

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: P252267

Luminaire Tested: **LE_6B20D010 EC6B10209040 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252267
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 EC6B10209040 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2042.5 lumens
Efficiency: N/A
Efficacy: 98.2 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

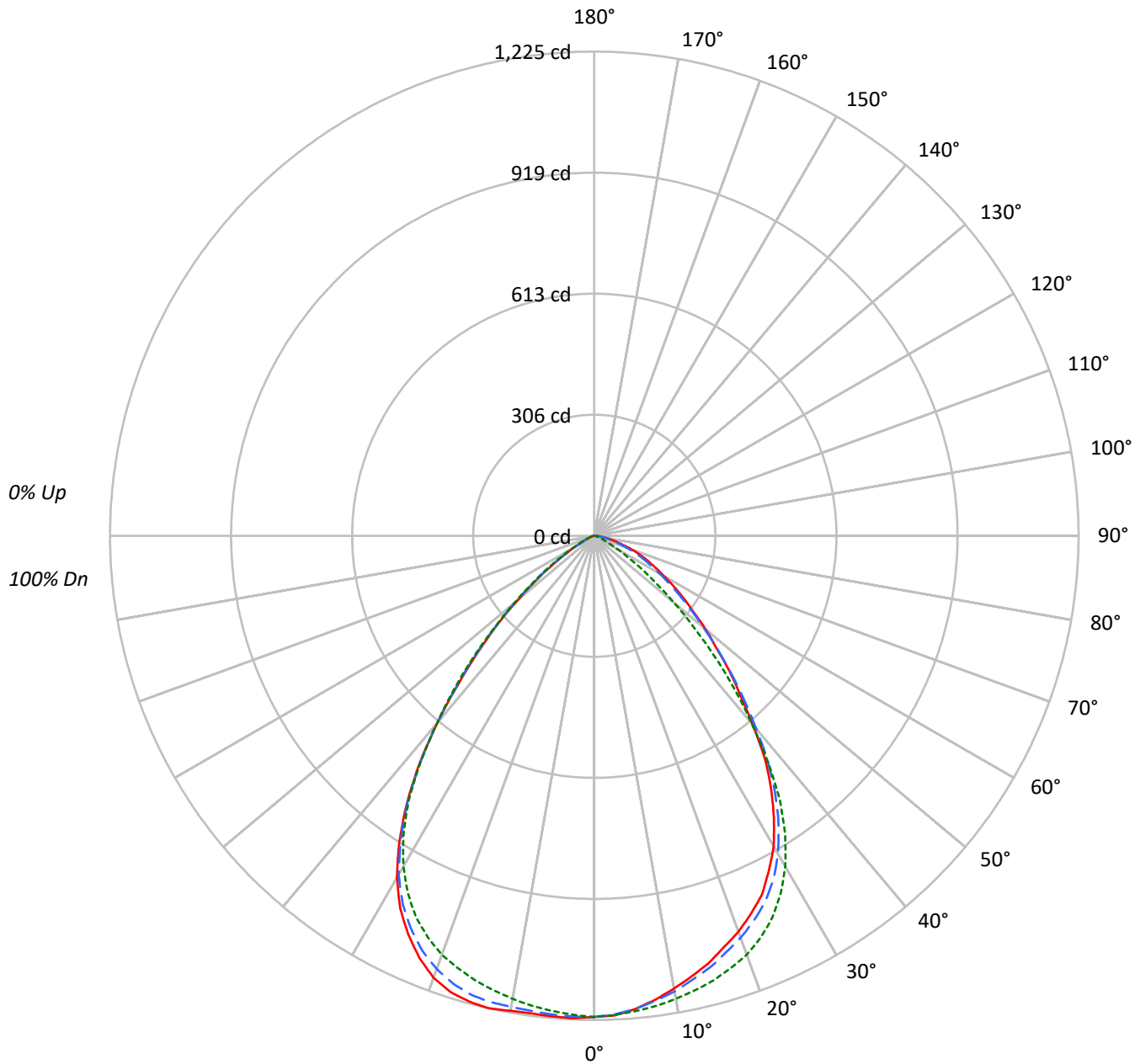
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74
5	85	74	67	62	83	73	66	61	71	65	61		70	64	60		68
6	79	68	61	55	78	67	60	55	66	59	55		64	59	54		63
7	74	63	55	50	73	62	55	50	61	54	50		59	54	49		58
8	70	58	51	46	68	57	50	46	56	50	45		55	49	45		54
9	65	54	47	42	64	53	46	42	52	46	42		51	46	41		50
10	62	50	43	39	61	50	43	38	49	43	38		48	42	38		47

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	79430	79430	79430
5°	78666	79053	79924
10°	77045	78801	80848
15°	75580	78653	82428
20°	74010	78300	82584
25°	72187	76736	80119
30°	68342	72772	75213
35°	62059	65229	65818
40°	52973	52718	52471
45°	44490	39480	38253
50°	37158	26714	25374
55°	31279	16390	14889
60°	26475	8625	7490
65°	22924	4539	3628
70°	19075	2823	1946
75°	14091	1865	1109
80°	11046	1127	564
85°	8833	1123	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	5.6
10°-20°	328.5	16.1
20°-30°	485.1	23.8
30°-40°	500.0	24.5
40°-50°	345.3	16.9
50°-60°	170.2	8.3
60°-70°	69.0	3.4
70°-80°	24.6	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°	928.4	45.5
0°-40°	1428.3	69.9
0°-60°	1943.9	95.2
0°-90°	2042.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1218	1218	1218	1218	1218	
5°	1201	1201	1207	1216	1220	113
15°	1119	1131	1164	1203	1220	315
25°	1003	1022	1066	1097	1113	458
35°	779	798	819	823	826	483
45°	482	485	428	422	415	373
55°	275	265	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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5
2.5°	1214.5	1210.1	1213.0	1207.1	1214.5	1207.1	1208.6	1210.1	1208.6	1210.1	1211.6
5°	1201.2	1196.9	1201.2	1193.9	1201.2	1196.9	1196.9	1198.4	1198.4	1199.8	1201.2
7.5°	1183.6	1179.2	1183.6	1176.2	1185.1	1180.8	1180.8	1183.6	1182.1	1183.6	1186.6
10°	1163.0	1157.1	1161.6	1157.1	1166.0	1160.1	1163.0	1163.0	1163.0	1167.5	1170.4
12.5°	1141.0	1135.1	1141.0	1133.6	1142.5	1138.0	1139.5	1144.0	1145.4	1148.4	1149.9
15°	1119.0	1111.6	1114.5	1110.1	1119.0	1114.5	1116.0	1121.9	1121.9	1126.2	1130.8
17.5°	1091.0	1085.1	1091.0	1085.1	1092.5	1089.5	1092.5	1096.9	1096.9	1101.2	1105.8
20°	1066.0	1060.1	1064.5	1060.1	1069.0	1064.5	1066.0	1071.9	1073.4	1077.8	1082.1
22.5°	1035.1	1030.8	1033.6	1029.2	1038.1	1035.1	1036.6	1042.5	1044.0	1046.9	1054.2
25°	1002.8	994.0	998.4	995.4	1004.2	999.9	1002.8	1008.6	1011.6	1016.0	1021.9
27.5°	955.8	951.4	954.2	954.2	961.6	957.2	958.6	964.5	969.0	973.4	980.8
30°	907.2	899.9	902.8	904.2	910.1	907.2	910.1	916.0	917.5	923.4	929.2
32.5°	845.5	842.5	848.4	845.5	848.4	848.4	849.9	854.2	857.2	860.1	867.5
35°	779.2	773.4	779.2	776.4	783.8	779.2	783.8	788.1	788.1	794.0	798.4
37.5°	707.2	699.9	702.9	702.9	705.8	704.2	704.2	711.6	713.1	717.5	722.0
40°	622.0	619.0	624.9	623.4	624.9	624.9	626.4	630.8	633.8	635.2	636.6
42.5°	545.5	547.0	548.5	548.5	548.5	548.5	548.5	554.4	552.9	557.2	558.8
45°	482.2	476.4	479.4	477.9	482.2	477.9	482.2	486.8	483.8	488.1	485.2
47.5°	417.6	417.6	417.6	416.1	419.0	417.6	420.5	422.0	422.0	422.0	420.5
50°	366.1	361.8	363.1	363.1	364.6	363.1	366.1	367.6	367.6	364.6	358.8
52.5°	316.1	314.6	314.6	317.6	317.6	316.1	316.1	316.1	316.1	311.8	308.8
55°	275.0	272.0	273.5	273.5	273.5	273.5	275.0	273.5	273.5	269.1	264.6
57.5°	238.2	235.2	235.2	235.2	236.8	235.2	235.2	235.2	233.8	229.4	223.5
60°	202.9	201.5	202.9	202.9	204.4	202.9	202.9	202.9	200.0	195.5	189.6
62.5°	173.5	173.5	173.5	175.0	175.0	173.5	173.5	172.0	170.5	164.6	158.8
65°	148.5	147.0	148.5	148.5	150.0	150.0	148.5	147.0	145.6	139.6	133.8
67.5°	123.5	122.0	123.5	123.5	125.0	123.5	123.5	123.5	119.1	116.1	110.2
70°	100.0	98.5	98.5	98.5	100.0	97.0	98.5	98.5	95.6	91.1	85.2
72.5°	76.5	76.5	76.5	76.5	76.5	76.5	75.0	75.0	72.0	67.6	64.8
75°	55.9	55.9	57.4	57.4	55.9	55.9	55.9	54.4	52.9	50.0	47.0
77.5°	41.1	41.1	41.1	41.1	39.8	39.8	39.8	38.2	36.8	35.2	32.4
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°	20.6	19.1	19.1	19.1	19.1	19.1	19.1	17.6	17.6	16.1	14.8
85°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	10.2	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5
2.5°	1211.6	1211.6	1214.5	1210.1	1217.5	1213.0	1211.6	1218.9	1214.5	1213.0	1216.0
5°	1201.2	1202.8	1204.2	1201.2	1208.6	1204.2	1204.2	1211.6	1208.6	1207.1	1211.6
7.5°	1188.0	1189.5	1192.5	1191.0	1196.9	1193.9	1195.4	1202.8	1199.8	1199.8	1204.2
10°	1171.9	1174.9	1177.8	1177.8	1185.1	1182.1	1182.1	1191.0	1188.0	1189.5	1195.4
12.5°	1152.8	1157.1	1161.6	1163.0	1170.4	1166.0	1167.5	1177.8	1176.2	1177.8	1183.6
15°	1132.1	1138.0	1142.5	1142.5	1151.2	1146.9	1151.2	1161.6	1158.6	1164.5	1171.9
17.5°	1108.6	1114.5	1120.4	1121.9	1130.8	1127.8	1133.6	1144.0	1144.0	1146.9	1155.8
20°	1086.6	1094.0	1096.9	1101.2	1110.1	1108.6	1111.6	1123.4	1123.4	1127.8	1136.6
22.5°	1057.1	1064.5	1070.4	1074.9	1082.1	1082.1	1086.6	1096.9	1096.9	1099.9	1108.6
25°	1024.9	1033.6	1038.1	1042.5	1049.9	1048.4	1052.8	1061.6	1063.1	1066.0	1074.9
27.5°	983.6	991.0	996.9	999.9	1010.1	1004.2	1008.6	1019.0	1017.5	1020.4	1027.8
30°	932.2	939.5	945.5	945.5	954.2	954.2	958.6	963.1	963.1	966.0	971.9
32.5°	871.9	880.8	880.8	885.1	891.0	885.1	891.0	896.9	894.0	898.4	902.8
35°	802.9	807.2	808.8	808.8	813.1	811.6	810.1	814.6	811.6	819.0	823.4
37.5°	719.0	724.9	722.0	724.9	723.4	719.0	719.0	726.4	720.5	722.0	726.4
40°	638.1	638.1	636.6	629.4	630.8	626.4	624.9	626.4	620.5	619.0	624.9
42.5°	554.4	552.9	548.5	538.1	539.6	532.2	526.4	526.4	523.5	522.0	523.5
45°	479.4	474.9	467.6	455.8	452.9	447.0	435.2	432.2	427.9	427.9	429.4
47.5°	410.2	404.4	392.6	379.4	372.0	364.6	352.9	348.5	341.1	338.1	341.1
50°	352.9	342.6	327.9	308.8	301.4	292.6	280.9	273.5	266.1	263.2	261.8
52.5°	300.0	285.2	270.5	247.0	241.1	232.4	216.1	208.8	201.5	195.5	195.5
55°	254.4	241.1	220.5	198.5	189.6	180.9	164.6	154.4	147.0	144.1	141.1
57.5°	213.2	198.5	179.4	155.9	147.0	138.2	122.0	111.8	104.4	100.0	97.0
60°	179.4	163.2	144.1	123.5	113.2	104.4	88.2	77.9	70.6	66.1	63.2
62.5°	147.0	133.8	114.8	95.6	86.8	77.9	64.8	54.4	47.0	44.1	39.8
65°	123.5	110.2	92.6	76.5	69.1	60.2	48.5	39.8	33.9	29.4	26.5
67.5°	100.0	89.8	75.0	60.2	52.9	47.0	36.8	29.4	23.5	20.6	19.1
70°	79.4	69.1	57.4	45.6	41.1	35.2	27.9	20.6	17.6	14.8	13.2
72.5°	58.9	51.5	42.6	33.9	29.4	26.5	19.1	16.1	11.8	10.2	8.9
75°	42.6	36.8	30.9	23.5	20.6	19.1	14.8	10.2	8.9	7.4	5.9
77.5°	29.4	26.5	20.6	16.1	14.8	13.2	10.2	7.4	5.9	4.4	4.4
80°	19.1	16.1	13.2	10.2	10.2	8.9	5.9	4.4	4.4	3.0	3.0
82.5°	11.8	10.2	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5
2.5°	1216.0	1216.0	1218.9	1214.5	1217.5	1217.5	1220.4	1214.5	1217.5	1218.9	1221.9
5°	1210.1	1211.6	1214.5	1213.0	1214.5	1214.5	1217.5	1210.1	1216.0	1216.0	1220.4
7.5°	1204.2	1204.2	1207.1	1205.8	1208.6	1210.1	1213.0	1207.1	1213.0	1213.0	1217.5
10°	1196.9	1196.9	1201.2	1199.8	1204.2	1205.8	1210.1	1204.2	1210.1	1211.6	1216.0
12.5°	1186.6	1188.0	1192.5	1192.5	1196.9	1199.8	1204.2	1201.2	1208.6	1210.1	1216.0
15°	1174.9	1177.8	1183.6	1182.1	1186.6	1191.0	1196.9	1192.5	1202.8	1205.8	1211.6
17.5°	1160.1	1163.0	1167.5	1167.5	1171.9	1174.9	1182.1	1179.2	1188.0	1189.5	1196.9
20°	1138.0	1142.5	1148.4	1146.9	1151.2	1154.2	1160.1	1157.1	1166.0	1168.9	1176.2
22.5°	1111.6	1114.5	1119.0	1119.0	1123.4	1126.2	1132.1	1127.8	1136.6	1138.0	1144.0
25°	1076.2	1079.2	1082.1	1083.6	1088.1	1089.5	1092.5	1089.5	1096.9	1098.4	1105.8
27.5°	1030.8	1032.2	1036.6	1036.6	1039.5	1041.0	1045.4	1039.5	1049.9	1049.9	1054.2
30°	976.4	974.9	980.8	977.8	980.8	980.8	985.1	982.2	989.5	986.6	991.0
32.5°	904.2	907.2	907.2	904.2	910.1	908.6	908.6	905.8	910.1	911.6	914.5
35°	820.5	824.9	824.9	826.4	827.8	823.4	824.9	816.0	823.4	824.9	826.4
37.5°	729.2	724.9	727.9	723.4	730.8	722.0	722.0	716.1	722.0	722.0	723.4
40°	624.9	623.4	626.4	623.4	622.0	620.5	617.5	613.1	619.0	616.1	620.5
42.5°	526.4	524.9	524.9	522.0	520.5	520.5	517.6	514.6	513.1	513.1	520.5
45°	424.9	427.9	424.9	423.5	426.4	423.5	424.9	419.0	422.0	419.0	422.0
47.5°	339.6	341.1	338.1	335.2	339.6	335.2	335.2	330.9	336.8	336.8	333.8
50°	263.2	261.8	258.8	261.8	260.2	260.2	260.2	255.9	258.8	254.4	257.2
52.5°	194.1	192.6	192.6	191.1	192.6	191.1	191.1	189.6	189.6	188.2	189.6
55°	141.1	139.6	136.8	136.8	136.8	138.2	136.8	135.2	135.2	133.8	135.2
57.5°	95.6	92.6	92.6	92.6	92.6	91.1	91.1	89.8	91.1	89.8	91.1
60°	61.8	61.8	58.9	58.9	58.9	58.9	58.9	57.4	58.9	58.9	58.9
62.5°	38.2	38.2	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	14.8	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	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: P252267

CATALOG NUMBER: LE_6B20D010 EC6B10209040 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5	1217.5
2.5°	1217.5	1218.9	1216.0	1217.5	1214.5	1217.5	1218.9	1221.9
5°	1214.5	1216.0	1213.0	1216.0	1213.0	1216.0	1217.5	1220.4
7.5°	1211.6	1214.5	1211.6	1214.5	1211.6	1214.5	1216.0	1218.9
10°	1211.6	1216.0	1213.0	1217.5	1213.0	1216.0	1218.9	1220.4
12.5°	1211.6	1216.0	1214.5	1217.5	1216.0	1218.9	1221.9	1224.8
15°	1208.6	1213.0	1210.1	1214.5	1213.0	1214.5	1220.4	1220.4
17.5°	1192.5	1196.9	1196.9	1199.8	1199.8	1204.2	1207.1	1210.1
20°	1171.9	1176.2	1174.9	1179.2	1179.2	1183.6	1186.6	1189.5
22.5°	1141.0	1146.9	1145.4	1149.9	1148.4	1151.2	1157.1	1155.8
25°	1101.2	1108.6	1107.1	1110.1	1108.6	1108.6	1111.6	1113.0
27.5°	1052.8	1057.1	1055.8	1058.6	1055.8	1058.6	1061.6	1063.1
30°	989.5	992.5	991.0	992.5	991.0	994.0	995.4	998.4
32.5°	913.1	917.5	913.1	916.0	914.5	914.5	920.5	917.5
35°	821.9	823.4	824.9	824.9	821.9	823.4	826.4	826.4
37.5°	720.5	727.9	719.0	723.4	722.0	722.0	722.0	726.4
40°	614.6	616.1	613.1	613.1	613.1	611.6	617.5	616.1
42.5°	514.6	516.1	514.6	510.2	511.6	511.6	516.1	510.2
45°	417.6	420.5	419.0	419.0	416.1	416.1	417.6	414.6
47.5°	330.9	333.8	329.4	330.9	327.9	330.9	329.4	332.2
50°	251.4	254.4	252.9	254.4	254.4	251.4	255.9	250.0
52.5°	188.2	189.6	188.2	186.8	185.2	185.2	188.2	186.8
55°	133.8	132.4	132.4	132.4	133.8	133.8	132.4	130.9
57.5°	89.8	89.8	88.2	88.2	89.8	86.8	88.2	86.8
60°	57.4	57.4	57.4	57.4	55.9	57.4	57.4	57.4
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°	14.8	16.1	16.1	16.1	14.8	14.8	14.8	14.8
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°	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)