

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: P252684

Luminaire Tested: **LE_6B20D010 EC6B10209050 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252684
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 EC6B10209050 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2072.5 lumens
Efficiency: N/A
Efficacy: 99.6 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

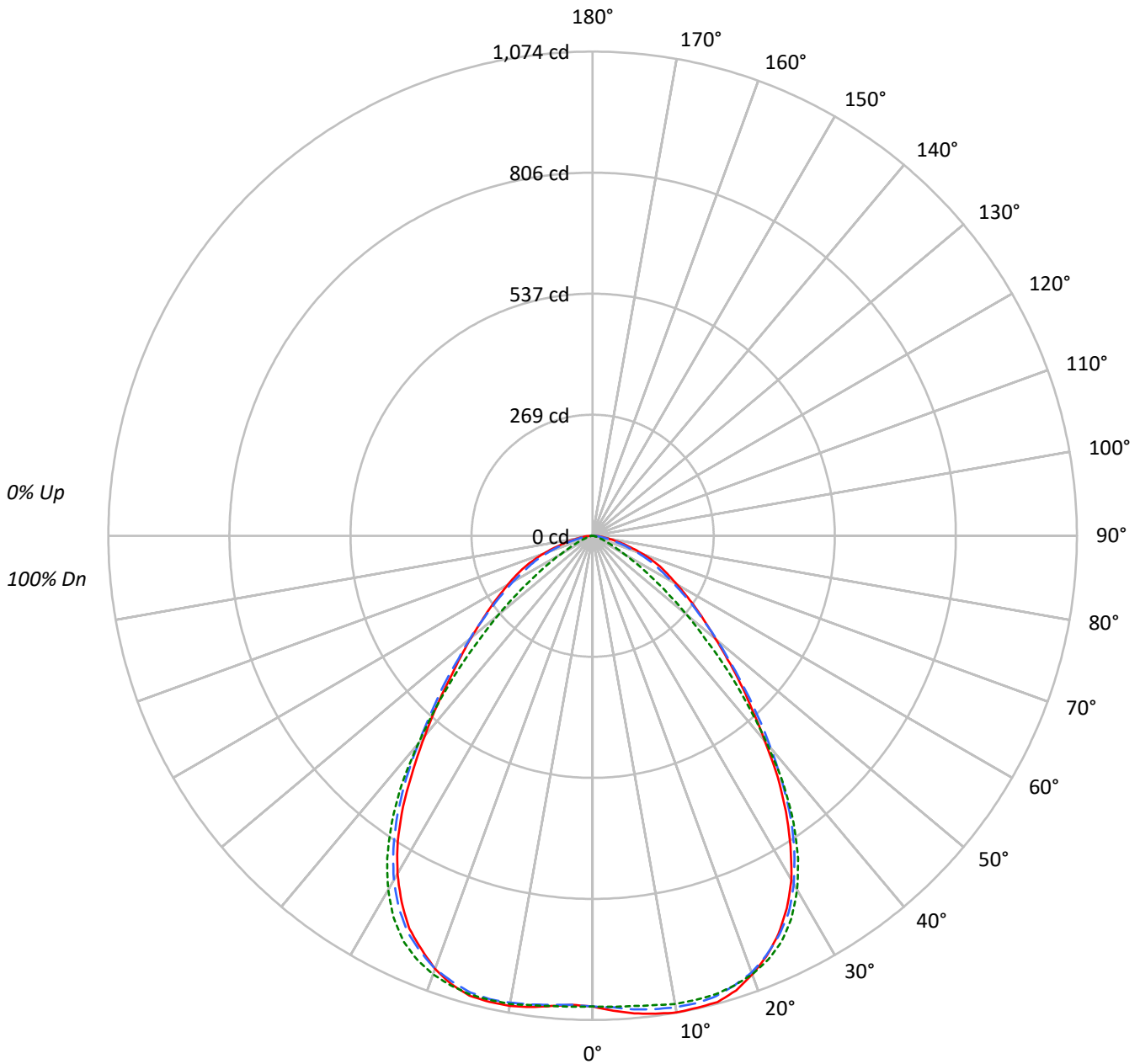
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	68118	68118	68118
5°	69642	68574	68574
10°	71136	69858	70156
15°	72324	71122	71324
20°	71871	71871	70955
25°	70171	71445	69214
30°	66429	68320	65201
35°	59510	61876	58339
40°	50571	51193	49311
45°	42792	39111	41288
50°	36123	27587	35676
55°	31746	17801	31405
60°	28132	10595	28327
65°	25996	6391	25996
70°	22528	3662	21974
75°	17872	2243	16763
80°	13338	1653	12774
85°	12127	1123	11079



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	4.9
10°-20°	297.5	14.4
20°-30°	447.5	21.6
30°-40°	470.5	22.7
40°-50°	351.5	17.0
50°-60°	218.8	10.6
60°-70°	124.4	6.0
70°-80°	51.2	2.5
80°-90°	10.6	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°	845.5	40.8
0°-40°	1316.0	63.5
0°-60°	1886.2	91.0
0°-90°	2072.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2072.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1044	1044	1044	1044	1044	
5°	1063	1054	1047	1044	1047	102
15°	1071	1058	1053	1049	1056	301
25°	975	978	992	970	962	446
35°	747	766	777	755	732	464
45°	464	474	424	465	448	359
55°	279	273	156	269	276	251
65°	168	151	41	151	168	166
75°	71	56	9	55	66	77
85°	16	10	2	9	15	18
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°	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1
2.5°	1054.5	1053.0	1054.5	1051.5	1050.1	1050.1	1051.5	1048.6	1047.1	1048.6	1047.1
5°	1063.4	1060.4	1061.9	1060.4	1057.5	1057.5	1059.0	1054.5	1054.5	1056.0	1054.5
7.5°	1069.2	1069.2	1069.2	1066.4	1064.9	1063.4	1066.4	1061.9	1060.4	1060.4	1059.0
10°	1073.8	1072.2	1073.8	1070.8	1067.8	1066.4	1069.2	1066.4	1063.4	1066.4	1061.9
12.5°	1072.2	1072.2	1072.2	1070.8	1067.8	1066.4	1069.2	1064.9	1063.4	1064.9	1061.9
15°	1070.8	1066.4	1067.8	1066.4	1061.9	1061.9	1063.4	1059.0	1056.0	1060.4	1057.5
17.5°	1057.5	1054.5	1056.0	1053.0	1050.1	1048.6	1050.1	1048.6	1045.6	1048.6	1045.6
20°	1035.2	1035.2	1036.8	1033.9	1030.9	1029.4	1032.4	1029.4	1026.5	1030.9	1030.9
22.5°	1008.8	1008.8	1008.8	1007.2	1005.8	1005.8	1005.8	1004.2	1002.9	1005.8	1007.2
25°	974.8	973.2	974.8	976.2	974.8	973.2	974.8	974.8	971.8	977.8	977.8
27.5°	931.9	931.9	934.9	933.4	933.4	931.9	934.9	934.9	933.4	937.9	942.2
30°	881.8	878.8	881.8	881.8	883.1	883.1	884.6	884.6	884.6	889.1	892.0
32.5°	816.8	818.2	822.6	821.1	819.6	824.1	824.1	827.1	828.5	831.5	833.0
35°	747.2	748.8	748.8	750.2	753.2	750.2	757.6	756.1	757.6	763.5	766.5
37.5°	673.5	669.0	676.4	673.5	675.0	675.0	677.9	679.4	683.8	691.2	691.2
40°	593.8	595.2	598.1	599.6	601.1	601.1	601.1	605.5	607.0	615.9	614.4
42.5°	524.2	524.2	527.2	528.8	528.8	528.8	528.8	533.1	536.1	539.1	542.0
45°	463.8	459.4	462.2	462.2	465.2	463.8	466.8	469.6	471.1	475.5	474.1
47.5°	406.1	404.6	406.1	407.6	406.1	407.6	409.1	410.6	412.0	412.0	412.0
50°	355.9	355.9	357.4	358.9	358.9	358.9	358.9	360.4	360.4	363.4	360.4
52.5°	314.6	316.0	316.0	314.6	316.0	316.0	317.5	317.5	316.0	316.0	311.6
55°	279.1	277.6	279.1	277.6	279.1	279.1	277.6	277.6	276.1	274.8	273.2
57.5°	245.1	245.1	245.1	245.1	243.8	245.1	243.8	242.2	242.2	239.2	234.9
60°	215.6	215.6	215.6	215.6	215.6	214.1	215.6	214.1	211.2	208.2	202.4
62.5°	190.5	189.0	190.5	189.0	189.0	187.6	187.6	186.1	183.1	180.1	174.2
65°	168.4	169.9	168.4	168.4	166.9	165.4	165.4	163.9	159.5	156.5	150.6
67.5°	144.8	143.2	143.2	143.2	141.8	141.8	141.8	138.9	135.9	131.5	125.5
70°	118.1	118.1	118.1	116.6	116.6	115.2	115.2	113.8	110.8	107.9	100.4
72.5°	93.0	93.0	93.0	90.1	91.6	90.1	90.1	87.1	85.6	81.2	76.8
75°	70.9	70.9	69.4	69.4	67.9	66.5	66.5	65.0	63.5	60.5	56.1
77.5°	51.8	51.8	51.8	50.2	48.8	47.2	47.2	45.8	44.2	42.9	39.9
80°	35.5	35.5	35.5	35.5	34.0	32.5	32.5	31.0	31.0	29.5	26.6
82.5°	23.6	23.6	23.6	23.6	22.1	22.1	22.1	20.6	19.2	19.2	16.2
85°	16.2	16.2	14.8	14.8	14.8	14.8	13.2	13.2	11.9	10.4	10.4
87.5°	8.9	8.9	8.9	8.9	7.4	7.4	7.4	7.4	5.9	5.9	4.4
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°	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1
2.5°	1051.5	1051.5	1050.1	1045.6	1047.1	1045.6	1047.1	1045.6	1041.2	1045.6	1041.2
5°	1057.5	1059.0	1056.0	1050.1	1051.5	1050.1	1050.1	1048.6	1044.1	1047.1	1044.1
7.5°	1063.4	1061.9	1060.4	1054.5	1056.0	1054.5	1054.5	1051.5	1047.1	1050.1	1045.6
10°	1066.4	1066.4	1063.4	1057.5	1057.5	1056.0	1057.5	1056.0	1050.1	1054.5	1051.5
12.5°	1066.4	1064.9	1064.9	1057.5	1059.0	1057.5	1059.0	1056.0	1051.5	1054.5	1053.0
15°	1061.9	1061.9	1060.4	1053.0	1054.5	1054.5	1056.0	1053.0	1048.6	1053.0	1050.1
17.5°	1053.0	1053.0	1051.5	1045.6	1048.6	1048.6	1050.1	1047.1	1042.8	1045.6	1045.6
20°	1035.2	1036.8	1036.8	1032.4	1035.2	1035.2	1036.8	1035.2	1033.9	1035.2	1032.4
22.5°	1014.6	1017.6	1017.6	1013.1	1016.1	1016.1	1020.5	1019.0	1016.1	1017.6	1016.1
25°	983.6	986.6	989.5	986.6	989.5	989.5	994.0	992.5	989.5	992.5	988.0
27.5°	948.1	949.6	952.6	949.6	954.1	952.6	957.0	955.5	951.1	955.5	954.1
30°	898.0	903.9	908.2	903.9	908.2	908.2	911.2	909.8	908.2	906.9	906.9
32.5°	841.9	847.8	847.8	846.2	849.2	849.2	850.8	847.8	846.2	847.8	849.2
35°	772.4	775.4	778.4	776.9	778.4	779.8	778.4	779.8	775.4	776.9	776.9
37.5°	697.1	700.0	700.0	695.6	698.6	698.6	695.6	695.6	692.6	695.6	689.8
40°	617.4	614.4	615.9	612.9	610.0	610.0	608.5	602.6	599.6	601.1	602.6
42.5°	539.1	539.1	534.6	527.2	519.9	519.9	515.5	512.5	506.6	509.5	508.0
45°	472.6	465.2	459.4	447.5	443.1	440.1	432.8	425.4	422.4	423.9	422.4
47.5°	409.1	403.2	388.4	372.1	367.8	363.4	354.5	345.6	342.6	339.6	339.6
50°	355.9	345.6	329.4	311.6	304.2	296.9	285.0	276.1	270.2	271.8	271.8
52.5°	307.2	295.4	276.1	254.0	245.1	236.2	226.0	215.6	211.2	209.8	209.8
55°	264.4	251.1	231.9	206.8	199.4	189.0	175.8	163.9	158.0	156.5	159.5
57.5°	226.0	214.1	192.0	166.9	158.0	147.8	134.4	124.0	116.6	115.2	116.6
60°	195.0	178.8	159.5	135.9	124.0	115.2	100.4	91.6	84.1	81.2	82.8
62.5°	163.9	149.1	130.0	106.4	97.5	88.6	75.4	65.0	59.1	57.6	59.1
65°	140.2	125.5	107.9	87.1	78.2	69.4	57.6	47.2	42.9	41.4	42.9
67.5°	116.6	103.4	88.6	69.4	62.0	54.6	42.9	35.5	29.5	28.0	29.5
70°	94.5	82.8	67.9	54.6	47.2	41.4	32.5	25.1	20.6	19.2	20.6
72.5°	70.9	62.0	51.8	39.9	35.5	31.0	23.6	17.8	14.8	13.2	14.8
75°	51.8	44.2	36.9	28.0	25.1	22.1	16.2	11.9	10.4	8.9	10.4
77.5°	35.5	31.0	25.1	19.2	16.2	14.8	10.4	8.9	7.4	5.9	5.9
80°	23.6	20.6	16.2	13.2	11.9	10.4	7.4	5.9	4.4	4.4	4.4
82.5°	14.8	11.9	10.4	7.4	5.9	5.9	4.4	3.0	3.0	3.0	3.0
85°	8.9	7.4	5.9	4.4	3.0	3.0	1.5	1.5	1.5	1.5	1.5
87.5°	4.4	3.0	3.0	1.5	1.5	1.5	1.5	1.5	0.0	0.0	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°	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1
2.5°	1044.1	1041.2	1041.2	1042.8	1044.1	1045.6	1042.8	1041.2	1041.2	1045.6	1042.8
5°	1044.1	1042.8	1042.8	1042.8	1045.6	1047.1	1044.1	1042.8	1044.1	1048.6	1047.1
7.5°	1048.6	1045.6	1047.1	1047.1	1048.6	1051.5	1048.6	1047.1	1048.6	1053.0	1050.1
10°	1051.5	1048.6	1050.1	1048.6	1053.0	1054.5	1051.5	1050.1	1051.5	1057.5	1056.0
12.5°	1053.0	1051.5	1051.5	1050.1	1054.5	1056.0	1053.0	1051.5	1053.0	1057.5	1056.0
15°	1050.1	1048.6	1048.6	1048.6	1051.5	1054.5	1050.1	1048.6	1048.6	1053.0	1051.5
17.5°	1044.1	1041.2	1041.2	1041.2	1042.8	1044.1	1039.8	1038.2	1036.8	1041.2	1039.8
20°	1033.9	1030.9	1027.9	1027.9	1029.4	1029.4	1026.5	1022.0	1022.0	1023.5	1020.5
22.5°	1014.6	1013.1	1010.2	1008.8	1011.6	1010.2	1004.2	999.9	998.4	999.9	996.9
25°	988.0	985.1	983.6	982.1	983.6	982.1	976.2	970.4	970.4	970.4	965.9
27.5°	951.1	948.1	946.8	946.8	948.1	945.2	939.2	933.4	930.5	930.5	926.0
30°	903.9	903.9	902.4	900.9	899.4	899.4	890.6	884.6	881.8	883.1	880.2
32.5°	846.2	844.8	843.2	838.9	840.4	838.9	831.5	827.1	822.6	819.6	818.2
35°	772.4	772.4	771.0	771.0	771.0	769.5	762.1	757.6	754.8	753.2	748.8
37.5°	691.2	689.8	688.2	688.2	688.2	688.2	683.8	679.4	679.4	677.9	675.0
40°	599.6	601.1	602.6	601.1	605.5	610.0	604.0	601.1	599.6	604.0	598.1
42.5°	511.0	509.5	516.9	518.4	518.4	525.8	527.2	528.8	527.2	530.2	530.2
45°	425.4	423.9	431.2	434.2	441.6	450.5	454.9	462.2	465.2	468.1	465.2
47.5°	344.1	350.0	355.9	363.4	369.2	384.0	392.9	400.2	403.2	407.6	407.6
50°	276.1	282.1	292.4	298.4	305.8	323.5	338.2	348.5	354.5	358.9	357.4
52.5°	212.6	223.0	236.2	242.2	252.5	273.2	289.5	301.2	308.6	313.1	314.6
55°	163.9	172.8	186.1	195.0	205.2	227.5	248.1	261.4	268.8	274.8	277.6
57.5°	121.1	131.5	146.2	153.6	165.4	190.5	208.2	224.5	233.4	240.8	242.2
60°	88.6	99.0	112.2	121.1	132.9	158.0	178.8	193.5	203.8	209.8	212.6
62.5°	63.5	73.9	87.1	96.0	106.4	128.5	149.1	163.9	174.2	181.6	186.1
65°	45.8	56.1	69.4	76.8	85.6	106.4	125.5	140.2	150.6	159.5	162.5
67.5°	34.0	41.4	53.1	60.5	69.4	85.6	101.9	115.2	125.5	132.9	135.9
70°	25.1	31.0	41.4	45.8	51.8	66.5	79.8	91.6	100.4	106.4	109.2
72.5°	17.8	22.1	29.5	34.0	38.4	50.2	60.5	69.4	75.4	81.2	84.1
75°	11.9	14.8	20.6	23.6	26.6	35.5	42.9	50.2	54.6	59.1	60.5
77.5°	7.4	10.4	14.8	16.2	19.2	23.6	29.5	34.0	36.9	39.9	42.9
80°	4.4	5.9	8.9	10.4	11.9	16.2	19.2	22.1	25.1	28.0	29.5
82.5°	3.0	4.4	5.9	5.9	7.4	8.9	11.9	14.8	16.2	17.8	19.2
85°	1.5	1.5	3.0	3.0	4.4	4.4	5.9	7.4	8.9	10.4	11.9
87.5°	1.5	1.5	1.5	1.5	3.0	3.0	4.4	4.4	4.4	5.9	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



TEST NUMBER: P252684

CATALOG NUMBER: LE_6B20D010 EC6B10209050 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1	1044.1
2.5°	1039.8	1044.1	1039.8	1042.8	1041.2	1041.2	1039.8	1041.2
5°	1044.1	1050.1	1044.1	1048.6	1045.6	1045.6	1045.6	1047.1
7.5°	1048.6	1054.5	1050.1	1054.5	1053.0	1051.5	1051.5	1054.5
10°	1053.0	1057.5	1054.5	1059.0	1057.5	1056.0	1056.0	1059.0
12.5°	1053.0	1059.0	1056.0	1060.4	1059.0	1057.5	1057.5	1059.0
15°	1048.6	1056.0	1051.5	1056.0	1054.5	1053.0	1053.0	1056.0
17.5°	1035.2	1041.2	1038.2	1041.2	1041.2	1039.8	1041.2	1042.8
20°	1017.6	1022.0	1019.0	1022.0	1022.0	1019.0	1020.5	1022.0
22.5°	992.5	996.9	994.0	996.9	995.4	994.0	994.0	992.5
25°	961.5	967.4	963.0	965.9	963.0	960.0	960.0	961.5
27.5°	923.1	927.5	921.6	924.5	921.6	918.6	918.6	917.1
30°	872.9	874.4	869.9	872.9	869.9	868.4	865.5	865.5
32.5°	812.2	813.8	809.4	809.4	806.4	806.4	800.5	804.9
35°	741.4	742.9	741.4	739.9	735.5	734.0	732.5	732.5
37.5°	667.5	667.5	663.1	661.6	658.8	655.8	657.2	652.8
40°	592.2	590.8	586.4	587.8	586.4	581.9	580.4	579.0
42.5°	521.4	521.4	516.9	518.4	515.5	514.0	509.5	511.0
45°	459.4	459.4	454.9	454.9	453.4	449.0	450.5	447.5
47.5°	403.2	403.2	401.8	401.8	397.2	395.8	395.8	395.8
50°	354.5	354.5	354.5	354.5	353.0	351.5	350.0	351.5
52.5°	313.1	316.0	314.6	314.6	313.1	311.6	310.1	310.1
55°	276.1	277.6	277.6	279.1	277.6	276.1	277.6	276.1
57.5°	243.8	246.6	246.6	246.6	246.6	246.6	245.1	243.8
60°	215.6	217.1	217.1	218.6	218.6	218.6	217.1	217.1
62.5°	187.6	190.5	192.0	192.0	193.5	192.0	192.0	192.0
65°	165.4	168.4	169.9	168.4	169.9	169.9	168.4	168.4
67.5°	138.9	141.8	141.8	141.8	141.8	143.2	141.8	141.8
70°	112.2	115.2	113.8	115.2	115.2	115.2	115.2	115.2
72.5°	85.6	87.1	88.6	88.6	90.1	88.6	88.6	88.6
75°	62.0	65.0	65.0	65.0	65.0	66.5	66.5	66.5
77.5°	44.2	45.8	45.8	47.2	47.2	47.2	47.2	48.8
80°	31.0	31.0	32.5	32.5	34.0	34.0	34.0	34.0
82.5°	20.6	22.1	22.1	22.1	22.1	22.1	22.1	22.1
85°	11.9	13.2	13.2	13.2	13.2	14.8	14.8	14.8
87.5°	7.4	7.4	7.4	7.4	7.4	7.4	5.9	5.9
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)