.7	379.3	422.5	478.0	545.9	589.0	536.6
45°	249.8	249.8	249.8	256.0	262.1	271.4	286.8	305.3	330.0	348.5	323.8
47.5°	194.3	194.3	194.3	197.4	200.5	200.5	200.5	197.4	200.5	203.5	197.4
50°	151.1	151.1	151.1	151.1	151.1	148.0	141.9	129.5	126.4	123.4	123.4
52.5°	107.9	107.9	107.9	111.0	114.1	107.9	98.7	89.4	83.3	83.3	83.3
55°	80.2	80.2	80.2	80.2	80.2	74.0	67.8	61.7	58.6	58.6	58.6
57.5°	58.6	58.6	58.6	58.6	55.5	52.4	49.3	46.3	43.2	43.2	43.2
60°	43.2	43.2	43.2	43.2	40.1	37.0	37.0	33.9	33.9	33.9	33.9
62.5°	30.8	30.8	30.8	30.8	30.8	27.8	27.8	24.7	24.7	24.7	24.7
65°	21.6	21.6	21.6	21.6	21.6	21.6	18.5	18.5	18.5	18.5	18.5
67.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
70°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
72.5°	6.2	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
75°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	0.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.1	3.1	3.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9	2565.9
2.5°	2544.3	2559.7	2559.7	2547.4	2538.1	2553.5	2556.6	2550.4
5°	2528.9	2541.2	2541.2	2528.9	2519.6	2538.1	2538.1	2535.0
7.5°	2485.7	2501.1	2498.0	2488.8	2479.5	2494.9	2501.1	2494.9
10°	2417.8	2433.2	2433.2	2424.0	2414.7	2433.2	2436.3	2430.2
12.5°	2353.1	2368.5	2374.7	2365.4	2362.3	2377.7	2383.9	2377.7
15°	2288.3	2306.8	2309.9	2306.8	2306.8	2325.3	2331.5	2325.3
17.5°	2211.2	2229.7	2235.9	2232.8	2235.9	2254.4	2263.6	2257.5
20°	2121.8	2137.2	2143.4	2143.4	2146.4	2171.1	2183.4	2180.4
22.5°	2026.2	2044.7	2053.9	2057.0	2060.1	2084.8	2097.1	2090.9
25°	1936.7	1952.1	1952.1	1952.1	1949.1	1967.6	1976.8	1970.7
27.5°	1828.8	1831.9	1822.6	1801.0	1785.6	1791.8	1798.0	1782.5
30°	1693.1	1674.6	1640.7	1594.4	1554.3	1538.9	1535.8	1511.1
32.5°	1520.4	1468.0	1397.0	1316.9	1245.9	1208.9	1193.5	1165.7
35°	1298.3	1199.7	1088.6	983.8	903.6	863.5	848.1	820.3
37.5°	1014.6	891.3	774.1	684.6	632.2	598.3	589.0	573.6
40°	706.2	607.5	530.4	474.9	441.0	425.6	422.5	413.3
42.5°	465.7	410.2	370.1	342.3	326.9	317.6	317.6	311.5
45°	299.1	280.6	268.3	256.0	246.7	243.6	243.6	240.5
47.5°	194.3	197.4	197.4	194.3	188.1	185.0	188.1	185.0
50°	129.5	138.8	144.9	148.0	144.9	141.9	144.9	141.9
52.5°	89.4	98.7	107.9	111.0	107.9	104.9	104.9	104.9
55°	61.7	67.8	74.0	77.1	77.1	77.1	77.1	77.1
57.5°	46.3	49.3	52.4	55.5	58.6	55.5	58.6	55.5
60°	33.9	37.0	40.1	40.1	43.2	43.2	43.2	40.1
62.5°	24.7	27.8	27.8	30.8	30.8	30.8	30.8	30.8
65°	18.5	18.5	21.6	21.6	21.6	21.6	21.6	21.6
67.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
70°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	9.3
72.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	6.2
75°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	3.1	3.1	0.0	3.1	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
90°	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°









(END OF REPORT)