

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: P252572

Luminaire Tested: **LE\_6B20D010 EC6B10208035 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252572  
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 EC6B10208035 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2602.5 lumens  
Efficiency: N/A  
Efficacy: 125.1 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

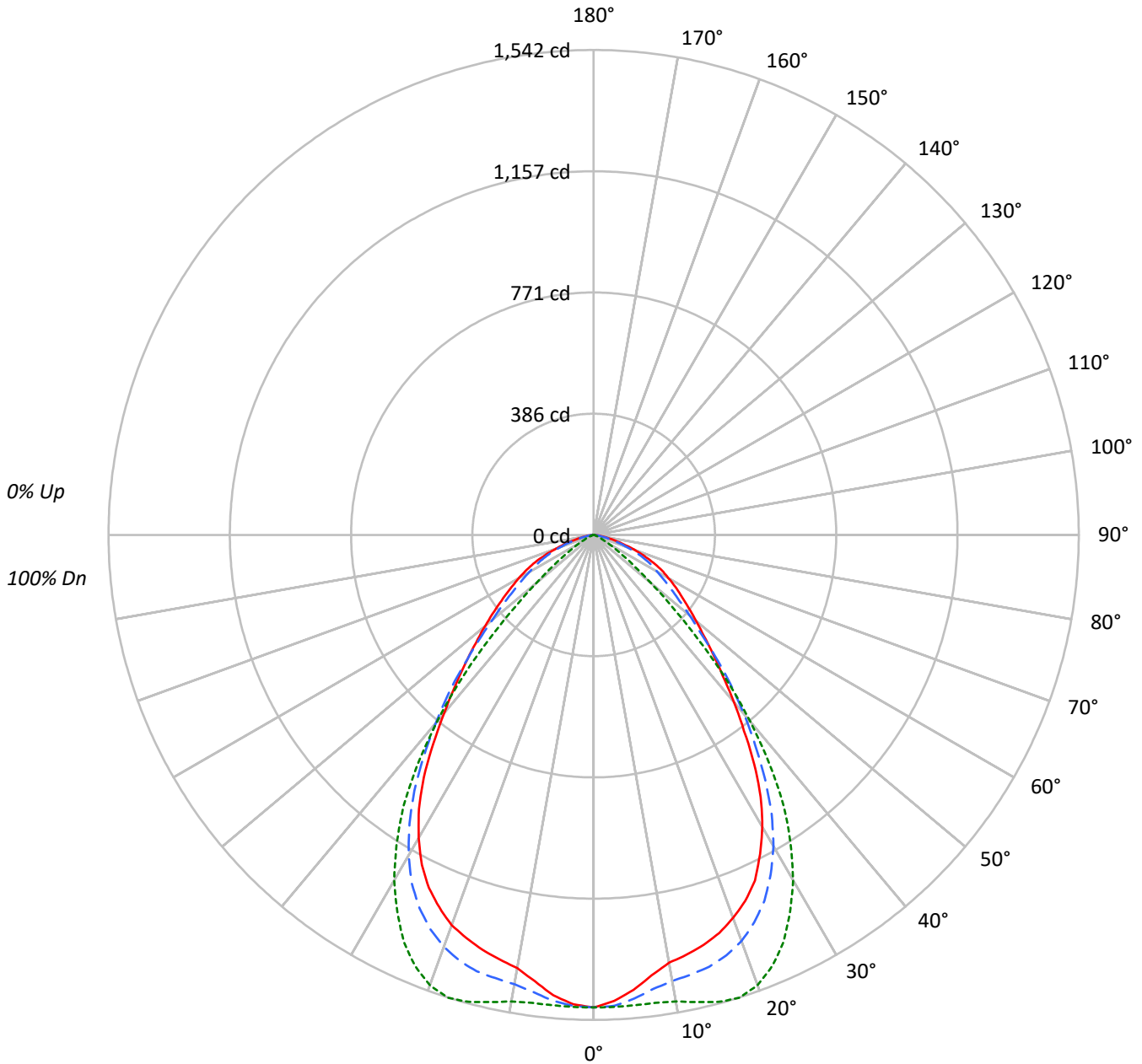
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	98024	98024	98024
5°	95098	98294	96237
10°	91487	99768	92640
15°	91168	103826	92222
20°	89971	105766	91651
25°	87282	102787	89154
30°	80742	95523	83756
35°	70835	83977	74985
40°	59028	65833	62869
45°	49684	43438	53052
50°	43024	23801	45663
55°	38923	12637	39913
60°	35817	6576	35817
65°	32434	3489	31646
70°	26171	1984	24187
75°	17947	1311	16637
80°	11722	676	10445
85°	7785	1347	6438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.1	5.4
10°-20°	405.1	15.6
20°-30°	598.6	23.0
30°-40°	604.6	23.2
40°-50°	416.8	16.0
50°-60°	239.4	9.2
60°-70°	139.3	5.4
70°-80°	50.8	2.0
80°-90°	7.8	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°	1143.9	44.0
0°-40°	1748.5	67.2
0°-60°	2404.6	92.4
0°-90°	2602.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2602.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1502	1502	1502	1502	1502	
5°	1452	1480	1501	1487	1470	136
15°	1350	1421	1537	1436	1365	380
25°	1212	1284	1428	1310	1238	552
35°	889	950	1054	994	942	552
45°	538	545	471	580	575	419
55°	342	300	111	313	351	308
65°	210	177	23	176	205	206
75°	71	57	5	56	66	80
85°	10	5	2	7	9	13
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°	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5
2.5°	1483.5	1485.1	1486.9	1485.1	1486.9	1493.9	1488.6	1492.1	1492.1	1493.9	1499.1
5°	1452.1	1452.1	1455.6	1453.9	1459.1	1466.1	1460.9	1466.1	1467.8	1471.2	1480.0
7.5°	1412.2	1412.2	1414.0	1414.0	1420.9	1427.9	1424.4	1431.4	1438.2	1445.2	1455.6
10°	1381.0	1384.4	1384.4	1386.1	1393.1	1401.8	1400.1	1408.8	1415.8	1426.1	1440.0
12.5°	1367.1	1368.8	1368.8	1372.2	1379.2	1387.9	1386.1	1394.9	1405.2	1417.4	1431.4
15°	1349.8	1353.1	1351.4	1354.9	1361.9	1370.5	1368.8	1377.5	1389.6	1401.8	1420.9
17.5°	1327.1	1328.9	1330.6	1330.6	1337.5	1344.5	1344.5	1353.1	1367.1	1381.0	1401.8
20°	1295.9	1299.4	1299.4	1301.0	1306.2	1316.8	1315.0	1323.6	1337.5	1351.4	1374.0
22.5°	1259.4	1261.1	1261.1	1262.9	1271.5	1276.8	1278.5	1285.4	1297.6	1313.2	1334.0
25°	1212.5	1214.2	1212.5	1217.6	1221.1	1231.6	1228.1	1236.8	1250.6	1262.9	1283.6
27.5°	1144.8	1148.2	1148.2	1149.9	1158.6	1167.2	1167.2	1176.0	1188.1	1196.9	1217.6
30°	1071.8	1077.0	1071.8	1080.5	1083.9	1090.9	1096.1	1101.2	1111.8	1123.9	1143.0
32.5°	988.4	986.6	988.4	991.9	1002.2	1007.5	1011.0	1016.1	1026.6	1037.0	1052.6
35°	889.4	892.9	894.6	901.5	901.5	910.2	912.0	915.4	931.0	938.0	950.1
37.5°	785.1	788.6	790.4	793.9	800.8	804.2	809.5	814.6	825.1	837.2	844.2
40°	693.1	693.1	694.9	698.2	703.5	705.2	710.5	717.4	724.4	734.8	741.8
42.5°	606.2	608.0	606.2	609.8	614.9	621.9	620.1	628.9	630.5	637.5	642.8
45°	538.5	538.5	535.0	538.5	538.5	545.4	543.8	547.1	545.4	548.9	545.4
47.5°	474.2	476.0	474.2	476.0	476.0	476.0	477.8	474.2	476.0	470.8	460.4
50°	423.9	425.6	422.1	423.9	422.1	420.4	422.1	416.9	415.1	408.2	397.8
52.5°	380.4	378.6	377.0	377.0	377.0	375.2	373.5	368.2	363.0	356.1	343.9
55°	342.2	340.5	338.8	338.8	335.2	333.5	333.5	328.2	323.1	314.4	300.5
57.5°	307.5	305.8	304.0	304.0	302.2	298.8	298.8	293.5	286.6	276.2	264.0
60°	274.5	274.5	274.5	272.8	272.8	269.2	269.2	264.0	257.1	246.6	232.8
62.5°	244.9	243.2	243.2	243.2	243.2	241.5	239.8	236.2	229.2	218.9	206.8
65°	210.1	210.1	210.1	210.1	208.5	208.5	208.5	203.2	199.8	189.4	177.1
67.5°	172.0	172.0	172.0	172.0	170.2	172.0	172.0	168.5	165.0	154.6	144.1
70°	137.2	135.5	133.8	135.5	133.8	133.8	135.5	132.0	130.2	121.6	111.1
72.5°	100.8	102.5	100.8	100.8	100.8	99.0	100.8	99.0	95.5	88.6	81.6
75°	71.2	73.0	73.0	71.2	71.2	71.2	69.5	69.5	66.0	60.8	57.4
77.5°	48.6	48.6	48.6	48.6	46.9	46.9	46.9	45.1	43.4	40.0	36.5
80°	31.2	31.2	31.2	31.2	29.5	29.5	29.5	27.8	27.8	24.4	20.9
82.5°	19.1	19.1	19.1	19.1	19.1	19.1	17.4	17.4	15.6	13.9	12.1
85°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	8.6	8.6	7.0	5.2
87.5°	3.5	3.5	5.2	5.2	5.2	5.2	5.2	5.2	3.5	3.5	3.5
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°	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5
2.5°	1495.6	1497.4	1497.4	1497.4	1502.5	1504.2	1499.1	1493.9	1504.2	1502.5	1506.0
5°	1478.2	1483.5	1486.9	1488.6	1493.9	1497.4	1492.1	1490.4	1499.1	1500.9	1502.5
7.5°	1457.4	1466.1	1474.8	1478.2	1485.1	1488.6	1486.9	1486.9	1497.4	1500.9	1500.9
10°	1443.5	1455.6	1466.1	1474.8	1483.5	1488.6	1488.6	1490.4	1502.5	1506.0	1509.5
12.5°	1440.0	1455.6	1469.5	1481.8	1488.6	1497.4	1499.1	1504.2	1516.5	1521.6	1521.6
15°	1431.4	1452.1	1469.5	1485.1	1495.6	1506.0	1509.5	1519.9	1533.9	1537.2	1540.8
17.5°	1415.8	1436.5	1457.4	1476.5	1490.4	1499.1	1509.5	1519.9	1537.2	1542.5	1544.2
20°	1387.9	1412.2	1433.1	1452.1	1466.1	1478.2	1488.6	1500.9	1516.5	1523.4	1525.1
22.5°	1346.2	1370.5	1391.4	1412.2	1426.1	1436.5	1447.0	1460.9	1476.5	1483.5	1483.5
25°	1295.9	1318.4	1341.0	1356.6	1370.5	1382.8	1387.9	1403.5	1419.1	1427.9	1427.9
27.5°	1231.6	1252.4	1273.2	1290.6	1299.4	1309.8	1318.4	1332.4	1344.5	1351.4	1358.4
30°	1149.9	1170.8	1189.9	1207.2	1217.6	1228.1	1236.8	1247.2	1259.4	1268.0	1269.8
32.5°	1061.4	1078.8	1097.9	1115.2	1125.6	1129.1	1137.8	1148.2	1158.6	1165.6	1167.2
35°	964.1	976.2	988.4	1004.0	1014.5	1014.5	1023.1	1030.1	1038.8	1054.4	1050.9
37.5°	849.4	866.8	875.5	880.6	887.6	894.6	896.4	905.0	915.4	918.9	924.1
40°	741.8	746.9	752.1	752.1	759.1	759.1	759.1	760.9	771.2	773.0	780.0
42.5°	634.0	634.0	628.9	623.6	625.4	623.6	614.9	614.9	620.1	627.1	627.1
45°	533.2	521.1	505.5	493.4	484.6	481.1	470.8	470.8	469.0	470.8	477.8
47.5°	448.1	427.4	401.2	377.0	368.2	361.2	345.6	338.8	335.2	337.0	340.5
50°	377.0	354.4	324.9	295.2	279.6	271.0	251.9	239.8	238.0	234.5	241.5
52.5°	324.9	297.0	265.8	231.0	215.4	201.5	180.6	170.2	163.2	163.2	165.0
55°	279.6	250.1	215.4	180.6	165.0	154.6	133.8	119.9	112.9	111.1	116.4
57.5°	241.5	213.6	178.9	144.1	128.5	116.4	95.5	83.4	78.1	74.8	76.4
60°	211.9	184.1	149.4	116.4	102.5	88.6	71.2	57.4	50.4	50.4	52.1
62.5°	184.1	158.1	126.8	95.5	83.4	71.2	52.1	40.0	34.8	33.0	34.8
65°	156.4	132.0	106.0	79.9	67.8	57.4	41.8	31.2	24.4	22.6	24.4
67.5°	126.8	107.8	85.1	64.2	53.9	45.1	31.2	22.6	17.4	15.6	17.4
70°	99.0	81.6	64.2	46.9	40.0	33.0	22.6	17.4	12.1	10.4	12.1
72.5°	71.2	59.0	45.1	33.0	27.8	22.6	15.6	12.1	8.6	7.0	8.6
75°	48.6	40.0	29.5	20.9	17.4	15.6	10.4	7.0	5.2	5.2	5.2
77.5°	31.2	24.4	19.1	13.9	10.4	8.6	5.2	3.5	3.5	3.5	3.5
80°	17.4	13.9	10.4	7.0	5.2	5.2	3.5	3.5	1.8	1.8	1.8
82.5°	10.4	7.0	5.2	3.5	3.5	1.8	1.8	1.8	1.8	1.8	1.8
85°	5.2	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
87.5°	1.8	1.8	1.8	1.8	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°	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5
2.5°	1499.1	1500.9	1495.6	1502.5	1497.4	1504.2	1504.2	1497.4	1499.1	1495.6	1502.5
5°	1495.6	1495.6	1492.1	1497.4	1490.4	1497.4	1495.6	1483.5	1486.9	1480.0	1486.9
7.5°	1495.6	1492.1	1486.9	1492.1	1483.5	1488.6	1481.8	1469.5	1466.1	1457.4	1457.4
10°	1500.9	1495.6	1488.6	1490.4	1481.8	1483.5	1473.0	1455.6	1450.5	1440.0	1436.5
12.5°	1513.0	1507.8	1497.4	1500.9	1488.6	1488.6	1474.8	1453.9	1443.5	1429.6	1426.1
15°	1530.4	1521.6	1509.5	1511.2	1499.1	1492.1	1474.8	1450.5	1436.5	1417.4	1412.2
17.5°	1533.9	1525.1	1509.5	1509.5	1493.9	1485.1	1464.4	1436.5	1419.1	1400.1	1389.6
20°	1514.8	1506.0	1488.6	1486.9	1473.0	1460.9	1438.2	1410.5	1393.1	1372.2	1363.6
22.5°	1474.8	1464.4	1448.8	1447.0	1433.1	1426.1	1401.8	1374.0	1356.6	1335.8	1328.9
25°	1415.8	1410.5	1394.9	1393.1	1381.0	1372.2	1351.4	1325.4	1309.8	1288.9	1282.0
27.5°	1346.2	1341.0	1325.4	1325.4	1311.5	1306.2	1287.1	1262.9	1250.6	1231.6	1222.9
30°	1262.9	1255.9	1247.2	1245.5	1233.2	1228.1	1210.8	1188.1	1176.0	1160.4	1156.9
32.5°	1163.9	1158.6	1153.4	1151.6	1139.5	1134.2	1122.1	1099.5	1089.1	1075.2	1070.0
35°	1049.1	1045.8	1040.5	1038.8	1033.5	1028.4	1016.1	998.8	993.6	983.1	978.0
37.5°	917.1	920.6	917.1	917.1	912.0	913.8	903.2	892.9	887.6	880.6	877.2
40°	774.8	781.6	786.9	786.9	785.1	792.1	790.4	781.6	780.0	776.5	774.8
42.5°	630.5	634.0	644.5	651.4	649.6	667.0	668.8	675.8	680.9	677.5	679.2
45°	479.4	489.9	503.8	510.8	519.4	542.0	554.1	568.0	580.1	587.1	585.4
47.5°	345.6	357.9	373.5	383.9	399.5	427.4	458.6	476.0	493.4	502.0	510.8
50°	250.1	262.2	281.4	297.0	307.5	345.6	378.6	401.2	420.4	432.5	441.2
52.5°	175.5	189.4	210.1	224.1	239.8	276.2	314.4	340.5	361.2	377.0	385.6
55°	121.6	137.2	156.4	170.2	187.6	225.9	262.2	290.1	312.6	326.6	337.0
57.5°	85.1	99.0	118.1	130.2	147.6	184.1	220.6	248.4	271.0	284.9	297.0
60°	57.4	71.2	90.4	102.5	116.4	152.9	185.9	215.4	236.2	250.1	262.2
62.5°	40.0	52.1	71.2	83.4	95.5	126.8	158.1	184.1	205.0	220.6	231.0
65°	31.2	41.8	57.4	67.8	79.9	106.0	132.0	154.6	175.5	191.1	198.0
67.5°	22.6	33.0	45.1	53.9	62.5	85.1	107.8	125.1	144.1	156.4	165.0
70°	15.6	22.6	33.0	40.0	46.9	64.2	81.6	97.2	111.1	119.9	126.8
72.5°	12.1	15.6	22.6	27.8	33.0	45.1	59.0	71.2	81.6	88.6	95.5
75°	7.0	10.4	15.6	19.1	22.6	31.2	40.0	48.6	55.6	60.8	64.2
77.5°	3.5	5.2	8.6	10.4	13.9	19.1	26.0	31.2	36.5	40.0	43.4
80°	3.5	3.5	5.2	5.2	7.0	10.4	13.9	17.4	20.9	24.4	26.0
82.5°	1.8	1.8	3.5	3.5	3.5	5.2	7.0	10.4	12.1	13.9	15.6
85°	1.8	1.8	1.8	1.8	1.8	3.5	3.5	5.2	7.0	8.6	8.6
87.5°	0.0	0.0	1.8	1.8	1.8	1.8	1.8	3.5	3.5	3.5	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: P252572

CATALOG NUMBER: LE\_6B20D010 EC6B10208035 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5	1502.5
2.5°	1497.4	1500.9	1499.1	1502.5	1497.4	1495.6	1499.1	1493.9
5°	1478.2	1480.0	1478.2	1478.2	1474.8	1471.2	1474.8	1469.5
7.5°	1448.8	1448.8	1443.5	1443.5	1436.5	1433.1	1433.1	1431.4
10°	1424.4	1419.1	1414.0	1415.8	1405.2	1401.8	1400.1	1398.4
12.5°	1412.2	1408.8	1400.1	1400.1	1389.6	1386.1	1384.4	1382.8
15°	1398.4	1391.4	1384.4	1382.8	1374.0	1370.5	1368.8	1365.4
17.5°	1374.0	1368.8	1360.1	1360.1	1351.4	1349.8	1346.2	1344.5
20°	1348.0	1341.0	1334.0	1334.0	1323.6	1323.6	1318.4	1320.1
22.5°	1311.5	1306.2	1299.4	1299.4	1290.6	1288.9	1283.6	1282.0
25°	1268.0	1261.1	1255.9	1254.1	1247.2	1243.8	1242.0	1238.5
27.5°	1210.8	1205.5	1200.2	1196.9	1188.1	1186.4	1181.2	1182.9
30°	1139.5	1136.0	1134.2	1130.9	1120.4	1116.9	1116.9	1111.8
32.5°	1061.4	1056.1	1052.6	1047.5	1038.8	1037.0	1031.8	1033.5
35°	965.8	958.9	953.6	955.4	945.0	943.2	939.8	941.5
37.5°	866.8	859.9	852.9	851.1	842.5	842.5	837.2	837.2
40°	764.2	757.4	753.9	753.9	743.5	745.2	740.0	738.2
42.5°	672.2	665.2	663.5	661.9	656.6	654.9	649.6	651.4
45°	585.4	583.6	583.6	580.1	575.0	573.2	575.0	575.0
47.5°	509.0	510.8	509.0	509.0	505.5	509.0	505.5	507.2
50°	444.6	448.1	448.1	448.1	446.4	448.1	448.1	449.9
52.5°	390.9	396.0	394.2	396.0	394.2	397.8	396.0	397.8
55°	343.9	347.4	349.1	350.9	350.9	350.9	350.9	350.9
57.5°	300.5	305.8	307.5	309.2	309.2	312.6	309.2	309.2
60°	265.8	271.0	272.8	274.5	274.5	276.2	272.8	274.5
62.5°	234.5	239.8	239.8	241.5	241.5	241.5	238.0	239.8
65°	203.2	205.0	206.8	206.8	205.0	205.0	203.2	205.0
67.5°	168.5	170.2	168.5	168.5	166.8	166.8	163.2	165.0
70°	130.2	130.2	132.0	130.2	128.5	130.2	128.5	126.8
72.5°	97.2	97.2	97.2	95.5	95.5	93.8	95.5	95.5
75°	66.0	66.0	67.8	67.8	67.8	67.8	66.0	66.0
77.5°	43.4	43.4	43.4	43.4	45.1	43.4	43.4	43.4
80°	27.8	27.8	29.5	29.5	27.8	27.8	27.8	27.8
82.5°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
85°	10.4	10.4	10.4	10.4	8.6	8.6	8.6	8.6
87.5°	5.2	5.2	5.2	5.2	5.2	5.2	3.5	3.5
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)