

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: P333695-930

Luminaire Tested: **S125RDIW-S850D1340U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333695-930
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-S850D1340U930-4F0-1E-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: 6443.6 lumens
Efficiency: N/A
Efficacy: 104.9 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

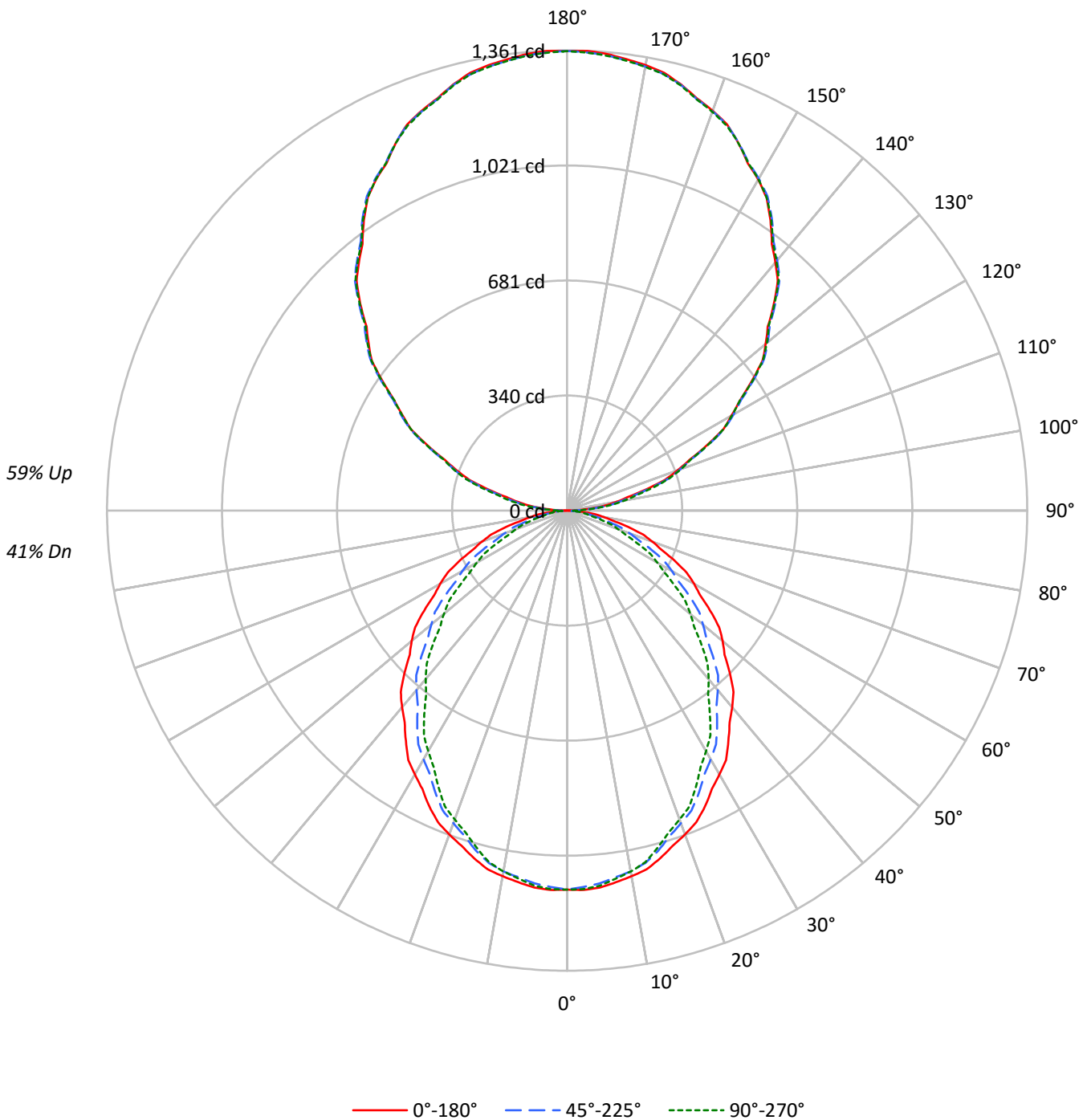
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7240	7240	7240
5°	7257	7175	7219
10°	7202	7108	7108
15°	7117	6964	6907
20°	7007	6762	6681
25°	6879	6565	6420
30°	6718	6334	6131
35°	6556	6095	5807
40°	6403	5847	5490
45°	6218	5569	5142
50°	6031	5267	4782
55°	5816	4977	4396
60°	5599	4627	3981
65°	5344	4219	3506
70°	5053	3709	3021
75°	4649	3127	2515
80°	4095	2455	2109
85°	3453	2008	1882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	1.6
10°-20°	294.6	4.6
20°-30°	427.2	6.6
30°-40°	486.9	7.6
40°-50°	474.6	7.4
50°-60°	399.5	6.2
60°-70°	280.0	4.3
70°-80°	143.9	2.2
80°-90°	39.3	0.6
90°-100°	91.0	1.4
100°-110°	268.8	4.2
110°-120°	455.3	7.1
120°-130°	599.1	9.3
130°-140°	671.4	10.4
140°-150°	658.0	10.2
150°-160°	552.7	8.6
160°-170°	367.4	5.7
170°-180°	128.6	2.0
0°-30°	827.2	12.8
0°-40°	1314.1	20.4
0°-60°	2188.2	34.0
0°-90°	2651.5	41.1
90°-120°	815.1	12.6
90°-150°	2743.6	42.6
90°-180°	3792.0	58.8
0°-180°	6443.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1116	1107	1115	1114	106
15°	1064	1059	1042	1040	1033	300
25°	965	952	921	910	901	444
35°	832	810	773	749	737	520
45°	681	655	610	577	563	525
55°	516	488	442	405	390	462
65°	350	320	276	243	229	346
75°	186	160	125	107	101	197
85°	47	32	27	26	25	52
90°	1	10	17	22	25	6
95°	69	71	81	89	91	73
105°	241	246	253	259	262	258
115°	456	460	462	461	460	451
125°	665	671	673	671	669	596
135°	865	871	872	872	868	667
145°	1048	1052	1056	1055	1052	655
155°	1199	1199	1200	1204	1199	552
165°	1304	1302	1303	1307	1301	368
175°	1356	1352	1352	1357	1350	129
180°	1359	1359	1359	1359	1359	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1123.1	1122.7	1122.2	1121.8	1121.3	1120.3	1118.8	1117.3	1115.8	1114.3	1115.8
5°	1119.4	1118.7	1117.9	1117.1	1116.4	1115.0	1112.9	1110.8	1108.7	1106.7	1108.6
7.5°	1108.4	1107.7	1106.9	1106.2	1105.5	1103.9	1101.5	1098.9	1096.5	1094.0	1095.3
10°	1098.2	1097.6	1097.1	1096.5	1095.9	1094.4	1091.8	1089.1	1086.5	1083.9	1084.3
12.5°	1086.7	1086.0	1085.2	1084.6	1083.9	1081.7	1078.2	1074.6	1071.1	1067.6	1068.0
15°	1064.4	1063.2	1062.1	1060.9	1059.8	1057.3	1053.4	1049.4	1045.5	1041.5	1041.3
17.5°	1039.1	1037.4	1035.7	1034.0	1032.2	1028.8	1023.9	1018.9	1013.9	1008.9	1008.0
20°	1019.5	1017.6	1015.7	1013.8	1011.9	1008.0	1002.0	996.0	989.9	983.9	983.0
22.5°	997.8	995.9	994.0	992.1	990.3	986.2	979.8	973.5	967.2	960.9	959.0
25°	965.3	962.5	959.6	956.8	954.0	949.1	942.2	935.1	928.2	921.3	918.8
27.5°	928.1	924.6	921.2	917.8	914.4	908.9	901.5	894.0	886.6	879.1	875.6
30°	900.9	897.3	893.8	890.2	886.6	880.8	873.0	865.1	857.2	849.3	845.0
32.5°	874.5	870.3	866.2	862.0	857.8	851.7	843.7	835.6	827.5	819.5	814.7
35°	831.5	827.0	822.5	817.9	813.4	806.9	798.5	790.0	781.5	773.1	767.6
37.5°	789.3	783.8	778.4	772.8	767.4	760.3	751.5	742.7	734.0	725.3	718.8
40°	759.5	753.9	748.2	742.6	736.9	729.6	720.6	711.5	702.5	693.5	686.3
42.5°	728.4	722.6	716.8	710.9	705.2	697.7	688.3	679.0	669.6	660.3	653.5
45°	680.8	675.3	669.8	664.4	658.9	651.0	640.7	630.4	620.0	609.7	602.1
47.5°	631.5	625.7	620.0	614.2	608.5	600.4	590.0	579.5	569.1	558.6	550.9
50°	600.3	594.1	587.9	581.7	575.5	567.0	556.3	545.6	534.8	524.2	516.2
52.5°	566.5	560.1	553.8	547.4	541.0	532.8	522.7	512.6	502.4	492.3	483.8
55°	516.5	510.5	504.5	498.5	492.4	484.1	473.6	463.1	452.6	442.0	433.5
57.5°	466.0	459.6	453.1	446.7	440.3	432.0	421.8	411.6	401.5	391.3	383.1
60°	433.5	427.0	420.4	413.8	407.2	398.8	388.7	378.5	368.4	358.2	349.9
62.5°	399.0	392.7	386.5	380.1	373.8	365.6	355.2	345.0	334.6	324.3	316.7
65°	349.7	343.3	336.9	330.5	324.1	315.9	306.0	296.0	286.0	276.1	268.5
67.5°	300.8	294.3	288.0	281.6	275.2	267.2	257.6	248.1	238.6	228.9	222.1
70°	267.6	261.1	254.8	248.3	242.0	234.1	224.7	215.2	205.9	196.4	190.6
72.5°	235.1	228.8	222.6	216.3	210.1	202.5	193.7	184.9	176.1	167.3	161.9
75°	186.3	180.7	175.0	169.3	163.7	156.9	149.0	141.1	133.2	125.3	121.2
77.5°	137.9	133.3	128.8	124.3	119.8	114.4	108.0	101.7	95.4	89.1	86.2
80°	110.1	105.6	101.0	96.5	92.0	87.2	81.9	76.6	71.3	66.0	64.3
82.5°	83.0	78.9	74.8	70.8	66.7	62.9	59.3	55.7	52.0	48.4	47.6
85°	46.6	43.2	39.8	36.4	33.0	30.8	29.9	28.9	28.0	27.1	26.9
87.5°	15.8	15.1	14.4	13.8	13.0	12.8	13.0	13.2	13.4	13.5	13.8
90°	1.1	2.9	4.8	6.7	8.6	10.4	12.0	13.6	15.2	17.0	18.1
92.5°	25.6	26.9	28.2	29.5	30.8	32.5	34.6	36.6	38.6	40.6	42.2
95°	68.7	69.2	69.7	70.1	70.6	72.1	74.4	76.7	79.1	81.4	83.1
97.5°	114.2	114.4	114.6	114.8	115.0	116.7	119.9	123.2	126.5	129.6	131.2
100°	148.1	148.1	148.1	148.1	148.1	149.6	152.6	155.7	158.7	161.8	164.0
102.5°	184.4	185.4	186.3	187.3	188.2	189.5	191.0	192.6	194.1	195.7	198.0
105°	241.2	242.3	243.4	244.7	245.8	247.1	248.5	250.0	251.4	252.7	254.2
107.5°	303.7	304.9	306.1	307.3	308.4	309.6	310.6	311.7	312.8	313.9	314.6
110°	346.9	348.1	349.3	350.4	351.6	352.5	353.3	353.9	354.7	355.3	356.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	390.9	391.5	392.1	392.7	393.3	394.1	394.9	395.8	396.7	397.6	397.9
115°	455.8	456.7	457.7	458.6	459.6	460.3	460.7	461.2	461.7	462.2	461.9
117.5°	521.0	521.4	521.8	522.2	522.7	523.1	523.5	523.9	524.3	524.8	525.0
120°	561.6	562.7	563.9	565.1	566.3	567.0	567.2	567.4	567.7	567.9	567.9
122.5°	605.6	606.0	606.4	606.8	607.2	607.8	608.4	609.0	609.6	610.3	610.0
125°	665.2	666.6	668.1	669.4	670.8	671.6	671.9	672.1	672.4	672.6	672.1
127.5°	728.6	729.4	730.3	731.1	731.9	732.4	732.7	733.0	733.3	733.5	733.3
130°	766.7	767.9	769.1	770.3	771.4	772.3	772.7	773.2	773.6	774.1	773.9
132.5°	804.8	806.7	808.7	810.6	812.5	813.4	813.3	813.3	813.2	813.1	812.9
135°	865.1	866.5	867.9	869.4	870.7	871.6	871.8	872.0	872.3	872.5	872.5
137.5°	921.8	923.2	924.5	925.9	927.2	928.1	928.7	929.2	929.8	930.3	930.5
140°	958.1	959.4	960.5	961.7	962.9	963.8	964.5	965.2	965.9	966.6	967.1
142.5°	994.6	995.6	996.5	997.5	998.5	999.4	1000.3	1001.2	1002.1	1003.0	1003.3
145°	1048.1	1049.0	1049.9	1050.8	1051.8	1052.6	1053.4	1054.0	1054.8	1055.5	1055.5
147.5°	1097.6	1098.0	1098.6	1099.1	1099.6	1100.2	1100.7	1101.3	1101.9	1102.4	1103.0
150°	1130.6	1130.3	1130.1	1129.8	1129.6	1129.9	1130.9	1131.9	1132.8	1133.8	1133.8
152.5°	1157.6	1158.0	1158.3	1158.6	1158.9	1159.3	1159.7	1160.0	1160.4	1160.8	1161.4
155°	1199.3	1199.3	1199.3	1199.3	1199.3	1199.4	1199.6	1199.9	1200.1	1200.4	1201.3
157.5°	1236.5	1236.0	1235.5	1234.9	1234.4	1234.3	1234.5	1234.8	1235.0	1235.3	1236.2
160°	1258.5	1257.8	1257.1	1256.4	1255.7	1255.5	1255.7	1256.0	1256.1	1256.4	1257.4
162.5°	1278.0	1277.5	1276.9	1276.4	1275.9	1275.7	1275.7	1275.8	1275.8	1275.9	1277.0
165°	1304.0	1303.5	1303.0	1302.6	1302.1	1302.0	1302.2	1302.4	1302.7	1302.9	1303.9
167.5°	1326.0	1325.0	1324.1	1323.1	1322.3	1321.8	1321.8	1321.8	1321.8	1321.8	1323.1
170°	1337.8	1336.9	1335.9	1335.1	1334.1	1333.6	1333.6	1333.6	1333.6	1333.6	1335.1
172.5°	1346.3	1345.3	1344.4	1343.5	1342.6	1342.1	1342.1	1342.1	1342.1	1342.1	1343.5
175°	1355.8	1354.9	1354.0	1353.0	1352.1	1351.6	1351.6	1351.6	1351.6	1351.6	1353.0
177.5°	1360.7	1359.9	1359.2	1358.5	1357.6	1357.2	1357.0	1356.8	1356.7	1356.4	1357.6
180°	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1117.3	1118.8	1120.3	1121.0	1120.9	1120.7	1120.5	1120.4
5°	1110.4	1112.3	1114.2	1115.0	1114.6	1114.2	1113.9	1113.5
7.5°	1096.7	1098.0	1099.3	1099.7	1099.3	1098.9	1098.5	1098.0
10°	1084.9	1085.5	1086.1	1086.1	1085.5	1084.9	1084.3	1083.9
12.5°	1068.4	1068.8	1069.2	1069.0	1068.1	1067.2	1066.4	1065.5
15°	1041.1	1040.9	1040.7	1039.8	1038.1	1036.4	1034.7	1033.0
17.5°	1007.1	1006.2	1005.2	1004.0	1002.7	1001.3	999.9	998.5
20°	982.0	981.0	980.2	978.8	977.1	975.4	973.7	972.1
22.5°	957.2	955.4	953.5	951.9	950.5	949.1	947.7	946.3
25°	916.4	914.0	911.5	909.2	907.1	905.1	903.0	900.9
27.5°	872.2	868.8	865.4	862.7	860.7	858.7	856.7	854.7
30°	840.7	836.3	831.9	829.0	827.3	825.6	823.9	822.1
32.5°	809.9	805.1	800.4	796.9	794.8	792.6	790.4	788.3
35°	762.1	756.7	751.2	747.2	744.5	741.9	739.3	736.6
37.5°	712.2	705.6	699.1	694.6	692.0	689.4	686.9	684.4
40°	679.1	672.1	664.9	660.1	657.9	655.7	653.4	651.2
42.5°	646.6	639.8	632.9	627.8	624.5	621.2	617.8	614.6
45°	594.6	587.1	579.5	574.4	571.5	568.8	565.9	563.0
47.5°	543.2	535.4	527.7	522.2	519.1	516.0	512.8	509.7
50°	508.3	500.4	492.5	487.1	484.4	481.5	478.7	475.9
52.5°	475.3	466.8	458.3	452.6	449.8	446.9	444.2	441.3
55°	425.1	416.6	408.1	402.4	399.4	396.4	393.4	390.4
57.5°	374.8	366.6	358.2	352.8	350.1	347.4	344.8	342.1
60°	341.6	333.3	325.1	319.5	316.7	313.9	311.0	308.2
62.5°	308.9	301.3	293.6	288.4	285.5	282.7	279.9	277.0
65°	261.0	253.5	245.9	240.8	237.9	235.1	232.3	229.4
67.5°	215.2	208.3	201.4	196.8	194.6	192.3	190.0	187.8
70°	184.7	179.0	173.1	169.1	166.8	164.5	162.3	160.0
72.5°	156.5	151.2	145.8	142.4	140.8	139.3	137.9	136.3
75°	117.1	112.9	108.8	106.1	104.7	103.4	102.1	100.8
77.5°	83.2	80.4	77.5	75.6	74.6	73.6	72.6	71.7
80°	62.7	61.0	59.3	58.2	57.9	57.5	57.1	56.7
82.5°	46.9	46.1	45.2	44.8	44.5	44.4	44.1	43.9
85°	26.7	26.5	26.3	26.2	25.9	25.8	25.6	25.4
87.5°	14.0	14.3	14.5	14.6	14.6	14.6	14.6	14.6
90°	19.2	20.5	21.6	22.6	23.2	24.0	24.7	25.4
92.5°	43.7	45.2	46.8	47.9	48.3	48.9	49.4	49.9
95°	84.7	86.3	88.1	89.0	89.5	90.0	90.5	91.0
97.5°	132.7	134.3	135.8	136.8	137.1	137.4	137.6	137.9
100°	166.1	168.1	170.2	171.5	172.0	172.5	173.0	173.4
102.5°	200.2	202.5	204.9	206.4	207.0	207.7	208.3	209.0
105°	255.6	257.0	258.4	259.4	260.2	260.9	261.5	262.3
107.5°	315.3	316.0	316.7	317.1	317.0	316.9	316.9	316.8
110°	356.8	357.4	358.2	358.4	358.2	357.9	357.7	357.4



TEST NUMBER: P333695-930

CATALOG NUMBER: S125RDIW-S850D1340U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	398.3	398.6	398.9	398.9	398.5	398.1	397.6	397.2
115°	461.7	461.5	461.2	461.0	460.7	460.5	460.3	460.1
117.5°	525.1	525.3	525.5	525.1	524.2	523.3	522.4	521.4
120°	567.9	567.9	567.9	567.4	566.5	565.6	564.6	563.7
122.5°	609.8	609.7	609.4	609.0	608.2	607.5	606.7	606.0
125°	671.6	671.2	670.7	670.4	670.2	669.9	669.7	669.4
127.5°	733.0	732.8	732.6	732.2	731.8	731.3	730.8	730.3
130°	773.6	773.5	773.2	772.8	772.4	771.9	771.4	770.9
132.5°	812.6	812.4	812.1	811.7	811.1	810.3	809.7	809.0
135°	872.5	872.5	872.5	872.0	871.1	870.2	869.2	868.3
137.5°	930.8	931.1	931.4	930.9	929.8	928.5	927.4	926.3
140°	967.6	968.0	968.5	968.2	966.9	965.8	964.7	963.4
142.5°	1003.6	1003.9	1004.1	1003.7	1002.5	1001.4	1000.1	999.0
145°	1055.5	1055.5	1055.5	1055.1	1054.4	1053.7	1053.0	1052.3
147.5°	1103.5	1104.1	1104.6	1104.2	1102.5	1101.0	1099.3	1097.8
150°	1133.8	1133.8	1133.8	1133.5	1133.0	1132.5	1132.0	1131.6
152.5°	1161.9	1162.5	1163.0	1162.9	1162.0	1161.2	1160.3	1159.5
155°	1202.2	1203.1	1204.1	1204.0	1202.8	1201.7	1200.4	1199.3
157.5°	1237.1	1238.0	1239.0	1238.7	1237.1	1235.6	1234.0	1232.5
160°	1258.3	1259.2	1260.1	1260.0	1258.9	1257.7	1256.5	1255.3
162.5°	1278.1	1279.2	1280.3	1280.3	1278.9	1277.5	1276.2	1274.8
165°	1304.8	1305.8	1306.7	1306.4	1305.0	1303.7	1302.2	1300.8
167.5°	1324.6	1326.0	1327.4	1327.4	1325.9	1324.5	1323.0	1321.5
170°	1336.4	1337.8	1339.2	1339.1	1337.5	1335.9	1334.2	1332.5
172.5°	1344.9	1346.3	1347.7	1347.7	1346.2	1344.8	1343.3	1341.8
175°	1354.4	1355.8	1357.2	1357.1	1355.4	1353.8	1352.2	1350.5
177.5°	1358.7	1359.8	1361.0	1360.9	1359.5	1358.2	1356.9	1355.6
180°	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0	1359.0

(END OF REPORT)