

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: PORTFOLIO

Report Number: P252268

Luminaire Tested: **LE_6B20D010 EC6B10209050 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252268
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10209050 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2052.5 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

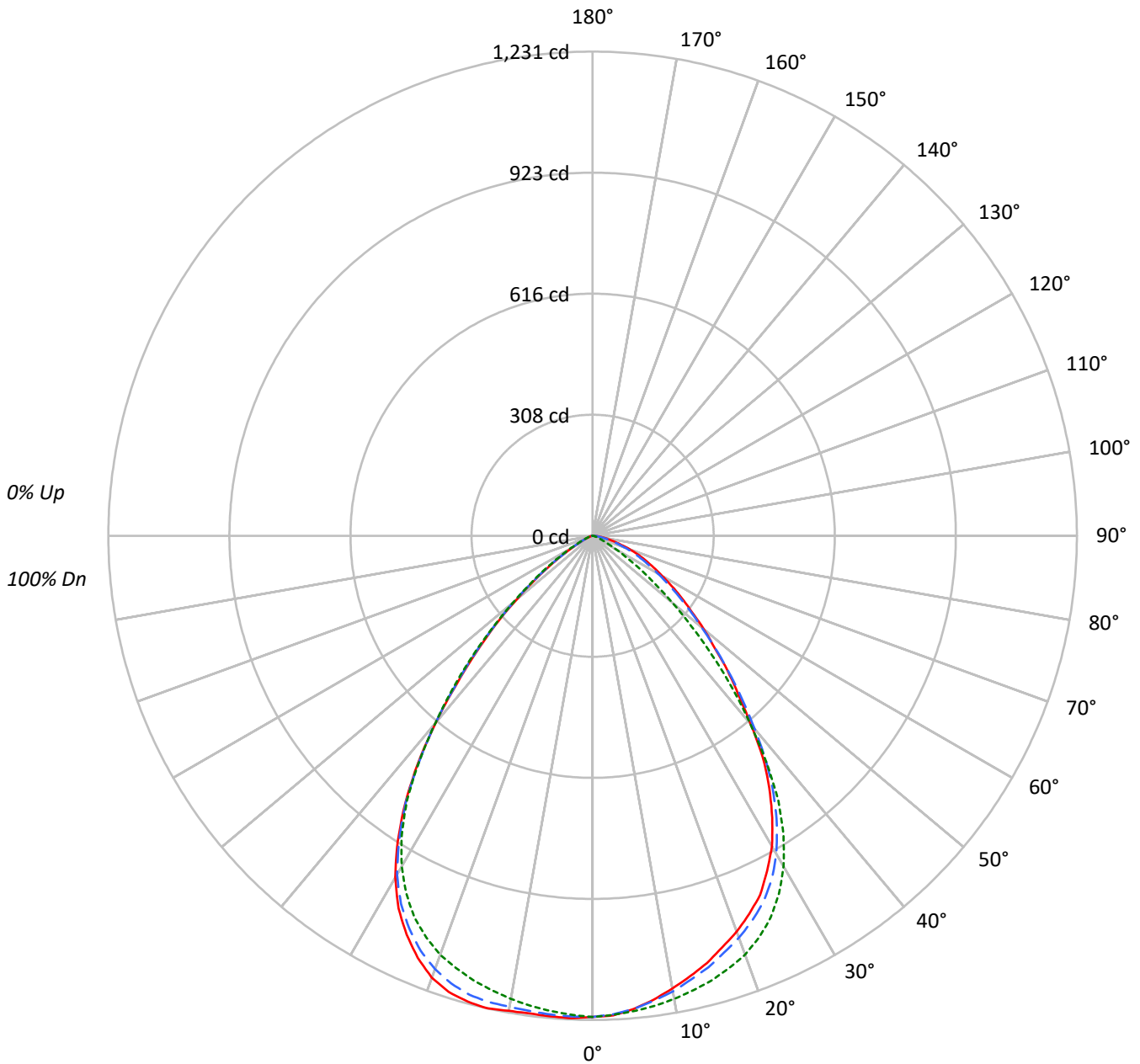
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	79815	79815	79815
5°	79053	79446	80317
10°	77430	79192	81245
15°	75944	79038	82834
20°	74371	78675	82994
25°	72547	77110	80515
30°	68674	73134	75574
35°	62369	65547	66136
40°	53228	52973	52726
45°	44711	39674	38437
50°	37341	26846	25486
55°	31416	16470	14957
60°	26605	8677	7516
65°	23032	4554	3643
70°	19170	2823	1984
75°	14141	1865	1109
80°	11083	1127	564
85°	8908	1123	0



TEST NUMBER: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	5.6
10°-20°	330.1	16.1
20°-30°	487.5	23.8
30°-40°	502.4	24.5
40°-50°	347.0	16.9
50°-60°	171.0	8.3
60°-70°	69.3	3.4
70°-80°	24.7	1.2
80°-90°	5.1	0.2
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°	932.9	45.5
0°-40°	1435.3	69.9
0°-60°	1953.4	95.2
0°-90°	2052.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2052.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1223	1223	1223	1223	1223	
5°	1207	1207	1213	1222	1226	114
15°	1124	1136	1170	1209	1226	317
25°	1008	1027	1071	1102	1118	461
35°	783	802	823	827	830	485
45°	485	488	430	424	417	375
55°	276	266	145	136	132	250
65°	149	134	30	24	24	148
75°	56	47	7	4	4	63
85°	12	9	2	0	0	14
90°	0	0	0	0	0	



TEST NUMBER: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4
2.5°	1220.5	1216.0	1219.0	1213.1	1220.5	1213.1	1214.5	1216.0	1214.5	1216.0	1217.5
5°	1207.1	1202.8	1207.1	1199.8	1207.1	1202.8	1202.8	1204.2	1204.2	1205.6	1207.1
7.5°	1189.4	1185.0	1189.4	1182.0	1190.9	1186.5	1186.5	1189.4	1188.0	1189.4	1192.4
10°	1168.8	1162.9	1167.2	1162.9	1171.8	1165.8	1168.8	1168.8	1168.8	1173.1	1176.1
12.5°	1146.6	1140.6	1146.6	1139.2	1148.0	1143.6	1145.1	1149.5	1151.0	1154.0	1155.5
15°	1124.4	1117.0	1120.0	1115.5	1124.4	1120.0	1121.5	1127.4	1127.4	1131.8	1136.2
17.5°	1096.4	1090.4	1096.4	1090.4	1097.9	1094.9	1097.9	1102.2	1102.2	1106.8	1111.1
20°	1071.2	1065.4	1069.8	1065.4	1074.1	1069.8	1071.2	1077.1	1078.6	1083.0	1087.5
22.5°	1040.2	1035.8	1038.8	1034.2	1043.1	1040.2	1041.6	1047.6	1049.1	1052.0	1059.4
25°	1007.8	998.9	1003.2	1000.2	1009.1	1004.8	1007.8	1013.6	1016.5	1021.0	1026.9
27.5°	960.4	956.0	958.9	958.9	966.4	961.9	963.4	969.2	973.8	978.1	985.5
30°	911.6	904.2	907.2	908.8	914.6	911.6	914.6	920.5	922.0	927.9	933.9
32.5°	849.6	846.6	852.5	849.6	852.5	852.5	854.0	858.5	861.4	864.4	871.8
35°	783.1	777.2	783.1	780.1	787.5	783.1	787.5	792.0	792.0	797.9	802.4
37.5°	710.8	703.4	706.2	706.2	709.2	707.8	707.8	715.1	716.6	721.0	725.5
40°	625.0	622.0	628.0	626.5	628.0	628.0	629.5	633.9	636.9	638.2	639.8
42.5°	548.1	549.6	551.1	551.1	551.1	551.1	551.1	557.0	555.5	560.0	561.5
45°	484.6	478.8	481.6	480.2	484.6	480.2	484.6	489.1	486.1	490.5	487.6
47.5°	419.6	419.6	419.6	418.1	421.1	419.6	422.6	424.0	424.0	424.0	422.6
50°	367.9	363.5	365.0	365.0	366.4	365.0	367.9	369.4	369.4	366.4	360.5
52.5°	317.6	316.2	316.2	319.1	319.1	317.6	317.6	317.6	317.6	313.2	310.2
55°	276.2	273.4	274.9	274.9	274.9	274.9	276.2	274.9	274.9	270.4	266.0
57.5°	239.4	236.4	236.4	236.4	237.9	236.4	236.4	236.4	234.9	230.5	224.6
60°	203.9	202.4	203.9	203.9	205.4	203.9	203.9	203.9	201.0	196.5	190.6
62.5°	174.4	174.4	174.4	175.9	175.9	174.4	174.4	172.9	171.4	165.5	159.6
65°	149.2	147.8	149.2	149.2	150.8	150.8	149.2	147.8	146.2	140.4	134.5
67.5°	124.1	122.6	124.1	124.1	125.6	124.1	124.1	124.1	119.6	116.8	110.9
70°	100.5	99.0	99.0	99.0	100.5	97.5	99.0	99.0	96.0	91.6	85.8
72.5°	76.9	76.9	76.9	76.9	76.9	76.9	75.4	75.4	72.4	68.0	65.0
75°	56.1	56.1	57.6	57.6	56.1	56.1	56.1	54.6	53.2	50.2	47.2
77.5°	41.4	41.4	41.4	41.4	39.9	39.9	39.9	38.4	37.0	35.5	32.5
80°	29.5	29.5	29.5	28.1	29.5	28.1	28.1	28.1	25.1	23.6	22.1
82.5°	20.6	19.2	19.2	19.2	19.2	19.2	19.2	17.8	17.8	16.2	14.8
85°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	10.4	8.9	8.9
87.5°	5.9	7.4	7.4	7.4	7.4	7.4	7.4	5.9	5.9	5.9	4.4
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: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4
2.5°	1217.5	1217.5	1220.5	1216.0	1223.4	1219.0	1217.5	1224.9	1220.5	1219.0	1222.0
5°	1207.1	1208.6	1210.1	1207.1	1214.5	1210.1	1210.1	1217.5	1214.5	1213.1	1217.5
7.5°	1193.9	1195.4	1198.2	1196.9	1202.8	1199.8	1201.2	1208.6	1205.6	1205.6	1210.1
10°	1177.6	1180.6	1183.5	1183.5	1190.9	1188.0	1188.0	1196.9	1193.9	1195.4	1201.2
12.5°	1158.4	1162.9	1167.2	1168.8	1176.1	1171.8	1173.1	1183.5	1182.0	1183.5	1189.4
15°	1137.8	1143.6	1148.0	1148.0	1156.9	1152.5	1156.9	1167.2	1164.4	1170.2	1177.6
17.5°	1114.1	1120.0	1125.9	1127.4	1136.2	1133.2	1139.2	1149.5	1149.5	1152.5	1161.4
20°	1091.9	1099.2	1102.2	1106.8	1115.5	1114.1	1117.0	1128.9	1128.9	1133.2	1142.1
22.5°	1062.4	1069.8	1075.6	1080.1	1087.5	1087.5	1091.9	1102.2	1102.2	1105.2	1114.1
25°	1029.9	1038.8	1043.1	1047.6	1055.0	1053.5	1057.9	1066.8	1068.2	1071.2	1080.1
27.5°	988.5	995.9	1001.8	1004.8	1015.1	1009.1	1013.6	1024.0	1022.5	1025.4	1032.8
30°	936.8	944.1	950.1	950.1	958.9	958.9	963.4	967.8	967.8	970.8	976.6
32.5°	876.2	885.0	885.0	889.5	895.4	889.5	895.4	901.2	898.4	902.8	907.2
35°	806.8	811.1	812.6	812.6	817.1	815.6	814.1	818.6	815.6	823.0	827.4
37.5°	722.5	728.4	725.5	728.4	727.0	722.5	722.5	729.9	724.0	725.5	729.9
40°	641.2	641.2	639.8	632.4	633.9	629.5	628.0	629.5	623.5	622.0	628.0
42.5°	557.0	555.5	551.1	540.8	542.2	534.9	529.0	529.0	526.0	524.5	526.0
45°	481.6	477.2	469.9	458.0	455.1	449.1	437.4	434.4	430.0	430.0	431.5
47.5°	412.2	406.4	394.5	381.2	373.9	366.4	354.6	350.1	342.8	339.9	342.8
50°	354.6	344.2	329.5	310.2	302.9	294.0	282.2	274.9	267.5	264.5	263.0
52.5°	301.4	286.6	271.9	248.2	242.4	233.5	217.2	209.9	202.4	196.5	196.5
55°	255.6	242.4	221.6	199.5	190.6	181.8	165.5	155.1	147.8	144.8	141.9
57.5°	214.2	199.5	180.2	156.6	147.8	138.9	122.6	112.2	104.9	100.5	97.5
60°	180.2	164.0	144.8	124.1	113.8	104.9	88.6	78.2	70.9	66.5	63.5
62.5°	147.8	134.5	115.2	96.0	87.1	78.2	65.0	54.6	47.2	44.4	39.9
65°	124.1	110.9	93.1	76.9	69.5	60.6	48.8	39.9	34.0	29.5	26.6
67.5°	100.5	90.1	75.4	60.6	53.2	47.2	37.0	29.5	23.6	20.6	19.2
70°	79.8	69.5	57.6	45.8	41.4	35.5	28.1	20.6	17.8	14.8	13.2
72.5°	59.1	51.8	42.9	34.0	29.5	26.6	19.2	16.2	11.9	10.4	8.9
75°	42.9	37.0	31.0	23.6	20.6	19.2	14.8	10.4	8.9	7.4	5.9
77.5°	29.5	26.6	20.6	16.2	14.8	13.2	10.4	7.4	5.9	4.4	4.4
80°	19.2	16.2	13.2	10.4	10.4	8.9	5.9	4.4	4.4	3.0	3.0
82.5°	11.9	10.4	8.9	7.4	5.9	5.9	4.4	3.0	3.0	1.5	1.5
85°	7.4	5.9	4.4	4.4	3.0	3.0	3.0	1.5	1.5	1.5	1.5
87.5°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	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: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4
2.5°	1222.0	1222.0	1224.9	1220.5	1223.4	1223.4	1226.4	1220.5	1223.4	1224.9	1227.9
5°	1216.0	1217.5	1220.5	1219.0	1220.5	1220.5	1223.4	1216.0	1222.0	1222.0	1226.4
7.5°	1210.1	1210.1	1213.1	1211.6	1214.5	1216.0	1219.0	1213.1	1219.0	1219.0	1223.4
10°	1202.8	1202.8	1207.1	1205.6	1210.1	1211.6	1216.0	1210.1	1216.0	1217.5	1222.0
12.5°	1192.4	1193.9	1198.2	1198.2	1202.8	1205.6	1210.1	1207.1	1214.5	1216.0	1222.0
15°	1180.6	1183.5	1189.4	1188.0	1192.4	1196.9	1202.8	1198.2	1208.6	1211.6	1217.5
17.5°	1165.8	1168.8	1173.1	1173.1	1177.6	1180.6	1188.0	1185.0	1193.9	1195.4	1202.8
20°	1143.6	1148.0	1154.0	1152.5	1156.9	1159.9	1165.8	1162.9	1171.8	1174.6	1182.0
22.5°	1117.0	1120.0	1124.4	1124.4	1128.9	1131.8	1137.8	1133.2	1142.1	1143.6	1149.5
25°	1081.6	1084.5	1087.5	1089.0	1093.4	1094.9	1097.9	1094.9	1102.2	1103.8	1111.1
27.5°	1035.8	1037.2	1041.6	1041.6	1044.6	1046.1	1050.5	1044.6	1055.0	1055.0	1059.4
30°	981.1	979.6	985.5	982.6	985.5	985.5	990.0	987.0	994.4	991.5	995.9
32.5°	908.8	911.6	911.6	908.8	914.6	913.1	913.1	910.1	914.6	916.1	919.0
35°	824.5	828.9	828.9	830.4	831.9	827.4	828.9	820.0	827.4	828.9	830.4
37.5°	732.9	728.4	731.4	727.0	734.4	725.5	725.5	719.6	725.5	725.5	727.0
40°	628.0	626.5	629.5	626.5	625.0	623.5	620.6	616.1	622.0	619.1	623.5
42.5°	529.0	527.5	527.5	524.5	523.0	523.0	520.1	517.1	515.6	515.6	523.0
45°	427.0	430.0	427.0	425.5	428.5	425.5	427.0	421.1	424.0	421.1	424.0
47.5°	341.4	342.8	339.9	336.9	341.4	336.9	336.9	332.5	338.4	338.4	335.4
50°	264.5	263.0	260.0	263.0	261.5	261.5	261.5	257.1	260.0	255.6	258.6
52.5°	195.0	193.5	193.5	192.1	193.5	192.1	192.1	190.6	190.6	189.1	190.6
55°	141.9	140.4	137.4	137.4	137.4	138.9	137.4	135.9	135.9	134.5	135.9
57.5°	96.0	93.1	93.1	93.1	93.1	91.6	91.6	90.1	91.6	90.1	91.6
60°	62.0	62.0	59.1	59.1	59.1	59.1	59.1	57.6	59.1	59.1	59.1
62.5°	38.4	38.4	37.0	35.5	37.0	35.5	35.5	35.5	37.0	35.5	37.0
65°	25.1	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6
67.5°	17.8	16.2	16.2	16.2	16.2	16.2	16.2	14.8	16.2	16.2	16.2
70°	11.9	11.9	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
72.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
75°	5.9	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	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	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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: P252268

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4	1223.4
2.5°	1223.4	1224.9	1222.0	1223.4	1220.5	1223.4	1224.9	1227.9
5°	1220.5	1222.0	1219.0	1222.0	1219.0	1222.0	1223.4	1226.4
7.5°	1217.5	1220.5	1217.5	1220.5	1217.5	1220.5	1222.0	1224.9
10°	1217.5	1222.0	1219.0	1223.4	1219.0	1222.0	1224.9	1226.4
12.5°	1217.5	1222.0	1220.5	1223.4	1222.0	1224.9	1227.9	1230.8
15°	1214.5	1219.0	1216.0	1220.5	1219.0	1220.5	1226.4	1226.4
17.5°	1198.2	1202.8	1202.8	1205.6	1205.6	1210.1	1213.1	1216.0
20°	1177.6	1182.0	1180.6	1185.0	1185.0	1189.4	1192.4	1195.4
22.5°	1146.6	1152.5	1151.0	1155.5	1154.0	1156.9	1162.9	1161.4
25°	1106.8	1114.1	1112.6	1115.5	1114.1	1114.1	1117.0	1118.5
27.5°	1057.9	1062.4	1060.9	1063.9	1060.9	1063.9	1066.8	1068.2
30°	994.4	997.4	995.9	997.4	995.9	998.9	1000.2	1003.2
32.5°	917.5	922.0	917.5	920.5	919.0	919.0	925.0	922.0
35°	826.0	827.4	828.9	828.9	826.0	827.4	830.4	830.4
37.5°	724.0	731.4	722.5	727.0	725.5	725.5	725.5	729.9
40°	617.6	619.1	616.1	616.1	616.1	614.6	620.6	619.1
42.5°	517.1	518.6	517.1	512.8	514.2	514.2	518.6	512.8
45°	419.6	422.6	421.1	421.1	418.1	418.1	419.6	416.6
47.5°	332.5	335.4	331.0	332.5	329.5	332.5	331.0	333.9
50°	252.6	255.6	254.1	255.6	255.6	252.6	257.1	251.1
52.5°	189.1	190.6	189.1	187.6	186.1	186.1	189.1	187.6
55°	134.5	133.0	133.0	133.0	134.5	134.5	133.0	131.5
57.5°	90.1	90.1	88.6	88.6	90.1	87.1	88.6	87.1
60°	57.6	57.6	57.6	57.6	56.1	57.6	57.6	57.6
62.5°	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
65°	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6
67.5°	14.8	16.2	16.2	16.2	14.8	14.8	14.8	14.8
70°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
72.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
75°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0
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)