

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: P252676

Luminaire Tested: **LE\_6B20D010 EC6B10208035 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252676  
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 EC6B10208035 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2437.5 lumens  
Efficiency: N/A  
Efficacy: 117.2 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

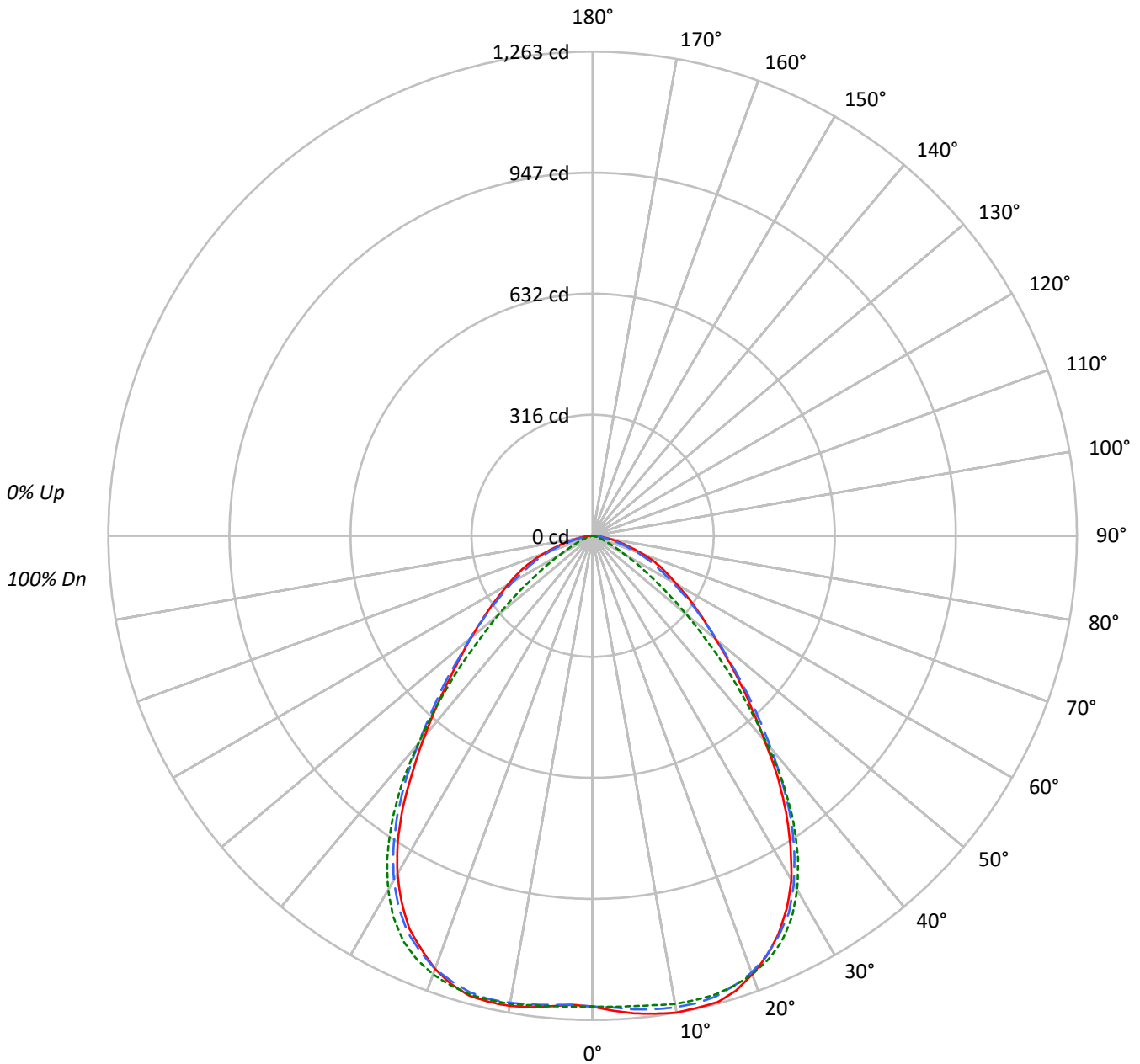
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	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°	80122	80122	80122
5°	81902	80651	80651
10°	83657	82160	82504
15°	85062	83651	83887
20°	84535	84535	83452
25°	82524	84021	81401
30°	78121	80343	76682
35°	69999	72763	68613
40°	59463	60212	57989
45°	50321	45994	48568
50°	42486	32438	41959
55°	37331	20940	36955
60°	33090	12461	33325
65°	30566	7503	30566
70°	26514	4311	25847
75°	21023	2622	19687
80°	15705	1954	15028
85°	14297	1347	13025



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.2	4.9
10°-20°	349.9	14.4
20°-30°	526.3	21.6
30°-40°	553.3	22.7
40°-50°	413.3	17.0
50°-60°	257.3	10.6
60°-70°	146.4	6.0
70°-80°	60.3	2.5
80°-90°	12.5	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°	994.4	40.8
0°-40°	1547.7	63.5
0°-60°	2218.4	91.0
0°-90°	2437.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2437.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1228	1228	1228	1228	1228	
5°	1251	1240	1232	1228	1232	120
15°	1259	1244	1238	1233	1242	354
25°	1146	1150	1167	1141	1131	525
35°	879	902	914	888	862	545
45°	545	558	498	547	526	423
55°	328	321	184	316	325	295
65°	198	177	49	177	198	195
75°	83	66	10	64	78	91
85°	19	12	2	10	17	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°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1240.2	1238.5	1240.2	1236.8	1235.0	1235.0	1236.8	1233.2	1231.5	1233.2	1231.5
5°	1250.6	1247.1	1248.9	1247.1	1243.8	1243.8	1245.4	1240.2	1240.2	1242.0	1240.2
7.5°	1257.6	1257.6	1257.6	1254.1	1252.4	1250.6	1254.1	1248.9	1247.1	1247.1	1245.4
10°	1262.8	1261.1	1262.8	1259.4	1255.9	1254.1	1257.6	1254.1	1250.6	1254.1	1248.9
12.5°	1261.1	1261.1	1261.1	1259.4	1255.9	1254.1	1257.6	1252.4	1250.6	1252.4	1248.9
15°	1259.4	1254.1	1255.9	1254.1	1248.9	1248.9	1250.6	1245.4	1242.0	1247.1	1243.8
17.5°	1243.8	1240.2	1242.0	1238.5	1235.0	1233.2	1235.0	1233.2	1229.8	1233.2	1229.8
20°	1217.6	1217.6	1219.4	1215.9	1212.4	1210.8	1214.1	1210.8	1207.2	1212.4	1212.4
22.5°	1186.4	1186.4	1186.4	1184.6	1182.9	1182.9	1182.9	1181.1	1179.4	1182.9	1184.6
25°	1146.4	1144.8	1146.4	1148.1	1146.4	1144.8	1146.4	1146.4	1143.0	1149.9	1149.9
27.5°	1096.0	1096.0	1099.5	1097.8	1097.8	1096.0	1099.5	1099.5	1097.8	1103.0	1108.2
30°	1037.0	1033.5	1037.0	1037.0	1038.8	1038.8	1040.5	1040.5	1040.5	1045.6	1049.1
32.5°	960.6	962.2	967.5	965.8	964.0	969.2	969.2	972.8	974.5	977.9	979.6
35°	878.9	880.6	880.6	882.4	885.9	882.4	891.1	889.4	891.1	898.0	901.5
37.5°	792.1	786.9	795.5	792.1	793.9	793.9	797.2	799.0	804.2	812.9	812.9
40°	698.2	700.0	703.5	705.2	707.0	707.0	707.0	712.1	713.9	724.4	722.6
42.5°	616.6	616.6	620.1	621.9	621.9	621.9	621.9	627.0	630.5	634.0	637.5
45°	545.4	540.2	543.6	543.6	547.1	545.4	548.9	552.4	554.1	559.4	557.6
47.5°	477.6	476.0	477.6	479.4	477.6	479.4	481.1	482.9	484.6	484.6	484.6
50°	418.6	418.6	420.4	422.1	422.1	422.1	422.1	423.9	423.9	427.2	423.9
52.5°	370.0	371.8	371.8	370.0	371.8	371.8	373.5	373.5	371.8	371.8	366.5
55°	328.2	326.5	328.2	326.5	328.2	328.2	326.5	326.5	324.9	323.1	321.4
57.5°	288.4	288.4	288.4	288.4	286.6	288.4	286.6	284.9	284.9	281.4	276.1
60°	253.6	253.6	253.6	253.6	253.6	251.9	253.6	251.9	248.4	244.9	238.0
62.5°	224.1	222.4	224.1	222.4	222.4	220.6	220.6	218.9	215.4	211.9	205.0
65°	198.0	199.8	198.0	198.0	196.2	194.5	194.5	192.8	187.6	184.1	177.1
67.5°	170.2	168.5	168.5	168.5	166.8	166.8	166.8	163.2	159.8	154.6	147.6
70°	139.0	139.0	139.0	137.2	137.2	135.5	135.5	133.8	130.2	126.8	118.1
72.5°	109.4	109.4	109.4	106.0	107.8	106.0	106.0	102.5	100.8	95.5	90.4
75°	83.4	83.4	81.6	81.6	79.9	78.1	78.1	76.4	74.8	71.2	66.0
77.5°	60.8	60.8	60.8	59.0	57.4	55.6	55.6	53.9	52.1	50.4	46.9
80°	41.8	41.8	41.8	41.8	40.0	38.2	38.2	36.5	36.5	34.8	31.2
82.5°	27.8	27.8	27.8	27.8	26.0	26.0	26.0	24.4	22.6	22.6	19.1
85°	19.1	19.1	17.4	17.4	17.4	17.4	15.6	15.6	13.9	12.1	12.1
87.5°	10.4	10.4	10.4	10.4	8.6	8.6	8.6	8.6	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°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1236.8	1236.8	1235.0	1229.8	1231.5	1229.8	1231.5	1229.8	1224.6	1229.8	1224.6
5°	1243.8	1245.4	1242.0	1235.0	1236.8	1235.0	1235.0	1233.2	1228.1	1231.5	1228.1
7.5°	1250.6	1248.9	1247.1	1240.2	1242.0	1240.2	1240.2	1236.8	1231.5	1235.0	1229.8
10°	1254.1	1254.1	1250.6	1243.8	1243.8	1242.0	1243.8	1242.0	1235.0	1240.2	1236.8
12.5°	1254.1	1252.4	1252.4	1243.8	1245.4	1243.8	1245.4	1242.0	1236.8	1240.2	1238.5
15°	1248.9	1248.9	1247.1	1238.5	1240.2	1240.2	1242.0	1238.5	1233.2	1238.5	1235.0
17.5°	1238.5	1238.5	1236.8	1229.8	1233.2	1233.2	1235.0	1231.5	1226.4	1229.8	1229.8
20°	1217.6	1219.4	1219.4	1214.1	1217.6	1217.6	1219.4	1217.6	1215.9	1217.6	1214.1
22.5°	1193.4	1196.8	1196.8	1191.6	1195.0	1195.0	1200.2	1198.5	1195.0	1196.8	1195.0
25°	1156.9	1160.4	1163.8	1160.4	1163.8	1163.8	1169.0	1167.2	1163.8	1167.2	1162.0
27.5°	1115.1	1116.9	1120.4	1116.9	1122.1	1120.4	1125.6	1123.9	1118.6	1123.9	1122.1
30°	1056.1	1063.0	1068.2	1063.0	1068.2	1068.2	1071.8	1070.0	1068.2	1066.5	1066.5
32.5°	990.1	997.0	997.0	995.2	998.8	998.8	1000.5	997.0	995.2	997.0	998.8
35°	908.5	911.9	915.4	913.6	915.4	917.1	915.4	917.1	911.9	913.6	913.6
37.5°	819.9	823.4	823.4	818.1	821.6	821.6	818.1	818.1	814.6	818.1	811.1
40°	726.1	722.6	724.4	720.9	717.4	717.4	715.6	708.8	705.2	707.0	708.8
42.5°	634.0	634.0	628.8	620.1	611.4	611.4	606.2	602.8	595.8	599.2	597.5
45°	555.9	547.1	540.2	526.4	521.1	517.6	509.0	500.2	496.8	498.5	496.8
47.5°	481.1	474.2	456.9	437.8	432.5	427.2	416.9	406.5	403.0	399.5	399.5
50°	418.6	406.5	387.4	366.5	357.9	349.1	335.2	324.9	317.9	319.6	319.6
52.5°	361.2	347.4	324.9	298.8	288.4	277.9	265.8	253.6	248.4	246.6	246.6
55°	310.9	295.2	272.8	243.1	234.5	222.4	206.8	192.8	185.9	184.1	187.6
57.5°	265.8	251.9	225.8	196.2	185.9	173.8	158.1	145.9	137.2	135.5	137.2
60°	229.2	210.1	187.6	159.8	145.9	135.5	118.1	107.8	99.0	95.5	97.2
62.5°	192.8	175.5	152.9	125.1	114.6	104.2	88.6	76.4	69.5	67.8	69.5
65°	165.0	147.6	126.8	102.5	92.0	81.6	67.8	55.6	50.4	48.6	50.4
67.5°	137.2	121.6	104.2	81.6	73.0	64.2	50.4	41.8	34.8	33.0	34.8
70°	111.1	97.2	79.9	64.2	55.6	48.6	38.2	29.5	24.4	22.6	24.4
72.5°	83.4	73.0	60.8	46.9	41.8	36.5	27.8	20.9	17.4	15.6	17.4
75°	60.8	52.1	43.4	33.0	29.5	26.0	19.1	13.9	12.1	10.4	12.1
77.5°	41.8	36.5	29.5	22.6	19.1	17.4	12.1	10.4	8.6	7.0	7.0
80°	27.8	24.4	19.1	15.6	13.9	12.1	8.6	7.0	5.2	5.2	5.2
82.5°	17.4	13.9	12.1	8.6	7.0	7.0	5.2	3.5	3.5	3.5	3.5
85°	10.4	8.6	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°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1228.1	1224.6	1224.6	1226.4	1228.1	1229.8	1226.4	1224.6	1224.6	1229.8	1226.4
5°	1228.1	1226.4	1226.4	1226.4	1229.8	1231.5	1228.1	1226.4	1228.1	1233.2	1231.5
7.5°	1233.2	1229.8	1231.5	1231.5	1233.2	1236.8	1233.2	1231.5	1233.2	1238.5	1235.0
10°	1236.8	1233.2	1235.0	1233.2	1238.5	1240.2	1236.8	1235.0	1236.8	1243.8	1242.0
12.5°	1238.5	1236.8	1236.8	1235.0	1240.2	1242.0	1238.5	1236.8	1238.5	1243.8	1242.0
15°	1235.0	1233.2	1233.2	1233.2	1236.8	1240.2	1235.0	1233.2	1233.2	1238.5	1236.8
17.5°	1228.1	1224.6	1224.6	1224.6	1226.4	1228.1	1222.9	1221.1	1219.4	1224.6	1222.9
20°	1215.9	1212.4	1209.0	1209.0	1210.8	1210.8	1207.2	1202.0	1202.0	1203.8	1200.2
22.5°	1193.4	1191.6	1188.1	1186.4	1189.9	1188.1	1181.1	1176.0	1174.2	1176.0	1172.5
25°	1162.0	1158.6	1156.9	1155.1	1156.9	1155.1	1148.1	1141.2	1141.2	1141.2	1136.0
27.5°	1118.6	1115.1	1113.4	1113.4	1115.1	1111.6	1104.8	1097.8	1094.4	1094.4	1089.1
30°	1063.0	1063.0	1061.2	1059.6	1057.9	1057.9	1047.4	1040.5	1037.0	1038.8	1035.2
32.5°	995.2	993.6	991.9	986.6	988.4	986.6	977.9	972.8	967.5	964.0	962.2
35°	908.5	908.5	906.8	906.8	906.8	905.0	896.2	891.1	887.6	885.9	880.6
37.5°	812.9	811.1	809.5	809.5	809.5	809.5	804.2	799.0	799.0	797.2	793.9
40°	705.2	707.0	708.8	707.0	712.1	717.4	710.4	707.0	705.2	710.4	703.5
42.5°	601.0	599.2	608.0	609.8	609.8	618.4	620.1	621.9	620.1	623.6	623.6
45°	500.2	498.5	507.2	510.6	519.4	529.8	535.0	543.6	547.1	550.6	547.1
47.5°	404.8	411.6	418.6	427.2	434.2	451.6	462.0	470.8	474.2	479.4	479.4
50°	324.9	331.8	343.9	350.9	359.5	380.4	397.8	409.9	416.9	422.1	420.4
52.5°	250.1	262.2	277.9	284.9	297.0	321.4	340.5	354.4	363.0	368.2	370.0
55°	192.8	203.2	218.9	229.2	241.5	267.5	291.9	307.5	316.1	323.1	326.5
57.5°	142.4	154.6	172.0	180.6	194.5	224.1	244.9	264.0	274.5	283.1	284.9
60°	104.2	116.4	132.0	142.4	156.4	185.9	210.1	227.5	239.8	246.6	250.1
62.5°	74.8	86.9	102.5	112.9	125.1	151.1	175.5	192.8	205.0	213.6	218.9
65°	53.9	66.0	81.6	90.4	100.8	125.1	147.6	165.0	177.1	187.6	191.1
67.5°	40.0	48.6	62.5	71.2	81.6	100.8	119.9	135.5	147.6	156.4	159.8
70°	29.5	36.5	48.6	53.9	60.8	78.1	93.8	107.8	118.1	125.1	128.5
72.5°	20.9	26.0	34.8	40.0	45.1	59.0	71.2	81.6	88.6	95.5	99.0
75°	13.9	17.4	24.4	27.8	31.2	41.8	50.4	59.0	64.2	69.5	71.2
77.5°	8.6	12.1	17.4	19.1	22.6	27.8	34.8	40.0	43.4	46.9	50.4
80°	5.2	7.0	10.4	12.1	13.9	19.1	22.6	26.0	29.5	33.0	34.8
82.5°	3.5	5.2	7.0	7.0	8.6	10.4	13.9	17.4	19.1	20.9	22.6
85°	1.8	1.8	3.5	3.5	5.2	5.2	7.0	8.6	10.4	12.1	13.9
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: P252676

CATALOG NUMBER: LE\_6B20D010 EC6B10208035 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1222.9	1228.1	1222.9	1226.4	1224.6	1224.6	1222.9	1224.6
5°	1228.1	1235.0	1228.1	1233.2	1229.8	1229.8	1229.8	1231.5
7.5°	1233.2	1240.2	1235.0	1240.2	1238.5	1236.8	1236.8	1240.2
10°	1238.5	1243.8	1240.2	1245.4	1243.8	1242.0	1242.0	1245.4
12.5°	1238.5	1245.4	1242.0	1247.1	1245.4	1243.8	1243.8	1245.4
15°	1233.2	1242.0	1236.8	1242.0	1240.2	1238.5	1238.5	1242.0
17.5°	1217.6	1224.6	1221.1	1224.6	1224.6	1222.9	1224.6	1226.4
20°	1196.8	1202.0	1198.5	1202.0	1202.0	1198.5	1200.2	1202.0
22.5°	1167.2	1172.5	1169.0	1172.5	1170.8	1169.0	1169.0	1167.2
25°	1130.8	1137.8	1132.5	1136.0	1132.5	1129.0	1129.0	1130.8
27.5°	1085.6	1090.9	1083.9	1087.4	1083.9	1080.4	1080.4	1078.6
30°	1026.6	1028.2	1023.1	1026.6	1023.1	1021.4	1017.9	1017.9
32.5°	955.4	957.1	951.9	951.9	948.4	948.4	941.5	946.6
35°	872.0	873.8	872.0	870.2	865.0	863.2	861.5	861.5
37.5°	785.1	785.1	779.9	778.1	774.8	771.2	773.0	767.8
40°	696.5	694.8	689.6	691.4	689.6	684.4	682.6	680.9
42.5°	613.1	613.1	608.0	609.8	606.2	604.5	599.2	601.0
45°	540.2	540.2	535.0	535.0	533.2	528.0	529.8	526.4
47.5°	474.2	474.2	472.5	472.5	467.2	465.5	465.5	465.5
50°	416.9	416.9	416.9	416.9	415.1	413.4	411.6	413.4
52.5°	368.2	371.8	370.0	370.0	368.2	366.5	364.8	364.8
55°	324.9	326.5	326.5	328.2	326.5	324.9	326.5	324.9
57.5°	286.6	290.1	290.1	290.1	290.1	290.1	288.4	286.6
60°	253.6	255.4	255.4	257.1	257.1	257.1	255.4	255.4
62.5°	220.6	224.1	225.8	225.8	227.5	225.8	225.8	225.8
65°	194.5	198.0	199.8	198.0	199.8	199.8	198.0	198.0
67.5°	163.2	166.8	166.8	166.8	166.8	168.5	166.8	166.8
70°	132.0	135.5	133.8	135.5	135.5	135.5	135.5	135.5
72.5°	100.8	102.5	104.2	104.2	106.0	104.2	104.2	104.2
75°	73.0	76.4	76.4	76.4	76.4	78.1	78.1	78.1
77.5°	52.1	53.9	53.9	55.6	55.6	55.6	55.6	57.4
80°	36.5	36.5	38.2	38.2	40.0	40.0	40.0	40.0
82.5°	24.4	26.0	26.0	26.0	26.0	26.0	26.0	26.0
85°	13.9	15.6	15.6	15.6	15.6	17.4	17.4	17.4
87.5°	8.6	8.6	8.6	8.6	8.6	8.6	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)