

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: P245384

Luminaire Tested: **LSR8B20D010 EC8B20827 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P245384
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 EC8B20827 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2098.0 lumens
Efficiency: N/A
Efficacy: 98.5 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

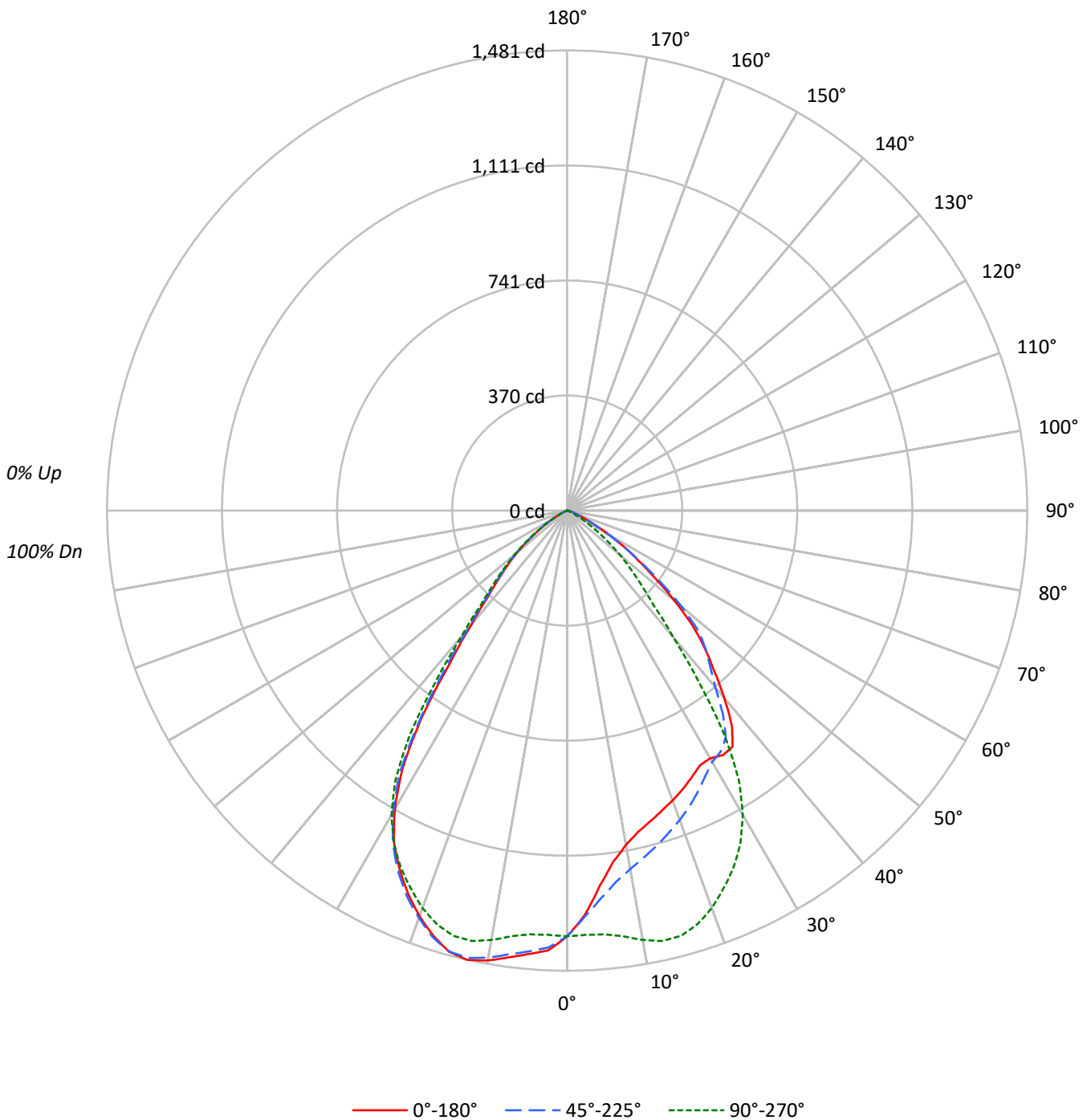
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	42264	42264	42264
5°	37498	42370	44354
10°	34190	43943	46038
15°	33041	45227	46916
20°	32569	44668	45590
25°	32248	43129	43398
30°	32772	40250	39506
35°	34934	33308	30895
40°	31660	21323	19310
45°	27325	14587	13584
50°	21559	10640	10022
55°	14967	6543	6156
60°	9528	3312	2954
65°	4757	1313	1000
70°	2633	649	361
75°	1882	477	167
80°	1527	320	71
85°	1663	248	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	6.1
10°-20°	369.0	17.6
20°-30°	535.5	25.5
30°-40°	527.4	25.1
40°-50°	330.6	15.8
50°-60°	159.5	7.6
60°-70°	38.6	1.8
70°-80°	7.8	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°	1032.2	49.2
0°-40°	1559.6	74.3
0°-60°	2049.8	97.7
0°-90°	2098.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2098.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1371	1371	1371	1371	1371	
5°	1211	1252	1369	1424	1433	112
15°	1035	1116	1417	1468	1470	293
25°	948	997	1268	1285	1276	439
35°	928	890	885	834	821	561
45°	627	631	334	320	312	479
55°	278	287	122	120	114	256
65°	65	64	18	16	14	74
75°	16	14	4	2	1	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°	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6
2.5°	1302.9	1294.6	1279.1	1297.8	1297.8	1287.4	1308.3	1295.7	1305.8	1321.6	1307.6
5°	1211.4	1204.6	1191.6	1211.4	1213.9	1204.2	1229.4	1220.1	1234.8	1254.3	1252.5
7.5°	1139.0	1130.4	1118.5	1139.0	1143.0	1136.5	1160.6	1156.3	1175.8	1201.0	1205.3
10°	1091.9	1082.9	1072.4	1091.1	1094.0	1089.7	1114.2	1111.7	1130.7	1159.9	1171.4
12.5°	1058.4	1050.8	1039.3	1059.1	1062.3	1056.2	1079.3	1078.2	1098.0	1128.6	1143.0
15°	1035.0	1026.0	1015.5	1032.4	1036.8	1029.9	1051.9	1049.7	1069.9	1100.1	1116.3
17.5°	1013.0	1004.7	993.9	1009.8	1014.1	1006.9	1028.5	1024.9	1042.2	1071.0	1087.5
20°	992.5	983.5	973.7	989.9	992.5	984.2	1005.8	1001.1	1016.6	1043.2	1059.4
22.5°	971.2	961.9	951.8	967.6	970.1	961.9	981.7	976.3	990.7	1014.8	1029.6
25°	947.8	939.2	929.1	943.8	946.0	937.0	957.9	951.1	963.7	984.9	997.1
27.5°	924.4	916.1	905.0	920.1	921.2	912.5	931.6	922.2	932.7	952.1	962.6
30°	920.4	911.1	899.6	911.8	912.2	901.0	919.0	907.8	913.6	928.0	934.1
32.5°	933.0	923.7	911.8	921.9	920.8	908.6	925.8	912.2	914.0	921.5	920.1
35°	928.0	916.8	902.8	913.6	913.6	898.8	916.1	899.9	898.1	899.2	890.2
37.5°	870.7	862.1	848.8	859.2	858.1	847.0	860.3	847.0	840.9	838.3	822.1
40°	786.5	776.0	766.0	777.1	778.2	766.3	783.6	768.5	766.7	759.5	740.4
42.5°	701.1	697.5	687.8	697.2	702.2	692.1	706.5	699.3	700.4	698.6	680.6
45°	626.6	620.5	613.3	624.1	627.3	622.3	636.7	632.4	636.7	645.7	630.9
47.5°	546.3	540.2	532.2	543.8	549.5	540.2	552.4	551.0	557.5	572.9	571.5
50°	449.4	445.1	443.7	445.1	448.7	444.4	453.0	453.4	457.7	478.9	480.4
52.5°	355.8	354.7	349.7	354.3	354.3	347.5	356.1	352.2	356.5	370.9	380.3
55°	278.4	277.3	274.0	278.4	273.7	271.2	273.7	269.7	266.5	277.6	287.4
57.5°	216.8	213.2	209.2	211.0	210.7	205.3	208.1	203.5	200.9	204.9	213.5
60°	154.5	153.4	149.8	151.6	153.0	149.1	152.0	149.8	145.5	148.7	149.1
62.5°	102.6	103.4	101.2	101.6	100.5	99.8	101.6	102.6	101.6	100.1	100.5
65°	65.2	64.8	64.5	64.8	65.5	64.1	65.2	65.9	64.8	64.8	64.5
67.5°	43.2	42.1	41.1	41.8	42.5	41.4	42.5	42.1	42.5	42.1	41.1
70°	29.2	28.8	28.4	28.8	28.8	28.1	28.8	28.4	28.8	28.4	27.4
72.5°	21.2	21.2	20.9	21.2	21.2	20.5	20.9	20.2	20.5	20.2	19.4
75°	15.8	15.8	15.5	15.8	15.5	15.1	15.5	15.1	14.4	14.4	13.7
77.5°	11.5	11.5	11.5	11.5	11.5	11.2	11.2	10.8	10.4	10.1	10.1
80°	8.6	8.3	8.3	8.3	8.3	7.9	8.3	7.9	7.6	7.2	6.8
82.5°	6.1	6.5	6.1	6.1	6.1	5.8	6.1	5.8	5.8	5.4	4.7
85°	4.7	4.7	4.7	4.7	4.7	4.3	4.3	4.3	4.0	4.0	3.6
87.5°	2.5	2.5	2.5	2.9	2.5	2.5	2.5	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°	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6
2.5°	1326.3	1328.1	1324.1	1330.2	1354.0	1334.9	1342.9	1345.4	1363.4	1366.6	1364.5
5°	1275.9	1283.8	1288.8	1302.5	1328.8	1315.1	1329.2	1338.2	1361.2	1368.8	1370.6
7.5°	1236.3	1252.8	1265.1	1287.4	1318.4	1307.9	1329.2	1343.9	1372.0	1381.7	1386.4
10°	1206.7	1231.9	1253.2	1283.8	1318.7	1311.9	1339.6	1360.5	1391.8	1403.4	1409.1
12.5°	1184.4	1215.0	1243.5	1282.4	1320.2	1316.9	1350.4	1374.2	1407.3	1418.8	1425.7
15°	1159.9	1195.2	1228.3	1271.9	1312.6	1311.9	1347.9	1373.1	1407.0	1416.7	1423.2
17.5°	1130.7	1168.6	1204.9	1252.1	1292.4	1293.2	1329.5	1354.4	1387.5	1395.4	1399.7
20°	1101.2	1138.7	1175.0	1223.7	1263.3	1264.3	1300.0	1323.0	1354.7	1361.2	1362.3
22.5°	1069.9	1104.8	1141.2	1189.4	1227.6	1228.3	1263.6	1285.2	1312.2	1315.5	1318.4
25°	1034.2	1068.4	1102.7	1150.6	1186.9	1189.1	1221.1	1240.2	1265.1	1267.6	1268.7
27.5°	997.1	1025.2	1058.0	1099.1	1135.8	1134.3	1164.6	1186.2	1208.5	1207.1	1206.7
30°	959.7	983.1	1003.3	1042.9	1069.9	1071.0	1099.4	1109.9	1133.3	1130.4	1130.0
32.5°	933.4	939.5	944.9	965.1	990.7	981.7	1001.1	1014.1	1030.3	1029.2	1029.6
35°	885.2	874.0	857.8	860.7	876.1	862.1	872.5	872.2	888.8	884.8	889.5
37.5°	802.7	771.0	735.0	714.5	717.3	699.7	696.1	704.7	710.5	699.3	703.3
40°	714.8	668.0	611.8	565.0	562.5	540.5	536.6	527.9	539.1	529.7	532.6
42.5°	650.0	588.1	514.2	457.3	445.1	426.7	415.9	414.5	417.7	411.2	409.4
45°	600.3	534.4	449.8	384.6	370.9	351.1	340.3	336.3	336.7	334.5	332.7
47.5°	542.0	475.7	390.0	323.4	307.9	289.2	278.4	275.8	277.3	274.4	272.2
50°	461.3	401.9	323.7	262.9	249.2	235.5	226.9	224.3	224.0	221.8	220.4
52.5°	374.5	325.2	257.5	206.7	194.5	181.1	175.0	171.8	172.1	170.0	167.8
55°	289.9	259.3	199.5	156.3	145.1	134.7	128.9	125.0	123.9	121.7	120.6
57.5°	215.7	195.2	149.4	112.7	106.2	96.1	90.4	85.7	85.0	83.9	83.5
60°	151.2	136.5	105.2	80.3	72.7	66.6	60.9	56.2	54.0	53.7	52.6
62.5°	98.0	88.9	69.1	53.7	47.9	43.6	37.8	34.6	33.1	31.7	32.0
65°	60.9	54.0	43.2	34.6	31.3	28.1	23.8	20.9	19.4	18.0	18.4
67.5°	37.8	33.9	27.4	22.3	20.2	17.6	14.4	12.2	11.2	10.1	9.4
70°	25.6	22.0	18.7	15.8	14.4	12.6	10.4	8.6	7.9	7.2	6.5
72.5°	18.0	16.2	13.7	11.9	10.8	9.4	7.9	6.8	6.1	5.4	4.7
75°	13.0	11.5	10.1	8.6	7.9	7.2	6.1	5.4	4.7	4.0	3.2
77.5°	9.4	8.3	7.2	6.5	6.1	5.0	4.3	4.0	3.6	2.9	2.2
80°	6.5	5.8	4.7	4.3	4.3	3.6	3.2	2.9	2.5	1.8	1.4
82.5°	4.3	4.0	3.6	3.2	2.9	2.5	2.5	1.8	1.4	1.1	0.7
85°	3.2	2.9	2.5	2.2	2.2	1.8	1.4	1.1	1.1	0.7	0.4
87.5°	1.8	1.8	1.4	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°	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6
2.5°	1382.8	1383.9	1390.0	1385.3	1397.2	1405.9	1401.6	1411.3	1408.0	1407.3	1418.5
5°	1392.2	1394.7	1403.0	1398.7	1411.6	1421.0	1416.7	1427.5	1424.2	1423.5	1435.0
7.5°	1410.2	1412.7	1419.9	1416.3	1430.0	1438.3	1432.9	1444.8	1440.4	1440.1	1451.2
10°	1432.9	1436.5	1442.6	1439.0	1451.6	1458.8	1453.4	1464.9	1461.0	1459.2	1471.4
12.5°	1449.8	1452.3	1458.4	1455.6	1467.8	1473.2	1468.5	1479.7	1474.7	1473.2	1484.0
15°	1445.8	1448.4	1453.4	1450.9	1462.4	1467.5	1461.3	1473.6	1468.5	1465.7	1475.4
17.5°	1420.6	1422.1	1425.7	1423.2	1435.4	1438.6	1431.8	1444.0	1439.4	1434.3	1443.7
20°	1383.5	1382.8	1385.0	1383.9	1394.0	1395.8	1391.5	1400.5	1395.1	1392.2	1397.6
22.5°	1337.5	1336.7	1338.2	1335.3	1345.4	1346.5	1340.0	1350.8	1345.4	1340.0	1349.0
25°	1286.3	1282.4	1281.6	1282.7	1289.6	1290.6	1283.8	1291.7	1284.9	1280.6	1289.2
27.5°	1223.3	1218.3	1217.2	1218.3	1225.1	1220.1	1214.3	1220.1	1213.2	1209.3	1214.7
30°	1145.5	1138.3	1135.1	1132.9	1140.1	1138.3	1125.0	1131.5	1120.7	1114.9	1118.9
32.5°	1040.7	1036.8	1028.1	1023.1	1029.9	1016.2	1007.9	1007.9	1003.6	993.9	996.1
35°	895.2	889.1	881.2	876.9	877.9	859.6	845.9	848.8	834.4	831.9	832.9
37.5°	711.2	701.1	698.3	689.3	691.4	675.2	656.5	656.8	649.3	641.4	638.8
40°	534.4	532.6	529.7	522.2	525.0	507.4	500.2	500.6	495.5	489.8	492.6
42.5°	413.0	407.3	405.5	403.0	403.7	400.8	391.4	392.5	388.2	386.8	385.3
45°	335.6	329.5	325.2	327.3	327.3	324.1	320.5	322.7	320.5	317.6	319.1
47.5°	276.6	270.8	268.6	268.3	270.8	268.6	265.0	265.8	265.4	264.3	263.6
50°	220.7	219.3	217.5	216.4	217.5	216.8	213.5	215.3	216.4	212.8	213.9
52.5°	168.2	168.2	167.8	165.3	167.5	165.3	164.9	165.7	164.6	163.1	162.8
55°	123.2	122.1	120.3	119.9	120.6	119.9	119.2	119.6	120.3	116.7	116.7
57.5°	84.3	83.5	82.5	82.5	83.9	82.1	81.0	82.5	81.0	79.6	79.6
60°	54.0	53.7	52.6	52.6	52.6	52.2	51.1	51.5	52.2	50.1	50.4
62.5°	32.4	31.3	31.0	30.6	31.0	30.6	30.6	30.2	29.9	29.9	28.8
65°	17.6	16.9	16.2	16.6	16.6	16.2	16.2	16.2	15.5	15.1	14.8
67.5°	9.0	8.3	8.3	7.9	7.9	7.9	7.9	7.6	7.6	7.6	7.2
70°	5.8	5.4	5.0	5.0	5.0	4.7	4.7	4.7	4.7	4.7	4.3
72.5°	4.0	3.6	3.2	3.2	3.2	2.9	2.9	2.9	2.9	2.5	2.5
75°	2.9	2.5	2.2	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	1.4	1.4	1.4	1.4	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: P245384

CATALOG NUMBER: LSR8B20D010 EC8B20827 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6	1370.6
2.5°	1414.5	1411.6	1413.4	1426.8	1421.0	1419.2	1404.1	1417.4
5°	1431.4	1429.3	1429.3	1444.4	1437.6	1436.1	1421.4	1432.9
7.5°	1447.3	1445.1	1445.5	1461.0	1455.6	1453.4	1438.6	1450.2
10°	1467.8	1466.4	1466.7	1481.5	1475.7	1473.6	1458.4	1470.3
12.5°	1480.1	1477.9	1477.9	1493.7	1487.3	1484.0	1469.6	1481.1
15°	1470.7	1467.5	1467.5	1483.3	1476.1	1471.4	1458.8	1469.6
17.5°	1438.6	1435.4	1435.4	1449.1	1443.7	1436.8	1423.9	1434.0
20°	1394.0	1390.0	1388.9	1404.8	1397.2	1391.1	1379.6	1389.3
22.5°	1343.6	1341.8	1338.5	1354.4	1347.5	1341.1	1328.8	1336.4
25°	1283.1	1280.2	1277.0	1292.4	1285.6	1279.1	1269.4	1275.5
27.5°	1207.8	1208.2	1206.4	1218.6	1211.8	1208.2	1196.3	1206.4
30°	1116.7	1112.7	1111.3	1125.7	1119.2	1114.5	1099.8	1109.5
32.5°	997.9	992.1	984.5	1000.7	989.6	985.6	973.0	987.1
35°	825.0	823.2	816.4	830.1	823.9	816.7	808.8	820.7
37.5°	637.8	639.2	638.5	642.1	638.5	633.8	625.2	620.8
40°	486.9	483.3	480.4	486.9	479.3	479.3	474.3	479.7
42.5°	381.7	380.3	383.9	385.3	381.0	380.3	379.6	379.2
45°	315.1	315.1	315.8	317.3	315.8	315.1	312.9	311.5
47.5°	259.6	261.1	259.6	264.3	261.8	261.1	256.8	258.6
50°	210.3	208.5	210.3	211.7	212.1	209.9	207.8	208.9
52.5°	163.1	160.2	159.5	161.7	160.2	160.2	158.8	158.4
55°	114.9	116.0	114.2	116.0	115.2	114.2	113.1	114.5
57.5°	77.8	78.1	77.4	78.5	76.7	77.1	76.7	76.3
60°	50.4	49.0	49.0	50.1	48.3	48.3	47.9	47.9
62.5°	28.8	28.4	28.4	28.1	27.7	27.7	27.7	27.0
65°	14.8	14.4	14.0	14.0	14.0	14.0	13.7	13.7
67.5°	7.2	6.8	6.8	7.2	6.8	6.8	6.8	6.8
70°	4.3	4.3	4.0	4.3	4.0	4.0	4.0	4.0
72.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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)