

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: P252265

Luminaire Tested: **LE_6B20D010 EC6B10209030 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252265
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 EC6B10209030 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2011.3 lumens
Efficiency: N/A
Efficacy: 96.7 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

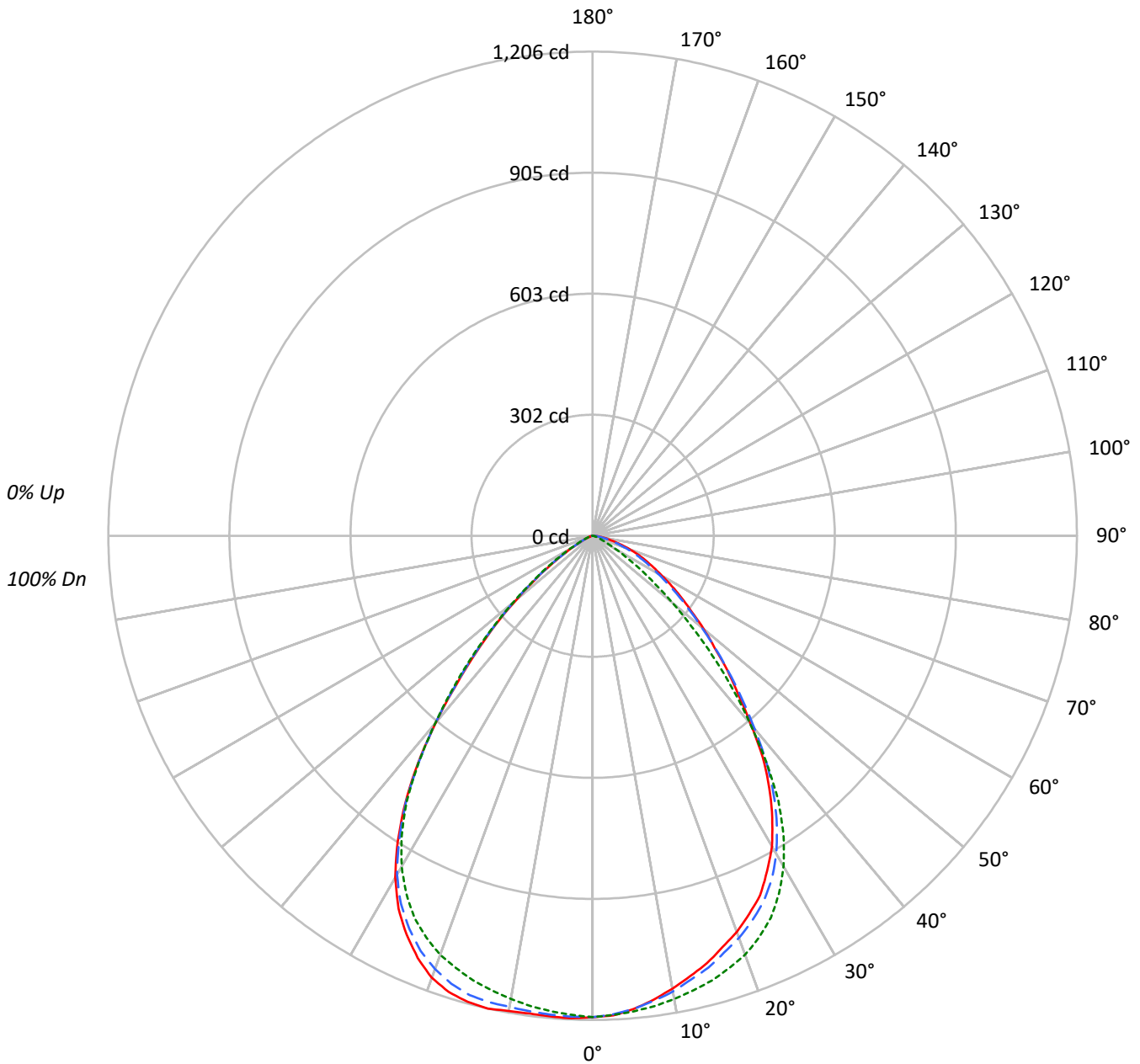
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	78217	78217	78217
5°	77468	77854	78706
10°	75866	77602	79616
15°	74425	77457	81172
20°	72885	77099	81328
25°	71085	75570	78896
30°	67303	71657	74060
35°	61119	64233	64814
40°	52164	51908	51661
45°	43816	38880	37662
50°	36589	26298	24978
55°	30802	16140	14662
60°	26070	8494	7372
65°	22569	4477	3566
70°	18789	2766	1927
75°	13864	1815	1109
80°	10895	1090	564
85°	8683	1123	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.0	5.6
10°-20°	323.5	16.1
20°-30°	477.7	23.8
30°-40°	492.3	24.5
40°-50°	340.0	16.9
50°-60°	167.6	8.3
60°-70°	67.9	3.4
70°-80°	24.2	1.2
80°-90°	5.0	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°	914.2	45.5
0°-40°	1406.5	69.9
0°-60°	1914.1	95.2
0°-90°	2011.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2011.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1199	1199	1199	1199	1199	
5°	1183	1183	1189	1197	1202	112
15°	1102	1113	1147	1184	1202	310
25°	988	1006	1050	1080	1096	451
35°	767	786	806	811	814	475
45°	475	478	421	416	408	367
55°	271	261	142	133	129	245
65°	146	132	29	23	23	145
75°	55	46	7	4	4	62
85°	12	9	2	0	0	14
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°	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9
2.5°	1195.9	1191.6	1194.5	1188.8	1195.9	1188.8	1190.1	1191.6	1190.1	1191.6	1193.0
5°	1182.9	1178.5	1182.9	1175.6	1182.9	1178.5	1178.5	1180.0	1180.0	1181.5	1182.9
7.5°	1165.5	1161.1	1165.5	1158.2	1167.0	1162.6	1162.6	1165.5	1164.1	1165.5	1168.4
10°	1145.2	1139.5	1143.8	1139.5	1148.1	1142.4	1145.2	1145.2	1145.2	1149.6	1152.5
12.5°	1123.5	1117.8	1123.5	1116.2	1125.0	1120.6	1122.1	1126.4	1127.9	1130.8	1132.2
15°	1101.9	1094.6	1097.5	1093.1	1101.9	1097.5	1098.9	1104.8	1104.8	1109.0	1113.4
17.5°	1074.4	1068.5	1074.4	1068.5	1075.8	1072.9	1075.8	1080.1	1080.1	1084.5	1088.8
20°	1049.8	1043.9	1048.2	1043.9	1052.6	1048.2	1049.8	1055.5	1057.0	1061.2	1065.6
22.5°	1019.2	1015.0	1017.9	1013.5	1022.2	1019.2	1020.8	1026.5	1028.0	1030.9	1038.1
25°	987.5	978.8	983.1	980.2	988.9	984.5	987.5	993.2	996.1	1000.5	1006.2
27.5°	941.1	936.8	939.6	939.6	946.9	942.5	944.0	949.8	954.1	958.5	965.8
30°	893.4	886.1	889.0	890.4	896.2	893.4	896.2	902.0	903.5	909.2	915.0
32.5°	832.5	829.6	835.4	832.5	835.4	835.4	836.9	841.2	844.1	847.0	854.2
35°	767.4	761.6	767.4	764.5	771.8	767.4	771.8	776.0	776.0	781.9	786.2
37.5°	696.4	689.1	692.1	692.1	695.0	693.5	693.5	700.8	702.2	706.5	710.9
40°	612.5	609.5	615.4	613.9	615.4	615.4	616.8	621.1	624.0	625.5	626.9
42.5°	537.1	538.6	540.0	540.0	540.0	540.0	540.0	545.9	544.4	548.8	550.1
45°	474.9	469.1	472.0	470.5	474.9	470.5	474.9	479.2	476.4	480.8	477.8
47.5°	411.2	411.2	411.2	409.8	412.6	411.2	414.1	415.5	415.5	415.5	414.1
50°	360.5	356.1	357.6	357.6	359.1	357.6	360.5	362.0	362.0	359.1	353.2
52.5°	311.2	309.9	309.9	312.8	312.8	311.2	311.2	311.2	311.2	307.0	304.0
55°	270.8	267.9	269.2	269.2	269.2	269.2	270.8	269.2	269.2	265.0	260.6
57.5°	234.5	231.6	231.6	231.6	233.1	231.6	231.6	231.6	230.2	225.9	220.1
60°	199.8	198.4	199.8	199.8	201.2	199.8	199.8	199.8	196.9	192.6	186.8
62.5°	170.9	170.9	170.9	172.2	172.2	170.9	170.9	169.4	168.0	162.1	156.4
65°	146.2	144.8	146.2	146.2	147.6	147.6	146.2	144.8	143.4	137.5	131.8
67.5°	121.6	120.1	121.6	121.6	123.1	121.6	121.6	121.6	117.2	114.4	108.6
70°	98.5	97.0	97.0	97.0	98.5	95.5	97.0	97.0	94.1	89.8	84.0
72.5°	75.2	75.2	75.2	75.2	75.2	75.2	73.9	73.9	71.0	66.6	63.8
75°	55.0	55.0	56.5	56.5	55.0	55.0	55.0	53.6	52.1	49.2	46.4
77.5°	40.5	40.5	40.5	40.5	39.1	39.1	39.1	37.6	36.2	34.8	31.9
80°	29.0	29.0	29.0	27.5	29.0	27.5	27.5	27.5	24.6	23.1	21.8
82.5°	20.2	18.9	18.9	18.9	18.9	18.9	18.9	17.4	17.4	15.9	14.5
85°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	10.1	8.6	8.6
87.5°	5.8	7.2	7.2	7.2	7.2	7.2	7.2	5.8	5.8	5.8	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9
2.5°	1193.0	1193.0	1195.9	1191.6	1198.9	1194.5	1193.0	1200.2	1195.9	1194.5	1197.4
5°	1182.9	1184.4	1185.8	1182.9	1190.1	1185.8	1185.8	1193.0	1190.1	1188.8	1193.0
7.5°	1169.9	1171.4	1174.2	1172.8	1178.5	1175.6	1177.1	1184.4	1181.5	1181.5	1185.8
10°	1154.0	1156.9	1159.8	1159.8	1167.0	1164.1	1164.1	1172.8	1169.9	1171.4	1177.1
12.5°	1135.1	1139.5	1143.8	1145.2	1152.5	1148.1	1149.6	1159.8	1158.2	1159.8	1165.5
15°	1114.9	1120.6	1125.0	1125.0	1133.6	1129.4	1133.6	1143.8	1140.9	1146.8	1154.0
17.5°	1091.6	1097.5	1103.2	1104.8	1113.4	1110.5	1116.2	1126.4	1126.4	1129.4	1138.0
20°	1070.0	1077.2	1080.1	1084.5	1093.1	1091.6	1094.6	1106.1	1106.1	1110.5	1119.2
22.5°	1041.0	1048.2	1054.0	1058.4	1065.6	1065.6	1070.0	1080.1	1080.1	1083.0	1091.6
25°	1009.1	1017.9	1022.2	1026.5	1033.8	1032.4	1036.6	1045.4	1046.8	1049.8	1058.4
27.5°	968.6	975.9	981.6	984.5	994.6	988.9	993.2	1003.4	1001.9	1004.9	1012.0
30°	918.0	925.1	931.0	931.0	939.6	939.6	944.0	948.4	948.4	951.2	957.0
32.5°	858.6	867.2	867.2	871.6	877.4	871.6	877.4	883.2	880.2	884.6	889.0
35°	790.5	794.9	796.4	796.4	800.6	799.2	797.8	802.1	799.2	806.5	810.8
37.5°	708.0	713.8	710.9	713.8	712.4	708.0	708.0	715.2	709.5	710.9	715.2
40°	628.4	628.4	626.9	619.6	621.1	616.8	615.4	616.8	611.0	609.5	615.4
42.5°	545.9	544.4	540.0	529.9	531.4	524.1	518.4	518.4	515.5	514.0	515.5
45°	472.0	467.6	460.4	448.9	446.0	440.1	428.6	425.6	421.4	421.4	422.8
47.5°	404.0	398.1	386.6	373.5	366.2	359.1	347.5	343.1	335.9	333.0	335.9
50°	347.5	337.4	322.9	304.0	296.8	288.1	276.5	269.2	262.1	259.1	257.8
52.5°	295.4	280.9	266.4	243.2	237.5	228.8	212.9	205.6	198.4	192.6	192.6
55°	250.5	237.5	217.1	195.5	186.8	178.1	162.1	152.0	144.8	141.9	139.0
57.5°	210.0	195.5	176.6	153.5	144.8	136.1	120.1	110.0	102.8	98.5	95.5
60°	176.6	160.8	141.9	121.6	111.5	102.8	86.9	76.8	69.5	65.1	62.2
62.5°	144.8	131.8	112.9	94.1	85.4	76.8	63.8	53.6	46.4	43.4	39.1
65°	121.6	108.6	91.2	75.2	68.0	59.4	47.8	39.1	33.2	29.0	26.0
67.5°	98.5	88.4	73.9	59.4	52.1	46.4	36.2	29.0	23.1	20.2	18.9
70°	78.1	68.0	56.5	44.9	40.5	34.8	27.5	20.2	17.4	14.5	13.0
72.5°	57.9	50.6	42.0	33.2	29.0	26.0	18.9	15.9	11.6	10.1	8.6
75°	42.0	36.2	30.4	23.1	20.2	18.9	14.5	10.1	8.6	7.2	5.8
77.5°	29.0	26.0	20.2	15.9	14.5	13.0	10.1	7.2	5.8	4.4	4.4
80°	18.9	15.9	13.0	10.1	10.1	8.6	5.8	4.4	4.4	2.9	2.9
82.5°	11.6	10.1	8.6	7.2	5.8	5.8	4.4	2.9	2.9	1.5	1.5
85°	7.2	5.8	4.4	4.4	2.9	2.9	2.9	1.5	1.5	1.5	1.5
87.5°	2.9	2.9	2.9	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9
2.5°	1197.4	1197.4	1200.2	1195.9	1198.9	1198.9	1201.8	1195.9	1198.9	1200.2	1203.1
5°	1191.6	1193.0	1195.9	1194.5	1195.9	1195.9	1198.9	1191.6	1197.4	1197.4	1201.8
7.5°	1185.8	1185.8	1188.8	1187.2	1190.1	1191.6	1194.5	1188.8	1194.5	1194.5	1198.9
10°	1178.5	1178.5	1182.9	1181.5	1185.8	1187.2	1191.6	1185.8	1191.6	1193.0	1197.4
12.5°	1168.4	1169.9	1174.2	1174.2	1178.5	1181.5	1185.8	1182.9	1190.1	1191.6	1197.4
15°	1156.9	1159.8	1165.5	1164.1	1168.4	1172.8	1178.5	1174.2	1184.4	1187.2	1193.0
17.5°	1142.4	1145.2	1149.6	1149.6	1154.0	1156.9	1164.1	1161.1	1169.9	1171.4	1178.5
20°	1120.6	1125.0	1130.8	1129.4	1133.6	1136.6	1142.4	1139.5	1148.1	1151.0	1158.2
22.5°	1094.6	1097.5	1101.9	1101.9	1106.1	1109.0	1114.9	1110.5	1119.2	1120.6	1126.4
25°	1059.9	1062.8	1065.6	1067.1	1071.4	1072.9	1075.8	1072.9	1080.1	1081.5	1088.8
27.5°	1015.0	1016.4	1020.8	1020.8	1023.6	1025.1	1029.4	1023.6	1033.8	1033.8	1038.1
30°	961.4	959.9	965.8	962.9	965.8	965.8	970.1	967.1	974.4	971.5	975.9
32.5°	890.4	893.4	893.4	890.4	896.2	894.8	894.8	891.9	896.2	897.6	900.6
35°	807.9	812.2	812.2	813.8	815.1	810.8	812.2	803.6	810.8	812.2	813.8
37.5°	718.1	713.8	716.8	712.4	719.6	710.9	710.9	705.1	710.9	710.9	712.4
40°	615.4	613.9	616.8	613.9	612.5	611.0	608.1	603.8	609.5	606.6	611.0
42.5°	518.4	516.9	516.9	514.0	512.5	512.5	509.6	506.8	505.2	505.2	512.5
45°	418.4	421.4	418.4	417.0	419.9	417.0	418.4	412.6	415.5	412.6	415.5
47.5°	334.5	335.9	333.0	330.1	334.5	330.1	330.1	325.8	331.5	331.5	328.6
50°	259.1	257.8	254.9	257.8	256.2	256.2	256.2	251.9	254.9	250.5	253.4
52.5°	191.1	189.6	189.6	188.2	189.6	188.2	188.2	186.8	186.8	185.4	186.8
55°	139.0	137.5	134.6	134.6	134.6	136.1	134.6	133.2	133.2	131.8	133.2
57.5°	94.1	91.2	91.2	91.2	91.2	89.8	89.8	88.4	89.8	88.4	89.8
60°	60.8	60.8	57.9	57.9	57.9	57.9	57.9	56.5	57.9	57.9	57.9
62.5°	37.6	37.6	36.2	34.8	36.2	34.8	34.8	34.8	36.2	34.8	36.2
65°	24.6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
67.5°	17.4	15.9	15.9	15.9	15.9	15.9	15.9	14.5	15.9	15.9	15.9
70°	11.6	11.6	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
72.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	5.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	4.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	2.9	2.9	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: P252265

CATALOG NUMBER: LE_6B20D010 EC6B10209030 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9	1198.9
2.5°	1198.9	1200.2	1197.4	1198.9	1195.9	1198.9	1200.2	1203.1
5°	1195.9	1197.4	1194.5	1197.4	1194.5	1197.4	1198.9	1201.8
7.5°	1193.0	1195.9	1193.0	1195.9	1193.0	1195.9	1197.4	1200.2
10°	1193.0	1197.4	1194.5	1198.9	1194.5	1197.4	1200.2	1201.8
12.5°	1193.0	1197.4	1195.9	1198.9	1197.4	1200.2	1203.1	1206.1
15°	1190.1	1194.5	1191.6	1195.9	1194.5	1195.9	1201.8	1201.8
17.5°	1174.2	1178.5	1178.5	1181.5	1181.5	1185.8	1188.8	1191.6
20°	1154.0	1158.2	1156.9	1161.1	1161.1	1165.5	1168.4	1171.4
22.5°	1123.5	1129.4	1127.9	1132.2	1130.8	1133.6	1139.5	1138.0
25°	1084.5	1091.6	1090.2	1093.1	1091.6	1091.6	1094.6	1096.0
27.5°	1036.6	1041.0	1039.6	1042.5	1039.6	1042.5	1045.4	1046.8
30°	974.4	977.2	975.9	977.2	975.9	978.8	980.2	983.1
32.5°	899.1	903.5	899.1	902.0	900.6	900.6	906.4	903.5
35°	809.4	810.8	812.2	812.2	809.4	810.8	813.8	813.8
37.5°	709.5	716.8	708.0	712.4	710.9	710.9	710.9	715.2
40°	605.2	606.6	603.8	603.8	603.8	602.2	608.1	606.6
42.5°	506.8	508.2	506.8	502.4	503.9	503.9	508.2	502.4
45°	411.2	414.1	412.6	412.6	409.8	409.8	411.2	408.2
47.5°	325.8	328.6	324.4	325.8	322.9	325.8	324.4	327.2
50°	247.6	250.5	249.0	250.5	250.5	247.6	251.9	246.1
52.5°	185.4	186.8	185.4	183.9	182.4	182.4	185.4	183.9
55°	131.8	130.2	130.2	130.2	131.8	131.8	130.2	128.9
57.5°	88.4	88.4	86.9	86.9	88.4	85.4	86.9	85.4
60°	56.5	56.5	56.5	56.5	55.0	56.5	56.5	56.5
62.5°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
65°	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
67.5°	14.5	15.9	15.9	15.9	14.5	14.5	14.5	14.5
70°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
72.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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)