

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: P252582

Luminaire Tested: **LE_6B20D010 EC6B10209730 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10209730 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1895.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

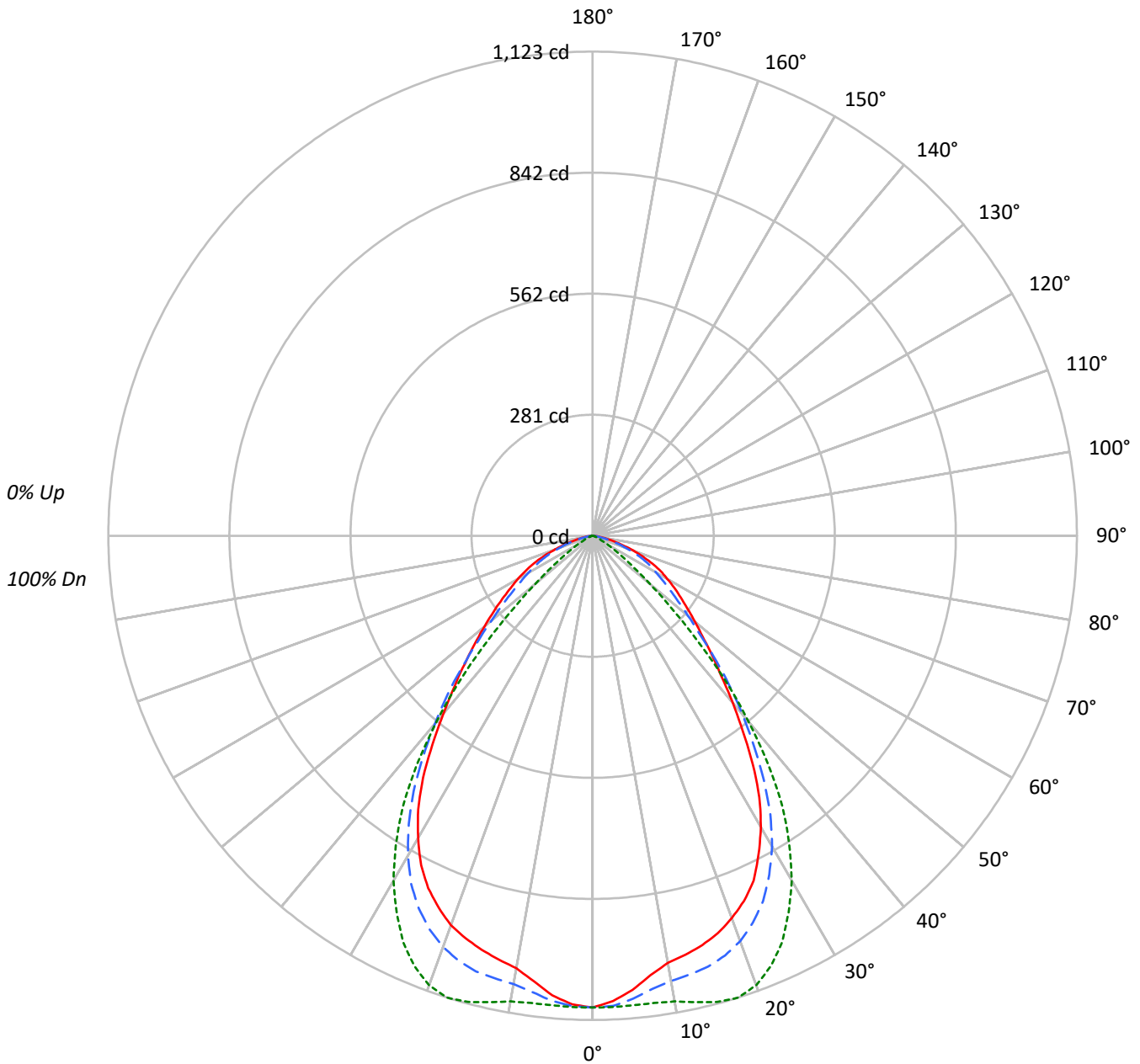
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	71380	71380	71380
5°	69249	71574	70074
10°	66611	72647	67453
15°	66380	75607	67144
20°	65512	77009	66734
25°	63556	74850	64923
30°	58790	69563	60982
35°	51578	61151	54596
40°	42975	47940	45777
45°	36177	31628	38622
50°	31322	17336	33250
55°	28334	9213	29061
60°	26083	4776	26083
65°	23619	2547	23032
70°	19056	1450	17625
75°	13082	958	12125
80°	8566	451	7589
85°	5689	898	4791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	5.4
10°-20°	295.0	15.6
20°-30°	435.9	23.0
30°-40°	440.3	23.2
40°-50°	303.5	16.0
50°-60°	174.3	9.2
60°-70°	101.4	5.4
70°-80°	37.0	2.0
80°-90°	5.6	0.3
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°	832.9	44.0
0°-40°	1273.2	67.2
0°-60°	1750.9	92.4
0°-90°	1895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1895.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1094	1094	1094	1094	1094	
5°	1057	1078	1093	1083	1070	99
15°	983	1035	1119	1046	994	277
25°	883	935	1040	954	902	402
35°	648	692	768	724	686	402
45°	392	397	343	422	419	305
55°	249	219	81	228	256	224
65°	153	129	16	128	149	150
75°	52	42	4	40	48	58
85°	8	4	1	5	6	10
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°	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1
2.5°	1080.1	1081.4	1082.8	1081.4	1082.8	1087.8	1084.0	1086.5	1086.5	1087.8	1091.5
5°	1057.4	1057.4	1059.9	1058.6	1062.5	1067.5	1063.8	1067.5	1068.8	1071.2	1077.6
7.5°	1028.2	1028.2	1029.6	1029.6	1034.6	1039.8	1037.1	1042.2	1047.2	1052.4	1059.9
10°	1005.5	1008.1	1008.1	1009.4	1014.4	1020.8	1019.5	1025.8	1030.9	1038.4	1048.5
12.5°	995.4	996.6	996.6	999.2	1004.2	1010.6	1009.4	1015.6	1023.2	1032.1	1042.2
15°	982.8	985.2	984.0	986.6	991.6	998.0	996.6	1003.0	1011.9	1020.8	1034.6
17.5°	966.4	967.6	968.9	968.9	973.9	979.0	979.0	985.2	995.4	1005.5	1020.8
20°	943.6	946.1	946.1	947.4	951.1	958.8	957.5	963.8	973.9	984.0	1000.5
22.5°	917.0	918.2	918.2	919.5	925.9	929.6	930.9	936.0	944.9	956.2	971.4
25°	882.9	884.1	882.9	886.6	889.1	896.8	894.2	900.5	910.6	919.5	934.8
27.5°	833.5	836.0	836.0	837.4	843.6	850.0	850.0	856.2	865.1	871.5	886.6
30°	780.4	784.2	780.4	786.8	789.2	794.4	798.1	801.9	809.5	818.4	832.2
32.5°	719.8	718.4	719.8	722.2	729.8	733.6	736.1	739.9	747.5	755.1	766.5
35°	647.6	650.1	651.4	656.5	656.5	662.8	664.0	666.6	678.0	683.0	691.9
37.5°	571.8	574.2	575.5	578.0	583.1	585.6	589.4	593.2	600.8	609.6	614.8
40°	504.6	504.6	505.9	508.5	512.2	513.5	517.4	522.4	527.4	535.0	540.1
42.5°	441.4	442.8	441.4	444.0	447.8	452.8	451.5	457.9	459.1	464.2	468.0
45°	392.1	392.1	389.6	392.1	392.1	397.1	395.9	398.4	397.1	399.6	397.1
47.5°	345.2	346.6	345.2	346.6	346.6	346.6	347.9	345.2	346.6	342.8	335.1
50°	308.6	309.9	307.4	308.6	307.4	306.1	307.4	303.5	302.2	297.2	289.6
52.5°	277.0	275.8	274.5	274.5	274.5	273.2	272.0	268.1	264.4	259.2	250.4
55°	249.1	247.9	246.6	246.6	244.1	242.9	242.9	239.0	235.2	228.9	218.9
57.5°	223.9	222.6	221.4	221.4	220.1	217.5	217.5	213.8	208.8	201.1	192.2
60°	199.9	199.9	199.9	198.6	198.6	196.0	196.0	192.2	187.2	179.6	169.5
62.5°	178.4	177.1	177.1	177.1	177.1	175.8	174.5	172.0	167.0	159.4	150.5
65°	153.0	153.0	153.0	153.0	151.8	151.8	151.8	148.0	145.5	137.9	129.0
67.5°	125.2	125.2	125.2	125.2	124.0	125.2	125.2	122.8	120.1	112.6	105.0
70°	99.9	98.6	97.4	98.6	97.4	97.4	98.6	96.1	94.9	88.5	81.0
72.5°	73.4	74.6	73.4	73.4	73.4	72.1	73.4	72.1	69.6	64.5	59.5
75°	51.9	53.1	53.1	51.9	51.9	51.9	50.6	50.6	48.1	44.2	41.8
77.5°	35.4	35.4	35.4	35.4	34.1	34.1	34.1	32.9	31.6	29.1	26.5
80°	22.8	22.8	22.8	22.8	21.5	21.5	21.5	20.2	20.2	17.8	15.1
82.5°	13.9	13.9	13.9	13.9	13.9	13.9	12.6	12.6	11.4	10.1	8.9
85°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.4	6.4	5.0	3.8
87.5°	2.5	2.5	3.8	3.8	3.8	3.8	3.8	3.8	2.5	2.5	2.5
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1
2.5°	1089.0	1090.2	1090.2	1090.2	1094.1	1095.4	1091.5	1087.8	1095.4	1094.1	1096.6
5°	1076.4	1080.1	1082.8	1084.0	1087.8	1090.2	1086.5	1085.2	1091.5	1092.9	1094.1
7.5°	1061.2	1067.5	1073.9	1076.4	1081.4	1084.0	1082.8	1082.8	1090.2	1092.9	1092.9
10°	1051.1	1059.9	1067.5	1073.9	1080.1	1084.0	1084.0	1085.2	1094.1	1096.6	1099.1
12.5°	1048.5	1059.9	1070.0	1078.9	1084.0	1090.2	1091.5	1095.4	1104.2	1108.0	1108.0
15°	1042.2	1057.4	1070.0	1081.4	1089.0	1096.6	1099.1	1106.8	1116.9	1119.4	1121.9
17.5°	1030.9	1046.0	1061.2	1075.1	1085.2	1091.5	1099.1	1106.8	1119.4	1123.1	1124.4
20°	1010.6	1028.2	1043.5	1057.4	1067.5	1076.4	1084.0	1092.9	1104.2	1109.2	1110.5
22.5°	980.2	998.0	1013.1	1028.2	1038.4	1046.0	1053.6	1063.8	1075.1	1080.1	1080.1
25°	943.6	960.0	976.5	987.9	998.0	1006.8	1010.6	1022.0	1033.4	1039.8	1039.8
27.5°	896.8	912.0	927.1	939.8	946.1	953.6	960.0	970.1	979.0	984.0	989.1
30°	837.4	852.5	866.4	879.0	886.6	894.2	900.5	908.1	917.0	923.4	924.6
32.5°	772.8	785.5	799.4	812.0	819.6	822.1	828.5	836.0	843.6	848.8	850.0
35°	702.0	710.9	719.8	731.1	738.6	738.6	745.0	750.0	756.4	767.8	765.2
37.5°	618.5	631.1	637.5	641.2	646.4	651.4	652.6	659.0	666.6	669.1	672.9
40°	540.1	543.9	547.6	547.6	552.8	552.8	552.8	554.0	561.6	562.9	567.9
42.5°	461.6	461.6	457.9	454.1	455.4	454.1	447.8	447.8	451.5	456.6	456.6
45°	388.2	379.5	368.1	359.2	352.9	350.4	342.8	342.8	341.5	342.8	347.9
47.5°	326.4	311.1	292.1	274.5	268.1	263.1	251.8	246.6	244.1	245.4	247.9
50°	274.5	258.0	236.5	215.0	203.6	197.4	183.4	174.5	173.2	170.8	175.8
52.5°	236.5	216.2	193.5	168.2	156.9	146.8	131.5	124.0	118.9	118.9	120.1
55°	203.6	182.1	156.9	131.5	120.1	112.6	97.4	87.2	82.2	81.0	84.8
57.5°	175.8	155.6	130.2	105.0	93.6	84.8	69.6	60.8	56.9	54.4	55.6
60°	154.2	134.1	108.8	84.8	74.6	64.5	51.9	41.8	36.6	36.6	38.0
62.5°	134.1	115.1	92.4	69.6	60.8	51.9	38.0	29.1	25.2	24.0	25.2
65°	113.9	96.1	77.1	58.1	49.4	41.8	30.4	22.8	17.8	16.5	17.8
67.5°	92.4	78.4	62.0	46.8	39.2	32.9	22.8	16.5	12.6	11.4	12.6
70°	72.1	59.5	46.8	34.1	29.1	24.0	16.5	12.6	8.9	7.6	8.9
72.5°	51.9	43.0	32.9	24.0	20.2	16.5	11.4	8.9	6.4	5.0	6.4
75°	35.4	29.1	21.5	15.1	12.6	11.4	7.6	5.0	3.8	3.8	3.8
77.5°	22.8	17.8	13.9	10.1	7.6	6.4	3.8	2.5	2.5	2.5	2.5
80°	12.6	10.1	7.6	5.0	3.8	3.8	2.5	2.5	1.2	1.2	1.2
82.5°	7.6	5.0	3.8	2.5	2.5	1.2	1.2	1.2	1.2	1.2	1.2
85°	3.8	2.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	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°	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1
2.5°	1091.5	1092.9	1089.0	1094.1	1090.2	1095.4	1095.4	1090.2	1091.5	1089.0	1094.1
5°	1089.0	1089.0	1086.5	1090.2	1085.2	1090.2	1089.0	1080.1	1082.8	1077.6	1082.8
7.5°	1089.0	1086.5	1082.8	1086.5	1080.1	1084.0	1078.9	1070.0	1067.5	1061.2	1061.2
10°	1092.9	1089.0	1084.0	1085.2	1078.9	1080.1	1072.6	1059.9	1056.1	1048.5	1046.0
12.5°	1101.6	1097.9	1090.2	1092.9	1084.0	1084.0	1073.9	1058.6	1051.1	1041.0	1038.4
15°	1114.4	1108.0	1099.1	1100.4	1091.5	1086.5	1073.9	1056.1	1046.0	1032.1	1028.2
17.5°	1116.9	1110.5	1099.1	1099.1	1087.8	1081.4	1066.2	1046.0	1033.4	1019.5	1011.9
20°	1102.9	1096.6	1084.0	1082.8	1072.6	1063.8	1047.2	1027.0	1014.4	999.2	992.9
22.5°	1073.9	1066.2	1054.9	1053.6	1043.5	1038.4	1020.8	1000.5	987.9	972.6	967.6
25°	1030.9	1027.0	1015.6	1014.4	1005.5	999.2	984.0	965.1	953.6	938.5	933.5
27.5°	980.2	976.5	965.1	965.1	955.0	951.1	937.2	919.5	910.6	896.8	890.5
30°	919.5	914.5	908.1	906.9	898.0	894.2	881.6	865.1	856.2	844.9	842.4
32.5°	847.4	843.6	839.9	838.6	829.8	825.9	817.1	800.6	793.0	782.9	779.1
35°	764.0	761.4	757.6	756.4	752.6	748.8	739.9	727.2	723.5	715.9	712.1
37.5°	667.9	670.4	667.9	667.9	664.0	665.2	657.8	650.1	646.4	641.2	638.8
40°	564.1	569.1	573.0	573.0	571.8	576.8	575.5	569.1	567.9	565.4	564.1
42.5°	459.1	461.6	469.2	474.2	473.0	485.8	487.0	492.0	495.9	493.2	494.5
45°	349.1	356.6	366.8	371.9	378.1	394.6	403.5	413.6	422.5	427.5	426.2
47.5°	251.8	260.5	272.0	279.5	290.9	311.1	333.9	346.6	359.2	365.5	371.9
50°	182.1	191.0	204.9	216.2	223.9	251.8	275.8	292.1	306.1	315.0	321.2
52.5°	127.8	137.9	153.0	163.1	174.5	201.1	228.9	247.9	263.1	274.5	280.8
55°	88.5	99.9	113.9	124.0	136.6	164.4	191.0	211.2	227.6	237.8	245.4
57.5°	62.0	72.1	86.0	94.9	107.5	134.1	160.6	180.9	197.4	207.4	216.2
60°	41.8	51.9	65.8	74.6	84.8	111.2	135.4	156.9	172.0	182.1	191.0
62.5°	29.1	38.0	51.9	60.8	69.6	92.4	115.1	134.1	149.2	160.6	168.2
65°	22.8	30.4	41.8	49.4	58.1	77.1	96.1	112.6	127.8	139.1	144.2
67.5°	16.5	24.0	32.9	39.2	45.5	62.0	78.4	91.1	105.0	113.9	120.1
70°	11.4	16.5	24.0	29.1	34.1	46.8	59.5	70.9	81.0	87.2	92.4
72.5°	8.9	11.4	16.5	20.2	24.0	32.9	43.0	51.9	59.5	64.5	69.6
75°	5.0	7.6	11.4	13.9	16.5	22.8	29.1	35.4	40.5	44.2	46.8
77.5°	2.5	3.8	6.4	7.6	10.1	13.9	19.0	22.8	26.5	29.1	31.6
80°	2.5	2.5	3.8	3.8	5.0	7.6	10.1	12.6	15.1	17.8	19.0
82.5°	1.2	1.2	2.5	2.5	2.5	3.8	5.0	7.6	8.9	10.1	11.4
85°	1.2	1.2	1.2	1.2	1.2	2.5	2.5	3.8	5.0	6.4	6.4
87.5°	0.0	0.0	1.2	1.2	1.2	1.2	1.2	2.5	2.5	2.5	3.8
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: P252582

CATALOG NUMBER: LE_6B20D010 EC6B10209730 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1	1094.1
2.5°	1090.2	1092.9	1091.5	1094.1	1090.2	1089.0	1091.5	1087.8
5°	1076.4	1077.6	1076.4	1076.4	1073.9	1071.2	1073.9	1070.0
7.5°	1054.9	1054.9	1051.1	1051.1	1046.0	1043.5	1043.5	1042.2
10°	1037.1	1033.4	1029.6	1030.9	1023.2	1020.8	1019.5	1018.2
12.5°	1028.2	1025.8	1019.5	1019.5	1011.9	1009.4	1008.1	1006.8
15°	1018.2	1013.1	1008.1	1006.8	1000.5	998.0	996.6	994.1
17.5°	1000.5	996.6	990.4	990.4	984.0	982.8	980.2	979.0
20°	981.5	976.5	971.4	971.4	963.8	963.8	960.0	961.2
22.5°	955.0	951.1	946.1	946.1	939.8	938.5	934.8	933.5
25°	923.4	918.2	914.5	913.2	908.1	905.6	904.4	901.9
27.5°	881.6	877.8	874.0	871.5	865.1	863.9	860.1	861.4
30°	829.8	827.2	825.9	823.4	815.9	813.2	813.2	809.5
32.5°	772.8	769.0	766.5	762.8	756.4	755.1	751.2	752.6
35°	703.2	698.1	694.4	695.6	688.1	686.8	684.2	685.5
37.5°	631.1	626.1	621.0	619.8	613.5	613.5	609.6	609.6
40°	556.5	551.5	548.9	548.9	541.4	542.6	538.9	537.5
42.5°	489.5	484.4	483.1	481.9	478.1	476.9	473.0	474.2
45°	426.2	425.0	425.0	422.5	418.6	417.4	418.6	418.6
47.5°	370.6	371.9	370.6	370.6	368.1	370.6	368.1	369.4
50°	323.8	326.4	326.4	326.4	325.0	326.4	326.4	327.6
52.5°	284.6	288.4	287.1	288.4	287.1	289.6	288.4	289.6
55°	250.4	253.0	254.2	255.5	255.5	255.5	255.5	255.5
57.5°	218.9	222.6	223.9	225.1	225.1	227.6	225.1	225.1
60°	193.5	197.4	198.6	199.9	199.9	201.1	198.6	199.9
62.5°	170.8	174.5	174.5	175.8	175.8	175.8	173.2	174.5
65°	148.0	149.2	150.5	150.5	149.2	149.2	148.0	149.2
67.5°	122.8	124.0	122.8	122.8	121.4	121.4	118.9	120.1
70°	94.9	94.9	96.1	94.9	93.6	94.9	93.6	92.4
72.5°	70.9	70.9	70.9	69.6	69.6	68.2	69.6	69.6
75°	48.1	48.1	49.4	49.4	49.4	49.4	48.1	48.1
77.5°	31.6	31.6	31.6	31.6	32.9	31.6	31.6	31.6
80°	20.2	20.2	21.5	21.5	20.2	20.2	20.2	20.2
82.5°	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
85°	7.6	7.6	7.6	7.6	6.4	6.4	6.4	6.4
87.5°	3.8	3.8	3.8	3.8	3.8	3.8	2.5	2.5
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)