

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: P333231-935

Luminaire Tested: **S125DIP-S850D810U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333231-935
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: S125DIP-S850D810U935-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5447.1 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

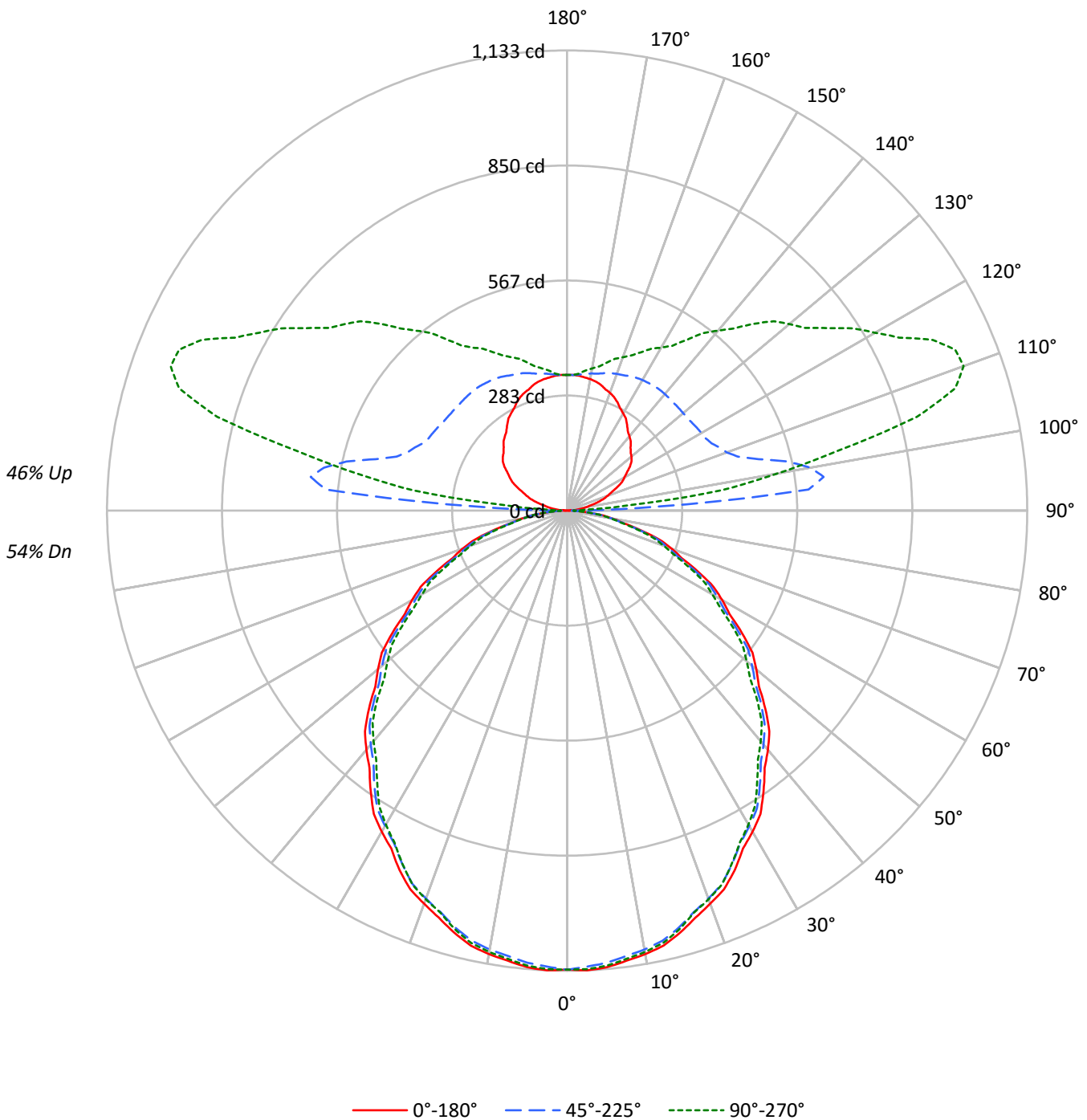
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	72	70	63	62	60	53	52	50	45
2	90	82	76	71	83	76	71	66	66	62	58	56	53	50	46	44	42	38
3	82	72	65	59	76	67	61	55	58	53	49	49	45	42	41	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	44	40	36	37	34	31	28
5	69	57	49	43	63	53	46	40	46	40	36	39	35	31	33	30	27	24
6	63	51	43	37	59	48	40	35	41	36	31	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19
8	54	42	34	29	50	39	32	27	34	29	25	30	25	22	25	22	19	17
9	51	38	31	26	47	36	29	24	31	26	22	27	23	20	23	20	17	15
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7299	7299	7299
5°	7316	7247	7293
10°	7271	7195	7237
15°	7192	7109	7138
20°	7080	6988	7000
25°	6959	6844	6837
30°	6809	6689	6655
35°	6649	6522	6430
40°	6483	6340	6250
45°	6305	6175	6052
50°	6109	5974	5795
55°	5920	5749	5588
60°	5694	5521	5324
65°	5425	5248	5069
70°	5166	4930	4762
75°	4706	4551	4397
80°	4192	4125	4024
85°	3646	3712	3512



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	2.0
10°-20°	301.0	5.5
20°-30°	444.5	8.2
30°-40°	518.7	9.5
40°-50°	520.9	9.6
50°-60°	457.3	8.4
60°-70°	340.7	6.3
70°-80°	194.8	3.6
80°-90°	58.5	1.1
90°-100°	242.0	4.4
100°-110°	520.3	9.6
110°-120°	488.3	9.0
120°-130°	395.7	7.3
130°-140°	317.6	5.8
140°-150°	239.7	4.4
150°-160°	168.7	3.1
160°-170°	99.4	1.8
170°-180°	32.3	0.6
0°-30°	852.1	15.6
0°-40°	1370.8	25.2
0°-60°	2348.9	43.1
0°-90°	2943.0	54.0
90°-120°	1250.6	23.0
90°-150°	2203.6	40.5
90°-180°	2504.0	46.0
0°-180°	5447.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1128	1126	1118	1125	1125	107
15°	1076	1073	1063	1067	1068	303
25°	976	972	960	962	960	449
35°	843	839	827	823	816	527
45°	690	686	676	666	663	532
55°	526	523	511	503	496	469
65°	355	353	343	336	332	352
75°	189	187	182	180	176	201
85°	49	50	50	49	47	55
90°	1	6	11	14	16	4
95°	22	66	596	271	158	24
105°	76	106	488	961	892	80
115°	136	164	392	845	994	134
125°	188	221	376	672	783	167
135°	221	266	373	563	650	171
145°	257	295	374	466	513	161
155°	294	316	365	412	430	135
165°	320	329	350	371	377	90
175°	333	333	336	340	339	32
180°	334	334	334	334	334	



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1133.2	1132.6	1132.2	1131.7	1131.2	1130.1	1128.6	1127.0	1125.4	1123.9	1125.4
5°	1128.5	1128.1	1127.7	1127.3	1126.9	1125.7	1123.7	1121.7	1119.7	1117.8	1119.6
7.5°	1118.1	1117.8	1117.3	1116.9	1116.5	1115.3	1113.0	1110.9	1108.7	1106.5	1108.2
10°	1108.8	1108.5	1108.0	1107.6	1107.2	1106.0	1103.7	1101.6	1099.4	1097.2	1098.8
12.5°	1097.3	1096.7	1096.0	1095.2	1094.5	1093.1	1091.1	1089.1	1087.0	1085.0	1086.3
15°	1075.7	1075.1	1074.5	1073.9	1073.3	1071.9	1069.8	1067.6	1065.4	1063.2	1064.2
17.5°	1050.9	1050.0	1049.1	1048.3	1047.4	1045.8	1043.5	1041.3	1039.0	1036.7	1037.9
20°	1030.1	1029.8	1029.3	1028.9	1028.6	1027.0	1024.4	1021.8	1019.3	1016.7	1018.1
22.5°	1009.4	1008.7	1008.0	1007.2	1006.5	1005.0	1002.5	1000.1	997.6	995.2	996.2
25°	976.5	975.5	974.5	973.4	972.5	970.7	968.1	965.5	962.9	960.4	960.8
27.5°	938.0	937.5	936.9	936.3	935.6	934.0	931.3	928.7	926.0	923.3	923.4
30°	913.0	912.4	911.8	911.2	910.6	908.8	905.9	902.8	899.8	896.9	896.5
32.5°	885.8	884.8	884.0	883.0	882.2	880.4	877.7	875.0	872.4	869.7	869.0
35°	843.3	842.4	841.6	840.9	840.1	838.3	835.5	832.7	829.9	827.2	826.1
37.5°	799.1	798.1	797.0	796.1	795.0	793.2	790.7	788.0	785.4	782.8	781.3
40°	769.0	768.0	767.1	766.0	765.0	763.2	760.3	757.6	754.8	752.0	750.3
42.5°	736.8	736.0	735.1	734.3	733.5	731.7	728.9	726.1	723.3	720.6	718.9
45°	690.3	689.5	688.7	687.9	687.2	685.5	683.2	680.8	678.4	676.1	673.6
47.5°	640.2	640.3	640.3	640.3	640.4	639.0	636.1	633.3	630.4	627.6	625.1
50°	608.0	607.4	606.8	606.2	605.7	604.2	601.8	599.4	597.0	594.6	592.0
52.5°	575.1	574.7	574.3	573.9	573.4	571.9	569.4	566.8	564.3	561.7	559.5
55°	525.8	525.2	524.6	524.0	523.4	521.7	518.9	516.2	513.3	510.6	508.8
57.5°	473.7	473.5	473.1	472.8	472.5	471.1	468.8	466.5	464.1	461.8	459.4
60°	440.8	440.1	439.3	438.4	437.6	436.2	433.9	431.8	429.6	427.4	425.4
62.5°	406.5	405.9	405.3	404.6	404.0	402.7	400.9	399.0	397.1	395.2	393.1
65°	355.0	354.6	354.2	353.8	353.4	352.1	349.9	347.8	345.5	343.4	341.6
67.5°	305.1	304.3	303.4	302.6	301.8	300.5	298.9	297.3	295.7	294.0	292.5
70°	273.6	272.6	271.6	270.6	269.7	268.3	266.5	264.7	262.9	261.1	259.9
72.5°	239.3	238.6	237.9	237.3	236.6	235.7	234.5	233.3	232.2	231.1	229.7
75°	188.6	188.3	187.9	187.5	187.1	186.4	185.4	184.4	183.4	182.4	181.8
77.5°	142.0	141.8	141.7	141.5	141.4	141.0	140.4	139.9	139.3	138.8	138.4
80°	112.7	112.7	112.7	112.7	112.7	112.4	112.1	111.7	111.2	110.9	110.7
82.5°	86.9	86.6	86.3	85.9	85.7	85.4	85.3	85.3	85.2	85.2	84.8
85°	49.2	49.4	49.6	49.8	49.9	50.1	50.1	50.1	50.1	50.1	49.9
87.5°	19.5	19.5	19.9	20.1	20.4	20.6	20.6	20.7	20.7	20.8	20.9
90°	0.7	1.4	2.7	4.0	5.4	6.7	7.4	8.8	9.4	10.8	11.5
92.5°	8.2	10.0	15.6	23.9	35.6	55.2	92.0	153.6	220.5	217.1	175.7
95°	22.2	22.9	28.2	35.6	50.5	80.8	152.8	300.9	486.7	596.5	583.7
97.5°	36.9	37.7	41.5	48.9	62.2	84.0	131.6	240.2	434.6	637.0	738.5
100°	47.1	48.5	51.1	58.5	71.4	91.5	130.6	218.1	387.8	608.0	776.2
102.5°	58.5	59.2	61.4	69.3	81.0	100.7	135.4	209.0	352.2	556.7	753.6
105°	76.1	76.1	79.5	86.2	96.9	115.8	145.4	205.3	317.8	488.1	681.3
107.5°	93.3	94.6	97.9	103.4	114.6	131.6	160.2	211.5	303.2	440.8	607.5
110°	105.7	107.0	109.7	115.8	125.9	143.4	171.0	217.5	298.9	418.7	565.5



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	118.0	119.4	121.6	127.6	137.8	154.7	181.2	225.0	298.9	405.8	534.3
115°	136.0	137.3	139.4	145.4	155.5	172.4	197.3	236.3	300.9	391.8	500.2
117.5°	152.1	154.2	156.4	162.4	173.8	190.1	213.7	249.3	305.4	385.0	479.8
120°	162.9	165.0	167.6	173.7	185.1	202.0	225.5	257.9	309.7	381.7	468.6
122.5°	174.3	175.7	177.9	183.9	196.5	213.3	236.9	267.5	313.4	379.0	458.8
125°	188.5	189.9	193.2	199.2	212.1	229.5	251.8	280.7	319.8	375.7	445.7
127.5°	199.7	201.7	206.0	213.7	227.3	244.8	266.2	292.8	326.9	374.0	433.5
130°	206.6	208.7	214.0	222.8	236.9	254.5	275.3	300.9	331.2	373.0	425.5
132.5°	212.1	214.6	221.1	230.9	245.6	263.1	284.0	307.9	336.0	373.0	419.0
135°	220.8	223.5	231.6	242.4	256.5	274.7	295.6	317.8	342.7	373.0	411.3
137.5°	231.9	233.8	241.4	252.2	266.0	284.7	303.8	325.0	348.7	373.8	404.5
140°	238.3	240.3	248.4	259.2	272.0	290.2	309.7	329.8	351.4	374.3	401.2
142.5°	245.8	247.4	254.9	265.6	277.9	295.0	313.4	332.6	353.0	374.9	398.6
145°	257.2	258.5	265.3	274.7	286.8	302.3	319.8	336.6	354.8	374.3	394.5
147.5°	269.0	269.8	275.6	284.4	294.9	308.5	323.8	339.1	355.4	372.6	390.3
150°	276.0	277.3	282.1	290.8	300.2	311.7	326.5	340.6	355.4	370.9	387.1
152.5°	283.5	284.4	288.5	296.2	305.1	315.5	329.2	341.7	354.9	368.8	383.3
155°	293.5	293.5	297.6	304.3	311.0	320.5	331.9	342.7	353.4	364.9	377.0
157.5°	302.4	302.3	305.5	311.3	317.2	324.3	334.2	343.4	351.7	360.8	371.1
160°	308.3	307.6	310.4	315.0	320.5	326.5	335.3	343.4	350.1	358.2	366.3
162.5°	313.1	312.5	315.2	319.3	323.6	328.6	336.3	342.8	348.4	354.9	361.9
165°	320.5	319.1	321.2	324.5	327.2	331.2	336.6	342.0	346.0	350.1	355.4
167.5°	325.3	324.6	325.8	327.7	329.6	332.2	336.6	340.4	342.2	345.3	349.1
170°	328.6	327.9	328.6	329.8	331.2	333.2	336.6	339.3	340.6	342.7	345.3
172.5°	330.7	329.5	330.1	331.5	332.3	333.2	336.0	338.2	338.5	339.4	341.6
175°	333.2	331.9	332.6	333.2	333.2	333.2	335.3	336.6	336.0	336.0	336.6
177.5°	334.4	333.4	333.4	333.9	333.4	333.4	334.4	335.0	333.9	333.9	334.4
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1127.0	1128.6	1130.1	1130.9	1130.8	1130.6	1130.4	1130.2
5°	1121.4	1123.1	1124.9	1125.7	1125.5	1125.3	1125.1	1124.9
7.5°	1110.0	1111.7	1113.4	1114.2	1114.0	1113.9	1113.6	1113.4
10°	1100.4	1102.0	1103.5	1104.2	1104.1	1103.8	1103.6	1103.5
12.5°	1087.5	1088.8	1090.1	1090.7	1090.7	1090.6	1090.6	1090.5
15°	1065.2	1066.2	1067.2	1067.6	1067.6	1067.6	1067.6	1067.6
17.5°	1039.2	1040.4	1041.6	1041.8	1040.8	1039.8	1038.8	1037.8
20°	1019.5	1020.9	1022.3	1022.4	1021.5	1020.5	1019.5	1018.5
22.5°	997.0	998.0	998.9	999.0	998.3	997.6	997.0	996.3
25°	961.1	961.6	962.0	961.8	961.3	960.7	960.1	959.5
27.5°	923.5	923.6	923.7	923.4	922.8	922.2	921.6	921.0
30°	896.1	895.7	895.3	894.8	894.2	893.6	893.0	892.4
32.5°	868.2	867.5	866.9	865.9	864.9	863.8	862.7	861.7
35°	825.2	824.1	823.2	821.9	820.3	818.7	817.1	815.5
37.5°	779.8	778.3	776.9	775.7	774.8	773.9	773.0	772.1
40°	748.5	746.7	744.9	743.6	743.0	742.5	741.9	741.3
42.5°	717.3	715.7	714.0	712.7	711.9	710.9	710.0	709.1
45°	671.2	668.8	666.5	665.0	664.4	663.8	663.2	662.6
47.5°	622.7	620.3	617.9	616.0	614.6	613.2	611.7	610.4
50°	589.4	586.9	584.3	582.3	580.9	579.5	578.2	576.8
52.5°	557.2	554.9	552.7	550.8	549.2	547.7	546.1	544.6
55°	507.0	505.2	503.4	501.9	500.4	499.0	497.7	496.3
57.5°	457.2	454.9	452.5	451.0	450.2	449.5	448.8	448.0
60°	423.4	421.5	419.5	417.8	416.4	415.0	413.6	412.2
62.5°	391.0	388.8	386.7	385.0	384.0	382.9	381.9	380.7
65°	339.8	338.0	336.2	334.9	334.2	333.4	332.5	331.7
67.5°	291.0	289.5	288.0	287.0	286.5	286.0	285.5	285.1
70°	258.7	257.5	256.3	255.4	254.5	253.7	253.0	252.2
72.5°	228.3	227.0	225.7	224.5	223.8	223.0	222.2	221.4
75°	181.2	180.6	180.0	179.3	178.6	177.7	176.9	176.2
77.5°	138.1	137.7	137.3	136.9	136.3	135.8	135.3	134.7
80°	110.5	110.3	110.1	109.8	109.4	109.0	108.6	108.2
82.5°	84.4	84.0	83.7	83.5	83.4	83.3	83.3	83.2
85°	49.7	49.5	49.2	49.0	48.6	48.2	47.8	47.4
87.5°	21.0	21.2	21.3	21.4	21.1	20.8	20.6	20.2
90°	12.1	12.8	13.4	14.8	14.8	14.8	15.5	15.5
92.5°	119.3	86.6	65.2	55.2	46.6	44.9	44.0	43.0
95°	484.1	381.7	298.9	242.4	194.6	174.4	169.0	158.2
97.5°	720.9	649.1	568.4	489.8	448.2	410.5	391.0	382.4
100°	828.0	795.0	725.7	655.7	609.2	560.8	535.9	525.1
102.5°	864.1	884.5	851.2	803.8	754.1	719.6	692.6	684.5
105°	842.8	935.1	964.8	957.3	935.7	913.5	900.1	892.0
107.5°	766.9	890.0	966.0	1001.2	1012.1	1011.9	1007.5	1002.1
110°	710.9	838.8	933.8	990.9	1021.2	1034.1	1038.8	1038.8



TEST NUMBER: P333231-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	666.8	788.2	884.2	951.7	995.9	1017.9	1029.6	1034.5
115°	611.3	715.7	807.9	881.2	933.8	966.0	984.9	993.7
117.5°	575.5	665.4	744.9	812.2	864.7	898.0	916.8	922.1
120°	556.0	636.9	710.9	770.2	819.9	852.3	870.5	875.8
122.5°	541.6	616.4	682.3	737.9	782.3	811.9	830.1	834.9
125°	520.4	589.1	647.6	696.1	733.8	761.4	776.2	782.9
127.5°	498.9	562.9	617.6	663.0	697.2	721.5	735.6	738.5
130°	485.3	544.7	597.1	640.9	674.6	696.8	710.2	714.3
132.5°	471.9	527.4	575.1	617.2	650.8	673.0	685.4	690.0
135°	454.4	500.8	544.0	582.3	611.9	634.1	646.3	650.3
137.5°	439.6	477.2	513.0	545.5	572.1	592.3	603.5	608.0
140°	431.5	463.1	494.1	522.4	547.3	564.8	574.9	578.2
142.5°	424.6	451.3	477.9	502.5	523.7	538.5	548.0	550.8
145°	415.3	436.3	457.1	475.3	491.5	502.9	510.3	513.0
147.5°	406.7	423.7	439.7	453.5	466.2	475.4	479.7	481.0
150°	401.9	416.7	429.5	441.6	451.8	459.8	462.5	463.1
152.5°	396.5	409.7	421.5	430.8	439.4	445.8	448.5	449.2
155°	388.5	399.2	408.6	416.0	422.8	427.5	429.5	430.2
157.5°	380.4	389.3	396.5	402.3	407.6	411.5	413.4	413.2
160°	375.0	381.7	388.5	393.1	397.9	401.2	402.6	401.9
162.5°	369.0	375.2	380.9	385.0	388.7	391.5	391.8	391.7
165°	360.8	365.6	369.6	373.0	375.7	377.0	377.0	377.0
167.5°	353.0	356.1	359.2	361.6	363.0	364.2	363.7	363.5
170°	348.7	350.8	352.8	354.1	355.4	356.1	356.1	355.4
172.5°	343.9	345.9	347.4	348.2	348.4	349.7	348.6	347.9
175°	338.6	338.6	340.0	340.0	340.0	340.6	339.3	338.6
177.5°	335.0	335.5	335.5	335.5	335.0	335.5	333.9	333.9
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9

(END OF REPORT)