

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: P245402

Luminaire Tested: **LSR8B20D010 EC8B20840 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P245402
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 EC8B20840 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2221.0 lumens
Efficiency: N/A
Efficacy: 104.3 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

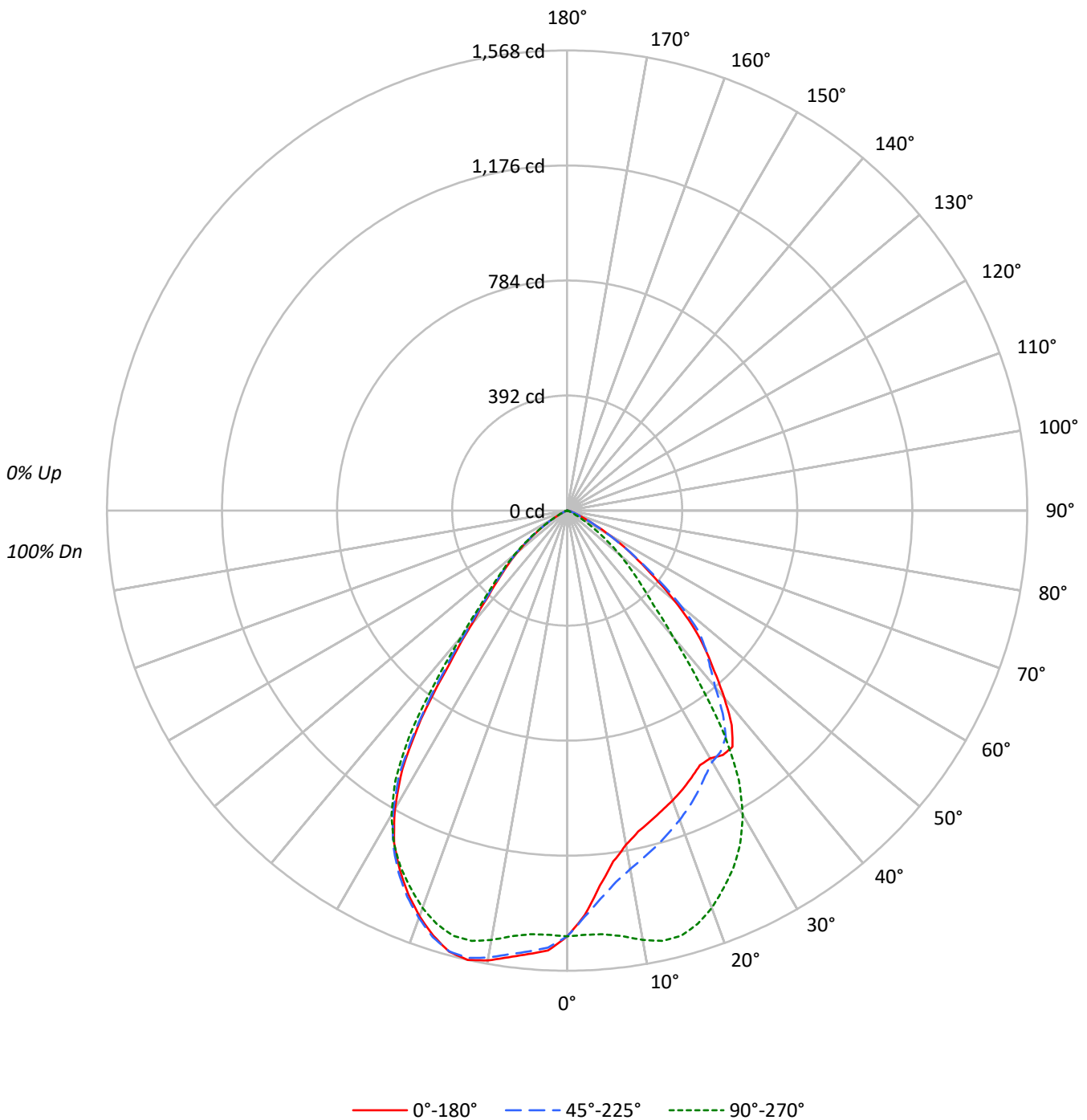
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	44740	44740	44740
5°	39696	44852	46954
10°	36194	46517	48737
15°	34976	47877	49668
20°	34479	47287	48265
25°	34140	45657	45943
30°	34695	42611	41820
35°	36982	35261	32705
40°	33515	22574	20441
45°	28926	15446	14382
50°	22825	11264	10607
55°	15844	6930	6516
60°	10083	3503	3127
65°	5035	1394	1058
70°	2786	685	379
75°	2002	500	179
80°	1616	337	71
85°	1769	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.2	6.1
10°-20°	390.6	17.6
20°-30°	566.9	25.5
30°-40°	558.3	25.1
40°-50°	350.0	15.8
50°-60°	168.9	7.6
60°-70°	40.9	1.8
70°-80°	8.3	0.4
80°-90°	1.9	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°	1092.7	49.2
0°-40°	1651.1	74.3
0°-60°	2170.0	97.7
0°-90°	2221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2221.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1451	1451	1451	1451	1451	
5°	1282	1326	1449	1508	1517	119
15°	1096	1182	1500	1555	1556	310
25°	1003	1056	1342	1360	1350	464
35°	982	942	937	883	869	594
45°	663	668	354	339	330	507
55°	295	304	129	127	121	271
65°	69	68	19	16	14	79
75°	17	14	4	2	2	19
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°	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9
2.5°	1379.3	1370.5	1354.1	1373.9	1373.9	1362.9	1385.0	1371.6	1382.3	1399.1	1384.2
5°	1282.4	1275.2	1261.5	1282.4	1285.1	1274.8	1301.5	1291.6	1307.2	1327.8	1325.9
7.5°	1205.8	1196.7	1184.1	1205.8	1210.0	1203.1	1228.7	1224.1	1244.7	1271.4	1276.0
10°	1155.9	1146.3	1135.3	1155.1	1158.2	1153.6	1179.5	1176.8	1197.0	1227.9	1240.1
12.5°	1120.4	1112.4	1100.2	1121.2	1124.6	1118.1	1142.5	1141.4	1162.3	1194.8	1210.0
15°	1095.6	1086.1	1075.0	1093.0	1097.5	1090.3	1113.6	1111.3	1132.6	1164.6	1181.8
17.5°	1072.4	1063.6	1052.2	1068.9	1073.5	1065.9	1088.8	1085.0	1103.3	1133.8	1151.3
20°	1050.7	1041.1	1030.8	1048.0	1050.7	1041.9	1064.8	1059.8	1076.2	1104.4	1121.6
22.5°	1028.2	1018.2	1007.6	1024.3	1027.0	1018.2	1039.2	1033.5	1048.7	1074.3	1089.9
25°	1003.4	994.2	983.6	999.2	1001.5	991.9	1014.1	1006.8	1020.2	1042.6	1055.6
27.5°	978.6	969.8	958.0	974.0	975.2	966.0	986.2	976.3	987.4	1008.0	1019.0
30°	974.4	964.5	952.3	965.3	965.6	953.8	972.9	961.1	967.2	982.4	988.9
32.5°	987.7	977.8	965.3	975.9	974.8	961.8	980.1	965.6	967.5	975.5	974.0
35°	982.4	970.6	955.7	967.2	967.2	951.5	969.8	952.7	950.8	951.9	942.4
37.5°	921.8	912.6	898.5	909.6	908.5	896.6	910.7	896.6	890.2	887.5	870.3
40°	832.6	821.5	810.9	822.7	823.8	811.2	829.5	813.5	811.6	804.0	783.8
42.5°	742.2	738.4	728.1	738.0	743.4	732.7	748.0	740.3	741.5	739.6	720.5
45°	663.3	656.8	649.2	660.7	664.1	658.8	674.0	669.4	674.0	683.5	667.9
47.5°	578.3	571.8	563.4	575.6	581.7	571.8	584.8	583.3	590.1	606.5	605.0
50°	475.8	471.2	469.7	471.2	475.0	470.4	479.6	480.0	484.5	507.0	508.6
52.5°	376.6	375.5	370.2	375.1	375.1	367.9	377.0	372.8	377.4	392.7	402.6
55°	294.7	293.5	290.1	294.7	289.7	287.1	289.7	285.5	282.1	293.9	304.2
57.5°	229.5	225.7	221.5	223.4	223.0	217.3	220.3	215.4	212.7	216.9	226.1
60°	163.5	162.4	158.6	160.5	162.0	157.8	160.9	158.6	154.0	157.4	157.8
62.5°	108.6	109.4	107.1	107.5	106.4	105.6	107.5	108.6	107.5	106.0	106.4
65°	69.0	68.6	68.2	68.6	69.4	67.9	69.0	69.8	68.6	68.6	68.2
67.5°	45.7	44.6	43.5	44.2	45.0	43.8	45.0	44.6	45.0	44.6	43.5
70°	30.9	30.5	30.1	30.5	30.5	29.7	30.5	30.1	30.5	30.1	29.0
72.5°	22.5	22.5	22.1	22.5	22.5	21.7	22.1	21.3	21.7	21.3	20.6
75°	16.8	16.8	16.4	16.8	16.4	16.0	16.4	16.0	15.2	15.2	14.5
77.5°	12.2	12.2	12.2	12.2	12.2	11.8	11.8	11.4	11.1	10.7	10.7
80°	9.1	8.8	8.8	8.8	8.8	8.4	8.8	8.4	8.0	7.6	7.2
82.5°	6.5	6.9	6.5	6.5	6.5	6.1	6.5	6.1	6.1	5.7	5.0
85°	5.0	5.0	5.0	5.0	5.0	4.6	4.6	4.6	4.2	4.2	3.8
87.5°	2.7	2.7	2.7	3.0	2.7	2.7	2.7	2.3	2.3	1.9	1.9
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°	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9
2.5°	1404.0	1405.9	1401.8	1408.2	1433.4	1413.2	1421.6	1424.2	1443.3	1446.7	1444.5
5°	1350.7	1359.1	1364.4	1378.9	1406.7	1392.2	1407.1	1416.6	1441.0	1449.0	1450.9
7.5°	1308.7	1326.3	1339.2	1362.9	1395.7	1384.6	1407.1	1422.7	1452.5	1462.8	1467.7
10°	1277.5	1304.2	1326.7	1359.1	1396.0	1388.8	1418.1	1440.3	1473.4	1485.6	1491.7
12.5°	1253.8	1286.2	1316.4	1357.5	1397.6	1394.1	1429.6	1454.7	1489.8	1502.0	1509.3
15°	1227.9	1265.3	1300.4	1346.5	1389.6	1388.8	1426.9	1453.6	1489.4	1499.7	1506.6
17.5°	1197.0	1237.1	1275.6	1325.5	1368.2	1369.0	1407.5	1433.8	1468.9	1477.2	1481.8
20°	1165.8	1205.4	1243.9	1295.4	1337.3	1338.5	1376.2	1400.6	1434.2	1441.0	1442.2
22.5°	1132.6	1169.6	1208.1	1259.2	1299.6	1300.4	1337.7	1360.6	1389.2	1392.6	1395.7
25°	1094.9	1131.1	1167.3	1218.0	1256.5	1258.8	1292.7	1312.9	1339.2	1341.9	1343.0
27.5°	1055.6	1085.3	1120.0	1163.5	1202.4	1200.9	1232.9	1255.7	1279.4	1277.9	1277.5
30°	1016.0	1040.7	1062.1	1104.0	1132.6	1133.8	1163.9	1174.9	1199.7	1196.7	1196.3
32.5°	988.1	994.6	1000.3	1021.7	1048.7	1039.2	1059.8	1073.5	1090.7	1089.5	1089.9
35°	937.0	925.2	908.1	911.1	927.5	912.6	923.7	923.3	940.9	936.7	941.6
37.5°	849.7	816.2	778.1	756.3	759.4	740.7	736.9	746.1	752.2	740.3	744.5
40°	756.7	707.2	647.7	598.1	595.5	572.2	568.0	558.9	570.7	560.8	563.8
42.5°	688.1	622.5	544.4	484.2	471.2	451.7	440.3	438.8	442.2	435.4	433.5
45°	635.5	565.7	476.1	407.1	392.7	371.7	360.3	356.1	356.4	354.2	352.2
47.5°	573.7	503.6	412.9	342.3	325.9	306.1	294.7	292.0	293.5	290.5	288.2
50°	488.3	425.4	342.7	278.3	263.8	249.3	240.2	237.5	237.1	234.8	233.3
52.5°	396.5	344.2	272.6	218.8	205.9	191.8	185.3	181.8	182.2	179.9	177.6
55°	306.9	274.5	211.2	165.5	153.6	142.6	136.5	132.3	131.1	128.9	127.7
57.5°	228.4	206.6	158.2	119.3	112.5	101.8	95.7	90.7	90.0	88.8	88.4
60°	160.1	144.5	111.3	85.0	77.0	70.5	64.4	59.5	57.2	56.8	55.7
62.5°	103.7	94.2	73.2	56.8	50.7	46.1	40.0	36.6	35.1	33.5	33.9
65°	64.4	57.2	45.7	36.6	33.2	29.7	25.2	22.1	20.6	19.1	19.4
67.5°	40.0	35.8	29.0	23.6	21.3	18.7	15.2	13.0	11.8	10.7	9.9
70°	27.1	23.3	19.8	16.8	15.2	13.3	11.1	9.1	8.4	7.6	6.9
72.5°	19.1	17.2	14.5	12.6	11.4	9.9	8.4	7.2	6.5	5.7	5.0
75°	13.7	12.2	10.7	9.1	8.4	7.6	6.5	5.7	5.0	4.2	3.4
77.5°	9.9	8.8	7.6	6.9	6.5	5.3	4.6	4.2	3.8	3.0	2.3
80°	6.9	6.1	5.0	4.6	4.6	3.8	3.4	3.0	2.7	1.9	1.5
82.5°	4.6	4.2	3.8	3.4	3.0	2.7	2.7	1.9	1.5	1.1	0.8
85°	3.4	3.0	2.7	2.3	2.3	1.9	1.5	1.1	1.1	0.8	0.4
87.5°	1.9	1.9	1.5	1.1	1.1	0.8	0.8	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°	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9
2.5°	1463.9	1465.0	1471.5	1466.6	1479.1	1488.3	1483.7	1494.0	1490.6	1489.8	1501.6
5°	1473.8	1476.5	1485.2	1480.7	1494.4	1504.3	1499.7	1511.2	1507.7	1507.0	1519.2
7.5°	1492.9	1495.5	1503.2	1499.3	1513.8	1522.6	1516.9	1529.5	1524.9	1524.5	1536.3
10°	1516.9	1520.7	1527.2	1523.4	1536.7	1544.3	1538.6	1550.8	1546.6	1544.7	1557.7
12.5°	1534.8	1537.5	1544.0	1540.9	1553.9	1559.6	1554.6	1566.4	1561.1	1559.6	1571.0
15°	1530.6	1533.3	1538.6	1535.9	1548.1	1553.5	1547.0	1560.0	1554.6	1551.6	1561.9
17.5°	1503.9	1505.4	1509.3	1506.6	1519.6	1523.0	1515.7	1528.7	1523.7	1518.4	1528.3
20°	1464.7	1463.9	1466.2	1465.0	1475.7	1477.6	1473.0	1482.6	1476.9	1473.8	1479.5
22.5°	1415.9	1415.1	1416.6	1413.6	1424.2	1425.4	1418.5	1430.0	1424.2	1418.5	1428.1
25°	1361.7	1357.5	1356.8	1357.9	1365.2	1366.3	1359.1	1367.4	1360.2	1355.6	1364.8
27.5°	1295.0	1289.7	1288.5	1289.7	1296.9	1291.6	1285.5	1291.6	1284.3	1280.1	1285.9
30°	1212.7	1205.0	1201.6	1199.3	1207.0	1205.0	1190.9	1197.8	1186.4	1180.3	1184.5
32.5°	1101.7	1097.5	1088.4	1083.1	1090.3	1075.8	1067.0	1067.0	1062.5	1052.2	1054.5
35°	947.7	941.2	932.9	928.3	929.4	910.0	895.5	898.5	883.3	880.6	881.8
37.5°	752.9	742.2	739.2	729.7	731.9	714.8	695.0	695.4	687.3	679.0	676.3
40°	565.7	563.8	560.8	552.8	555.8	537.1	529.5	529.9	524.6	518.5	521.5
42.5°	437.3	431.2	429.3	426.6	427.4	424.3	414.4	415.5	411.0	409.4	407.9
45°	355.3	348.8	344.2	346.5	346.5	343.1	339.3	341.6	339.3	336.2	337.8
47.5°	292.8	286.7	284.4	284.0	286.7	284.4	280.6	281.3	281.0	279.8	279.1
50°	233.7	232.2	230.3	229.1	230.3	229.5	226.1	228.0	229.1	225.3	226.4
52.5°	178.0	178.0	177.6	175.0	177.3	175.0	174.6	175.4	174.2	172.7	172.3
55°	130.4	129.2	127.3	126.9	127.7	126.9	126.2	126.6	127.3	123.5	123.5
57.5°	89.2	88.4	87.3	87.3	88.8	86.9	85.8	87.3	85.8	84.3	84.3
60°	57.2	56.8	55.7	55.7	55.7	55.3	54.1	54.5	55.3	53.0	53.4
62.5°	34.3	33.2	32.8	32.4	32.8	32.4	32.4	32.0	31.6	31.6	30.5
65°	18.7	17.9	17.2	17.5	17.5	17.2	17.2	17.2	16.4	16.0	15.6
67.5°	9.5	8.8	8.8	8.4	8.4	8.4	8.4	8.0	8.0	8.0	7.6
70°	6.1	5.7	5.3	5.3	5.3	5.0	5.0	5.0	5.0	5.0	4.6
72.5°	4.2	3.8	3.4	3.4	3.4	3.0	3.0	3.0	3.0	2.7	2.7
75°	3.0	2.7	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.5	1.5	1.5	1.5	1.1	1.1	1.1	1.1	1.1	0.8
80°	1.1	1.1	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
82.5°	0.8	0.8	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: P245402

CATALOG NUMBER: LSR8B20D010 EC8B20840 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9
2.5°	1497.4	1494.4	1496.3	1510.4	1504.3	1502.4	1486.4	1500.5
5°	1515.4	1513.1	1513.1	1529.1	1521.8	1520.3	1504.7	1516.9
7.5°	1532.1	1529.8	1530.2	1546.6	1540.9	1538.6	1523.0	1535.2
10°	1553.9	1552.3	1552.7	1568.4	1562.3	1560.0	1544.0	1556.5
12.5°	1566.8	1564.5	1564.5	1581.3	1574.5	1571.0	1555.8	1568.0
15°	1556.9	1553.5	1553.5	1570.3	1562.6	1557.7	1544.3	1555.8
17.5°	1523.0	1519.6	1519.6	1534.0	1528.3	1521.1	1507.4	1518.0
20°	1475.7	1471.5	1470.4	1487.2	1479.1	1472.7	1460.5	1470.8
22.5°	1422.3	1420.4	1417.0	1433.8	1426.5	1419.7	1406.7	1414.7
25°	1358.3	1355.2	1351.8	1368.2	1361.0	1354.1	1343.8	1350.3
27.5°	1278.6	1279.0	1277.1	1290.1	1282.8	1279.0	1266.4	1277.1
30°	1182.2	1178.0	1176.5	1191.7	1184.8	1179.9	1164.3	1174.5
32.5°	1056.4	1050.3	1042.3	1059.4	1047.6	1043.4	1030.1	1044.9
35°	873.4	871.5	864.2	878.7	872.2	864.6	856.2	868.8
37.5°	675.1	676.7	675.9	679.7	675.9	671.0	661.8	657.2
40°	515.4	511.6	508.6	515.4	507.4	507.4	502.1	507.8
42.5°	404.1	402.6	406.4	407.9	403.3	402.6	401.8	401.4
45°	333.6	333.6	334.3	335.9	334.3	333.6	331.3	329.8
47.5°	274.9	276.4	274.9	279.8	277.1	276.4	271.8	273.7
50°	222.6	220.7	222.6	224.2	224.5	222.3	220.0	221.1
52.5°	172.7	169.6	168.9	171.2	169.6	169.6	168.1	167.7
55°	121.6	122.8	120.8	122.8	122.0	120.8	119.7	121.2
57.5°	82.3	82.7	82.0	83.1	81.2	81.6	81.2	80.8
60°	53.4	51.8	51.8	53.0	51.1	51.1	50.7	50.7
62.5°	30.5	30.1	30.1	29.7	29.4	29.4	29.4	28.6
65°	15.6	15.2	14.9	14.9	14.9	14.9	14.5	14.5
67.5°	7.6	7.2	7.2	7.6	7.2	7.2	7.2	7.2
70°	4.6	4.6	4.2	4.6	4.2	4.2	4.2	4.2
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)