

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: P209436

Luminaire Tested: **LDSQ6B20D010 EU6B10209024 6LBCSSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P209436  
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 EU6B10209024 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 2400 K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1602.2 lumens  
Efficiency: N/A  
Efficacy: 77.0 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

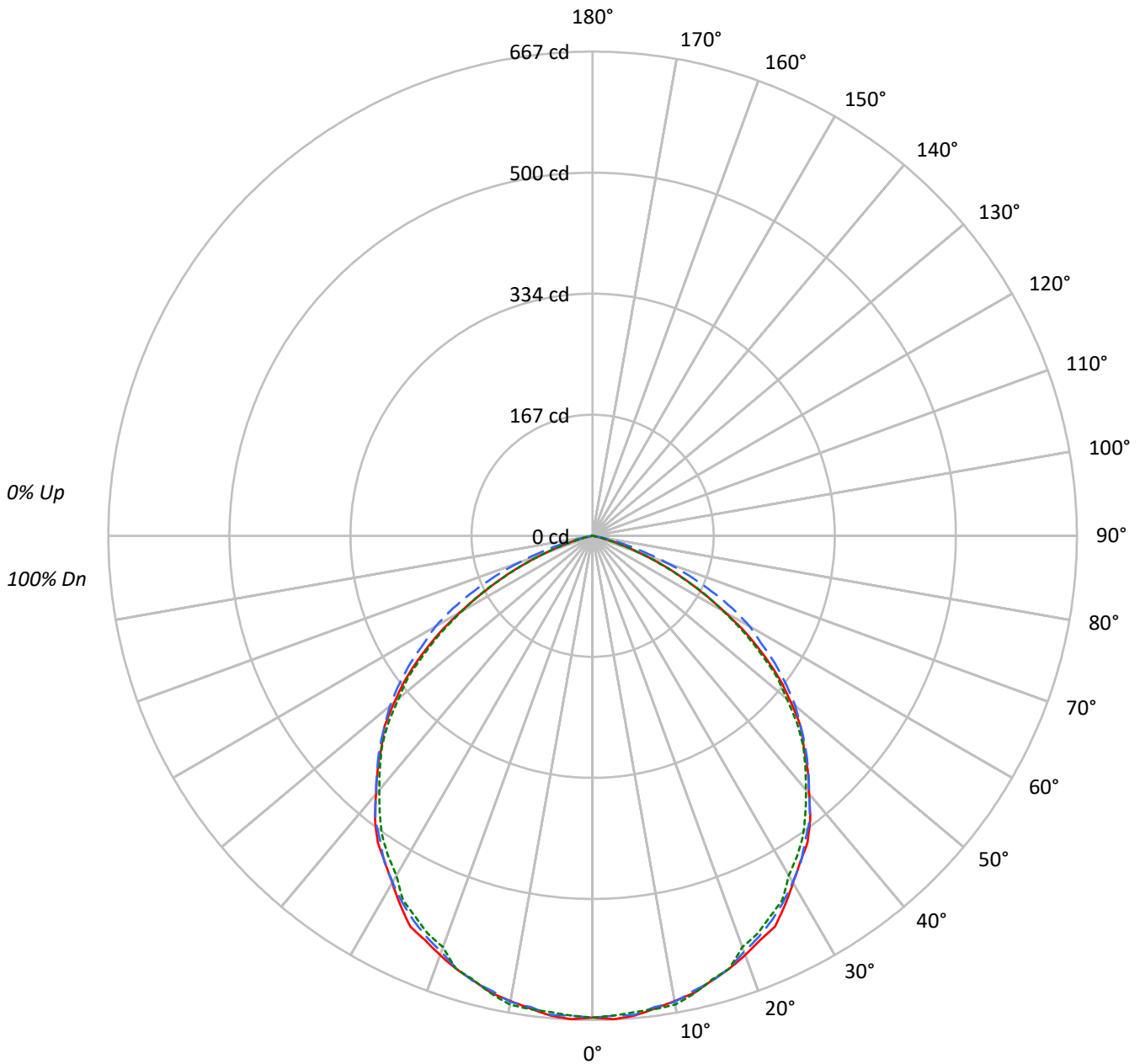
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P209436

CATALOG NUMBER: LDSQ6B20D010 EU6B10209024 6LBCSSQ1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P209436

CATALOG NUMBER: LDSQ6B20D010 EU6B10209024 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: P209436

CATALOG NUMBER: LDSQ6B20D010 EU6B10209024 6LBCSSQ1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.8	3.9
10°-20°	179.0	11.2
20°-30°	269.3	16.8
30°-40°	318.6	19.9
40°-50°	317.9	19.8
50°-60°	263.7	16.5
60°-70°	154.0	9.6
70°-80°	36.7	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°	511.1	31.9
0°-40°	829.6	51.8
0°-60°	1411.2	88.1
0°-90°	1602.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1602.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	664	660	663	661	659	63
15°	634	634	635	632	633	179
25°	594	587	584	582	578	272
35°	516	511	511	508	505	321
45°	411	412	415	411	410	318
55°	289	299	306	298	282	256
65°	136	153	180	153	135	135
75°	20	28	44	28	19	27
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P209436

CATALOG NUMBER: LDSQ6B20D010 EU6B10209024 6LBCSSQ1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	663.6	663.6	663.6	663.6	663.6	663.6	663.6	663.6	663.6	663.6	663.6
2.5°	666.6	662.6	665.6	659.7	663.6	659.7	660.7	658.7	662.6	661.7	660.7
5°	663.6	664.6	662.6	664.6	661.7	658.7	661.7	659.7	653.8	662.6	660.7
7.5°	656.8	657.8	655.8	658.7	656.8	652.9	660.7	654.8	653.8	654.8	658.7
10°	650.9	652.9	651.9	650.9	651.9	651.9	649.9	647.0	649.9	651.9	650.9
12.5°	645.0	648.0	646.0	644.1	642.1	643.1	645.0	640.1	640.1	642.1	648.0
15°	634.3	636.2	637.2	633.3	633.3	634.3	638.2	630.3	634.3	635.2	636.2
17.5°	625.5	626.4	626.4	623.5	625.5	622.5	625.5	621.5	625.5	624.5	626.4
20°	614.7	616.6	614.7	614.7	612.7	613.7	613.7	613.7	610.8	609.8	611.8
22.5°	602.9	602.9	601.0	602.9	601.0	600.0	604.9	597.1	604.9	598.0	603.9
25°	594.1	589.2	586.3	585.3	589.2	585.3	587.3	584.3	586.3	584.3	585.3
27.5°	573.6	570.6	569.7	570.6	570.6	569.7	573.6	562.8	569.7	568.7	568.7
30°	552.0	552.0	554.0	552.0	554.0	551.1	555.0	546.2	552.0	551.1	552.0
32.5°	532.5	533.4	533.4	535.4	532.5	533.4	533.4	530.5	532.5	533.4	531.5
35°	515.8	510.9	510.9	510.9	510.9	510.9	512.9	510.0	512.9	510.9	510.9
37.5°	492.3	487.4	487.4	486.5	491.4	488.4	493.3	489.4	489.4	491.4	491.4
40°	464.0	465.9	463.0	466.9	465.9	462.0	470.8	464.9	468.8	464.0	467.9
42.5°	438.5	439.5	438.5	437.5	441.4	440.5	444.4	440.5	439.5	439.5	446.3
45°	411.1	411.1	411.1	414.0	411.1	412.1	416.0	414.0	416.0	415.0	421.9
47.5°	388.6	383.7	382.7	388.6	387.6	388.6	388.6	389.6	390.5	388.6	391.5
50°	356.3	354.3	354.3	355.3	356.3	358.2	361.2	363.1	361.2	364.1	365.1
52.5°	325.0	323.0	324.0	327.9	329.9	328.9	333.8	334.8	333.8	335.7	335.7
55°	288.7	286.8	289.7	294.6	297.6	300.5	305.4	301.5	305.4	306.4	307.3
57.5°	251.6	250.6	251.6	256.4	259.4	266.2	274.1	274.1	278.0	275.0	278.0
60°	210.4	210.4	214.4	217.3	225.1	230.0	237.8	241.8	245.7	249.6	247.6
62.5°	171.3	172.3	175.2	182.1	187.0	193.8	202.6	206.5	213.4	217.3	215.3
65°	136.1	136.1	138.0	143.9	148.8	157.6	165.4	174.2	178.1	180.1	181.1
67.5°	101.8	100.8	104.7	108.6	113.5	122.4	131.2	136.1	142.9	144.9	143.9
70°	68.5	69.5	71.5	75.4	81.2	88.1	97.9	101.8	105.7	107.7	105.7
72.5°	43.1	43.1	44.0	48.0	51.9	56.8	63.6	67.5	72.4	73.4	71.5
75°	19.6	19.6	21.5	23.5	26.4	30.3	35.2	38.2	41.1	44.0	44.0
77.5°	3.9	4.9	5.9	5.9	7.8	10.8	13.7	16.6	19.6	19.6	19.6
80°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	4.9	4.9
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: P209436

CATALOG NUMBER: LDSQ6B20D010 EU6B10209024 6LBCSSQ1MMS

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	663.6	663.6	663.6	663.6	663.6	663.6	663.6	663.6
2.5°	663.6	669.5	663.6	660.7	664.6	663.6	660.7	661.7
5°	660.7	662.6	664.6	656.8	661.7	662.6	660.7	658.7
7.5°	657.8	658.7	657.8	655.8	655.8	655.8	657.8	657.8
10°	656.8	653.8	648.9	646.0	648.9	648.9	648.0	655.8
12.5°	644.1	648.0	645.0	639.2	645.0	644.1	644.1	646.0
15°	634.3	634.3	636.2	628.4	632.3	631.3	631.3	633.3
17.5°	624.5	624.5	623.5	621.5	620.6	623.5	620.6	625.5
20°	610.8	612.7	618.6	608.8	611.8	608.8	608.8	602.9
22.5°	594.1	603.9	599.0	598.0	597.1	598.0	600.0	593.2
25°	583.4	583.4	585.3	579.5	579.5	581.4	580.4	578.5
27.5°	568.7	567.7	566.7	564.8	569.7	565.7	565.7	565.7
30°	548.1	551.1	550.1	545.2	551.1	549.1	546.2	540.3
32.5°	530.5	534.4	528.6	527.6	526.6	527.6	528.6	523.7
35°	509.0	510.0	510.0	506.0	507.0	506.0	504.1	505.1
37.5°	489.4	488.4	483.5	481.6	482.5	482.5	483.5	481.6
40°	462.0	464.9	464.9	458.1	460.0	458.1	458.1	457.1
42.5°	439.5	440.5	437.5	434.6	434.6	433.6	431.7	433.6
45°	416.0	415.0	412.1	409.1	409.1	408.2	406.2	410.1
47.5°	389.6	387.6	386.6	382.7	382.7	376.8	377.8	381.7
50°	363.1	361.2	357.3	355.3	352.4	349.4	348.5	348.5
52.5°	331.8	331.8	327.9	324.0	323.0	321.0	319.1	320.1
55°	304.4	304.4	301.5	294.6	290.7	285.8	282.9	281.9
57.5°	273.1	271.1	265.3	257.4	253.5	249.6	246.7	246.7
60°	241.8	236.9	231.0	224.1	217.3	210.4	208.5	207.5
62.5°	207.5	202.6	191.8	184.0	179.1	175.2	171.3	174.2
65°	173.2	166.4	156.6	148.8	143.9	138.0	135.1	135.1
67.5°	137.0	130.2	120.4	112.6	107.7	103.8	99.8	99.8
70°	100.8	95.9	87.1	80.3	76.3	70.5	69.5	69.5
72.5°	68.5	62.6	55.8	50.9	47.0	43.1	41.1	40.1
75°	38.2	34.3	29.4	26.4	22.5	20.6	18.6	18.6
77.5°	15.7	12.7	9.8	7.8	5.9	4.9	3.9	4.9
80°	2.9	2.0	1.0	1.0	1.0	1.0	1.0	1.0
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)