

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: P333566-935

Luminaire Tested: **S125RDIP-S850D810U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333566-935
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: S125RDIP-S850D810U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5213.0 lumens
Efficiency: N/A
Efficacy: 113.6 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

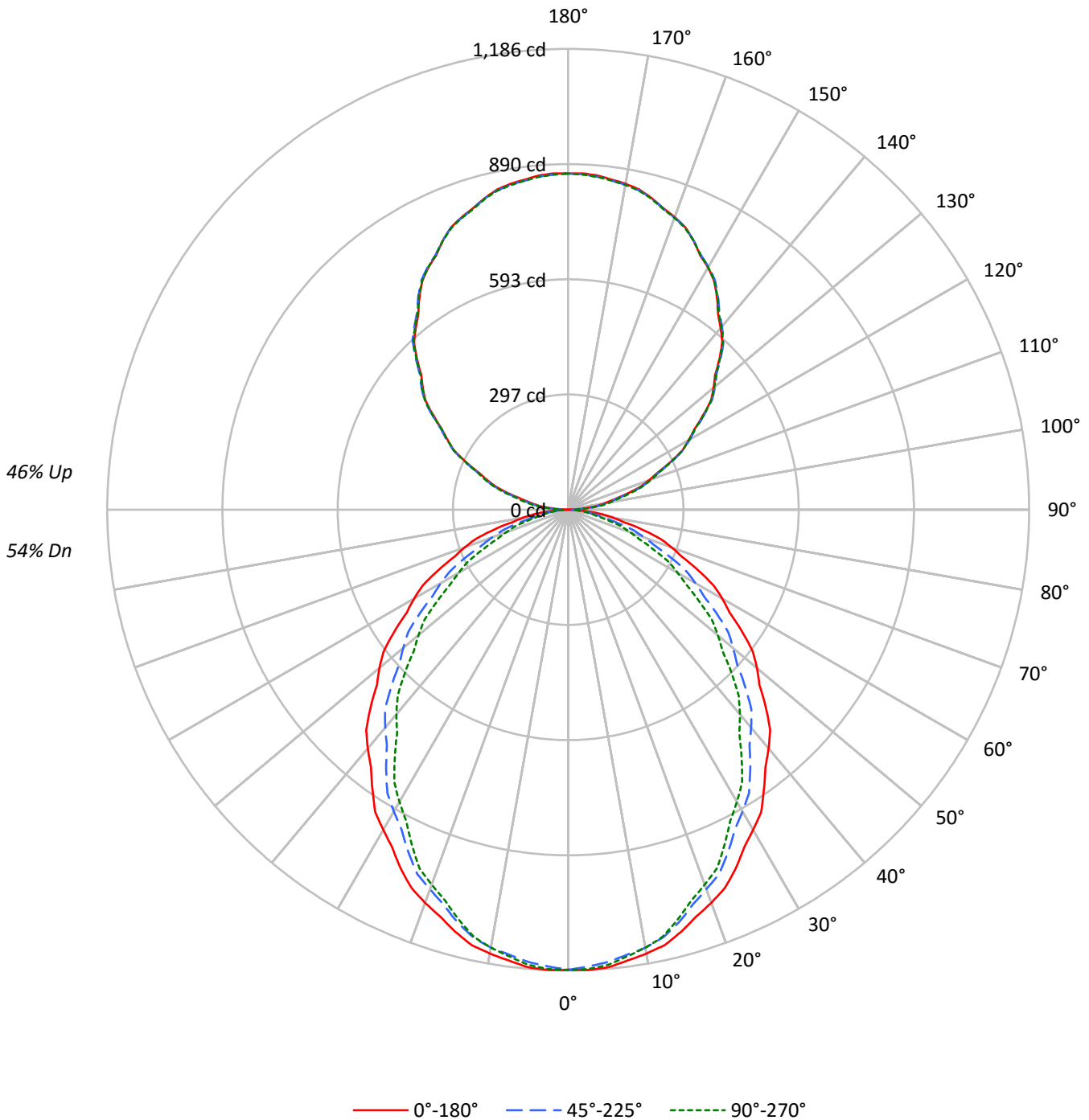
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	60	53	48	52	47	43	45	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	31	28	25
6	64	52	44	38	59	49	41	36	42	37	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	32	38	33	29	33	29	25	28	25	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	23	26	22	20	17
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	20	18	16
10	48	36	29	24	44	34	27	23	30	24	21	26	22	18	22	19	16	14

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	2.1
10°-20°	311.1	6.0
20°-30°	451.2	8.7
30°-40°	514.2	9.9
40°-50°	501.2	9.6
50°-60°	421.9	8.1
60°-70°	295.7	5.7
70°-80°	152.0	2.9
80°-90°	40.3	0.8
90°-100°	57.9	1.1
100°-110°	171.1	3.3
110°-120°	289.8	5.6
120°-130°	381.4	7.3
130°-140°	427.4	8.2
140°-150°	418.9	8.0
150°-160°	351.8	6.7
160°-170°	233.9	4.5
170°-180°	81.8	1.6
0°-30°	873.6	16.8
0°-40°	1387.8	26.6
0°-60°	2310.8	44.3
0°-90°	2798.8	53.7
90°-120°	518.9	10.0
90°-150°	1746.6	33.5
90°-180°	2414.0	46.3
0°-180°	5213.0	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°	1	6	11	14	16	5
95°	44	45	52	56	58	47
105°	154	157	161	165	167	164
115°	290	293	294	294	293	287
125°	423	427	428	427	426	379
135°	551	555	555	555	553	424
145°	667	670	672	672	670	417
155°	763	763	764	766	763	351
165°	830	829	830	832	828	234
175°	863	861	860	864	860	82
180°	865	865	865	865	865	



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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°	16.6	15.8	14.8	13.9	13.1	12.7	12.7	12.7	12.8	12.9	13.0
90°	0.7	1.9	3.1	4.3	5.4	6.5	7.7	8.7	9.7	10.8	11.5
92.5°	16.3	17.1	18.0	18.8	19.6	20.7	22.0	23.2	24.5	25.8	26.9
95°	43.7	44.1	44.3	44.7	44.9	45.9	47.4	48.8	50.4	51.8	52.9
97.5°	72.8	72.8	72.9	73.1	73.2	74.3	76.4	78.4	80.5	82.6	83.5
100°	94.3	94.3	94.3	94.3	94.3	95.2	97.2	99.1	101.1	103.0	104.4
102.5°	117.4	118.0	118.6	119.2	119.9	120.6	121.6	122.6	123.6	124.6	126.1
105°	153.5	154.3	155.0	155.8	156.5	157.3	158.3	159.1	160.0	160.9	161.8
107.5°	193.4	194.1	194.8	195.6	196.4	197.1	197.8	198.5	199.1	199.8	200.3
110°	220.8	221.6	222.3	223.1	223.9	224.5	224.9	225.3	225.8	226.2	226.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	248.8	249.3	249.6	250.0	250.4	250.9	251.4	252.0	252.6	253.1	253.4
115°	290.2	290.8	291.4	292.0	292.6	293.0	293.3	293.6	293.9	294.2	294.0
117.5°	331.7	331.9	332.2	332.4	332.7	333.0	333.3	333.6	333.8	334.1	334.2
120°	357.5	358.3	359.0	359.7	360.5	360.9	361.1	361.3	361.4	361.5	361.5
122.5°	385.5	385.8	386.1	386.3	386.6	386.9	387.3	387.7	388.1	388.5	388.3
125°	423.4	424.4	425.2	426.2	427.1	427.6	427.7	427.9	428.0	428.2	427.9
127.5°	463.9	464.4	464.9	465.4	465.9	466.2	466.4	466.6	466.8	467.0	466.8
130°	488.1	488.9	489.7	490.3	491.1	491.6	491.9	492.2	492.5	492.8	492.7
132.5°	512.4	513.6	514.8	516.0	517.3	517.8	517.8	517.7	517.6	517.6	517.5
135°	550.7	551.6	552.5	553.5	554.3	554.8	555.0	555.2	555.3	555.4	555.4
137.5°	586.9	587.7	588.6	589.4	590.3	590.9	591.2	591.5	591.9	592.2	592.4
140°	610.0	610.7	611.5	612.3	612.9	613.5	614.0	614.5	614.9	615.4	615.7
142.5°	633.2	633.8	634.4	635.0	635.7	636.3	636.8	637.4	637.9	638.5	638.7
145°	667.2	667.8	668.4	669.0	669.6	670.1	670.5	671.0	671.5	671.9	671.9
147.5°	698.7	699.0	699.4	699.7	700.0	700.3	700.8	701.1	701.5	701.8	702.1
150°	719.7	719.5	719.5	719.3	719.1	719.4	720.0	720.6	721.2	721.8	721.8
152.5°	736.9	737.2	737.4	737.6	737.8	738.0	738.2	738.5	738.7	739.0	739.3
155°	763.4	763.4	763.4	763.4	763.4	763.5	763.7	763.9	764.0	764.1	764.7
157.5°	787.2	786.9	786.5	786.2	785.8	785.7	785.9	786.1	786.2	786.4	787.0
160°	801.2	800.7	800.3	799.9	799.4	799.3	799.4	799.5	799.7	799.9	800.5
162.5°	813.6	813.2	812.9	812.6	812.3	812.1	812.1	812.2	812.2	812.3	813.0
165°	830.2	829.8	829.6	829.2	829.0	828.9	829.0	829.1	829.3	829.5	830.1
167.5°	844.1	843.5	842.9	842.3	841.7	841.5	841.5	841.5	841.5	841.5	842.3
170°	851.7	851.1	850.5	849.9	849.3	848.9	848.9	848.9	848.9	848.9	849.9
172.5°	857.0	856.4	855.8	855.2	854.6	854.4	854.4	854.4	854.4	854.4	855.2
175°	863.2	862.5	861.9	861.3	860.7	860.4	860.4	860.4	860.4	860.4	861.3
177.5°	866.3	865.7	865.3	864.8	864.3	864.0	863.9	863.8	863.7	863.5	864.3
180°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1



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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°	13.2	13.3	13.5	13.5	13.4	13.3	13.3	13.3
90°	12.2	13.0	13.8	14.4	14.8	15.2	15.7	16.2
92.5°	27.8	28.8	29.8	30.5	30.8	31.1	31.4	31.8
95°	53.9	55.0	56.1	56.7	57.0	57.3	57.6	57.9
97.5°	84.6	85.5	86.5	87.0	87.2	87.4	87.6	87.8
100°	105.7	107.0	108.4	109.3	109.5	109.8	110.1	110.4
102.5°	127.5	129.0	130.4	131.4	131.8	132.2	132.6	133.0
105°	162.7	163.6	164.5	165.1	165.7	166.1	166.5	166.9
107.5°	200.7	201.1	201.6	201.8	201.8	201.7	201.7	201.7
110°	227.1	227.6	228.0	228.2	228.0	227.8	227.7	227.6



TEST NUMBER: P333566-935

CATALOG NUMBER: S125RDIP-S850D810U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	253.6	253.7	254.0	254.0	253.7	253.4	253.1	252.9
115°	293.9	293.8	293.6	293.4	293.3	293.2	293.0	292.9
117.5°	334.3	334.4	334.6	334.3	333.7	333.1	332.5	331.9
120°	361.5	361.5	361.5	361.3	360.7	360.1	359.5	358.9
122.5°	388.2	388.1	388.0	387.7	387.2	386.8	386.2	385.8
125°	427.6	427.3	427.0	426.8	426.6	426.5	426.4	426.2
127.5°	466.7	466.5	466.4	466.1	465.9	465.5	465.3	464.9
130°	492.5	492.4	492.2	492.0	491.7	491.4	491.1	490.8
132.5°	517.3	517.1	517.0	516.7	516.3	515.9	515.5	515.1
135°	555.4	555.4	555.4	555.2	554.6	554.0	553.4	552.8
137.5°	592.5	592.7	592.9	592.6	591.9	591.2	590.4	589.6
140°	616.0	616.2	616.6	616.3	615.6	614.8	614.1	613.4
142.5°	638.9	639.0	639.2	638.9	638.2	637.5	636.7	635.9
145°	671.9	671.9	671.9	671.7	671.2	670.8	670.4	669.9
147.5°	702.5	702.9	703.3	702.9	701.9	700.9	699.9	698.9
150°	721.8	721.8	721.8	721.6	721.3	721.0	720.7	720.4
152.5°	739.7	740.0	740.4	740.3	739.8	739.3	738.7	738.1
155°	765.3	765.9	766.5	766.5	765.7	765.0	764.2	763.4
157.5°	787.6	788.2	788.8	788.6	787.6	786.6	785.6	784.6
160°	801.1	801.6	802.2	802.2	801.4	800.6	799.9	799.2
162.5°	813.6	814.4	815.1	815.0	814.2	813.3	812.4	811.6
165°	830.7	831.3	831.8	831.7	830.8	829.9	829.0	828.1
167.5°	843.3	844.1	845.1	845.0	844.1	843.2	842.2	841.3
170°	850.8	851.7	852.6	852.5	851.4	850.4	849.4	848.3
172.5°	856.2	857.0	858.0	858.0	857.0	856.1	855.1	854.2
175°	862.2	863.2	864.0	863.9	862.9	861.9	860.8	859.8
177.5°	865.0	865.6	866.4	866.3	865.5	864.7	863.8	863.0
180°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1

(END OF REPORT)