

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: P252160

Luminaire Tested: **LE_6B20D010 EC6B10209027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10209027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2662.5 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

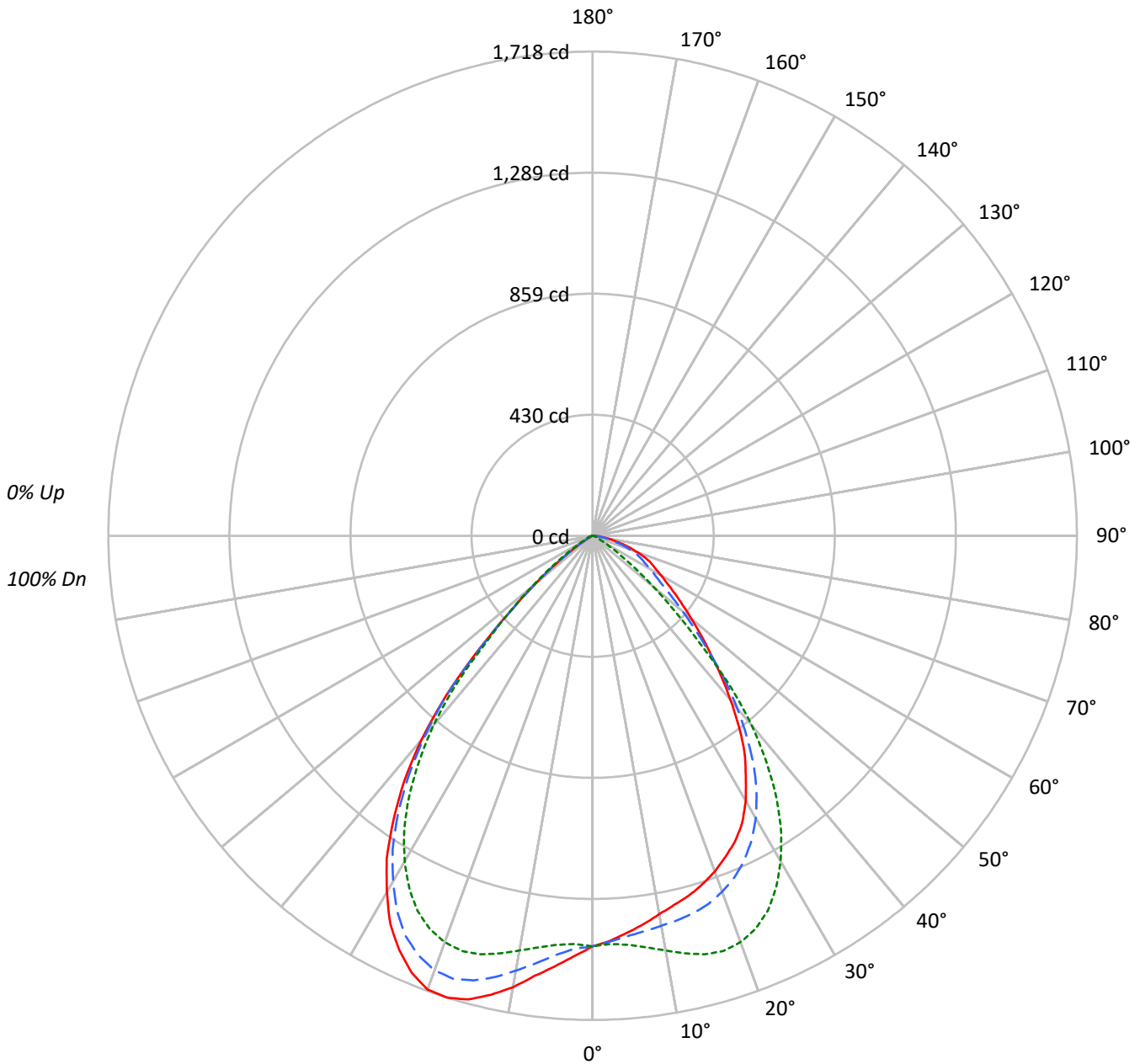
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252160

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	95029	95029	95029
5°	92563	95392	100402
10°	90308	98986	107751
15°	89257	103839	115031
20°	87979	106544	118923
25°	86109	105753	116774
30°	81820	100495	109942
35°	74865	90619	98153
40°	64760	74844	80524
45°	54611	49085	52683
50°	46364	28409	26714
55°	40242	13626	10294
60°	36339	6367	2544
65°	35259	3643	864
70°	31626	2938	782
75°	25963	2117	353
80°	19349	1052	0
85°	16618	0	0



TEST NUMBER: P252160

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	5.3
10°-20°	428.8	16.1
20°-30°	655.1	24.6
30°-40°	685.2	25.7
40°-50°	444.5	16.7
50°-60°	176.5	6.6
60°-70°	83.7	3.1
70°-80°	39.8	1.5
80°-90°	8.1	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°	1224.6	46.0
0°-40°	1909.8	71.7
0°-60°	2530.8	95.1
0°-90°	2662.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2662.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1457	1457	1457	1457	1457	
5°	1413	1426	1457	1493	1533	133
15°	1322	1386	1537	1634	1703	372
25°	1196	1271	1469	1568	1622	548
35°	940	997	1138	1204	1232	581
45°	592	586	532	564	571	461
55°	354	301	120	93	90	321
65°	228	189	24	6	6	223
75°	103	84	8	3	1	111
85°	22	14	0	0	0	26
90°	0	0	0	0	0	



TEST NUMBER: P252160

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6
2.5°	1438.5	1441.2	1426.0	1421.8	1432.9	1437.1	1438.5	1434.4	1435.8	1441.2	1441.2
5°	1413.4	1416.2	1402.2	1398.1	1409.2	1412.0	1416.2	1414.9	1419.0	1427.4	1426.0
7.5°	1389.8	1393.9	1378.6	1373.0	1387.0	1393.9	1396.8	1396.8	1402.2	1413.4	1414.9
10°	1363.2	1368.9	1355.0	1352.1	1367.5	1374.5	1375.9	1378.6	1387.0	1402.2	1405.1
12.5°	1341.0	1346.6	1336.9	1332.6	1349.4	1356.4	1359.1	1364.8	1374.5	1393.9	1396.8
15°	1321.5	1325.8	1314.5	1311.8	1328.5	1336.9	1338.2	1346.6	1359.1	1381.4	1385.6
17.5°	1296.5	1299.2	1290.9	1288.1	1304.8	1313.1	1314.5	1324.2	1339.6	1361.9	1368.9
20°	1267.2	1270.0	1261.6	1258.9	1275.6	1285.4	1286.8	1295.1	1313.1	1336.9	1343.8
22.5°	1232.4	1238.0	1228.2	1225.4	1242.1	1250.5	1254.6	1261.6	1279.8	1303.4	1313.1
25°	1196.2	1196.2	1189.2	1187.9	1203.1	1212.9	1211.5	1221.2	1239.4	1263.0	1271.4
27.5°	1148.9	1147.5	1140.5	1139.1	1155.8	1164.1	1161.4	1171.1	1187.9	1211.5	1219.9
30°	1086.1	1089.0	1079.2	1076.4	1090.4	1104.2	1102.9	1112.6	1129.4	1151.6	1157.2
32.5°	1011.0	1013.8	1012.4	1008.2	1020.8	1027.8	1031.9	1038.9	1052.8	1076.4	1082.0
35°	940.0	935.8	930.2	930.2	942.8	953.9	949.8	958.1	972.0	995.6	997.0
37.5°	852.2	850.9	848.0	845.2	859.2	862.0	863.4	869.0	881.5	901.0	898.2
40°	760.4	761.8	760.4	754.8	763.1	774.2	772.9	775.6	786.8	800.8	796.5
42.5°	674.0	674.0	674.0	668.4	678.1	683.8	686.5	685.1	687.9	700.5	694.9
45°	591.9	593.2	591.9	590.4	591.9	594.6	591.9	590.4	590.4	594.6	586.2
47.5°	520.8	520.8	516.6	512.5	516.6	518.0	513.9	509.6	508.2	506.9	493.0
50°	456.8	455.4	454.0	447.0	451.1	452.6	447.0	444.2	438.6	431.8	415.0
52.5°	401.0	399.6	398.2	391.2	394.1	395.5	389.9	384.4	377.4	371.8	350.9
55°	353.8	352.4	352.4	348.1	345.4	348.1	342.6	338.4	328.6	321.6	300.8
57.5°	313.4	313.4	310.5	306.4	307.8	307.8	302.1	296.6	288.2	279.9	263.2
60°	278.5	278.5	278.5	274.4	274.4	274.4	271.5	266.0	259.0	250.6	234.0
62.5°	250.6	250.6	249.2	245.1	246.5	246.5	243.8	238.1	231.1	225.6	208.9
65°	228.4	228.4	228.4	224.2	224.2	225.6	222.8	217.2	211.6	204.8	189.4
67.5°	200.5	199.1	199.1	196.4	197.8	199.1	196.4	192.1	185.2	181.0	167.1
70°	165.8	167.1	168.5	164.4	165.8	165.8	164.4	160.1	156.0	151.8	139.2
72.5°	135.1	135.1	133.6	132.2	132.2	133.6	130.9	126.8	123.9	121.1	111.4
75°	103.0	101.6	103.0	100.2	100.2	100.2	97.5	96.1	94.8	90.5	83.5
77.5°	75.2	73.8	73.8	71.0	72.4	72.4	71.0	68.2	65.5	64.0	58.5
80°	51.5	51.5	51.5	50.1	50.1	48.8	48.8	47.4	44.5	43.1	40.4
82.5°	34.9	34.9	34.9	33.4	33.4	33.4	32.0	30.6	29.2	27.9	25.1
85°	22.2	22.2	22.2	20.9	20.9	20.9	19.5	19.5	18.1	16.8	13.9
87.5°	12.5	12.5	12.5	11.1	11.1	11.1	11.1	11.1	9.8	8.4	7.0
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: P252160

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6
2.5°	1451.0	1431.5	1444.1	1444.1	1439.9	1451.0	1458.0	1463.5	1462.1	1449.6	1448.2
5°	1439.9	1423.1	1437.1	1438.5	1434.4	1449.6	1459.4	1466.4	1467.8	1456.6	1458.0
7.5°	1431.5	1417.6	1435.8	1441.2	1439.9	1453.9	1465.0	1476.1	1481.6	1473.2	1474.8
10°	1427.4	1416.2	1435.8	1444.1	1445.5	1460.8	1477.5	1492.8	1499.8	1494.2	1498.4
12.5°	1421.8	1414.9	1437.1	1449.6	1455.2	1470.5	1491.4	1509.5	1520.6	1517.9	1526.2
15°	1416.2	1410.6	1437.1	1455.2	1462.1	1476.1	1499.8	1526.2	1538.8	1537.4	1548.5
17.5°	1402.2	1400.9	1428.8	1448.2	1458.0	1474.8	1497.0	1529.0	1541.5	1544.4	1558.2
20°	1380.0	1380.0	1410.6	1431.5	1442.6	1458.0	1485.9	1516.5	1531.8	1534.6	1549.9
22.5°	1349.4	1352.1	1381.4	1402.2	1419.0	1430.1	1459.4	1491.4	1505.4	1509.5	1526.2
25°	1309.0	1311.8	1339.6	1360.5	1378.6	1391.1	1419.0	1448.2	1465.0	1469.1	1481.6
27.5°	1256.1	1261.6	1288.1	1309.0	1324.2	1332.6	1361.9	1392.5	1405.1	1409.2	1421.8
30°	1194.8	1196.2	1222.6	1240.8	1256.1	1263.0	1288.1	1320.1	1329.9	1334.0	1352.1
32.5°	1119.6	1118.2	1143.2	1160.0	1172.5	1180.9	1207.4	1228.2	1238.0	1244.9	1254.6
35°	1029.1	1027.8	1045.8	1065.2	1075.0	1077.9	1104.2	1126.6	1132.1	1137.8	1150.2
37.5°	927.4	927.4	942.8	952.5	963.6	967.9	980.4	1005.4	1015.1	1013.8	1023.5
40°	820.2	814.6	825.8	835.5	838.2	839.8	852.2	871.8	878.8	878.8	885.6
42.5°	707.4	699.0	700.5	706.0	708.8	699.0	707.4	720.0	715.8	721.4	722.8
45°	587.6	575.1	569.5	557.0	559.8	550.0	544.5	547.2	545.9	532.0	534.8
47.5°	490.1	467.9	458.1	440.0	435.9	424.8	417.8	405.2	394.1	394.1	387.1
50°	408.0	385.8	366.2	345.4	338.4	328.6	313.4	296.6	288.2	279.9	273.0
52.5°	342.6	318.9	295.2	273.0	263.2	250.6	229.8	213.0	197.8	189.4	181.0
55°	289.6	263.2	238.1	214.5	201.9	189.4	168.5	149.0	130.9	119.8	112.8
57.5°	249.2	224.2	197.8	172.6	161.5	147.6	125.4	104.5	87.8	75.2	68.2
60°	220.0	195.0	171.2	144.9	133.6	119.8	96.1	76.6	59.9	48.8	40.4
62.5°	195.0	172.6	147.6	123.9	112.8	98.9	76.6	57.1	41.8	30.6	23.6
65°	176.9	154.6	133.6	110.0	100.2	86.4	65.5	47.4	33.4	23.6	16.8
67.5°	156.0	136.5	115.6	96.1	86.4	75.2	55.8	40.4	27.9	19.5	13.9
70°	130.9	115.6	97.5	79.4	72.4	62.6	46.0	33.4	22.2	15.4	11.1
72.5°	104.5	91.9	78.0	64.0	58.5	48.8	37.6	26.5	16.8	11.1	8.4
75°	79.4	69.6	58.5	48.8	43.1	37.6	27.9	19.5	12.5	8.4	5.6
77.5°	54.2	50.1	41.8	33.4	30.6	26.5	18.1	12.5	8.4	5.6	2.8
80°	37.6	33.4	27.9	22.2	19.5	16.8	11.1	8.4	4.1	2.8	1.4
82.5°	23.6	19.5	16.8	13.9	12.5	9.8	7.0	4.1	2.8	1.4	1.4
85°	12.5	11.1	9.8	7.0	7.0	5.6	4.1	2.8	1.4	0.0	0.0
87.5°	7.0	5.6	4.1	2.8	2.8	1.4	1.4	1.4	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: P252160

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6
2.5°	1465.0	1465.0	1463.5	1480.2	1460.8	1480.2	1470.5	1480.2	1466.4	1465.0	1466.4
5°	1476.1	1480.2	1481.6	1497.0	1478.9	1502.5	1494.2	1502.5	1492.8	1495.6	1499.8
7.5°	1498.4	1505.4	1504.0	1523.5	1505.4	1531.8	1526.2	1538.8	1529.0	1531.8	1537.4
10°	1523.5	1531.8	1533.1	1552.6	1536.0	1568.0	1561.0	1575.0	1566.6	1570.8	1577.8
12.5°	1552.6	1562.4	1563.9	1586.1	1568.0	1601.4	1597.2	1611.1	1604.2	1608.4	1616.8
15°	1575.0	1588.9	1591.6	1614.0	1594.5	1629.2	1626.5	1644.6	1633.5	1640.4	1647.4
17.5°	1586.1	1598.6	1604.2	1625.1	1608.4	1643.2	1640.4	1655.8	1647.4	1654.4	1662.8
20°	1579.1	1594.5	1598.6	1619.5	1602.9	1637.6	1633.5	1648.8	1640.4	1646.0	1654.4
22.5°	1554.1	1569.4	1575.0	1594.5	1579.1	1611.1	1609.8	1623.8	1612.5	1619.5	1626.5
25°	1509.5	1526.2	1529.0	1547.1	1530.4	1563.9	1561.0	1576.4	1568.0	1572.1	1581.9
27.5°	1445.5	1465.0	1469.1	1484.5	1471.9	1499.8	1499.8	1512.2	1502.5	1502.5	1512.2
30°	1368.9	1388.4	1391.1	1403.6	1392.5	1417.6	1419.0	1431.5	1416.2	1424.6	1426.0
32.5°	1275.6	1288.1	1296.5	1307.6	1290.9	1322.9	1318.8	1328.5	1320.1	1320.1	1327.1
35°	1162.8	1178.1	1182.2	1196.2	1182.2	1207.4	1207.4	1212.9	1204.5	1204.5	1215.8
37.5°	1040.2	1051.4	1052.8	1066.6	1055.5	1076.4	1075.0	1079.2	1070.9	1076.4	1076.4
40°	896.8	905.1	907.9	914.9	913.5	928.9	927.4	930.2	926.0	927.4	930.2
42.5°	729.8	740.9	746.4	752.0	743.6	764.5	760.4	764.5	763.1	764.5	768.6
45°	537.5	545.9	550.0	551.5	548.6	561.2	571.0	562.6	564.0	561.2	566.8
47.5°	388.5	389.9	387.1	395.5	388.5	394.1	396.9	398.2	389.9	388.5	394.1
50°	266.0	273.0	263.2	267.4	266.0	271.5	268.8	270.1	261.8	266.0	263.2
52.5°	176.9	175.5	172.6	174.1	171.2	171.2	171.2	174.1	168.5	165.8	162.9
55°	107.2	104.5	98.9	97.5	97.5	98.9	96.1	93.2	93.2	91.9	91.9
57.5°	62.6	58.5	55.8	54.2	51.5	50.1	48.8	48.8	46.0	46.0	46.0
60°	34.9	30.6	27.9	25.1	25.1	23.6	22.2	20.9	20.9	20.9	19.5
62.5°	18.1	15.4	12.5	11.1	11.1	9.8	8.4	8.4	8.4	8.4	7.0
65°	12.5	9.8	8.4	7.0	7.0	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	9.8	8.4	7.0	5.6	5.6	5.6	4.1	4.1	4.1	4.1	4.1
70°	8.4	5.6	5.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	5.6	5.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
75°	4.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
80°	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	0.0	0.0	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



TEST NUMBER: P252160

CATALOG NUMBER: LE_6B20D010 EC6B10209027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6	1456.6
2.5°	1478.9	1477.5	1478.9	1481.6	1476.1	1492.8	1484.5	1492.8
5°	1510.9	1512.2	1513.8	1517.9	1510.9	1531.8	1520.6	1533.1
7.5°	1552.6	1554.1	1555.5	1559.6	1555.5	1576.4	1563.9	1575.0
10°	1595.9	1598.6	1598.6	1605.6	1601.4	1620.9	1612.5	1626.5
12.5°	1636.2	1639.0	1641.8	1646.0	1643.2	1664.1	1657.1	1668.2
15°	1668.2	1673.9	1675.2	1680.8	1678.0	1700.2	1691.9	1703.1
17.5°	1683.6	1689.1	1689.1	1696.1	1693.4	1717.0	1705.9	1718.4
20°	1675.2	1679.4	1680.8	1687.8	1685.0	1708.6	1697.5	1712.9
22.5°	1648.8	1650.1	1651.5	1658.5	1657.1	1678.0	1668.2	1678.0
25°	1600.0	1604.2	1602.9	1608.4	1608.4	1625.1	1614.0	1622.2
27.5°	1530.4	1534.6	1534.6	1541.5	1536.0	1552.6	1541.5	1554.1
30°	1445.5	1449.6	1446.9	1452.4	1446.9	1463.5	1455.2	1459.4
32.5°	1343.8	1343.8	1345.2	1346.6	1343.8	1359.1	1350.8	1359.1
35°	1222.6	1225.4	1226.9	1228.2	1225.4	1236.6	1226.9	1232.4
37.5°	1086.1	1093.1	1091.8	1093.1	1089.0	1102.9	1094.5	1097.4
40°	940.0	940.0	938.6	941.4	937.1	948.4	942.8	945.5
42.5°	770.1	774.2	768.6	775.6	764.5	779.9	774.2	770.1
45°	577.9	572.4	571.0	572.4	568.1	569.5	573.8	571.0
47.5°	394.1	394.1	391.2	387.1	392.8	394.1	388.5	388.5
50°	264.6	264.6	261.8	260.4	263.2	261.8	259.0	263.2
52.5°	168.5	162.9	162.9	165.8	162.9	160.1	164.4	161.5
55°	91.9	89.1	89.1	91.9	89.1	89.1	87.8	90.5
57.5°	44.5	46.0	44.5	44.5	44.5	44.5	43.1	44.5
60°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
62.5°	8.4	8.4	7.0	7.0	7.0	7.0	7.0	7.0
65°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	4.1	4.1	4.1	4.1	4.1	5.6	4.1	4.1
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	4.1	4.1	5.6	5.6	5.6	5.6	5.6	5.6
75°	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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



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













(END OF REPORT)