

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: P252675

Luminaire Tested: **LE_6B20D010 EC6B10208030 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252675
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 EC6B10208030 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2378.8 lumens
Efficiency: N/A
Efficacy: 114.4 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

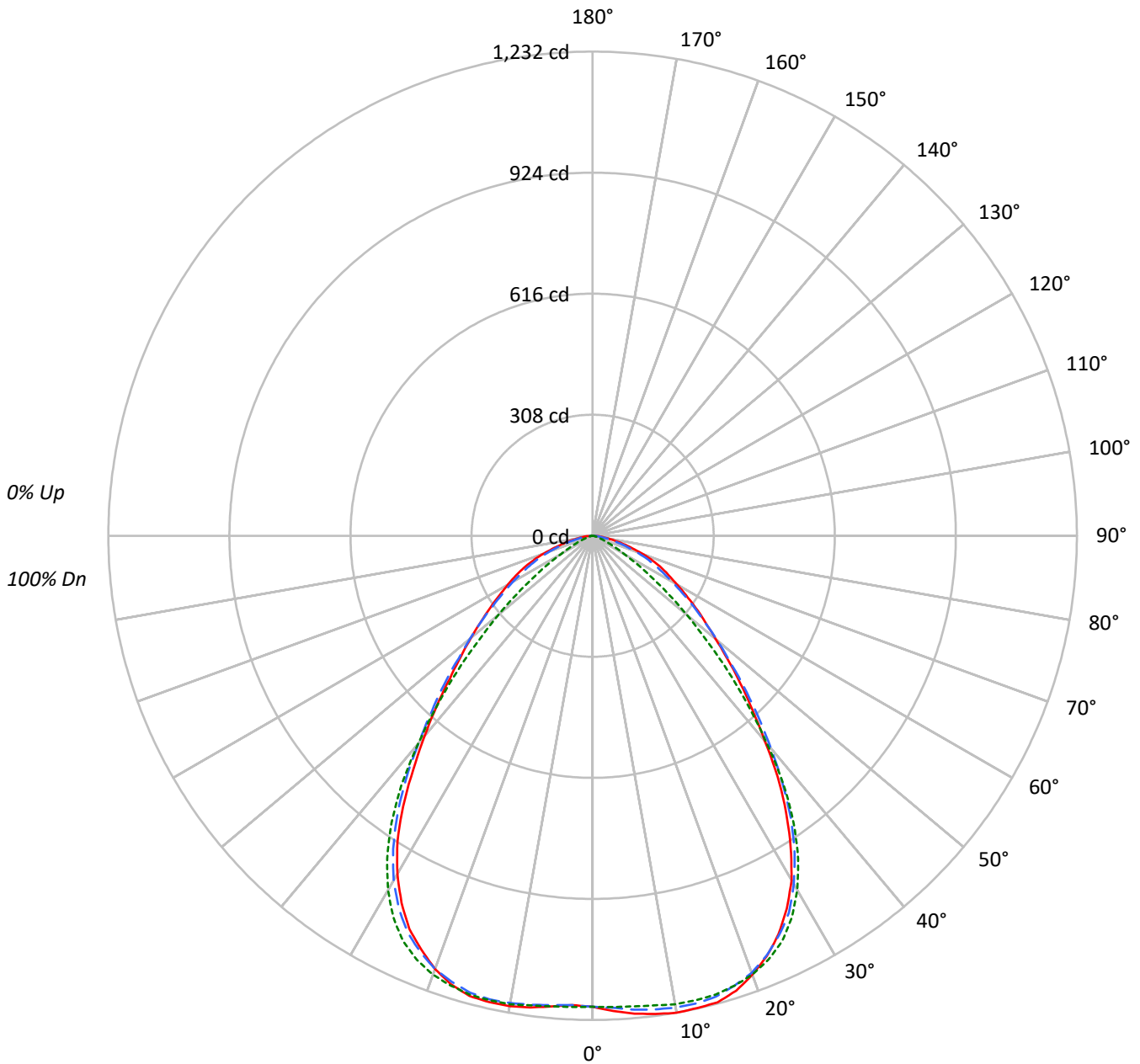
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	78191	78191	78191
5°	79930	78712	78712
10°	81643	80185	80517
15°	83009	81631	81861
20°	82494	82494	81439
25°	80537	81998	79436
30°	76237	78415	74836
35°	68319	71011	66965
40°	58040	58756	56593
45°	49103	44887	47387
50°	41461	31657	40954
55°	36443	20428	36057
60°	32294	12161	32503
65°	29825	7333	29825
70°	25866	4197	25217
75°	20519	2546	19208
80°	15254	1916	14653
85°	13923	1347	12725



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	4.9
10°-20°	341.5	14.4
20°-30°	513.6	21.6
30°-40°	540.0	22.7
40°-50°	403.4	17.0
50°-60°	251.1	10.6
60°-70°	142.8	6.0
70°-80°	58.8	2.5
80°-90°	12.2	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°	970.5	40.8
0°-40°	1510.4	63.5
0°-60°	2165.0	91.0
0°-90°	2378.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2378.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1198	1198	1198	1198	1198	
5°	1220	1210	1202	1198	1202	117
15°	1229	1214	1209	1204	1212	346
25°	1119	1122	1139	1114	1104	512
35°	858	880	892	866	841	532
45°	532	544	486	534	514	412
55°	320	314	180	308	317	288
65°	193	173	48	173	193	190
75°	81	64	10	63	76	88
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°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1210.4	1208.6	1210.4	1207.0	1205.2	1205.2	1207.0	1203.5	1201.9	1203.5	1201.9
5°	1220.5	1217.1	1218.8	1217.1	1213.8	1213.8	1215.4	1210.4	1210.4	1212.0	1210.4
7.5°	1227.2	1227.2	1227.2	1223.9	1222.2	1220.5	1223.9	1218.8	1217.1	1217.1	1215.4
10°	1232.4	1230.6	1232.4	1229.0	1225.6	1223.9	1227.2	1223.9	1220.5	1223.9	1218.8
12.5°	1230.6	1230.6	1230.6	1229.0	1225.6	1223.9	1227.2	1222.2	1220.5	1222.2	1218.8
15°	1229.0	1223.9	1225.6	1223.9	1218.8	1218.8	1220.5	1215.4	1212.0	1217.1	1213.8
17.5°	1213.8	1210.4	1212.0	1208.6	1205.2	1203.5	1205.2	1203.5	1200.1	1203.5	1200.1
20°	1188.2	1188.2	1190.0	1186.6	1183.2	1181.5	1184.9	1181.5	1178.1	1183.2	1183.2
22.5°	1157.8	1157.8	1157.8	1156.1	1154.4	1154.4	1154.4	1152.8	1151.0	1154.4	1156.1
25°	1118.8	1117.1	1118.8	1120.5	1118.8	1117.1	1118.8	1118.8	1115.4	1122.1	1122.1
27.5°	1069.6	1069.6	1073.0	1071.4	1071.4	1069.6	1073.0	1073.0	1071.4	1076.4	1081.5
30°	1012.0	1008.6	1012.0	1012.0	1013.8	1013.8	1015.4	1015.4	1015.4	1020.5	1023.9
32.5°	937.4	939.1	944.2	942.5	940.8	945.9	945.9	949.2	951.0	954.4	956.0
35°	857.8	859.4	859.4	861.1	864.5	861.1	869.6	867.9	869.6	876.4	879.8
37.5°	773.0	767.9	776.4	773.0	774.6	774.6	778.1	779.8	784.9	793.4	793.4
40°	681.5	683.1	686.5	688.2	689.9	689.9	689.9	695.0	696.8	706.9	705.1
42.5°	601.8	601.8	605.1	606.9	606.9	606.9	606.9	612.0	615.4	618.8	622.1
45°	532.2	527.2	530.6	530.6	534.0	532.2	535.6	539.0	540.8	545.9	544.1
47.5°	466.1	464.5	466.1	467.9	466.1	467.9	469.5	471.2	473.0	473.0	473.0
50°	408.5	408.5	410.2	411.9	411.9	411.9	411.9	413.6	413.6	417.0	413.6
52.5°	361.1	362.8	362.8	361.1	362.8	362.8	364.5	364.5	362.8	362.8	357.6
55°	320.4	318.6	320.4	318.6	320.4	320.4	318.6	318.6	317.0	315.2	313.6
57.5°	281.4	281.4	281.4	281.4	279.8	281.4	279.8	278.0	278.0	274.6	269.5
60°	247.5	247.5	247.5	247.5	247.5	245.8	247.5	245.8	242.4	239.0	232.2
62.5°	218.6	217.0	218.6	217.0	217.0	215.2	215.2	213.6	210.2	206.8	200.0
65°	193.2	195.0	193.2	193.2	191.5	189.9	189.9	188.1	183.1	179.6	172.9
67.5°	166.1	164.4	164.4	164.4	162.8	162.8	162.8	159.4	156.0	150.9	144.1
70°	135.6	135.6	135.6	133.9	133.9	132.2	132.2	130.5	127.1	123.8	115.2
72.5°	106.8	106.8	106.8	103.4	105.1	103.4	103.4	100.0	98.4	93.2	88.1
75°	81.4	81.4	79.6	79.6	78.0	76.2	76.2	74.6	72.9	69.5	64.4
77.5°	59.4	59.4	59.4	57.6	56.0	54.2	54.2	52.5	50.9	49.1	45.8
80°	40.6	40.6	40.6	40.6	39.0	37.2	37.2	35.6	35.6	33.9	30.5
82.5°	27.1	27.1	27.1	27.1	25.4	25.4	25.4	23.8	22.0	22.0	18.6
85°	18.6	18.6	17.0	17.0	17.0	17.0	15.2	15.2	13.5	11.9	11.9
87.5°	10.1	10.1	10.1	10.1	8.5	8.5	8.5	8.5	6.8	6.8	5.1
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°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1207.0	1207.0	1205.2	1200.1	1201.9	1200.1	1201.9	1200.1	1195.1	1200.1	1195.1
5°	1213.8	1215.4	1212.0	1205.2	1207.0	1205.2	1205.2	1203.5	1198.5	1201.9	1198.5
7.5°	1220.5	1218.8	1217.1	1210.4	1212.0	1210.4	1210.4	1207.0	1201.9	1205.2	1200.1
10°	1223.9	1223.9	1220.5	1213.8	1213.8	1212.0	1213.8	1212.0	1205.2	1210.4	1207.0
12.5°	1223.9	1222.2	1222.2	1213.8	1215.4	1213.8	1215.4	1212.0	1207.0	1210.4	1208.6
15°	1218.8	1218.8	1217.1	1208.6	1210.4	1210.4	1212.0	1208.6	1203.5	1208.6	1205.2
17.5°	1208.6	1208.6	1207.0	1200.1	1203.5	1203.5	1205.2	1201.9	1196.8	1200.1	1200.1
20°	1188.2	1190.0	1190.0	1184.9	1188.2	1188.2	1190.0	1188.2	1186.6	1188.2	1184.9
22.5°	1164.5	1168.0	1168.0	1162.9	1166.2	1166.2	1171.4	1169.6	1166.2	1168.0	1166.2
25°	1129.0	1132.4	1135.8	1132.4	1135.8	1135.8	1140.9	1139.1	1135.8	1139.1	1134.0
27.5°	1088.2	1090.0	1093.4	1090.0	1095.0	1093.4	1098.5	1096.8	1091.6	1096.8	1095.0
30°	1030.6	1037.4	1042.5	1037.4	1042.5	1042.5	1045.9	1044.2	1042.5	1040.9	1040.9
32.5°	966.2	973.0	973.0	971.4	974.8	974.8	976.4	973.0	971.4	973.0	974.8
35°	886.5	890.0	893.4	891.6	893.4	895.0	893.4	895.0	890.0	891.6	891.6
37.5°	800.1	803.5	803.5	798.4	801.8	801.8	798.4	798.4	795.0	798.4	791.6
40°	708.6	705.1	706.9	703.5	700.1	700.1	698.4	691.6	688.2	689.9	691.6
42.5°	618.8	618.8	613.6	605.1	596.8	596.8	591.6	588.2	581.4	584.9	583.1
45°	542.5	534.0	527.2	513.6	508.5	505.1	496.6	488.2	484.8	486.5	484.8
47.5°	469.5	462.8	445.9	427.1	422.1	417.0	406.9	396.6	393.2	389.9	389.9
50°	408.5	396.6	378.0	357.6	349.2	340.8	327.1	317.0	310.2	311.9	311.9
52.5°	352.6	339.0	317.0	291.6	281.4	271.2	259.4	247.5	242.4	240.8	240.8
55°	303.4	288.1	266.1	237.4	228.9	217.0	201.8	188.1	181.4	179.6	183.1
57.5°	259.4	245.8	220.4	191.5	181.4	169.5	154.2	142.4	133.9	132.2	133.9
60°	223.8	205.1	183.1	156.0	142.4	132.2	115.2	105.1	96.6	93.2	94.9
62.5°	188.1	171.2	149.1	122.0	111.9	101.8	86.5	74.6	67.8	66.1	67.8
65°	161.0	144.1	123.8	100.0	89.9	79.6	66.1	54.2	49.1	47.5	49.1
67.5°	133.9	118.6	101.8	79.6	71.2	62.8	49.1	40.6	33.9	32.2	33.9
70°	108.5	94.9	78.0	62.8	54.2	47.5	37.2	28.9	23.8	22.0	23.8
72.5°	81.4	71.2	59.4	45.8	40.6	35.6	27.1	20.4	17.0	15.2	17.0
75°	59.4	50.9	42.4	32.2	28.9	25.4	18.6	13.5	11.9	10.1	11.9
77.5°	40.6	35.6	28.9	22.0	18.6	17.0	11.9	10.1	8.5	6.8	6.8
80°	27.1	23.8	18.6	15.2	13.5	11.9	8.5	6.8	5.1	5.1	5.1
82.5°	17.0	13.5	11.9	8.5	6.8	6.8	5.1	3.4	3.4	3.4	3.4
85°	10.1	8.5	6.8	5.1	3.4	3.4	1.8	1.8	1.8	1.8	1.8
87.5°	5.1	3.4	3.4	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°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1198.5	1195.1	1195.1	1196.8	1198.5	1200.1	1196.8	1195.1	1195.1	1200.1	1196.8
5°	1198.5	1196.8	1196.8	1196.8	1200.1	1201.9	1198.5	1196.8	1198.5	1203.5	1201.9
7.5°	1203.5	1200.1	1201.9	1201.9	1203.5	1207.0	1203.5	1201.9	1203.5	1208.6	1205.2
10°	1207.0	1203.5	1205.2	1203.5	1208.6	1210.4	1207.0	1205.2	1207.0	1213.8	1212.0
12.5°	1208.6	1207.0	1207.0	1205.2	1210.4	1212.0	1208.6	1207.0	1208.6	1213.8	1212.0
15°	1205.2	1203.5	1203.5	1203.5	1207.0	1210.4	1205.2	1203.5	1203.5	1208.6	1207.0
17.5°	1198.5	1195.1	1195.1	1195.1	1196.8	1198.5	1193.4	1191.6	1190.0	1195.1	1193.4
20°	1186.6	1183.2	1179.9	1179.9	1181.5	1181.5	1178.1	1173.0	1173.0	1174.8	1171.4
22.5°	1164.5	1162.9	1159.5	1157.8	1161.1	1159.5	1152.8	1147.6	1145.9	1147.6	1144.2
25°	1134.0	1130.6	1129.0	1127.2	1129.0	1127.2	1120.5	1113.8	1113.8	1113.8	1108.6
27.5°	1091.6	1088.2	1086.6	1086.6	1088.2	1084.9	1078.1	1071.4	1068.0	1068.0	1062.9
30°	1037.4	1037.4	1035.8	1034.0	1032.4	1032.4	1022.1	1015.4	1012.0	1013.8	1010.2
32.5°	971.4	969.6	967.9	962.9	964.5	962.9	954.4	949.2	944.2	940.8	939.1
35°	886.5	886.5	884.9	884.9	884.9	883.1	874.8	869.6	866.2	864.5	859.4
37.5°	793.4	791.6	789.9	789.9	789.9	789.9	784.9	779.8	779.8	778.1	774.6
40°	688.2	689.9	691.6	689.9	695.0	700.1	693.4	689.9	688.2	693.4	686.5
42.5°	586.5	584.9	593.2	595.0	595.0	603.5	605.1	606.9	605.1	608.5	608.5
45°	488.2	486.5	495.0	498.4	506.9	517.0	522.1	530.6	534.0	537.4	534.0
47.5°	395.0	401.8	408.5	417.0	423.8	440.8	450.9	459.4	462.8	467.9	467.9
50°	317.0	323.8	335.6	342.4	350.9	371.2	388.1	400.0	406.9	411.9	410.2
52.5°	244.1	256.0	271.2	278.0	289.9	313.6	332.2	345.8	354.2	359.4	361.1
55°	188.1	198.4	213.6	223.8	235.6	261.0	284.8	300.0	308.5	315.2	318.6
57.5°	139.0	150.9	167.9	176.2	189.9	218.6	239.0	257.6	267.9	276.2	278.0
60°	101.8	113.6	128.9	139.0	152.6	181.4	205.1	222.1	233.9	240.8	244.1
62.5°	72.9	84.8	100.0	110.1	122.0	147.5	171.2	188.1	200.0	208.5	213.6
65°	52.5	64.4	79.6	88.1	98.4	122.0	144.1	161.0	172.9	183.1	186.5
67.5°	39.0	47.5	61.0	69.5	79.6	98.4	117.0	132.2	144.1	152.6	156.0
70°	28.9	35.6	47.5	52.5	59.4	76.2	91.5	105.1	115.2	122.0	125.5
72.5°	20.4	25.4	33.9	39.0	44.1	57.6	69.5	79.6	86.5	93.2	96.6
75°	13.5	17.0	23.8	27.1	30.5	40.6	49.1	57.6	62.8	67.8	69.5
77.5°	8.5	11.9	17.0	18.6	22.0	27.1	33.9	39.0	42.4	45.8	49.1
80°	5.1	6.8	10.1	11.9	13.5	18.6	22.0	25.4	28.9	32.2	33.9
82.5°	3.4	5.1	6.8	6.8	8.5	10.1	13.5	17.0	18.6	20.4	22.0
85°	1.8	1.8	3.4	3.4	5.1	5.1	6.8	8.5	10.1	11.9	13.5
87.5°	1.8	1.8	1.8	1.8	3.4	3.4	5.1	5.1	5.1	6.8	6.8
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: P252675

CATALOG NUMBER: LE_6B20D010 EC6B10208030 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1193.4	1198.5	1193.4	1196.8	1195.1	1195.1	1193.4	1195.1
5°	1198.5	1205.2	1198.5	1203.5	1200.1	1200.1	1200.1	1201.9
7.5°	1203.5	1210.4	1205.2	1210.4	1208.6	1207.0	1207.0	1210.4
10°	1208.6	1213.8	1210.4	1215.4	1213.8	1212.0	1212.0	1215.4
12.5°	1208.6	1215.4	1212.0	1217.1	1215.4	1213.8	1213.8	1215.4
15°	1203.5	1212.0	1207.0	1212.0	1210.4	1208.6	1208.6	1212.0
17.5°	1188.2	1195.1	1191.6	1195.1	1195.1	1193.4	1195.1	1196.8
20°	1168.0	1173.0	1169.6	1173.0	1173.0	1169.6	1171.4	1173.0
22.5°	1139.1	1144.2	1140.9	1144.2	1142.5	1140.9	1140.9	1139.1
25°	1103.5	1110.4	1105.2	1108.6	1105.2	1101.9	1101.9	1103.5
27.5°	1059.5	1064.5	1057.8	1061.1	1057.8	1054.4	1054.4	1052.6
30°	1001.9	1003.5	998.5	1001.9	998.5	996.8	993.4	993.4
32.5°	932.4	934.0	929.0	929.0	925.5	925.5	918.8	923.9
35°	851.0	852.6	851.0	849.2	844.1	842.5	840.8	840.8
37.5°	766.2	766.2	761.1	759.4	756.0	752.6	754.4	749.2
40°	679.8	678.0	673.0	674.6	673.0	667.9	666.2	664.5
42.5°	598.4	598.4	593.2	595.0	591.6	589.9	584.9	586.5
45°	527.2	527.2	522.1	522.1	520.4	515.4	517.0	513.6
47.5°	462.8	462.8	461.1	461.1	456.0	454.2	454.2	454.2
50°	406.9	406.9	406.9	406.9	405.1	403.5	401.8	403.5
52.5°	359.4	362.8	361.1	361.1	359.4	357.6	356.0	356.0
55°	317.0	318.6	318.6	320.4	318.6	317.0	318.6	317.0
57.5°	279.8	283.1	283.1	283.1	283.1	283.1	281.4	279.8
60°	247.5	249.1	249.1	250.9	250.9	250.9	249.1	249.1
62.5°	215.2	218.6	220.4	220.4	222.1	220.4	220.4	220.4
65°	189.9	193.2	195.0	193.2	195.0	195.0	193.2	193.2
67.5°	159.4	162.8	162.8	162.8	162.8	164.4	162.8	162.8
70°	128.9	132.2	130.5	132.2	132.2	132.2	132.2	132.2
72.5°	98.4	100.0	101.8	101.8	103.4	101.8	101.8	101.8
75°	71.2	74.6	74.6	74.6	74.6	76.2	76.2	76.2
77.5°	50.9	52.5	52.5	54.2	54.2	54.2	54.2	56.0
80°	35.6	35.6	37.2	37.2	39.0	39.0	39.0	39.0
82.5°	23.8	25.4	25.4	25.4	25.4	25.4	25.4	25.4
85°	13.5	15.2	15.2	15.2	15.2	17.0	17.0	17.0
87.5°	8.5	8.5	8.5	8.5	8.5	8.5	6.8	6.8
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)