

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: P252264

Luminaire Tested: **LE_6B20D010 EC6B10209027 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252264
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 EC6B10209027 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1933.7 lumens
Efficiency: N/A
Efficacy: 93.0 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

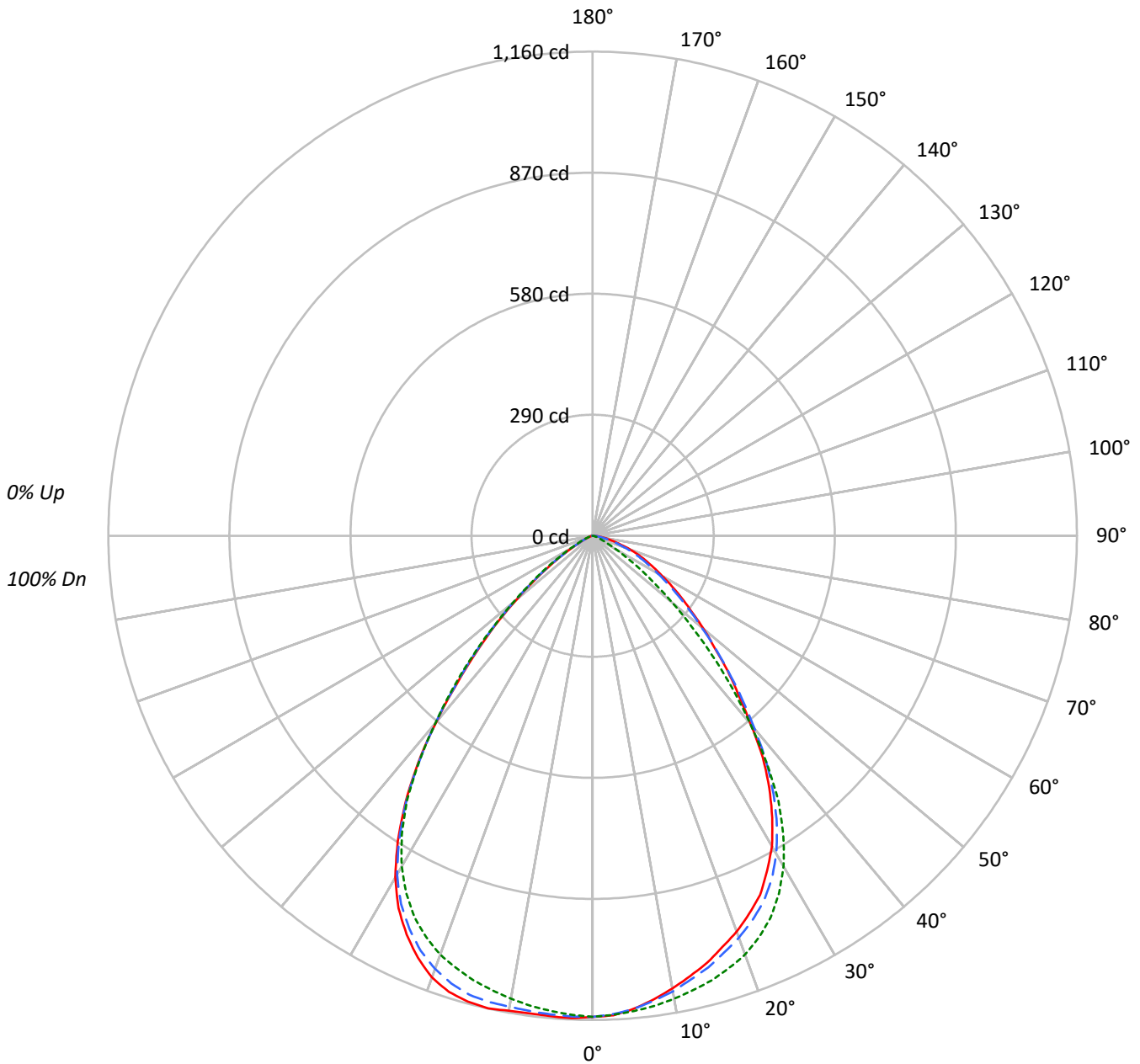
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	75196	75196	75196
5°	74488	74848	75667
10°	72945	74601	76542
15°	71554	74465	78038
20°	70066	74135	78182
25°	68343	72647	75858
30°	64704	68900	71205
35°	58761	61756	62314
40°	50154	49907	49669
45°	42128	37376	36223
50°	35179	25283	24014
55°	29619	15515	14093
60°	25065	8168	7072
65°	21705	4307	3427
70°	18045	2651	1869
75°	13335	1764	1033
80°	10482	1052	526
85°	8309	1048	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	5.6
10°-20°	311.0	16.1
20°-30°	459.3	23.8
30°-40°	473.3	24.5
40°-50°	326.9	16.9
50°-60°	161.1	8.3
60°-70°	65.3	3.4
70°-80°	23.3	1.2
80°-90°	4.8	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°	879.0	45.5
0°-40°	1352.3	69.9
0°-60°	1840.4	95.2
0°-90°	1933.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1153	1153	1153	1153	1153	
5°	1137	1137	1143	1151	1155	107
15°	1059	1070	1102	1139	1155	298
25°	949	968	1009	1038	1054	434
35°	738	756	775	780	782	457
45°	457	459	405	400	393	353
55°	260	251	136	128	124	235
65°	141	127	28	22	22	140
75°	53	44	7	4	4	59
85°	11	8	1	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°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
2.5°	1149.9	1145.6	1148.5	1142.9	1149.9	1142.9	1144.2	1145.6	1144.2	1145.6	1147.1
5°	1137.4	1133.1	1137.4	1130.4	1137.4	1133.1	1133.1	1134.5	1134.5	1135.9	1137.4
7.5°	1120.6	1116.5	1120.6	1113.6	1122.0	1117.9	1117.9	1120.6	1119.2	1120.6	1123.4
10°	1101.1	1095.5	1099.8	1095.5	1103.9	1098.4	1101.1	1101.1	1101.1	1105.2	1108.1
12.5°	1080.2	1074.6	1080.2	1073.2	1081.6	1077.5	1078.9	1083.0	1084.4	1087.2	1088.6
15°	1059.4	1052.4	1055.2	1051.0	1059.4	1055.2	1056.6	1062.1	1062.1	1066.4	1070.5
17.5°	1032.9	1027.4	1032.9	1027.4	1034.2	1031.5	1034.2	1038.5	1038.5	1042.6	1046.9
20°	1009.2	1003.6	1007.9	1003.6	1012.0	1007.9	1009.2	1014.9	1016.2	1020.4	1024.6
22.5°	980.0	975.9	978.6	974.5	982.8	980.0	981.4	987.0	988.4	991.1	998.1
25°	949.4	941.0	945.2	942.4	950.8	946.6	949.4	955.0	957.8	961.9	967.5
27.5°	904.9	900.6	903.5	903.5	910.4	906.2	907.6	913.2	917.4	921.5	928.5
30°	858.9	852.0	854.8	856.1	861.8	858.9	861.8	867.2	868.6	874.2	879.8
32.5°	800.5	797.6	803.2	800.5	803.2	803.2	804.6	808.8	811.6	814.4	821.4
35°	737.8	732.2	737.8	735.0	742.0	737.8	742.0	746.1	746.1	751.8	755.9
37.5°	669.6	662.6	665.4	665.4	668.2	666.8	666.8	673.8	675.1	679.4	683.5
40°	588.9	586.0	591.6	590.2	591.6	591.6	593.0	597.2	600.0	601.4	602.8
42.5°	516.5	517.9	519.2	519.2	519.2	519.2	519.2	524.8	523.4	527.6	529.0
45°	456.6	451.0	453.9	452.4	456.6	452.4	456.6	460.8	458.0	462.1	459.4
47.5°	395.4	395.4	395.4	394.0	396.8	395.4	398.1	399.5	399.5	399.5	398.1
50°	346.6	342.5	343.9	343.9	345.2	343.9	346.6	348.0	348.0	345.2	339.6
52.5°	299.2	297.9	297.9	300.6	300.6	299.2	299.2	299.2	299.2	295.1	292.4
55°	260.4	257.5	258.9	258.9	258.9	258.9	260.4	258.9	258.9	254.8	250.6
57.5°	225.5	222.8	222.8	222.8	224.1	222.8	222.8	222.8	221.4	217.1	211.6
60°	192.1	190.8	192.1	192.1	193.5	192.1	192.1	192.1	189.4	185.1	179.6
62.5°	164.2	164.2	164.2	165.6	165.6	164.2	164.2	162.9	161.5	155.9	150.4
65°	140.6	139.2	140.6	140.6	142.0	142.0	140.6	139.2	137.9	132.2	126.6
67.5°	116.9	115.5	116.9	116.9	118.4	116.9	116.9	116.9	112.8	110.0	104.4
70°	94.6	93.2	93.2	93.2	94.6	91.9	93.2	93.2	90.5	86.2	80.8
72.5°	72.4	72.4	72.4	72.4	72.4	72.4	71.0	71.0	68.2	64.0	61.2
75°	52.9	52.9	54.2	54.2	52.9	52.9	52.9	51.5	50.1	47.4	44.5
77.5°	39.0	39.0	39.0	39.0	37.6	37.6	37.6	36.2	34.8	33.4	30.6
80°	27.9	27.9	27.9	26.5	27.9	26.5	26.5	26.5	23.6	22.2	20.9
82.5°	19.5	18.1	18.1	18.1	18.1	18.1	18.1	16.8	16.8	15.4	13.9
85°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	9.8	8.4	8.4
87.5°	5.6	7.0	7.0	7.0	7.0	7.0	7.0	5.6	5.6	5.6	4.1
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°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
2.5°	1147.1	1147.1	1149.9	1145.6	1152.6	1148.5	1147.1	1154.0	1149.9	1148.5	1151.2
5°	1137.4	1138.8	1140.1	1137.4	1144.2	1140.1	1140.1	1147.1	1144.2	1142.9	1147.1
7.5°	1124.8	1126.1	1129.0	1127.6	1133.1	1130.4	1131.8	1138.8	1135.9	1135.9	1140.1
10°	1109.5	1112.2	1115.0	1115.0	1122.0	1119.2	1119.2	1127.6	1124.8	1126.1	1131.8
12.5°	1091.4	1095.5	1099.8	1101.1	1108.1	1103.9	1105.2	1115.0	1113.6	1115.0	1120.6
15°	1071.9	1077.5	1081.6	1081.6	1090.0	1085.9	1090.0	1099.8	1097.0	1102.5	1109.5
17.5°	1049.6	1055.2	1060.8	1062.1	1070.5	1067.8	1073.2	1083.0	1083.0	1085.9	1094.1
20°	1028.8	1035.8	1038.5	1042.6	1051.0	1049.6	1052.4	1063.5	1063.5	1067.8	1076.1
22.5°	1000.9	1007.9	1013.4	1017.6	1024.6	1024.6	1028.8	1038.5	1038.5	1041.2	1049.6
25°	970.2	978.6	982.8	987.0	994.0	992.5	996.8	1005.1	1006.5	1009.2	1017.6
27.5°	931.2	938.2	943.9	946.6	956.4	950.8	955.0	964.8	963.2	966.1	973.0
30°	882.6	889.5	895.1	895.1	903.5	903.5	907.6	911.8	911.8	914.6	920.1
32.5°	825.5	833.9	833.9	838.0	843.6	838.0	843.6	849.1	846.4	850.5	854.8
35°	760.1	764.2	765.6	765.6	769.9	768.4	767.0	771.2	768.4	775.4	779.5
37.5°	680.8	686.2	683.5	686.2	684.9	680.8	680.8	687.6	682.1	683.5	687.6
40°	604.1	604.1	602.8	595.8	597.2	593.0	591.6	593.0	587.5	586.0	591.6
42.5°	524.8	523.4	519.2	509.5	510.9	503.9	498.4	498.4	495.6	494.1	495.6
45°	453.9	449.6	442.6	431.5	428.8	423.2	412.0	409.2	405.1	405.1	406.5
47.5°	388.4	382.9	371.6	359.1	352.2	345.2	334.1	329.9	323.0	320.1	323.0
50°	334.1	324.4	310.4	292.4	285.4	277.0	265.9	258.9	252.0	249.1	247.8
52.5°	284.0	270.0	256.1	233.9	228.2	220.0	204.6	197.6	190.8	185.1	185.1
55°	240.9	228.2	208.8	187.9	179.6	171.2	155.9	146.1	139.2	136.4	133.6
57.5°	201.9	187.9	169.9	147.5	139.2	130.9	115.5	105.8	98.9	94.6	91.9
60°	169.9	154.5	136.4	116.9	107.2	98.9	83.5	73.8	66.9	62.6	59.9
62.5°	139.2	126.6	108.6	90.5	82.1	73.8	61.2	51.5	44.5	41.8	37.6
65°	116.9	104.4	87.8	72.4	65.4	57.1	46.0	37.6	32.0	27.9	25.0
67.5°	94.6	84.9	71.0	57.1	50.1	44.5	34.8	27.9	22.2	19.5	18.1
70°	75.1	65.4	54.2	43.1	39.0	33.4	26.5	19.5	16.8	13.9	12.5
72.5°	55.6	48.8	40.4	32.0	27.9	25.0	18.1	15.4	11.1	9.8	8.4
75°	40.4	34.8	29.2	22.2	19.5	18.1	13.9	9.8	8.4	7.0	5.6
77.5°	27.9	25.0	19.5	15.4	13.9	12.5	9.8	7.0	5.6	4.1	4.1
80°	18.1	15.4	12.5	9.8	9.8	8.4	5.6	4.1	4.1	2.8	2.8
82.5°	11.1	9.8	8.4	7.0	5.6	5.6	4.1	2.8	2.8	1.4	1.4
85°	7.0	5.6	4.1	4.1	2.8	2.8	2.8	1.4	1.4	1.4	1.4
87.5°	2.8	2.8	2.8	1.4	1.4	1.4	1.4	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°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
2.5°	1151.2	1151.2	1154.0	1149.9	1152.6	1152.6	1155.4	1149.9	1152.6	1154.0	1156.8
5°	1145.6	1147.1	1149.9	1148.5	1149.9	1149.9	1152.6	1145.6	1151.2	1151.2	1155.4
7.5°	1140.1	1140.1	1142.9	1141.5	1144.2	1145.6	1148.5	1142.9	1148.5	1148.5	1152.6
10°	1133.1	1133.1	1137.4	1135.9	1140.1	1141.5	1145.6	1140.1	1145.6	1147.1	1151.2
12.5°	1123.4	1124.8	1129.0	1129.0	1133.1	1135.9	1140.1	1137.4	1144.2	1145.6	1151.2
15°	1112.2	1115.0	1120.6	1119.2	1123.4	1127.6	1133.1	1129.0	1138.8	1141.5	1147.1
17.5°	1098.4	1101.1	1105.2	1105.2	1109.5	1112.2	1119.2	1116.5	1124.8	1126.1	1133.1
20°	1077.5	1081.6	1087.2	1085.9	1090.0	1092.8	1098.4	1095.5	1103.9	1106.8	1113.6
22.5°	1052.4	1055.2	1059.4	1059.4	1063.5	1066.4	1071.9	1067.8	1076.1	1077.5	1083.0
25°	1019.0	1021.8	1024.6	1026.0	1030.1	1031.5	1034.2	1031.5	1038.5	1039.9	1046.9
27.5°	975.9	977.2	981.4	981.4	984.2	985.6	989.8	984.2	994.0	994.0	998.1
30°	924.4	923.0	928.5	925.8	928.5	928.5	932.6	929.9	936.9	934.1	938.2
32.5°	856.1	858.9	858.9	856.1	861.8	860.2	860.2	857.5	861.8	863.1	865.9
35°	776.8	781.0	781.0	782.4	783.8	779.5	781.0	772.6	779.5	781.0	782.4
37.5°	690.5	686.2	689.1	684.9	691.9	683.5	683.5	678.0	683.5	683.5	684.9
40°	591.6	590.2	593.0	590.2	588.9	587.5	584.6	580.5	586.0	583.2	587.5
42.5°	498.4	497.0	497.0	494.1	492.8	492.8	490.0	487.2	485.9	485.9	492.8
45°	402.2	405.1	402.2	400.9	403.8	400.9	402.2	396.8	399.5	396.8	399.5
47.5°	321.6	323.0	320.1	317.4	321.6	317.4	317.4	313.2	318.8	318.8	316.0
50°	249.1	247.8	245.0	247.8	246.4	246.4	246.4	242.2	245.0	240.9	243.6
52.5°	183.8	182.4	182.4	181.0	182.4	181.0	181.0	179.6	179.6	178.1	179.6
55°	133.6	132.2	129.5	129.5	129.5	130.9	129.5	128.1	128.1	126.6	128.1
57.5°	90.5	87.8	87.8	87.8	87.8	86.2	86.2	84.9	86.2	84.9	86.2
60°	58.5	58.5	55.6	55.6	55.6	55.6	55.6	54.2	55.6	55.6	55.6
62.5°	36.2	36.2	34.8	33.4	34.8	33.4	33.4	33.4	34.8	33.4	34.8
65°	23.6	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2
67.5°	16.8	15.4	15.4	15.4	15.4	15.4	15.4	13.9	15.4	15.4	15.4
70°	11.1	11.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
72.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
75°	5.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	4.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.4	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	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: P252264

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
2.5°	1152.6	1154.0	1151.2	1152.6	1149.9	1152.6	1154.0	1156.8
5°	1149.9	1151.2	1148.5	1151.2	1148.5	1151.2	1152.6	1155.4
7.5°	1147.1	1149.9	1147.1	1149.9	1147.1	1149.9	1151.2	1154.0
10°	1147.1	1151.2	1148.5	1152.6	1148.5	1151.2	1154.0	1155.4
12.5°	1147.1	1151.2	1149.9	1152.6	1151.2	1154.0	1156.8	1159.6
15°	1144.2	1148.5	1145.6	1149.9	1148.5	1149.9	1155.4	1155.4
17.5°	1129.0	1133.1	1133.1	1135.9	1135.9	1140.1	1142.9	1145.6
20°	1109.5	1113.6	1112.2	1116.5	1116.5	1120.6	1123.4	1126.1
22.5°	1080.2	1085.9	1084.4	1088.6	1087.2	1090.0	1095.5	1094.1
25°	1042.6	1049.6	1048.2	1051.0	1049.6	1049.6	1052.4	1053.8
27.5°	996.8	1000.9	999.5	1002.2	999.5	1002.2	1005.1	1006.5
30°	936.9	939.6	938.2	939.6	938.2	941.0	942.4	945.2
32.5°	864.5	868.6	864.5	867.2	865.9	865.9	871.4	868.6
35°	778.1	779.5	781.0	781.0	778.1	779.5	782.4	782.4
37.5°	682.1	689.1	680.8	684.9	683.5	683.5	683.5	687.6
40°	581.9	583.2	580.5	580.5	580.5	579.1	584.6	583.2
42.5°	487.2	488.6	487.2	483.0	484.5	484.5	488.6	483.0
45°	395.4	398.1	396.8	396.8	394.0	394.0	395.4	392.6
47.5°	313.2	316.0	311.9	313.2	310.4	313.2	311.9	314.6
50°	238.0	240.9	239.4	240.9	240.9	238.0	242.2	236.6
52.5°	178.1	179.6	178.1	176.8	175.4	175.4	178.1	176.8
55°	126.6	125.2	125.2	125.2	126.6	126.6	125.2	123.9
57.5°	84.9	84.9	83.5	83.5	84.9	82.1	83.5	82.1
60°	54.2	54.2	54.2	54.2	52.9	54.2	54.2	54.2
62.5°	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4
65°	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2
67.5°	13.9	15.4	15.4	15.4	13.9	13.9	13.9	13.9
70°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
72.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	1.4	1.4	1.4	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)