

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: P333236-840

Luminaire Tested: **S125DIP-S850D1035U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333236-840  
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: S125DIP-S850D1035U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6931.4 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

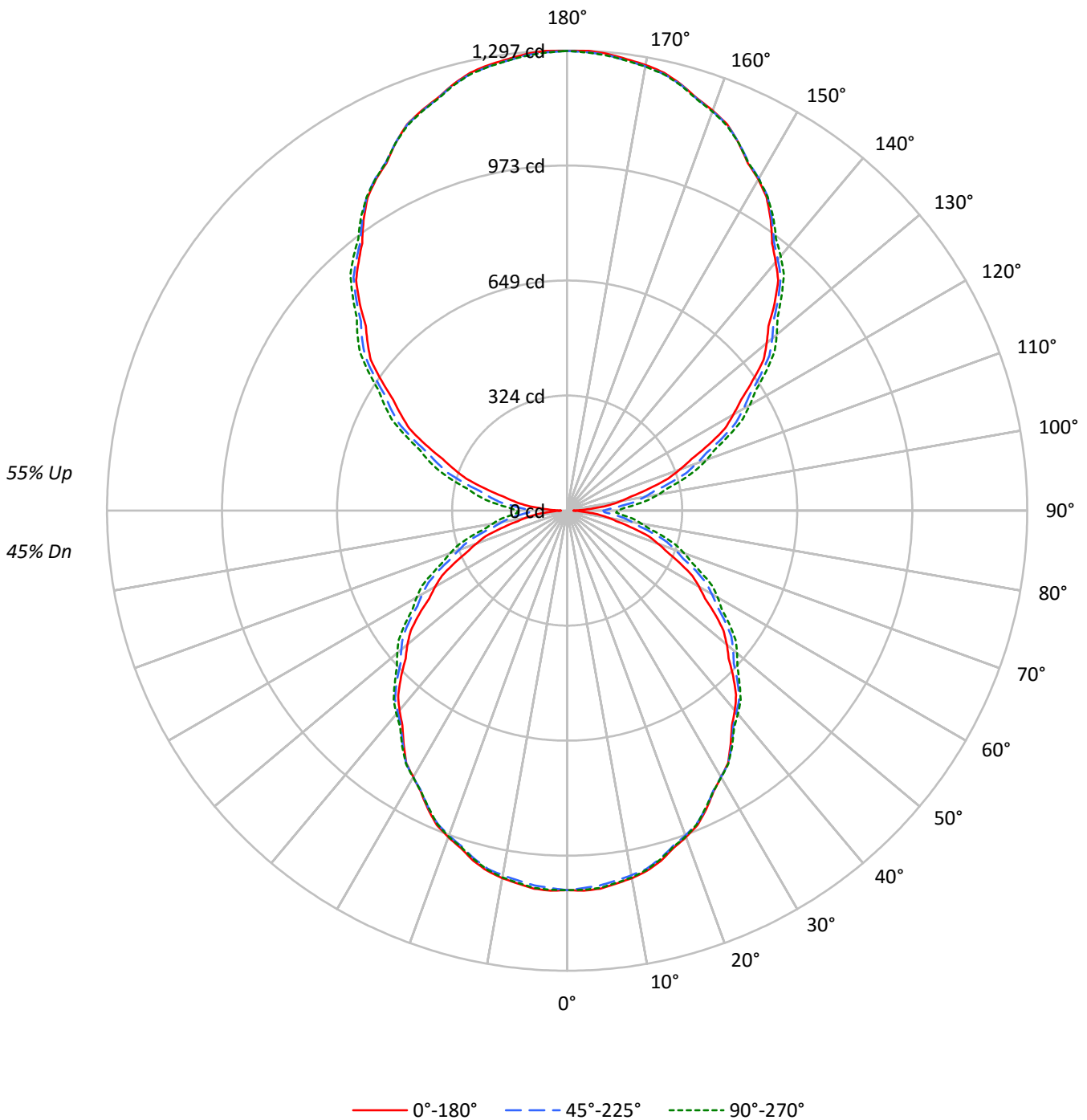
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	70	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

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

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	1.5
10°-20°	287.2	4.1
20°-30°	427.1	6.2
30°-40°	505.9	7.3
40°-50°	523.0	7.5
50°-60°	481.8	7.0
60°-70°	389.5	5.6
70°-80°	260.8	3.8
80°-90°	138.1	2.0
90°-100°	162.7	2.3
100°-110°	312.2	4.5
110°-120°	471.5	6.8
120°-130°	592.5	8.5
130°-140°	649.3	9.4
140°-150°	629.2	9.1
150°-160°	526.9	7.6
160°-170°	350.2	5.1
170°-180°	122.6	1.8
0°-30°	815.4	11.8
0°-40°	1321.2	19.1
0°-60°	2326.0	33.6
0°-90°	3114.4	44.9
90°-120°	946.4	13.7
90°-150°	2817.3	40.6
90°-180°	3817.0	55.1
0°-180°	6931.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	18	59	102	130	142	15
95°	79	109	154	183	194	81
105°	239	262	299	325	336	255
115°	441	453	482	499	505	436
125°	638	644	665	679	684	571
135°	827	832	840	853	855	637
145°	1000	1003	1006	1011	1013	625
155°	1143	1143	1144	1148	1143	526
165°	1243	1241	1242	1246	1240	351
175°	1292	1289	1288	1294	1288	123
180°	1296	1296	1296	1296	1296	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	32.9	40.7	48.6	56.4	64.2	72.2	80.5	88.7	96.9	105.1	110.8
90°	17.8	27.1	36.3	45.5	54.8	64.1	73.6	83.1	92.6	102.1	108.7
92.5°	39.5	47.7	55.8	63.9	72.1	81.2	91.3	101.3	111.3	121.4	128.1
95°	79.2	85.6	92.2	98.7	105.2	113.5	123.7	133.9	144.0	154.2	160.9
97.5°	121.3	126.9	132.5	138.1	143.8	152.0	162.7	173.5	184.2	194.9	201.3
100°	152.7	157.5	162.5	167.3	172.3	179.9	190.3	200.7	211.0	221.4	228.3
102.5°	186.5	192.0	197.3	202.8	208.2	215.3	224.0	232.8	241.6	250.2	257.2
105°	239.3	244.2	249.0	253.9	258.7	265.3	273.7	282.0	290.3	298.6	304.7
107.5°	297.7	302.1	306.3	310.6	314.9	320.9	328.6	336.4	344.2	351.8	357.2
110°	338.0	341.9	345.9	349.8	353.7	359.2	366.5	373.7	380.8	388.1	393.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	380.0	382.8	385.6	388.4	391.2	396.3	403.4	410.6	417.8	425.1	429.6
115°	440.8	443.3	445.9	448.4	450.9	455.4	462.0	468.5	474.9	481.5	485.4
117.5°	501.9	503.3	504.8	506.3	507.8	511.6	517.8	523.8	530.0	536.1	540.3
120°	540.6	542.4	544.2	546.0	547.9	551.6	557.1	562.8	568.4	573.9	577.8
122.5°	581.7	582.4	583.2	583.9	584.6	587.8	593.6	599.4	605.1	610.9	614.5
125°	638.3	639.4	640.6	641.7	642.8	645.8	650.7	655.6	660.5	665.3	668.6
127.5°	697.8	698.3	698.8	699.4	699.9	702.3	706.3	710.4	714.5	718.6	721.9
130°	734.1	735.0	735.9	736.8	737.6	739.9	743.7	747.4	751.0	754.8	757.8
132.5°	769.5	771.3	773.2	774.9	776.7	778.8	781.2	783.7	786.1	788.5	791.5
135°	826.8	827.9	829.0	830.1	831.2	832.7	834.6	836.5	838.3	840.1	843.1
137.5°	880.6	881.7	882.8	883.9	885.0	886.3	887.6	888.9	890.1	891.4	894.4
140°	914.4	915.6	916.8	917.9	919.0	920.0	920.9	921.8	922.7	923.6	926.7
142.5°	949.2	949.9	950.7	951.4	952.2	953.0	953.9	954.8	955.7	956.6	959.1
145°	1000.2	1000.9	1001.5	1002.2	1002.8	1003.5	1004.2	1004.8	1005.5	1006.2	1007.3
147.5°	1046.3	1046.8	1047.3	1047.8	1048.2	1048.8	1049.4	1049.9	1050.4	1051.0	1051.9
150°	1077.7	1077.5	1077.3	1077.1	1076.9	1077.2	1078.1	1079.0	1079.8	1080.8	1080.8
152.5°	1103.6	1103.9	1104.2	1104.5	1104.8	1105.2	1105.5	1105.9	1106.2	1106.6	1107.1
155°	1143.3	1143.3	1143.3	1143.3	1143.3	1143.4	1143.7	1143.9	1144.1	1144.3	1145.2
157.5°	1178.8	1178.3	1177.8	1177.3	1176.8	1176.7	1176.9	1177.1	1177.4	1177.6	1178.5
160°	1199.7	1199.1	1198.4	1197.7	1197.1	1196.9	1197.1	1197.3	1197.5	1197.7	1198.6
162.5°	1218.3	1217.8	1217.3	1216.8	1216.4	1216.1	1216.2	1216.2	1216.3	1216.3	1217.4
165°	1243.1	1242.6	1242.2	1241.7	1241.3	1241.2	1241.4	1241.6	1241.8	1242.1	1243.0
167.5°	1264.0	1263.1	1262.3	1261.4	1260.5	1260.0	1260.0	1260.0	1260.0	1260.0	1261.4
170°	1275.4	1274.4	1273.5	1272.7	1271.8	1271.3	1271.3	1271.3	1271.3	1271.3	1272.7
172.5°	1283.4	1282.5	1281.6	1280.7	1279.9	1279.4	1279.4	1279.4	1279.4	1279.4	1280.7
175°	1292.5	1291.6	1290.7	1289.8	1288.9	1288.5	1288.5	1288.5	1288.5	1288.5	1289.8
177.5°	1297.2	1296.5	1295.8	1294.9	1294.2	1293.8	1293.6	1293.4	1293.3	1293.1	1294.2
180°	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	116.3	121.9	127.5	131.2	133.0	134.7	136.4	138.3
90°	115.1	121.6	128.1	132.5	134.7	137.0	139.4	141.7
92.5°	134.7	141.3	147.9	152.4	154.5	156.6	158.8	160.9
95°	167.5	174.3	181.0	185.4	187.4	189.6	191.6	193.7
97.5°	207.6	214.1	220.5	224.5	226.4	228.2	230.0	232.0
100°	235.2	242.1	249.0	253.4	255.3	257.1	258.9	260.7
102.5°	264.1	270.9	277.9	282.4	284.4	286.4	288.4	290.4
105°	310.6	316.7	322.7	326.8	329.1	331.4	333.8	336.1
107.5°	362.4	367.8	373.0	376.4	377.8	379.2	380.6	381.9
110°	398.3	403.3	408.5	411.7	413.1	414.5	416.0	417.4





TEST NUMBER: P333236-840

CATALOG NUMBER: S125DIP-S850D1035U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	434.1	438.7	443.2	446.2	447.4	448.6	449.8	451.0
115°	489.4	493.4	497.4	500.0	501.1	502.3	503.4	504.6
117.5°	544.4	548.6	552.7	555.1	555.8	556.5	557.1	557.8
120°	581.9	585.8	589.8	592.0	592.5	593.0	593.5	594.0
122.5°	618.0	621.7	625.3	627.4	628.1	628.7	629.4	630.2
125°	671.9	675.2	678.4	680.5	681.6	682.5	683.4	684.4
127.5°	725.1	728.2	731.4	733.6	734.5	735.4	736.3	737.2
130°	760.8	763.9	766.9	768.8	769.5	770.2	770.9	771.6
132.5°	794.6	797.7	800.7	802.3	802.7	803.0	803.4	803.8
135°	846.2	849.2	852.2	853.9	854.1	854.4	854.7	855.0
137.5°	897.5	900.5	903.5	904.9	904.7	904.5	904.3	904.1
140°	929.6	932.6	935.6	937.1	936.9	936.6	936.4	936.3
142.5°	961.5	964.0	966.4	967.6	967.3	967.1	967.0	966.8
145°	1008.6	1009.7	1010.9	1011.6	1011.8	1012.1	1012.3	1012.6
147.5°	1052.8	1053.7	1054.6	1054.5	1053.4	1052.3	1051.2	1050.1
150°	1080.8	1080.8	1080.8	1080.7	1080.5	1080.3	1080.1	1079.8
152.5°	1107.7	1108.2	1108.7	1108.6	1107.9	1107.1	1106.4	1105.6
155°	1146.1	1147.0	1147.9	1147.8	1146.7	1145.5	1144.4	1143.3
157.5°	1179.3	1180.2	1181.1	1180.8	1179.4	1177.9	1176.4	1175.0
160°	1199.5	1200.4	1201.3	1201.2	1200.1	1199.0	1197.9	1196.7
162.5°	1218.4	1219.5	1220.6	1220.5	1219.2	1217.9	1216.6	1215.3
165°	1243.9	1244.8	1245.7	1245.5	1244.2	1242.7	1241.4	1240.1
167.5°	1262.7	1264.0	1265.5	1265.4	1264.0	1262.6	1261.2	1259.8
170°	1274.0	1275.4	1276.7	1276.6	1275.1	1273.4	1271.9	1270.3
172.5°	1282.1	1283.4	1284.8	1284.8	1283.3	1282.0	1280.6	1279.2
175°	1291.2	1292.5	1293.8	1293.7	1292.2	1290.6	1289.0	1287.5
177.5°	1295.3	1296.4	1297.4	1297.4	1296.1	1294.8	1293.5	1292.3
180°	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6	1295.6

(END OF REPORT)