

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: P333217-840

Luminaire Tested: **S125DIP-S850D590U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333217-840
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-S850D590U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5701.9 lumens
Efficiency: N/A
Efficacy: 141.5 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

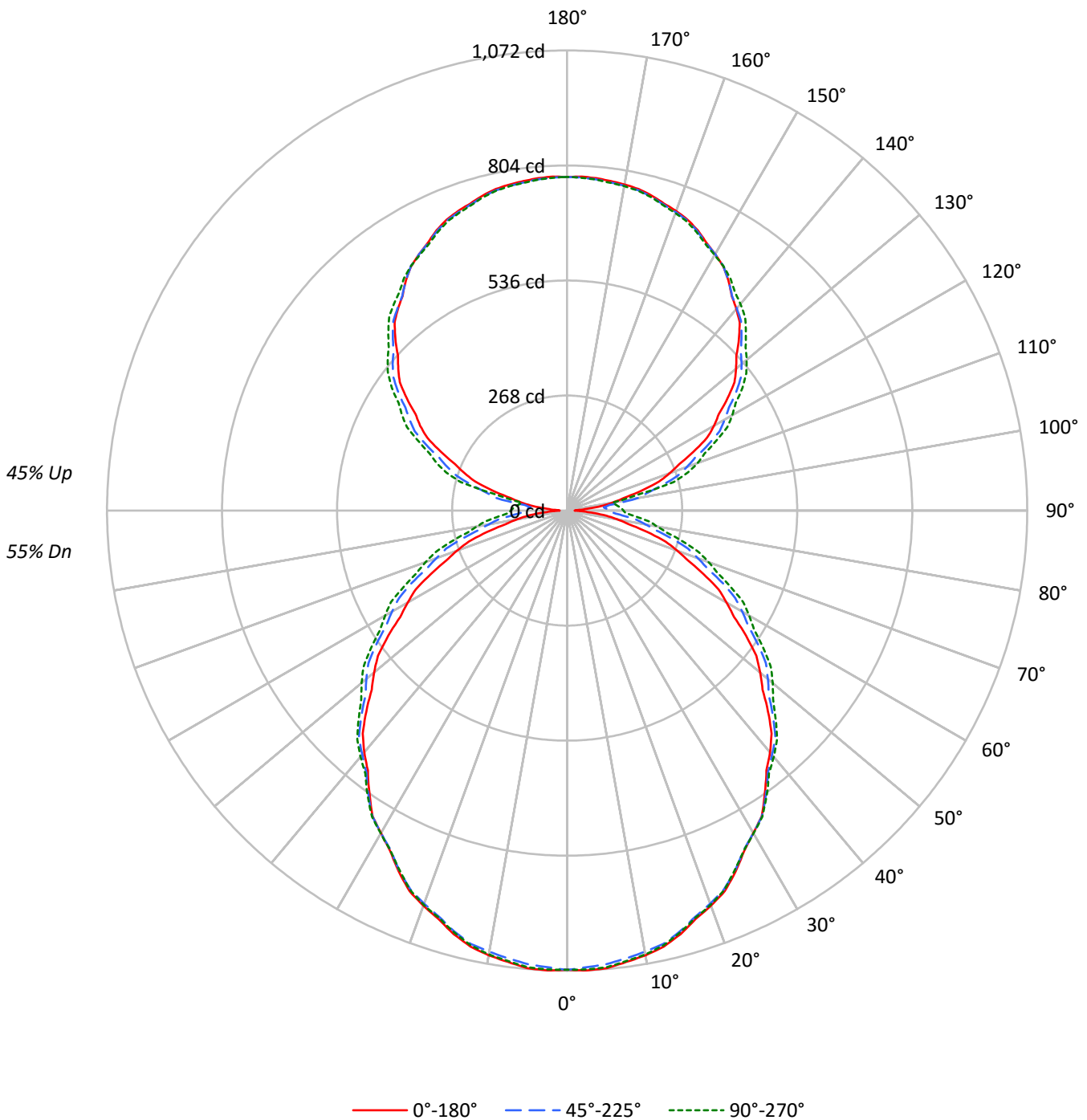
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

Luminous Intensity Polar Plot





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CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

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	73	73	73	60	60	60	55
1	98	93	89	85	91	87	83	80	74	71	69	63	61	59	52	51	49	44
2	89	81	74	69	82	75	70	65	64	60	56	55	51	48	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	34	31
4	74	63	54	48	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	56	47	41	63	52	44	39	45	39	34	38	34	30	32	28	26	22
6	62	50	42	36	58	47	39	34	40	34	30	34	30	26	29	25	22	20
7	58	45	37	31	53	42	35	29	37	31	26	31	27	23	26	23	20	17
8	54	41	33	27	50	38	31	26	33	27	23	29	24	20	24	21	18	15
9	50	37	30	24	46	35	28	23	31	25	21	26	22	18	22	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	24	20	17	21	17	15	13

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



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.8
10°-20°	287.2	5.0
20°-30°	427.1	7.5
30°-40°	505.9	8.9
40°-50°	523.0	9.2
50°-60°	481.8	8.4
60°-70°	389.5	6.8
70°-80°	260.8	4.6
80°-90°	136.9	2.4
90°-100°	104.1	1.8
100°-110°	230.0	4.0
110°-120°	353.2	6.2
120°-130°	426.5	7.5
130°-140°	445.1	7.8
140°-150°	410.9	7.2
150°-160°	330.9	5.8
160°-170°	214.0	3.8
170°-180°	73.8	1.3
0°-30°	815.4	14.3
0°-40°	1321.2	23.2
0°-60°	2326.0	40.8
0°-90°	3113.2	54.6
90°-120°	687.4	12.1
90°-150°	1969.9	34.5
90°-180°	2589.0	45.4
0°-180°	5701.9	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°	17	56	95	121	131	13
95°	46	71	86	111	119	53
105°	179	199	229	250	257	190
115°	324	336	362	378	382	321
125°	456	460	480	494	498	407
135°	566	569	575	587	589	436
145°	655	655	655	661	662	409
155°	720	717	718	719	715	332
165°	760	757	757	760	756	215
175°	777	774	774	778	774	74
180°	777	777	777	777	777	



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

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°	32.8	40.5	48.2	55.8	63.5	71.4	79.5	87.6	95.6	103.8	109.3
90°	17.4	25.9	34.3	42.8	51.3	60.0	68.8	77.6	86.4	95.2	101.2
92.5°	23.9	30.2	36.4	42.5	48.7	56.2	65.1	74.0	82.9	91.9	97.7
95°	46.5	52.1	57.9	63.5	69.2	73.5	76.6	79.7	82.7	85.7	91.6
97.5°	80.9	87.1	93.2	99.4	105.5	107.7	105.6	103.6	101.7	99.7	101.0
100°	107.8	113.0	118.4	123.6	128.9	135.5	143.5	151.5	159.4	167.3	173.2
102.5°	135.0	140.1	145.0	150.1	155.1	161.4	169.0	176.5	184.1	191.7	192.8
105°	178.8	183.1	187.3	191.6	195.8	201.4	208.4	215.4	222.4	229.3	234.1
107.5°	224.4	227.5	230.7	233.9	237.0	242.1	249.0	256.0	263.0	269.9	274.6
110°	254.0	256.7	259.5	262.4	265.1	269.9	276.7	283.5	290.2	297.0	301.0



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	282.6	285.1	287.6	290.1	292.7	297.2	303.7	310.2	316.7	323.2	327.0
115°	324.4	326.6	328.9	331.1	333.5	337.7	343.9	350.0	356.2	362.4	366.1
117.5°	367.7	368.7	369.7	370.8	371.8	375.5	381.7	387.9	394.2	400.3	403.6
120°	395.3	395.9	396.5	397.0	397.6	400.7	406.5	412.2	418.0	423.7	427.5
122.5°	418.9	419.7	420.5	421.3	422.1	425.3	430.6	436.0	441.3	446.7	450.2
125°	456.5	457.2	457.8	458.5	459.2	461.8	466.5	471.1	475.7	480.5	483.6
127.5°	491.5	491.9	492.3	492.7	493.1	495.2	499.0	502.7	506.4	510.2	513.3
130°	513.6	514.0	514.4	514.8	515.2	517.2	520.6	523.9	527.4	530.7	533.6
132.5°	534.9	535.6	536.3	537.0	537.7	539.2	541.4	543.6	545.8	548.2	551.3
135°	566.1	566.7	567.2	567.7	568.4	569.3	570.7	572.0	573.4	574.7	577.5
137.5°	594.9	595.3	595.8	596.3	596.8	597.3	597.8	598.4	599.1	599.6	602.4
140°	613.0	613.2	613.5	613.7	614.0	614.1	614.2	614.4	614.5	614.6	617.4
142.5°	630.0	630.0	630.0	629.9	629.9	630.0	630.2	630.5	630.7	630.9	633.1
145°	655.0	655.0	655.0	655.1	655.1	655.1	655.1	655.1	655.1	655.1	656.4
147.5°	675.8	675.8	675.7	675.7	675.6	675.7	675.8	676.0	676.1	676.3	676.8
150°	689.6	689.4	689.1	688.9	688.6	688.6	688.9	689.1	689.4	689.6	689.9
152.5°	703.1	702.5	702.0	701.4	700.7	700.6	700.8	701.1	701.4	701.7	702.0
155°	720.2	719.4	718.7	717.9	717.1	716.9	717.1	717.4	717.6	717.9	718.3
157.5°	733.5	733.0	732.6	732.1	731.6	731.4	731.4	731.4	731.4	731.5	732.0
160°	742.7	741.9	741.1	740.3	739.6	739.3	739.4	739.5	739.6	739.8	740.3
162.5°	750.0	749.3	748.5	747.7	747.0	746.7	746.8	746.9	747.0	747.2	747.9
165°	759.9	759.2	758.4	757.7	756.9	756.6	756.7	756.8	757.0	757.1	757.8
167.5°	767.3	766.6	765.8	765.0	764.2	763.9	764.0	764.1	764.2	764.4	765.3
170°	771.5	770.6	769.7	768.8	767.9	767.5	767.6	767.8	767.9	768.0	769.0
172.5°	774.3	773.4	772.4	771.5	770.6	770.3	770.5	770.8	771.0	771.2	772.1
175°	777.3	776.5	775.7	775.0	774.2	773.9	774.0	774.2	774.3	774.4	775.4
177.5°	778.6	778.0	777.4	776.8	776.2	775.9	776.0	776.1	776.2	776.3	777.1
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

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°	114.7	120.3	125.7	129.4	131.1	132.8	134.5	136.1
90°	107.2	113.2	119.3	123.2	125.2	127.2	129.3	131.3
92.5°	103.5	109.3	115.1	119.0	120.8	122.6	124.4	126.1
95°	97.4	103.1	108.9	112.6	114.2	115.8	117.4	119.1
97.5°	102.2	103.5	104.8	106.2	107.9	109.4	111.0	112.6
100°	139.1	124.8	110.7	104.0	104.9	105.7	106.6	107.6
102.5°	193.9	195.0	196.1	193.0	185.6	178.3	171.1	163.7
105°	238.7	243.4	248.0	251.2	252.6	254.1	255.6	257.1
107.5°	279.2	283.9	288.5	291.3	292.5	293.5	294.6	295.6
110°	305.2	309.2	313.3	316.1	317.9	319.6	321.4	323.2



TEST NUMBER: P333217-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	330.7	334.5	338.2	340.8	342.2	343.8	345.2	346.6
115°	369.8	373.4	377.2	379.3	379.9	380.5	381.2	381.8
117.5°	407.0	410.2	413.5	415.8	417.1	418.3	419.6	420.8
120°	431.1	434.8	438.6	440.8	441.5	442.3	443.0	443.8
122.5°	453.7	457.2	460.7	462.8	463.4	464.1	464.7	465.4
125°	486.9	490.1	493.3	495.3	496.0	496.9	497.7	498.5
127.5°	516.5	519.7	522.9	524.6	525.0	525.4	525.8	526.2
130°	536.4	539.4	542.2	543.9	544.4	545.0	545.5	546.0
132.5°	554.5	557.6	560.9	562.6	563.0	563.3	563.6	564.0
135°	580.3	583.1	585.8	587.4	587.8	588.2	588.7	589.1
137.5°	605.2	607.9	610.8	612.3	612.6	612.9	613.1	613.4
140°	620.2	623.0	625.8	627.3	627.5	627.6	627.8	628.0
142.5°	635.3	637.6	639.9	641.1	641.2	641.4	641.6	641.7
145°	657.7	658.9	660.2	661.0	661.2	661.4	661.5	661.7
147.5°	677.3	677.9	678.4	678.4	677.9	677.4	676.9	676.4
150°	690.1	690.4	690.6	690.4	689.6	688.8	688.0	687.2
152.5°	702.2	702.5	702.7	702.4	701.5	700.6	699.7	698.8
155°	718.7	719.0	719.4	719.1	718.1	717.1	716.1	715.0
157.5°	732.4	732.8	733.2	732.9	731.8	730.7	729.7	728.7
160°	740.8	741.3	741.8	741.5	740.5	739.5	738.5	737.5
162.5°	748.6	749.3	750.0	749.8	748.7	747.6	746.5	745.3
165°	758.6	759.4	760.1	760.0	759.0	758.0	757.0	755.9
167.5°	766.2	767.1	768.0	767.9	766.8	765.6	764.5	763.3
170°	770.1	771.1	772.1	772.0	770.9	769.7	768.6	767.5
172.5°	773.1	774.1	775.0	774.9	773.7	772.5	771.3	770.2
175°	776.4	777.4	778.5	778.4	777.3	776.1	775.0	773.8
177.5°	777.8	778.5	779.2	779.1	778.3	777.5	776.7	775.9
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3

(END OF REPORT)