

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P245390

Luminaire Tested: **LSR8B20D010 EC8B20830 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245390  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1801-521-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B20D010 EC8B20830 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2150.0 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

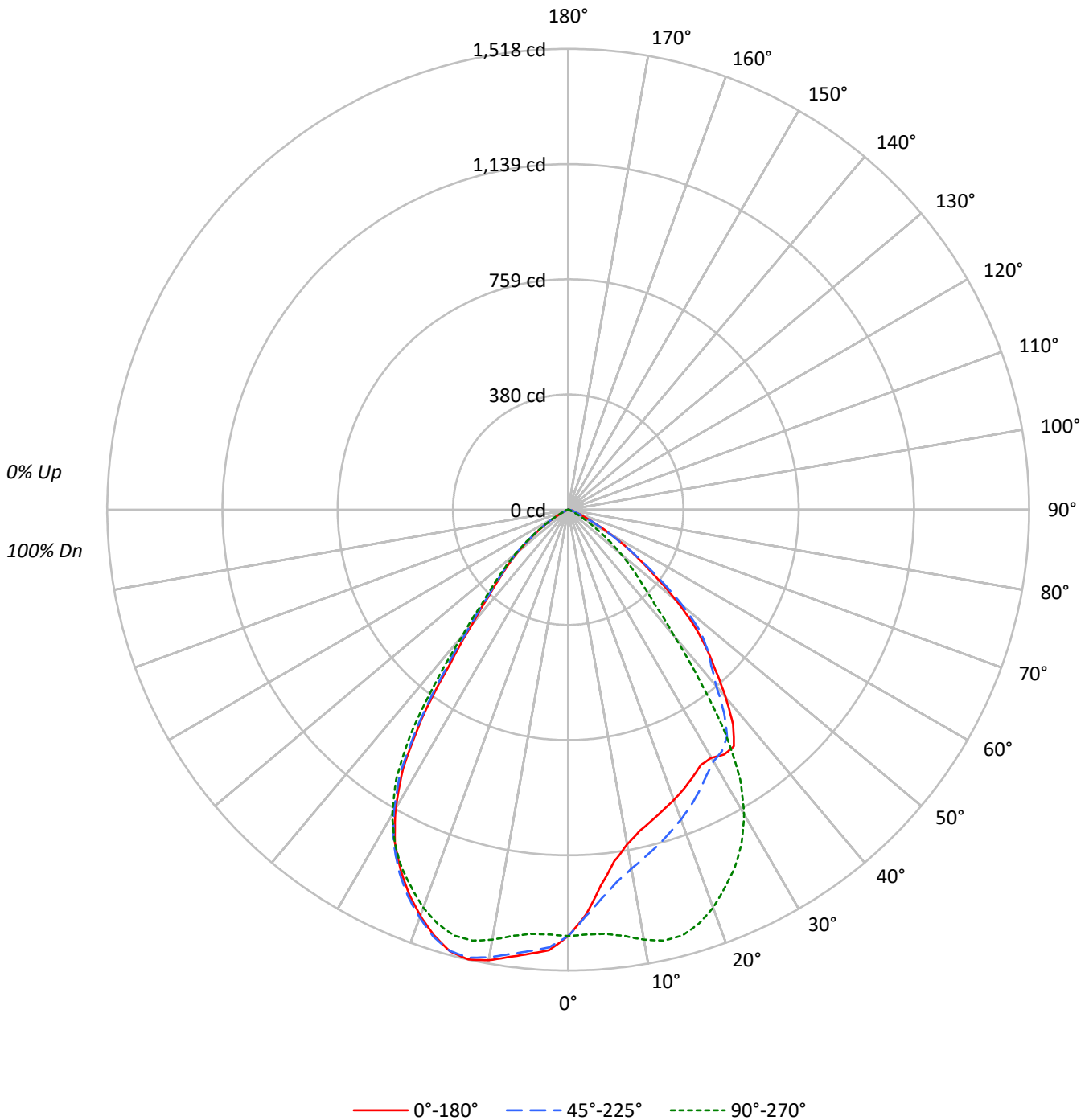
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	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	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	88	86	84	82					82			
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	76	72	68	67					67			
5	86	76	69	64	84	75	69	64	73	68	63	72	66	63	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	43313	43313	43313
5°	38426	43419	45453
10°	35035	45030	47181
15°	33859	46347	48078
20°	33376	45777	46719
25°	33048	44197	44473
30°	33588	41247	40485
35°	35800	34132	31659
40°	32445	21854	19789
45°	28001	14949	13920
50°	22096	10904	10266
55°	15338	6704	6312
60°	9763	3392	3028
65°	4874	1350	1022
70°	2696	667	370
75°	1930	488	179
80°	1580	320	71
85°	1698	248	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.9	6.1
10°-20°	378.1	17.6
20°-30°	548.8	25.5
30°-40°	540.5	25.1
40°-50°	338.8	15.8
50°-60°	163.5	7.6
60°-70°	39.6	1.8
70°-80°	8.0	0.4
80°-90°	1.8	0.1
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°	1057.8	49.2
0°-40°	1598.3	74.3
0°-60°	2100.6	97.7
0°-90°	2150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2150.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1405	1405	1405	1405	1405	
5°	1241	1284	1403	1460	1468	115
15°	1061	1144	1452	1505	1506	300
25°	971	1022	1299	1317	1307	449
35°	951	912	907	855	841	575
45°	642	647	343	328	319	491
55°	285	294	125	123	117	262
65°	67	66	18	16	14	76
75°	16	14	4	2	2	18
85°	5	4	1	0	0	5
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°	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6
2.5°	1335.2	1326.7	1310.8	1330.0	1330.0	1319.3	1340.7	1327.8	1338.1	1354.4	1340.0
5°	1241.4	1234.4	1221.1	1241.4	1244.0	1234.1	1259.9	1250.3	1265.4	1285.4	1283.5
7.5°	1167.3	1158.4	1146.2	1167.3	1171.3	1164.7	1189.4	1185.0	1204.9	1230.7	1235.2
10°	1118.9	1109.7	1099.0	1118.2	1121.1	1116.7	1141.8	1139.2	1158.8	1188.7	1200.5
12.5°	1084.6	1076.8	1065.0	1085.3	1088.7	1082.4	1106.0	1104.9	1125.2	1156.6	1171.3
15°	1060.6	1051.4	1040.7	1058.0	1062.5	1055.4	1078.0	1075.7	1096.4	1127.4	1144.0
17.5°	1038.1	1029.6	1018.5	1034.8	1039.2	1031.8	1054.0	1050.3	1068.0	1097.5	1114.5
20°	1017.1	1007.8	997.9	1014.5	1017.1	1008.6	1030.7	1025.9	1041.8	1069.1	1085.7
22.5°	995.3	985.7	975.4	991.6	994.2	985.7	1006.0	1000.5	1015.2	1039.9	1055.1
25°	971.3	962.4	952.1	967.2	969.5	960.2	981.6	974.6	987.5	1009.3	1021.9
27.5°	947.3	938.8	927.4	942.9	944.0	935.1	954.7	945.1	955.8	975.7	986.4
30°	943.3	933.7	921.9	934.4	934.8	923.3	941.8	930.3	936.2	951.0	957.3
32.5°	956.2	946.6	934.4	944.7	943.6	931.1	948.8	934.8	936.6	944.4	942.9
35°	951.0	939.6	925.2	936.2	936.2	921.1	938.8	922.2	920.4	921.5	912.3
37.5°	892.3	883.5	869.8	880.5	879.4	868.0	881.6	868.0	861.7	859.1	842.5
40°	806.0	795.3	784.9	796.4	797.5	785.3	803.0	787.5	785.7	778.3	758.7
42.5°	718.5	714.8	704.9	714.5	719.6	709.3	724.0	716.7	717.8	715.9	697.5
45°	642.1	635.8	628.5	639.5	642.9	637.7	652.5	648.0	652.5	661.7	646.6
47.5°	559.8	553.6	545.4	557.2	563.1	553.6	566.1	564.6	571.3	587.1	585.7
50°	460.6	456.1	454.7	456.1	459.8	455.4	464.2	464.6	469.0	490.8	492.3
52.5°	364.6	363.5	358.3	363.1	363.1	356.1	365.0	360.9	365.3	380.1	389.7
55°	285.3	284.2	280.8	285.3	280.5	277.9	280.5	276.4	273.1	284.5	294.5
57.5°	222.2	218.5	214.4	216.3	215.9	210.4	213.3	208.5	205.9	210.0	218.8
60°	158.3	157.2	153.5	155.4	156.8	152.8	155.7	153.5	149.1	152.4	152.8
62.5°	105.2	105.9	103.7	104.1	103.0	102.2	104.1	105.2	104.1	102.6	103.0
65°	66.8	66.4	66.1	66.4	67.2	65.7	66.8	67.5	66.4	66.4	66.1
67.5°	44.3	43.2	42.1	42.8	43.5	42.4	43.5	43.2	43.5	43.2	42.1
70°	29.9	29.5	29.2	29.5	29.5	28.8	29.5	29.2	29.5	29.2	28.0
72.5°	21.8	21.8	21.4	21.8	21.8	21.0	21.4	20.7	21.0	20.7	19.9
75°	16.2	16.2	15.9	16.2	15.9	15.5	15.9	15.5	14.8	14.8	14.0
77.5°	11.8	11.8	11.8	11.8	11.8	11.4	11.4	11.1	10.7	10.3	10.3
80°	8.9	8.5	8.5	8.5	8.5	8.1	8.5	8.1	7.7	7.4	7.0
82.5°	6.3	6.6	6.3	6.3	6.3	5.9	6.3	5.9	5.9	5.5	4.8
85°	4.8	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.1	4.1	3.7
87.5°	2.6	2.6	2.6	3.0	2.6	2.6	2.6	2.2	2.2	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6
2.5°	1359.2	1361.0	1356.9	1363.2	1387.6	1368.0	1376.1	1378.7	1397.2	1400.5	1398.3
5°	1307.5	1315.6	1320.8	1334.8	1361.7	1347.7	1362.1	1371.3	1395.0	1402.7	1404.6
7.5°	1266.9	1283.9	1296.4	1319.3	1351.0	1340.3	1362.1	1377.2	1406.0	1416.0	1420.8
10°	1236.6	1262.5	1284.2	1315.6	1351.4	1344.4	1372.8	1394.2	1426.3	1438.1	1444.0
12.5°	1213.8	1245.1	1274.3	1314.1	1352.9	1349.6	1383.9	1408.2	1442.2	1454.0	1461.0
15°	1188.7	1224.8	1258.8	1303.4	1345.1	1344.4	1381.3	1407.1	1441.8	1451.8	1458.4
17.5°	1158.8	1197.5	1234.8	1283.1	1324.5	1325.2	1362.5	1387.9	1421.9	1430.0	1434.4
20°	1128.5	1166.9	1204.2	1254.0	1294.6	1295.7	1332.2	1355.8	1388.3	1395.0	1396.1
22.5°	1096.4	1132.2	1169.5	1218.9	1258.0	1258.8	1294.9	1317.1	1344.8	1348.1	1351.0
25°	1059.9	1094.9	1130.0	1179.1	1216.3	1218.6	1251.4	1271.0	1296.4	1299.0	1300.1
27.5°	1021.9	1050.6	1084.2	1126.3	1163.9	1162.5	1193.5	1215.6	1238.5	1237.0	1236.6
30°	983.5	1007.5	1028.1	1068.7	1096.4	1097.5	1126.7	1137.4	1161.4	1158.4	1158.0
32.5°	956.5	962.8	968.4	989.0	1015.2	1006.0	1025.9	1039.2	1055.8	1054.7	1055.1
35°	907.1	895.7	879.0	882.0	897.9	883.5	894.2	893.8	910.8	906.7	911.5
37.5°	822.6	790.1	753.2	732.2	735.1	717.0	713.3	722.2	728.1	716.7	720.7
40°	732.5	684.6	627.0	579.0	576.4	553.9	549.9	541.0	552.4	542.9	545.8
42.5°	666.1	602.6	527.0	468.7	456.1	437.3	426.2	424.8	428.1	421.4	419.6
45°	615.2	547.6	460.9	394.1	380.1	359.8	348.7	344.7	345.0	342.8	341.0
47.5°	555.4	487.5	399.7	331.4	315.5	296.3	285.3	282.7	284.2	281.2	279.0
50°	472.7	411.8	331.8	269.4	255.4	241.3	232.5	229.9	229.5	227.3	225.9
52.5°	383.8	333.2	263.9	211.8	199.3	185.6	179.4	176.0	176.4	174.2	172.0
55°	297.1	265.7	204.4	160.2	148.7	138.0	132.1	128.1	126.9	124.7	123.6
57.5°	221.1	200.0	153.1	115.5	108.9	98.5	92.6	87.8	87.1	86.0	85.6
60°	155.0	139.9	107.8	82.3	74.5	68.3	62.4	57.6	55.4	55.0	53.9
62.5°	100.4	91.2	70.9	55.0	49.1	44.7	38.7	35.4	34.0	32.5	32.8
65°	62.4	55.4	44.3	35.4	32.1	28.8	24.4	21.4	19.9	18.5	18.8
67.5°	38.7	34.7	28.0	22.9	20.7	18.1	14.8	12.5	11.4	10.3	9.6
70°	26.2	22.5	19.2	16.2	14.8	12.9	10.7	8.9	8.1	7.4	6.6
72.5°	18.5	16.6	14.0	12.2	11.1	9.6	8.1	7.0	6.3	5.5	4.8
75°	13.3	11.8	10.3	8.9	8.1	7.4	6.3	5.5	4.8	4.1	3.3
77.5°	9.6	8.5	7.4	6.6	6.3	5.2	4.4	4.1	3.7	3.0	2.2
80°	6.6	5.9	4.8	4.4	4.4	3.7	3.3	3.0	2.6	1.8	1.5
82.5°	4.4	4.1	3.7	3.3	3.0	2.6	2.6	1.8	1.5	1.1	0.7
85°	3.3	3.0	2.6	2.2	2.2	1.8	1.5	1.1	1.1	0.7	0.4
87.5°	1.8	1.8	1.5	1.1	1.1	0.7	0.7	0.4	0.4	0.4	0.4
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°	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6
2.5°	1417.1	1418.2	1424.5	1419.7	1431.9	1440.7	1436.3	1446.3	1442.9	1442.2	1453.6
5°	1426.7	1429.3	1437.8	1433.3	1446.6	1456.2	1451.8	1462.9	1459.5	1458.8	1470.6
7.5°	1445.1	1447.7	1455.1	1451.4	1465.4	1473.9	1468.4	1480.6	1476.1	1475.8	1487.2
10°	1468.4	1472.1	1478.4	1474.7	1487.6	1495.0	1489.4	1501.2	1497.2	1495.3	1507.9
12.5°	1485.7	1488.3	1494.6	1491.6	1504.2	1509.7	1504.9	1516.4	1511.2	1509.7	1520.8
15°	1481.7	1484.3	1489.4	1486.8	1498.7	1503.8	1497.5	1510.1	1504.9	1502.0	1511.9
17.5°	1455.8	1457.3	1461.0	1458.4	1471.0	1474.3	1467.3	1479.8	1475.0	1469.9	1479.5
20°	1417.8	1417.1	1419.3	1418.2	1428.5	1430.4	1426.0	1435.2	1429.6	1426.7	1432.2
22.5°	1370.6	1369.9	1371.3	1368.4	1378.7	1379.8	1373.2	1384.3	1378.7	1373.2	1382.4
25°	1318.2	1314.1	1313.4	1314.5	1321.5	1322.6	1315.6	1323.7	1316.7	1312.3	1321.1
27.5°	1253.6	1248.4	1247.3	1248.4	1255.5	1250.3	1244.4	1250.3	1243.3	1239.2	1244.8
30°	1173.9	1166.5	1163.2	1161.0	1168.4	1166.5	1152.9	1159.5	1148.4	1142.5	1146.6
32.5°	1066.5	1062.5	1053.6	1048.4	1055.4	1041.4	1032.9	1032.9	1028.5	1018.5	1020.8
35°	917.4	911.2	903.0	898.6	899.7	880.9	866.9	869.8	855.1	852.5	853.6
37.5°	728.8	718.5	715.6	706.3	708.5	691.9	672.8	673.1	665.4	657.3	654.7
40°	547.6	545.8	542.9	535.1	538.1	520.0	512.6	513.0	507.8	501.9	504.8
42.5°	423.3	417.4	415.5	413.0	413.7	410.7	401.1	402.2	397.8	396.3	394.9
45°	343.9	337.7	333.2	335.5	335.5	332.1	328.4	330.7	328.4	325.5	327.0
47.5°	283.4	277.5	275.3	274.9	277.5	275.3	271.6	272.3	272.0	270.9	270.1
50°	226.2	224.7	222.9	221.8	222.9	222.2	218.8	220.7	221.8	218.1	219.2
52.5°	172.3	172.3	172.0	169.4	171.6	169.4	169.0	169.8	168.6	167.2	166.8
55°	126.2	125.1	123.3	122.9	123.6	122.9	122.2	122.5	123.3	119.6	119.6
57.5°	86.4	85.6	84.5	84.5	86.0	84.1	83.0	84.5	83.0	81.6	81.6
60°	55.4	55.0	53.9	53.9	53.9	53.5	52.4	52.8	53.5	51.3	51.7
62.5°	33.2	32.1	31.7	31.4	31.7	31.4	31.4	31.0	30.6	30.6	29.5
65°	18.1	17.3	16.6	17.0	17.0	16.6	16.6	16.6	15.9	15.5	15.1
67.5°	9.2	8.5	8.5	8.1	8.1	8.1	8.1	7.7	7.7	7.7	7.4
70°	5.9	5.5	5.2	5.2	5.2	4.8	4.8	4.8	4.8	4.8	4.4
72.5°	4.1	3.7	3.3	3.3	3.3	3.0	3.0	3.0	3.0	2.6	2.6
75°	3.0	2.6	2.2	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	1.5	1.5	1.5	1.5	1.1	1.1	1.1	1.1	1.1	0.7
80°	1.1	1.1	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4
82.5°	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
87.5°	0.4	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: P245390

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6	1404.6
2.5°	1449.6	1446.6	1448.5	1462.1	1456.2	1454.4	1438.9	1452.5
5°	1466.9	1464.7	1464.7	1480.2	1473.2	1471.7	1456.6	1468.4
7.5°	1483.2	1480.9	1481.3	1497.2	1491.6	1489.4	1474.3	1486.1
10°	1504.2	1502.7	1503.1	1518.2	1512.3	1510.1	1494.6	1506.8
12.5°	1516.7	1514.5	1514.5	1530.8	1524.1	1520.8	1506.0	1517.8
15°	1507.1	1503.8	1503.8	1520.1	1512.7	1507.9	1495.0	1506.0
17.5°	1474.3	1471.0	1471.0	1485.0	1479.5	1472.5	1459.2	1469.5
20°	1428.5	1424.5	1423.4	1439.6	1431.9	1425.6	1413.8	1423.7
22.5°	1376.9	1375.0	1371.7	1387.9	1380.9	1374.3	1361.7	1369.5
25°	1314.9	1311.9	1308.6	1324.5	1317.5	1310.8	1300.9	1307.1
27.5°	1237.7	1238.1	1236.3	1248.8	1241.8	1238.1	1225.9	1236.3
30°	1144.4	1140.3	1138.8	1153.6	1147.0	1142.2	1127.0	1137.0
32.5°	1022.6	1016.7	1008.9	1025.6	1014.1	1010.1	997.1	1011.5
35°	845.5	843.6	836.6	850.6	844.4	837.0	828.9	841.0
37.5°	653.6	655.0	654.3	658.0	654.3	649.5	640.6	636.2
40°	498.9	495.2	492.3	498.9	491.2	491.2	486.0	491.6
42.5°	391.2	389.7	393.4	394.9	390.4	389.7	389.0	388.6
45°	322.9	322.9	323.6	325.1	323.6	322.9	320.7	319.2
47.5°	266.1	267.6	266.1	270.9	268.3	267.6	263.1	265.0
50°	215.5	213.7	215.5	217.0	217.4	215.1	212.9	214.0
52.5°	167.2	164.2	163.5	165.7	164.2	164.2	162.7	162.4
55°	117.7	118.8	117.0	118.8	118.1	117.0	115.9	117.4
57.5°	79.7	80.1	79.3	80.4	78.6	79.0	78.6	78.2
60°	51.7	50.2	50.2	51.3	49.5	49.5	49.1	49.1
62.5°	29.5	29.2	29.2	28.8	28.4	28.4	28.4	27.7
65°	15.1	14.8	14.4	14.4	14.4	14.4	14.0	14.0
67.5°	7.4	7.0	7.0	7.4	7.0	7.0	7.0	7.0
70°	4.4	4.4	4.1	4.4	4.1	4.1	4.1	4.1
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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

(END OF REPORT)