

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: P252266

Luminaire Tested: **LE_6B20D010 EC6B10209035 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252266
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 EC6B10209035 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2040.0 lumens
Efficiency: N/A
Efficacy: 98.1 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

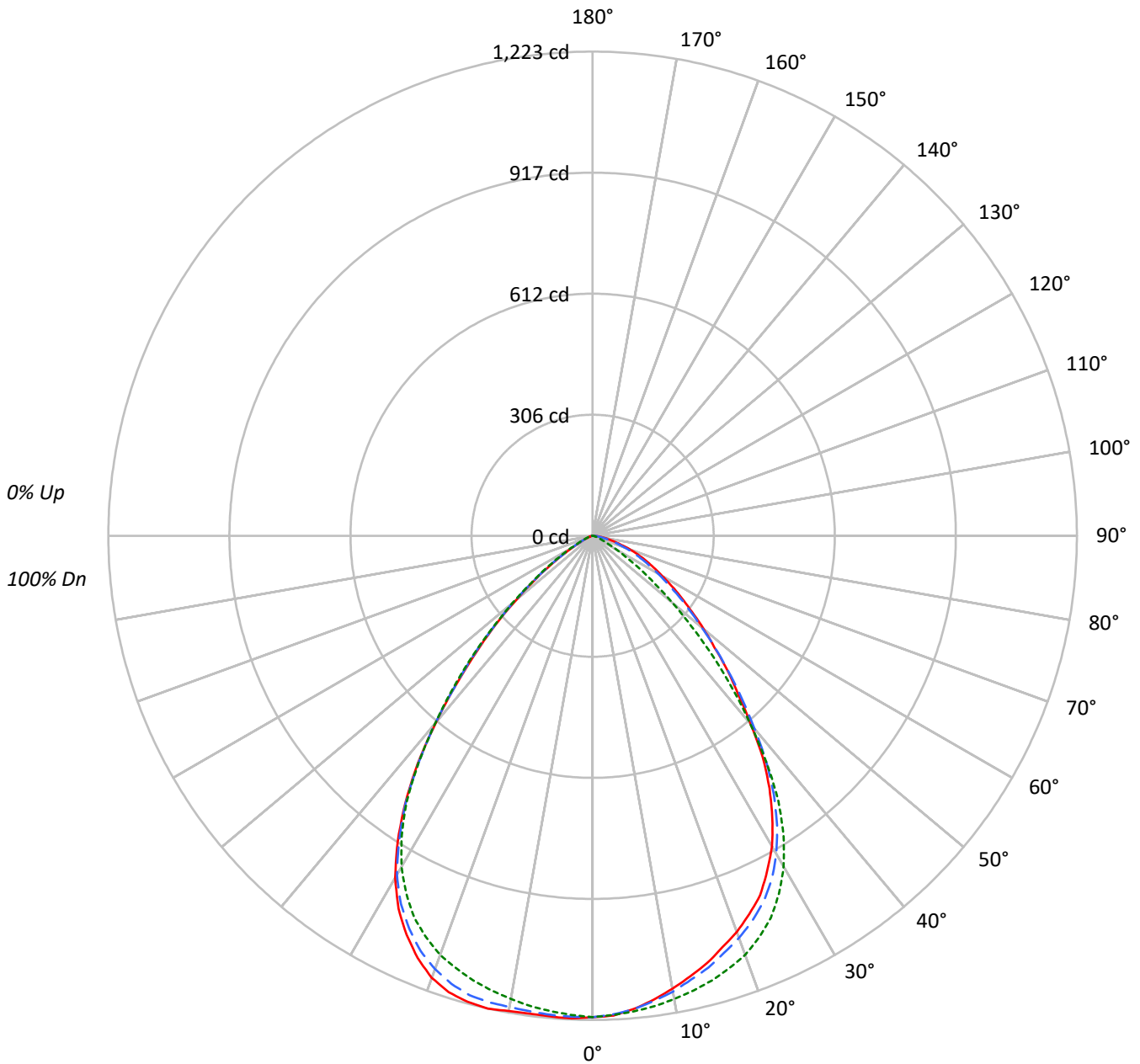
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

Luminous Intensity Polar Plot





TEST NUMBER: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

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°	79333	79333	79333
5°	78575	78955	79826
10°	76953	78708	80749
15°	75485	78558	82327
20°	73927	78203	82487
25°	72093	76650	80033
30°	68260	72689	75115
35°	61995	65149	65738
40°	52905	52649	52411
45°	44434	39434	38207
50°	37107	26683	25334
55°	31234	16368	14878
60°	26436	8625	7464
65°	22909	4539	3628
70°	19056	2785	1946
75°	14066	1865	1109
80°	11046	1090	564
85°	8833	1123	0



TEST NUMBER: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	5.6
10°-20°	328.1	16.1
20°-30°	484.5	23.8
30°-40°	499.3	24.5
40°-50°	344.9	16.9
50°-60°	170.0	8.3
60°-70°	68.9	3.4
70°-80°	24.5	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°	927.3	45.5
0°-40°	1426.6	69.9
0°-60°	1941.5	95.2
0°-90°	2040.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2040.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1216	1216	1216	1216	1216	
5°	1200	1200	1206	1214	1219	113
15°	1118	1129	1163	1201	1219	315
25°	1002	1021	1065	1096	1112	458
35°	778	797	818	822	825	482
45°	482	485	427	422	414	372
55°	275	264	144	135	131	248
65°	148	134	29	24	24	147
75°	56	47	7	4	4	63
85°	12	9	2	0	0	14
90°	0	0	0	0	0	



TEST NUMBER: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0
2.5°	1213.0	1208.6	1211.5	1205.6	1213.0	1205.6	1207.1	1208.6	1207.1	1208.6	1210.1
5°	1199.8	1195.4	1199.8	1192.5	1199.8	1195.4	1195.4	1196.9	1196.9	1198.4	1199.8
7.5°	1182.2	1177.8	1182.2	1174.9	1183.6	1179.2	1179.2	1182.2	1180.8	1182.2	1185.1
10°	1161.6	1155.8	1160.1	1155.8	1164.6	1158.8	1161.6	1161.6	1161.6	1166.0	1169.0
12.5°	1139.6	1133.8	1139.6	1132.2	1141.1	1136.6	1138.1	1142.5	1144.0	1147.0	1148.4
15°	1117.6	1110.2	1113.1	1108.8	1117.6	1113.1	1114.6	1120.5	1120.5	1124.9	1129.4
17.5°	1089.6	1083.8	1089.6	1083.8	1091.1	1088.2	1091.1	1095.5	1095.5	1100.0	1104.4
20°	1064.8	1058.9	1063.2	1058.9	1067.6	1063.2	1064.8	1070.6	1072.0	1076.5	1080.9
22.5°	1033.9	1029.5	1032.4	1028.0	1036.8	1033.9	1035.4	1041.2	1042.6	1045.6	1053.0
25°	1001.5	992.8	997.1	994.2	1003.0	998.6	1001.5	1007.4	1010.4	1014.8	1020.6
27.5°	954.5	950.1	953.1	953.1	960.4	956.0	957.5	963.4	967.8	972.1	979.5
30°	906.1	898.8	901.8	903.1	909.0	906.1	909.0	914.9	916.4	922.2	928.1
32.5°	844.4	841.5	847.4	844.4	847.4	847.4	848.9	853.2	856.1	859.1	866.5
35°	778.4	772.5	778.4	775.4	782.8	778.4	782.8	787.1	787.1	793.0	797.4
37.5°	706.4	699.0	702.0	702.0	704.9	703.5	703.5	710.8	712.2	716.6	721.0
40°	621.2	618.2	624.1	622.6	624.1	624.1	625.6	630.0	633.0	634.4	635.9
42.5°	544.9	546.2	547.8	547.8	547.8	547.8	547.8	553.6	552.1	556.6	558.0
45°	481.6	475.9	478.8	477.2	481.6	477.2	481.6	486.1	483.1	487.5	484.6
47.5°	417.1	417.1	417.1	415.6	418.5	417.1	420.0	421.5	421.5	421.5	420.0
50°	365.6	361.2	362.8	362.8	364.2	362.8	365.6	367.1	367.1	364.2	358.4
52.5°	315.8	314.2	314.2	317.2	317.2	315.8	315.8	315.8	315.8	311.4	308.4
55°	274.6	271.6	273.1	273.1	273.1	273.1	274.6	273.1	273.1	268.8	264.4
57.5°	237.9	235.0	235.0	235.0	236.5	235.0	235.0	235.0	233.5	229.1	223.2
60°	202.6	201.2	202.6	202.6	204.1	202.6	202.6	202.6	199.8	195.4	189.5
62.5°	173.2	173.2	173.2	174.8	174.8	173.2	173.2	171.9	170.4	164.5	158.6
65°	148.4	146.9	148.4	148.4	149.8	149.8	148.4	146.9	145.4	139.5	133.6
67.5°	123.4	121.9	123.4	123.4	124.9	123.4	123.4	123.4	119.0	116.0	110.1
70°	99.9	98.4	98.4	98.4	99.9	96.9	98.4	98.4	95.5	91.0	85.1
72.5°	76.4	76.4	76.4	76.4	76.4	76.4	74.9	74.9	72.0	67.5	64.6
75°	55.8	55.8	57.2	57.2	55.8	55.8	55.8	54.4	52.9	49.9	47.0
77.5°	41.1	41.1	41.1	41.1	39.6	39.6	39.6	38.1	36.8	35.2	32.2
80°	29.4	29.4	29.4	27.9	29.4	27.9	27.9	27.9	25.0	23.5	22.0
82.5°	20.5	19.1	19.1	19.1	19.1	19.1	19.1	17.6	17.6	16.1	14.6
85°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	10.2	8.8	8.8
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: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0
2.5°	1210.1	1210.1	1213.0	1208.6	1216.0	1211.5	1210.1	1217.4	1213.0	1211.5	1214.5
5°	1199.8	1201.2	1202.8	1199.8	1207.1	1202.8	1202.8	1210.1	1207.1	1205.6	1210.1
7.5°	1186.6	1188.1	1191.0	1189.5	1195.4	1192.5	1193.9	1201.2	1198.4	1198.4	1202.8
10°	1170.5	1173.4	1176.4	1176.4	1183.6	1180.8	1180.8	1189.5	1186.6	1188.1	1193.9
12.5°	1151.4	1155.8	1160.1	1161.6	1169.0	1164.6	1166.0	1176.4	1174.9	1176.4	1182.2
15°	1130.8	1136.6	1141.1	1141.1	1149.9	1145.5	1149.9	1160.1	1157.2	1163.1	1170.5
17.5°	1107.2	1113.1	1119.0	1120.5	1129.4	1126.4	1132.2	1142.5	1142.5	1145.5	1154.2
20°	1085.2	1092.6	1095.5	1100.0	1108.8	1107.2	1110.2	1122.0	1122.0	1126.4	1135.2
22.5°	1055.9	1063.2	1069.1	1073.5	1080.9	1080.9	1085.2	1095.5	1095.5	1098.5	1107.2
25°	1023.6	1032.4	1036.8	1041.2	1048.5	1047.1	1051.5	1060.2	1061.8	1064.8	1073.5
27.5°	982.5	989.8	995.6	998.6	1008.9	1003.0	1007.4	1017.8	1016.2	1019.1	1026.5
30°	931.1	938.4	944.2	944.2	953.1	953.1	957.5	961.9	961.9	964.9	970.8
32.5°	870.9	879.6	879.6	884.1	890.0	884.1	890.0	895.9	892.9	897.2	901.8
35°	801.9	806.2	807.8	807.8	812.1	810.6	809.1	813.6	810.6	818.0	822.4
37.5°	718.1	724.0	721.0	724.0	722.5	718.1	718.1	725.5	719.6	721.0	725.5
40°	637.4	637.4	635.9	628.5	630.0	625.6	624.1	625.6	619.8	618.2	624.1
42.5°	553.6	552.1	547.8	537.5	539.0	531.6	525.8	525.8	522.8	521.4	522.8
45°	478.8	474.4	467.0	455.2	452.4	446.5	434.8	431.8	427.4	427.4	428.9
47.5°	409.8	403.9	392.1	378.9	371.5	364.2	352.5	348.0	340.8	337.8	340.8
50°	352.5	342.1	327.5	308.4	301.0	292.2	280.5	273.1	265.8	262.9	261.4
52.5°	299.6	284.9	270.2	246.8	240.9	232.0	215.9	208.5	201.2	195.4	195.4
55°	254.0	240.9	220.2	198.2	189.5	180.6	164.5	154.2	146.9	143.9	141.0
57.5°	213.0	198.2	179.1	155.6	146.9	138.0	121.9	111.6	104.2	99.9	96.9
60°	179.1	163.0	143.9	123.4	113.1	104.2	88.1	77.9	70.5	66.1	63.1
62.5°	146.9	133.6	114.5	95.5	86.6	77.9	64.6	54.4	47.0	44.0	39.6
65°	123.4	110.1	92.5	76.4	69.0	60.2	48.5	39.6	33.8	29.4	26.4
67.5°	99.9	89.6	74.9	60.2	52.9	47.0	36.8	29.4	23.5	20.5	19.1
70°	79.2	69.0	57.2	45.5	41.1	35.2	27.9	20.5	17.6	14.6	13.2
72.5°	58.8	51.4	42.6	33.8	29.4	26.4	19.1	16.1	11.8	10.2	8.8
75°	42.6	36.8	30.9	23.5	20.5	19.1	14.6	10.2	8.8	7.4	5.9
77.5°	29.4	26.4	20.5	16.1	14.6	13.2	10.2	7.4	5.9	4.4	4.4
80°	19.1	16.1	13.2	10.2	10.2	8.8	5.9	4.4	4.4	2.9	2.9
82.5°	11.8	10.2	8.8	7.4	5.9	5.9	4.4	2.9	2.9	1.5	1.5
85°	7.4	5.9	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



TEST NUMBER: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0
2.5°	1214.5	1214.5	1217.4	1213.0	1216.0	1216.0	1218.9	1213.0	1216.0	1217.4	1220.4
5°	1208.6	1210.1	1213.0	1211.5	1213.0	1213.0	1216.0	1208.6	1214.5	1214.5	1218.9
7.5°	1202.8	1202.8	1205.6	1204.2	1207.1	1208.6	1211.5	1205.6	1211.5	1211.5	1216.0
10°	1195.4	1195.4	1199.8	1198.4	1202.8	1204.2	1208.6	1202.8	1208.6	1210.1	1214.5
12.5°	1185.1	1186.6	1191.0	1191.0	1195.4	1198.4	1202.8	1199.8	1207.1	1208.6	1214.5
15°	1173.4	1176.4	1182.2	1180.8	1185.1	1189.5	1195.4	1191.0	1201.2	1204.2	1210.1
17.5°	1158.8	1161.6	1166.0	1166.0	1170.5	1173.4	1180.8	1177.8	1186.6	1188.1	1195.4
20°	1136.6	1141.1	1147.0	1145.5	1149.9	1152.9	1158.8	1155.8	1164.6	1167.5	1174.9
22.5°	1110.2	1113.1	1117.6	1117.6	1122.0	1124.9	1130.8	1126.4	1135.2	1136.6	1142.5
25°	1075.0	1077.9	1080.9	1082.4	1086.8	1088.2	1091.1	1088.2	1095.5	1097.0	1104.4
27.5°	1029.5	1030.9	1035.4	1035.4	1038.2	1039.8	1044.1	1038.2	1048.5	1048.5	1053.0
30°	975.1	973.6	979.5	976.6	979.5	979.5	983.9	981.0	988.4	985.4	989.8
32.5°	903.1	906.1	906.1	903.1	909.0	907.6	907.6	904.6	909.0	910.5	913.5
35°	819.5	823.9	823.9	825.4	826.8	822.4	823.9	815.0	822.4	823.9	825.4
37.5°	728.4	724.0	726.9	722.5	729.9	721.0	721.0	715.1	721.0	721.0	722.5
40°	624.1	622.6	625.6	622.6	621.2	619.8	616.8	612.4	618.2	615.4	619.8
42.5°	525.8	524.2	524.2	521.4	519.9	519.9	516.9	514.0	512.5	512.5	519.9
45°	424.4	427.4	424.4	423.0	425.9	423.0	424.4	418.5	421.5	418.5	421.5
47.5°	339.2	340.8	337.8	334.9	339.2	334.9	334.9	330.4	336.2	336.2	333.4
50°	262.9	261.4	258.5	261.4	259.9	259.9	259.9	255.5	258.5	254.0	257.0
52.5°	193.9	192.4	192.4	190.9	192.4	190.9	190.9	189.5	189.5	188.0	189.5
55°	141.0	139.5	136.6	136.6	136.6	138.0	136.6	135.1	135.1	133.6	135.1
57.5°	95.5	92.5	92.5	92.5	92.5	91.0	91.0	89.6	91.0	89.6	91.0
60°	61.6	61.6	58.8	58.8	58.8	58.8	58.8	57.2	58.8	58.8	58.8
62.5°	38.1	38.1	36.8	35.2	36.8	35.2	35.2	35.2	36.8	35.2	36.8
65°	25.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
67.5°	17.6	16.1	16.1	16.1	16.1	16.1	16.1	14.6	16.1	16.1	16.1
70°	11.8	11.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
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	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: P252266

CATALOG NUMBER: LE_6B20D010 EC6B10209035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0	1216.0
2.5°	1216.0	1217.4	1214.5	1216.0	1213.0	1216.0	1217.4	1220.4
5°	1213.0	1214.5	1211.5	1214.5	1211.5	1214.5	1216.0	1218.9
7.5°	1210.1	1213.0	1210.1	1213.0	1210.1	1213.0	1214.5	1217.4
10°	1210.1	1214.5	1211.5	1216.0	1211.5	1214.5	1217.4	1218.9
12.5°	1210.1	1214.5	1213.0	1216.0	1214.5	1217.4	1220.4	1223.2
15°	1207.1	1211.5	1208.6	1213.0	1211.5	1213.0	1218.9	1218.9
17.5°	1191.0	1195.4	1195.4	1198.4	1198.4	1202.8	1205.6	1208.6
20°	1170.5	1174.9	1173.4	1177.8	1177.8	1182.2	1185.1	1188.1
22.5°	1139.6	1145.5	1144.0	1148.4	1147.0	1149.9	1155.8	1154.2
25°	1100.0	1107.2	1105.9	1108.8	1107.2	1107.2	1110.2	1111.8
27.5°	1051.5	1055.9	1054.4	1057.4	1054.4	1057.4	1060.2	1061.8
30°	988.4	991.2	989.8	991.2	989.8	992.8	994.2	997.1
32.5°	912.0	916.4	912.0	914.9	913.5	913.5	919.4	916.4
35°	820.9	822.4	823.9	823.9	820.9	822.4	825.4	825.4
37.5°	719.6	726.9	718.1	722.5	721.0	721.0	721.0	725.5
40°	613.9	615.4	612.4	612.4	612.4	610.9	616.8	615.4
42.5°	514.0	515.5	514.0	509.6	511.0	511.0	515.5	509.6
45°	417.1	420.0	418.5	418.5	415.6	415.6	417.1	414.1
47.5°	330.4	333.4	329.0	330.4	327.5	330.4	329.0	331.9
50°	251.1	254.0	252.6	254.0	254.0	251.1	255.5	249.6
52.5°	188.0	189.5	188.0	186.5	185.0	185.0	188.0	186.5
55°	133.6	132.1	132.1	132.1	133.6	133.6	132.1	130.8
57.5°	89.6	89.6	88.1	88.1	89.6	86.6	88.1	86.6
60°	57.2	57.2	57.2	57.2	55.8	57.2	57.2	57.2
62.5°	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2
65°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
67.5°	14.6	16.1	16.1	16.1	14.6	14.6	14.6	14.6
70°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
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°	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)