

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: P252260

Luminaire Tested: **LE_6B20D010 EC6B10208035 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10208035 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE 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: 2412.5 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

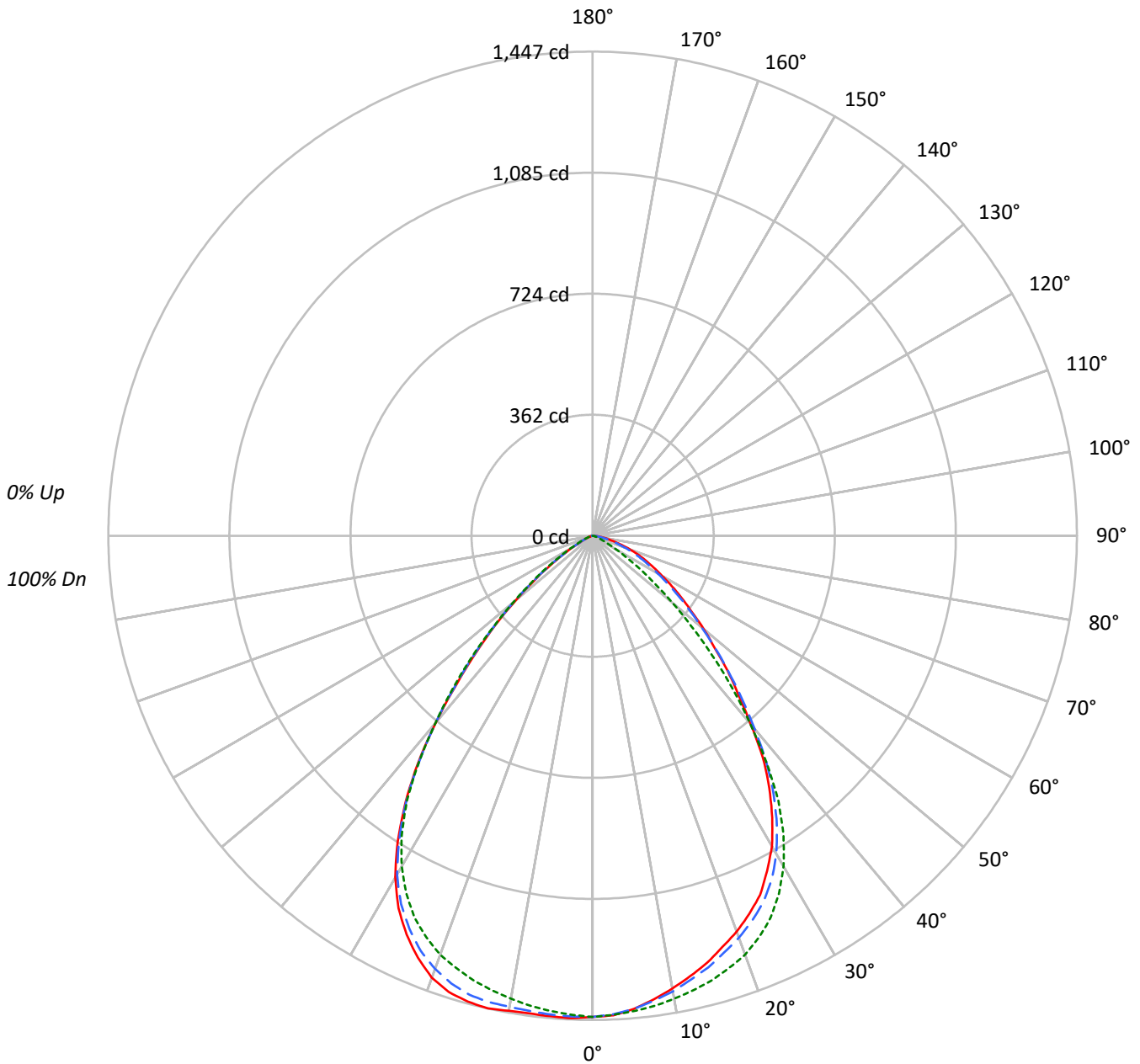
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252260

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1H

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	93816	93816	93816
5°	92924	93382	94404
10°	91010	93077	95495
15°	89264	92904	97362
20°	87416	92478	97546
25°	85266	90636	94646
30°	80720	85955	88833
35°	73312	77048	77733
40°	62563	62265	61966
45°	52554	46630	45191
50°	43897	31555	29962
55°	36944	19359	17585
60°	31263	10191	8847
65°	27077	5372	4292
70°	22528	3319	2308
75°	16637	2168	1311
80°	13075	1315	676
85°	10405	1347	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	5.6
10°-20°	388.0	16.1
20°-30°	573.0	23.8
30°-40°	590.5	24.5
40°-50°	407.9	16.9
50°-60°	201.0	8.3
60°-70°	81.5	3.4
70°-80°	29.0	1.2
80°-90°	6.0	0.2
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°	1096.6	45.5
0°-40°	1687.1	69.9
0°-60°	2296.0	95.2
0°-90°	2412.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2412.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1438	1438	1438	1438	1438	
5°	1419	1419	1426	1436	1442	134
15°	1322	1336	1376	1421	1442	372
25°	1184	1207	1259	1296	1315	541
35°	920	943	967	972	976	570
45°	570	573	505	498	490	440
55°	325	313	170	160	155	293
65°	175	158	35	28	28	174
75°	66	56	9	5	5	74
85°	14	10	2	0	0	17
90°	0	0	0	0	0	



TEST NUMBER: P252260

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0
2.5°	1434.5	1429.4	1432.8	1425.9	1434.5	1425.9	1427.6	1429.4	1427.6	1429.4	1431.0
5°	1418.9	1413.6	1418.9	1410.2	1418.9	1413.6	1413.6	1415.4	1415.4	1417.1	1418.9
7.5°	1398.0	1392.9	1398.0	1389.4	1399.8	1394.6	1394.6	1398.0	1396.4	1398.0	1401.5
10°	1373.8	1366.8	1372.0	1366.8	1377.2	1370.2	1373.8	1373.8	1373.8	1379.0	1382.4
12.5°	1347.8	1340.8	1347.8	1339.0	1349.4	1344.2	1346.0	1351.1	1352.9	1356.4	1358.1
15°	1321.6	1313.0	1316.4	1311.2	1321.6	1316.4	1318.1	1325.1	1325.1	1330.4	1335.5
17.5°	1288.6	1281.8	1288.6	1281.8	1290.4	1286.9	1290.4	1295.6	1295.6	1300.8	1306.0
20°	1259.1	1252.1	1257.4	1252.1	1262.6	1257.4	1259.1	1266.1	1267.8	1273.0	1278.2
22.5°	1222.6	1217.4	1220.9	1215.8	1226.1	1222.6	1224.4	1231.4	1233.1	1236.5	1245.2
25°	1184.5	1174.0	1179.2	1175.8	1186.1	1181.0	1184.5	1191.4	1194.9	1200.1	1207.0
27.5°	1128.9	1123.6	1127.1	1127.1	1135.8	1130.6	1132.4	1139.2	1144.5	1149.8	1158.4
30°	1071.5	1062.9	1066.4	1068.1	1075.0	1071.5	1075.0	1082.0	1083.8	1090.6	1097.6
32.5°	998.6	995.1	1002.1	998.6	1002.1	1002.1	1003.9	1009.0	1012.5	1016.0	1024.6
35°	920.5	913.5	920.5	917.0	925.6	920.5	925.6	930.9	930.9	937.9	943.0
37.5°	835.4	826.6	830.1	830.1	833.6	831.9	831.9	840.6	842.2	847.5	852.8
40°	734.6	731.1	738.1	736.4	738.1	738.1	739.9	745.0	748.5	750.2	752.0
42.5°	644.4	646.0	647.8	647.8	647.8	647.8	647.8	654.8	653.0	658.2	660.0
45°	569.6	562.8	566.1	564.4	569.6	564.4	569.6	574.9	571.4	576.6	573.1
47.5°	493.2	493.2	493.2	491.5	495.0	493.2	496.8	498.4	498.4	498.4	496.8
50°	432.5	427.2	429.0	429.0	430.8	429.0	432.5	434.1	434.1	430.8	423.8
52.5°	373.4	371.6	371.6	375.1	375.1	373.4	373.4	373.4	373.4	368.1	364.8
55°	324.8	321.2	323.0	323.0	323.0	323.0	324.8	323.0	323.0	317.9	312.6
57.5°	281.4	277.9	277.9	277.9	279.6	277.9	277.9	277.9	276.1	270.9	264.0
60°	239.6	237.9	239.6	239.6	241.4	239.6	239.6	239.6	236.2	231.0	224.0
62.5°	204.9	204.9	204.9	206.6	206.6	204.9	204.9	203.2	201.5	194.5	187.6
65°	175.4	173.6	175.4	175.4	177.1	177.1	175.4	173.6	171.9	165.0	158.0
67.5°	145.9	144.1	145.9	145.9	147.6	145.9	145.9	145.9	140.6	137.2	130.2
70°	118.1	116.4	116.4	116.4	118.1	114.6	116.4	116.4	112.9	107.6	100.8
72.5°	90.2	90.2	90.2	90.2	90.2	90.2	88.6	88.6	85.1	79.9	76.4
75°	66.0	66.0	67.8	67.8	66.0	66.0	66.0	64.2	62.5	59.0	55.6
77.5°	48.6	48.6	48.6	48.6	46.9	46.9	46.9	45.1	43.4	41.6	38.2
80°	34.8	34.8	34.8	33.0	34.8	33.0	33.0	33.0	29.5	27.8	26.0
82.5°	24.4	22.6	22.6	22.6	22.6	22.6	22.6	20.9	20.9	19.1	17.4
85°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	12.1	10.4	10.4
87.5°	7.0	8.6	8.6	8.6	8.6	8.6	8.6	7.0	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



TEST NUMBER: P252260

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0
2.5°	1431.0	1431.0	1434.5	1429.4	1438.0	1432.8	1431.0	1439.8	1434.5	1432.8	1436.2
5°	1418.9	1420.6	1422.4	1418.9	1427.6	1422.4	1422.4	1431.0	1427.6	1425.9	1431.0
7.5°	1403.2	1405.0	1408.5	1406.8	1413.6	1410.2	1412.0	1420.6	1417.1	1417.1	1422.4
10°	1384.1	1387.6	1391.1	1391.1	1399.8	1396.4	1396.4	1406.8	1403.2	1405.0	1412.0
12.5°	1361.6	1366.8	1372.0	1373.8	1382.4	1377.2	1379.0	1391.1	1389.4	1391.1	1398.0
15°	1337.2	1344.2	1349.4	1349.4	1359.9	1354.6	1359.9	1372.0	1368.5	1375.5	1384.1
17.5°	1309.5	1316.4	1323.4	1325.1	1335.5	1332.0	1339.0	1351.1	1351.1	1354.6	1365.0
20°	1283.4	1292.1	1295.6	1300.8	1311.2	1309.5	1313.0	1326.9	1326.9	1332.0	1342.5
22.5°	1248.8	1257.4	1264.4	1269.5	1278.2	1278.2	1283.4	1295.6	1295.6	1299.0	1309.5
25°	1210.5	1220.9	1226.1	1231.4	1240.0	1238.2	1243.5	1253.9	1255.6	1259.1	1269.5
27.5°	1161.9	1170.5	1177.5	1181.0	1193.1	1186.1	1191.4	1203.5	1201.8	1205.2	1214.0
30°	1101.1	1109.8	1116.8	1116.8	1127.1	1127.1	1132.4	1137.5	1137.5	1141.0	1148.0
32.5°	1029.9	1040.2	1040.2	1045.5	1052.5	1045.5	1052.5	1059.4	1055.9	1061.1	1066.4
35°	948.2	953.5	955.2	955.2	960.4	958.6	956.9	962.1	958.6	967.4	972.5
37.5°	849.2	856.2	852.8	856.2	854.5	849.2	849.2	857.9	851.0	852.8	857.9
40°	753.8	753.8	752.0	743.4	745.0	739.9	738.1	739.9	732.9	731.1	738.1
42.5°	654.8	653.0	647.8	635.6	637.4	628.8	621.8	621.8	618.2	616.5	618.2
45°	566.1	561.0	552.2	538.4	534.9	528.0	514.1	510.6	505.4	505.4	507.1
47.5°	484.5	477.6	463.8	448.1	439.4	430.8	416.8	411.6	402.9	399.5	402.9
50°	416.8	404.6	387.2	364.8	356.0	345.6	331.8	323.0	314.4	310.9	309.1
52.5°	354.2	336.9	319.5	291.8	284.9	274.4	255.2	246.6	237.9	231.0	231.0
55°	300.5	284.9	260.5	234.5	224.0	213.6	194.5	182.4	173.6	170.2	166.8
57.5°	251.9	234.5	211.9	184.1	173.6	163.2	144.1	132.0	123.2	118.1	114.6
60°	211.9	192.8	170.2	145.9	133.8	123.2	104.2	92.0	83.4	78.1	74.6
62.5°	173.6	158.0	135.5	112.9	102.5	92.0	76.4	64.2	55.6	52.1	46.9
65°	145.9	130.2	109.4	90.2	81.6	71.2	57.2	46.9	40.0	34.8	31.2
67.5°	118.1	106.0	88.6	71.2	62.5	55.6	43.4	34.8	27.8	24.4	22.6
70°	93.8	81.6	67.8	53.9	48.6	41.6	33.0	24.4	20.9	17.4	15.6
72.5°	69.5	60.8	50.4	40.0	34.8	31.2	22.6	19.1	13.9	12.1	10.4
75°	50.4	43.4	36.5	27.8	24.4	22.6	17.4	12.1	10.4	8.6	7.0
77.5°	34.8	31.2	24.4	19.1	17.4	15.6	12.1	8.6	7.0	5.2	5.2
80°	22.6	19.1	15.6	12.1	12.1	10.4	7.0	5.2	5.2	3.5	3.5
82.5°	13.9	12.1	10.4	8.6	7.0	7.0	5.2	3.5	3.5	1.8	1.8
85°	8.6	7.0	5.2	5.2	3.5	3.5	3.5	1.8	1.8	1.8	1.8
87.5°	3.5	3.5	3.5	1.8	1.8	1.8	1.8	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



TEST NUMBER: P252260

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0
2.5°	1436.2	1436.2	1439.8	1434.5	1438.0	1438.0	1441.5	1434.5	1438.0	1439.8	1443.2
5°	1429.4	1431.0	1434.5	1432.8	1434.5	1434.5	1438.0	1429.4	1436.2	1436.2	1441.5
7.5°	1422.4	1422.4	1425.9	1424.1	1427.6	1429.4	1432.8	1425.9	1432.8	1432.8	1438.0
10°	1413.6	1413.6	1418.9	1417.1	1422.4	1424.1	1429.4	1422.4	1429.4	1431.0	1436.2
12.5°	1401.5	1403.2	1408.5	1408.5	1413.6	1417.1	1422.4	1418.9	1427.6	1429.4	1436.2
15°	1387.6	1391.1	1398.0	1396.4	1401.5	1406.8	1413.6	1408.5	1420.6	1424.1	1431.0
17.5°	1370.2	1373.8	1379.0	1379.0	1384.1	1387.6	1396.4	1392.9	1403.2	1405.0	1413.6
20°	1344.2	1349.4	1356.4	1354.6	1359.9	1363.4	1370.2	1366.8	1377.2	1380.6	1389.4
22.5°	1313.0	1316.4	1321.6	1321.6	1326.9	1330.4	1337.2	1332.0	1342.5	1344.2	1351.1
25°	1271.2	1274.8	1278.2	1280.0	1285.1	1286.9	1290.4	1286.9	1295.6	1297.4	1306.0
27.5°	1217.4	1219.1	1224.4	1224.4	1227.9	1229.6	1234.8	1227.9	1240.0	1240.0	1245.2
30°	1153.1	1151.5	1158.4	1154.9	1158.4	1158.4	1163.6	1160.1	1168.8	1165.4	1170.5
32.5°	1068.1	1071.5	1071.5	1068.1	1075.0	1073.2	1073.2	1069.9	1075.0	1076.8	1080.2
35°	969.1	974.2	974.2	976.0	977.8	972.5	974.2	963.9	972.5	974.2	976.0
37.5°	861.4	856.2	859.6	854.5	863.1	852.8	852.8	845.8	852.8	852.8	854.5
40°	738.1	736.4	739.9	736.4	734.6	732.9	729.4	724.2	731.1	727.6	732.9
42.5°	621.8	620.0	620.0	616.5	614.8	614.8	611.4	607.9	606.1	606.1	614.8
45°	501.9	505.4	501.9	500.1	503.6	500.1	501.9	495.0	498.4	495.0	498.4
47.5°	401.1	402.9	399.5	396.0	401.1	396.0	396.0	390.8	397.8	397.8	394.2
50°	310.9	309.1	305.6	309.1	307.4	307.4	307.4	302.2	305.6	300.5	303.9
52.5°	229.2	227.5	227.5	225.8	227.5	225.8	225.8	224.0	224.0	222.2	224.0
55°	166.8	165.0	161.5	161.5	161.5	163.2	161.5	159.8	159.8	158.0	159.8
57.5°	112.9	109.4	109.4	109.4	109.4	107.6	107.6	106.0	107.6	106.0	107.6
60°	73.0	73.0	69.5	69.5	69.5	69.5	69.5	67.8	69.5	69.5	69.5
62.5°	45.1	45.1	43.4	41.6	43.4	41.6	41.6	41.6	43.4	41.6	43.4
65°	29.5	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
67.5°	20.9	19.1	19.1	19.1	19.1	19.1	19.1	17.4	19.1	19.1	19.1
70°	13.9	13.9	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
72.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	7.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	5.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	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



TEST NUMBER: P252260

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0	1438.0
2.5°	1438.0	1439.8	1436.2	1438.0	1434.5	1438.0	1439.8	1443.2
5°	1434.5	1436.2	1432.8	1436.2	1432.8	1436.2	1438.0	1441.5
7.5°	1431.0	1434.5	1431.0	1434.5	1431.0	1434.5	1436.2	1439.8
10°	1431.0	1436.2	1432.8	1438.0	1432.8	1436.2	1439.8	1441.5
12.5°	1431.0	1436.2	1434.5	1438.0	1436.2	1439.8	1443.2	1446.6
15°	1427.6	1432.8	1429.4	1434.5	1432.8	1434.5	1441.5	1441.5
17.5°	1408.5	1413.6	1413.6	1417.1	1417.1	1422.4	1425.9	1429.4
20°	1384.1	1389.4	1387.6	1392.9	1392.9	1398.0	1401.5	1405.0
22.5°	1347.8	1354.6	1352.9	1358.1	1356.4	1359.9	1366.8	1365.0
25°	1300.8	1309.5	1307.8	1311.2	1309.5	1309.5	1313.0	1314.8
27.5°	1243.5	1248.8	1247.0	1250.4	1247.0	1250.4	1253.9	1255.6
30°	1168.8	1172.2	1170.5	1172.2	1170.5	1174.0	1175.8	1179.2
32.5°	1078.5	1083.8	1078.5	1082.0	1080.2	1080.2	1087.1	1083.8
35°	970.9	972.5	974.2	974.2	970.9	972.5	976.0	976.0
37.5°	851.0	859.6	849.2	854.5	852.8	852.8	852.8	857.9
40°	726.0	727.6	724.2	724.2	724.2	722.5	729.4	727.6
42.5°	607.9	609.6	607.9	602.6	604.4	604.4	609.6	602.6
45°	493.2	496.8	495.0	495.0	491.5	491.5	493.2	489.8
47.5°	390.8	394.2	389.0	390.8	387.2	390.8	389.0	392.5
50°	297.0	300.5	298.8	300.5	300.5	297.0	302.2	295.2
52.5°	222.2	224.0	222.2	220.6	218.9	218.9	222.2	220.6
55°	158.0	156.2	156.2	156.2	158.0	158.0	156.2	154.6
57.5°	106.0	106.0	104.2	104.2	106.0	102.5	104.2	102.5
60°	67.8	67.8	67.8	67.8	66.0	67.8	67.8	67.8
62.5°	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
65°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
67.5°	17.4	19.1	19.1	19.1	17.4	17.4	17.4	17.4
70°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
72.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	1.8	1.8	1.8	1.8	0.0	0.0	0.0
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)