

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: P252371

Luminaire Tested: **LE\_6B20D010 EC6B10209040 6LBLWW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252371  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B20D010 EC6B10209040 6LBLWW1LI  
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1998.8 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.03 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

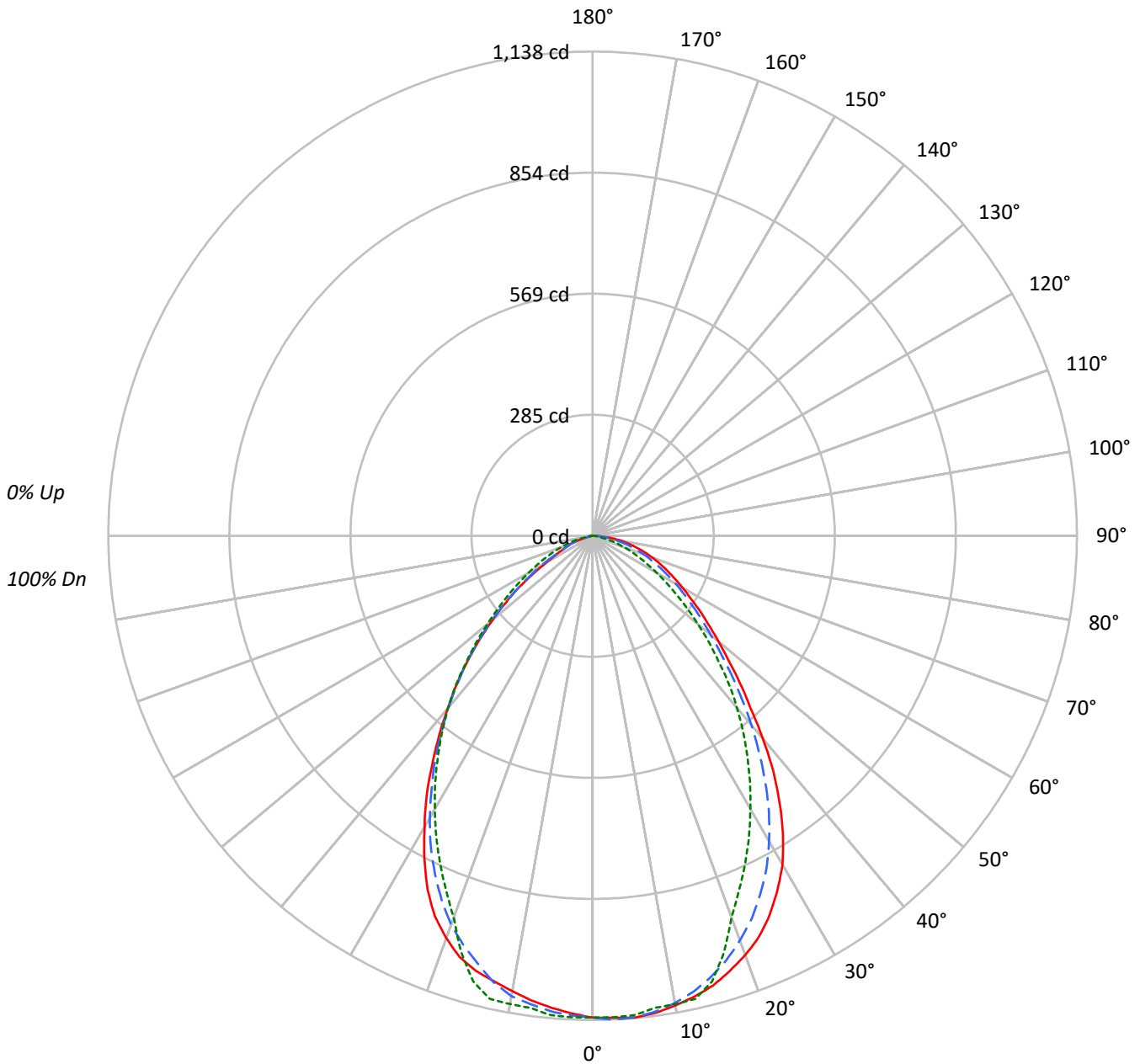
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54																			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48																			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44																			
8	67	55	47	42	66	54	47	42	53	46	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	40	35	45	39	35	44	39	35	33																			

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

	0°	90°	180°
0°	73885	73885	73885
5°	74455	74069	72916
10°	74250	74051	72004
15°	73905	73216	71527
20°	72802	66269	69844
25°	70833	61087	66068
30°	67258	55837	59506
35°	61023	50486	52366
40°	52982	44967	45095
45°	45191	38668	38271
50°	39117	32692	30906
55°	34965	27276	23932
60°	31850	22638	16114
65°	29732	18617	12041
70°	28326	15146	10110
75°	26694	10738	3327
80°	25398	5560	1127
85°	20959	3294	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.9	5.4
10°-20°	299.1	15.0
20°-30°	412.9	20.7
30°-40°	420.1	21.0
40°-50°	337.7	16.9
50°-60°	224.5	11.2
60°-70°	127.9	6.4
70°-80°	57.5	2.9
80°-90°	12.1	0.6
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°	818.9	41.0
0°-40°	1239.1	62.0
0°-60°	1801.3	90.1
0°-90°	1998.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1998.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1132	1132	1132	1132	1132	
5°	1137	1136	1131	1122	1113	108
15°	1094	1074	1084	1041	1059	308
25°	984	931	849	877	918	451
35°	766	708	634	646	658	476
45°	490	460	419	415	415	380
55°	307	287	240	213	210	276
65°	193	172	121	78	78	192
75°	106	88	43	18	13	113
85°	28	19	4	2	0	33
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°	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5
2.5°	1134.0	1139.9	1138.4	1136.9	1138.4	1136.9	1134.0	1134.0	1131.0	1131.0	1138.4
5°	1136.9	1139.9	1138.4	1136.9	1136.9	1138.4	1132.5	1132.5	1129.6	1128.1	1135.5
7.5°	1131.0	1135.5	1132.5	1132.5	1131.0	1132.5	1126.6	1126.6	1122.2	1120.8	1128.1
10°	1120.8	1126.6	1123.6	1123.6	1123.6	1120.8	1117.8	1116.4	1111.9	1110.5	1114.9
12.5°	1109.0	1113.4	1111.9	1109.0	1109.0	1109.0	1103.1	1101.6	1095.8	1092.8	1097.2
15°	1094.2	1097.2	1095.8	1094.2	1091.4	1091.4	1085.5	1082.5	1076.6	1070.8	1073.6
17.5°	1072.2	1076.6	1073.6	1072.2	1067.8	1067.8	1061.9	1059.0	1050.1	1044.2	1045.8
20°	1048.6	1050.1	1048.6	1045.8	1041.4	1039.9	1034.0	1028.1	1020.8	1013.4	1011.9
22.5°	1020.8	1022.2	1017.8	1014.9	1010.4	1009.0	1001.6	997.2	985.4	976.6	975.1
25°	984.0	985.4	985.4	978.1	975.1	972.2	964.9	957.5	947.2	935.4	931.0
27.5°	939.9	944.2	941.2	934.0	928.1	926.6	919.2	913.4	900.1	889.9	884.0
30°	892.8	891.2	889.9	885.4	876.6	875.1	867.8	860.4	850.1	836.9	829.5
32.5°	832.5	832.5	831.0	826.6	817.8	814.9	808.9	800.1	788.4	778.0	770.8
35°	766.2	767.8	766.2	757.5	751.6	748.6	745.8	735.4	725.1	713.4	707.5
37.5°	697.1	692.8	694.2	686.9	679.5	682.5	673.6	669.2	657.5	648.6	642.8
40°	622.1	625.1	619.2	616.2	611.9	607.4	607.4	600.1	594.2	583.9	581.0
42.5°	548.6	553.0	551.5	548.6	542.8	544.2	536.9	533.9	526.5	522.1	517.8
45°	489.8	489.8	489.8	486.9	485.4	482.4	478.0	473.6	469.1	463.2	460.4
47.5°	432.4	432.4	433.9	431.0	428.0	426.5	423.6	423.6	416.2	410.4	407.4
50°	385.4	385.4	385.4	382.4	379.5	379.5	376.5	373.6	369.1	364.8	361.9
52.5°	342.8	342.8	342.8	339.8	338.2	336.8	335.4	333.9	328.0	325.0	322.1
55°	307.4	305.9	305.9	304.5	301.5	301.5	300.0	297.1	292.6	288.2	286.8
57.5°	272.1	273.6	272.1	272.1	269.1	269.1	266.2	264.8	260.4	257.4	254.5
60°	244.1	244.1	244.1	242.6	239.8	241.2	238.2	236.8	232.4	228.0	225.0
62.5°	216.2	217.6	217.6	216.2	213.2	213.2	211.8	210.4	205.9	201.5	197.1
65°	192.6	192.6	192.6	191.2	189.8	189.8	188.2	186.8	182.4	176.5	172.1
67.5°	170.6	169.1	169.1	169.1	167.6	166.2	164.8	163.2	158.9	154.4	148.5
70°	148.5	148.5	148.5	147.1	144.1	145.6	144.1	142.6	138.2	133.9	129.4
72.5°	128.0	128.0	126.5	125.0	125.0	123.5	123.5	122.1	117.6	111.8	107.4
75°	105.9	105.9	105.9	105.9	103.0	104.4	101.5	100.0	97.1	92.6	88.2
77.5°	86.8	86.8	86.8	85.2	83.9	83.9	82.4	80.9	76.5	73.5	67.6
80°	67.6	67.6	67.6	67.6	66.1	64.8	63.2	61.8	58.9	54.4	50.0
82.5°	50.0	50.0	48.5	48.5	48.5	47.1	45.6	44.1	41.1	38.2	35.2
85°	28.0	29.4	29.4	26.5	28.0	26.5	26.5	23.5	23.5	20.6	19.1
87.5°	10.2	8.9	8.9	8.9	8.9	8.9	8.9	7.4	7.4	7.4	5.9
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°	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5
2.5°	1132.5	1131.0	1136.9	1136.9	1128.1	1132.5	1134.0	1131.0	1131.0	1132.5	1128.1
5°	1129.6	1126.6	1132.5	1134.0	1125.1	1129.6	1131.0	1128.1	1129.6	1131.0	1125.1
7.5°	1119.2	1119.2	1123.6	1125.1	1116.4	1120.8	1120.8	1117.8	1119.2	1119.2	1114.9
10°	1109.0	1104.6	1109.0	1109.0	1101.6	1103.1	1106.0	1104.6	1110.5	1117.8	1117.8
12.5°	1089.9	1085.5	1092.8	1092.8	1088.4	1094.2	1101.6	1106.0	1111.9	1114.9	1106.0
15°	1066.4	1067.8	1081.0	1091.4	1086.9	1095.8	1103.1	1100.1	1092.8	1084.0	1070.8
17.5°	1035.4	1031.0	1042.8	1048.6	1042.8	1045.8	1051.6	1045.8	1034.0	1026.6	1009.0
20°	1000.1	988.4	988.4	985.4	975.1	975.1	973.6	963.4	959.0	954.5	947.2
22.5°	960.4	947.2	942.8	934.0	925.1	923.6	919.2	909.0	903.1	900.1	891.2
25°	914.9	903.1	895.8	886.9	873.6	870.8	866.2	856.0	853.0	848.6	841.2
27.5°	867.8	853.0	842.8	834.0	822.1	820.8	811.9	804.5	798.6	795.8	789.9
30°	813.4	797.1	789.9	778.0	769.2	766.2	758.9	748.6	744.2	741.2	736.9
32.5°	753.0	739.8	732.5	722.1	710.4	711.9	703.0	694.2	691.2	688.4	683.9
35°	694.2	681.0	672.1	663.4	656.0	653.0	647.1	639.8	635.4	633.9	631.0
37.5°	629.5	619.2	611.9	603.0	597.1	594.2	591.2	583.9	581.0	581.0	575.1
40°	566.2	557.4	551.5	547.1	539.8	538.2	535.4	531.0	529.5	528.0	523.6
42.5°	508.9	497.1	492.8	489.8	485.4	482.4	481.0	478.0	476.5	475.1	470.6
45°	454.5	444.1	439.8	436.9	432.4	431.0	429.5	425.0	422.1	419.1	417.8
47.5°	401.5	394.1	392.8	385.4	382.4	379.5	376.5	373.6	372.1	370.6	364.8
50°	355.9	351.5	344.1	339.8	336.8	335.4	329.5	325.0	323.6	322.1	317.8
52.5°	314.8	308.9	304.5	297.1	295.6	292.6	289.8	283.9	280.9	279.5	275.0
55°	278.0	273.6	267.6	261.8	257.4	255.9	251.5	245.6	242.6	239.8	236.8
57.5°	247.1	239.8	233.9	228.0	225.0	220.6	216.2	213.2	208.9	204.5	200.0
60°	217.6	211.8	204.5	198.5	195.6	192.6	186.8	182.4	178.0	173.5	169.1
62.5°	189.8	183.9	176.5	170.6	167.6	164.8	158.9	154.4	150.0	145.6	139.8
65°	164.8	158.9	153.0	147.1	144.1	141.2	135.4	129.4	125.0	120.6	114.8
67.5°	144.1	136.8	130.9	125.0	122.1	119.1	113.2	108.9	103.0	98.5	92.6
70°	122.1	116.2	111.8	105.9	103.0	100.0	94.1	88.2	83.9	79.4	73.5
72.5°	103.0	95.6	91.2	85.2	82.4	80.9	75.0	70.6	66.1	60.2	55.9
75°	82.4	76.5	70.6	66.1	63.2	61.8	55.9	51.5	47.1	42.6	38.2
77.5°	63.2	58.9	53.0	48.5	45.6	44.1	38.2	33.9	29.4	26.5	22.0
80°	47.1	41.1	38.2	33.9	32.4	29.4	26.5	22.0	19.1	14.8	11.8
82.5°	32.4	28.0	25.0	22.0	20.6	19.1	16.1	13.2	10.2	8.9	7.4
85°	17.6	14.8	13.2	11.8	10.2	10.2	8.9	7.4	5.9	4.4	3.0
87.5°	5.9	4.4	4.4	4.4	4.4	3.0	3.0	3.0	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5
2.5°	1131.0	1131.0	1131.0	1129.6	1129.6	1129.6	1128.1	1134.0	1128.1	1126.6	1131.0
5°	1129.6	1126.6	1126.6	1126.6	1126.6	1125.1	1123.6	1126.6	1122.2	1120.8	1120.8
7.5°	1120.8	1119.2	1119.2	1117.8	1116.4	1114.9	1113.4	1114.9	1110.5	1109.0	1109.0
10°	1122.2	1119.2	1119.2	1114.9	1111.9	1107.5	1103.1	1104.6	1098.6	1094.2	1094.2
12.5°	1104.6	1097.2	1092.8	1088.4	1085.5	1084.0	1078.1	1081.0	1075.1	1073.6	1073.6
15°	1064.9	1056.0	1048.6	1045.8	1045.8	1042.8	1038.4	1044.2	1041.4	1042.8	1050.1
17.5°	1003.1	998.6	994.2	992.8	994.2	997.2	1000.1	1009.0	1009.0	1013.4	1020.8
20°	948.6	945.8	948.6	948.6	950.1	956.0	961.9	969.2	972.2	976.6	986.9
22.5°	895.8	895.8	898.6	903.1	901.6	911.9	913.4	926.6	926.6	935.4	944.2
25°	844.2	844.2	847.1	848.6	851.6	857.5	863.4	873.6	876.6	885.4	892.8
27.5°	794.2	792.8	792.8	794.2	797.1	804.5	807.5	819.2	823.6	829.5	836.9
30°	738.4	736.9	739.8	742.8	741.2	748.6	753.0	761.9	764.8	770.8	776.6
32.5°	685.4	685.4	685.4	688.4	688.4	694.2	694.2	704.5	704.5	708.9	714.8
35°	631.0	631.0	632.5	633.9	635.4	636.9	638.4	644.2	645.6	647.1	650.1
37.5°	579.5	578.0	579.5	579.5	576.5	582.4	582.4	588.4	583.9	588.4	589.8
40°	526.5	526.5	525.1	525.1	525.1	528.0	525.1	529.5	526.5	529.5	528.0
42.5°	472.1	472.1	469.1	472.1	470.6	470.6	470.6	473.6	469.1	472.1	473.6
45°	417.8	416.2	416.2	414.8	414.8	414.8	416.2	416.2	414.8	417.8	417.8
47.5°	364.8	363.2	363.2	363.2	363.2	364.8	360.4	363.2	360.4	360.4	360.4
50°	319.1	317.8	316.2	314.8	313.2	313.2	311.8	311.8	308.9	307.4	305.9
52.5°	275.0	273.6	270.6	270.6	269.1	267.6	263.2	263.2	258.9	257.4	257.4
55°	235.4	230.9	229.5	226.5	226.5	223.5	220.6	217.6	213.2	210.4	210.4
57.5°	198.5	194.1	191.2	189.8	188.2	185.4	179.4	178.0	172.1	170.6	169.1
60°	166.2	161.8	157.4	154.4	153.0	148.5	142.6	139.8	136.8	132.4	128.0
62.5°	135.4	130.9	125.0	123.5	120.6	116.2	111.8	107.4	104.4	100.0	97.1
65°	108.9	104.4	100.0	97.1	94.1	89.8	85.2	80.9	78.0	76.5	75.0
67.5°	88.2	82.4	78.0	76.5	73.5	70.6	66.1	64.8	61.8	61.8	61.8
70°	69.1	64.8	60.2	58.9	57.4	54.4	51.5	51.5	51.5	51.5	51.5
72.5°	51.5	48.5	44.1	42.6	41.1	39.8	36.8	38.2	36.8	36.8	36.8
75°	32.4	29.4	26.5	25.0	23.5	22.0	20.6	19.1	17.6	16.1	16.1
77.5°	17.6	14.8	13.2	11.8	11.8	10.2	8.9	8.9	7.4	7.4	7.4
80°	10.2	8.9	7.4	5.9	5.9	4.4	4.4	4.4	4.4	3.0	3.0
82.5°	5.9	4.4	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5
85°	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0
87.5°	1.5	1.5	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: P252371

CATALOG NUMBER: LE\_6B20D010 EC6B10209040 6LBLWW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5	1132.5
2.5°	1123.6	1128.1	1123.6	1128.1	1128.1	1128.1	1128.1	1123.6
5°	1116.4	1119.2	1114.9	1117.8	1119.2	1117.8	1117.8	1113.4
7.5°	1103.1	1106.0	1101.6	1106.0	1107.5	1106.0	1104.6	1101.6
10°	1089.9	1091.4	1086.9	1089.9	1092.8	1092.8	1091.4	1086.9
12.5°	1069.2	1073.6	1069.2	1072.2	1075.1	1076.6	1076.6	1072.2
15°	1045.8	1053.1	1050.1	1054.5	1059.0	1060.5	1060.5	1059.0
17.5°	1022.2	1029.5	1025.1	1032.5	1036.9	1039.9	1041.4	1038.4
20°	988.4	997.2	994.2	1000.1	1006.0	1010.4	1010.4	1006.0
22.5°	944.2	956.0	954.5	959.0	966.2	967.8	970.8	967.8
25°	895.8	904.5	903.1	907.5	916.2	916.2	917.8	917.8
27.5°	839.9	848.6	847.1	850.1	856.0	857.5	859.0	856.0
30°	779.5	783.9	783.9	788.4	792.8	794.2	794.2	789.9
32.5°	713.4	719.2	722.1	720.6	725.1	728.0	726.6	726.6
35°	653.0	654.5	656.0	657.5	658.9	661.9	658.9	657.5
37.5°	588.4	592.8	589.8	592.8	595.6	594.2	592.8	592.8
40°	529.5	531.0	528.0	531.0	532.4	532.4	532.4	529.5
42.5°	470.6	473.6	470.6	473.6	473.6	473.6	473.6	472.1
45°	411.9	414.8	414.8	416.2	416.2	414.8	414.8	414.8
47.5°	357.4	360.4	357.4	360.4	361.9	358.9	358.9	358.9
50°	305.9	304.5	304.5	305.9	305.9	305.9	305.9	304.5
52.5°	253.0	254.5	254.5	254.5	255.9	254.5	255.9	255.9
55°	207.4	207.4	207.4	208.9	207.4	207.4	208.9	210.4
57.5°	166.2	164.8	163.2	163.2	164.8	163.2	163.2	163.2
60°	128.0	126.5	125.0	125.0	125.0	125.0	125.0	123.5
62.5°	95.6	95.6	95.6	97.1	97.1	97.1	97.1	98.5
65°	76.5	76.5	76.5	76.5	76.5	76.5	76.5	78.0
67.5°	61.8	61.8	61.8	63.2	63.2	63.2	63.2	63.2
70°	51.5	51.5	53.0	51.5	53.0	53.0	53.0	53.0
72.5°	35.2	35.2	35.2	35.2	35.2	33.9	35.2	33.9
75°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	13.2
77.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)