

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: P252580

Luminaire Tested: **LD6B20D010 EU6B10209050 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252580  
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 EU6B10209050 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1770.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 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

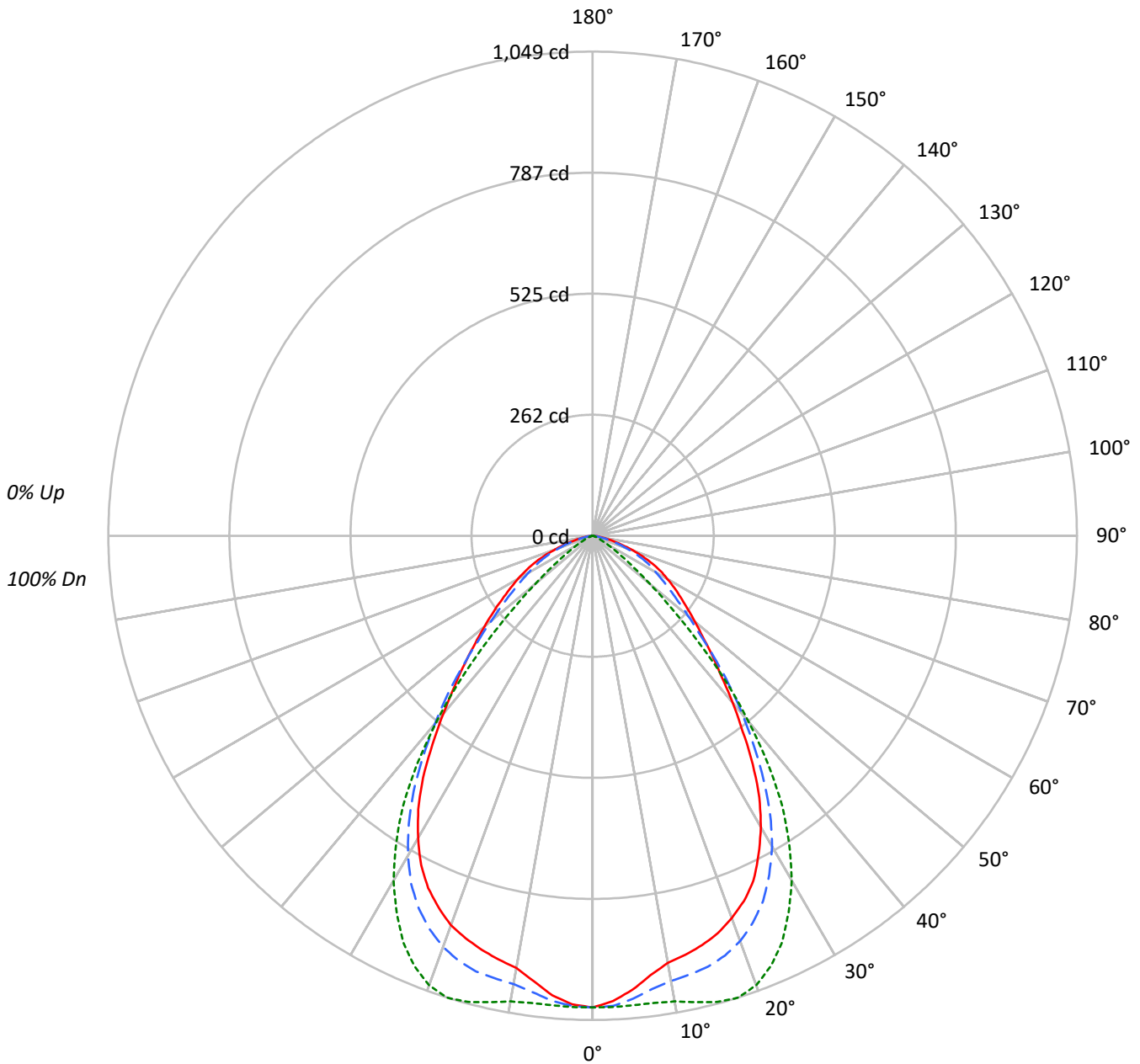
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	66669	66669	66669
5°	64678	66845	65457
10°	62219	67857	63001
15°	61997	70615	62720
20°	61187	71934	62339
25°	59359	69905	60633
30°	54911	64968	56960
35°	48177	57113	50996
40°	40147	44772	42762
45°	33787	29543	36075
50°	29261	16189	31058
55°	26468	8599	27139
60°	24361	4476	24361
65°	22060	2377	21520
70°	17797	1354	16443
75°	12200	882	11318
80°	8003	451	7101
85°	5315	898	4416



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.3	5.4
10°-20°	275.5	15.6
20°-30°	407.1	23.0
30°-40°	411.2	23.2
40°-50°	283.4	16.0
50°-60°	162.8	9.2
60°-70°	94.7	5.4
70°-80°	34.6	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°	778.0	44.0
0°-40°	1189.2	67.2
0°-60°	1635.4	92.4
0°-90°	1770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1770.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1022	1022	1022	1022	1022	
5°	988	1007	1021	1011	1000	93
15°	918	966	1046	977	929	259
25°	825	873	971	891	842	376
35°	605	646	717	676	640	375
45°	366	371	320	395	391	285
55°	233	204	76	213	239	210
65°	143	120	15	119	139	140
75°	48	39	4	38	45	55
85°	7	4	1	5	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9
2.5°	1008.9	1010.1	1011.3	1010.1	1011.3	1016.0	1012.5	1014.8	1014.8	1016.0	1019.5
5°	987.6	987.6	990.0	988.8	992.4	997.1	993.6	997.1	998.3	1000.6	1006.6
7.5°	960.5	960.5	961.7	961.7	966.4	971.1	968.7	973.5	978.2	982.9	990.0
10°	939.2	941.6	941.6	942.8	947.5	953.4	952.2	958.1	962.8	969.9	979.4
12.5°	929.8	930.9	930.9	933.3	938.0	943.9	942.8	948.7	955.8	964.0	973.5
15°	917.9	920.3	919.1	921.5	926.2	932.1	930.9	936.8	945.1	953.4	966.4
17.5°	902.6	903.8	905.0	905.0	909.7	914.4	914.4	920.3	929.8	939.2	953.4
20°	881.3	883.7	883.7	884.9	888.4	895.5	894.3	900.2	909.7	919.1	934.5
22.5°	856.5	857.7	857.7	858.9	864.8	868.3	869.5	874.2	882.5	893.1	907.3
25°	824.6	825.8	824.6	828.2	830.5	837.6	835.2	841.2	850.6	858.9	873.1
27.5°	778.5	780.9	780.9	782.1	788.0	793.9	793.9	799.8	808.1	814.0	828.2
30°	728.9	732.5	728.9	734.8	737.2	741.9	745.5	749.0	756.1	764.4	777.4
32.5°	672.2	671.0	672.2	674.6	681.7	685.2	687.6	691.1	698.2	705.3	715.9
35°	604.9	607.2	608.4	613.1	613.1	619.1	620.2	622.6	633.2	638.0	646.2
37.5°	534.0	536.4	537.5	539.9	544.6	547.0	550.5	554.1	561.2	569.4	574.2
40°	471.4	471.4	472.6	474.9	478.5	479.6	483.2	487.9	492.6	499.7	504.5
42.5°	412.3	413.5	412.3	414.7	418.2	422.9	421.8	427.7	428.8	433.6	437.1
45°	366.2	366.2	363.9	366.2	366.2	371.0	369.8	372.1	371.0	373.3	371.0
47.5°	322.5	323.7	322.5	323.7	323.7	323.7	324.9	322.5	323.7	320.2	313.1
50°	288.3	289.4	287.1	288.3	287.1	285.9	287.1	283.5	282.4	277.6	270.5
52.5°	258.7	257.5	256.4	256.4	256.4	255.2	254.0	250.5	246.9	242.2	233.9
55°	232.7	231.6	230.4	230.4	228.0	226.8	226.8	223.3	219.7	213.8	204.4
57.5°	209.1	207.9	206.7	206.7	205.6	203.2	203.2	199.7	194.9	187.8	179.6
60°	186.7	186.7	186.7	185.5	185.5	183.1	183.1	179.6	174.8	167.8	158.3
62.5°	166.6	165.4	165.4	165.4	165.4	164.2	163.0	160.7	155.9	148.9	140.6
65°	142.9	142.9	142.9	142.9	141.8	141.8	141.8	138.2	135.9	128.8	120.5
67.5°	117.0	117.0	117.0	117.0	115.8	117.0	117.0	114.6	112.2	105.1	98.1
70°	93.3	92.1	91.0	92.1	91.0	91.0	92.1	89.8	88.6	82.7	75.6
72.5°	68.5	69.7	68.5	68.5	68.5	67.3	68.5	67.3	65.0	60.3	55.5
75°	48.4	49.6	49.6	48.4	48.4	48.4	47.3	47.3	44.9	41.3	39.0
77.5°	33.1	33.1	33.1	33.1	31.9	31.9	31.9	30.7	29.5	27.2	24.8
80°	21.3	21.3	21.3	21.3	20.1	20.1	20.1	18.9	18.9	16.5	14.2
82.5°	13.0	13.0	13.0	13.0	13.0	13.0	11.8	11.8	10.6	9.5	8.3
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9
2.5°	1017.2	1018.4	1018.4	1018.4	1021.9	1023.1	1019.5	1016.0	1023.1	1021.9	1024.3
5°	1005.4	1008.9	1011.3	1012.5	1016.0	1018.4	1014.8	1013.6	1019.5	1020.7	1021.9
7.5°	991.2	997.1	1003.0	1005.4	1010.1	1012.5	1011.3	1011.3	1018.4	1020.7	1020.7
10°	981.7	990.0	997.1	1003.0	1008.9	1012.5	1012.5	1013.6	1021.9	1024.3	1026.6
12.5°	979.4	990.0	999.5	1007.7	1012.5	1018.4	1019.5	1023.1	1031.4	1034.9	1034.9
15°	973.5	987.6	999.5	1010.1	1017.2	1024.3	1026.6	1033.7	1043.2	1045.5	1047.9
17.5°	962.8	977.0	991.2	1004.2	1013.6	1019.5	1026.6	1033.7	1045.5	1049.1	1050.3
20°	943.9	960.5	974.7	987.6	997.1	1005.4	1012.5	1020.7	1031.4	1036.1	1037.3
22.5°	915.6	932.1	946.3	960.5	969.9	977.0	984.1	993.6	1004.2	1008.9	1008.9
25°	881.3	896.7	912.0	922.7	932.1	940.4	943.9	954.6	965.2	971.1	971.1
27.5°	837.6	851.8	866.0	877.8	883.7	890.8	896.7	906.1	914.4	919.1	923.9
30°	782.1	796.3	809.3	821.1	828.2	835.2	841.2	848.2	856.5	862.4	863.6
32.5°	721.8	733.6	746.6	758.5	765.5	767.9	773.8	780.9	788.0	792.7	793.9
35°	655.7	663.9	672.2	682.8	689.9	689.9	695.8	700.6	706.5	717.1	714.7
37.5°	577.7	589.5	595.4	599.0	603.7	608.4	609.6	615.5	622.6	625.0	628.5
40°	504.5	508.0	511.5	511.5	516.3	516.3	516.3	517.5	524.5	525.7	530.4
42.5°	431.2	431.2	427.7	424.1	425.3	424.1	418.2	418.2	421.8	426.5	426.5
45°	362.7	354.4	343.8	335.5	329.6	327.2	320.2	320.2	319.0	320.2	324.9
47.5°	304.8	290.6	272.9	256.4	250.5	245.7	235.1	230.4	228.0	229.2	231.6
50°	256.4	241.0	220.9	200.8	190.2	184.3	171.3	163.0	161.9	159.5	164.2
52.5°	220.9	202.0	180.8	157.1	146.5	137.0	122.9	115.8	111.1	111.1	112.2
55°	190.2	170.1	146.5	122.9	112.2	105.1	91.0	81.5	76.8	75.6	79.2
57.5°	164.2	145.3	121.7	98.1	87.4	79.2	65.0	56.7	53.2	50.8	52.0
60°	144.1	125.2	101.6	79.2	69.7	60.3	48.4	39.0	34.3	34.3	35.4
62.5°	125.2	107.5	86.2	65.0	56.7	48.4	35.4	27.2	23.6	22.4	23.6
65°	106.3	89.8	72.1	54.3	46.1	39.0	28.4	21.3	16.5	15.4	16.5
67.5°	86.2	73.2	57.9	43.7	36.6	30.7	21.3	15.4	11.8	10.6	11.8
70°	67.3	55.5	43.7	31.9	27.2	22.4	15.4	11.8	8.3	7.1	8.3
72.5°	48.4	40.2	30.7	22.4	18.9	15.4	10.6	8.3	5.9	4.7	5.9
75°	33.1	27.2	20.1	14.2	11.8	10.6	7.1	4.7	3.5	3.5	3.5
77.5°	21.3	16.5	13.0	9.5	7.1	5.9	3.5	2.4	2.4	2.4	2.4
80°	11.8	9.5	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9
2.5°	1019.5	1020.7	1017.2	1021.9	1018.4	1023.1	1023.1	1018.4	1019.5	1017.2	1021.9
5°	1017.2	1017.2	1014.8	1018.4	1013.6	1018.4	1017.2	1008.9	1011.3	1006.6	1011.3
7.5°	1017.2	1014.8	1011.3	1014.8	1008.9	1012.5	1007.7	999.5	997.1	991.2	991.2
10°	1020.7	1017.2	1012.5	1013.6	1007.7	1008.9	1001.8	990.0	986.5	979.4	977.0
12.5°	1029.0	1025.5	1018.4	1020.7	1012.5	1012.5	1003.0	988.8	981.7	972.3	969.9
15°	1040.8	1034.9	1026.6	1027.8	1019.5	1014.8	1003.0	986.5	977.0	964.0	960.5
17.5°	1043.2	1037.3	1026.6	1026.6	1016.0	1010.1	995.9	977.0	965.2	952.2	945.1
20°	1030.2	1024.3	1012.5	1011.3	1001.8	993.6	978.2	959.3	947.5	933.3	927.4
22.5°	1003.0	995.9	985.3	984.1	974.7	969.9	953.4	934.5	922.7	908.5	903.8
25°	962.8	959.3	948.7	947.5	939.2	933.3	919.1	901.4	890.8	876.6	871.9
27.5°	915.6	912.0	901.4	901.4	892.0	888.4	875.4	858.9	850.6	837.6	831.7
30°	858.9	854.2	848.2	847.1	838.8	835.2	823.4	808.1	799.8	789.2	786.8
32.5°	791.5	788.0	784.4	783.3	775.0	771.5	763.2	747.8	740.7	731.3	727.7
35°	713.6	711.2	707.7	706.5	702.9	699.4	691.1	679.3	675.8	668.7	665.1
37.5°	623.8	626.1	623.8	623.8	620.2	621.4	614.3	607.2	603.7	599.0	596.6
40°	526.9	531.6	535.2	535.2	534.0	538.7	537.5	531.6	530.4	528.1	526.9
42.5°	428.8	431.2	438.3	443.0	441.8	453.7	454.8	459.6	463.1	460.7	461.9
45°	326.1	333.2	342.6	347.3	353.2	368.6	376.9	386.3	394.6	399.3	398.1
47.5°	235.1	243.4	254.0	261.1	271.7	290.6	311.9	323.7	335.5	341.4	347.3
50°	170.1	178.4	191.4	202.0	209.1	235.1	257.5	272.9	285.9	294.2	300.1
52.5°	119.3	128.8	142.9	152.4	163.0	187.8	213.8	231.6	245.7	256.4	262.3
55°	82.7	93.3	106.3	115.8	127.6	153.6	178.4	197.3	212.7	222.1	229.2
57.5°	57.9	67.3	80.3	88.6	100.4	125.2	150.0	168.9	184.3	193.7	202.0
60°	39.0	48.4	61.4	69.7	79.2	104.0	126.4	146.5	160.7	170.1	178.4
62.5°	27.2	35.4	48.4	56.7	65.0	86.2	107.5	125.2	139.4	150.0	157.1
65°	21.3	28.4	39.0	46.1	54.3	72.1	89.8	105.1	119.3	130.0	134.7
67.5°	15.4	22.4	30.7	36.6	42.5	57.9	73.2	85.1	98.1	106.3	112.2
70°	10.6	15.4	22.4	27.2	31.9	43.7	55.5	66.2	75.6	81.5	86.2
72.5°	8.3	10.6	15.4	18.9	22.4	30.7	40.2	48.4	55.5	60.3	65.0
75°	4.7	7.1	10.6	13.0	15.4	21.3	27.2	33.1	37.8	41.3	43.7
77.5°	2.4	3.5	5.9	7.1	9.5	13.0	17.7	21.3	24.8	27.2	29.5
80°	2.4	2.4	3.5	3.5	4.7	7.1	9.5	11.8	14.2	16.5	17.7
82.5°	1.2	1.2	2.4	2.4	2.4	3.5	4.7	7.1	8.3	9.5	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: P252580

CATALOG NUMBER: LD6B20D010 EU6B10209050 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9	1021.9
2.5°	1018.4	1020.7	1019.5	1021.9	1018.4	1017.2	1019.5	1016.0
5°	1005.4	1006.6	1005.4	1005.4	1003.0	1000.6	1003.0	999.5
7.5°	985.3	985.3	981.7	981.7	977.0	974.7	974.7	973.5
10°	968.7	965.2	961.7	962.8	955.8	953.4	952.2	951.0
12.5°	960.5	958.1	952.2	952.2	945.1	942.8	941.6	940.4
15°	951.0	946.3	941.6	940.4	934.5	932.1	930.9	928.6
17.5°	934.5	930.9	925.0	925.0	919.1	917.9	915.6	914.4
20°	916.8	912.0	907.3	907.3	900.2	900.2	896.7	897.9
22.5°	892.0	888.4	883.7	883.7	877.8	876.6	873.1	871.9
25°	862.4	857.7	854.2	853.0	848.2	845.9	844.7	842.3
27.5°	823.4	819.9	816.3	814.0	808.1	806.9	803.4	804.5
30°	775.0	772.6	771.5	769.1	762.0	759.6	759.6	756.1
32.5°	721.8	718.3	715.9	712.4	706.5	705.3	701.8	702.9
35°	656.9	652.1	648.6	649.8	642.7	641.5	639.1	640.3
37.5°	589.5	584.8	580.1	578.9	573.0	573.0	569.4	569.4
40°	519.8	515.1	512.7	512.7	505.6	506.8	503.3	502.1
42.5°	457.2	452.5	451.3	450.1	446.6	445.4	441.8	443.0
45°	398.1	396.9	396.9	394.6	391.0	389.9	391.0	391.0
47.5°	346.1	347.3	346.1	346.1	343.8	346.1	343.8	345.0
50°	302.4	304.8	304.8	304.8	303.6	304.8	304.8	306.0
52.5°	265.8	269.4	268.2	269.4	268.2	270.5	269.4	270.5
55°	233.9	236.3	237.5	238.6	238.6	238.6	238.6	238.6
57.5°	204.4	207.9	209.1	210.3	210.3	212.7	210.3	210.3
60°	180.8	184.3	185.5	186.7	186.7	187.8	185.5	186.7
62.5°	159.5	163.0	163.0	164.2	164.2	164.2	161.9	163.0
65°	138.2	139.4	140.6	140.6	139.4	139.4	138.2	139.4
67.5°	114.6	115.8	114.6	114.6	113.4	113.4	111.1	112.2
70°	88.6	88.6	89.8	88.6	87.4	88.6	87.4	86.2
72.5°	66.2	66.2	66.2	65.0	65.0	63.8	65.0	65.0
75°	44.9	44.9	46.1	46.1	46.1	46.1	44.9	44.9
77.5°	29.5	29.5	29.5	29.5	30.7	29.5	29.5	29.5
80°	18.9	18.9	20.1	20.1	18.9	18.9	18.9	18.9
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)