

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: P136927

Luminaire Tested: **LDSQ6A30D010TE ESQ6A30840 6LSQ1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136927
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 ESQ6A30840 6LSQ1H
Description: PORTFOLIO LED SQUARE 6 INCH 60 DEGREE CUTOFF RECESSED DOWNLIGHT
MEDIUM DISTRIBUTION WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2834.9 lumens
Efficiency: N/A
Efficacy: 62.4 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

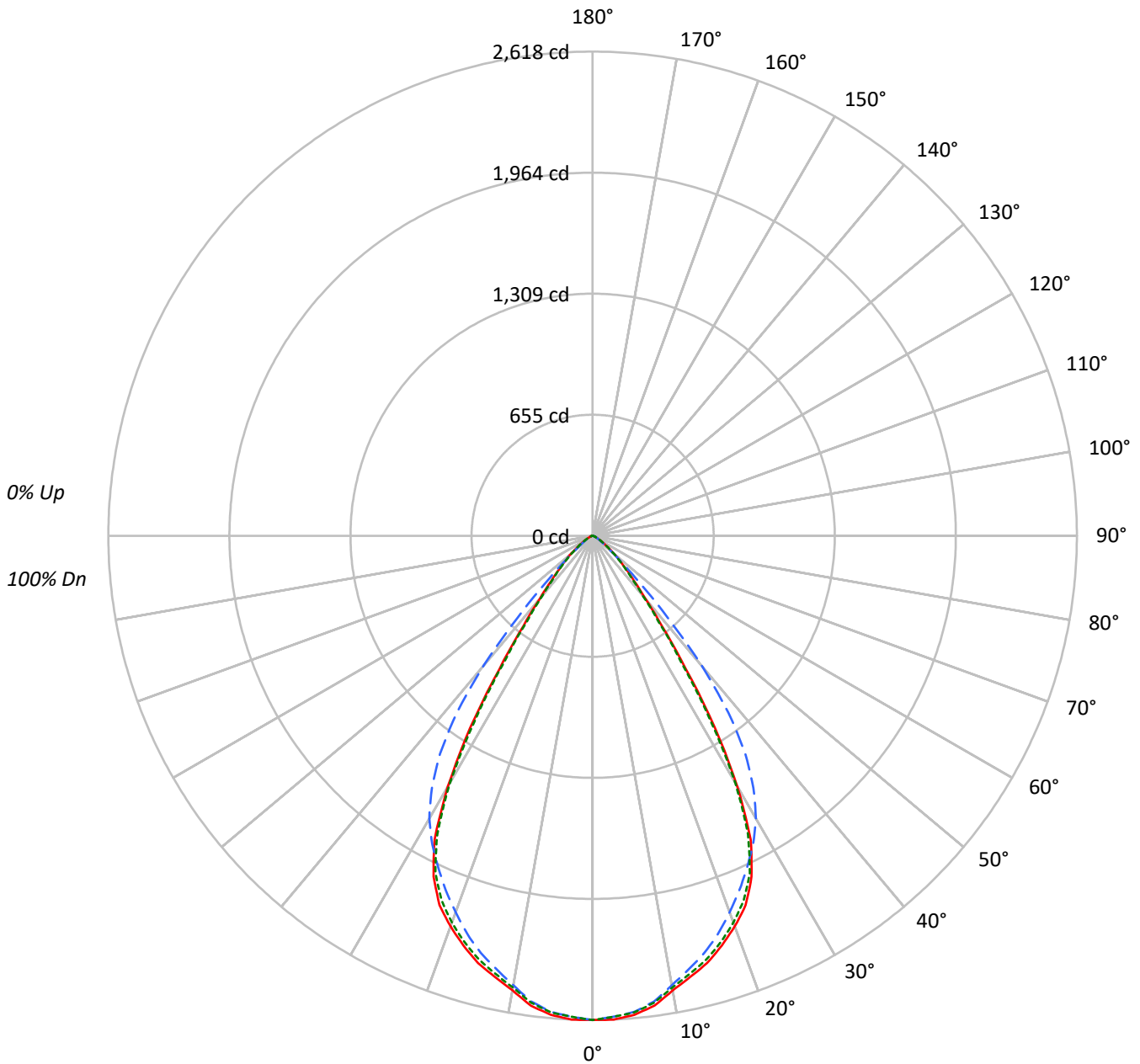
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	112741	112741	112741
5°	112355	111676	111810
10°	109116	107874	108425
15°	106618	104095	105775
20°	102960	99212	101952
25°	96586	93897	95541
30°	77766	87779	76668
35°	46154	75599	44004
40°	24944	51473	23702
45°	15521	21652	14948
50°	10329	8433	9699
55°	6140	4489	5908
60°	3798	2979	3522
65°	2241	1926	2241
70°	1586	1586	1183
75°	1048	1048	1048
80°	769	769	769
85°	0	1531	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.3	8.6
10°-20°	661.5	23.3
20°-30°	904.7	31.9
30°-40°	685.2	24.2
40°-50°	237.9	8.4
50°-60°	71.2	2.5
60°-70°	22.6	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°	1809.5	63.8
0°-40°	2494.6	88.0
0°-60°	2803.7	98.9
0°-90°	2834.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2834.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2618	2618	2618	2618	2618	
5°	2600	2590	2584	2587	2587	245
15°	2392	2362	2335	2356	2373	672
25°	2033	2003	1976	1992	2011	911
35°	878	1072	1438	1058	837	571
45°	255	272	356	268	246	207
55°	82	79	60	77	79	78
65°	22	22	19	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°	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5
2.5°	2618.5	2605.9	2593.3	2602.8	2615.4	2599.6	2602.8	2602.8	2593.3	2602.8	2596.5
5°	2599.6	2590.2	2577.6	2587.0	2596.5	2583.9	2583.9	2583.9	2577.6	2583.9	2580.7
7.5°	2561.9	2549.3	2536.7	2546.1	2555.6	2543.0	2539.8	2543.0	2533.5	2539.8	2536.7
10°	2495.8	2486.3	2473.7	2483.2	2489.5	2473.7	2470.6	2473.7	2461.1	2467.4	2467.4
12.5°	2442.3	2436.0	2420.2	2426.5	2429.7	2413.9	2407.6	2407.6	2395.1	2401.3	2398.2
15°	2391.9	2382.5	2366.7	2369.9	2373.0	2351.0	2344.7	2341.5	2329.0	2335.3	2332.1
17.5°	2322.7	2316.4	2297.5	2300.6	2297.5	2278.6	2266.0	2262.9	2250.3	2256.6	2250.3
20°	2247.1	2237.7	2218.8	2215.7	2209.4	2187.3	2177.9	2174.7	2159.0	2165.3	2162.2
22.5°	2162.2	2149.6	2130.7	2127.5	2121.2	2096.1	2086.6	2080.3	2067.7	2074.0	2067.7
25°	2033.1	2023.7	2007.9	2007.9	2011.1	1995.4	1992.2	1989.1	1973.3	1976.5	1973.3
27.5°	1850.6	1844.3	1838.0	1841.1	1856.9	1856.9	1872.6	1878.9	1872.6	1878.9	1872.6
30°	1564.2	1567.3	1586.2	1605.1	1642.9	1671.2	1709.0	1737.3	1749.9	1765.6	1753.0
32.5°	1230.6	1221.1	1258.9	1303.0	1362.8	1425.7	1501.2	1561.0	1601.9	1617.7	1598.8
35°	878.1	874.9	909.6	956.8	1026.0	1117.3	1230.6	1334.4	1406.8	1438.3	1406.8
37.5°	613.7	616.9	635.7	667.2	720.7	799.4	919.0	1048.0	1158.2	1205.4	1151.9
40°	443.8	440.6	453.2	472.1	503.6	553.9	635.7	742.7	852.9	915.8	846.6
42.5°	333.6	330.5	336.8	346.2	361.9	387.1	431.2	487.8	557.1	601.1	547.6
45°	254.9	254.9	254.9	261.2	267.5	277.0	292.7	311.6	336.8	355.6	330.5
47.5°	198.3	198.3	198.3	201.4	204.6	204.6	204.6	201.4	204.6	207.7	201.4
50°	154.2	154.2	154.2	154.2	154.2	151.1	144.8	132.2	129.0	125.9	125.9
52.5°	110.2	110.2	110.2	113.3	116.4	110.2	100.7	91.3	85.0	85.0	85.0
55°	81.8	81.8	81.8	81.8	81.8	75.5	69.2	62.9	59.8	59.8	59.8
57.5°	59.8	59.8	59.8	59.8	56.7	53.5	50.4	47.2	44.1	44.1	44.1
60°	44.1	44.1	44.1	44.1	40.9	37.8	37.8	34.6	34.6	34.6	34.6
62.5°	31.5	31.5	31.5	31.5	31.5	28.3	28.3	25.2	25.2	25.2	25.2
65°	22.0	22.0	22.0	22.0	22.0	22.0	18.9	18.9	18.9	18.9	18.9
67.5°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
70°	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
72.5°	6.3	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
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°	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5	2618.5
2.5°	2596.5	2612.2	2612.2	2599.6	2590.2	2605.9	2609.1	2602.8
5°	2580.7	2593.3	2593.3	2580.7	2571.3	2590.2	2590.2	2587.0
7.5°	2536.7	2552.4	2549.3	2539.8	2530.4	2546.1	2552.4	2546.1
10°	2467.4	2483.2	2483.2	2473.7	2464.3	2483.2	2486.3	2480.0
12.5°	2401.3	2417.1	2423.4	2413.9	2410.8	2426.5	2432.8	2426.5
15°	2335.3	2354.1	2357.3	2354.1	2354.1	2373.0	2379.3	2373.0
17.5°	2256.6	2275.5	2281.7	2278.6	2281.7	2300.6	2310.1	2303.8
20°	2165.3	2181.0	2187.3	2187.3	2190.5	2215.7	2228.2	2225.1
22.5°	2067.7	2086.6	2096.1	2099.2	2102.4	2127.5	2140.1	2133.8
25°	1976.5	1992.2	1992.2	1992.2	1989.1	2007.9	2017.4	2011.1
27.5°	1866.3	1869.5	1860.0	1838.0	1822.3	1828.5	1834.8	1819.1
30°	1727.8	1709.0	1674.3	1627.1	1586.2	1570.5	1567.3	1542.1
32.5°	1551.6	1498.1	1425.7	1343.9	1271.5	1233.7	1218.0	1189.7
35°	1325.0	1224.3	1111.0	1004.0	922.1	881.2	865.5	837.2
37.5°	1035.4	909.6	790.0	698.7	645.2	610.6	601.1	585.4
40°	720.7	620.0	541.3	484.7	450.1	434.3	431.2	421.7
42.5°	475.2	418.6	377.7	349.3	333.6	324.2	324.2	317.9
45°	305.3	286.4	273.8	261.2	251.8	248.6	248.6	245.5
47.5°	198.3	201.4	201.4	198.3	192.0	188.8	192.0	188.8
50°	132.2	141.6	147.9	151.1	147.9	144.8	147.9	144.8
52.5°	91.3	100.7	110.2	113.3	110.2	107.0	107.0	107.0
55°	62.9	69.2	75.5	78.7	78.7	78.7	78.7	78.7
57.5°	47.2	50.4	53.5	56.7	59.8	56.7	59.8	56.7
60°	34.6	37.8	40.9	40.9	44.1	44.1	44.1	40.9
62.5°	25.2	28.3	28.3	31.5	31.5	31.5	31.5	31.5
65°	18.9	18.9	22.0	22.0	22.0	22.0	22.0	22.0
67.5°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
70°	12.6	12.6	12.6	12.6	12.6	12.6	12.6	9.4
72.5°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	6.3
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
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)