

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: P333238-830

Luminaire Tested: **S125DIP-S850D1035U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333238-830
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: S125DIP-S850D1035U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7120.9 lumens
Efficiency: N/A
Efficacy: 136.9 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

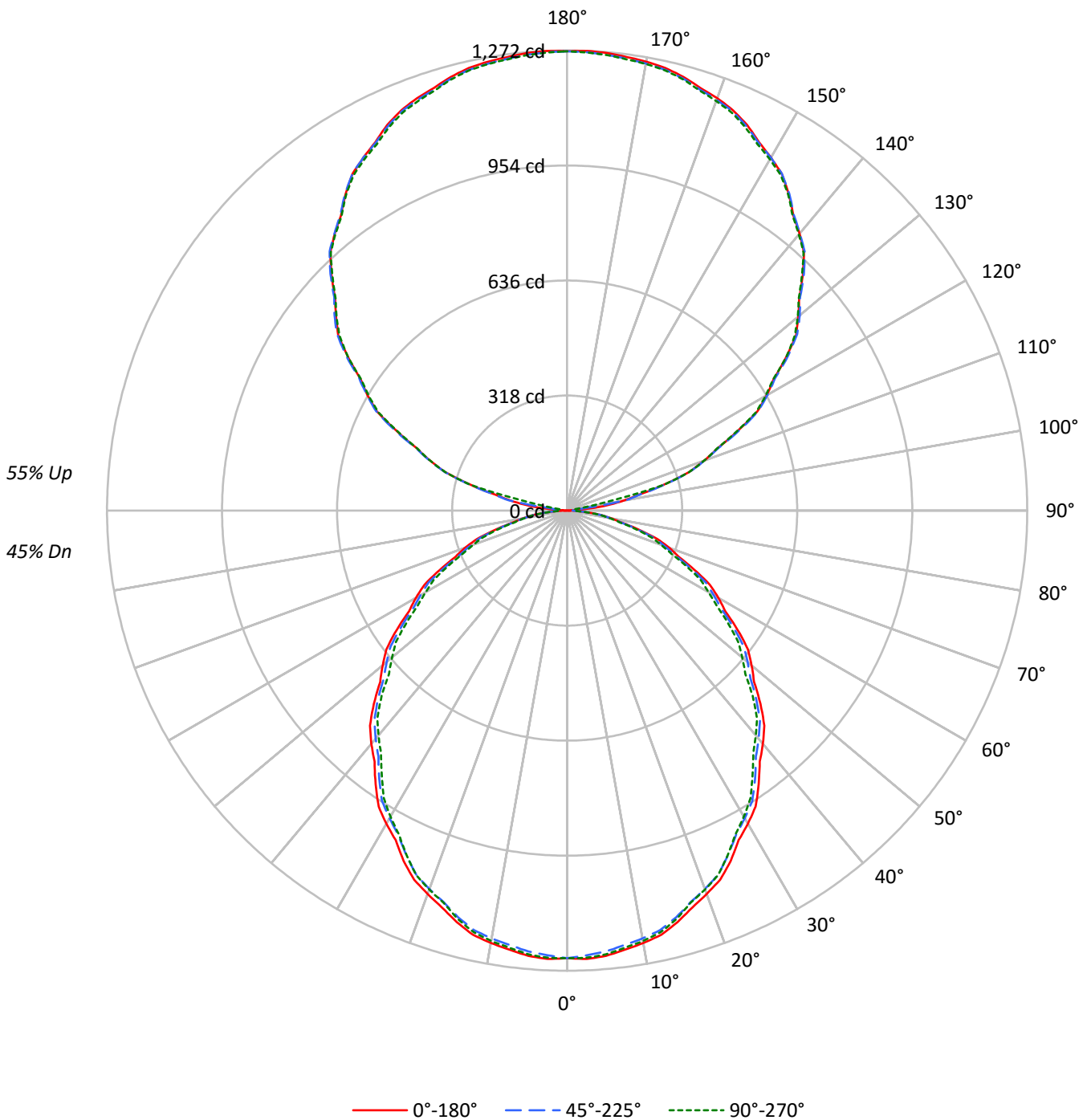
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	97	92	88	85	88	85	81	78	71	68	66	58	56	54	46	45	44	38
2	88	81	74	69	80	74	69	64	62	58	55	51	48	45	40	38	37	32
3	80	71	63	58	73	65	59	54	55	50	46	45	41	38	36	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	1.6
10°-20°	329.6	4.6
20°-30°	486.6	6.8
30°-40°	567.8	8.0
40°-50°	570.3	8.0
50°-60°	500.6	7.0
60°-70°	373.0	5.2
70°-80°	213.3	3.0
80°-90°	64.7	0.9
90°-100°	46.1	0.6
100°-110°	284.3	4.0
110°-120°	515.7	7.2
120°-130°	661.8	9.3
130°-140°	711.8	10.0
140°-150°	668.2	9.4
150°-160°	540.5	7.6
160°-170°	349.6	4.9
170°-180°	120.6	1.7
0°-30°	932.8	13.1
0°-40°	1500.6	21.1
0°-60°	2571.4	36.1
0°-90°	3222.4	45.3
90°-120°	846.1	11.9
90°-150°	2887.9	40.6
90°-180°	3899.0	54.8
0°-180°	7120.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	8	15	20	23	5
95°	54	49	15	20	20	68
105°	277	280	280	280	280	293
115°	520	524	525	521	516	515
125°	739	745	745	742	739	660
135°	921	927	925	923	918	710
145°	1068	1070	1070	1071	1065	668
155°	1176	1171	1173	1175	1168	542
165°	1241	1236	1237	1242	1235	351
175°	1270	1264	1265	1271	1264	121
180°	1270	1270	1270	1270	1270	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.3	21.7	22.0	22.3	22.7	22.9	23.0	23.1	23.3	23.4	23.6
90°	0.9	2.6	4.2	5.9	7.6	9.2	10.7	12.2	13.6	15.1	16.1
92.5°	14.5	13.3	12.2	10.9	9.8	9.9	11.1	12.4	13.8	15.1	16.1
95°	53.6	53.0	52.4	51.7	51.2	46.8	38.9	30.9	23.0	15.1	16.1
97.5°	112.0	113.1	114.2	115.4	116.5	109.2	93.5	77.8	62.0	46.3	40.4
100°	157.1	157.8	158.4	159.0	159.7	160.4	161.3	162.1	162.9	163.7	132.6
102.5°	203.1	203.9	204.7	205.5	206.2	206.9	207.5	207.9	208.4	209.0	203.0
105°	276.6	277.5	278.3	279.2	280.0	280.4	280.4	280.4	280.4	280.4	280.4
107.5°	353.1	353.1	353.1	353.1	353.1	353.3	353.7	354.1	354.6	355.0	355.1
110°	402.7	402.7	402.7	402.7	402.7	403.0	403.4	403.9	404.3	404.6	404.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	449.5	450.0	450.4	451.0	451.5	451.9	452.1	452.3	452.6	452.9	452.0
115°	519.5	520.6	521.6	522.6	523.7	524.3	524.5	524.7	524.9	525.1	524.3
117.5°	591.9	591.9	591.8	591.8	591.8	592.2	593.0	593.7	594.6	595.3	594.3
120°	637.2	636.9	636.7	636.5	636.3	636.5	637.2	637.7	638.4	639.0	638.6
122.5°	677.0	677.8	678.6	679.4	680.2	680.7	681.1	681.4	681.6	681.9	681.5
125°	738.8	740.2	741.7	743.2	744.6	745.4	745.4	745.4	745.4	745.4	744.5
127.5°	797.7	798.7	799.7	800.8	801.8	802.3	802.2	802.1	801.9	801.8	801.3
130°	833.8	834.9	835.9	837.0	838.0	838.6	838.9	839.1	839.2	839.4	838.9
132.5°	870.0	871.2	872.4	873.5	874.8	875.2	874.7	874.3	873.8	873.4	873.2
135°	921.3	922.6	923.9	925.1	926.3	926.8	926.3	926.0	925.5	925.1	924.6
137.5°	968.6	969.7	970.7	971.9	972.9	973.3	972.9	972.5	972.1	971.8	971.9
140°	999.5	999.8	1000.3	1000.7	1001.1	1001.3	1001.0	1000.8	1000.6	1000.4	1000.8
142.5°	1027.3	1027.6	1027.8	1028.0	1028.3	1028.6	1028.9	1029.2	1029.4	1029.7	1029.8
145°	1068.2	1068.6	1068.9	1069.4	1069.8	1070.1	1070.1	1070.1	1070.1	1070.1	1070.3
147.5°	1103.9	1103.8	1103.7	1103.6	1103.5	1103.6	1103.9	1104.2	1104.4	1104.7	1104.9
150°	1126.5	1126.1	1125.7	1125.2	1124.8	1124.8	1125.2	1125.7	1126.1	1126.5	1126.9
152.5°	1148.3	1147.5	1146.5	1145.6	1144.6	1144.4	1144.8	1145.2	1145.7	1146.0	1146.5
155°	1176.4	1175.2	1173.8	1172.6	1171.4	1170.9	1171.4	1171.8	1172.1	1172.6	1173.3
157.5°	1198.0	1197.2	1196.6	1195.8	1195.0	1194.7	1194.7	1194.8	1194.8	1194.9	1195.5
160°	1213.1	1211.8	1210.6	1209.3	1208.1	1207.5	1207.8	1208.0	1208.2	1208.3	1209.2
162.5°	1225.1	1223.9	1222.6	1221.3	1220.1	1219.6	1219.7	1220.0	1220.2	1220.4	1221.6
165°	1241.3	1240.0	1238.8	1237.6	1236.3	1235.8	1236.0	1236.1	1236.4	1236.6	1237.8
167.5°	1253.4	1252.1	1250.8	1249.4	1248.2	1247.6	1247.8	1248.0	1248.2	1248.5	1250.0
170°	1260.1	1258.7	1257.2	1255.7	1254.2	1253.7	1253.9	1254.1	1254.2	1254.5	1256.1
172.5°	1264.6	1263.2	1261.7	1260.3	1258.8	1258.3	1258.6	1259.0	1259.3	1259.7	1261.2
175°	1269.5	1268.3	1267.1	1265.7	1264.5	1264.0	1264.2	1264.4	1264.6	1264.8	1266.5
177.5°	1271.8	1270.8	1269.8	1268.8	1267.8	1267.3	1267.5	1267.7	1267.9	1268.0	1269.2
180°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	23.8	24.0	24.2	24.2	23.9	23.8	23.6	23.3
90°	17.2	18.2	19.2	20.1	20.7	21.3	22.0	22.6
92.5°	17.2	18.2	19.2	19.9	20.2	20.5	20.8	21.1
95°	17.2	18.2	19.2	19.8	19.8	19.8	19.8	19.8
97.5°	34.5	28.7	22.7	19.8	19.8	19.8	19.8	19.8
100°	101.4	70.3	39.1	23.1	22.2	21.4	20.6	19.8
102.5°	197.1	191.2	185.3	175.3	161.1	146.8	132.6	118.4
105°	280.4	280.4	280.4	280.3	280.1	279.9	279.7	279.5
107.5°	355.1	355.2	355.2	354.9	354.2	353.6	353.0	352.3
110°	403.4	402.7	402.2	402.0	402.2	402.4	402.6	402.7



TEST NUMBER: P333238-830

CATALOG NUMBER: S125DIP-S850D1035U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	451.3	450.4	449.7	449.1	448.8	448.6	448.3	448.0
115°	523.5	522.6	521.8	520.8	519.5	518.2	517.0	515.8
117.5°	593.1	592.1	591.0	590.1	589.7	589.1	588.5	588.0
120°	638.2	637.7	637.3	636.6	635.6	634.5	633.5	632.4
122.5°	681.1	680.7	680.2	679.4	678.3	677.0	675.8	674.6
125°	743.7	742.8	742.0	741.3	740.6	740.0	739.4	738.8
127.5°	800.9	800.4	799.9	799.0	797.4	795.9	794.4	792.8
130°	838.2	837.5	837.0	836.1	835.1	834.1	833.0	831.9
132.5°	873.1	873.0	872.8	872.2	871.2	870.2	869.1	868.1
135°	924.3	923.9	923.4	922.6	921.3	920.1	918.8	917.6
137.5°	971.9	972.0	972.1	971.6	970.5	969.4	968.4	967.2
140°	1001.3	1001.6	1002.0	1001.6	1000.4	999.1	997.9	996.6
142.5°	1029.9	1030.0	1030.1	1029.5	1028.2	1027.0	1025.8	1024.4
145°	1070.4	1070.6	1070.8	1070.4	1069.1	1067.8	1066.6	1065.4
147.5°	1105.1	1105.4	1105.7	1105.0	1103.5	1102.0	1100.5	1099.0
150°	1127.4	1127.8	1128.1	1127.6	1125.9	1124.2	1122.5	1120.9
152.5°	1146.9	1147.4	1147.7	1147.2	1145.7	1144.2	1142.6	1141.1
155°	1173.8	1174.5	1175.2	1174.6	1172.9	1171.2	1169.6	1167.9
157.5°	1196.2	1196.8	1197.5	1197.0	1195.3	1193.6	1191.9	1190.3
160°	1210.0	1210.9	1211.7	1211.3	1209.7	1208.0	1206.3	1204.6
162.5°	1222.8	1223.9	1225.1	1224.7	1222.9	1221.1	1219.3	1217.4
165°	1239.1	1240.4	1241.6	1241.4	1239.7	1238.0	1236.4	1234.7
167.5°	1251.5	1253.0	1254.5	1254.3	1252.5	1250.6	1248.7	1246.8
170°	1257.8	1259.5	1261.2	1261.0	1259.1	1257.4	1255.5	1253.6
172.5°	1262.7	1264.2	1265.7	1265.6	1263.7	1261.8	1259.9	1258.1
175°	1268.2	1269.9	1271.5	1271.4	1269.5	1267.6	1265.7	1263.9
177.5°	1270.4	1271.6	1272.7	1272.6	1271.3	1270.0	1268.7	1267.2
180°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5

(END OF REPORT)