

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: P209438

Luminaire Tested: **LDSQ6B20D010 EU6B10209030 6LBCSSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P209438
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: LDSQ6B20D010 EU6B10209030 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-21.86 W DE010-20.46 W D5LT-21.24 W DMX-20.89 W DL2-22.5 W DL3-21.8 6 W DLE-22.46 W
Light Source: HIGH LUMEN LED 3000 K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1894.3 lumens
Efficiency: N/A
Efficacy: 91.1 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

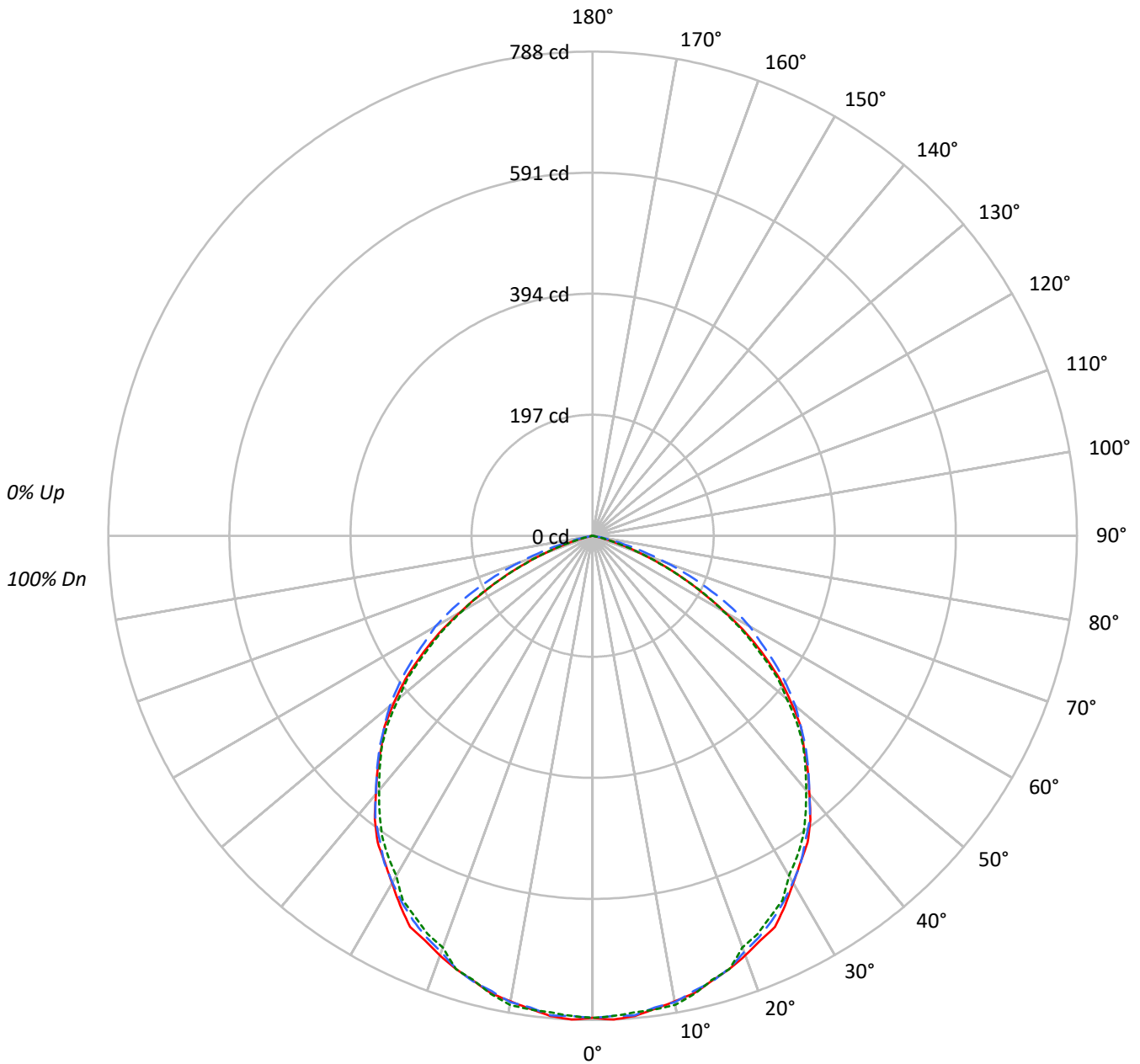
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P209438

CATALOG NUMBER: LDSQ6B20D010 EU6B10209030 6LBCSSQ1MMS

Luminous Intensity Polar Plot





TEST NUMBER: P209438

CATALOG NUMBER: LDSQ6B20D010 EU6B10209030 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: P209438

CATALOG NUMBER: LDSQ6B20D010 EU6B10209030 6LBCSSQ1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	3.9
10°-20°	211.6	11.2
20°-30°	318.4	16.8
30°-40°	376.7	19.9
40°-50°	375.9	19.8
50°-60°	311.7	16.5
60°-70°	182.1	9.6
70°-80°	43.4	2.3
80°-90°	0.3	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°	604.2	31.9
0°-40°	980.9	51.8
0°-60°	1668.5	88.1
0°-90°	1894.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1894.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	785	781	783	781	779	74
15°	750	749	751	748	749	212
25°	702	694	691	689	684	321
35°	610	604	604	601	597	379
45°	486	487	491	485	485	376
55°	341	354	362	352	333	303
65°	161	181	213	181	160	160
75°	23	34	52	33	22	31
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P209438

CATALOG NUMBER: LDSQ6B20D010 EU6B10209030 6LBCSSQ1MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	788.1	783.4	786.9	780.0	784.6	780.0	781.1	778.8	783.4	782.3	781.1
5°	784.6	785.7	783.4	785.7	782.3	778.8	782.3	780.0	773.0	783.4	781.1
7.5°	776.5	777.6	775.3	778.8	776.5	771.9	781.1	774.2	773.0	774.2	778.8
10°	769.5	771.9	770.7	769.5	770.7	770.7	768.4	764.9	768.4	770.7	769.5
12.5°	762.6	766.1	763.8	761.4	759.1	760.3	762.6	756.8	756.8	759.1	766.1
15°	749.9	752.2	753.3	748.7	748.7	749.9	754.5	745.2	749.9	751.0	752.2
17.5°	739.5	740.6	740.6	737.1	739.5	736.0	739.5	734.8	739.5	738.3	740.6
20°	726.7	729.0	726.7	726.7	724.4	725.6	725.6	725.6	722.1	720.9	723.3
22.5°	712.8	712.8	710.5	712.8	710.5	709.4	715.2	705.9	715.2	707.0	714.0
25°	702.4	696.6	693.2	692.0	696.6	692.0	694.3	690.8	693.2	690.8	692.0
27.5°	678.1	674.6	673.5	674.6	674.6	673.5	678.1	665.4	673.5	672.3	672.3
30°	652.7	652.7	655.0	652.7	655.0	651.5	656.1	645.7	652.7	651.5	652.7
32.5°	629.5	630.7	630.7	633.0	629.5	630.7	630.7	627.2	629.5	630.7	628.4
35°	609.8	604.1	604.1	604.1	604.1	604.1	606.4	602.9	606.4	604.1	604.1
37.5°	582.1	576.3	576.3	575.1	580.9	577.4	583.2	578.6	578.6	580.9	580.9
40°	548.5	550.8	547.4	552.0	550.8	546.2	556.6	549.7	554.3	548.5	553.1
42.5°	518.4	519.6	518.4	517.3	521.9	520.7	525.4	520.7	519.6	519.6	527.7
45°	486.0	486.0	486.0	489.5	486.0	487.2	491.8	489.5	491.8	490.7	498.8
47.5°	459.4	453.6	452.5	459.4	458.3	459.4	459.4	460.6	461.7	459.4	462.9
50°	421.2	418.9	418.9	420.1	421.2	423.5	427.0	429.3	427.0	430.5	431.6
52.5°	384.2	381.9	383.0	387.7	390.0	388.8	394.6	395.8	394.6	396.9	396.9
55°	341.4	339.1	342.5	348.3	351.8	355.3	361.0	356.4	361.0	362.2	363.4
57.5°	297.4	296.2	297.4	303.2	306.7	314.8	324.0	324.0	328.6	325.2	328.6
60°	248.8	248.8	253.4	256.9	266.2	271.9	281.2	285.8	290.5	295.1	292.8
62.5°	202.5	203.7	207.1	215.2	221.0	229.1	239.5	244.2	252.3	256.9	254.6
65°	160.9	160.9	163.2	170.1	175.9	186.3	195.6	206.0	210.6	212.9	214.1
67.5°	120.3	119.2	123.8	128.4	134.2	144.7	155.1	160.9	169.0	171.3	170.1
70°	81.0	82.2	84.5	89.1	96.0	104.1	115.7	120.3	125.0	127.3	125.0
72.5°	50.9	50.9	52.1	56.7	61.3	67.1	75.2	79.8	85.6	86.8	84.5
75°	23.1	23.1	25.5	27.8	31.2	35.9	41.7	45.1	48.6	52.1	52.1
77.5°	4.6	5.8	6.9	6.9	9.3	12.7	16.2	19.7	23.1	23.1	23.1
80°	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5	5.8	5.8	5.8
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: P209438

CATALOG NUMBER: LDSQ6B20D010 EU6B10209030 6LBCSSQ1MMS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	784.6	791.5	784.6	781.1	785.7	784.6	781.1	782.3
5°	781.1	783.4	785.7	776.5	782.3	783.4	781.1	778.8
7.5°	777.6	778.8	777.6	775.3	775.3	775.3	777.6	777.6
10°	776.5	773.0	767.2	763.8	767.2	767.2	766.1	775.3
12.5°	761.4	766.1	762.6	755.7	762.6	761.4	761.4	763.8
15°	749.9	749.9	752.2	742.9	747.6	746.4	746.4	748.7
17.5°	738.3	738.3	737.1	734.8	733.7	737.1	733.7	739.5
20°	722.1	724.4	731.4	719.8	723.3	719.8	719.8	712.8
22.5°	702.4	714.0	708.2	707.0	705.9	707.0	709.4	701.3
25°	689.7	689.7	692.0	685.1	685.1	687.4	686.2	683.9
27.5°	672.3	671.2	670.0	667.7	673.5	668.9	668.9	668.9
30°	648.0	651.5	650.3	644.6	651.5	649.2	645.7	638.8
32.5°	627.2	631.8	624.9	623.7	622.6	623.7	624.9	619.1
35°	601.7	602.9	602.9	598.3	599.4	598.3	596.0	597.1
37.5°	578.6	577.4	571.7	569.3	570.5	570.5	571.7	569.3
40°	546.2	549.7	549.7	541.6	543.9	541.6	541.6	540.4
42.5°	519.6	520.7	517.3	513.8	513.8	512.6	510.3	512.6
45°	491.8	490.7	487.2	483.7	483.7	482.6	480.2	484.9
47.5°	460.6	458.3	457.1	452.5	452.5	445.5	446.7	451.3
50°	429.3	427.0	422.4	420.1	416.6	413.1	412.0	412.0
52.5°	392.3	392.3	387.7	383.0	381.9	379.6	377.2	378.4
55°	359.9	359.9	356.4	348.3	343.7	337.9	334.4	333.3
57.5°	322.9	320.5	313.6	304.3	299.7	295.1	291.6	291.6
60°	285.8	280.0	273.1	265.0	256.9	248.8	246.5	245.3
62.5°	245.3	239.5	226.8	217.6	211.8	207.1	202.5	206.0
65°	204.8	196.7	185.2	175.9	170.1	163.2	159.7	159.7
67.5°	162.0	153.9	142.3	133.1	127.3	122.7	118.0	118.0
70°	119.2	113.4	103.0	94.9	90.3	83.3	82.2	82.2
72.5°	81.0	74.1	66.0	60.2	55.5	50.9	48.6	47.4
75°	45.1	40.5	34.7	31.2	26.6	24.3	22.0	22.0
77.5°	18.5	15.0	11.6	9.3	6.9	5.8	4.6	5.8
80°	3.5	2.3	1.2	1.2	1.2	1.2	1.2	1.2
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)