

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: P252579

Luminaire Tested: **LD6B20D010 EU6B10209040 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252579
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 EU6B10209040 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1762.0 lumens
Efficiency: N/A
Efficacy: 84.7 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

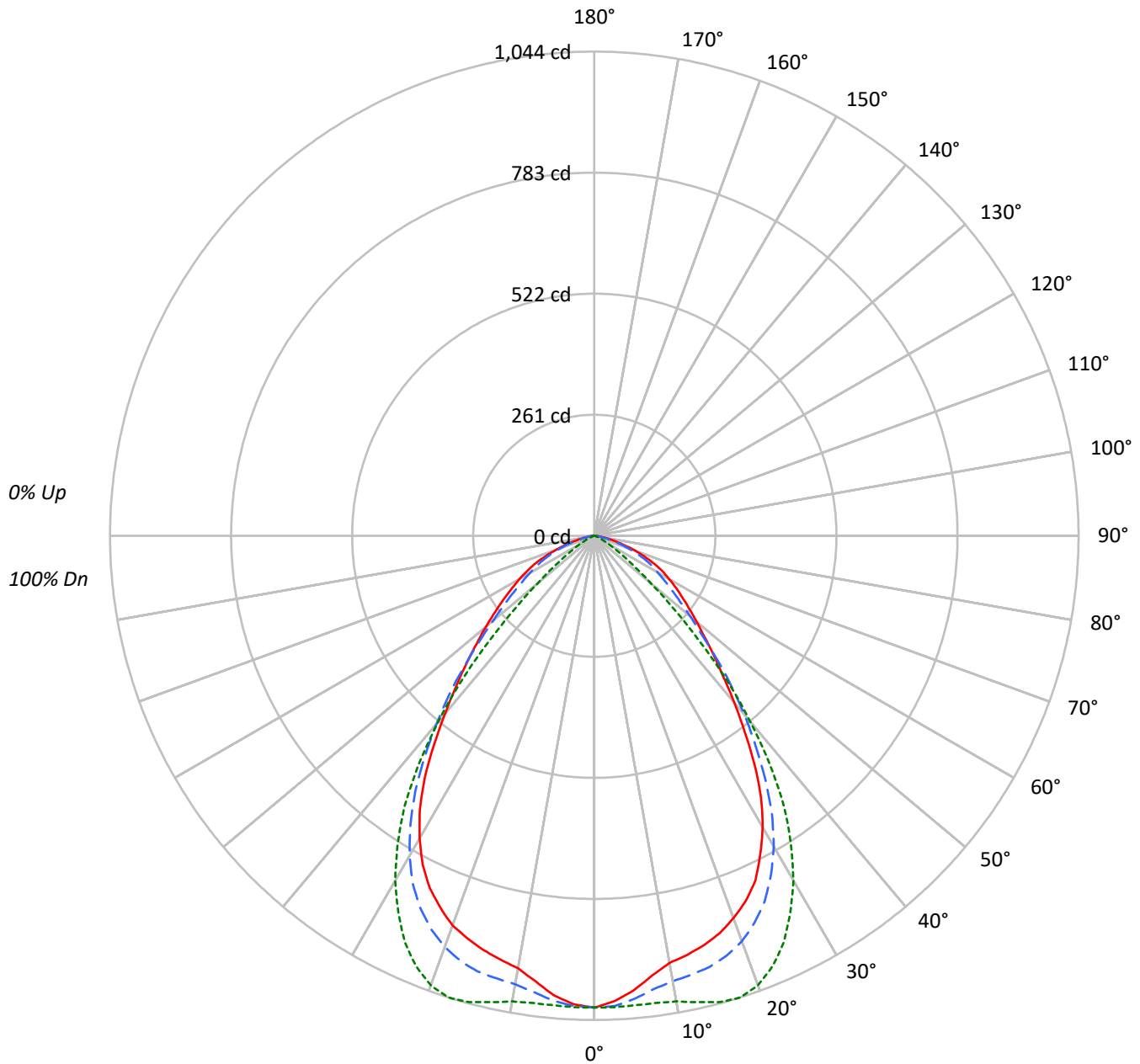
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

Luminous Intensity Polar Plot





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CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	108	105	102	109	106	103	100	102	99	97		98	96	94		94
2	104	97	92	87	101	95	91	86	92	88	84		89	86	83		86
3	96	88	81	76	94	86	80	76	84	79	74		81	77	73		79
4	90	80	73	67	88	79	72	67	76	70	66		74	69	65		72
5	84	73	65	60	82	72	65	59	70	64	59		68	63	58		66
6	78	67	59	54	76	66	59	53	64	58	53		63	57	53		61
7	73	61	54	49	72	61	53	48	59	53	48		58	52	48		57
8	69	57	49	44	67	56	49	44	55	48	44		54	48	44		53
9	64	53	45	40	63	52	45	40	51	45	40		50	44	40		49
10	61	49	42	37	60	48	42	37	48	41	37		47	41	37		46

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	66369	66369	66369
5°	64390	66544	65156
10°	61941	67546	62716
15°	61720	70298	62436
20°	60909	71608	62054
25°	59093	69588	60359
30°	54662	64674	56703
35°	47954	56858	50765
40°	39960	44567	42566
45°	33640	29405	35918
50°	29129	16118	30916
55°	26354	8565	27025
60°	24243	4449	24243
65°	21967	2362	21427
70°	17721	1354	16385
75°	12150	882	11268
80°	7965	451	7063
85°	5315	898	4416



TEST NUMBER: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	5.4
10°-20°	274.3	15.6
20°-30°	405.3	23.0
30°-40°	409.4	23.2
40°-50°	282.2	16.0
50°-60°	162.1	9.2
60°-70°	94.3	5.4
70°-80°	34.4	2.0
80°-90°	5.3	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°	774.4	44.0
0°-40°	1183.8	67.2
0°-60°	1628.0	92.4
0°-90°	1762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1762.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1017	1017	1017	1017	1017	
5°	983	1002	1016	1007	995	92
15°	914	962	1041	973	924	257
25°	821	869	967	887	838	374
35°	602	643	714	673	637	374
45°	365	369	319	393	389	284
55°	232	204	75	212	238	209
65°	142	120	15	119	139	139
75°	48	39	4	38	45	54
85°	7	4	1	5	6	9
90°	0	0	0	0	0	



TEST NUMBER: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3
2.5°	1004.4	1005.5	1006.7	1005.5	1006.7	1011.4	1007.9	1010.2	1010.2	1011.4	1014.9
5°	983.2	983.2	985.5	984.4	987.9	992.6	989.1	992.6	993.8	996.1	1002.0
7.5°	956.1	956.1	957.3	957.3	962.0	966.7	964.4	969.1	973.8	978.5	985.5
10°	935.0	937.3	937.3	938.5	943.2	949.1	947.9	953.8	958.5	965.5	975.0
12.5°	925.6	926.7	926.7	929.1	933.8	939.7	938.5	944.4	951.4	959.7	969.1
15°	913.8	916.1	915.0	917.3	922.0	927.9	926.7	932.6	940.8	949.1	962.0
17.5°	898.5	899.7	900.9	900.9	905.6	910.3	910.3	916.1	925.6	935.0	949.1
20°	877.3	879.7	879.7	880.9	884.4	891.5	890.3	896.2	905.6	915.0	930.3
22.5°	852.6	853.8	853.8	855.0	860.9	864.4	865.6	870.3	878.5	889.1	903.2
25°	820.9	822.1	820.9	824.4	826.8	833.8	831.5	837.4	846.8	855.0	869.1
27.5°	775.0	777.4	777.4	778.6	784.4	790.3	790.3	796.2	804.4	810.3	824.4
30°	725.6	729.2	725.6	731.5	733.9	738.6	742.1	745.6	752.7	760.9	773.8
32.5°	669.2	668.0	669.2	671.5	678.6	682.1	684.5	688.0	695.1	702.1	712.7
35°	602.1	604.5	605.7	610.4	610.4	616.3	617.4	619.8	630.4	635.1	643.3
37.5°	531.6	533.9	535.1	537.5	542.2	544.5	548.0	551.6	558.6	566.9	571.6
40°	469.2	469.2	470.4	472.8	476.3	477.5	481.0	485.7	490.4	497.5	502.2
42.5°	410.4	411.6	410.4	412.8	416.3	421.0	419.9	425.7	426.9	431.6	435.1
45°	364.6	364.6	362.2	364.6	364.6	369.3	368.1	370.5	369.3	371.6	369.3
47.5°	321.1	322.2	321.1	322.2	322.2	322.2	323.4	321.1	322.2	318.7	311.7
50°	287.0	288.1	285.8	287.0	285.8	284.6	285.8	282.3	281.1	276.4	269.3
52.5°	257.6	256.4	255.2	255.2	255.2	254.0	252.9	249.3	245.8	241.1	232.9
55°	231.7	230.5	229.3	229.3	227.0	225.8	225.8	222.3	218.7	212.9	203.5
57.5°	208.2	207.0	205.8	205.8	204.6	202.3	202.3	198.8	194.0	187.0	178.8
60°	185.8	185.8	185.8	184.6	184.6	182.3	182.3	178.8	174.1	167.0	157.6
62.5°	165.8	164.6	164.6	164.6	164.6	163.5	162.3	159.9	155.2	148.2	140.0
65°	142.3	142.3	142.3	142.3	141.1	141.1	141.1	137.6	135.2	128.2	120.0
67.5°	116.4	116.4	116.4	116.4	115.3	116.4	116.4	114.1	111.7	104.7	97.6
70°	92.9	91.7	90.6	91.7	90.6	90.6	91.7	89.4	88.2	82.3	75.3
72.5°	68.2	69.4	68.2	68.2	68.2	67.0	68.2	67.0	64.7	60.0	55.3
75°	48.2	49.4	49.4	48.2	48.2	48.2	47.0	47.0	44.7	41.2	38.8
77.5°	32.9	32.9	32.9	32.9	31.8	31.8	31.8	30.6	29.4	27.0	24.7
80°	21.2	21.2	21.2	21.2	20.0	20.0	20.0	18.8	18.8	16.5	14.1
82.5°	12.9	12.9	12.9	12.9	12.9	12.9	11.8	11.8	10.6	9.4	8.2
85°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	5.9	5.9	4.7	3.5
87.5°	2.4	2.4	3.5	3.5	3.5	3.5	3.5	3.5	2.4	2.4	2.4
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: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3
2.5°	1012.6	1013.8	1013.8	1013.8	1017.3	1018.5	1014.9	1011.4	1018.5	1017.3	1019.6
5°	1000.8	1004.4	1006.7	1007.9	1011.4	1013.8	1010.2	1009.1	1014.9	1016.1	1017.3
7.5°	986.7	992.6	998.5	1000.8	1005.5	1007.9	1006.7	1006.7	1013.8	1016.1	1016.1
10°	977.3	985.5	992.6	998.5	1004.4	1007.9	1007.9	1009.1	1017.3	1019.6	1022.0
12.5°	975.0	985.5	994.9	1003.2	1007.9	1013.8	1014.9	1018.5	1026.7	1030.2	1030.2
15°	969.1	983.2	994.9	1005.5	1012.6	1019.6	1022.0	1029.1	1038.5	1040.8	1043.2
17.5°	958.5	972.6	986.7	999.6	1009.1	1014.9	1022.0	1029.1	1040.8	1044.3	1045.5
20°	939.7	956.1	970.2	983.2	992.6	1000.8	1007.9	1016.1	1026.7	1031.4	1032.6
22.5°	911.4	927.9	942.0	956.1	965.5	972.6	979.7	989.1	999.6	1004.4	1004.4
25°	877.3	892.6	907.9	918.5	927.9	936.1	939.7	950.3	960.8	966.7	966.7
27.5°	833.8	847.9	862.1	873.8	879.7	886.7	892.6	902.0	910.3	915.0	919.7
30°	778.6	792.7	805.6	817.4	824.4	831.5	837.4	844.4	852.6	858.5	859.7
32.5°	718.6	730.3	743.3	755.0	762.1	764.4	770.3	777.4	784.4	789.1	790.3
35°	652.7	660.9	669.2	679.8	686.8	686.8	692.7	697.4	703.3	713.9	711.5
37.5°	575.1	586.9	592.7	596.3	601.0	605.7	606.8	612.7	619.8	622.1	625.7
40°	502.2	505.7	509.2	509.2	513.9	513.9	513.9	515.1	522.2	523.3	528.1
42.5°	429.3	429.3	425.7	422.2	423.4	422.2	416.3	416.3	419.9	424.6	424.6
45°	361.0	352.8	342.2	334.0	328.1	325.8	318.7	318.7	317.5	318.7	323.4
47.5°	303.4	289.3	271.7	255.2	249.3	244.6	234.0	229.3	227.0	228.2	230.5
50°	255.2	239.9	219.9	199.9	189.3	183.5	170.5	162.3	161.1	158.8	163.5
52.5°	219.9	201.1	179.9	156.4	145.8	136.4	122.3	115.3	110.5	110.5	111.7
55°	189.3	169.4	145.8	122.3	111.7	104.7	90.6	81.1	76.4	75.3	78.8
57.5°	163.5	144.7	121.1	97.6	87.0	78.8	64.7	56.5	52.9	50.6	51.7
60°	143.5	124.7	101.1	78.8	69.4	60.0	48.2	38.8	34.1	34.1	35.3
62.5°	124.7	107.0	85.9	64.7	56.5	48.2	35.3	27.0	23.5	22.3	23.5
65°	105.8	89.4	71.7	54.1	45.9	38.8	28.2	21.2	16.5	15.3	16.5
67.5°	85.9	72.9	57.6	43.5	36.5	30.6	21.2	15.3	11.8	10.6	11.8
70°	67.0	55.3	43.5	31.8	27.0	22.3	15.3	11.8	8.2	7.1	8.2
72.5°	48.2	40.0	30.6	22.3	18.8	15.3	10.6	8.2	5.9	4.7	5.9
75°	32.9	27.0	20.0	14.1	11.8	10.6	7.1	4.7	3.5	3.5	3.5
77.5°	21.2	16.5	12.9	9.4	7.1	5.9	3.5	2.4	2.4	2.4	2.4
80°	11.8	9.4	7.1	4.7	3.5	3.5	2.4	2.4	1.2	1.2	1.2
82.5°	7.1	4.7	3.5	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2
85°	3.5	2.4	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: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3
2.5°	1014.9	1016.1	1012.6	1017.3	1013.8	1018.5	1018.5	1013.8	1014.9	1012.6	1017.3
5°	1012.6	1012.6	1010.2	1013.8	1009.1	1013.8	1012.6	1004.4	1006.7	1002.0	1006.7
7.5°	1012.6	1010.2	1006.7	1010.2	1004.4	1007.9	1003.2	994.9	992.6	986.7	986.7
10°	1016.1	1012.6	1007.9	1009.1	1003.2	1004.4	997.3	985.5	982.0	975.0	972.6
12.5°	1024.3	1020.8	1013.8	1016.1	1007.9	1007.9	998.5	984.4	977.3	967.9	965.5
15°	1036.1	1030.2	1022.0	1023.2	1014.9	1010.2	998.5	982.0	972.6	959.7	956.1
17.5°	1038.5	1032.6	1022.0	1022.0	1011.4	1005.5	991.4	972.6	960.8	947.9	940.8
20°	1025.5	1019.6	1007.9	1006.7	997.3	989.1	973.8	955.0	943.2	929.1	923.2
22.5°	998.5	991.4	980.8	979.7	970.2	965.5	949.1	930.3	918.5	904.4	899.7
25°	958.5	955.0	944.4	943.2	935.0	929.1	915.0	897.3	886.7	872.6	867.9
27.5°	911.4	907.9	897.3	897.3	887.9	884.4	871.5	855.0	846.8	833.8	827.9
30°	855.0	850.3	844.4	843.2	835.0	831.5	819.7	804.4	796.2	785.6	783.3
32.5°	788.0	784.4	780.9	779.7	771.5	768.0	759.7	744.4	737.4	728.0	724.5
35°	710.3	708.0	704.5	703.3	699.8	696.2	688.0	676.2	672.7	665.6	662.1
37.5°	621.0	623.3	621.0	621.0	617.4	618.6	611.6	604.5	601.0	596.3	593.9
40°	524.5	529.2	532.8	532.8	531.6	536.3	535.1	529.2	528.1	525.7	524.5
42.5°	426.9	429.3	436.3	441.0	439.8	451.6	452.8	457.5	461.0	458.7	459.8
45°	324.6	331.6	341.1	345.8	351.6	366.9	375.2	384.6	392.8	397.5	396.3
47.5°	234.0	242.3	252.9	259.9	270.5	289.3	310.5	322.2	334.0	339.9	345.8
50°	169.4	177.6	190.5	201.1	208.2	234.0	256.4	271.7	284.6	292.8	298.7
52.5°	118.8	128.2	142.3	151.7	162.3	187.0	212.9	230.5	244.6	255.2	261.1
55°	82.3	92.9	105.8	115.3	127.0	152.9	177.6	196.4	211.7	221.1	228.2
57.5°	57.6	67.0	80.0	88.2	100.0	124.7	149.4	168.2	183.5	192.9	201.1
60°	38.8	48.2	61.2	69.4	78.8	103.5	125.8	145.8	159.9	169.4	177.6
62.5°	27.0	35.3	48.2	56.5	64.7	85.9	107.0	124.7	138.8	149.4	156.4
65°	21.2	28.2	38.8	45.9	54.1	71.7	89.4	104.7	118.8	129.4	134.1
67.5°	15.3	22.3	30.6	36.5	42.3	57.6	72.9	84.7	97.6	105.8	111.7
70°	10.6	15.3	22.3	27.0	31.8	43.5	55.3	65.9	75.3	81.1	85.9
72.5°	8.2	10.6	15.3	18.8	22.3	30.6	40.0	48.2	55.3	60.0	64.7
75°	4.7	7.1	10.6	12.9	15.3	21.2	27.0	32.9	37.6	41.2	43.5
77.5°	2.4	3.5	5.9	7.1	9.4	12.9	17.6	21.2	24.7	27.0	29.4
80°	2.4	2.4	3.5	3.5	4.7	7.1	9.4	11.8	14.1	16.5	17.6
82.5°	1.2	1.2	2.4	2.4	2.4	3.5	4.7	7.1	8.2	9.4	10.6
85°	1.2	1.2	1.2	1.2	1.2	2.4	2.4	3.5	4.7	5.9	5.9
87.5°	0.0	0.0	1.2	1.2	1.2	1.2	1.2	2.4	2.4	2.4	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: P252579

CATALOG NUMBER: LD6B20D010 EU6B10209040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3	1017.3
2.5°	1013.8	1016.1	1014.9	1017.3	1013.8	1012.6	1014.9	1011.4
5°	1000.8	1002.0	1000.8	1000.8	998.5	996.1	998.5	994.9
7.5°	980.8	980.8	977.3	977.3	972.6	970.2	970.2	969.1
10°	964.4	960.8	957.3	958.5	951.4	949.1	947.9	946.7
12.5°	956.1	953.8	947.9	947.9	940.8	938.5	937.3	936.1
15°	946.7	942.0	937.3	936.1	930.3	927.9	926.7	924.4
17.5°	930.3	926.7	920.9	920.9	915.0	913.8	911.4	910.3
20°	912.6	907.9	903.2	903.2	896.2	896.2	892.6	893.8
22.5°	887.9	884.4	879.7	879.7	873.8	872.6	869.1	867.9
25°	858.5	853.8	850.3	849.1	844.4	842.1	840.9	838.5
27.5°	819.7	816.2	812.7	810.3	804.4	803.2	799.7	800.9
30°	771.5	769.1	768.0	765.6	758.6	756.2	756.2	752.7
32.5°	718.6	715.0	712.7	709.2	703.3	702.1	698.6	699.8
35°	653.9	649.2	645.7	646.8	639.8	638.6	636.2	637.4
37.5°	586.9	582.1	577.4	576.3	570.4	570.4	566.9	566.9
40°	517.5	512.8	510.4	510.4	503.4	504.5	501.0	499.8
42.5°	455.1	450.4	449.3	448.1	444.6	443.4	439.8	441.0
45°	396.3	395.2	395.2	392.8	389.3	388.1	389.3	389.3
47.5°	344.6	345.8	344.6	344.6	342.2	344.6	342.2	343.4
50°	301.1	303.4	303.4	303.4	302.2	303.4	303.4	304.6
52.5°	264.6	268.1	267.0	268.1	267.0	269.3	268.1	269.3
55°	232.9	235.2	236.4	237.6	237.6	237.6	237.6	237.6
57.5°	203.5	207.0	208.2	209.3	209.3	211.7	209.3	209.3
60°	179.9	183.5	184.6	185.8	185.8	187.0	184.6	185.8
62.5°	158.8	162.3	162.3	163.5	163.5	163.5	161.1	162.3
65°	137.6	138.8	140.0	140.0	138.8	138.8	137.6	138.8
67.5°	114.1	115.3	114.1	114.1	112.9	112.9	110.5	111.7
70°	88.2	88.2	89.4	88.2	87.0	88.2	87.0	85.9
72.5°	65.9	65.9	65.9	64.7	64.7	63.5	64.7	64.7
75°	44.7	44.7	45.9	45.9	45.9	45.9	44.7	44.7
77.5°	29.4	29.4	29.4	29.4	30.6	29.4	29.4	29.4
80°	18.8	18.8	20.0	20.0	18.8	18.8	18.8	18.8
82.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
85°	7.1	7.1	7.1	7.1	5.9	5.9	5.9	5.9
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	2.4	2.4
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)