

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: P245408

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245408  
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 EC8B20850 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2265.0 lumens  
Efficiency: N/A  
Efficacy: 106.3 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

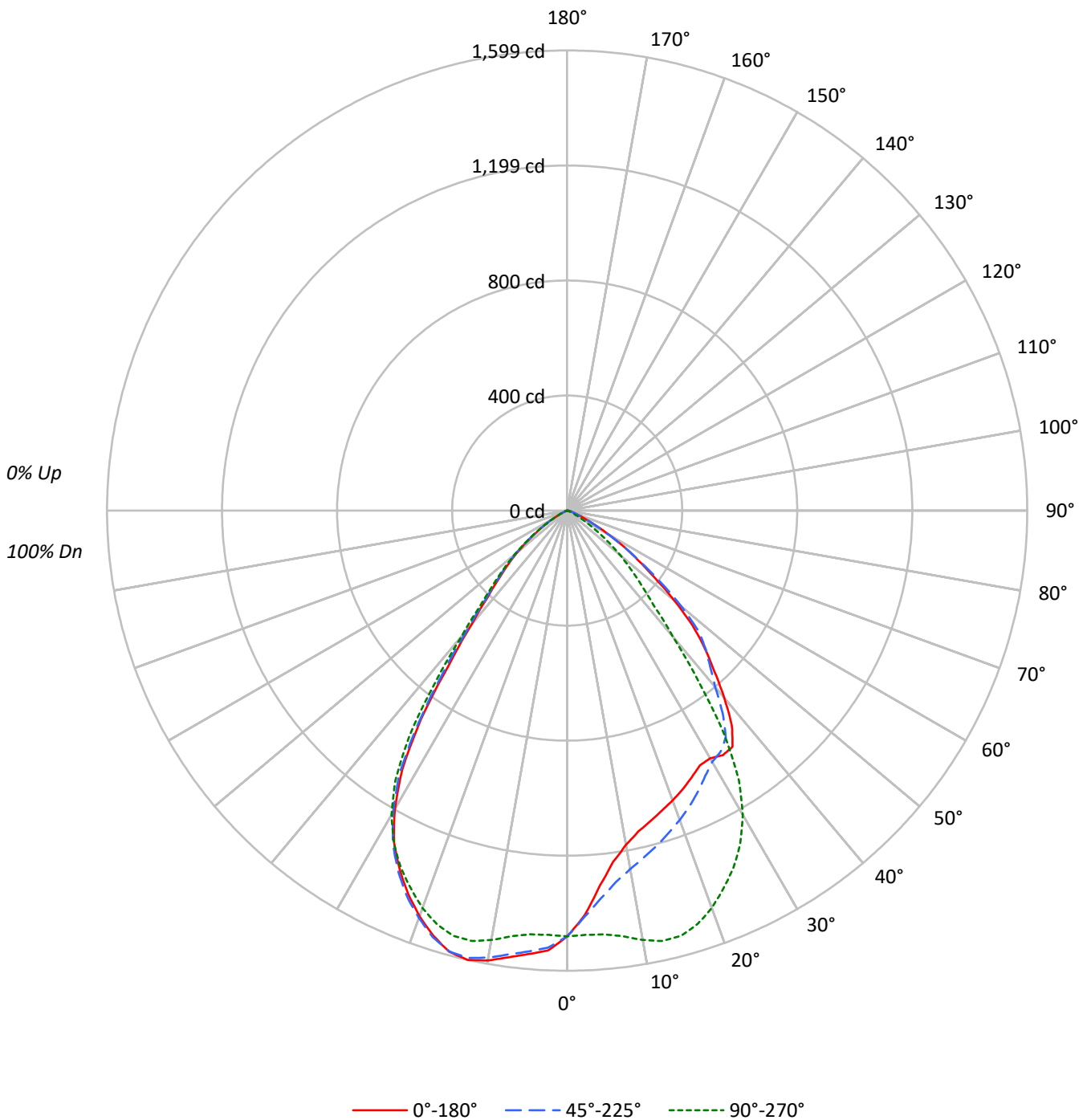
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	45628	45628	45628
5°	40482	45741	47883
10°	36911	47441	49705
15°	35669	48825	50651
20°	35162	48225	49220
25°	34817	46562	46851
30°	35382	43454	42650
35°	37716	35958	33353
40°	34180	23021	20843
45°	29502	15752	14666
50°	23276	11489	10818
55°	16155	7064	6645
60°	10287	3571	3188
65°	5137	1416	1080
70°	2840	703	388
75°	2037	512	191
80°	1651	337	71
85°	1804	283	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.9	6.1
10°-20°	398.3	17.6
20°-30°	578.1	25.5
30°-40°	569.4	25.1
40°-50°	356.9	15.8
50°-60°	172.2	7.6
60°-70°	41.7	1.8
70°-80°	8.4	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°	1114.4	49.2
0°-40°	1683.8	74.3
0°-60°	2213.0	97.7
0°-90°	2265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2265.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1480	1480	1480	1480	1480	
5°	1308	1352	1478	1538	1547	121
15°	1117	1205	1529	1585	1587	316
25°	1023	1076	1368	1387	1377	474
35°	1002	961	955	901	886	606
45°	676	681	361	346	336	517
55°	300	310	131	130	124	276
65°	70	70	19	17	15	80
75°	17	15	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°	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7
2.5°	1406.6	1397.6	1380.9	1401.1	1401.1	1389.9	1412.4	1398.8	1409.7	1426.8	1411.6
5°	1307.8	1300.5	1286.5	1307.8	1310.6	1300.1	1327.3	1317.2	1333.1	1354.1	1352.2
7.5°	1229.7	1220.4	1207.5	1229.7	1234.0	1227.0	1253.0	1248.4	1269.4	1296.6	1301.2
10°	1178.8	1169.0	1157.8	1178.0	1181.1	1176.4	1202.9	1200.1	1220.8	1252.2	1264.7
12.5°	1142.6	1134.4	1122.0	1143.4	1146.9	1140.3	1165.2	1164.0	1185.4	1218.4	1234.0
15°	1117.3	1107.6	1096.3	1114.6	1119.3	1111.9	1135.6	1133.3	1155.1	1187.7	1205.2
17.5°	1093.6	1084.7	1073.0	1090.1	1094.8	1087.0	1110.3	1106.5	1125.1	1156.2	1174.1
20°	1071.5	1061.7	1051.2	1068.7	1071.5	1062.5	1085.8	1080.8	1097.5	1126.3	1143.8
22.5°	1048.5	1038.4	1027.5	1044.6	1047.4	1038.4	1059.8	1054.0	1069.5	1095.6	1111.5
25°	1023.3	1013.9	1003.0	1019.0	1021.3	1011.6	1034.1	1026.8	1040.4	1063.3	1076.5
27.5°	998.0	989.0	977.0	993.3	994.5	985.2	1005.8	995.7	1006.9	1027.9	1039.2
30°	993.7	983.6	971.2	984.4	984.8	972.7	992.2	980.1	986.3	1001.9	1008.5
32.5°	1007.3	997.2	984.4	995.3	994.1	980.9	999.5	984.8	986.7	994.9	993.3
35°	1001.9	989.8	974.7	986.3	986.3	970.4	989.0	971.5	969.6	970.8	961.1
37.5°	940.1	930.7	916.3	927.6	926.5	914.4	928.8	914.4	907.8	905.1	887.6
40°	849.1	837.8	826.9	839.0	840.1	827.3	846.0	829.6	827.7	819.9	799.3
42.5°	756.9	753.1	742.6	752.7	758.1	747.2	762.8	755.0	756.2	754.2	734.8
45°	676.5	669.9	662.1	673.7	677.2	671.8	687.4	682.7	687.4	697.1	681.1
47.5°	589.8	583.2	574.6	587.1	593.3	583.2	596.4	594.8	601.8	618.5	617.0
50°	485.2	480.5	479.0	480.5	484.4	479.7	489.1	489.5	494.1	517.1	518.6
52.5°	384.1	382.9	377.5	382.6	382.6	375.2	384.5	380.2	384.9	400.4	410.5
55°	300.5	299.4	295.9	300.5	295.5	292.7	295.5	291.2	287.7	299.7	310.2
57.5°	234.0	230.2	225.9	227.8	227.4	221.6	224.7	219.7	216.9	221.2	230.5
60°	166.8	165.6	161.7	163.7	165.2	161.0	164.1	161.7	157.1	160.6	161.0
62.5°	110.8	111.6	109.2	109.6	108.5	107.7	109.6	110.8	109.6	108.1	108.5
65°	70.4	70.0	69.6	70.0	70.8	69.2	70.4	71.1	70.0	70.0	69.6
67.5°	46.7	45.5	44.3	45.1	45.9	44.7	45.9	45.5	45.9	45.5	44.3
70°	31.5	31.1	30.7	31.1	31.1	30.3	31.1	30.7	31.1	30.7	29.5
72.5°	22.9	22.9	22.5	22.9	22.9	22.2	22.5	21.8	22.2	21.8	21.0
75°	17.1	17.1	16.7	17.1	16.7	16.3	16.7	16.3	15.6	15.6	14.8
77.5°	12.4	12.4	12.4	12.4	12.4	12.1	12.1	11.7	11.3	10.9	10.9
80°	9.3	8.9	8.9	8.9	8.9	8.6	8.9	8.6	8.2	7.8	7.4
82.5°	6.6	7.0	6.6	6.6	6.6	6.2	6.6	6.2	6.2	5.8	5.1
85°	5.1	5.1	5.1	5.1	5.1	4.7	4.7	4.7	4.3	4.3	3.9
87.5°	2.7	2.7	2.7	3.1	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°	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7
2.5°	1431.9	1433.8	1429.5	1436.1	1461.8	1441.2	1449.7	1452.5	1471.9	1475.4	1473.1
5°	1377.4	1386.0	1391.4	1406.2	1434.6	1419.8	1435.0	1444.7	1469.6	1477.7	1479.7
7.5°	1334.7	1352.5	1365.8	1389.9	1423.3	1412.0	1435.0	1450.9	1481.2	1491.7	1496.8
10°	1302.8	1330.0	1352.9	1386.0	1423.7	1416.3	1446.2	1468.8	1502.6	1515.1	1521.3
12.5°	1278.7	1311.7	1342.4	1384.4	1425.3	1421.8	1457.9	1483.6	1519.3	1531.8	1539.2
15°	1252.2	1290.3	1326.1	1373.2	1417.1	1416.3	1455.2	1482.4	1518.9	1529.4	1536.4
17.5°	1220.8	1261.6	1300.8	1351.8	1395.3	1396.1	1435.4	1462.2	1498.0	1506.5	1511.2
20°	1188.9	1229.3	1268.6	1321.1	1363.8	1365.0	1403.5	1428.4	1462.6	1469.6	1470.7
22.5°	1155.1	1192.8	1232.0	1284.1	1325.3	1326.1	1364.2	1387.5	1416.7	1420.2	1423.3
25°	1116.6	1153.5	1190.4	1242.1	1281.4	1283.7	1318.3	1338.9	1365.8	1368.5	1369.7
27.5°	1076.5	1106.8	1142.2	1186.5	1226.2	1224.6	1257.3	1280.6	1304.7	1303.2	1302.8
30°	1036.1	1061.4	1083.1	1125.9	1155.1	1156.2	1186.9	1198.2	1223.5	1220.4	1220.0
32.5°	1007.7	1014.3	1020.1	1041.9	1069.5	1059.8	1080.8	1094.8	1112.3	1111.1	1111.5
35°	955.6	943.6	926.1	929.2	945.9	930.7	942.0	941.6	959.5	955.2	960.3
37.5°	866.6	832.4	793.5	771.3	774.4	755.4	751.5	760.8	767.1	755.0	759.3
40°	771.7	721.2	660.5	610.0	607.3	583.6	579.3	569.9	582.0	571.9	575.0
42.5°	701.7	634.9	555.2	493.7	480.5	460.7	449.0	447.5	451.0	444.0	442.0
45°	648.1	576.9	485.6	415.2	400.4	379.1	367.4	363.1	363.5	361.2	359.2
47.5°	585.1	513.6	421.0	349.1	332.4	312.2	300.5	297.8	299.4	296.2	293.9
50°	498.0	433.9	349.5	283.8	269.0	254.3	244.9	242.2	241.8	239.5	237.9
52.5°	404.3	351.1	278.0	223.2	209.9	195.6	188.9	185.4	185.8	183.5	181.2
55°	313.0	279.9	215.4	168.7	156.7	145.4	139.2	134.9	133.7	131.4	130.2
57.5°	232.9	210.7	161.3	121.7	114.7	103.8	97.6	92.5	91.8	90.6	90.2
60°	163.3	147.3	113.5	86.7	78.5	71.9	65.7	60.6	58.3	57.9	56.8
62.5°	105.7	96.0	74.6	57.9	51.7	47.0	40.8	37.3	35.8	34.2	34.6
65°	65.7	58.3	46.7	37.3	33.8	30.3	25.7	22.5	21.0	19.4	19.8
67.5°	40.8	36.5	29.5	24.1	21.8	19.0	15.6	13.2	12.1	10.9	10.1
70°	27.6	23.7	20.2	17.1	15.6	13.6	11.3	9.3	8.6	7.8	7.0
72.5°	19.4	17.5	14.8	12.8	11.7	10.1	8.6	7.4	6.6	5.8	5.1
75°	14.0	12.4	10.9	9.3	8.6	7.8	6.6	5.8	5.1	4.3	3.5
77.5°	10.1	8.9	7.8	7.0	6.6	5.4	4.7	4.3	3.9	3.1	2.3
80°	7.0	6.2	5.1	4.7	4.7	3.9	3.5	3.1	2.7	1.9	1.6
82.5°	4.7	4.3	3.9	3.5	3.1	2.7	2.7	1.9	1.6	1.2	0.8
85°	3.5	3.1	2.7	2.3	2.3	1.9	1.6	1.2	1.2	0.8	0.4
87.5°	1.9	1.9	1.6	1.2	1.2	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°	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7
2.5°	1492.9	1494.1	1500.7	1495.6	1508.4	1517.8	1513.1	1523.6	1520.1	1519.3	1531.4
5°	1503.0	1505.7	1514.7	1510.0	1524.0	1534.1	1529.4	1541.1	1537.6	1536.8	1549.3
7.5°	1522.4	1525.2	1532.9	1529.1	1543.8	1552.8	1546.9	1559.8	1555.1	1554.7	1566.8
10°	1546.9	1550.8	1557.4	1553.5	1567.2	1574.9	1569.1	1581.5	1577.3	1575.3	1588.5
12.5°	1565.2	1567.9	1574.5	1571.4	1584.6	1590.5	1585.4	1597.5	1592.0	1590.5	1602.1
15°	1560.9	1563.7	1569.1	1566.4	1578.8	1584.3	1577.6	1590.9	1585.4	1582.3	1592.8
17.5°	1533.7	1535.3	1539.2	1536.4	1549.7	1553.2	1545.8	1559.0	1553.9	1548.5	1558.6
20°	1493.7	1492.9	1495.2	1494.1	1504.9	1506.9	1502.2	1511.9	1506.1	1503.0	1508.8
22.5°	1443.9	1443.1	1444.7	1441.6	1452.5	1453.6	1446.6	1458.3	1452.5	1446.6	1456.4
25°	1388.7	1384.4	1383.7	1384.8	1392.2	1393.4	1386.0	1394.5	1387.2	1382.5	1391.8
27.5°	1320.7	1315.2	1314.1	1315.2	1322.6	1317.2	1311.0	1317.2	1309.8	1305.5	1311.3
30°	1236.7	1228.9	1225.4	1223.1	1230.9	1228.9	1214.5	1221.5	1209.9	1203.6	1207.9
32.5°	1123.6	1119.3	1110.0	1104.5	1111.9	1097.1	1088.2	1088.2	1083.5	1073.0	1075.4
35°	966.5	959.9	951.3	946.7	947.8	928.0	913.2	916.3	900.8	898.1	899.2
37.5°	767.8	756.9	753.8	744.1	746.4	729.0	708.7	709.1	701.0	692.4	689.7
40°	576.9	575.0	571.9	563.7	566.8	547.8	540.0	540.4	535.0	528.7	531.8
42.5°	445.9	439.7	437.8	435.0	435.8	432.7	422.6	423.8	419.1	417.5	416.0
45°	362.3	355.7	351.1	353.4	353.4	349.9	346.0	348.3	346.0	342.9	344.5
47.5°	298.6	292.4	290.0	289.6	292.4	290.0	286.1	286.9	286.5	285.4	284.6
50°	238.3	236.8	234.8	233.7	234.8	234.0	230.5	232.5	233.7	229.8	230.9
52.5°	181.6	181.6	181.2	178.4	180.8	178.4	178.1	178.8	177.7	176.1	175.7
55°	133.0	131.8	129.9	129.5	130.2	129.5	128.7	129.1	129.9	126.0	126.0
57.5°	91.0	90.2	89.0	89.0	90.6	88.6	87.5	89.0	87.5	85.9	85.9
60°	58.3	57.9	56.8	56.8	56.8	56.4	55.2	55.6	56.4	54.0	54.4
62.5°	35.0	33.8	33.4	33.0	33.4	33.0	33.0	32.7	32.3	32.3	31.1
65°	19.0	18.3	17.5	17.9	17.9	17.5	17.5	17.5	16.7	16.3	15.9
67.5°	9.7	8.9	8.9	8.6	8.6	8.6	8.6	8.2	8.2	8.2	7.8
70°	6.2	5.8	5.4	5.4	5.4	5.1	5.1	5.1	5.1	5.1	4.7
72.5°	4.3	3.9	3.5	3.5	3.5	3.1	3.1	3.1	3.1	2.7	2.7
75°	3.1	2.7	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.6	1.6	1.6	1.6	1.2	1.2	1.2	1.2	1.2	0.8
80°	1.2	1.2	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: P245408

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7	1479.7
2.5°	1527.1	1524.0	1525.9	1540.3	1534.1	1532.2	1515.8	1530.2
5°	1545.4	1543.0	1543.0	1559.4	1552.0	1550.4	1534.5	1546.9
7.5°	1562.5	1560.2	1560.5	1577.3	1571.4	1569.1	1553.2	1565.6
10°	1584.6	1583.1	1583.5	1599.4	1593.2	1590.9	1574.5	1587.4
12.5°	1597.9	1595.5	1595.5	1612.6	1605.6	1602.1	1586.6	1599.0
15°	1587.8	1584.3	1584.3	1601.4	1593.6	1588.5	1574.9	1586.6
17.5°	1553.2	1549.7	1549.7	1564.4	1558.6	1551.2	1537.2	1548.1
20°	1504.9	1500.7	1499.5	1516.6	1508.4	1501.8	1489.4	1499.9
22.5°	1450.5	1448.6	1445.1	1462.2	1454.8	1447.8	1434.6	1442.7
25°	1385.2	1382.1	1378.6	1395.3	1387.9	1380.9	1370.4	1377.0
27.5°	1304.0	1304.3	1302.4	1315.6	1308.2	1304.3	1291.5	1302.4
30°	1205.6	1201.3	1199.8	1215.3	1208.3	1203.3	1187.3	1197.8
32.5°	1077.3	1071.1	1062.9	1080.4	1068.4	1064.1	1050.5	1065.6
35°	890.7	888.7	881.4	896.1	889.5	881.7	873.2	886.0
37.5°	688.5	690.1	689.3	693.2	689.3	684.2	674.9	670.2
40°	525.6	521.7	518.6	525.6	517.5	517.5	512.0	517.8
42.5°	412.1	410.5	414.4	416.0	411.3	410.5	409.8	409.4
45°	340.2	340.2	341.0	342.5	341.0	340.2	337.8	336.3
47.5°	280.3	281.9	280.3	285.4	282.6	281.9	277.2	279.1
50°	227.0	225.1	227.0	228.6	229.0	226.7	224.3	225.5
52.5°	176.1	173.0	172.2	174.6	173.0	173.0	171.4	171.1
55°	124.0	125.2	123.2	125.2	124.4	123.2	122.1	123.6
57.5°	84.0	84.4	83.6	84.8	82.8	83.2	82.8	82.4
60°	54.4	52.9	52.9	54.0	52.1	52.1	51.7	51.7
62.5°	31.1	30.7	30.7	30.3	29.9	29.9	29.9	29.2
65°	15.9	15.6	15.2	15.2	15.2	15.2	14.8	14.8
67.5°	7.8	7.4	7.4	7.8	7.4	7.4	7.4	7.4
70°	4.7	4.7	4.3	4.7	4.3	4.3	4.3	4.3
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.2	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)