

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: P333245-840

Luminaire Tested: **S125DIP-S850D1205U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333245-840  
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-S850D1205U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7524.6 lumens  
Efficiency: N/A  
Efficacy: 132.2 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

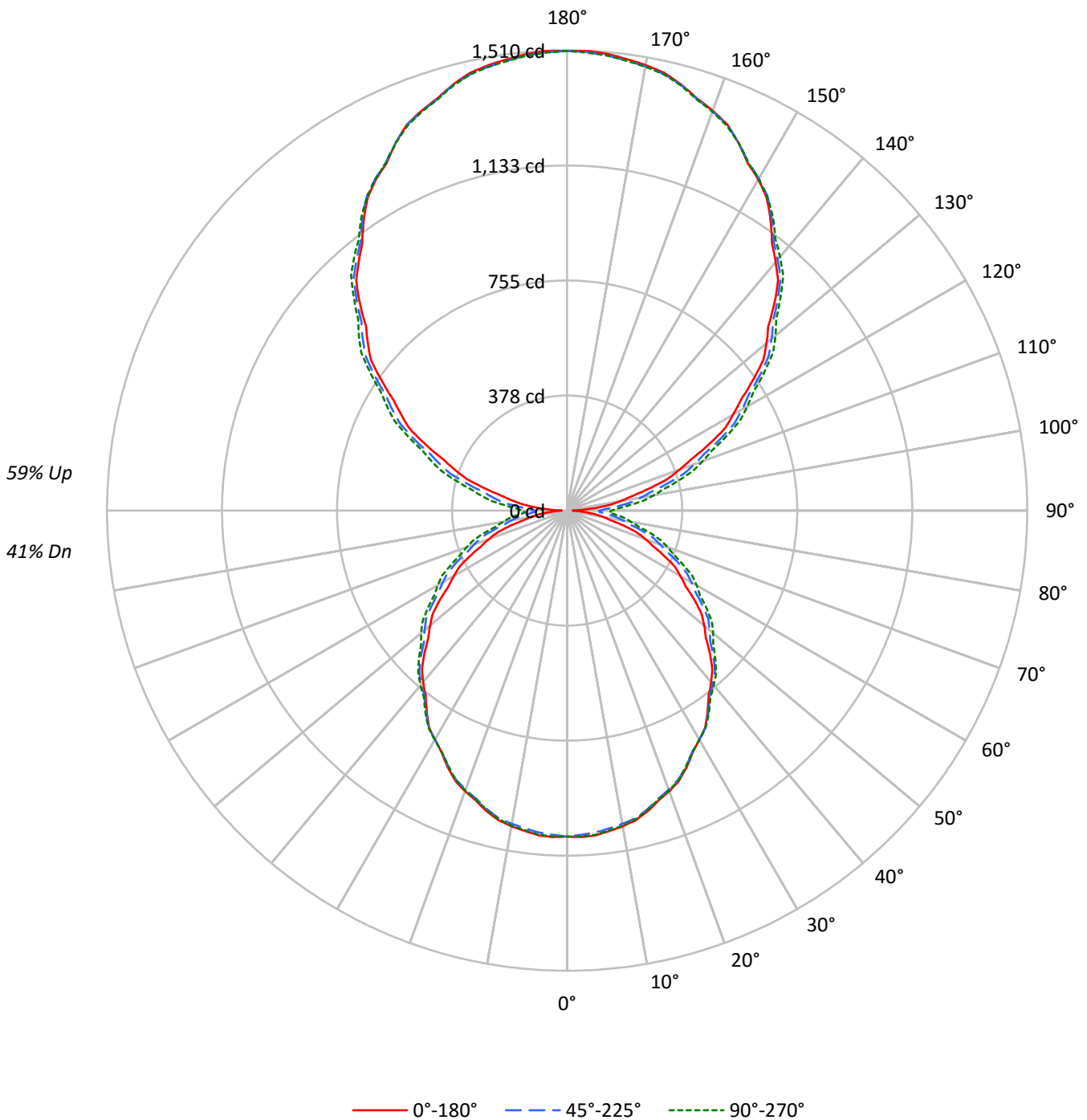
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	40	39
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33
3	79	69	62	56	71	63	57	51	52	47	43	42	38	35	32	30	28
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	20
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	23	20	18
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14
9	48	36	29	23	44	33	26	22	28	22	19	23	19	16	18	15	13
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	14	12

**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	3.8
20°-30°	427.1	5.7
30°-40°	505.9	6.7
40°-50°	523.0	7.0
50°-60°	481.8	6.4
60°-70°	389.5	5.2
70°-80°	260.8	3.5
80°-90°	138.6	1.8
90°-100°	176.9	2.4
100°-110°	354.2	4.7
110°-120°	542.7	7.2
120°-130°	686.1	9.1
130°-140°	754.3	10.0
140°-150°	732.0	9.7
150°-160°	613.3	8.1
160°-170°	407.6	5.4
170°-180°	142.7	1.9
0°-30°	815.4	10.8
0°-40°	1321.2	17.6
0°-60°	2326.0	30.9
0°-90°	3114.9	41.4
90°-120°	1073.8	14.3
90°-150°	3246.2	43.1
90°-180°	4410.0	58.6
0°-180°	7524.6	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	146	15
95°	90	120	167	197	208	92
105°	277	301	338	365	377	296
115°	512	525	554	571	576	506
125°	742	749	770	784	789	664
135°	962	968	976	990	991	741
145°	1164	1168	1171	1176	1177	727
155°	1331	1331	1332	1336	1331	613
165°	1447	1445	1446	1450	1443	408
175°	1504	1500	1500	1506	1498	143
180°	1508	1508	1508	1508	1508	



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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	40.8	48.7	56.6	64.4	72.5	80.8	89.1	97.5	105.7	111.3
90°	18.0	27.5	37.1	46.6	56.1	65.7	75.5	85.2	95.0	104.8	111.5
92.5°	43.5	51.9	60.2	68.6	77.0	86.3	96.6	107.0	117.3	127.7	134.6
95°	89.9	96.5	103.1	109.7	116.2	124.8	135.3	145.8	156.4	166.9	173.9
97.5°	139.2	144.8	150.5	156.1	161.8	170.3	181.5	192.7	204.0	215.2	221.8
100°	175.8	180.8	185.6	190.6	195.4	203.3	214.1	225.0	235.8	246.7	253.9
102.5°	215.4	221.0	226.5	232.1	237.6	244.9	253.9	262.9	271.9	280.8	288.1
105°	277.0	282.1	287.1	292.1	297.1	304.0	312.5	321.0	329.6	338.2	344.4
107.5°	345.2	349.7	354.2	358.6	363.1	369.3	377.2	385.2	393.0	400.9	406.4
110°	392.2	396.4	400.4	404.6	408.7	414.3	421.6	429.0	436.3	443.6	448.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	441.1	443.9	446.9	449.8	452.7	457.9	465.1	472.5	479.9	487.2	491.8
115°	512.1	514.7	517.5	520.1	522.8	527.5	534.0	540.6	547.1	553.7	557.6
117.5°	583.3	584.8	586.4	587.9	589.5	593.4	599.6	605.7	612.0	618.1	622.4
120°	628.3	630.4	632.4	634.4	636.4	640.2	645.8	651.5	657.0	662.7	666.6
122.5°	676.4	677.1	677.9	678.7	679.5	682.9	688.7	694.6	700.4	706.3	709.8
125°	742.4	743.7	745.0	746.3	747.7	750.8	755.7	760.6	765.6	770.4	773.7
127.5°	811.7	812.3	813.0	813.6	814.4	816.7	820.8	825.0	829.1	833.2	836.5
130°	853.9	855.1	856.1	857.2	858.2	860.6	864.4	868.2	872.0	875.8	878.8
132.5°	895.3	897.5	899.5	901.6	903.7	905.9	908.4	910.8	913.2	915.6	918.6
135°	962.0	963.4	964.7	966.0	967.3	969.0	970.9	972.8	974.6	976.5	979.6
137.5°	1024.7	1026.0	1027.3	1028.6	1030.1	1031.4	1032.7	1034.1	1035.5	1036.8	1039.9
140°	1064.3	1065.5	1066.8	1068.1	1069.4	1070.7	1071.7	1072.7	1073.7	1074.7	1077.7
142.5°	1104.6	1105.5	1106.4	1107.3	1108.2	1109.2	1110.2	1111.3	1112.4	1113.4	1115.9
145°	1164.0	1164.8	1165.6	1166.4	1167.2	1168.0	1168.8	1169.6	1170.3	1171.1	1172.4
147.5°	1217.9	1218.4	1219.0	1219.6	1220.1	1220.7	1221.4	1222.0	1222.6	1223.2	1224.3
150°	1254.5	1254.3	1253.9	1253.7	1253.4	1253.8	1254.9	1255.9	1257.0	1258.0	1258.0
152.5°	1284.5	1284.9	1285.3	1285.7	1286.0	1286.4	1286.8	1287.2	1287.7	1288.1	1288.7
155°	1330.8	1330.8	1330.8	1330.8	1330.8	1330.9	1331.2	1331.4	1331.7	1331.9	1333.0
157.5°	1372.1	1371.5	1370.9	1370.4	1369.8	1369.6	1369.9	1370.2	1370.4	1370.7	1371.7
160°	1396.4	1395.7	1394.9	1394.1	1393.3	1393.1	1393.3	1393.6	1393.9	1394.1	1395.1
162.5°	1418.1	1417.5	1416.9	1416.3	1415.7	1415.5	1415.5	1415.6	1415.6	1415.7	1416.9
165°	1446.9	1446.4	1445.9	1445.4	1444.8	1444.7	1445.0	1445.2	1445.5	1445.7	1446.8
167.5°	1471.4	1470.3	1469.3	1468.2	1467.1	1466.6	1466.6	1466.6	1466.6	1466.6	1468.2
170°	1484.5	1483.5	1482.4	1481.4	1480.4	1479.8	1479.8	1479.8	1479.8	1479.8	1481.4
172.5°	1493.9	1492.9	1491.8	1490.8	1489.8	1489.1	1489.1	1489.1	1489.1	1489.1	1490.8
175°	1504.4	1503.4	1502.4	1501.3	1500.3	1499.8	1499.8	1499.8	1499.8	1499.8	1501.3
177.5°	1509.8	1509.0	1508.1	1507.3	1506.5	1506.0	1505.8	1505.6	1505.3	1505.1	1506.4
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9



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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°	116.9	122.6	128.2	131.9	133.7	135.4	137.2	139.1
90°	118.2	124.8	131.5	135.9	138.4	140.8	143.2	145.6
92.5°	141.5	148.3	155.3	159.9	162.1	164.2	166.4	168.6
95°	180.9	187.7	194.7	199.2	201.5	203.6	205.7	207.9
97.5°	228.4	235.0	241.7	245.9	247.8	249.7	251.6	253.5
100°	261.2	268.4	275.6	280.2	282.2	284.1	286.0	287.9
102.5°	295.4	302.7	309.9	314.6	316.8	318.9	321.0	323.2
105°	350.6	356.8	363.0	367.4	369.8	372.2	374.7	377.0
107.5°	411.7	417.2	422.5	426.0	427.4	428.7	430.1	431.5
110°	454.0	459.2	464.4	467.8	469.1	470.5	471.8	473.2





TEST NUMBER: P333245-840

CATALOG NUMBER: S125DIP-S850D1205U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	496.3	501.0	505.6	508.5	509.7	510.8	512.0	513.1
115°	561.6	565.5	569.5	572.0	573.1	574.3	575.4	576.5
117.5°	626.5	630.7	634.8	637.2	637.7	638.3	638.8	639.3
120°	670.7	674.6	678.5	680.6	681.1	681.5	681.8	682.2
122.5°	713.4	717.0	720.5	722.6	723.2	723.8	724.3	724.9
125°	776.9	780.1	783.4	785.4	786.3	787.2	788.1	789.0
127.5°	839.6	842.8	846.0	848.0	848.8	849.7	850.5	851.3
130°	881.8	884.8	887.8	889.6	890.3	890.9	891.5	892.2
132.5°	921.6	924.6	927.7	929.3	929.5	929.8	930.0	930.3
135°	982.6	985.6	988.7	990.3	990.4	990.5	990.6	990.7
137.5°	1043.0	1046.0	1049.0	1050.5	1050.1	1049.7	1049.4	1048.9
140°	1080.9	1084.0	1087.0	1088.4	1088.0	1087.6	1087.2	1086.9
142.5°	1118.4	1120.8	1123.4	1124.5	1124.1	1123.7	1123.4	1123.0
145°	1173.5	1174.7	1175.8	1176.5	1176.6	1176.8	1176.9	1177.1
147.5°	1225.3	1226.3	1227.3	1227.1	1225.8	1224.4	1223.0	1221.6
150°	1258.0	1258.0	1258.0	1257.9	1257.6	1257.3	1257.0	1256.7
152.5°	1289.3	1289.9	1290.5	1290.4	1289.5	1288.6	1287.8	1286.9
155°	1334.0	1335.0	1336.2	1336.0	1334.6	1333.3	1332.1	1330.8
157.5°	1372.7	1373.8	1374.8	1374.5	1372.8	1371.1	1369.4	1367.7
160°	1396.2	1397.2	1398.3	1398.2	1396.8	1395.5	1394.2	1393.0
162.5°	1418.3	1419.5	1420.8	1420.6	1419.1	1417.5	1416.0	1414.5
165°	1447.8	1448.9	1450.0	1449.7	1448.1	1446.5	1445.0	1443.4
167.5°	1469.8	1471.4	1472.9	1472.9	1471.3	1469.7	1468.0	1466.4
170°	1482.9	1484.5	1486.0	1485.9	1484.1	1482.3	1480.5	1478.6
172.5°	1492.3	1493.9	1495.4	1495.4	1493.8	1492.2	1490.6	1488.9
175°	1502.9	1504.4	1506.0	1505.9	1504.1	1502.3	1500.4	1498.5
177.5°	1507.6	1508.9	1510.2	1510.1	1508.6	1507.1	1505.7	1504.2
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9

(END OF REPORT)