

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: NEO-RAY

Report Number: P333695

Luminaire Tested: **S125RDIW-S850D1340U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333695  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-S850D1340U835-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7903.4 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

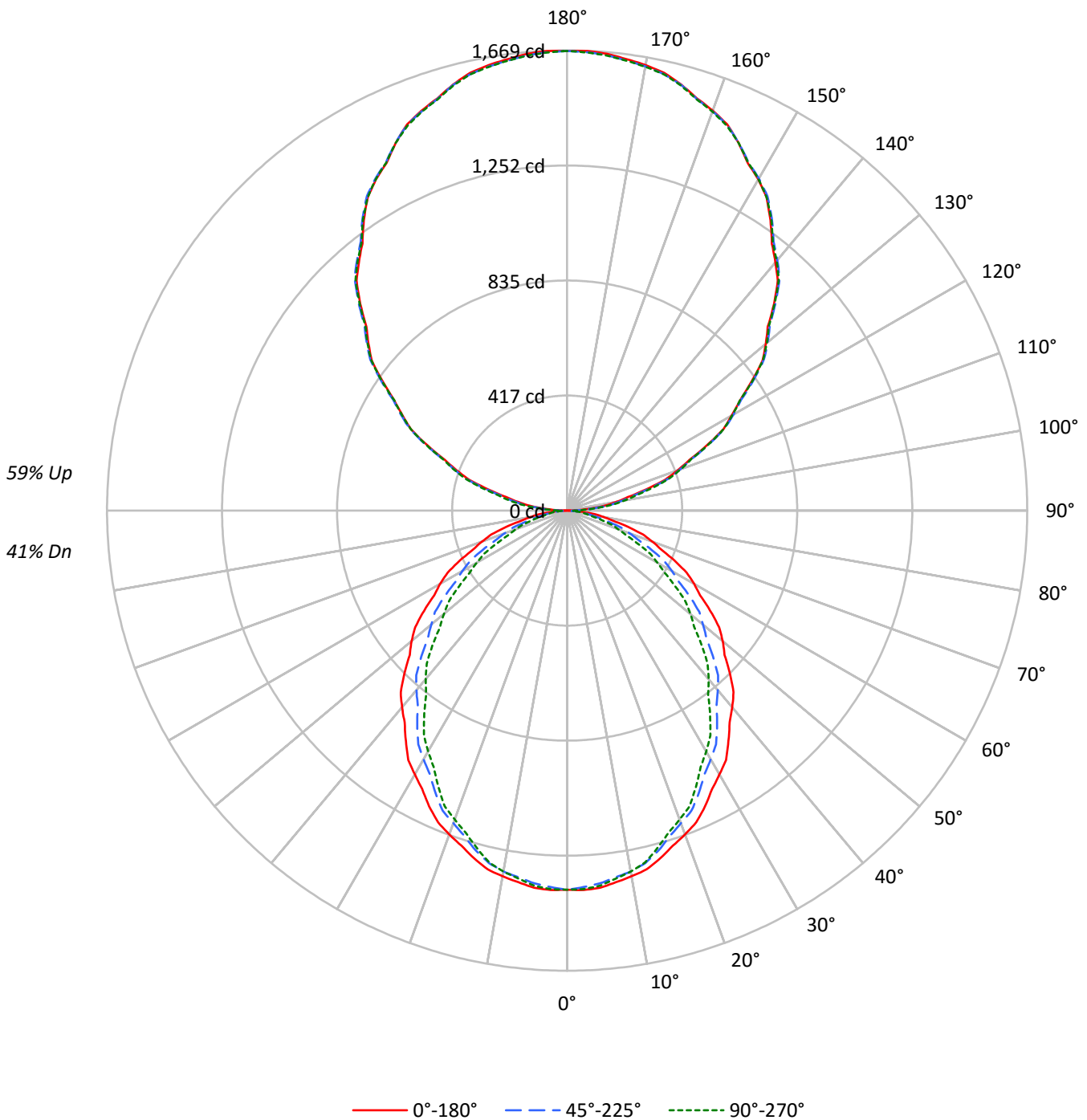
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

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

RF	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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41																				
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	43	42	41	35																				
2	88	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30																				
3	80	71	64	58	73	65	59	54	54	49	45	43	40	37	34	31	30	25																				
4	73	63	55	49	66	57	51	46	48	43	39	39	35	32	30	28	26	22																				
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	27	25	22	19																				
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17																				
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15																				
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	13																				
9	49	37	30	25	45	35	28	24	29	24	20	24	20	17	19	16	14	12																				
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11																				

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

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	1.6
10°-20°	361.3	4.6
20°-30°	524.0	6.6
30°-40°	597.2	7.6
40°-50°	582.1	7.4
50°-60°	490.0	6.2
60°-70°	343.5	4.3
70°-80°	176.6	2.2
80°-90°	48.2	0.6
90°-100°	111.6	1.4
100°-110°	329.7	4.2
110°-120°	558.4	7.1
120°-130°	734.9	9.3
130°-140°	823.5	10.4
140°-150°	807.1	10.2
150°-160°	677.9	8.6
160°-170°	450.6	5.7
170°-180°	157.7	2.0
0°-30°	1014.6	12.8
0°-40°	1611.8	20.4
0°-60°	2683.9	34.0
0°-90°	3252.1	41.1
90°-120°	999.7	12.6
90°-150°	3365.1	42.6
90°-180°	4651.0	58.8
0°-180°	7903.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	12	21	27	31	7
95°	84	88	100	109	112	90
105°	296	302	310	318	322	316
115°	559	564	567	566	564	553
125°	816	823	825	822	821	730
135°	1061	1068	1070	1070	1065	818
145°	1286	1291	1295	1294	1291	803
155°	1471	1471	1472	1477	1471	677
165°	1599	1597	1598	1603	1596	451
175°	1663	1658	1658	1665	1656	158
180°	1667	1667	1667	1667	1667	



TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.4	18.5	17.7	16.9	16.0	15.7	16.0	16.2	16.4	16.6	16.9
90°	1.3	3.6	5.9	8.2	10.5	12.7	14.7	16.7	18.7	20.8	22.2
92.5°	31.4	33.0	34.6	36.2	37.8	39.9	42.4	44.9	47.3	49.8	51.7
95°	84.3	84.9	85.5	86.0	86.6	88.4	91.2	94.1	97.0	99.9	101.9
97.5°	140.1	140.3	140.6	140.8	141.0	143.1	147.1	151.1	155.1	159.0	160.9
100°	181.6	181.6	181.6	181.6	181.6	183.5	187.2	191.0	194.7	198.5	201.1
102.5°	226.2	227.4	228.5	229.7	230.8	232.4	234.3	236.2	238.1	240.0	242.8
105°	295.8	297.2	298.6	300.1	301.5	303.1	304.8	306.6	308.3	310.0	311.8
107.5°	372.5	374.0	375.4	376.9	378.3	379.7	381.0	382.3	383.7	385.0	385.9
110°	425.5	426.9	428.4	429.8	431.2	432.4	433.3	434.1	435.0	435.8	436.7



TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	479.4	480.2	480.9	481.7	482.4	483.4	484.4	485.5	486.6	487.7	488.1
115°	559.1	560.2	561.4	562.5	563.7	564.6	565.1	565.7	566.3	566.9	566.6
117.5°	639.0	639.5	640.0	640.5	641.1	641.6	642.1	642.6	643.1	643.7	643.9
120°	688.8	690.2	691.7	693.1	694.6	695.4	695.7	696.0	696.3	696.6	696.6
122.5°	742.8	743.3	743.8	744.3	744.8	745.5	746.2	747.0	747.7	748.5	748.2
125°	815.9	817.6	819.4	821.1	822.8	823.8	824.1	824.4	824.7	825.0	824.4
127.5°	893.7	894.7	895.7	896.7	897.7	898.3	898.7	899.0	899.4	899.7	899.4
130°	940.4	941.9	943.3	944.8	946.2	947.2	947.8	948.4	948.9	949.5	949.2
132.5°	987.1	989.5	991.9	994.2	996.6	997.7	997.6	997.5	997.4	997.3	997.0
135°	1061.1	1062.8	1064.5	1066.3	1068.0	1069.0	1069.3	1069.6	1069.9	1070.2	1070.2
137.5°	1130.6	1132.3	1134.0	1135.6	1137.3	1138.4	1139.1	1139.7	1140.4	1141.0	1141.3
140°	1175.2	1176.7	1178.1	1179.6	1181.0	1182.1	1183.0	1183.9	1184.7	1185.6	1186.2
142.5°	1219.9	1221.1	1222.3	1223.5	1224.7	1225.8	1226.9	1228.0	1229.1	1230.2	1230.6
145°	1285.5	1286.6	1287.8	1288.9	1290.1	1291.1	1292.0	1292.8	1293.7	1294.6	1294.6
147.5°	1346.2	1346.8	1347.5	1348.1	1348.7	1349.4	1350.1	1350.8	1351.5	1352.2	1352.9
150°	1386.7	1386.4	1386.1	1385.8	1385.5	1385.9	1387.1	1388.3	1389.4	1390.6	1390.6
152.5°	1419.9	1420.3	1420.7	1421.1	1421.5	1421.9	1422.4	1422.8	1423.3	1423.8	1424.5
155°	1471.0	1471.0	1471.0	1471.0	1471.0	1471.1	1471.4	1471.7	1472.0	1472.3	1473.4
157.5°	1516.6	1516.0	1515.4	1514.7	1514.1	1513.9	1514.2	1514.5	1514.8	1515.1	1516.2
160°	1543.6	1542.8	1541.9	1541.0	1540.2	1539.9	1540.2	1540.5	1540.7	1541.0	1542.2
162.5°	1567.5	1566.9	1566.2	1565.6	1565.0	1564.7	1564.7	1564.8	1564.8	1564.9	1566.3
165°	1599.4	1598.8	1598.2	1597.7	1597.1	1597.0	1597.2	1597.5	1597.8	1598.1	1599.3
167.5°	1626.4	1625.2	1624.1	1622.9	1621.8	1621.2	1621.2	1621.2	1621.2	1621.2	1622.9
170°	1640.9	1639.8	1638.6	1637.5	1636.3	1635.7	1635.7	1635.7	1635.7	1635.7	1637.5
172.5°	1651.3	1650.1	1649.0	1647.8	1646.7	1646.1	1646.1	1646.1	1646.1	1646.1	1647.8
175°	1663.0	1661.8	1660.7	1659.5	1658.4	1657.8	1657.8	1657.8	1657.8	1657.8	1659.5
177.5°	1668.9	1668.0	1667.1	1666.2	1665.2	1664.7	1664.4	1664.2	1664.0	1663.7	1665.1
180°	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9



TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	17.2	17.5	17.8	17.9	17.9	17.9	17.9	17.9
90°	23.6	25.1	26.5	27.7	28.5	29.4	30.3	31.1
92.5°	53.6	55.5	57.4	58.7	59.3	60.0	60.6	61.2
95°	103.9	105.9	108.0	109.2	109.8	110.4	111.0	111.6
97.5°	162.8	164.7	166.6	167.8	168.1	168.5	168.8	169.2
100°	203.7	206.2	208.8	210.4	211.0	211.6	212.2	212.7
102.5°	245.6	248.4	251.3	253.1	253.9	254.7	255.5	256.3
105°	313.5	315.2	316.9	318.2	319.1	320.0	320.8	321.7
107.5°	386.7	387.6	388.5	388.9	388.8	388.7	388.7	388.6
110°	437.6	438.4	439.3	439.6	439.3	439.0	438.7	438.4





TEST NUMBER: P333695

CATALOG NUMBER: S125RDIW-S850D1340U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	488.5	488.9	489.3	489.3	488.8	488.3	487.7	487.2
115°	566.3	566.0	565.7	565.4	565.1	564.8	564.6	564.3
117.5°	644.1	644.3	644.6	644.1	643.0	641.8	640.7	639.5
120°	696.6	696.6	696.6	696.0	694.8	693.7	692.5	691.4
122.5°	748.0	747.8	747.5	747.0	746.0	745.1	744.2	743.3
125°	823.8	823.3	822.7	822.3	822.0	821.7	821.4	821.1
127.5°	899.1	898.8	898.6	898.1	897.6	897.0	896.4	895.8
130°	948.9	948.7	948.4	947.9	947.4	946.8	946.2	945.6
132.5°	996.7	996.4	996.1	995.6	994.8	993.9	993.1	992.3
135°	1070.2	1070.2	1070.2	1069.6	1068.4	1067.3	1066.1	1065.0
137.5°	1141.7	1142.0	1142.0	1141.8	1140.4	1138.9	1137.5	1136.1
140°	1186.8	1187.3	1187.9	1187.5	1186.0	1184.6	1183.2	1181.7
142.5°	1230.9	1231.3	1231.6	1231.1	1229.6	1228.2	1226.7	1225.3
145°	1294.6	1294.6	1294.6	1294.1	1293.3	1292.4	1291.5	1290.7
147.5°	1353.5	1354.2	1354.9	1354.3	1352.3	1350.4	1348.4	1346.5
150°	1390.6	1390.6	1390.6	1390.3	1389.7	1389.1	1388.5	1388.0
152.5°	1425.1	1425.8	1426.5	1426.4	1425.3	1424.3	1423.2	1422.2
155°	1474.6	1475.7	1476.9	1476.7	1475.3	1473.9	1472.4	1471.0
157.5°	1517.4	1518.5	1519.7	1519.3	1517.4	1515.5	1513.6	1511.7
160°	1543.3	1544.5	1545.6	1545.5	1544.1	1542.6	1541.2	1539.7
162.5°	1567.7	1569.0	1570.4	1570.3	1568.6	1566.9	1565.3	1563.6
165°	1600.4	1601.6	1602.7	1602.4	1600.7	1599.0	1597.2	1595.5
167.5°	1624.7	1626.4	1628.1	1628.1	1626.3	1624.5	1622.7	1620.9
170°	1639.2	1640.9	1642.6	1642.5	1640.5	1638.5	1636.4	1634.4
172.5°	1649.6	1651.3	1653.0	1653.0	1651.2	1649.4	1647.6	1645.8
175°	1661.2	1663.0	1664.7	1664.5	1662.5	1660.5	1658.5	1656.5
177.5°	1666.5	1667.9	1669.3	1669.2	1667.5	1665.9	1664.3	1662.7
180°	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9

(END OF REPORT)