

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: P252258

Luminaire Tested: **LE_6B20D010 EC6B10208027 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252258
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 EC6B10208027 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2252.5 lumens
Efficiency: N/A
Efficacy: 108.3 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

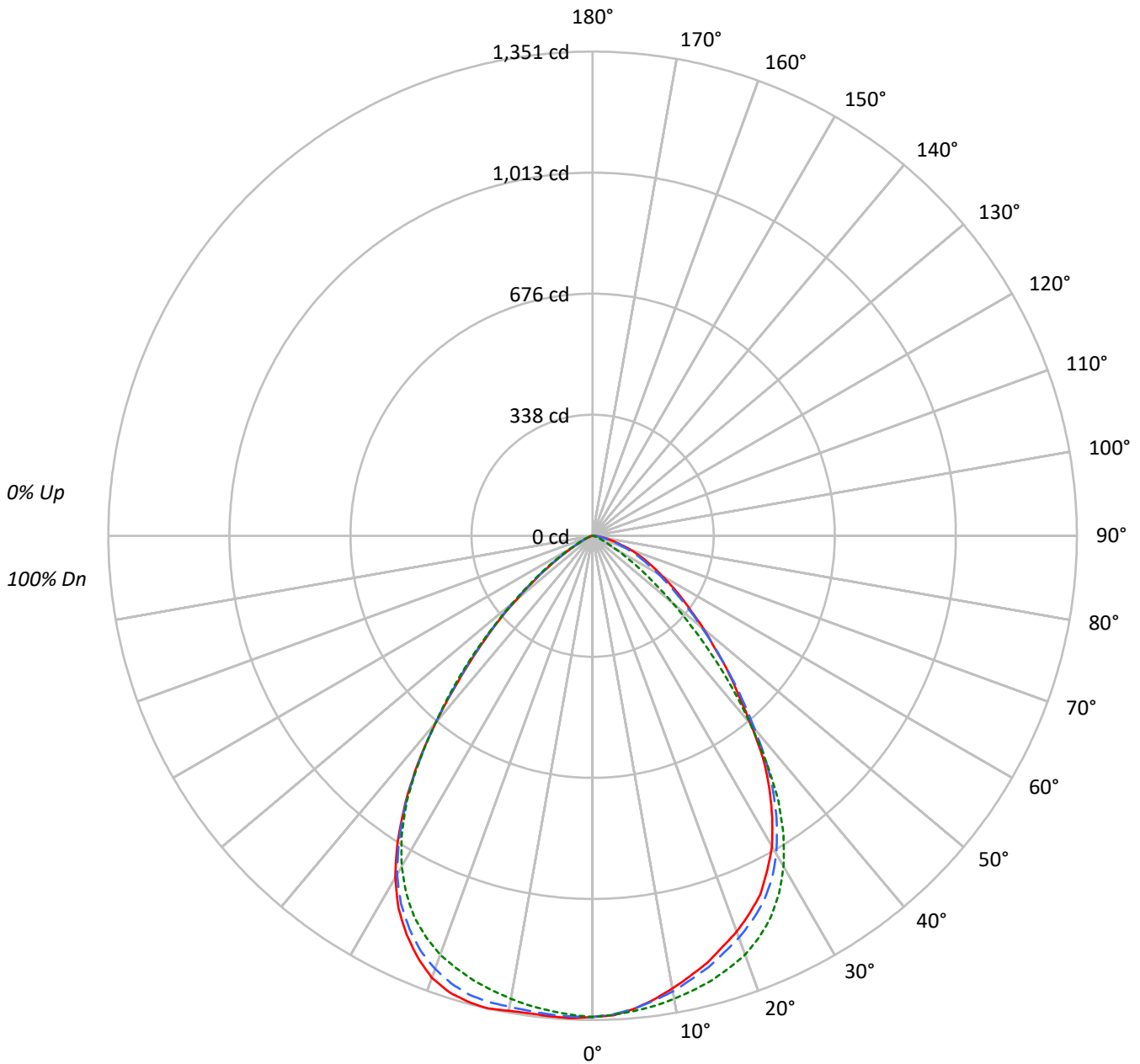
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	87592	87592	87592
5°	86761	87180	88143
10°	84968	86910	89162
15°	83347	86738	90905
20°	81619	86354	91082
25°	79608	84626	88362
30°	75371	80260	82942
35°	68446	71935	72572
40°	58415	58134	57862
45°	49075	43539	42183
50°	40984	29454	27972
55°	34487	18074	16425
60°	29202	9525	8246
65°	25286	5002	4014
70°	21021	3090	2175
75°	15528	2042	1235
80°	12173	1202	601
85°	9731	1198	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	5.6
10°-20°	362.3	16.1
20°-30°	535.0	23.8
30°-40°	551.4	24.5
40°-50°	380.8	16.9
50°-60°	187.7	8.3
60°-70°	76.1	3.4
70°-80°	27.1	1.2
80°-90°	5.6	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°	1023.8	45.5
0°-40°	1575.2	69.9
0°-60°	2143.7	95.2
0°-90°	2252.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2252.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1343	1343	1343	1343	1343	
5°	1325	1325	1331	1341	1346	125
15°	1234	1247	1284	1326	1346	347
25°	1106	1127	1176	1210	1228	506
35°	859	880	903	908	911	533
45°	532	535	472	465	457	411
55°	303	292	159	149	144	274
65°	164	148	32	26	26	163
75°	62	52	8	5	5	69
85°	13	10	2	0	0	16
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°	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6
2.5°	1339.4	1334.5	1337.8	1331.2	1339.4	1331.2	1332.9	1334.5	1332.9	1334.5	1336.1
5°	1324.8	1319.9	1324.8	1316.6	1324.8	1319.9	1319.9	1321.5	1321.5	1323.1	1324.8
7.5°	1305.4	1300.5	1305.4	1297.2	1307.0	1302.1	1302.1	1305.4	1303.8	1305.4	1308.6
10°	1282.6	1276.1	1281.0	1276.1	1285.9	1279.4	1282.6	1282.6	1282.6	1287.5	1290.8
12.5°	1258.2	1251.9	1258.2	1250.2	1259.9	1255.1	1256.6	1261.5	1263.1	1266.4	1268.0
15°	1234.0	1225.9	1229.1	1224.2	1234.0	1229.1	1230.8	1237.2	1237.2	1242.1	1247.0
17.5°	1203.1	1196.8	1203.1	1196.8	1204.8	1201.5	1204.8	1209.6	1209.6	1214.5	1219.4
20°	1175.6	1169.1	1174.0	1169.1	1178.9	1174.0	1175.6	1182.1	1183.8	1188.6	1193.5
22.5°	1141.5	1136.8	1139.9	1135.1	1144.8	1141.5	1143.1	1149.6	1151.2	1154.5	1162.6
25°	1105.9	1096.1	1101.0	1097.8	1107.5	1102.6	1105.9	1112.4	1115.6	1120.5	1127.0
27.5°	1054.0	1049.1	1052.4	1052.4	1060.5	1055.6	1057.2	1063.8	1068.6	1073.5	1081.5
30°	1000.5	992.4	995.6	997.2	1003.8	1000.5	1003.8	1010.2	1011.9	1018.4	1024.8
32.5°	932.4	929.1	935.6	932.4	935.6	935.6	937.2	942.1	945.4	948.6	956.8
35°	859.4	852.9	859.4	856.1	864.2	859.4	864.2	869.1	869.1	875.6	880.5
37.5°	780.0	771.9	775.1	775.1	778.4	776.8	776.8	784.9	786.5	791.2	796.1
40°	685.9	682.6	689.1	687.5	689.1	689.1	690.8	695.6	698.9	700.5	702.1
42.5°	601.6	603.2	604.9	604.9	604.9	604.9	604.9	611.4	609.8	614.5	616.1
45°	531.9	525.4	528.6	527.0	531.9	527.0	531.9	536.8	533.5	538.4	535.1
47.5°	460.5	460.5	460.5	458.9	462.1	460.5	463.8	465.4	465.4	465.4	463.8
50°	403.8	398.9	400.5	400.5	402.1	400.5	403.8	405.4	405.4	402.1	395.6
52.5°	348.6	347.0	347.0	350.2	350.2	348.6	348.6	348.6	348.6	343.8	340.5
55°	303.2	300.0	301.6	301.6	301.6	301.6	303.2	301.6	301.6	296.8	291.9
57.5°	262.8	259.5	259.5	259.5	261.1	259.5	259.5	259.5	257.9	253.0	246.5
60°	223.8	222.1	223.8	223.8	225.4	223.8	223.8	223.8	220.5	215.6	209.1
62.5°	191.4	191.4	191.4	193.0	193.0	191.4	191.4	189.8	188.1	181.6	175.1
65°	163.8	162.1	163.8	163.8	165.4	165.4	163.8	162.1	160.5	154.0	147.5
67.5°	136.2	134.6	136.2	136.2	137.9	136.2	136.2	136.2	131.4	128.1	121.6
70°	110.2	108.6	108.6	108.6	110.2	107.0	108.6	108.6	105.4	100.5	94.0
72.5°	84.4	84.4	84.4	84.4	84.4	84.4	82.8	82.8	79.5	74.6	71.4
75°	61.6	61.6	63.2	63.2	61.6	61.6	61.6	60.0	58.4	55.1	51.9
77.5°	45.4	45.4	45.4	45.4	43.8	43.8	43.8	42.1	40.5	38.9	35.6
80°	32.4	32.4	32.4	30.8	32.4	30.8	30.8	30.8	27.6	26.0	24.4
82.5°	22.8	21.1	21.1	21.1	21.1	21.1	21.1	19.5	19.5	17.9	16.2
85°	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.4	9.8	9.8
87.5°	6.5	8.1	8.1	8.1	8.1	8.1	8.1	6.5	6.5	6.5	4.9
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°	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6
2.5°	1336.1	1336.1	1339.4	1334.5	1342.6	1337.8	1336.1	1344.2	1339.4	1337.8	1341.0
5°	1324.8	1326.4	1328.0	1324.8	1332.9	1328.0	1328.0	1336.1	1332.9	1331.2	1336.1
7.5°	1310.2	1311.9	1315.1	1313.5	1319.9	1316.6	1318.2	1326.4	1323.1	1323.1	1328.0
10°	1292.4	1295.6	1298.9	1298.9	1307.0	1303.8	1303.8	1313.5	1310.2	1311.9	1318.2
12.5°	1271.2	1276.1	1281.0	1282.6	1290.8	1285.9	1287.5	1298.9	1297.2	1298.9	1305.4
15°	1248.6	1255.1	1259.9	1259.9	1269.6	1264.8	1269.6	1281.0	1277.8	1284.2	1292.4
17.5°	1222.6	1229.1	1235.6	1237.2	1247.0	1243.8	1250.2	1261.5	1261.5	1264.8	1274.5
20°	1198.2	1206.4	1209.6	1214.5	1224.2	1222.6	1225.9	1238.9	1238.9	1243.8	1253.5
22.5°	1165.9	1174.0	1180.5	1185.4	1193.5	1193.5	1198.2	1209.6	1209.6	1212.9	1222.6
25°	1130.2	1139.9	1144.8	1149.6	1157.8	1156.1	1161.0	1170.8	1172.4	1175.6	1185.4
27.5°	1084.8	1092.9	1099.4	1102.6	1114.0	1107.5	1112.4	1123.8	1122.1	1125.4	1133.5
30°	1028.0	1036.1	1042.6	1042.6	1052.4	1052.4	1057.2	1062.1	1062.1	1065.4	1071.9
32.5°	961.6	971.2	971.2	976.1	982.6	976.1	982.6	989.1	985.9	990.8	995.6
35°	885.4	890.2	891.9	891.9	896.8	895.1	893.5	898.4	895.1	903.2	908.0
37.5°	792.9	799.4	796.1	799.4	797.8	792.9	792.9	801.0	794.5	796.1	801.0
40°	703.8	703.8	702.1	694.0	695.6	690.8	689.1	690.8	684.2	682.6	689.1
42.5°	611.4	609.8	604.9	593.5	595.1	587.0	580.5	580.5	577.2	575.6	577.2
45°	528.6	523.8	515.6	502.6	499.4	493.0	480.0	476.8	471.9	471.9	473.5
47.5°	452.4	445.9	433.0	418.4	410.2	402.1	389.1	384.2	376.2	373.0	376.2
50°	389.1	377.9	361.6	340.5	332.4	322.6	309.8	301.6	293.5	290.2	288.6
52.5°	330.8	314.6	298.4	272.4	265.9	256.2	238.4	230.2	222.1	215.6	215.6
55°	280.5	265.9	243.2	218.9	209.1	199.5	181.6	170.2	162.1	158.9	155.6
57.5°	235.1	218.9	197.9	171.9	162.1	152.4	134.6	123.2	115.1	110.2	107.0
60°	197.9	180.0	158.9	136.2	124.9	115.1	97.2	86.0	77.9	73.0	69.8
62.5°	162.1	147.5	126.5	105.4	95.6	86.0	71.4	60.0	51.9	48.6	43.8
65°	136.2	121.6	102.1	84.4	76.2	66.5	53.5	43.8	37.2	32.4	29.2
67.5°	110.2	98.9	82.8	66.5	58.4	51.9	40.5	32.4	26.0	22.8	21.1
70°	87.6	76.2	63.2	50.2	45.4	38.9	30.8	22.8	19.5	16.2	14.6
72.5°	64.9	56.8	47.0	37.2	32.4	29.2	21.1	17.9	13.0	11.4	9.8
75°	47.0	40.5	34.0	26.0	22.8	21.1	16.2	11.4	9.8	8.1	6.5
77.5°	32.4	29.2	22.8	17.9	16.2	14.6	11.4	8.1	6.5	4.9	4.9
80°	21.1	17.9	14.6	11.4	11.4	9.8	6.5	4.9	4.9	3.2	3.2
82.5°	13.0	11.4	9.8	8.1	6.5	6.5	4.9	3.2	3.2	1.6	1.6
85°	8.1	6.5	4.9	4.9	3.2	3.2	3.2	1.6	1.6	1.6	1.6
87.5°	3.2	3.2	3.2	1.6	1.6	1.6	1.6	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°	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6
2.5°	1341.0	1341.0	1344.2	1339.4	1342.6	1342.6	1345.9	1339.4	1342.6	1344.2	1347.5
5°	1334.5	1336.1	1339.4	1337.8	1339.4	1339.4	1342.6	1334.5	1341.0	1341.0	1345.9
7.5°	1328.0	1328.0	1331.2	1329.6	1332.9	1334.5	1337.8	1331.2	1337.8	1337.8	1342.6
10°	1319.9	1319.9	1324.8	1323.1	1328.0	1329.6	1334.5	1328.0	1334.5	1336.1	1341.0
12.5°	1308.6	1310.2	1315.1	1315.1	1319.9	1323.1	1328.0	1324.8	1332.9	1334.5	1341.0
15°	1295.6	1298.9	1305.4	1303.8	1308.6	1313.5	1319.9	1315.1	1326.4	1329.6	1336.1
17.5°	1279.4	1282.6	1287.5	1287.5	1292.4	1295.6	1303.8	1300.5	1310.2	1311.9	1319.9
20°	1255.1	1259.9	1266.4	1264.8	1269.6	1272.9	1279.4	1276.1	1285.9	1289.1	1297.2
22.5°	1225.9	1229.1	1234.0	1234.0	1238.9	1242.1	1248.6	1243.8	1253.5	1255.1	1261.5
25°	1187.0	1190.2	1193.5	1195.1	1199.9	1201.5	1204.8	1201.5	1209.6	1211.2	1219.4
27.5°	1136.8	1138.4	1143.1	1143.1	1146.4	1148.0	1152.9	1146.4	1157.8	1157.8	1162.6
30°	1076.8	1075.1	1081.5	1078.4	1081.5	1081.5	1086.4	1083.1	1091.2	1088.0	1092.9
32.5°	997.2	1000.5	1000.5	997.2	1003.8	1002.1	1002.1	998.9	1003.8	1005.4	1008.6
35°	904.9	909.6	909.6	911.2	912.9	908.0	909.6	900.0	908.0	909.6	911.2
37.5°	804.2	799.4	802.6	797.8	805.9	796.1	796.1	789.6	796.1	796.1	797.8
40°	689.1	687.5	690.8	687.5	685.9	684.2	681.0	676.1	682.6	679.4	684.2
42.5°	580.5	578.9	578.9	575.6	574.0	574.0	570.8	567.5	565.9	565.9	574.0
45°	468.6	471.9	468.6	467.0	470.2	467.0	468.6	462.1	465.4	462.1	465.4
47.5°	374.6	376.2	373.0	369.8	374.6	369.8	369.8	364.9	371.4	371.4	368.1
50°	290.2	288.6	285.4	288.6	287.0	287.0	287.0	282.1	285.4	280.5	283.8
52.5°	214.0	212.4	212.4	210.8	212.4	210.8	210.8	209.1	209.1	207.5	209.1
55°	155.6	154.0	150.8	150.8	150.8	152.4	150.8	149.1	149.1	147.5	149.1
57.5°	105.4	102.1	102.1	102.1	102.1	100.5	100.5	98.9	100.5	98.9	100.5
60°	68.1	68.1	64.9	64.9	64.9	64.9	64.9	63.2	64.9	64.9	64.9
62.5°	42.1	42.1	40.5	38.9	40.5	38.9	38.9	38.9	40.5	38.9	40.5
65°	27.6	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
67.5°	19.5	17.9	17.9	17.9	17.9	17.9	17.9	16.2	17.9	17.9	17.9
70°	13.0	13.0	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
72.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
75°	6.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77.5°	4.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	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	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P252258

CATALOG NUMBER: LE_6B20D010 EC6B10208027 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6
2.5°	1342.6	1344.2	1341.0	1342.6	1339.4	1342.6	1344.2	1347.5
5°	1339.4	1341.0	1337.8	1341.0	1337.8	1341.0	1342.6	1345.9
7.5°	1336.1	1339.4	1336.1	1339.4	1336.1	1339.4	1341.0	1344.2
10°	1336.1	1341.0	1337.8	1342.6	1337.8	1341.0	1344.2	1345.9
12.5°	1336.1	1341.0	1339.4	1342.6	1341.0	1344.2	1347.5	1350.8
15°	1332.9	1337.8	1334.5	1339.4	1337.8	1339.4	1345.9	1345.9
17.5°	1315.1	1319.9	1319.9	1323.1	1323.1	1328.0	1331.2	1334.5
20°	1292.4	1297.2	1295.6	1300.5	1300.5	1305.4	1308.6	1311.9
22.5°	1258.2	1264.8	1263.1	1268.0	1266.4	1269.6	1276.1	1274.5
25°	1214.5	1222.6	1221.0	1224.2	1222.6	1222.6	1225.9	1227.5
27.5°	1161.0	1165.9	1164.2	1167.5	1164.2	1167.5	1170.8	1172.4
30°	1091.2	1094.5	1092.9	1094.5	1092.9	1096.1	1097.8	1101.0
32.5°	1007.0	1011.9	1007.0	1010.2	1008.6	1008.6	1015.1	1011.9
35°	906.4	908.0	909.6	909.6	906.4	908.0	911.2	911.2
37.5°	794.5	802.6	792.9	797.8	796.1	796.1	796.1	801.0
40°	677.8	679.4	676.1	676.1	676.1	674.5	681.0	679.4
42.5°	567.5	569.1	567.5	562.6	564.2	564.2	569.1	562.6
45°	460.5	463.8	462.1	462.1	458.9	458.9	460.5	457.2
47.5°	364.9	368.1	363.2	364.9	361.6	364.9	363.2	366.5
50°	277.2	280.5	278.9	280.5	280.5	277.2	282.1	275.6
52.5°	207.5	209.1	207.5	205.9	204.4	204.4	207.5	205.9
55°	147.5	146.0	146.0	146.0	147.5	147.5	146.0	144.4
57.5°	98.9	98.9	97.2	97.2	98.9	95.6	97.2	95.6
60°	63.2	63.2	63.2	63.2	61.6	63.2	63.2	63.2
62.5°	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9
65°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
67.5°	16.2	17.9	17.9	17.9	16.2	16.2	16.2	16.2
70°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
72.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
75°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	1.6	1.6	1.6	1.6	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)