

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: P333541-840

Luminaire Tested: **S125RDIP-S610D1035U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333541-840  
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: S125RDIP-S610D1035U840-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6579.8 lumens  
Efficiency: N/A  
Efficacy: 147.9 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: Semi-Indirect

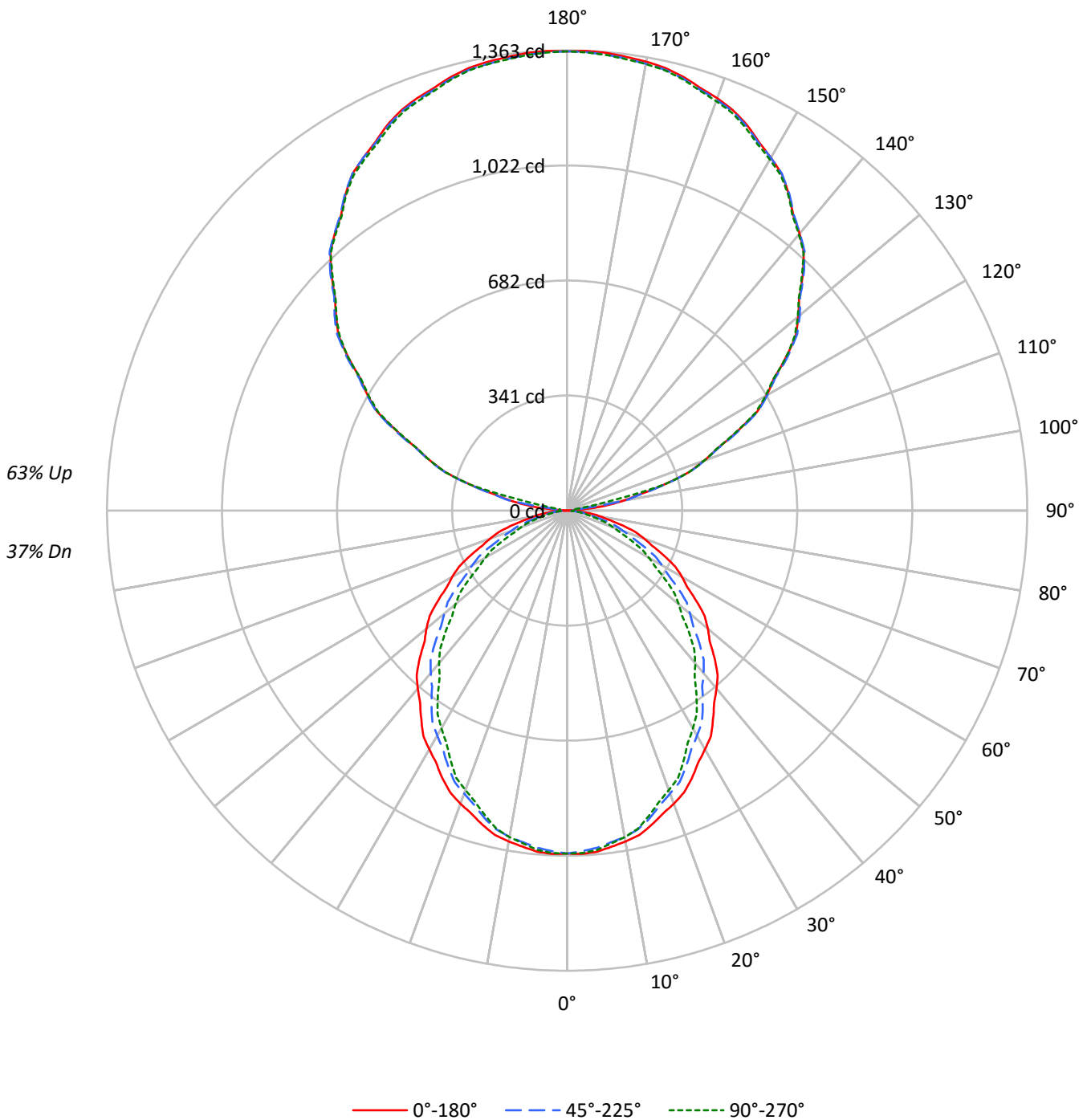
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76		59	59	59		44	44	44	37
1	95	91	87	84	86	82	79	76	67	64	62		52	51	49		39	38	37	31
2	87	79	73	69	78	72	67	63	59	55	52		46	44	42		34	33	32	26
3	79	70	63	57	71	64	58	53	52	47	44		41	38	35		31	29	27	22
4	72	62	54	48	65	56	50	45	46	41	37		36	33	30		27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32		33	29	26		25	22	20	17
6	61	49	41	36	55	45	38	33	37	32	28		30	26	23		22	20	18	15
7	56	44	37	31	51	41	34	29	34	28	25		27	23	20		21	18	16	13
8	52	40	33	28	47	37	30	26	31	25	22		25	21	18		19	16	14	12
9	49	37	29	25	44	34	27	23	28	23	20		23	19	16		17	15	13	11
10	45	34	27	22	41	31	25	20	26	21	18		21	17	15		16	14	12	10

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

	0°	45°	90°
0°	6561	6561	6561
5°	6576	6501	6541
10°	6526	6441	6441
15°	6449	6310	6258
20°	6349	6128	6054
25°	6233	5949	5818
30°	6088	5739	5557
35°	5941	5523	5263
40°	5802	5298	4975
45°	5634	5045	4661
50°	5466	4772	4332
55°	5271	4510	3984
60°	5074	4193	3608
65°	4843	3822	3177
70°	4579	3361	2738
75°	4212	2832	2278
80°	3712	2228	1912
85°	3127	1815	1704



TEST NUMBER: P333541-840

CATALOG NUMBER: S125RDIP-S610D1035U840-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	1.5
10°-20°	267.0	4.1
20°-30°	387.1	5.9
30°-40°	441.2	6.7
40°-50°	430.0	6.5
50°-60°	362.0	5.5
60°-70°	253.8	3.9
70°-80°	130.4	2.0
80°-90°	35.8	0.5
90°-100°	49.4	0.8
100°-110°	304.6	4.6
110°-120°	552.5	8.4
120°-130°	709.1	10.8
130°-140°	762.7	11.6
140°-150°	715.9	10.9
150°-160°	579.1	8.8
160°-170°	374.5	5.7
170°-180°	129.2	2.0
0°-30°	749.6	11.4
0°-40°	1190.8	18.1
0°-60°	1982.8	30.1
0°-90°	2402.8	36.5
90°-120°	906.6	13.8
90°-150°	3094.2	47.0
90°-180°	4177.0	63.5
0°-180°	6579.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1014	1011	1003	1010	1009	96
15°	964	959	944	943	936	272
25°	875	862	835	825	816	402
35°	754	734	700	679	668	472
45°	617	594	552	523	510	476
55°	468	442	400	367	354	418
65°	317	290	250	220	208	314
75°	169	145	114	97	91	179
85°	42	29	24	24	23	47
90°	1	9	16	21	24	4
95°	58	52	16	21	21	73
105°	296	300	300	300	299	314
115°	557	561	563	559	553	552
125°	792	798	799	795	792	707
135°	987	993	991	989	983	761
145°	1144	1146	1146	1147	1142	715
155°	1260	1255	1256	1259	1251	580
165°	1330	1324	1325	1330	1323	376
175°	1360	1355	1355	1362	1354	129
180°	1360	1360	1360	1360	1360	



TEST NUMBER: P333541-840

CATALOG NUMBER: S125RDIP-S610D1035U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1017.7	1017.3	1016.9	1016.5	1016.1	1015.2	1013.8	1012.5	1011.1	1009.8	1011.1
5°	1014.3	1013.7	1013.0	1012.3	1011.6	1010.4	1008.5	1006.6	1004.7	1002.8	1004.5
7.5°	1004.4	1003.7	1003.1	1002.4	1001.8	1000.4	998.0	995.8	993.6	991.3	992.5
10°	995.1	994.6	994.1	993.6	993.1	991.7	989.3	986.9	984.5	982.1	982.6
12.5°	984.7	984.1	983.4	982.8	982.1	980.2	977.0	973.8	970.6	967.3	967.8
15°	964.5	963.4	962.4	961.4	960.4	958.1	954.5	950.9	947.4	943.7	943.6
17.5°	941.6	940.1	938.5	937.0	935.3	932.3	927.8	923.3	918.8	914.3	913.4
20°	923.8	922.1	920.4	918.7	917.0	913.4	908.0	902.5	897.1	891.6	890.7
22.5°	904.1	902.4	900.8	899.1	897.4	893.6	887.9	882.2	876.5	870.7	869.1
25°	874.7	872.1	869.6	867.1	864.4	860.0	853.7	847.4	841.1	834.8	832.6
27.5°	840.9	837.9	834.8	831.6	828.5	823.6	816.9	810.1	803.3	796.6	793.5
30°	816.4	813.1	809.9	806.7	803.4	798.2	791.0	784.0	776.8	769.6	765.7
32.5°	792.4	788.7	784.9	781.1	777.3	771.7	764.5	757.2	749.8	742.6	738.2
35°	753.5	749.4	745.3	741.2	737.1	731.2	723.6	715.9	708.2	700.5	695.6
37.5°	715.3	710.2	705.3	700.3	695.4	688.9	681.0	673.1	665.2	657.2	651.4
40°	688.2	683.2	678.0	672.9	667.8	661.2	653.0	644.8	636.6	628.4	622.0
42.5°	660.0	654.8	649.5	644.3	639.0	632.2	623.7	615.2	606.8	598.3	592.1
45°	616.9	612.0	607.0	602.1	597.1	590.0	580.6	571.2	561.8	552.4	545.6
47.5°	572.3	567.0	561.8	556.6	551.4	544.0	534.6	525.1	515.7	506.2	499.3
50°	544.0	538.4	532.7	527.1	521.5	513.8	504.1	494.4	484.6	474.9	467.8
52.5°	513.3	507.6	501.8	496.0	490.3	482.8	473.6	464.4	455.2	446.1	438.4
55°	468.1	462.6	457.2	451.7	446.3	438.7	429.2	419.6	410.1	400.5	392.8
57.5°	422.3	416.5	410.6	404.9	399.0	391.4	382.2	373.0	363.9	354.7	347.1
60°	392.8	386.9	380.9	375.0	369.0	361.4	352.1	343.0	333.8	324.6	317.1
62.5°	361.5	355.9	350.1	344.5	338.8	331.2	321.9	312.6	303.3	293.9	286.9
65°	316.9	311.1	305.3	299.5	293.7	286.3	277.2	268.2	259.1	250.1	243.3
67.5°	272.6	266.7	260.9	255.2	249.3	242.2	233.5	224.8	216.1	207.4	201.3
70°	242.5	236.7	230.9	225.1	219.2	212.1	203.6	195.1	186.5	178.0	172.7
72.5°	213.0	207.3	201.7	196.0	190.4	183.5	175.5	167.5	159.6	151.6	146.7
75°	168.8	163.7	158.5	153.5	148.3	142.2	135.0	127.8	120.7	113.5	109.8
77.5°	124.9	120.8	116.7	112.6	108.6	103.6	97.9	92.2	86.4	80.7	78.1
80°	99.8	95.6	91.6	87.5	83.4	79.0	74.1	69.4	64.6	59.9	58.3
82.5°	75.2	71.5	67.9	64.1	60.5	57.0	53.7	50.4	47.2	43.9	43.2
85°	42.2	39.1	36.1	33.0	29.9	28.0	27.1	26.3	25.4	24.5	24.3
87.5°	14.3	13.7	13.1	12.5	11.9	11.7	11.9	12.1	12.2	12.4	12.6
90°	1.0	2.8	4.5	6.4	8.2	9.9	11.4	13.0	14.5	16.2	17.3
92.5°	15.6	14.2	13.0	11.7	10.5	10.6	11.9	13.3	14.7	16.2	17.3
95°	57.5	56.8	56.1	55.4	54.8	50.2	41.7	33.1	24.6	16.2	17.3
97.5°	120.0	121.2	122.4	123.6	124.8	117.0	100.2	83.3	66.4	49.6	43.3
100°	168.3	169.1	169.8	170.4	171.1	171.9	172.8	173.7	174.5	175.4	142.1
102.5°	217.6	218.4	219.3	220.2	221.0	221.7	222.3	222.8	223.3	223.9	217.5
105°	296.4	297.3	298.2	299.1	300.0	300.4	300.4	300.4	300.4	300.4	300.4
107.5°	378.3	378.3	378.3	378.3	378.3	378.5	379.0	379.4	379.9	380.3	380.4
110°	431.5	431.5	431.5	431.5	431.5	431.8	432.2	432.7	433.1	433.5	432.9



TEST NUMBER: P333541-840

CATALOG NUMBER: S125RDIP-S610D1035U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	481.6	482.1	482.6	483.2	483.7	484.1	484.4	484.6	484.9	485.2	484.3
115°	556.6	557.7	558.9	560.0	561.1	561.8	562.0	562.2	562.4	562.6	561.8
117.5°	634.2	634.2	634.1	634.1	634.1	634.5	635.3	636.1	637.0	637.8	636.7
120°	682.7	682.4	682.2	682.0	681.8	682.0	682.7	683.3	684.0	684.7	684.2
122.5°	725.4	726.2	727.1	727.9	728.8	729.3	729.7	730.0	730.3	730.6	730.1
125°	791.5	793.0	794.7	796.3	797.8	798.6	798.6	798.6	798.6	798.6	797.7
127.5°	854.6	855.8	856.9	858.0	859.1	859.6	859.5	859.4	859.2	859.1	858.6
130°	893.3	894.5	895.6	896.8	897.9	898.5	898.8	899.0	899.2	899.4	898.8
132.5°	932.1	933.4	934.7	935.9	937.3	937.7	937.2	936.8	936.2	935.7	935.5
135°	987.1	988.5	989.9	991.2	992.5	993.0	992.5	992.1	991.6	991.2	990.7
137.5°	1037.7	1038.9	1040.1	1041.3	1042.4	1042.8	1042.4	1042.0	1041.6	1041.2	1041.3
140°	1070.9	1071.3	1071.8	1072.2	1072.6	1072.8	1072.5	1072.3	1072.1	1071.9	1072.3
142.5°	1100.7	1101.0	1101.3	1101.5	1101.8	1102.1	1102.4	1102.7	1103.0	1103.3	1103.4
145°	1144.5	1144.9	1145.3	1145.8	1146.2	1146.5	1146.5	1146.5	1146.5	1146.5	1146.7
147.5°	1182.8	1182.7	1182.6	1182.5	1182.3	1182.5	1182.8	1183.1	1183.3	1183.6	1183.9
150°	1207.0	1206.5	1206.1	1205.6	1205.2	1205.2	1205.6	1206.1	1206.5	1207.0	1207.4
152.5°	1230.3	1229.4	1228.4	1227.4	1226.4	1226.2	1226.6	1227.0	1227.5	1227.9	1228.4
155°	1260.4	1259.1	1257.7	1256.4	1255.1	1254.6	1255.1	1255.5	1255.9	1256.4	1257.1
157.5°	1283.5	1282.7	1282.0	1281.2	1280.4	1280.0	1280.0	1280.1	1280.1	1280.2	1280.9
160°	1299.7	1298.4	1297.1	1295.7	1294.3	1293.7	1294.0	1294.2	1294.4	1294.6	1295.6
162.5°	1312.6	1311.3	1309.9	1308.6	1307.3	1306.7	1306.9	1307.2	1307.4	1307.6	1308.9
165°	1330.0	1328.6	1327.3	1326.0	1324.6	1324.0	1324.2	1324.4	1324.7	1324.9	1326.3
167.5°	1342.9	1341.5	1340.1	1338.7	1337.4	1336.8	1337.0	1337.2	1337.4	1337.7	1339.3
170°	1350.1	1348.6	1347.0	1345.4	1343.8	1343.2	1343.4	1343.6	1343.8	1344.1	1345.8
172.5°	1354.9	1353.4	1351.8	1350.3	1348.7	1348.2	1348.5	1348.9	1349.3	1349.7	1351.3
175°	1360.2	1358.9	1357.6	1356.1	1354.8	1354.3	1354.5	1354.7	1354.9	1355.1	1357.0
177.5°	1362.6	1361.6	1360.5	1359.4	1358.4	1357.9	1358.1	1358.3	1358.5	1358.6	1359.9
180°	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2



TEST NUMBER: P333541-840

CATALOG NUMBER: S125RDIP-S610D1035U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1012.5	1013.8	1015.2	1015.8	1015.7	1015.5	1015.4	1015.3
5°	1006.2	1007.9	1009.7	1010.4	1010.0	1009.7	1009.4	1009.0
7.5°	993.7	994.9	996.1	996.5	996.1	995.7	995.4	995.0
10°	983.1	983.6	984.2	984.2	983.6	983.1	982.6	982.1
12.5°	968.2	968.6	968.9	968.7	967.9	967.1	966.3	965.5
15°	943.4	943.2	943.1	942.2	940.7	939.2	937.7	936.0
17.5°	912.6	911.7	910.9	909.8	908.6	907.3	906.1	904.7
20°	889.9	889.0	888.2	887.0	885.4	883.9	882.4	880.8
22.5°	867.4	865.7	864.0	862.5	861.3	860.0	858.8	857.5
25°	830.4	828.2	826.0	823.8	822.0	820.1	818.3	816.4
27.5°	790.4	787.3	784.2	781.7	779.9	778.1	776.3	774.5
30°	761.7	757.8	753.9	751.1	749.6	748.1	746.6	745.1
32.5°	733.9	729.6	725.3	722.2	720.1	718.2	716.3	714.4
35°	690.6	685.7	680.8	677.1	674.7	672.3	669.9	667.5
37.5°	645.4	639.4	633.5	629.3	627.0	624.8	622.5	620.2
40°	615.4	608.9	602.5	598.2	596.2	594.1	592.1	590.1
42.5°	585.9	579.7	573.5	568.9	565.9	562.9	559.9	556.9
45°	538.8	532.0	525.1	520.5	518.0	515.3	512.8	510.3
47.5°	492.2	485.1	478.2	473.2	470.4	467.6	464.7	461.9
50°	460.6	453.4	446.3	441.4	438.9	436.4	433.7	431.2
52.5°	430.7	422.9	415.3	410.1	407.6	405.1	402.4	399.9
55°	385.2	377.5	369.8	364.7	361.9	359.2	356.5	353.8
57.5°	339.6	332.1	324.7	319.6	317.2	314.8	312.5	310.0
60°	309.5	302.1	294.6	289.5	287.0	284.4	281.9	279.3
62.5°	279.9	273.0	266.0	261.3	258.7	256.2	253.6	251.1
65°	236.5	229.6	222.9	218.1	215.6	213.1	210.5	207.9
67.5°	195.0	188.7	182.5	178.3	176.3	174.3	172.2	170.2
70°	167.4	162.2	156.8	153.2	151.2	149.2	147.0	145.0
72.5°	141.9	136.9	132.1	129.0	127.6	126.2	124.9	123.5
75°	106.0	102.3	98.6	96.0	94.9	93.7	92.5	91.3
77.5°	75.4	72.8	70.2	68.5	67.6	66.7	65.8	64.9
80°	56.8	55.2	53.7	52.8	52.4	52.1	51.7	51.4
82.5°	42.4	41.7	41.0	40.6	40.4	40.2	40.0	39.8
85°	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0
87.5°	12.9	13.1	13.3	13.4	13.4	13.4	13.4	13.4
90°	18.4	19.5	20.6	21.5	22.2	22.8	23.5	24.2
92.5°	18.4	19.5	20.6	21.3	21.6	21.9	22.3	22.6
95°	18.4	19.5	20.6	21.2	21.2	21.2	21.2	21.2
97.5°	37.0	30.7	24.3	21.2	21.2	21.2	21.2	21.2
100°	108.7	75.3	41.9	24.7	23.8	22.9	22.1	21.2
102.5°	211.2	204.9	198.5	187.8	172.6	157.3	142.1	126.8
105°	300.4	300.4	300.4	300.3	300.1	299.9	299.7	299.4
107.5°	380.4	380.5	380.5	380.2	379.5	378.9	378.2	377.5
110°	432.2	431.5	430.9	430.7	430.9	431.1	431.3	431.5





TEST NUMBER: P333541-840

CATALOG NUMBER: S125RDIP-S610D1035U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	483.5	482.6	481.8	481.2	480.9	480.6	480.3	480.0
115°	560.9	560.0	559.1	558.0	556.6	555.2	553.9	552.6
117.5°	635.5	634.4	633.2	632.3	631.8	631.2	630.6	630.0
120°	683.8	683.3	682.9	682.1	681.0	679.8	678.7	677.6
122.5°	729.7	729.3	728.8	727.9	726.7	725.4	724.1	722.8
125°	796.8	795.9	795.0	794.3	793.6	792.8	792.2	791.5
127.5°	858.1	857.6	857.1	856.1	854.3	852.7	851.1	849.4
130°	898.1	897.4	896.8	895.9	894.7	893.6	892.5	891.3
132.5°	935.4	935.3	935.1	934.5	933.4	932.3	931.2	930.1
135°	990.3	989.9	989.4	988.5	987.1	985.8	984.4	983.1
137.5°	1041.4	1041.5	1041.6	1041.0	1039.9	1038.6	1037.5	1036.3
140°	1072.8	1073.2	1073.6	1073.2	1071.9	1070.5	1069.1	1067.8
142.5°	1103.5	1103.6	1103.7	1103.1	1101.7	1100.3	1099.0	1097.6
145°	1146.9	1147.1	1147.3	1146.8	1145.5	1144.1	1142.8	1141.5
147.5°	1184.1	1184.4	1184.7	1184.0	1182.3	1180.7	1179.1	1177.5
150°	1207.9	1208.3	1208.7	1208.1	1206.3	1204.5	1202.6	1200.9
152.5°	1228.8	1229.3	1229.7	1229.1	1227.5	1225.9	1224.3	1222.6
155°	1257.7	1258.4	1259.1	1258.5	1256.7	1254.9	1253.1	1251.3
157.5°	1281.6	1282.3	1283.0	1282.5	1280.7	1278.9	1277.1	1275.4
160°	1296.5	1297.4	1298.3	1297.8	1296.1	1294.2	1292.4	1290.6
162.5°	1310.1	1311.3	1312.6	1312.2	1310.3	1308.3	1306.4	1304.3
165°	1327.6	1329.0	1330.3	1330.1	1328.3	1326.5	1324.7	1322.9
167.5°	1340.9	1342.5	1344.1	1343.9	1341.9	1339.9	1337.9	1335.8
170°	1347.7	1349.5	1351.3	1351.1	1349.1	1347.2	1345.1	1343.1
172.5°	1352.9	1354.5	1356.1	1355.9	1353.9	1351.9	1349.9	1348.0
175°	1358.8	1360.6	1362.3	1362.2	1360.2	1358.2	1356.1	1354.1
177.5°	1361.1	1362.4	1363.6	1363.5	1362.1	1360.7	1359.3	1357.8
180°	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2

(END OF REPORT)