

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: P209451

Luminaire Tested: **LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209451  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35359)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS  
Description: PORTFOLIO LD6 SERIES 6" RECESSED FIXTURE WITH A SQUARE SHALLOW CAST METALLIC SILVER TRIM  
MEDIUM DISTRIBUTION WITH MATTE METALLIC SILVER TRIM  
WATTAGE D010TR-27.4 W DE010-27.95 W D5LT-27.65 W DMX-27.73 W DL2-29.56 W  
DL3-29.67 W DLE-29.73 W  
Light Source: HIGH LUMEN LED 3000 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2734.6 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.22 / 1.33  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

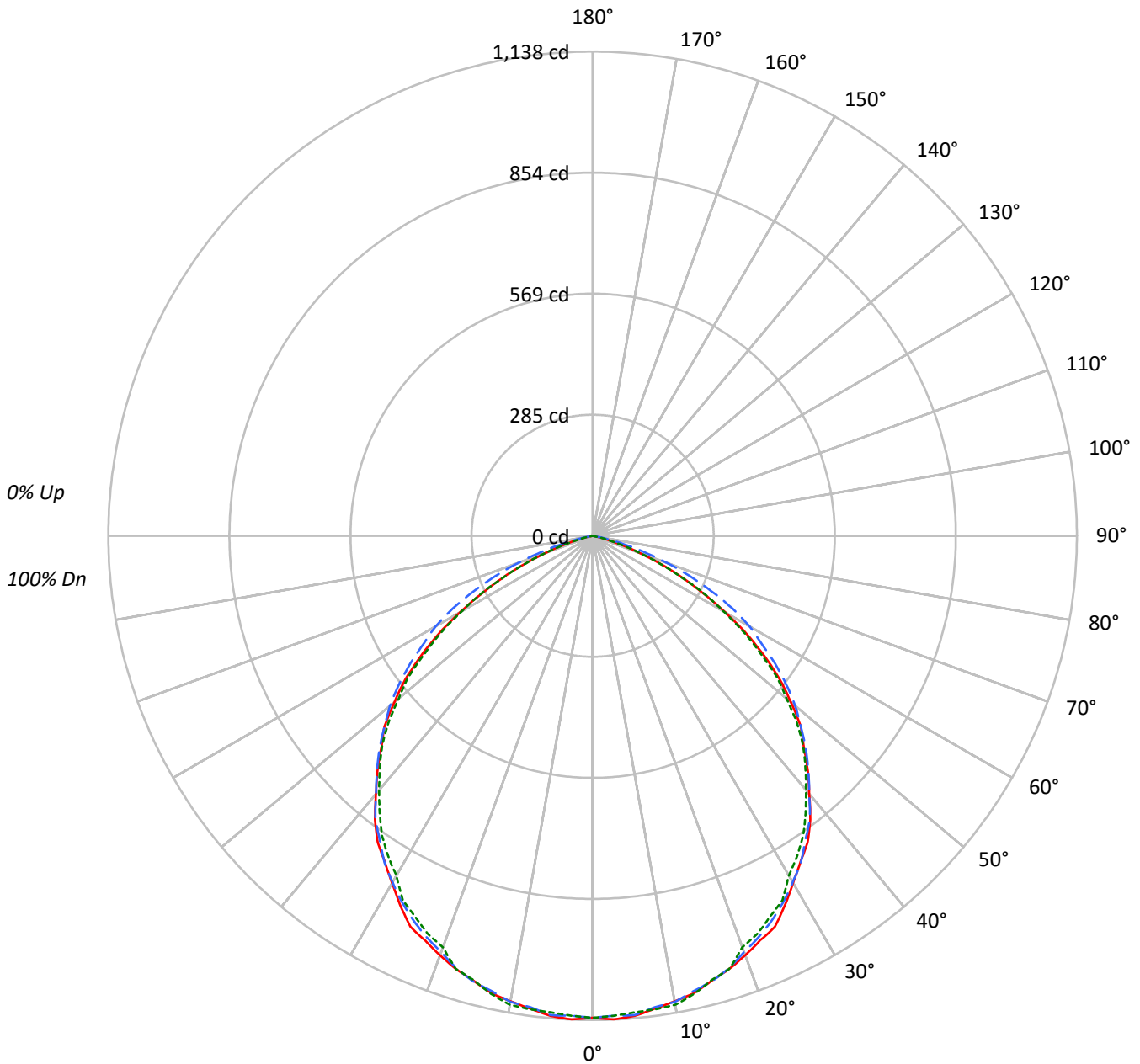
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P209451

CATALOG NUMBER: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P209451

CATALOG NUMBER: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS

**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	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	94	88	83	99	93	87	82	89	84	80	86	82	79	83	80	77	75																			
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64																			
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56																			
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49																			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43																			
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38																			
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34																			
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



TEST NUMBER: P209451

CATALOG NUMBER: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.1	3.9
10°-20°	305.5	11.2
20°-30°	459.7	16.8
30°-40°	543.8	19.9
40°-50°	542.6	19.8
50°-60°	450.0	16.5
60°-70°	262.9	9.6
70°-80°	62.6	2.3
80°-90°	0.5	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°	872.2	31.9
0°-40°	1416.0	51.8
0°-60°	2408.7	88.1
0°-90°	2734.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2734.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1133	1127	1131	1128	1124	107
15°	1082	1082	1084	1079	1081	306
25°	1014	1002	997	994	987	464
35°	880	872	872	867	862	547
45°	702	702	708	701	700	543
55°	493	510	523	509	481	438
65°	232	261	307	261	230	231
75°	33	48	75	48	32	45
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P209451

CATALOG NUMBER: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7
2.5°	1137.7	1131.0	1136.0	1126.0	1132.7	1126.0	1127.6	1124.3	1131.0	1129.3	1127.6
5°	1132.7	1134.3	1131.0	1134.3	1129.3	1124.3	1129.3	1126.0	1116.0	1131.0	1127.6
7.5°	1121.0	1122.6	1119.3	1124.3	1121.0	1114.3	1127.6	1117.6	1116.0	1117.6	1124.3
10°	1110.9	1114.3	1112.6	1110.9	1112.6	1112.6	1109.3	1104.3	1109.3	1112.6	1110.9
12.5°	1100.9	1105.9	1102.6	1099.2	1095.9	1097.6	1100.9	1092.6	1092.6	1095.9	1105.9
15°	1082.5	1085.9	1087.6	1080.9	1080.9	1082.5	1089.2	1075.9	1082.5	1084.2	1085.9
17.5°	1067.5	1069.2	1069.2	1064.2	1067.5	1062.5	1067.5	1060.8	1067.5	1065.8	1069.2
20°	1049.1	1052.5	1049.1	1049.1	1045.8	1047.5	1047.5	1047.5	1042.4	1040.8	1044.1
22.5°	1029.1	1029.1	1025.7	1029.1	1025.7	1024.1	1032.4	1019.1	1032.4	1020.7	1030.8
25°	1014.0	1005.7	1000.7	999.0	1005.7	999.0	1002.4	997.3	1000.7	997.3	999.0
27.5°	979.0	974.0	972.3	974.0	974.0	972.3	979.0	960.6	972.3	970.6	970.6
30°	942.2	942.2	945.6	942.2	945.6	940.5	947.2	932.2	942.2	940.5	942.2
32.5°	908.8	910.5	910.5	913.8	908.8	910.5	910.5	905.5	908.8	910.5	907.1
35°	880.4	872.0	872.0	872.0	872.0	872.0	875.4	870.4	875.4	872.0	872.0
37.5°	840.3	832.0	832.0	830.3	838.6	833.6	842.0	835.3	835.3	838.6	838.6
40°	791.9	795.2	790.2	796.9	795.2	788.5	803.6	793.5	800.2	791.9	798.5
42.5°	748.4	750.1	748.4	746.8	753.4	751.8	758.4	751.8	750.1	750.1	761.8
45°	701.6	701.6	701.6	706.7	701.6	703.3	710.0	706.7	710.0	708.3	720.0
47.5°	663.2	654.9	653.2	663.2	661.6	663.2	663.2	664.9	666.6	663.2	668.2
50°	608.1	604.8	604.8	606.4	608.1	611.4	616.4	619.8	616.4	621.5	623.1
52.5°	554.6	551.3	553.0	559.6	563.0	561.3	569.7	571.3	569.7	573.0	573.0
55°	492.8	489.5	494.5	502.8	507.9	512.9	521.2	514.5	521.2	522.9	524.6
57.5°	429.3	427.7	429.3	437.7	442.7	454.4	467.8	467.8	474.4	469.4	474.4
60°	359.2	359.2	365.9	370.9	384.2	392.6	406.0	412.6	419.3	426.0	422.7
62.5°	292.4	294.0	299.0	310.7	319.1	330.8	345.8	352.5	364.2	370.9	367.5
65°	232.2	232.2	235.6	245.6	253.9	269.0	282.3	297.4	304.0	307.4	309.1
67.5°	173.7	172.1	178.8	185.4	193.8	208.8	223.9	232.2	243.9	247.2	245.6
70°	116.9	118.6	122.0	128.6	138.7	150.4	167.1	173.7	180.4	183.8	180.4
72.5°	73.5	73.5	75.2	81.9	88.5	96.9	108.6	115.3	123.6	125.3	122.0
75°	33.4	33.4	36.8	40.1	45.1	51.8	60.1	65.2	70.2	75.2	75.2
77.5°	6.7	8.4	10.0	10.0	13.4	18.4	23.4	28.4	33.4	33.4	33.4
80°	1.7	1.7	1.7	1.7	1.7	1.7	3.3	5.0	8.4	8.4	8.4
82.5°	0.0	0.0	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	0.0	0.0
87.5°	0.0	0.0	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	0.0	0.0



TEST NUMBER: P209451

CATALOG NUMBER: LDSQ6B30D010 EU6B30509030 6LBCSSQ1MMS

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7	1132.7
2.5°	1132.7	1142.7	1132.7	1127.6	1134.3	1132.7	1127.6	1129.3
5°	1127.6	1131.0	1134.3	1121.0	1129.3	1131.0	1127.6	1124.3
7.5°	1122.6	1124.3	1122.6	1119.3	1119.3	1119.3	1122.6	1122.6
10°	1121.0	1116.0	1107.6	1102.6	1107.6	1107.6	1105.9	1119.3
12.5°	1099.2	1105.9	1100.9	1090.9	1100.9	1099.2	1099.2	1102.6
15°	1082.5	1082.5	1085.9	1072.5	1079.2	1077.5	1077.5	1080.9
17.5°	1065.8	1065.8	1064.2	1060.8	1059.2	1064.2	1059.2	1067.5
20°	1042.4	1045.8	1055.8	1039.1	1044.1	1039.1	1039.1	1029.1
22.5°	1014.0	1030.8	1022.4	1020.7	1019.1	1020.7	1024.1	1012.4
25°	995.7	995.7	999.0	989.0	989.0	992.3	990.7	987.3
27.5°	970.6	968.9	967.3	963.9	972.3	965.6	965.6	965.6
30°	935.5	940.5	938.9	930.5	940.5	937.2	932.2	922.2
32.5°	905.5	912.1	902.1	900.4	898.8	900.4	902.1	893.8
35°	868.7	870.4	870.4	863.7	865.4	863.7	860.4	862.0
37.5°	835.3	833.6	825.3	821.9	823.6	823.6	825.3	821.9
40°	788.5	793.5	793.5	781.8	785.2	781.8	781.8	780.2
42.5°	750.1	751.8	746.8	741.7	741.7	740.1	736.7	740.1
45°	710.0	708.3	703.3	698.3	698.3	696.6	693.3	700.0
47.5°	664.9	661.6	659.9	653.2	653.2	643.2	644.8	651.5
50°	619.8	616.4	609.8	606.4	601.4	596.4	594.7	594.7
52.5°	566.3	566.3	559.6	553.0	551.3	548.0	544.6	546.3
55°	519.6	519.6	514.5	502.8	496.2	487.8	482.8	481.1
57.5°	466.1	462.8	452.7	439.4	432.7	426.0	421.0	421.0
60°	412.6	404.3	394.3	382.6	370.9	359.2	355.8	354.2
62.5°	354.2	345.8	327.4	314.1	305.7	299.0	292.4	297.4
65°	295.7	284.0	267.3	253.9	245.6	235.6	230.5	230.5
67.5°	233.9	222.2	205.5	192.1	183.8	177.1	170.4	170.4
70°	172.1	163.7	148.7	137.0	130.3	120.3	118.6	118.6
72.5°	116.9	106.9	95.2	86.9	80.2	73.5	70.2	68.5
75°	65.2	58.5	50.1	45.1	38.4	35.1	31.7	31.7
77.5°	26.7	21.7	16.7	13.4	10.0	8.4	6.7	8.4
80°	5.0	3.3	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	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
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



Report Generated By E9808895 / USPTCWHP6082093







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









(END OF REPORT)