

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: P333246-840

Luminaire Tested: **S125DIP-S850D1205U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333246-840
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-S850D1205U840-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7681.3 lumens
Efficiency: N/A
Efficacy: 135.0 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

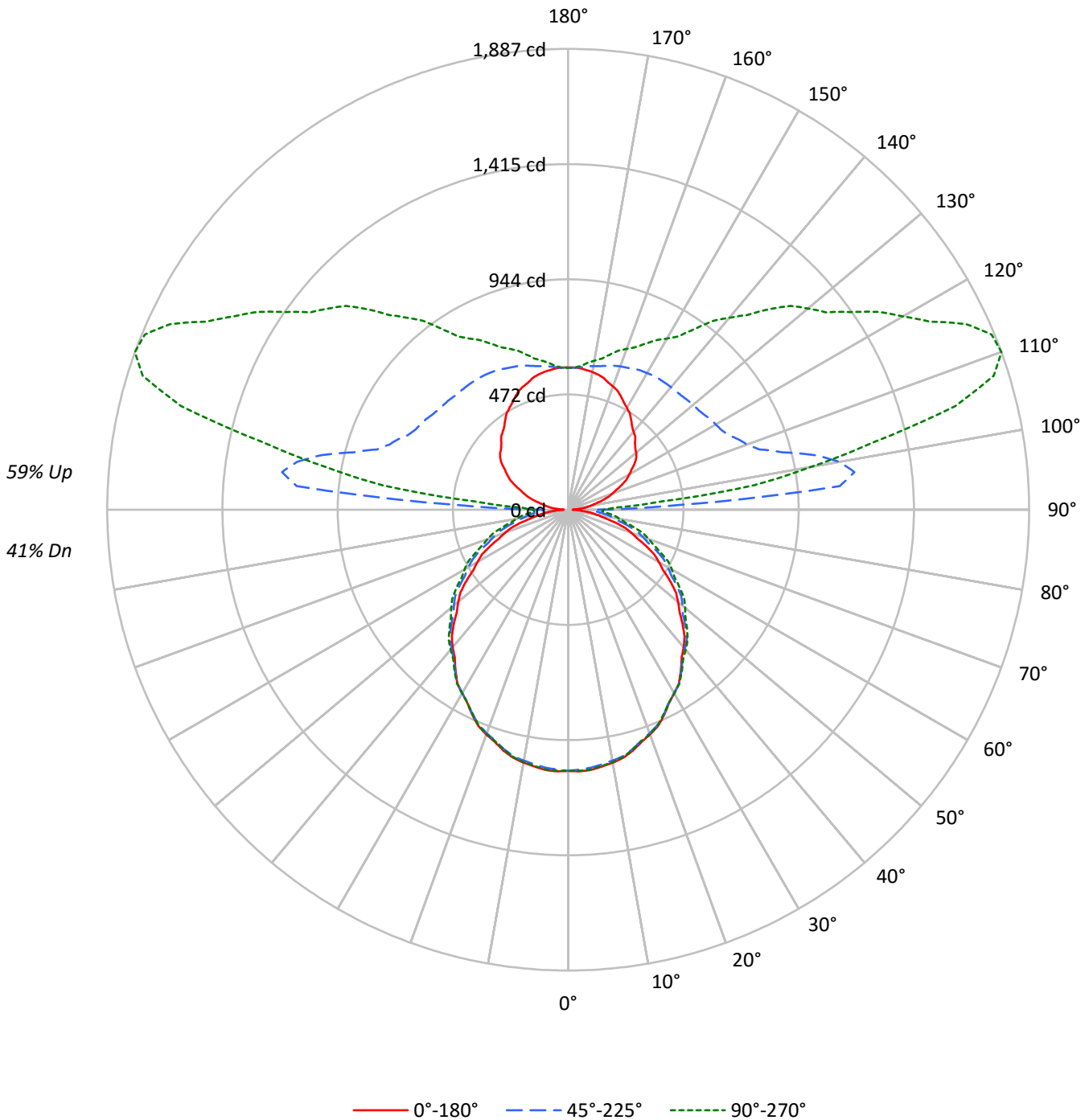
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	41	41	41	41	41	41	41														
1	95	91	86	83	86	83	79	76	67	65	63	54	52	50	41	40	39	33	33	33	33	33	33	33														
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27	27	27	27	27	27	27														
3	79	69	61	56	71	63	56	51	52	47	43	41	38	35	31	29	27	23	23	23	23	23	23	23														
4	72	61	53	47	65	56	49	43	46	40	36	37	33	30	28	25	23	19	19	19	19	19	19	19														
5	66	54	46	40	60	49	42	37	41	35	31	33	29	26	25	22	20	17	17	17	17	17	17	17														
6	60	48	40	34	55	44	37	32	37	31	27	29	25	22	23	20	18	15	15	15	15	15	15	15														
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13	13	13	13	13	13	13														
8	52	39	32	26	47	36	29	25	30	25	21	24	20	17	19	16	14	11	11	11	11	11	11	11														
9	48	36	28	23	44	33	26	22	28	22	19	22	18	16	18	15	13	10	10	10	10	10	10	10														
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	13	11	9	9	9	9	9	9	9														

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	1.3
10°-20°	287.2	3.7
20°-30°	427.1	5.6
30°-40°	505.9	6.6
40°-50°	523.0	6.8
50°-60°	481.8	6.3
60°-70°	389.5	5.1
70°-80°	260.8	3.4
80°-90°	138.5	1.8
90°-100°	497.8	6.5
100°-110°	962.9	12.5
110°-120°	888.6	11.6
120°-130°	711.1	9.3
130°-140°	562.8	7.3
140°-150°	419.6	5.5
150°-160°	294.0	3.8
160°-170°	173.3	2.3
170°-180°	56.4	0.7
0°-30°	815.4	10.6
0°-40°	1321.2	17.2
0°-60°	2326.0	30.3
0°-90°	3114.8	40.6
90°-120°	2349.2	30.6
90°-150°	4042.7	52.6
90°-180°	4566.0	59.4
0°-180°	7681.3	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	61	105	134	144	13
95°	52	156	1116	570	383	52
105°	142	212	908	1753	1641	150
115°	243	300	724	1531	1798	239
125°	333	389	679	1211	1411	295
135°	387	464	658	1003	1161	300
145°	449	513	652	818	904	281
155°	512	550	636	719	750	236
165°	559	574	610	647	657	157
175°	581	581	586	593	590	55
180°	582	582	582	582	582	



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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	56.6	64.4	72.6	80.8	89.2	97.4	105.7	111.3
90°	18.0	26.6	36.4	46.2	56.0	66.0	75.1	85.4	94.5	104.8	111.3
92.5°	29.4	39.4	56.1	77.6	104.6	146.4	218.6	334.2	459.0	461.0	394.0
95°	52.3	59.6	75.0	94.0	125.9	185.7	319.1	585.2	917.1	1116.2	1099.0
97.5°	76.6	83.5	95.5	113.9	142.6	187.2	277.9	474.7	821.2	1181.6	1363.4
100°	93.7	100.9	110.5	128.4	155.5	196.9	272.4	432.4	735.6	1126.7	1425.0
102.5°	112.6	118.5	126.7	145.1	170.1	210.3	278.0	413.4	670.4	1034.2	1382.0
105°	142.0	145.7	155.3	170.9	193.3	231.6	290.1	401.6	604.5	908.4	1249.8
107.5°	170.8	176.3	185.1	197.9	220.6	255.1	311.7	407.9	574.4	821.0	1116.2
110°	191.6	196.7	204.2	217.5	237.9	273.2	327.8	415.3	563.8	779.1	1039.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	213.2	217.7	223.8	236.5	256.4	290.2	342.8	425.5	560.6	753.3	981.4
115°	243.3	247.3	252.5	264.7	283.9	317.1	366.6	440.6	559.4	723.9	917.0
117.5°	270.4	275.0	279.8	291.4	312.6	344.3	391.1	458.8	562.4	706.8	876.3
120°	289.2	293.5	298.8	310.1	330.7	363.0	409.5	471.2	566.9	697.8	853.1
122.5°	308.1	311.0	315.1	326.0	348.1	380.2	426.5	485.1	570.4	689.8	832.7
125°	332.8	334.9	340.5	350.8	372.8	405.7	449.0	504.1	576.8	678.9	804.7
127.5°	351.2	354.5	361.7	374.9	398.4	430.7	471.8	522.1	585.3	671.3	778.4
130°	363.3	366.7	375.9	390.8	415.3	447.3	487.0	534.7	590.9	666.8	761.6
132.5°	371.9	376.4	387.6	404.7	430.2	461.9	500.8	545.1	596.7	663.5	747.0
135°	387.0	391.4	405.3	423.8	448.3	480.6	518.7	559.0	604.0	658.4	728.4
137.5°	406.0	409.3	422.3	440.9	464.8	497.8	531.7	569.6	611.7	656.1	712.4
140°	416.5	420.0	434.0	452.8	475.1	507.0	541.2	576.6	614.4	654.5	704.0
142.5°	429.6	432.0	444.9	463.5	484.7	514.4	546.6	580.0	615.7	653.8	697.3
145°	449.3	451.4	462.9	479.1	500.0	526.8	557.3	586.7	618.4	652.4	688.8
147.5°	468.9	470.3	480.4	495.6	513.9	537.7	564.4	591.0	619.6	649.3	680.8
150°	481.1	483.4	491.7	507.0	523.3	543.3	569.1	593.8	619.6	646.5	674.7
152.5°	494.2	495.6	502.9	516.3	531.8	549.9	573.8	595.6	618.6	642.8	668.1
155°	511.6	511.6	518.7	530.4	542.1	558.6	578.5	597.2	616.0	636.0	657.1
157.5°	527.1	526.8	532.5	542.6	552.9	565.3	582.5	598.4	613.0	628.9	646.8
160°	537.5	536.2	541.0	549.2	558.6	569.1	584.4	598.4	610.2	624.3	638.3
162.5°	545.8	544.7	549.4	556.6	564.2	572.9	586.2	597.5	607.3	618.6	630.9
165°	558.6	556.2	559.8	565.6	570.3	577.3	586.7	596.1	603.1	610.2	619.6
167.5°	567.0	565.8	567.9	571.2	574.5	579.0	586.7	593.3	596.5	602.0	608.5
170°	572.6	571.5	572.6	575.0	577.3	580.9	586.7	591.4	593.8	597.2	602.0
172.5°	576.4	574.3	575.4	577.7	579.2	580.9	585.7	589.6	590.0	591.7	595.4
175°	580.9	578.5	579.7	580.9	580.9	580.9	584.4	586.7	585.5	585.5	586.7
177.5°	583.0	581.1	581.1	582.0	581.1	581.1	583.0	583.9	582.0	582.0	583.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0



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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°	116.8	122.5	128.1	132.1	133.7	135.3	137.1	138.8
90°	117.9	124.4	130.9	136.7	138.4	140.1	142.8	144.4
92.5°	300.9	249.0	216.9	203.0	189.6	188.4	188.3	188.1
95°	930.5	757.3	618.0	522.9	441.2	407.6	399.9	382.7
97.5°	1337.6	1217.4	1081.8	948.0	877.0	812.8	780.4	767.0
100°	1520.3	1467.6	1351.6	1232.7	1153.2	1070.1	1028.0	1010.7
102.5°	1579.4	1619.5	1566.3	1486.7	1401.5	1342.8	1297.1	1284.3
105°	1536.1	1701.5	1757.9	1748.1	1712.1	1675.1	1653.3	1640.8
107.5°	1398.7	1617.8	1754.9	1819.3	1839.7	1840.9	1834.6	1826.6
110°	1297.3	1524.7	1694.6	1797.4	1851.8	1875.7	1885.5	1887.1



TEST NUMBER: P333246-840

CATALOG NUMBER: S125DIP-S850D1205U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1216.6	1432.5	1604.1	1724.5	1803.4	1843.3	1865.3	1875.4
115°	1114.8	1300.8	1465.8	1596.5	1689.4	1747.2	1781.4	1798.1
117.5°	1046.8	1207.6	1350.0	1470.1	1563.2	1623.0	1657.2	1668.2
120°	1009.7	1154.5	1287.5	1393.4	1481.7	1539.4	1572.5	1583.3
122.5°	980.6	1114.9	1233.7	1332.9	1411.8	1464.8	1497.8	1507.7
125°	938.7	1062.1	1167.9	1254.8	1321.7	1371.0	1398.0	1410.9
127.5°	895.8	1010.9	1109.6	1191.0	1252.0	1295.9	1321.6	1328.2
130°	869.4	975.8	1070.7	1149.1	1209.0	1248.9	1273.5	1281.7
132.5°	842.5	942.5	1028.9	1104.4	1164.1	1203.8	1226.3	1235.3
135°	806.5	890.5	968.7	1037.6	1090.5	1130.3	1152.6	1160.8
137.5°	776.4	844.6	909.8	968.4	1015.5	1051.7	1072.1	1080.8
140°	759.4	817.1	873.6	924.6	969.1	1000.5	1019.0	1025.8
142.5°	744.8	793.7	842.3	886.6	924.3	951.1	968.7	974.5
145°	726.3	763.9	801.4	834.1	863.2	884.1	898.0	903.6
147.5°	709.7	739.6	768.0	792.3	815.1	831.4	839.3	841.8
150°	700.5	726.4	748.6	769.9	787.7	802.0	807.0	808.4
152.5°	691.2	714.2	734.6	751.0	765.9	777.2	781.9	783.2
155°	677.0	695.8	712.3	725.2	736.9	745.1	748.6	749.8
157.5°	663.0	678.4	691.2	701.3	710.3	717.2	720.4	720.2
160°	653.6	665.3	677.0	685.3	693.5	699.3	701.8	700.5
162.5°	643.3	654.1	663.9	671.2	677.5	682.5	683.0	682.7
165°	628.9	637.1	644.2	650.1	654.8	657.1	657.1	657.1
167.5°	615.3	620.8	626.1	630.4	632.7	634.8	633.9	633.7
170°	607.8	611.4	614.9	617.2	619.6	620.8	620.8	619.6
172.5°	599.4	602.9	605.5	606.9	607.3	609.5	607.6	606.4
175°	590.3	590.3	592.6	592.6	592.6	593.8	591.4	590.3
177.5°	583.9	584.8	584.8	584.8	583.9	584.8	582.0	582.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

(END OF REPORT)