

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: P333694-927

Luminaire Tested: **S125RDIW-S850D1340U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333694-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S850D1340U927-4F0-1E-UDD-F
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, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6825.2 lumens
Efficiency: N/A
Efficacy: 111.2 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: Semi-Indirect

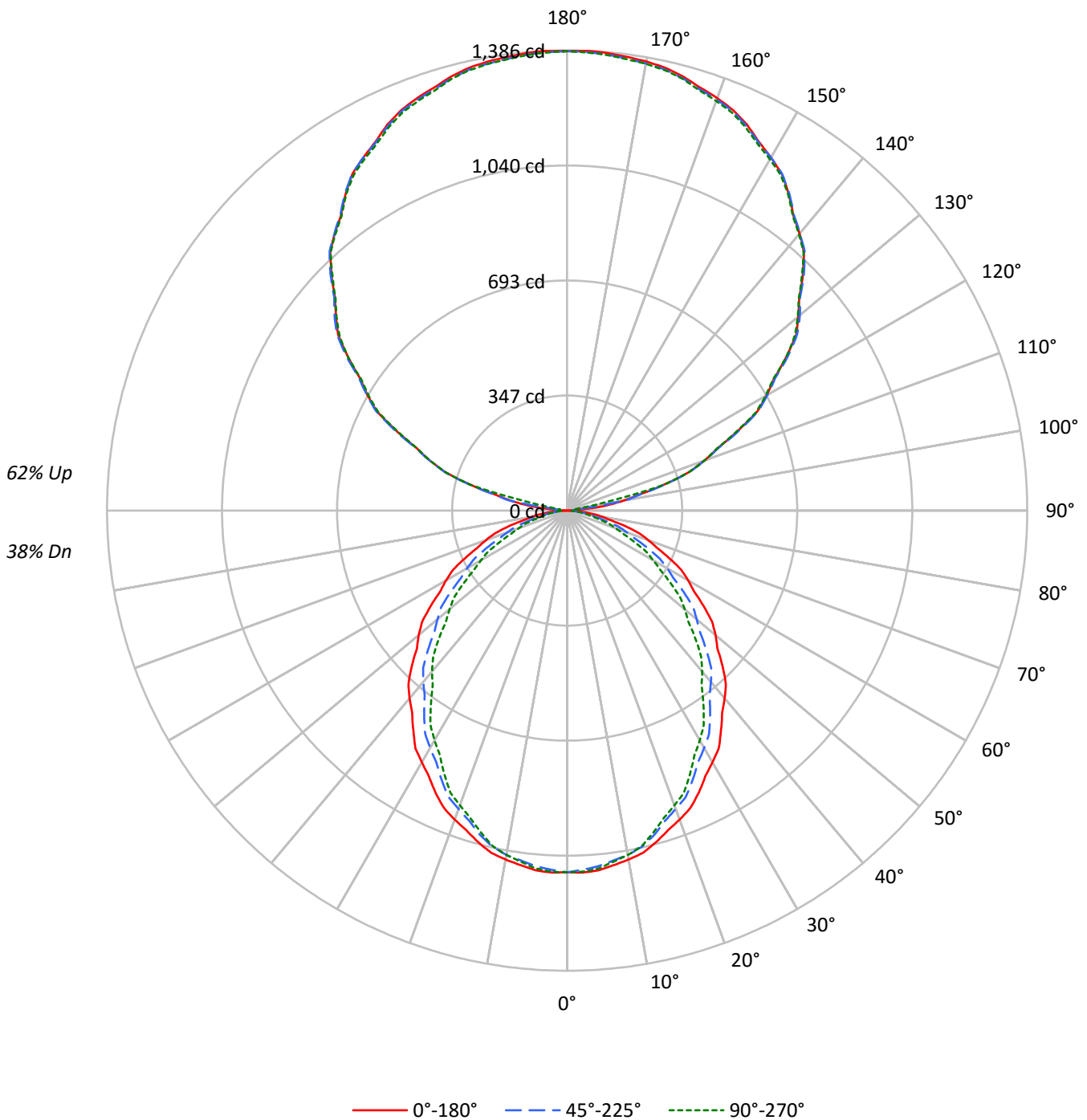
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32
2	87	80	74	69	79	72	67	63	59	56	52	47	44	42	35	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	31	29	28	23
4	73	62	54	49	66	57	50	45	46	42	38	37	34	31	28	26	24	20
5	67	55	47	42	60	51	44	39	42	36	33	33	30	27	25	23	21	17
6	61	50	42	36	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	57	45	37	32	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	41	33	28	48	37	31	26	31	26	22	25	21	18	19	17	15	12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	17	18	15	13	11
10	46	34	27	22	41	31	25	21	26	21	18	21	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7035	7035	7035
5°	7052	6971	7014
10°	6998	6906	6906
15°	6915	6766	6711
20°	6808	6570	6491
25°	6683	6379	6238
30°	6528	6154	5957
35°	6370	5922	5643
40°	6222	5681	5334
45°	6042	5411	4997
50°	5861	5117	4646
55°	5650	4835	4271
60°	5441	4495	3867
65°	5193	4099	3406
70°	4910	3603	2936
75°	4517	3039	2443
80°	3976	2388	2049
85°	3349	1949	1830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	1.5
10°-20°	286.2	4.2
20°-30°	415.1	6.1
30°-40°	473.1	6.9
40°-50°	461.1	6.8
50°-60°	388.2	5.7
60°-70°	272.1	4.0
70°-80°	139.9	2.0
80°-90°	38.2	0.6
90°-100°	50.3	0.7
100°-110°	309.9	4.5
110°-120°	562.0	8.2
120°-130°	721.3	10.6
130°-140°	775.8	11.4
140°-150°	728.2	10.7
150°-160°	589.1	8.6
160°-170°	381.0	5.6
170°-180°	131.4	1.9
0°-30°	803.8	11.8
0°-40°	1276.8	18.7
0°-60°	2126.1	31.2
0°-90°	2576.3	37.7
90°-120°	922.2	13.5
90°-150°	3147.5	46.1
90°-180°	4249.0	62.3
0°-180°	6825.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1084	1075	1083	1082	103
15°	1034	1029	1012	1011	1004	291
25°	938	925	895	885	875	431
35°	808	787	751	728	716	506
45°	662	636	592	561	547	510
55°	502	474	429	394	379	449
65°	340	311	268	236	223	336
75°	181	156	122	104	98	192
85°	45	31	26	26	25	51
90°	1	9	16	21	25	5
95°	58	53	16	21	22	75
105°	302	305	306	306	305	320
115°	566	571	572	568	562	561
125°	805	812	812	808	805	719
135°	1004	1010	1008	1006	1000	774
145°	1164	1166	1166	1167	1161	728
155°	1282	1276	1278	1280	1273	590
165°	1353	1347	1348	1353	1346	382
175°	1384	1378	1378	1386	1377	132
180°	1384	1384	1384	1384	1384	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1091.2	1090.8	1090.4	1090.0	1089.5	1088.5	1087.1	1085.6	1084.2	1082.7	1084.2
5°	1087.7	1087.0	1086.2	1085.4	1084.7	1083.4	1081.3	1079.3	1077.3	1075.3	1077.1
7.5°	1077.0	1076.3	1075.5	1074.8	1074.2	1072.6	1070.2	1067.8	1065.4	1063.0	1064.2
10°	1067.1	1066.5	1066.0	1065.4	1064.9	1063.3	1060.8	1058.2	1055.7	1053.1	1053.6
12.5°	1055.9	1055.2	1054.5	1053.8	1053.1	1051.1	1047.6	1044.2	1040.8	1037.3	1037.7
15°	1034.2	1033.1	1032.0	1030.9	1029.8	1027.3	1023.5	1019.6	1015.8	1011.9	1011.8
17.5°	1009.6	1008.0	1006.3	1004.6	1002.9	999.7	994.8	990.0	985.2	980.3	979.5
20°	990.5	988.7	986.9	985.1	983.3	979.4	973.6	967.7	961.9	956.0	955.1
22.5°	969.5	967.7	965.8	964.0	962.2	958.2	952.0	945.9	939.8	933.7	931.8
25°	937.9	935.2	932.4	929.7	926.9	922.2	915.4	908.6	901.9	895.2	892.8
27.5°	901.7	898.4	895.1	891.8	888.4	883.1	875.9	868.6	861.4	854.1	850.8
30°	875.4	871.9	868.5	865.0	861.5	855.9	848.3	840.6	832.9	825.2	821.0
32.5°	849.7	845.7	841.6	837.6	833.5	827.5	819.8	811.9	804.1	796.2	791.6
35°	807.9	803.5	799.2	794.7	790.4	784.0	775.9	767.6	759.4	751.1	745.8
37.5°	766.9	761.6	756.3	750.9	745.6	738.7	730.2	721.7	713.2	704.7	698.4
40°	738.0	732.5	727.0	721.5	716.1	708.9	700.1	691.3	682.6	673.8	666.9
42.5°	707.7	702.1	696.5	690.8	685.2	677.9	668.8	659.7	650.6	641.6	634.9
45°	661.5	656.2	650.9	645.5	640.2	632.6	622.5	612.5	602.5	592.4	585.0
47.5°	613.6	608.0	602.4	596.8	591.2	583.4	573.2	563.1	552.9	542.8	535.3
50°	583.3	577.3	571.2	565.2	559.2	551.0	540.5	530.1	519.7	509.3	501.6
52.5°	550.4	544.2	538.1	531.9	525.7	517.7	507.9	498.0	488.1	478.3	470.1
55°	501.8	496.0	490.2	484.3	478.5	470.4	460.2	450.0	439.7	429.4	421.2
57.5°	452.8	446.6	440.3	434.0	427.9	419.8	409.9	400.0	390.1	380.2	372.2
60°	421.2	414.9	408.4	402.0	395.6	387.5	377.6	367.7	357.9	348.0	340.0
62.5°	387.7	381.6	375.5	369.3	363.2	355.2	345.2	335.2	325.1	315.1	307.7
65°	339.8	333.6	327.3	321.2	314.9	307.0	297.3	287.6	277.9	268.2	260.9
67.5°	292.2	286.0	279.8	273.6	267.4	259.6	250.3	241.1	231.8	222.4	215.8
70°	260.0	253.7	247.6	241.3	235.1	227.4	218.3	209.1	200.0	190.8	185.2
72.5°	228.4	222.3	216.3	210.2	204.1	196.8	188.2	179.7	171.1	162.6	157.3
75°	181.0	175.5	170.0	164.5	159.1	152.5	144.8	137.1	129.4	121.8	117.7
77.5°	134.0	129.5	125.2	120.8	116.4	111.1	105.0	98.9	92.7	86.6	83.7
80°	106.9	102.6	98.2	93.8	89.4	84.7	79.5	74.4	69.3	64.2	62.5
82.5°	80.6	76.7	72.7	68.8	64.8	61.1	57.6	54.1	50.5	47.1	46.3
85°	45.2	42.0	38.7	35.4	32.1	29.9	29.1	28.1	27.3	26.3	26.1
87.5°	15.4	14.7	14.0	13.4	12.7	12.4	12.7	12.8	13.0	13.2	13.4
90°	1.0	2.9	4.7	6.5	8.3	10.1	11.6	13.2	14.8	16.4	17.6
92.5°	15.8	14.5	13.2	12.0	10.7	10.8	12.2	13.5	15.0	16.4	17.6
95°	58.5	57.8	57.1	56.4	55.7	51.0	42.4	33.7	25.0	16.4	17.6
97.5°	122.1	123.3	124.5	125.7	127.0	119.0	101.9	84.8	67.6	50.5	44.0
100°	171.3	172.0	172.6	173.3	174.0	174.8	175.7	176.7	177.5	178.5	144.5
102.5°	221.3	222.2	223.1	223.9	224.8	225.5	226.1	226.6	227.1	227.7	221.3
105°	301.6	302.5	303.4	304.3	305.2	305.6	305.6	305.6	305.6	305.6	305.6
107.5°	384.8	384.8	384.8	384.8	384.8	385.1	385.6	386.0	386.4	386.9	386.9
110°	439.0	439.0	439.0	439.0	439.0	439.2	439.7	440.1	440.6	441.0	440.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	489.9	490.4	491.0	491.5	492.0	492.5	492.7	493.0	493.3	493.5	492.7
115°	566.2	567.3	568.5	569.6	570.8	571.4	571.6	571.9	572.1	572.4	571.4
117.5°	645.2	645.1	645.1	645.0	645.0	645.4	646.3	647.1	648.0	648.9	647.7
120°	694.3	694.2	694.0	693.7	693.5	693.7	694.3	695.1	695.8	696.4	696.0
122.5°	737.8	738.7	739.6	740.5	741.3	742.0	742.3	742.6	742.9	743.2	742.8
125°	805.2	806.8	808.3	809.9	811.5	812.3	812.3	812.3	812.3	812.3	811.4
127.5°	869.3	870.5	871.6	872.7	873.9	874.4	874.3	874.2	874.0	873.9	873.4
130°	908.7	909.9	911.0	912.2	913.3	914.0	914.3	914.4	914.7	914.9	914.3
132.5°	948.2	949.4	950.8	952.1	953.4	953.9	953.3	952.8	952.4	951.8	951.7
135°	1004.2	1005.5	1006.9	1008.2	1009.6	1010.0	1009.6	1009.2	1008.7	1008.2	1007.8
137.5°	1055.7	1056.8	1058.0	1059.1	1060.3	1060.7	1060.3	1059.9	1059.5	1059.1	1059.2
140°	1089.3	1089.7	1090.2	1090.6	1091.1	1091.2	1091.0	1090.8	1090.5	1090.3	1090.8
142.5°	1119.6	1119.9	1120.1	1120.5	1120.7	1121.0	1121.3	1121.7	1122.0	1122.3	1122.4
145°	1164.1	1164.6	1165.1	1165.5	1165.9	1166.2	1166.2	1166.2	1166.2	1166.2	1166.4
147.5°	1203.1	1203.0	1202.9	1202.8	1202.8	1202.8	1203.1	1203.4	1203.6	1204.0	1204.2
150°	1227.7	1227.2	1226.9	1226.4	1225.9	1225.9	1226.4	1226.9	1227.2	1227.7	1228.2
152.5°	1251.5	1250.5	1249.5	1248.6	1247.5	1247.2	1247.7	1248.2	1248.6	1249.0	1249.5
155°	1282.1	1280.7	1279.4	1278.0	1276.6	1276.2	1276.6	1277.1	1277.6	1278.0	1278.7
157.5°	1305.7	1304.9	1304.0	1303.2	1302.4	1302.0	1302.0	1302.1	1302.2	1302.2	1302.9
160°	1322.1	1320.7	1319.4	1318.0	1316.6	1316.1	1316.3	1316.5	1316.8	1317.0	1317.9
162.5°	1335.2	1333.9	1332.5	1331.1	1329.8	1329.2	1329.4	1329.7	1329.8	1330.1	1331.3
165°	1352.9	1351.5	1350.1	1348.8	1347.4	1346.8	1347.0	1347.3	1347.5	1347.7	1349.1
167.5°	1366.0	1364.6	1363.2	1361.8	1360.3	1359.8	1359.9	1360.2	1360.4	1360.7	1362.3
170°	1373.4	1371.8	1370.2	1368.6	1367.0	1366.3	1366.5	1366.8	1367.0	1367.2	1369.0
172.5°	1378.3	1376.7	1375.1	1373.5	1371.9	1371.3	1371.7	1372.1	1372.5	1372.9	1374.6
175°	1383.6	1382.3	1380.9	1379.5	1378.2	1377.6	1377.8	1378.1	1378.3	1378.5	1380.3
177.5°	1386.1	1385.0	1383.9	1382.8	1381.7	1381.2	1381.5	1381.6	1381.8	1382.0	1383.3
180°	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1085.6	1087.1	1088.5	1089.3	1089.1	1088.9	1088.8	1088.6
5°	1079.0	1080.8	1082.6	1083.4	1083.0	1082.6	1082.3	1081.9
7.5°	1065.6	1066.8	1068.1	1068.5	1068.1	1067.7	1067.3	1066.9
10°	1054.2	1054.7	1055.3	1055.3	1054.7	1054.2	1053.6	1053.1
12.5°	1038.1	1038.5	1038.9	1038.7	1037.8	1037.0	1036.2	1035.3
15°	1011.6	1011.4	1011.2	1010.3	1008.7	1007.0	1005.4	1003.7
17.5°	978.5	977.6	976.7	975.6	974.2	972.9	971.5	970.2
20°	954.2	953.2	952.4	951.1	949.4	947.8	946.1	944.5
22.5°	930.0	928.3	926.5	924.9	923.5	922.2	920.8	919.5
25°	890.4	888.0	885.7	883.4	881.4	879.4	877.4	875.4
27.5°	847.5	844.1	840.8	838.2	836.3	834.3	832.4	830.4
30°	816.8	812.6	808.3	805.5	803.8	802.2	800.5	798.8
32.5°	787.0	782.3	777.7	774.3	772.2	770.2	768.0	766.0
35°	740.5	735.2	729.9	726.0	723.4	720.9	718.4	715.7
37.5°	692.1	685.6	679.3	674.9	672.4	669.9	667.4	665.0
40°	659.9	653.0	646.0	641.4	639.3	637.1	634.9	632.7
42.5°	628.3	621.6	615.0	610.0	606.8	603.6	600.3	597.1
45°	577.7	570.5	563.1	558.1	555.3	552.6	549.9	547.1
47.5°	527.8	520.2	512.7	507.4	504.4	501.4	498.3	495.3
50°	493.9	486.2	478.6	473.3	470.6	467.9	465.1	462.4
52.5°	461.8	453.5	445.3	439.7	437.0	434.3	431.6	428.8
55°	413.0	404.8	396.6	390.9	388.1	385.2	382.2	379.3
57.5°	364.2	356.2	348.1	342.8	340.2	337.5	335.0	332.4
60°	331.9	323.8	315.8	310.5	307.7	305.0	302.2	299.4
62.5°	300.2	292.7	285.3	280.2	277.4	274.6	272.0	269.2
65°	253.6	246.3	238.9	233.9	231.2	228.5	225.7	222.9
67.5°	209.1	202.4	195.7	191.2	189.1	186.9	184.7	182.5
70°	179.5	173.9	168.2	164.3	162.1	159.9	157.7	155.5
72.5°	152.1	146.9	141.6	138.3	136.8	135.4	134.0	132.5
75°	113.8	109.7	105.7	103.1	101.7	100.4	99.2	97.9
77.5°	80.9	78.1	75.3	73.4	72.5	71.5	70.6	69.6
80°	60.9	59.3	57.6	56.6	56.2	55.8	55.5	55.1
82.5°	45.6	44.8	44.0	43.5	43.3	43.1	42.9	42.6
85°	26.0	25.7	25.6	25.4	25.2	25.0	24.9	24.7
87.5°	13.6	13.9	14.1	14.2	14.2	14.2	14.2	14.1
90°	18.7	19.8	21.0	21.9	22.6	23.2	23.9	24.6
92.5°	18.7	19.8	21.0	21.7	22.0	22.3	22.7	23.0
95°	18.7	19.8	21.0	21.5	21.5	21.5	21.5	21.5
97.5°	37.6	31.2	24.7	21.5	21.5	21.5	21.5	21.5
100°	110.5	76.6	42.6	25.2	24.2	23.4	22.4	21.5
102.5°	214.8	208.4	202.0	191.0	175.5	160.0	144.5	129.0
105°	305.6	305.6	305.6	305.5	305.3	305.1	304.8	304.6
107.5°	387.0	387.1	387.1	386.7	386.0	385.4	384.7	384.0
110°	439.7	439.0	438.3	438.1	438.3	438.6	438.8	439.0



TEST NUMBER: P333694-927

CATALOG NUMBER: S125RDIW-S850D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	491.8	491.0	490.1	489.5	489.2	488.9	488.5	488.2
115°	570.5	569.6	568.7	567.5	566.2	564.8	563.4	562.1
117.5°	646.5	645.3	644.1	643.2	642.6	642.1	641.4	640.9
120°	695.5	695.1	694.6	693.8	692.7	691.5	690.4	689.3
122.5°	742.3	741.8	741.4	740.5	739.2	737.8	736.5	735.2
125°	810.5	809.6	808.7	807.9	807.2	806.5	805.8	805.2
127.5°	872.9	872.4	871.9	870.8	869.1	867.4	865.7	864.0
130°	913.5	912.8	912.2	911.2	910.1	908.9	907.8	906.7
132.5°	951.6	951.4	951.3	950.6	949.5	948.4	947.2	946.1
135°	1007.3	1006.9	1006.4	1005.5	1004.2	1002.7	1001.4	1000.1
137.5°	1059.3	1059.4	1059.5	1058.9	1057.7	1056.5	1055.3	1054.2
140°	1091.2	1091.6	1092.1	1091.6	1090.3	1088.9	1087.6	1086.2
142.5°	1122.4	1122.6	1122.7	1122.0	1120.6	1119.3	1117.9	1116.6
145°	1166.6	1166.9	1167.1	1166.6	1165.1	1163.8	1162.4	1161.1
147.5°	1204.5	1204.8	1205.1	1204.4	1202.7	1201.0	1199.4	1197.8
150°	1228.7	1229.1	1229.5	1228.8	1227.0	1225.2	1223.4	1221.5
152.5°	1250.0	1250.5	1250.9	1250.3	1248.6	1247.1	1245.4	1243.7
155°	1279.4	1280.0	1280.7	1280.2	1278.3	1276.5	1274.7	1272.9
157.5°	1303.7	1304.4	1305.1	1304.6	1302.7	1300.9	1299.1	1297.3
160°	1318.8	1319.7	1320.6	1320.2	1318.3	1316.5	1314.7	1312.9
162.5°	1332.6	1334.0	1335.2	1334.8	1332.8	1330.8	1328.8	1326.8
165°	1350.4	1351.9	1353.2	1353.0	1351.1	1349.3	1347.5	1345.7
167.5°	1364.0	1365.6	1367.2	1367.0	1364.9	1362.9	1360.9	1358.8
170°	1370.9	1372.7	1374.5	1374.4	1372.4	1370.3	1368.3	1366.2
172.5°	1376.3	1377.9	1379.5	1379.3	1377.3	1375.2	1373.2	1371.1
175°	1382.1	1383.9	1385.8	1385.7	1383.6	1381.6	1379.5	1377.4
177.5°	1384.6	1385.8	1387.1	1387.0	1385.5	1384.1	1382.6	1381.2
180°	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6

(END OF REPORT)