

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: P333555-935

Luminaire Tested: **S125RDIP-S850D365U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333555-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D365U935-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3929.6 lumens
Efficiency: N/A
Efficacy: 112.3 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-Direct

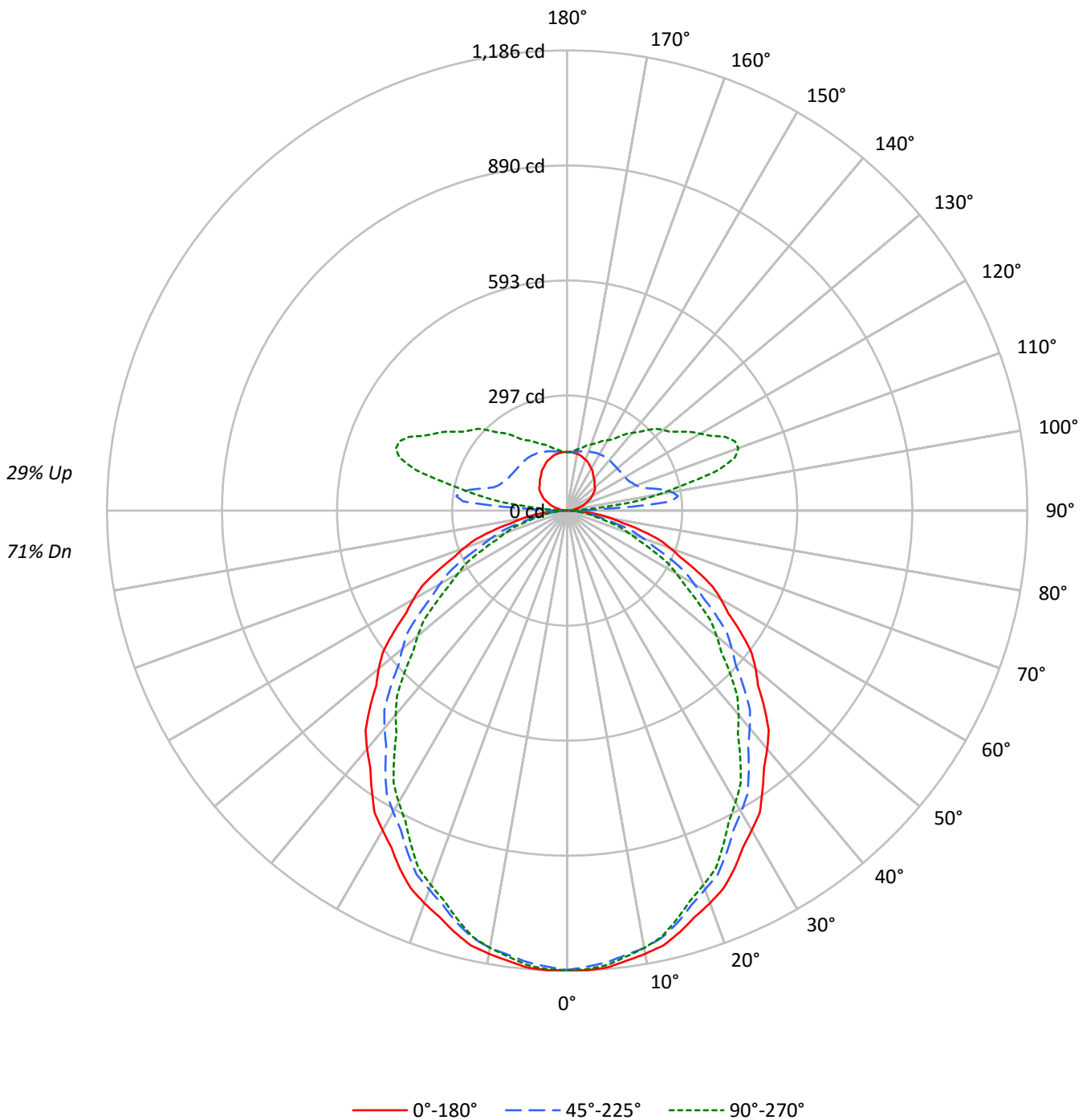
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	103	99	95	91	97	93	90	87	84	81	79	75	73	72	67	66	65	61
2	94	86	80	75	89	82	77	72	74	70	66	67	63	60	60	57	55	51
3	86	76	69	63	81	73	66	60	66	60	56	59	55	51	53	50	47	44
4	79	68	60	54	74	65	57	52	59	53	48	53	48	44	48	44	41	38
5	73	61	52	46	68	58	50	45	53	46	42	48	43	39	43	39	36	33
6	67	55	46	40	63	52	45	39	48	41	37	43	38	34	39	35	32	29
7	62	50	41	36	59	47	40	35	43	37	32	39	34	30	36	32	28	26
8	58	45	37	32	55	43	36	31	40	33	29	36	31	27	33	29	25	23
9	54	41	34	29	51	40	33	28	36	30	26	33	28	25	31	26	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7647	7647	7647
5°	7664	7577	7623
10°	7606	7506	7506
15°	7515	7353	7294
20°	7399	7142	7056
25°	7264	6933	6780
30°	7095	6689	6475
35°	6923	6437	6133
40°	6762	6175	5798
45°	6566	5881	5431
50°	6370	5561	5050
55°	6141	5255	4641
60°	5913	4885	4204
65°	5644	4455	3703
70°	5336	3916	3191
75°	4908	3301	2655
80°	4322	2592	2228
85°	3646	2119	1993



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	2.8
10°-20°	311.1	7.9
20°-30°	451.2	11.5
30°-40°	514.2	13.1
40°-50°	501.2	12.8
50°-60°	421.9	10.7
60°-70°	295.7	7.5
70°-80°	152.0	3.9
80°-90°	39.2	1.0
90°-100°	109.4	2.8
100°-110°	235.2	6.0
110°-120°	220.7	5.6
120°-130°	178.9	4.6
130°-140°	143.5	3.7
140°-150°	108.3	2.8
150°-160°	76.2	1.9
160°-170°	44.9	1.1
170°-180°	14.6	0.4
0°-30°	873.6	22.2
0°-40°	1387.8	35.3
0°-60°	2310.8	58.8
0°-90°	2797.8	71.2
90°-120°	565.3	14.4
90°-150°	996.0	25.3
90°-180°	1132.0	28.8
0°-180°	3929.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1182	1178	1169	1177	1176	112
15°	1124	1118	1100	1099	1091	317
25°	1019	1005	973	961	951	469
35°	878	856	816	791	778	550
45°	719	692	644	609	595	554
55°	545	516	467	428	412	488
65°	369	338	292	257	242	366
75°	197	169	132	113	106	208
85°	49	34	29	28	27	55
90°	0	3	5	6	7	3
95°	10	30	270	122	72	11
105°	34	48	221	434	403	36
115°	62	74	177	382	449	60
125°	85	100	170	304	354	76
135°	100	120	169	255	294	77
145°	116	133	169	211	232	73
155°	133	143	165	186	194	61
165°	145	149	158	168	170	41
175°	151	151	152	154	153	14
180°	151	151	151	151	151	



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1186.0	1185.6	1185.1	1184.6	1184.1	1183.1	1181.6	1179.9	1178.4	1176.7	1178.4
5°	1182.2	1181.4	1180.5	1179.7	1179.0	1177.5	1175.3	1173.1	1170.9	1168.7	1170.7
7.5°	1170.5	1169.8	1169.0	1168.2	1167.5	1165.8	1163.2	1160.5	1158.0	1155.3	1156.7
10°	1159.8	1159.2	1158.6	1158.0	1157.4	1155.7	1153.0	1150.1	1147.4	1144.6	1145.1
12.5°	1147.6	1146.9	1146.1	1145.4	1144.6	1142.4	1138.6	1134.9	1131.2	1127.4	1127.8
15°	1124.0	1122.8	1121.6	1120.4	1119.2	1116.5	1112.4	1108.2	1104.1	1099.8	1099.7
17.5°	1097.3	1095.5	1093.7	1091.9	1090.0	1086.5	1081.2	1076.0	1070.7	1065.5	1064.5
20°	1076.6	1074.6	1072.6	1070.7	1068.7	1064.5	1058.2	1051.8	1045.4	1039.1	1038.1
22.5°	1053.7	1051.7	1049.7	1047.8	1045.8	1041.5	1034.7	1028.1	1021.4	1014.8	1012.8
25°	1019.4	1016.4	1013.4	1010.5	1007.5	1002.3	995.0	987.6	980.2	972.9	970.3
27.5°	980.1	976.5	972.8	969.2	965.6	959.8	952.0	944.1	936.3	928.3	924.7
30°	951.4	947.6	943.9	940.1	936.3	930.2	922.0	913.6	905.3	896.9	892.3
32.5°	923.5	919.1	914.7	910.3	905.9	899.4	891.0	882.4	873.9	865.4	860.4
35°	878.1	873.3	868.6	863.8	859.0	852.1	843.3	834.3	825.4	816.4	810.6
37.5°	833.5	827.8	822.0	816.1	810.4	802.9	793.7	784.4	775.2	765.9	759.1
40°	802.1	796.2	790.1	784.2	778.3	770.5	761.0	751.4	741.9	732.4	724.8
42.5°	769.2	763.1	757.0	750.8	744.7	736.8	726.9	717.0	707.1	697.3	690.1
45°	718.9	713.2	707.4	701.6	695.9	687.5	676.6	665.7	654.8	643.9	635.8
47.5°	666.9	660.8	654.7	648.7	642.6	634.0	623.0	612.0	601.0	590.0	581.8
50°	634.0	627.4	620.9	614.3	607.8	598.8	587.5	576.2	564.8	553.5	545.2
52.5°	598.2	591.5	584.8	578.1	571.4	562.7	552.0	541.3	530.5	519.9	510.9
55°	545.4	539.1	532.8	526.4	520.0	511.3	500.2	489.0	477.9	466.7	457.8
57.5°	492.1	485.3	478.5	471.7	465.0	456.2	445.5	434.7	424.0	413.3	404.6
60°	457.8	450.9	443.9	437.0	430.0	421.2	410.4	399.7	389.0	378.2	369.5
62.5°	421.4	414.7	408.1	401.4	394.8	386.1	375.1	364.3	353.4	342.5	334.4
65°	369.3	362.6	355.8	349.0	342.2	333.6	323.1	312.5	302.0	291.5	283.5
67.5°	317.6	310.8	304.1	297.4	290.6	282.1	272.1	262.0	251.9	241.8	234.5
70°	282.6	275.8	269.1	262.3	255.5	247.2	237.3	227.3	217.4	207.4	201.3
72.5°	248.2	241.6	235.1	228.4	221.9	213.9	204.6	195.3	186.0	176.7	171.0
75°	196.7	190.8	184.8	178.8	172.9	165.7	157.4	149.0	140.7	132.3	127.9
77.5°	145.6	140.8	136.0	131.3	126.5	120.8	114.1	107.5	100.7	94.1	91.0
80°	116.2	111.5	106.7	101.9	97.2	92.0	86.4	80.8	75.3	69.7	67.9
82.5°	87.6	83.3	79.0	74.7	70.4	66.4	62.6	58.8	54.9	51.1	50.3
85°	49.2	45.6	42.0	38.5	34.9	32.5	31.6	30.6	29.6	28.6	28.4
87.5°	16.5	15.5	14.5	13.5	12.5	12.0	11.9	11.9	11.7	11.7	11.8
90°	0.3	0.6	1.2	1.8	2.4	3.0	3.4	4.0	4.2	4.9	5.2
92.5°	3.7	4.5	7.1	10.8	16.1	25.0	41.6	69.4	99.7	98.1	79.4
95°	10.1	10.3	12.7	16.1	22.8	36.5	69.1	136.0	220.0	269.6	263.8
97.5°	16.7	17.0	18.8	22.1	28.2	38.0	59.5	108.6	196.5	287.9	333.8
100°	21.3	21.9	23.2	26.4	32.3	41.4	59.1	98.6	175.3	274.7	350.9
102.5°	26.4	26.8	27.7	31.3	36.7	45.5	61.2	94.5	159.2	251.7	340.6
105°	34.4	34.4	35.9	38.9	43.8	52.3	65.7	92.8	143.6	220.6	308.0
107.5°	42.2	42.8	44.3	46.8	51.8	59.5	72.4	95.6	137.1	199.2	274.6
110°	47.8	48.4	49.6	52.3	56.9	64.8	77.3	98.3	135.1	189.2	255.6



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	53.4	54.0	54.9	57.7	62.3	69.9	81.9	101.7	135.1	183.4	241.5
115°	61.5	62.1	63.0	65.7	70.3	77.9	89.2	106.8	136.0	177.1	226.1
117.5°	68.8	69.7	70.7	73.4	78.6	85.9	96.6	112.6	138.0	174.0	216.9
120°	73.6	74.6	75.8	78.5	83.7	91.3	101.9	116.6	140.0	172.5	211.8
122.5°	78.8	79.4	80.4	83.2	88.8	96.4	107.0	120.9	141.6	171.3	207.4
125°	85.2	85.8	87.3	90.1	95.8	103.8	113.8	126.9	144.6	169.8	201.5
127.5°	90.2	91.2	93.1	96.6	102.7	110.6	120.3	132.3	147.7	169.1	196.0
130°	93.4	94.4	96.8	100.7	107.1	115.0	124.4	136.0	149.7	168.6	192.3
132.5°	95.8	97.0	100.0	104.4	111.0	118.9	128.4	139.2	151.9	168.6	189.4
135°	99.8	101.0	104.7	109.5	116.0	124.2	133.5	143.6	154.9	168.6	185.9
137.5°	104.8	105.7	109.1	114.0	120.3	128.7	137.3	146.9	157.6	168.9	182.8
140°	107.7	108.7	112.3	117.2	123.0	131.1	140.0	149.1	158.9	169.2	181.3
142.5°	111.2	111.8	115.2	120.1	125.6	133.4	141.6	150.3	159.5	169.4	180.1
145°	116.2	116.8	119.9	124.2	129.7	136.6	144.6	152.1	160.3	169.2	178.3
147.5°	121.6	121.9	124.6	128.5	133.3	139.4	146.4	153.3	160.7	168.4	176.4
150°	124.8	125.4	127.5	131.5	135.7	140.9	147.6	153.9	160.7	167.6	175.0
152.5°	128.2	128.5	130.4	133.9	137.9	142.6	148.8	154.5	160.4	166.7	173.2
155°	132.7	132.7	134.5	137.5	140.6	144.8	150.0	154.9	159.7	165.0	170.4
157.5°	136.7	136.6	138.1	140.7	143.4	146.6	151.0	155.2	158.9	163.1	167.7
160°	139.4	139.1	140.3	142.4	144.8	147.6	151.5	155.2	158.3	161.9	165.6
162.5°	141.5	141.3	142.5	144.4	146.3	148.5	152.1	155.0	157.5	160.4	163.6
165°	144.8	144.2	145.2	146.6	147.9	149.7	152.1	154.5	156.4	158.3	160.7
167.5°	147.1	146.7	147.3	148.1	149.0	150.2	152.1	153.9	154.7	156.1	157.8
170°	148.5	148.2	148.5	149.1	149.7	150.6	152.1	153.3	153.9	154.9	156.1
172.5°	149.5	149.0	149.2	149.8	150.2	150.6	151.9	152.9	153.0	153.4	154.4
175°	150.6	150.0	150.3	150.6	150.6	150.6	151.5	152.1	151.9	151.9	152.1
177.5°	151.2	150.7	150.7	150.9	150.7	150.7	151.2	151.4	150.9	150.9	151.2
180°	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1179.9	1181.6	1183.1	1183.9	1183.7	1183.5	1183.4	1183.2
5°	1172.7	1174.7	1176.6	1177.5	1177.1	1176.6	1176.3	1175.9
7.5°	1158.1	1159.5	1160.9	1161.3	1160.9	1160.5	1160.0	1159.6
10°	1145.7	1146.3	1146.9	1146.9	1146.3	1145.7	1145.1	1144.6
12.5°	1128.3	1128.7	1129.1	1128.9	1128.0	1127.0	1126.2	1125.2
15°	1099.5	1099.2	1099.1	1098.1	1096.3	1094.5	1092.7	1090.9
17.5°	1063.5	1062.6	1061.5	1060.3	1058.9	1057.4	1055.9	1054.5
20°	1037.1	1036.0	1035.1	1033.7	1031.9	1030.1	1028.3	1026.6
22.5°	1010.8	1008.9	1006.9	1005.2	1003.8	1002.3	1000.8	999.4
25°	967.8	965.2	962.6	960.2	957.9	955.8	953.6	951.4
27.5°	921.1	917.5	913.9	911.0	909.0	906.8	904.7	902.6
30°	887.8	883.2	878.6	875.5	873.7	871.8	870.0	868.2
32.5°	855.3	850.2	845.2	841.5	839.3	837.1	834.7	832.5
35°	804.9	799.1	793.3	789.1	786.3	783.5	780.8	777.9
37.5°	752.2	745.2	738.3	733.5	730.8	728.1	725.4	722.7
40°	717.2	709.7	702.1	697.2	694.8	692.4	690.0	687.7
42.5°	682.9	675.6	668.4	663.0	659.5	656.0	652.5	649.0
45°	627.9	620.0	612.0	606.6	603.6	600.6	597.6	594.6
47.5°	573.6	565.4	557.2	551.5	548.2	544.9	541.6	538.3
50°	536.8	528.5	520.1	514.4	511.5	508.5	505.5	502.6
52.5°	502.0	492.9	484.0	477.9	475.0	472.0	469.1	466.1
55°	448.9	440.0	431.0	424.9	421.8	418.6	415.4	412.2
57.5°	395.8	387.1	378.3	372.6	369.7	366.9	364.1	361.3
60°	360.8	352.0	343.3	337.4	334.4	331.5	328.5	325.5
62.5°	326.2	318.1	310.0	304.5	301.5	298.5	295.6	292.6
65°	275.6	267.7	259.7	254.3	251.2	248.3	245.3	242.3
67.5°	227.2	220.0	212.7	207.8	205.5	203.1	200.7	198.4
70°	195.1	189.0	182.8	178.6	176.2	173.7	171.4	169.0
72.5°	165.3	159.6	153.9	150.3	148.7	147.1	145.6	144.0
75°	123.6	119.2	114.9	112.0	110.6	109.2	107.8	106.4
77.5°	87.9	84.9	81.8	79.8	78.8	77.7	76.7	75.7
80°	66.2	64.4	62.6	61.5	61.1	60.7	60.3	59.9
82.5°	49.5	48.6	47.8	47.3	47.0	46.8	46.6	46.3
85°	28.2	28.0	27.8	27.6	27.4	27.2	27.0	26.9
87.5°	11.8	11.9	12.0	12.0	11.8	11.7	11.5	11.5
90°	5.5	5.8	6.1	6.7	6.7	6.7	7.0	7.0
92.5°	53.9	39.1	29.4	25.0	21.1	20.3	19.9	19.4
95°	218.8	172.5	135.1	109.5	87.9	78.8	76.4	71.5
97.5°	325.8	293.4	256.9	221.4	202.6	185.5	176.8	172.8
100°	374.3	359.4	328.0	296.4	275.3	253.5	242.2	237.4
102.5°	390.5	399.8	384.8	363.3	340.9	325.3	313.1	309.4
105°	381.0	422.7	436.0	432.7	422.9	412.9	406.8	403.2
107.5°	346.6	402.3	436.6	452.5	457.4	457.4	455.4	453.0
110°	321.3	379.2	422.1	447.9	461.6	467.4	469.5	469.5



TEST NUMBER: P333555-935

CATALOG NUMBER: S125RDIP-S850D365U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	301.4	356.3	399.7	430.2	450.1	460.1	465.4	467.6
115°	276.3	323.5	365.2	398.3	422.1	436.6	445.1	449.1
117.5°	260.1	300.7	336.7	367.1	390.8	406.0	414.4	416.8
120°	251.3	287.8	321.3	348.1	370.7	385.2	393.5	395.9
122.5°	244.8	278.6	308.4	333.5	353.6	367.0	375.2	377.4
125°	235.2	266.2	292.7	314.6	331.7	344.1	350.9	353.9
127.5°	225.5	254.4	279.1	299.6	315.1	326.1	332.4	333.8
130°	219.4	246.2	269.9	289.7	304.9	315.0	321.1	322.9
132.5°	213.3	238.4	259.9	279.0	294.2	304.2	309.8	311.9
135°	205.4	226.4	245.9	263.2	276.6	286.6	292.1	293.9
137.5°	198.7	215.7	231.9	246.6	258.6	267.7	272.8	274.7
140°	195.0	209.3	223.3	236.1	247.4	255.3	259.8	261.4
142.5°	191.9	204.0	216.0	227.1	236.7	243.4	247.7	249.0
145°	187.8	197.2	206.6	214.8	222.1	227.3	230.7	231.9
147.5°	183.8	191.5	198.8	205.0	210.8	214.9	216.8	217.4
150°	181.7	188.4	194.2	199.6	204.1	207.8	209.1	209.3
152.5°	179.3	185.2	190.5	194.8	198.5	201.5	202.7	203.0
155°	175.6	180.5	184.7	188.0	191.1	193.2	194.2	194.4
157.5°	171.9	175.9	179.3	181.8	184.3	186.0	186.8	186.8
160°	169.5	172.5	175.6	177.7	179.9	181.3	181.9	181.7
162.5°	166.8	169.6	172.2	174.1	175.7	176.9	177.1	177.0
165°	163.1	165.2	167.0	168.6	169.8	170.4	170.4	170.4
167.5°	159.5	161.0	162.4	163.5	164.1	164.6	164.4	164.3
170°	157.6	158.5	159.5	160.1	160.7	161.0	161.0	160.7
172.5°	155.4	156.4	157.0	157.4	157.5	158.1	157.6	157.2
175°	153.1	153.1	153.7	153.7	153.7	153.9	153.3	153.1
177.5°	151.4	151.6	151.6	151.6	151.4	151.6	150.9	150.9
180°	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9

(END OF REPORT)