

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: P333675-935

Luminaire Tested: **S125RDIW-S610D1340U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333675-935  
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-S610D1340U935-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 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: 6054.1 lumens  
Efficiency: N/A  
Efficacy: 112.5 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

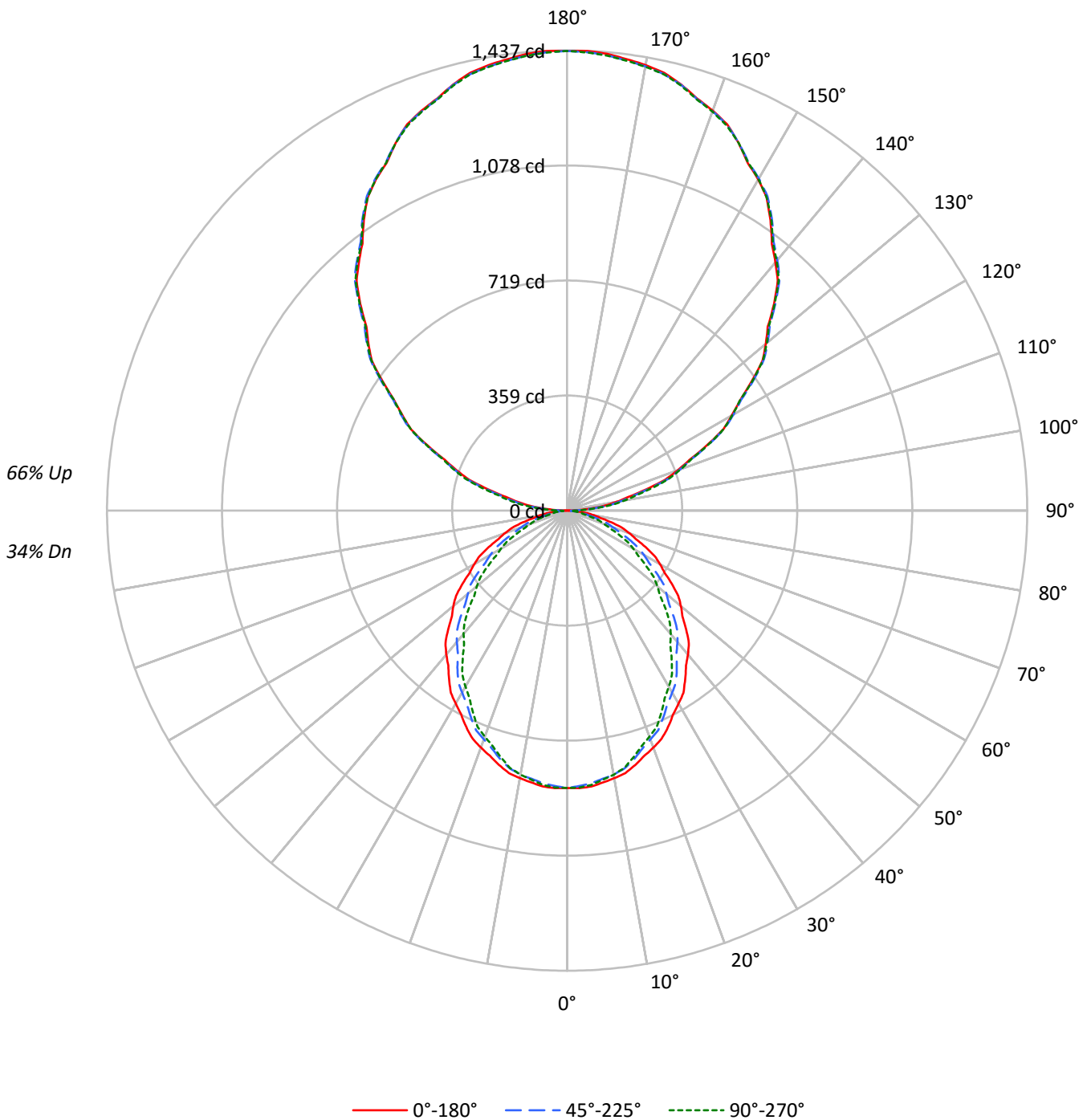
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	83	85	81	78	76	65	63	61	50	49	48	37	36	35	29
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	32	31	30	24
3	78	69	62	57	71	63	57	52	51	46	43	39	36	34	29	27	25	21
4	72	61	54	48	65	56	49	44	45	40	37	35	32	29	26	24	22	18
5	66	55	47	41	59	50	43	38	40	35	31	31	28	25	23	21	19	16
6	61	49	41	36	55	45	38	33	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	29	33	28	24	26	22	20	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	14	11
9	48	36	29	24	44	33	27	23	27	22	19	22	18	16	16	14	12	10
10	45	33	26	22	41	30	24	20	25	20	17	20	17	14	15	13	11	9

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

	0°	45°	90°
0°	5594	5594	5594
5°	5607	5543	5577
10°	5564	5491	5491
15°	5498	5380	5336
20°	5413	5225	5161
25°	5315	5072	4960
30°	5190	4894	4737
35°	5065	4709	4487
40°	4947	4517	4242
45°	4804	4302	3974
50°	4660	4068	3693
55°	4494	3845	3396
60°	4326	3574	3077
65°	4129	3260	2709
70°	3903	2866	2334
75°	3593	2415	1941
80°	3165	1901	1629
85°	2668	1549	1452



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.4	1.3
10°-20°	227.6	3.8
20°-30°	330.1	5.5
30°-40°	376.2	6.2
40°-50°	366.7	6.1
50°-60°	308.6	5.1
60°-70°	216.4	3.6
70°-80°	111.2	1.8
80°-90°	31.2	0.5
90°-100°	96.1	1.6
100°-110°	283.9	4.7
110°-120°	480.8	7.9
120°-130°	632.7	10.5
130°-140°	709.0	11.7
140°-150°	694.9	11.5
150°-160°	583.6	9.6
160°-170°	388.0	6.4
170°-180°	135.8	2.2
0°-30°	639.1	10.6
0°-40°	1015.3	16.8
0°-60°	1690.5	27.9
0°-90°	2049.3	33.9
90°-120°	860.8	14.2
90°-150°	2897.4	47.9
90°-180°	4005.0	66.2
0°-180°	6054.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	865	862	855	861	860	82
15°	822	818	805	804	798	232
25°	746	735	712	703	696	343
35°	642	626	597	579	569	402
45°	526	506	471	446	435	406
55°	399	377	342	313	302	357
65°	270	247	213	188	177	268
75°	144	124	97	83	78	152
85°	36	25	21	20	20	40
90°	1	10	18	23	27	6
95°	73	75	86	94	96	77
105°	255	260	267	273	277	272
115°	481	486	488	487	486	476
125°	702	709	710	708	707	629
135°	914	920	921	921	917	704
145°	1107	1111	1115	1114	1111	692
155°	1266	1267	1268	1272	1266	583
165°	1377	1375	1376	1380	1374	388
175°	1432	1428	1427	1433	1426	136
180°	1435	1435	1435	1435	1435	



TEST NUMBER: P333675-935

CATALOG NUMBER: S125RDIW-S610D1340U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	866.2	866.2	866.2	866.2	866.2	866.2	866.2	866.2	866.2	866.2	866.2
2.5°	867.7	867.4	867.0	866.7	866.3	865.6	864.4	863.2	862.0	860.9	862.0
5°	864.8	864.3	863.7	863.1	862.5	861.4	859.8	858.2	856.6	855.0	856.4
7.5°	856.4	855.7	855.2	854.6	854.1	852.9	850.9	849.0	847.1	845.2	846.2
10°	848.4	848.0	847.6	847.1	846.7	845.5	843.4	841.5	839.4	837.3	837.8
12.5°	839.6	839.0	838.4	837.9	837.3	835.7	833.0	830.3	827.5	824.8	825.1
15°	822.3	821.4	820.5	819.7	818.8	816.8	813.8	810.7	807.7	804.6	804.5
17.5°	802.8	801.5	800.1	798.8	797.5	794.9	791.0	787.2	783.3	779.5	778.8
20°	787.6	786.2	784.7	783.3	781.8	778.8	774.1	769.5	764.8	760.2	759.4
22.5°	770.9	769.4	768.0	766.5	765.1	761.9	757.0	752.2	747.3	742.4	741.0
25°	745.8	743.6	741.4	739.3	737.0	733.2	727.9	722.5	717.1	711.7	709.9
27.5°	717.0	714.4	711.7	709.0	706.4	702.2	696.5	690.7	684.9	679.2	676.5
30°	696.0	693.3	690.5	687.8	685.0	680.5	674.4	668.4	662.3	656.2	652.8
32.5°	675.6	672.4	669.2	666.0	662.7	658.0	651.8	645.6	639.3	633.1	629.4
35°	642.4	638.9	635.4	632.0	628.4	623.5	616.9	610.4	603.8	597.3	593.1
37.5°	609.8	605.5	601.3	597.1	592.9	587.4	580.6	573.9	567.1	560.3	555.3
40°	586.8	582.5	578.1	573.7	569.4	563.7	556.7	549.7	542.8	535.8	530.3
42.5°	562.7	558.3	553.8	549.3	544.8	539.0	531.8	524.5	517.4	510.1	504.8
45°	526.0	521.8	517.5	513.3	509.1	503.0	495.0	487.0	479.0	471.0	465.2
47.5°	487.9	483.5	479.0	474.6	470.1	463.8	455.8	447.7	439.7	431.6	425.7
50°	463.8	459.0	454.2	449.4	444.6	438.1	429.8	421.5	413.2	404.9	398.8
52.5°	437.6	432.7	427.8	422.9	418.0	411.6	403.8	396.0	388.1	380.3	373.8
55°	399.1	394.4	389.8	385.1	380.5	374.0	365.9	357.7	349.7	341.5	334.9
57.5°	360.1	355.1	350.1	345.2	340.2	333.7	325.9	318.1	310.2	302.4	295.9
60°	334.9	329.8	324.8	319.7	314.6	308.2	300.2	292.4	284.6	276.7	270.4
62.5°	308.2	303.4	298.5	293.7	288.9	282.4	274.5	266.5	258.6	250.6	244.6
65°	270.2	265.3	260.3	255.4	250.4	244.1	236.3	228.7	220.9	213.3	207.4
67.5°	232.4	227.4	222.5	217.6	212.6	206.5	199.1	191.7	184.3	176.8	171.6
70°	206.7	201.8	196.8	191.9	186.9	180.8	173.6	166.3	159.0	151.8	147.2
72.5°	181.6	176.8	171.9	167.1	162.3	156.4	149.6	142.8	136.0	129.2	125.1
75°	144.0	139.6	135.2	130.9	126.5	121.2	115.1	109.0	102.9	96.8	93.6
77.5°	106.5	103.0	99.5	96.0	92.6	88.3	83.4	78.6	73.7	68.8	66.6
80°	85.1	81.5	78.1	74.6	71.1	67.3	63.2	59.2	55.1	51.1	49.7
82.5°	64.1	61.0	57.9	54.7	51.6	48.6	45.8	43.0	40.2	37.5	36.9
85°	36.0	33.3	30.7	28.2	25.5	23.8	23.1	22.4	21.7	20.9	20.8
87.5°	12.2	11.9	11.5	11.0	10.6	10.5	10.8	10.9	11.2	11.5	11.7
90°	1.1	3.1	5.1	7.1	9.0	10.9	12.7	14.4	16.1	17.9	19.1
92.5°	27.0	28.4	29.8	31.2	32.5	34.4	36.5	38.7	40.7	42.9	44.5
95°	72.6	73.1	73.6	74.0	74.6	76.1	78.5	81.0	83.5	86.0	87.7
97.5°	120.6	120.8	121.1	121.2	121.4	123.2	126.7	130.1	133.5	136.9	138.5
100°	156.4	156.4	156.4	156.4	156.4	158.0	161.2	164.5	167.6	170.9	173.1
102.5°	194.8	195.8	196.7	197.8	198.7	200.1	201.7	203.4	205.0	206.6	209.1
105°	254.7	255.9	257.1	258.4	259.6	261.0	262.4	264.0	265.4	266.9	268.5
107.5°	320.7	322.0	323.2	324.5	325.7	326.9	328.0	329.2	330.4	331.5	332.3
110°	366.4	367.6	368.9	370.1	371.3	372.3	373.1	373.8	374.5	375.2	376.0



TEST NUMBER: P333675-935

CATALOG NUMBER: S125RDIW-S610D1340U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	412.8	413.5	414.1	414.7	415.3	416.2	417.1	418.0	419.0	419.9	420.3
115°	481.4	482.3	483.4	484.3	485.3	486.1	486.6	487.1	487.6	488.1	487.8
117.5°	550.2	550.6	551.0	551.5	552.0	552.4	552.8	553.3	553.7	554.2	554.4
120°	593.1	594.3	595.6	596.8	598.1	598.7	599.0	599.3	599.5	599.8	599.8
122.5°	639.6	640.0	640.4	640.8	641.3	641.9	642.5	643.2	643.8	644.5	644.2
125°	702.5	704.0	705.5	707.0	708.4	709.3	709.6	709.8	710.1	710.3	709.8
127.5°	769.5	770.3	771.2	772.1	772.9	773.4	773.8	774.0	774.4	774.6	774.4
130°	809.7	811.0	812.2	813.5	814.7	815.5	816.1	816.6	817.0	817.5	817.3
132.5°	849.9	852.0	854.0	856.0	858.1	859.0	858.9	858.8	858.8	858.7	858.4
135°	913.6	915.1	916.5	918.1	919.5	920.4	920.7	920.9	921.2	921.4	921.4
137.5°	973.4	974.9	976.4	977.8	979.2	980.2	980.8	981.3	981.9	982.4	982.7
140°	1011.8	1013.1	1014.3	1015.6	1016.8	1017.8	1018.6	1019.3	1020.0	1020.8	1021.3
142.5°	1050.3	1051.4	1052.4	1053.4	1054.5	1055.4	1056.4	1057.3	1058.3	1059.2	1059.5
145°	1106.8	1107.8	1108.8	1109.7	1110.8	1111.6	1112.4	1113.1	1113.9	1114.7	1114.7
147.5°	1159.1	1159.6	1160.2	1160.7	1161.2	1161.8	1162.4	1163.0	1163.6	1164.2	1164.8
150°	1193.9	1193.7	1193.4	1193.2	1192.9	1193.3	1194.3	1195.3	1196.3	1197.3	1197.3
152.5°	1222.5	1222.9	1223.2	1223.6	1223.9	1224.3	1224.7	1225.0	1225.5	1225.9	1226.5
155°	1266.5	1266.5	1266.5	1266.5	1266.5	1266.6	1266.9	1267.1	1267.4	1267.7	1268.6
157.5°	1305.8	1305.3	1304.8	1304.2	1303.6	1303.5	1303.7	1304.0	1304.2	1304.5	1305.4
160°	1329.0	1328.4	1327.6	1326.8	1326.1	1325.9	1326.1	1326.4	1326.5	1326.8	1327.8
162.5°	1349.6	1349.1	1348.5	1348.0	1347.5	1347.2	1347.2	1347.3	1347.3	1347.4	1348.6
165°	1377.1	1376.6	1376.1	1375.6	1375.1	1375.0	1375.2	1375.4	1375.7	1376.0	1377.0
167.5°	1400.3	1399.3	1398.4	1397.3	1396.4	1395.9	1395.9	1395.9	1395.9	1395.9	1397.3
170°	1412.8	1411.9	1410.8	1409.9	1408.9	1408.3	1408.3	1408.3	1408.3	1408.3	1409.9
172.5°	1421.8	1420.7	1419.8	1418.8	1417.8	1417.3	1417.3	1417.3	1417.3	1417.3	1418.8
175°	1431.8	1430.8	1429.9	1428.8	1427.9	1427.4	1427.4	1427.4	1427.4	1427.4	1428.8
177.5°	1436.9	1436.1	1435.4	1434.6	1433.7	1433.3	1433.0	1432.9	1432.7	1432.4	1433.7
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2



TEST NUMBER: P333675-935

CATALOG NUMBER: S125RDIW-S610D1340U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	866.2	866.2	866.2	866.2	866.2	866.2	866.2	866.2
2.5°	863.2	864.4	865.6	866.1	866.0	865.8	865.7	865.6
5°	857.9	859.4	860.8	861.4	861.1	860.8	860.6	860.2
7.5°	847.2	848.3	849.3	849.6	849.3	848.9	848.7	848.3
10°	838.2	838.6	839.1	839.1	838.6	838.2	837.8	837.3
12.5°	825.4	825.8	826.0	825.9	825.2	824.6	823.9	823.2
15°	804.3	804.2	804.1	803.3	802.0	800.7	799.4	798.1
17.5°	778.1	777.3	776.6	775.7	774.6	773.5	772.5	771.4
20°	758.7	757.9	757.2	756.2	754.9	753.6	752.3	751.0
22.5°	739.5	738.0	736.7	735.4	734.3	733.2	732.2	731.1
25°	708.0	706.1	704.2	702.4	700.9	699.2	697.7	696.0
27.5°	673.9	671.2	668.6	666.5	665.0	663.4	661.9	660.3
30°	649.5	646.1	642.7	640.4	639.1	637.8	636.5	635.2
32.5°	625.7	622.1	618.4	615.7	614.0	612.3	610.7	609.1
35°	588.8	584.6	580.4	577.3	575.2	573.2	571.2	569.1
37.5°	550.3	545.2	540.1	536.6	534.6	532.7	530.7	528.7
40°	524.7	519.2	513.7	510.1	508.3	506.5	504.8	503.1
42.5°	499.6	494.2	489.0	485.0	482.5	479.9	477.3	474.8
45°	459.3	453.6	447.7	443.8	441.6	439.4	437.2	435.1
47.5°	419.7	413.6	407.7	403.5	401.1	398.6	396.2	393.8
50°	392.7	386.6	380.5	376.3	374.2	372.0	369.8	367.6
52.5°	367.2	360.6	354.0	349.7	347.5	345.3	343.1	341.0
55°	328.4	321.8	315.3	310.9	308.6	306.3	303.9	301.6
57.5°	289.6	283.2	276.8	272.5	270.4	268.4	266.4	264.3
60°	263.9	257.5	251.2	246.8	244.7	242.5	240.3	238.2
62.5°	238.7	232.7	226.8	222.7	220.6	218.4	216.2	214.0
65°	201.6	195.8	190.0	186.0	183.8	181.7	179.4	177.3
67.5°	166.3	160.9	155.6	152.1	150.3	148.6	146.8	145.1
70°	142.8	138.3	133.7	130.6	128.9	127.2	125.4	123.6
72.5°	121.0	116.8	112.6	109.9	108.8	107.6	106.5	105.3
75°	90.4	87.2	84.0	81.9	80.9	79.9	78.9	77.8
77.5°	64.3	62.1	59.8	58.4	57.6	56.8	56.1	55.4
80°	48.4	47.1	45.8	45.0	44.7	44.4	44.1	43.8
82.5°	36.2	35.6	35.0	34.6	34.4	34.3	34.1	33.9
85°	20.7	20.5	20.3	20.2	20.1	19.9	19.8	19.6
87.5°	11.9	12.1	12.4	12.6	12.6	12.7	12.7	12.7
90°	20.3	21.6	22.8	23.8	24.5	25.3	26.1	26.8
92.5°	46.1	47.8	49.4	50.5	51.1	51.7	52.2	52.7
95°	89.5	91.2	93.0	94.0	94.5	95.1	95.6	96.1
97.5°	140.2	141.8	143.4	144.5	144.7	145.1	145.3	145.7
100°	175.4	177.5	179.8	181.2	181.7	182.2	182.7	183.1
102.5°	211.5	213.9	216.4	217.9	218.6	219.3	220.0	220.7
105°	269.9	271.4	272.9	274.0	274.7	275.5	276.2	277.0
107.5°	332.9	333.7	334.5	334.8	334.8	334.7	334.7	334.6
110°	376.8	377.5	378.2	378.5	378.2	378.0	377.7	377.5





TEST NUMBER: P333675-935

CATALOG NUMBER: S125RDIW-S610D1340U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.6	420.9	421.3	421.3	420.9	420.4	419.9	419.5
115°	487.6	487.3	487.1	486.8	486.6	486.3	486.1	485.9
117.5°	554.6	554.7	555.0	554.6	553.6	552.6	551.6	550.6
120°	599.8	599.8	599.8	599.3	598.2	597.3	596.2	595.3
122.5°	644.0	643.9	643.6	643.2	642.3	641.5	640.8	640.0
125°	709.3	708.9	708.3	708.0	707.7	707.5	707.2	707.0
127.5°	774.1	773.9	773.7	773.3	772.8	772.3	771.8	771.3
130°	817.0	816.8	816.6	816.1	815.7	815.2	814.7	814.2
132.5°	858.2	857.9	857.6	857.2	856.5	855.7	855.1	854.4
135°	921.4	921.4	921.4	920.9	919.9	918.9	917.9	917.0
137.5°	983.0	983.3	983.6	983.1	981.9	980.6	979.4	978.2
140°	1021.8	1022.3	1022.8	1022.4	1021.1	1019.9	1018.7	1017.4
142.5°	1059.8	1060.1	1060.4	1060.0	1058.7	1057.5	1056.2	1055.0
145°	1114.7	1114.7	1114.7	1114.2	1113.5	1112.8	1112.0	1111.3
147.5°	1165.4	1166.0	1166.6	1166.1	1164.3	1162.7	1161.0	1159.3
150°	1197.3	1197.3	1197.3	1197.0	1196.5	1196.0	1195.5	1195.1
152.5°	1227.0	1227.6	1228.2	1228.1	1227.2	1226.3	1225.4	1224.5
155°	1269.6	1270.6	1271.6	1271.4	1270.2	1269.0	1267.7	1266.5
157.5°	1306.5	1307.4	1308.5	1308.1	1306.5	1304.8	1303.2	1301.6
160°	1328.8	1329.8	1330.8	1330.7	1329.5	1328.2	1327.0	1325.7
162.5°	1349.8	1350.9	1352.1	1352.0	1350.6	1349.1	1347.7	1346.3
165°	1377.9	1379.0	1379.9	1379.7	1378.2	1376.7	1375.2	1373.7
167.5°	1398.9	1400.3	1401.8	1401.8	1400.2	1398.7	1397.1	1395.6
170°	1411.4	1412.8	1414.3	1414.2	1412.5	1410.7	1408.9	1407.2
172.5°	1420.3	1421.8	1423.2	1423.2	1421.7	1420.1	1418.6	1417.0
175°	1430.3	1431.8	1433.3	1433.1	1431.4	1429.7	1428.0	1426.2
177.5°	1434.9	1436.1	1437.3	1437.2	1435.7	1434.3	1433.0	1431.6
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2

(END OF REPORT)