

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: P333695-927

Luminaire Tested: **S125RDIW-S850D1340U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333695-927
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-S850D1340U927-4F0-1E-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: 6260.9 lumens
Efficiency: N/A
Efficacy: 102.0 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

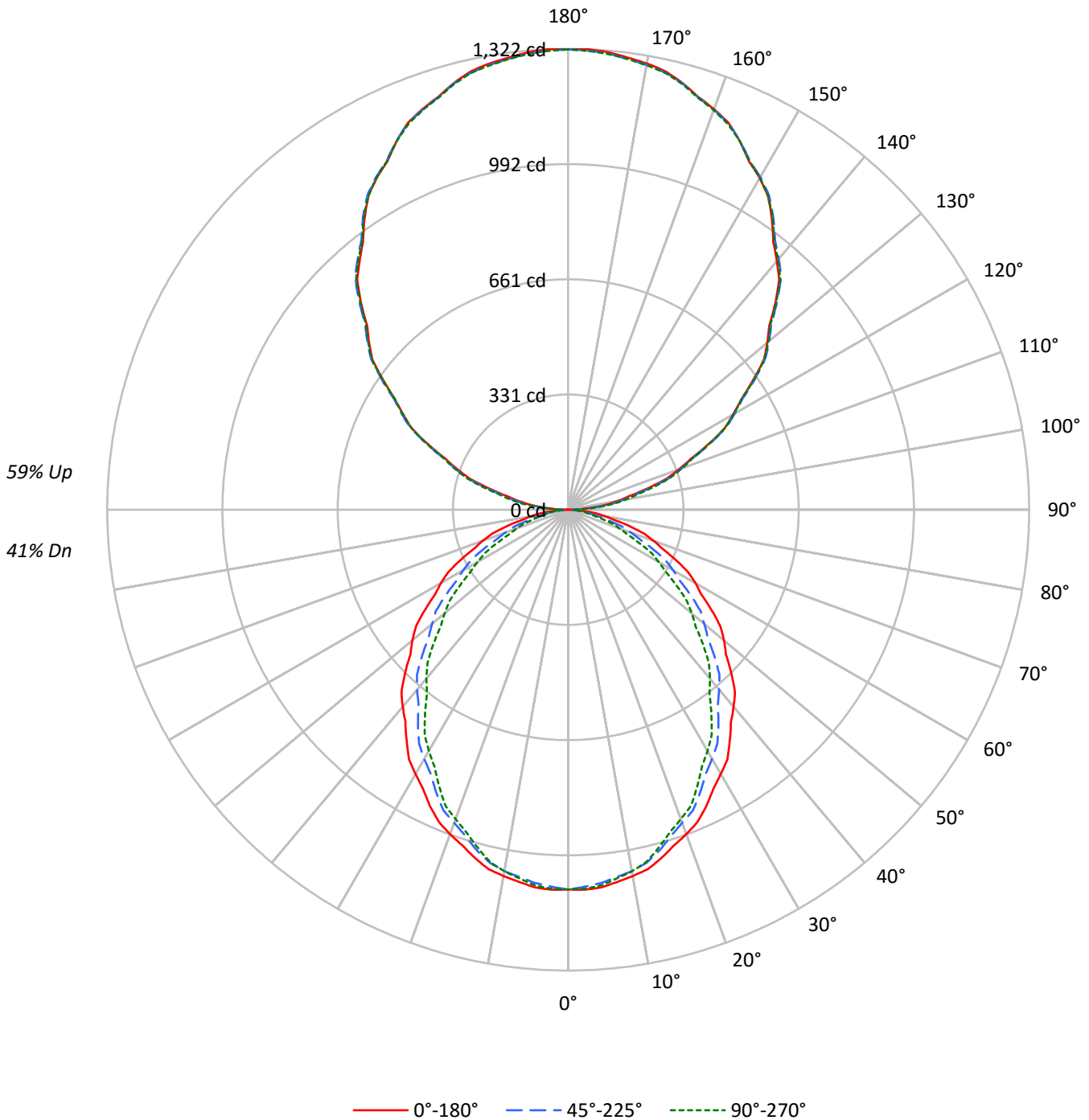
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	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	1.6
10°-20°	286.2	4.6
20°-30°	415.1	6.6
30°-40°	473.1	7.6
40°-50°	461.1	7.4
50°-60°	388.2	6.2
60°-70°	272.1	4.3
70°-80°	139.9	2.2
80°-90°	38.2	0.6
90°-100°	88.4	1.4
100°-110°	261.2	4.2
110°-120°	442.4	7.1
120°-130°	582.2	9.3
130°-140°	652.3	10.4
140°-150°	639.3	10.2
150°-160°	537.0	8.6
160°-170°	357.0	5.7
170°-180°	124.9	2.0
0°-30°	803.8	12.8
0°-40°	1276.8	20.4
0°-60°	2126.1	34.0
0°-90°	2576.3	41.1
90°-120°	792.0	12.6
90°-150°	2665.8	42.6
90°-180°	3685.0	58.9
0°-180°	6260.9	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	6
95°	67	69	79	86	88	71
105°	234	239	246	252	255	250
115°	443	447	449	448	447	438
125°	646	652	654	652	650	579
135°	841	846	848	848	844	648
145°	1018	1022	1026	1025	1022	636
155°	1165	1165	1166	1170	1165	536
165°	1267	1265	1266	1270	1264	357
175°	1317	1314	1313	1319	1312	125
180°	1320	1320	1320	1320	1320	



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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	16.5	17.6
92.5°	24.9	26.1	27.4	28.7	29.9	31.6	33.6	35.6	37.5	39.5	41.0
95°	66.8	67.3	67.7	68.1	68.6	70.0	72.2	74.5	76.8	79.1	80.7
97.5°	111.0	111.1	111.4	111.5	111.7	113.4	116.5	119.7	122.9	126.0	127.5
100°	143.9	143.9	143.9	143.9	143.9	145.4	148.3	151.3	154.2	157.2	159.3
102.5°	179.2	180.1	181.0	182.0	182.8	184.1	185.6	187.1	188.6	190.1	192.3
105°	234.3	235.4	236.5	237.7	238.8	240.1	241.5	242.9	244.2	245.6	247.0
107.5°	295.1	296.3	297.4	298.6	299.7	300.8	301.8	302.9	304.0	305.0	305.7
110°	337.1	338.2	339.4	340.5	341.6	342.5	343.3	343.9	344.6	345.2	345.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	379.8	380.4	381.0	381.6	382.1	382.9	383.7	384.6	385.5	386.3	386.7
115°	442.9	443.8	444.7	445.6	446.6	447.3	447.7	448.1	448.6	449.1	448.9
117.5°	506.2	506.6	507.0	507.4	507.9	508.3	508.7	509.1	509.5	509.9	510.1
120°	545.7	546.8	548.0	549.1	550.2	550.9	551.1	551.4	551.6	551.8	551.8
122.5°	588.4	588.8	589.2	589.6	590.0	590.6	591.1	591.8	592.3	592.9	592.7
125°	646.3	647.7	649.1	650.5	651.8	652.6	652.8	653.1	653.3	653.6	653.1
127.5°	708.0	708.8	709.6	710.3	711.1	711.6	711.9	712.2	712.5	712.7	712.5
130°	745.0	746.2	747.3	748.5	749.6	750.4	750.8	751.3	751.7	752.2	751.9
132.5°	782.0	783.9	785.8	787.6	789.5	790.4	790.3	790.2	790.1	790.0	789.8
135°	840.6	841.9	843.3	844.7	846.1	846.8	847.1	847.3	847.6	847.8	847.8
137.5°	895.6	897.0	898.3	899.6	900.9	901.8	902.4	902.9	903.4	903.9	904.1
140°	931.0	932.2	933.3	934.5	935.6	936.4	937.2	937.9	938.5	939.2	939.7
142.5°	966.4	967.3	968.3	969.2	970.2	971.1	971.9	972.8	973.7	974.5	974.9
145°	1018.4	1019.2	1020.2	1021.0	1022.0	1022.8	1023.5	1024.1	1024.8	1025.6	1025.6
147.5°	1066.4	1066.9	1067.5	1067.9	1068.4	1069.0	1069.5	1070.1	1070.6	1071.2	1071.7
150°	1098.5	1098.3	1098.0	1097.8	1097.6	1097.9	1098.8	1099.8	1100.7	1101.6	1101.6
152.5°	1124.8	1125.1	1125.5	1125.8	1126.1	1126.4	1126.8	1127.1	1127.5	1127.9	1128.5
155°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.4	1165.6	1165.9	1166.1	1166.3	1167.2
157.5°	1201.4	1200.9	1200.5	1199.9	1199.4	1199.3	1199.5	1199.8	1200.0	1200.2	1201.1
160°	1222.8	1222.2	1221.5	1220.8	1220.1	1219.9	1220.1	1220.4	1220.5	1220.8	1221.7
162.5°	1241.7	1241.3	1240.7	1240.2	1239.8	1239.5	1239.5	1239.6	1239.6	1239.7	1240.8
165°	1267.0	1266.5	1266.1	1265.7	1265.2	1265.1	1265.3	1265.5	1265.7	1266.0	1266.9
167.5°	1288.4	1287.5	1286.6	1285.6	1284.8	1284.3	1284.3	1284.3	1284.3	1284.3	1285.6
170°	1299.9	1299.0	1298.1	1297.2	1296.2	1295.8	1295.8	1295.8	1295.8	1295.8	1297.2
172.5°	1308.1	1307.2	1306.3	1305.4	1304.5	1304.0	1304.0	1304.0	1304.0	1304.0	1305.4
175°	1317.4	1316.4	1315.6	1314.6	1313.8	1313.3	1313.3	1313.3	1313.3	1313.3	1314.6
177.5°	1322.1	1321.4	1320.6	1319.9	1319.1	1318.7	1318.5	1318.3	1318.2	1318.0	1319.1
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5



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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	14.2
90°	18.7	19.9	21.0	21.9	22.6	23.3	24.0	24.6
92.5°	42.5	44.0	45.5	46.5	47.0	47.5	48.0	48.5
95°	82.3	83.9	85.6	86.5	87.0	87.5	87.9	88.4
97.5°	129.0	130.5	132.0	132.9	133.2	133.5	133.7	134.0
100°	161.4	163.3	165.4	166.7	167.2	167.6	168.1	168.5
102.5°	194.6	196.8	199.1	200.5	201.1	201.8	202.4	203.0
105°	248.3	249.7	251.0	252.1	252.8	253.5	254.1	254.8
107.5°	306.3	307.0	307.8	308.1	308.0	307.9	307.9	307.8
110°	346.7	347.3	348.0	348.2	348.0	347.8	347.5	347.3



TEST NUMBER: P333695-927

CATALOG NUMBER: S125RDIW-S850D1340U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	387.0	387.3	387.6	387.6	387.2	386.8	386.3	386.0
115°	448.6	448.4	448.1	447.9	447.7	447.4	447.3	447.0
117.5°	510.2	510.4	510.6	510.2	509.4	508.4	507.6	506.6
120°	551.8	551.8	551.8	551.4	550.4	549.5	548.6	547.7
122.5°	592.6	592.4	592.2	591.8	591.0	590.3	589.5	588.8
125°	652.6	652.2	651.7	651.4	651.2	650.9	650.7	650.5
127.5°	712.3	712.0	711.9	711.5	711.1	710.6	710.1	709.6
130°	751.7	751.5	751.3	750.9	750.5	750.0	749.6	749.1
132.5°	789.6	789.3	789.1	788.7	788.1	787.3	786.7	786.1
135°	847.8	847.8	847.8	847.3	846.4	845.5	844.5	843.7
137.5°	904.4	904.7	905.0	904.5	903.4	902.2	901.1	900.0
140°	940.2	940.6	941.0	940.7	939.5	938.4	937.3	936.1
142.5°	975.1	975.4	975.7	975.3	974.1	973.0	971.8	970.7
145°	1025.6	1025.6	1025.6	1025.2	1024.5	1023.8	1023.1	1022.5
147.5°	1072.2	1072.8	1073.3	1072.9	1071.3	1069.8	1068.2	1066.7
150°	1101.6	1101.6	1101.6	1101.4	1100.9	1100.4	1099.9	1099.5
152.5°	1128.9	1129.5	1130.0	1130.0	1129.1	1128.3	1127.4	1126.6
155°	1168.2	1169.0	1170.0	1169.8	1168.7	1167.6	1166.4	1165.3
157.5°	1202.1	1202.9	1203.9	1203.6	1202.1	1200.6	1199.0	1197.5
160°	1222.6	1223.5	1224.4	1224.3	1223.2	1222.0	1220.9	1219.7
162.5°	1241.9	1242.9	1244.0	1244.0	1242.6	1241.3	1240.0	1238.7
165°	1267.8	1268.8	1269.6	1269.4	1268.0	1266.7	1265.3	1263.9
167.5°	1287.1	1288.4	1289.8	1289.8	1288.3	1286.9	1285.5	1284.0
170°	1298.5	1299.9	1301.2	1301.2	1299.6	1298.0	1296.3	1294.7
172.5°	1306.8	1308.1	1309.5	1309.5	1308.1	1306.6	1305.2	1303.8
175°	1316.0	1317.4	1318.7	1318.6	1317.0	1315.4	1313.8	1312.2
177.5°	1320.2	1321.3	1322.4	1322.3	1321.0	1319.7	1318.4	1317.2
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5

(END OF REPORT)