

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: P252577

Luminaire Tested: **LD6B20D010 EU6B10209030 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B20D010 EU6B10209030 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1735.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

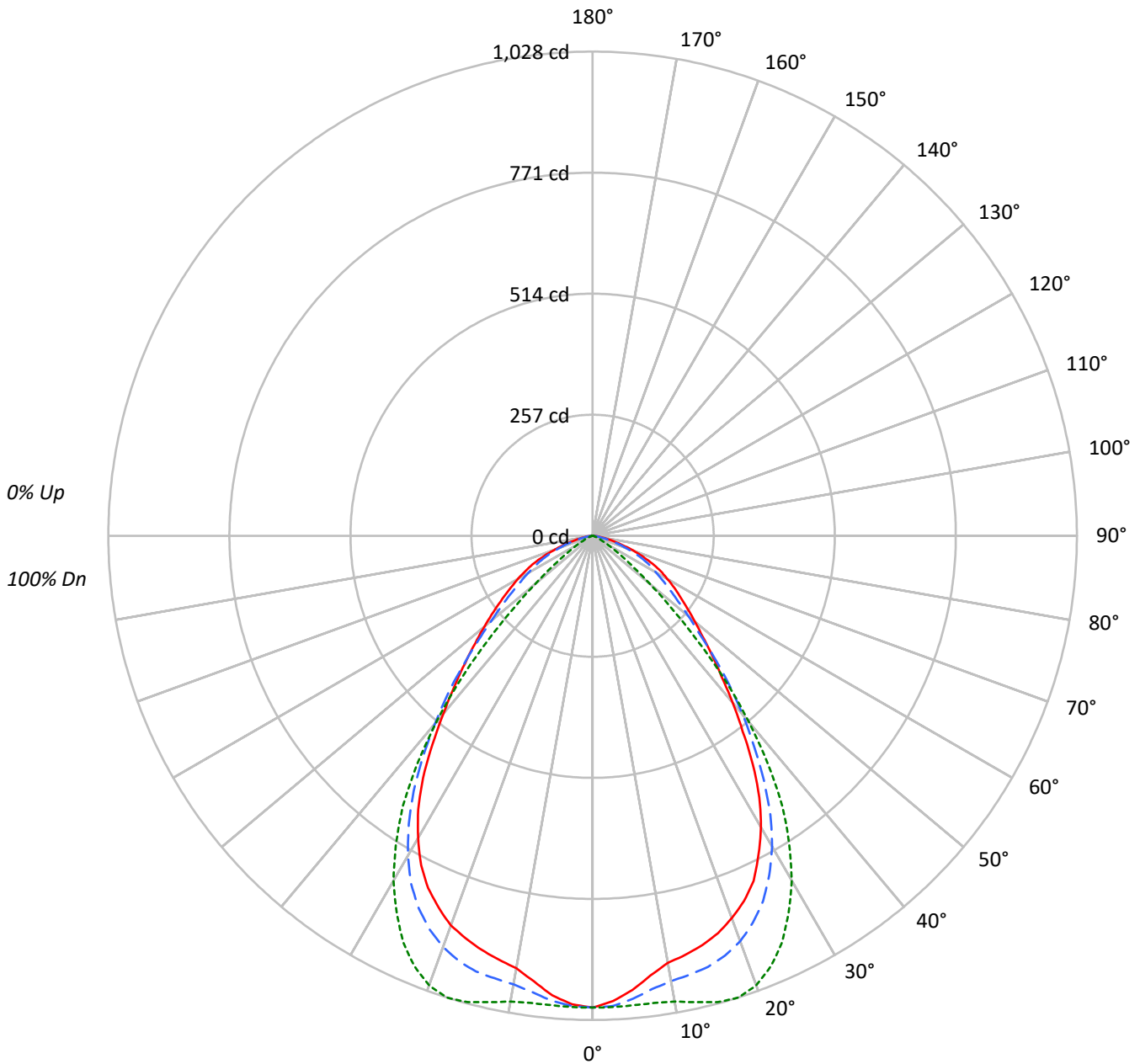
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	65352	65352	65352
5°	63401	65523	64160
10°	60987	66512	61756
15°	60774	69224	61477
20°	59979	70511	61103
25°	58186	68523	59438
30°	53826	63687	55830
35°	47221	55982	49993
40°	39355	43886	41919
45°	33123	28952	35365
50°	28683	15864	30439
55°	25945	8428	26605
60°	23878	4384	23878
65°	21628	2331	21087
70°	17454	1316	16118
75°	11973	882	11091
80°	7815	451	6951
85°	5165	898	4342



TEST NUMBER: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	5.4
10°-20°	270.1	15.6
20°-30°	399.1	23.0
30°-40°	403.1	23.2
40°-50°	277.8	16.0
50°-60°	159.6	9.2
60°-70°	92.9	5.4
70°-80°	33.9	2.0
80°-90°	5.2	0.3
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°	762.6	44.0
0°-40°	1165.7	67.2
0°-60°	1603.1	92.4
0°-90°	1735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1735.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1002	1002	1002	1002	1002	
5°	968	987	1000	991	980	91
15°	900	947	1025	958	910	253
25°	808	856	952	873	826	368
35°	593	633	703	662	628	368
45°	359	364	314	387	383	279
55°	228	200	74	208	234	205
65°	140	118	15	117	137	137
75°	48	38	4	37	44	53
85°	7	4	1	5	6	9
90°	0	0	0	0	0	



TEST NUMBER: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7
2.5°	989.0	990.1	991.3	990.1	991.3	995.9	992.4	994.8	994.8	995.9	999.4
5°	968.1	968.1	970.4	969.3	972.8	977.4	973.9	977.4	978.5	980.9	986.6
7.5°	941.5	941.5	942.6	942.6	947.3	951.9	949.6	954.2	958.9	963.5	970.4
10°	920.6	923.0	923.0	924.1	928.7	934.5	933.4	939.2	943.8	950.7	960.0
12.5°	911.4	912.5	912.5	914.8	919.5	925.3	924.1	929.9	936.9	945.0	954.2
15°	899.8	902.1	901.0	903.3	907.9	913.7	912.5	918.3	926.4	934.5	947.3
17.5°	884.7	885.9	887.1	887.1	891.7	896.3	896.3	902.1	911.4	920.6	934.5
20°	863.9	866.2	866.2	867.4	870.8	877.8	876.6	882.4	891.7	901.0	916.0
22.5°	839.6	840.7	840.7	841.9	847.7	851.2	852.3	856.9	865.1	875.5	889.4
25°	808.3	809.5	808.3	811.8	814.1	821.0	818.7	824.5	833.8	841.9	855.8
27.5°	763.1	765.5	765.5	766.6	772.4	778.2	778.2	784.0	792.1	797.9	811.8
30°	714.5	718.0	714.5	720.3	722.6	727.2	730.7	734.2	741.1	749.2	762.0
32.5°	658.9	657.8	658.9	661.2	668.2	671.7	674.0	677.5	684.4	691.3	701.8
35°	592.9	595.2	596.4	601.0	601.0	606.8	608.0	610.3	620.7	625.3	633.4
37.5°	523.4	525.7	526.9	529.2	533.9	536.2	539.6	543.1	550.1	558.2	562.8
40°	462.1	462.1	463.2	465.5	469.0	470.2	473.6	478.3	482.9	489.8	494.5
42.5°	404.2	405.3	404.2	406.5	409.9	414.6	413.4	419.2	420.4	425.0	428.5
45°	359.0	359.0	356.7	359.0	359.0	363.6	362.5	364.8	363.6	365.9	363.6
47.5°	316.1	317.3	316.1	317.3	317.3	317.3	318.5	316.1	317.3	313.8	306.9
50°	282.6	283.7	281.4	282.6	281.4	280.2	281.4	277.9	276.8	272.1	265.2
52.5°	253.6	252.5	251.3	251.3	251.3	250.1	249.0	245.5	242.0	237.4	229.3
55°	228.1	227.0	225.8	225.8	223.5	222.3	222.3	218.9	215.4	209.6	200.3
57.5°	205.0	203.8	202.7	202.7	201.5	199.2	199.2	195.7	191.1	184.1	176.0
60°	183.0	183.0	183.0	181.8	181.8	179.5	179.5	176.0	171.4	164.4	155.2
62.5°	163.3	162.1	162.1	162.1	162.1	161.0	159.8	157.5	152.9	145.9	137.8
65°	140.1	140.1	140.1	140.1	139.0	139.0	139.0	135.5	133.2	126.2	118.1
67.5°	114.6	114.6	114.6	114.6	113.5	114.6	114.6	112.3	110.0	103.1	96.1
70°	91.5	90.3	89.2	90.3	89.2	89.2	90.3	88.0	86.9	81.1	74.1
72.5°	67.2	68.3	67.2	67.2	67.2	66.0	67.2	66.0	63.7	59.1	54.4
75°	47.5	48.6	48.6	47.5	47.5	47.5	46.3	46.3	44.0	40.5	38.2
77.5°	32.4	32.4	32.4	32.4	31.3	31.3	31.3	30.1	29.0	26.6	24.3
80°	20.8	20.8	20.8	20.8	19.7	19.7	19.7	18.5	18.5	16.2	13.9
82.5°	12.7	12.7	12.7	12.7	12.7	12.7	11.6	11.6	10.4	9.3	8.1
85°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	5.8	5.8	4.6	3.5
87.5°	2.3	2.3	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3	2.3
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: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7
2.5°	997.1	998.2	998.2	998.2	1001.7	1002.9	999.4	995.9	1002.9	1001.7	1004.0
5°	985.5	989.0	991.3	992.4	995.9	998.2	994.8	993.6	999.4	1000.5	1001.7
7.5°	971.6	977.4	983.2	985.5	990.1	992.4	991.3	991.3	998.2	1000.5	1000.5
10°	962.3	970.4	977.4	983.2	989.0	992.4	992.4	993.6	1001.7	1004.0	1006.3
12.5°	960.0	970.4	979.7	987.8	992.4	998.2	999.4	1002.9	1011.0	1014.4	1014.4
15°	954.2	968.1	979.7	990.1	997.1	1004.0	1006.3	1013.3	1022.5	1024.9	1027.2
17.5°	943.8	957.7	971.6	984.3	993.6	999.4	1006.3	1013.3	1024.9	1028.3	1029.5
20°	925.3	941.5	955.4	968.1	977.4	985.5	992.4	1000.5	1011.0	1015.6	1016.8
22.5°	897.5	913.7	927.6	941.5	950.7	957.7	964.6	973.9	984.3	989.0	989.0
25°	863.9	879.0	894.0	904.4	913.7	921.8	925.3	935.7	946.1	951.9	951.9
27.5°	821.0	834.9	848.8	860.4	866.2	873.2	879.0	888.2	896.3	901.0	905.6
30°	766.6	780.5	793.3	804.8	811.8	818.7	824.5	831.5	839.6	845.4	846.5
32.5°	707.6	719.1	731.9	743.5	750.4	752.7	758.5	765.5	772.4	777.0	778.2
35°	642.7	650.8	658.9	669.3	676.3	676.3	682.1	686.7	692.5	702.9	700.6
37.5°	566.3	577.9	583.7	587.1	591.8	596.4	597.5	603.3	610.3	612.6	616.1
40°	494.5	498.0	501.4	501.4	506.1	506.1	506.1	507.2	514.2	515.3	520.0
42.5°	422.7	422.7	419.2	415.7	416.9	415.7	409.9	409.9	413.4	418.1	418.1
45°	355.5	347.4	337.0	328.9	323.1	320.8	313.8	313.8	312.7	313.8	318.5
47.5°	298.8	284.9	267.5	251.3	245.5	240.9	230.4	225.8	223.5	224.7	227.0
50°	251.3	236.2	216.6	196.9	186.4	180.7	167.9	159.8	158.7	156.3	161.0
52.5°	216.6	198.0	177.2	154.0	143.6	134.3	120.4	113.5	108.9	108.9	110.0
55°	186.4	166.8	143.6	120.4	110.0	103.1	89.2	79.9	75.3	74.1	77.6
57.5°	161.0	142.4	119.3	96.1	85.7	77.6	63.7	55.6	52.1	49.8	51.0
60°	141.3	122.8	99.6	77.6	68.3	59.1	47.5	38.2	33.6	33.6	34.7
62.5°	122.8	105.4	84.5	63.7	55.6	47.5	34.7	26.6	23.2	22.0	23.2
65°	104.2	88.0	70.6	53.3	45.2	38.2	27.8	20.8	16.2	15.1	16.2
67.5°	84.5	71.8	56.7	42.8	35.9	30.1	20.8	15.1	11.6	10.4	11.6
70°	66.0	54.4	42.8	31.3	26.6	22.0	15.1	11.6	8.1	6.9	8.1
72.5°	47.5	39.4	30.1	22.0	18.5	15.1	10.4	8.1	5.8	4.6	5.8
75°	32.4	26.6	19.7	13.9	11.6	10.4	6.9	4.6	3.5	3.5	3.5
77.5°	20.8	16.2	12.7	9.3	6.9	5.8	3.5	2.3	2.3	2.3	2.3
80°	11.6	9.3	6.9	4.6	3.5	3.5	2.3	2.3	1.2	1.2	1.2
82.5°	6.9	4.6	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2
85°	3.5	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	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: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7
2.5°	999.4	1000.5	997.1	1001.7	998.2	1002.9	1002.9	998.2	999.4	997.1	1001.7
5°	997.1	997.1	994.8	998.2	993.6	998.2	997.1	989.0	991.3	986.6	991.3
7.5°	997.1	994.8	991.3	994.8	989.0	992.4	987.8	979.7	977.4	971.6	971.6
10°	1000.5	997.1	992.4	993.6	987.8	989.0	982.0	970.4	967.0	960.0	957.7
12.5°	1008.7	1005.2	998.2	1000.5	992.4	992.4	983.2	969.3	962.3	953.1	950.7
15°	1020.2	1014.4	1006.3	1007.5	999.4	994.8	983.2	967.0	957.7	945.0	941.5
17.5°	1022.5	1016.8	1006.3	1006.3	995.9	990.1	976.2	957.7	946.1	933.4	926.4
20°	1009.8	1004.0	992.4	991.3	982.0	973.9	958.9	940.3	928.7	914.8	909.1
22.5°	983.2	976.2	965.8	964.6	955.4	950.7	934.5	916.0	904.4	890.5	885.9
25°	943.8	940.3	929.9	928.7	920.6	914.8	901.0	883.6	873.2	859.3	854.6
27.5°	897.5	894.0	883.6	883.6	874.3	870.8	858.1	841.9	833.8	821.0	815.3
30°	841.9	837.3	831.5	830.3	822.2	818.7	807.2	792.1	784.0	773.6	771.3
32.5°	775.9	772.4	768.9	767.8	759.7	756.2	748.1	733.0	726.1	716.8	713.4
35°	699.5	697.1	693.7	692.5	689.0	685.6	677.5	665.9	662.4	655.4	652.0
37.5°	611.4	613.8	611.4	611.4	608.0	609.1	602.2	595.2	591.8	587.1	584.8
40°	516.5	521.1	524.6	524.6	523.4	528.1	526.9	521.1	520.0	517.6	516.5
42.5°	420.4	422.7	429.6	434.3	433.1	444.7	445.8	450.5	454.0	451.6	452.8
45°	319.6	326.6	335.8	340.5	346.3	361.3	369.4	378.7	386.8	391.4	390.3
47.5°	230.4	238.6	249.0	255.9	266.3	284.9	305.7	317.3	328.9	334.7	340.5
50°	166.8	174.9	187.6	198.0	205.0	230.4	252.5	267.5	280.2	288.4	294.1
52.5°	117.0	126.2	140.1	149.4	159.8	184.1	209.6	227.0	240.9	251.3	257.1
55°	81.1	91.5	104.2	113.5	125.1	150.5	174.9	193.4	208.4	217.7	224.7
57.5°	56.7	66.0	78.7	86.9	98.4	122.8	147.1	165.6	180.7	189.9	198.0
60°	38.2	47.5	60.2	68.3	77.6	101.9	123.9	143.6	157.5	166.8	174.9
62.5°	26.6	34.7	47.5	55.6	63.7	84.5	105.4	122.8	136.6	147.1	154.0
65°	20.8	27.8	38.2	45.2	53.3	70.6	88.0	103.1	117.0	127.4	132.0
67.5°	15.1	22.0	30.1	35.9	41.7	56.7	71.8	83.4	96.1	104.2	110.0
70°	10.4	15.1	22.0	26.6	31.3	42.8	54.4	64.9	74.1	79.9	84.5
72.5°	8.1	10.4	15.1	18.5	22.0	30.1	39.4	47.5	54.4	59.1	63.7
75°	4.6	6.9	10.4	12.7	15.1	20.8	26.6	32.4	37.1	40.5	42.8
77.5°	2.3	3.5	5.8	6.9	9.3	12.7	17.4	20.8	24.3	26.6	29.0
80°	2.3	2.3	3.5	3.5	4.6	6.9	9.3	11.6	13.9	16.2	17.4
82.5°	1.2	1.2	2.3	2.3	2.3	3.5	4.6	6.9	8.1	9.3	10.4
85°	1.2	1.2	1.2	1.2	1.2	2.3	2.3	3.5	4.6	5.8	5.8
87.5°	0.0	0.0	1.2	1.2	1.2	1.2	1.2	2.3	2.3	2.3	3.5
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: P252577

CATALOG NUMBER: LD6B20D010 EU6B10209030 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7	1001.7
2.5°	998.2	1000.5	999.4	1001.7	998.2	997.1	999.4	995.9
5°	985.5	986.6	985.5	985.5	983.2	980.9	983.2	979.7
7.5°	965.8	965.8	962.3	962.3	957.7	955.4	955.4	954.2
10°	949.6	946.1	942.6	943.8	936.9	934.5	933.4	932.2
12.5°	941.5	939.2	933.4	933.4	926.4	924.1	923.0	921.8
15°	932.2	927.6	923.0	921.8	916.0	913.7	912.5	910.2
17.5°	916.0	912.5	906.7	906.7	901.0	899.8	897.5	896.3
20°	898.6	894.0	889.4	889.4	882.4	882.4	879.0	880.1
22.5°	874.3	870.8	866.2	866.2	860.4	859.3	855.8	854.6
25°	845.4	840.7	837.3	836.1	831.5	829.2	828.0	825.7
27.5°	807.2	803.7	800.2	797.9	792.1	790.9	787.5	788.6
30°	759.7	757.4	756.2	753.9	746.9	744.6	744.6	741.1
32.5°	707.6	704.1	701.8	698.3	692.5	691.3	687.9	689.0
35°	643.9	639.2	635.8	636.9	630.0	628.8	626.5	627.7
37.5°	577.9	573.2	568.6	567.4	561.6	561.6	558.2	558.2
40°	509.5	504.9	502.6	502.6	495.6	496.8	493.3	492.2
42.5°	448.2	443.5	442.4	441.2	437.7	436.6	433.1	434.3
45°	390.3	389.1	389.1	386.8	383.3	382.2	383.3	383.3
47.5°	339.3	340.5	339.3	339.3	337.0	339.3	337.0	338.1
50°	296.5	298.8	298.8	298.8	297.6	298.8	298.8	299.9
52.5°	260.6	264.0	262.9	264.0	262.9	265.2	264.0	265.2
55°	229.3	231.6	232.8	233.9	233.9	233.9	233.9	233.9
57.5°	200.3	203.8	205.0	206.1	206.1	208.4	206.1	206.1
60°	177.2	180.7	181.8	183.0	183.0	184.1	181.8	183.0
62.5°	156.3	159.8	159.8	161.0	161.0	161.0	158.7	159.8
65°	135.5	136.6	137.8	137.8	136.6	136.6	135.5	136.6
67.5°	112.3	113.5	112.3	112.3	111.2	111.2	108.9	110.0
70°	86.9	86.9	88.0	86.9	85.7	86.9	85.7	84.5
72.5°	64.9	64.9	64.9	63.7	63.7	62.5	63.7	63.7
75°	44.0	44.0	45.2	45.2	45.2	45.2	44.0	44.0
77.5°	29.0	29.0	29.0	29.0	30.1	29.0	29.0	29.0
80°	18.5	18.5	19.7	19.7	18.5	18.5	18.5	18.5
82.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
85°	6.9	6.9	6.9	6.9	5.8	5.8	5.8	5.8
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3
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)