

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: P333209-840

Luminaire Tested: **S125DIP-S850D365U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333209-840  
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-S850D365U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4594.3 lumens  
Efficiency: N/A  
Efficacy: 131.3 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: Semi-Direct

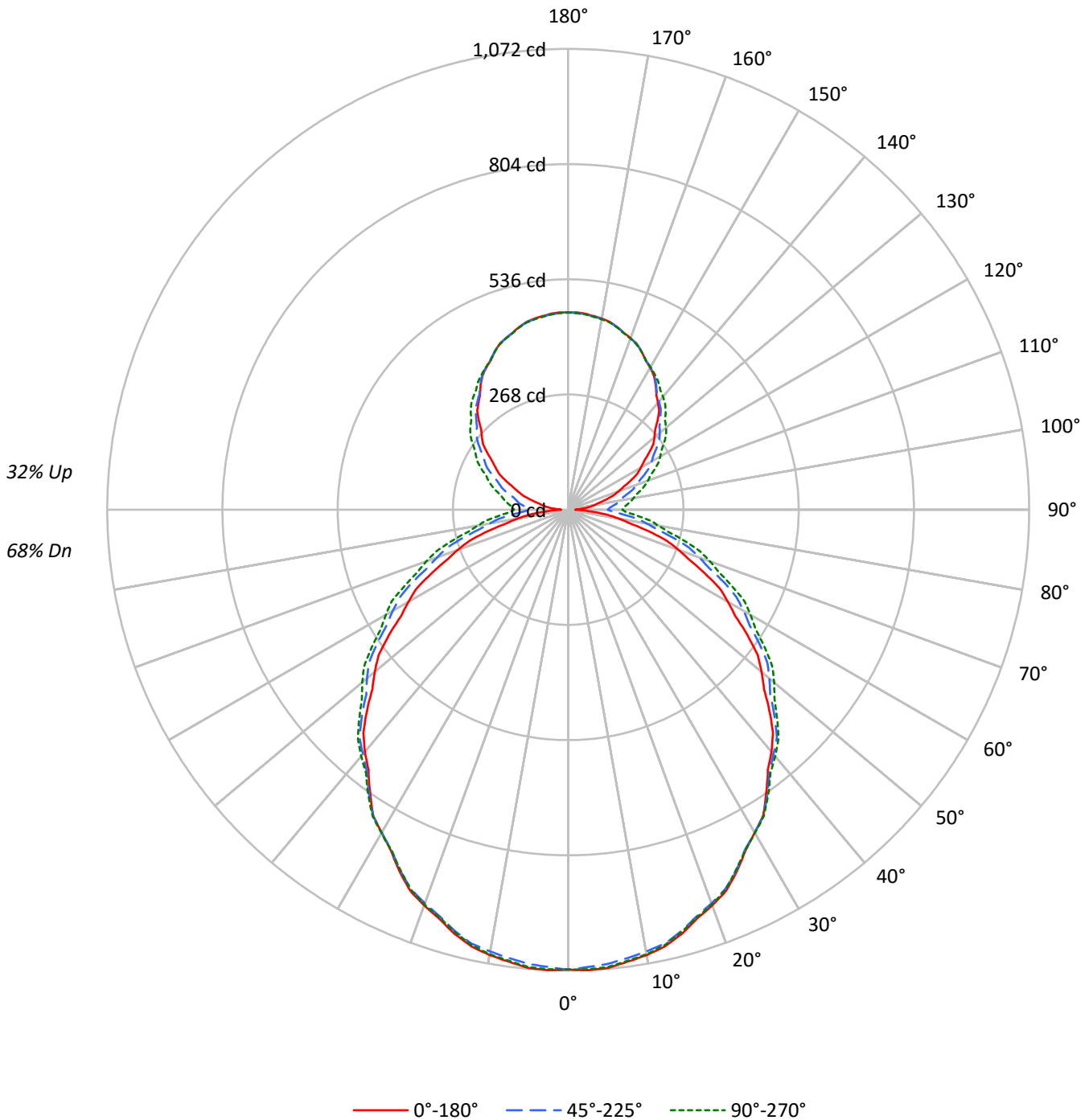
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	68
1	101	96	91	88	95	90	87	83	80	77	75	71	69	67	62	61	59	55
2	91	83	76	71	86	79	73	67	70	65	61	62	58	55	54	52	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	48	44	41	38
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	43	39	35	32
5	70	57	49	42	65	54	46	41	49	42	37	43	38	34	38	34	31	28
6	64	51	43	37	60	49	41	35	44	37	32	39	34	30	35	30	27	24
7	59	46	38	32	56	44	36	31	40	33	29	36	30	26	32	27	24	21
8	55	42	34	28	52	40	33	27	36	30	25	33	27	23	29	25	21	19
9	51	39	31	25	48	37	30	25	33	27	23	30	25	21	27	22	19	17
10	48	35	28	23	45	34	27	22	31	25	21	28	23	19	25	21	18	16

**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: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	2.2
10°-20°	287.2	6.3
20°-30°	427.1	9.3
30°-40°	505.9	11.0
40°-50°	523.0	11.4
50°-60°	481.8	10.5
60°-70°	389.5	8.5
70°-80°	260.8	5.7
80°-90°	136.3	3.0
90°-100°	106.6	2.3
100°-110°	146.7	3.2
110°-120°	191.2	4.2
120°-130°	223.5	4.9
130°-140°	235.9	5.1
140°-150°	224.0	4.9
150°-160°	186.5	4.1
160°-170°	124.0	2.7
170°-180°	43.4	0.9
0°-30°	815.4	17.7
0°-40°	1321.2	28.8
0°-60°	2326.0	50.6
0°-90°	3112.6	67.7
90°-120°	444.4	9.7
90°-150°	1127.8	24.5
90°-180°	1482.0	32.3
0°-180°	4594.3	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°	17	54	92	117	126	12
95°	37	65	104	129	138	35
105°	91	110	143	165	174	97
115°	160	170	197	215	221	158
125°	229	231	251	267	272	205
135°	294	296	303	316	320	227
145°	355	355	356	361	365	221
155°	405	405	405	406	405	186
165°	440	439	440	441	439	124
175°	458	456	456	458	456	43
180°	459	459	459	459	459	



TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**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	40.4	48.0	55.5	63.1	71.0	79.0	87.1	95.0	103.1	108.6
90°	17.2	25.2	33.3	41.4	49.5	57.8	66.2	74.7	83.2	91.7	97.5
92.5°	23.7	31.1	38.5	45.7	53.1	61.2	70.0	78.8	87.6	96.3	102.1
95°	36.9	43.0	49.3	55.4	61.7	69.2	77.9	86.6	95.3	104.0	109.8
97.5°	50.9	56.5	62.0	67.5	73.0	80.1	88.9	97.6	106.3	115.1	120.5
100°	61.5	66.4	71.3	76.1	81.1	87.8	96.2	104.7	113.2	121.7	127.3
102.5°	72.9	77.8	82.6	87.5	92.3	98.7	106.4	114.2	122.0	129.8	135.3
105°	90.8	94.9	99.1	103.2	107.3	113.1	120.6	128.1	135.5	143.0	148.1
107.5°	110.7	114.2	117.9	121.4	124.9	130.3	137.3	144.4	151.5	158.5	163.4
110°	124.4	127.6	130.8	134.0	137.1	142.2	149.0	155.7	162.5	169.3	173.9



TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	139.3	141.7	144.1	146.6	149.1	153.6	160.3	166.8	173.5	180.2	184.5
115°	160.2	162.1	164.0	166.0	167.9	172.0	178.2	184.4	190.7	196.9	201.0
117.5°	181.1	182.3	183.5	184.7	185.9	189.5	195.3	201.3	207.1	213.0	217.0
120°	194.8	195.9	196.9	198.0	199.1	202.4	207.8	213.3	218.7	224.2	228.1
122.5°	208.7	209.2	209.7	210.2	210.7	213.6	218.9	224.4	229.7	235.1	238.8
125°	228.7	228.9	229.2	229.4	229.6	232.2	236.9	241.7	246.4	251.2	254.7
127.5°	249.0	249.1	249.1	249.1	249.2	251.2	255.1	259.0	263.0	266.9	270.2
130°	262.0	262.1	262.3	262.4	262.6	264.4	267.8	271.2	274.6	278.0	281.2
132.5°	274.0	274.6	275.1	275.7	276.3	277.9	280.3	282.9	285.4	287.8	291.0
135°	294.1	294.3	294.6	294.8	295.1	296.0	297.7	299.4	301.1	302.9	305.9
137.5°	313.0	313.3	313.6	313.8	314.1	314.7	315.7	316.6	317.6	318.6	321.4
140°	324.5	324.8	325.2	325.6	326.0	326.5	326.9	327.4	327.9	328.3	331.0
142.5°	336.7	336.9	337.0	337.2	337.3	337.5	337.9	338.2	338.6	338.9	341.2
145°	354.8	354.9	355.0	355.0	355.1	355.3	355.5	355.8	356.0	356.2	357.4
147.5°	370.4	370.6	370.7	370.9	371.1	371.3	371.5	371.7	371.8	372.0	372.6
150°	381.5	381.5	381.4	381.3	381.2	381.3	381.6	382.0	382.3	382.6	382.6
152.5°	390.7	390.8	390.9	391.0	391.1	391.2	391.4	391.5	391.6	391.7	391.9
155°	404.8	404.8	404.8	404.8	404.8	404.8	404.9	405.0	405.1	405.2	405.5
157.5°	417.3	417.2	417.0	416.8	416.7	416.6	416.7	416.8	416.8	416.9	417.2
160°	424.7	424.5	424.2	424.0	423.8	423.7	423.8	423.8	423.9	424.0	424.3
162.5°	431.3	431.1	431.0	430.8	430.6	430.5	430.5	430.6	430.6	430.6	431.0
165°	440.1	439.9	439.8	439.6	439.5	439.4	439.5	439.6	439.7	439.7	440.1
167.5°	447.5	447.2	446.9	446.6	446.3	446.1	446.1	446.1	446.1	446.1	446.6
170°	451.5	451.2	450.9	450.6	450.2	450.1	450.1	450.1	450.1	450.1	450.6
172.5°	454.3	454.0	453.7	453.4	453.1	452.9	452.9	452.9	452.9	452.9	453.4
175°	457.6	457.3	457.0	456.7	456.4	456.2	456.2	456.2	456.2	456.2	456.7
177.5°	459.2	459.0	458.7	458.5	458.2	458.1	458.0	458.0	457.9	457.8	458.2
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7



TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**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°	114.0	119.4	124.8	128.5	130.1	131.8	133.4	135.1
90°	103.2	109.0	114.7	118.6	120.4	122.3	124.2	126.0
92.5°	107.8	113.4	119.2	122.9	124.7	126.5	128.4	130.1
95°	115.4	121.1	126.7	130.5	132.3	134.1	135.9	137.6
97.5°	125.9	131.3	136.7	140.3	142.0	143.7	145.3	147.0
100°	133.0	138.6	144.2	147.7	149.3	150.9	152.4	154.0
102.5°	140.8	146.2	151.8	155.3	156.9	158.5	160.2	161.8
105°	153.3	158.4	163.5	167.0	169.0	170.8	172.7	174.5
107.5°	168.2	173.2	178.0	181.2	182.6	184.0	185.4	186.8
110°	178.5	183.2	187.9	191.0	192.6	194.1	195.6	197.2





TEST NUMBER: P333209-840

CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	188.8	193.2	197.5	200.5	202.0	203.5	204.9	206.4
115°	205.1	209.2	213.4	216.1	217.4	218.7	220.0	221.4
117.5°	221.1	225.1	229.0	231.8	233.0	234.3	235.5	236.8
120°	232.1	236.1	240.0	242.6	243.7	244.7	245.8	246.9
122.5°	242.6	246.2	249.9	252.4	253.5	254.7	255.8	257.0
125°	258.2	261.9	265.4	267.7	268.8	269.9	270.9	272.1
127.5°	273.6	277.0	280.3	282.7	283.8	285.0	286.2	287.4
130°	284.4	287.6	290.7	292.9	293.9	294.9	295.9	296.9
132.5°	294.2	297.4	300.5	302.6	303.3	304.1	304.8	305.6
135°	308.9	311.9	315.0	316.9	317.8	318.6	319.4	320.3
137.5°	324.3	327.1	329.9	331.6	332.1	332.8	333.3	333.8
140°	333.8	336.5	339.2	340.8	341.3	341.9	342.4	343.0
142.5°	343.5	345.8	348.1	349.5	350.0	350.5	351.1	351.6
145°	358.5	359.7	360.9	361.8	362.5	363.1	363.9	364.6
147.5°	373.1	373.8	374.4	374.6	374.5	374.3	374.2	374.1
150°	382.6	382.6	382.6	382.6	382.7	382.8	382.8	382.9
152.5°	392.1	392.3	392.5	392.5	392.2	392.0	391.8	391.5
155°	405.8	406.1	406.4	406.4	406.0	405.6	405.2	404.8
157.5°	417.5	417.9	418.2	418.1	417.6	417.0	416.5	416.0
160°	424.6	425.0	425.3	425.3	424.9	424.4	424.0	423.6
162.5°	431.3	431.7	432.1	432.1	431.6	431.1	430.7	430.2
165°	440.4	440.7	441.0	440.9	440.4	440.0	439.5	439.0
167.5°	447.1	447.5	448.0	448.0	447.5	447.0	446.5	446.1
170°	451.0	451.5	452.0	451.9	451.4	450.8	450.3	449.7
172.5°	453.9	454.3	454.8	454.8	454.3	453.8	453.3	452.8
175°	457.1	457.6	458.1	458.0	457.5	456.9	456.4	455.8
177.5°	458.6	459.0	459.3	459.3	458.9	458.4	458.0	457.5
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7

(END OF REPORT)