

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: P252678

Luminaire Tested: **LE\_6B20D010 EC6B10208050 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252678  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B20D010 EC6B10208050 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2462.5 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

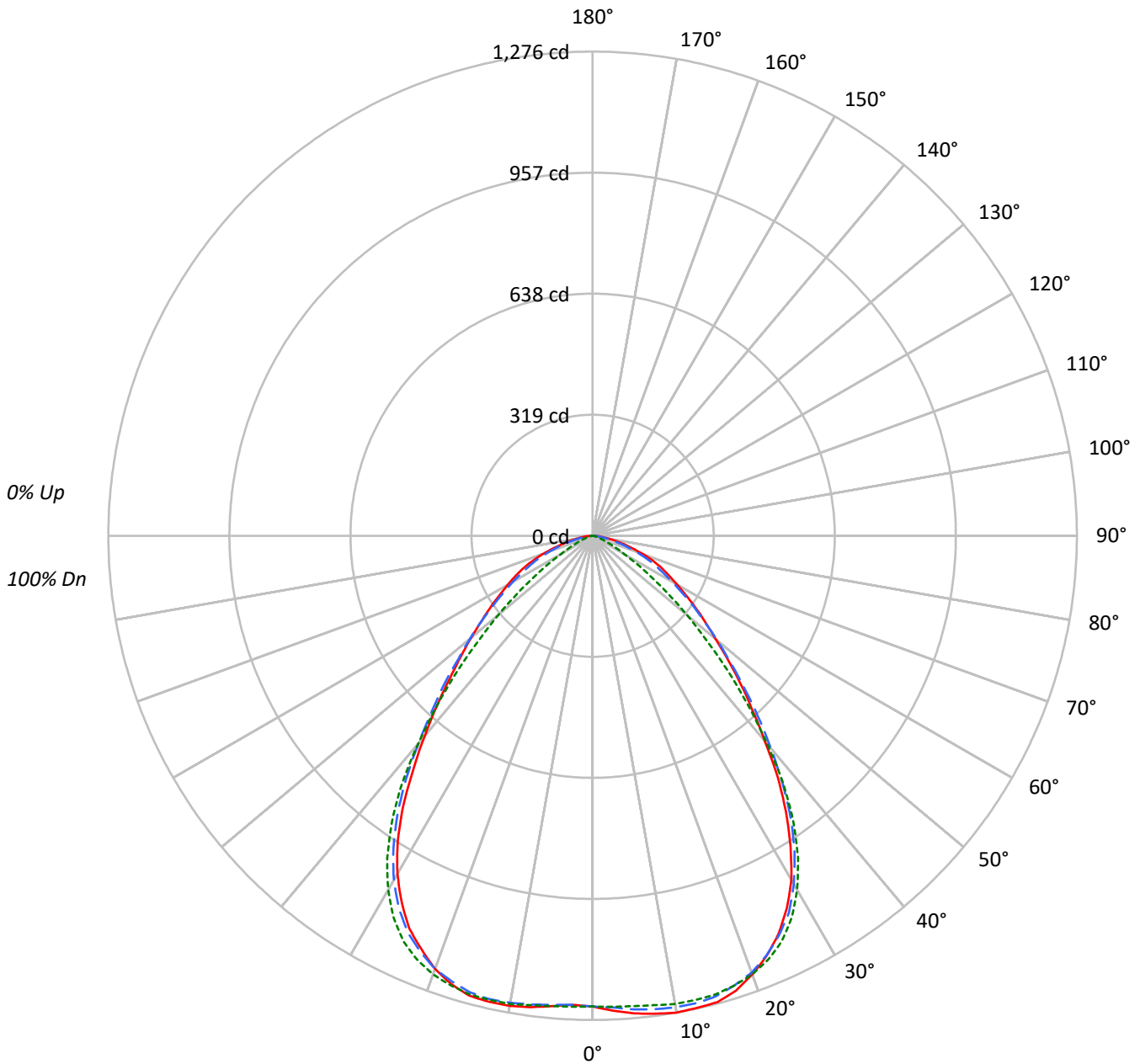
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89		
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78		
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68		
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61		
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54		
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48		
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44		
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40		
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36		
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	80938	80938	80938
5°	82746	81476	81476
10°	84518	83008	83352
15°	85927	84509	84752
20°	85403	85403	84313
25°	83366	84885	82236
30°	78919	81172	77473
35°	70724	73512	69322
40°	60084	60825	58585
45°	50838	46464	49066
50°	42923	32773	42385
55°	37717	21156	37319
60°	33429	12591	33664
65°	30874	7580	30874
70°	26781	4368	26114
75°	21224	2647	19914
80°	15817	1954	15179
85°	14372	1347	13100



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.4	4.9
10°-20°	353.5	14.4
20°-30°	531.7	21.6
30°-40°	559.0	22.7
40°-50°	417.6	17.0
50°-60°	260.0	10.6
60°-70°	147.9	6.0
70°-80°	60.9	2.5
80°-90°	12.6	0.5
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°	1004.6	40.8
0°-40°	1563.6	63.5
0°-60°	2241.2	91.0
0°-90°	2462.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2462.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1241	1241	1241	1241	1241	
5°	1264	1253	1244	1241	1244	121
15°	1272	1256	1251	1246	1255	358
25°	1158	1162	1179	1153	1142	530
35°	888	911	923	897	870	551
45°	551	563	504	553	532	427
55°	332	325	186	319	328	298
65°	200	179	49	179	200	197
75°	84	67	10	65	79	91
85°	19	12	2	10	18	21
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°	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6
2.5°	1253.0	1251.2	1253.0	1249.4	1247.6	1247.6	1249.4	1245.9	1244.1	1245.9	1244.1
5°	1263.5	1260.0	1261.8	1260.0	1256.5	1256.5	1258.2	1253.0	1253.0	1254.8	1253.0
7.5°	1270.5	1270.5	1270.5	1267.0	1265.2	1263.5	1267.0	1261.8	1260.0	1260.0	1258.2
10°	1275.8	1274.0	1275.8	1272.2	1268.8	1267.0	1270.5	1267.0	1263.5	1267.0	1261.8
12.5°	1274.0	1274.0	1274.0	1272.2	1268.8	1267.0	1270.5	1265.2	1263.5	1265.2	1261.8
15°	1272.2	1267.0	1268.8	1267.0	1261.8	1261.8	1263.5	1258.2	1254.8	1260.0	1256.5
17.5°	1256.5	1253.0	1254.8	1251.2	1247.6	1245.9	1247.6	1245.9	1242.4	1245.9	1242.4
20°	1230.1	1230.1	1231.9	1228.4	1224.9	1223.1	1226.6	1223.1	1219.6	1224.9	1224.9
22.5°	1198.5	1198.5	1198.5	1196.8	1195.0	1195.0	1195.0	1193.2	1191.5	1195.0	1196.8
25°	1158.1	1156.4	1158.1	1160.0	1158.1	1156.4	1158.1	1158.1	1154.6	1161.8	1161.8
27.5°	1107.2	1107.2	1110.8	1109.0	1109.0	1107.2	1110.8	1110.8	1109.0	1114.4	1119.6
30°	1047.6	1044.1	1047.6	1047.6	1049.4	1049.4	1051.1	1051.1	1051.1	1056.4	1059.9
32.5°	970.4	972.1	977.4	975.6	973.9	979.2	979.2	982.8	984.5	988.0	989.8
35°	888.0	889.8	889.8	891.5	895.0	891.5	900.2	898.5	900.2	907.2	910.8
37.5°	800.2	794.9	803.8	800.2	802.0	802.0	805.5	807.2	812.5	821.2	821.2
40°	705.5	707.2	710.8	712.5	714.2	714.2	714.2	719.5	721.2	731.8	730.0
42.5°	623.0	623.0	626.5	628.2	628.2	628.2	628.2	633.5	637.0	640.5	644.0
45°	551.0	545.8	549.2	549.2	552.8	551.0	554.5	558.0	559.8	565.0	563.2
47.5°	482.6	480.9	482.6	484.4	482.6	484.4	486.1	487.9	489.6	489.6	489.6
50°	422.9	422.9	424.6	426.4	426.4	426.4	426.4	428.1	428.1	431.6	428.1
52.5°	373.8	375.5	375.5	373.8	375.5	375.5	377.2	377.2	375.5	375.5	370.2
55°	331.6	329.9	331.6	329.9	331.6	331.6	329.9	329.9	328.1	326.4	324.6
57.5°	291.2	291.2	291.2	291.2	289.5	291.2	289.5	287.8	287.8	284.2	279.0
60°	256.2	256.2	256.2	256.2	256.2	254.5	256.2	254.5	251.0	247.4	240.4
62.5°	226.4	224.6	226.4	224.6	224.6	222.9	222.9	221.1	217.6	214.1	207.1
65°	200.0	201.8	200.0	200.0	198.2	196.5	196.5	194.8	189.5	186.0	179.0
67.5°	172.0	170.2	170.2	170.2	168.5	168.5	168.5	165.0	161.5	156.1	149.1
70°	140.4	140.4	140.4	138.6	138.6	136.9	136.9	135.1	131.6	128.1	119.4
72.5°	110.5	110.5	110.5	107.0	108.8	107.0	107.0	103.5	101.8	96.5	91.2
75°	84.2	84.2	82.5	82.5	80.8	79.0	79.0	77.2	75.5	72.0	66.6
77.5°	61.4	61.4	61.4	59.6	57.9	56.1	56.1	54.4	52.6	50.9	47.4
80°	42.1	42.1	42.1	42.1	40.4	38.6	38.6	36.9	36.9	35.1	31.6
82.5°	28.1	28.1	28.1	28.1	26.4	26.4	26.4	24.6	22.9	22.9	19.2
85°	19.2	19.2	17.5	17.5	17.5	17.5	15.8	15.8	14.0	12.2	12.2
87.5°	10.5	10.5	10.5	10.5	8.8	8.8	8.8	8.8	7.0	7.0	5.2
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°	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6
2.5°	1249.4	1249.4	1247.6	1242.4	1244.1	1242.4	1244.1	1242.4	1237.1	1242.4	1237.1
5°	1256.5	1258.2	1254.8	1247.6	1249.4	1247.6	1247.6	1245.9	1240.6	1244.1	1240.6
7.5°	1263.5	1261.8	1260.0	1253.0	1254.8	1253.0	1253.0	1249.4	1244.1	1247.6	1242.4
10°	1267.0	1267.0	1263.5	1256.5	1256.5	1254.8	1256.5	1254.8	1247.6	1253.0	1249.4
12.5°	1267.0	1265.2	1265.2	1256.5	1258.2	1256.5	1258.2	1254.8	1249.4	1253.0	1251.2
15°	1261.8	1261.8	1260.0	1251.2	1253.0	1253.0	1254.8	1251.2	1245.9	1251.2	1247.6
17.5°	1251.2	1251.2	1249.4	1242.4	1245.9	1245.9	1247.6	1244.1	1238.9	1242.4	1242.4
20°	1230.1	1231.9	1231.9	1226.6	1230.1	1230.1	1231.9	1230.1	1228.4	1230.1	1226.6
22.5°	1205.6	1209.1	1209.1	1203.8	1207.4	1207.4	1212.6	1210.9	1207.4	1209.1	1207.4
25°	1168.8	1172.2	1175.8	1172.2	1175.8	1175.8	1181.0	1179.2	1175.8	1179.2	1174.0
27.5°	1126.6	1128.4	1131.9	1128.4	1133.6	1131.9	1137.1	1135.4	1130.1	1135.4	1133.6
30°	1066.9	1074.0	1079.2	1074.0	1079.2	1079.2	1082.8	1081.0	1079.2	1077.5	1077.5
32.5°	1000.2	1007.2	1007.2	1005.5	1009.0	1009.0	1010.8	1007.2	1005.5	1007.2	1009.0
35°	917.8	921.2	924.8	923.0	924.8	926.5	924.8	926.5	921.2	923.0	923.0
37.5°	828.2	831.8	831.8	826.5	830.0	830.0	826.5	826.5	823.0	826.5	819.5
40°	733.5	730.0	731.8	728.2	724.8	724.8	723.0	716.0	712.5	714.2	716.0
42.5°	640.5	640.5	635.2	626.5	617.8	617.8	612.4	608.9	601.9	605.4	603.6
45°	561.5	552.8	545.8	531.8	526.5	522.9	514.1	505.4	501.9	503.6	501.9
47.5°	486.1	479.1	461.5	442.2	437.0	431.6	421.1	410.6	407.1	403.6	403.6
50°	422.9	410.6	391.4	370.2	361.5	352.8	338.6	328.1	321.1	322.9	322.9
52.5°	365.0	351.0	328.1	301.9	291.2	280.8	268.5	256.2	251.0	249.1	249.1
55°	314.1	298.4	275.5	245.6	236.9	224.6	208.9	194.8	187.8	186.0	189.5
57.5°	268.5	254.5	228.1	198.2	187.8	175.5	159.8	147.4	138.6	136.9	138.6
60°	231.6	212.4	189.5	161.5	147.4	136.9	119.4	108.8	100.0	96.5	98.2
62.5°	194.8	177.2	154.4	126.4	115.9	105.2	89.5	77.2	70.2	68.5	70.2
65°	166.8	149.1	128.1	103.5	93.0	82.5	68.5	56.1	50.9	49.1	50.9
67.5°	138.6	122.9	105.2	82.5	73.8	64.9	50.9	42.1	35.1	33.4	35.1
70°	112.2	98.2	80.8	64.9	56.1	49.1	38.6	29.9	24.6	22.9	24.6
72.5°	84.2	73.8	61.4	47.4	42.1	36.9	28.1	21.0	17.5	15.8	17.5
75°	61.4	52.6	43.9	33.4	29.9	26.4	19.2	14.0	12.2	10.5	12.2
77.5°	42.1	36.9	29.9	22.9	19.2	17.5	12.2	10.5	8.8	7.0	7.0
80°	28.1	24.6	19.2	15.8	14.0	12.2	8.8	7.0	5.2	5.2	5.2
82.5°	17.5	14.0	12.2	8.8	7.0	7.0	5.2	3.5	3.5	3.5	3.5
85°	10.5	8.8	7.0	5.2	3.5	3.5	1.8	1.8	1.8	1.8	1.8
87.5°	5.2	3.5	3.5	1.8	1.8	1.8	1.8	1.8	0.0	0.0	1.8
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°	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6
2.5°	1240.6	1237.1	1237.1	1238.9	1240.6	1242.4	1238.9	1237.1	1237.1	1242.4	1238.9
5°	1240.6	1238.9	1238.9	1238.9	1242.4	1244.1	1240.6	1238.9	1240.6	1245.9	1244.1
7.5°	1245.9	1242.4	1244.1	1244.1	1245.9	1249.4	1245.9	1244.1	1245.9	1251.2	1247.6
10°	1249.4	1245.9	1247.6	1245.9	1251.2	1253.0	1249.4	1247.6	1249.4	1256.5	1254.8
12.5°	1251.2	1249.4	1249.4	1247.6	1253.0	1254.8	1251.2	1249.4	1251.2	1256.5	1254.8
15°	1247.6	1245.9	1245.9	1245.9	1249.4	1253.0	1247.6	1245.9	1245.9	1251.2	1249.4
17.5°	1240.6	1237.1	1237.1	1237.1	1238.9	1240.6	1235.4	1233.6	1231.9	1237.1	1235.4
20°	1228.4	1224.9	1221.4	1221.4	1223.1	1223.1	1219.6	1214.4	1214.4	1216.1	1212.6
22.5°	1205.6	1203.8	1200.2	1198.5	1202.0	1200.2	1193.2	1188.0	1186.2	1188.0	1184.5
25°	1174.0	1170.5	1168.8	1167.0	1168.8	1167.0	1160.0	1152.9	1152.9	1152.9	1147.6
27.5°	1130.1	1126.6	1124.9	1124.9	1126.6	1123.1	1116.1	1109.0	1105.5	1105.5	1100.2
30°	1074.0	1074.0	1072.2	1070.5	1068.6	1068.6	1058.1	1051.1	1047.6	1049.4	1045.9
32.5°	1005.5	1003.8	1002.0	996.8	998.5	996.8	988.0	982.8	977.4	973.9	972.1
35°	917.8	917.8	916.0	916.0	916.0	914.2	905.5	900.2	896.8	895.0	889.8
37.5°	821.2	819.5	817.8	817.8	817.8	817.8	812.5	807.2	807.2	805.5	802.0
40°	712.5	714.2	716.0	714.2	719.5	724.8	717.8	714.2	712.5	717.8	710.8
42.5°	607.1	605.4	614.2	616.0	616.0	624.8	626.5	628.2	626.5	630.0	630.0
45°	505.4	503.6	512.4	515.9	524.8	535.2	540.5	549.2	552.8	556.2	552.8
47.5°	408.9	415.9	422.9	431.6	438.8	456.2	466.8	475.5	479.1	484.4	484.4
50°	328.1	335.1	347.5	354.5	363.2	384.2	401.9	414.1	421.1	426.4	424.6
52.5°	252.8	265.0	280.8	287.8	300.1	324.6	344.0	358.0	366.8	372.0	373.8
55°	194.8	205.4	221.1	231.6	243.9	270.2	294.8	310.6	319.4	326.4	329.9
57.5°	143.9	156.1	173.8	182.5	196.5	226.4	247.4	266.8	277.2	286.0	287.8
60°	105.2	117.6	133.4	143.9	157.9	187.8	212.4	229.9	242.1	249.1	252.8
62.5°	75.5	87.8	103.5	114.1	126.4	152.6	177.2	194.8	207.1	215.9	221.1
65°	54.4	66.6	82.5	91.2	101.8	126.4	149.1	166.8	179.0	189.5	193.0
67.5°	40.4	49.1	63.1	72.0	82.5	101.8	121.1	136.9	149.1	157.9	161.5
70°	29.9	36.9	49.1	54.4	61.4	79.0	94.8	108.8	119.4	126.4	129.9
72.5°	21.0	26.4	35.1	40.4	45.6	59.6	72.0	82.5	89.5	96.5	100.0
75°	14.0	17.5	24.6	28.1	31.6	42.1	50.9	59.6	64.9	70.2	72.0
77.5°	8.8	12.2	17.5	19.2	22.9	28.1	35.1	40.4	43.9	47.4	50.9
80°	5.2	7.0	10.5	12.2	14.0	19.2	22.9	26.4	29.9	33.4	35.1
82.5°	3.5	5.2	7.0	7.0	8.8	10.5	14.0	17.5	19.2	21.0	22.9
85°	1.8	1.8	3.5	3.5	5.2	5.2	7.0	8.8	10.5	12.2	14.0
87.5°	1.8	1.8	1.8	1.8	3.5	3.5	5.2	5.2	5.2	7.0	7.0
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: P252678

CATALOG NUMBER: LE\_6B20D010 EC6B10208050 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6	1240.6
2.5°	1235.4	1240.6	1235.4	1238.9	1237.1	1237.1	1235.4	1237.1
5°	1240.6	1247.6	1240.6	1245.9	1242.4	1242.4	1242.4	1244.1
7.5°	1245.9	1253.0	1247.6	1253.0	1251.2	1249.4	1249.4	1253.0
10°	1251.2	1256.5	1253.0	1258.2	1256.5	1254.8	1254.8	1258.2
12.5°	1251.2	1258.2	1254.8	1260.0	1258.2	1256.5	1256.5	1258.2
15°	1245.9	1254.8	1249.4	1254.8	1253.0	1251.2	1251.2	1254.8
17.5°	1230.1	1237.1	1233.6	1237.1	1237.1	1235.4	1237.1	1238.9
20°	1209.1	1214.4	1210.9	1214.4	1214.4	1210.9	1212.6	1214.4
22.5°	1179.2	1184.5	1181.0	1184.5	1182.8	1181.0	1181.0	1179.2
25°	1142.4	1149.4	1144.1	1147.6	1144.1	1140.6	1140.6	1142.4
27.5°	1096.8	1102.0	1095.0	1098.5	1095.0	1091.5	1091.5	1089.8
30°	1037.1	1038.9	1033.6	1037.1	1033.6	1031.9	1028.4	1028.4
32.5°	965.1	966.9	961.6	961.6	958.1	958.1	951.1	956.4
35°	880.9	882.6	880.9	879.1	873.9	872.1	870.4	870.4
37.5°	793.1	793.1	787.9	786.1	782.6	779.1	780.9	775.6
40°	703.6	701.9	696.6	698.4	696.6	691.4	689.6	687.9
42.5°	619.5	619.5	614.2	616.0	612.4	610.6	605.4	607.1
45°	545.8	545.8	540.5	540.5	538.8	533.5	535.2	531.8
47.5°	479.1	479.1	477.2	477.2	472.0	470.2	470.2	470.2
50°	421.1	421.1	421.1	421.1	419.4	417.6	415.9	417.6
52.5°	372.0	375.5	373.8	373.8	372.0	370.2	368.5	368.5
55°	328.1	329.9	329.9	331.6	329.9	328.1	329.9	328.1
57.5°	289.5	293.0	293.0	293.0	293.0	293.0	291.2	289.5
60°	256.2	258.0	258.0	259.8	259.8	259.8	258.0	258.0
62.5°	222.9	226.4	228.1	228.1	229.9	228.1	228.1	228.1
65°	196.5	200.0	201.8	200.0	201.8	201.8	200.0	200.0
67.5°	165.0	168.5	168.5	168.5	168.5	170.2	168.5	168.5
70°	133.4	136.9	135.1	136.9	136.9	136.9	136.9	136.9
72.5°	101.8	103.5	105.2	105.2	107.0	105.2	105.2	105.2
75°	73.8	77.2	77.2	77.2	77.2	79.0	79.0	79.0
77.5°	52.6	54.4	54.4	56.1	56.1	56.1	56.1	57.9
80°	36.9	36.9	38.6	38.6	40.4	40.4	40.4	40.4
82.5°	24.6	26.4	26.4	26.4	26.4	26.4	26.4	26.4
85°	14.0	15.8	15.8	15.8	15.8	17.5	17.5	17.5
87.5°	8.8	8.8	8.8	8.8	8.8	8.8	7.0	7.0
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)