

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: P333208-840

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333208-840
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-S850D365U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4793.2 lumens
Efficiency: N/A
Efficacy: 136.9 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

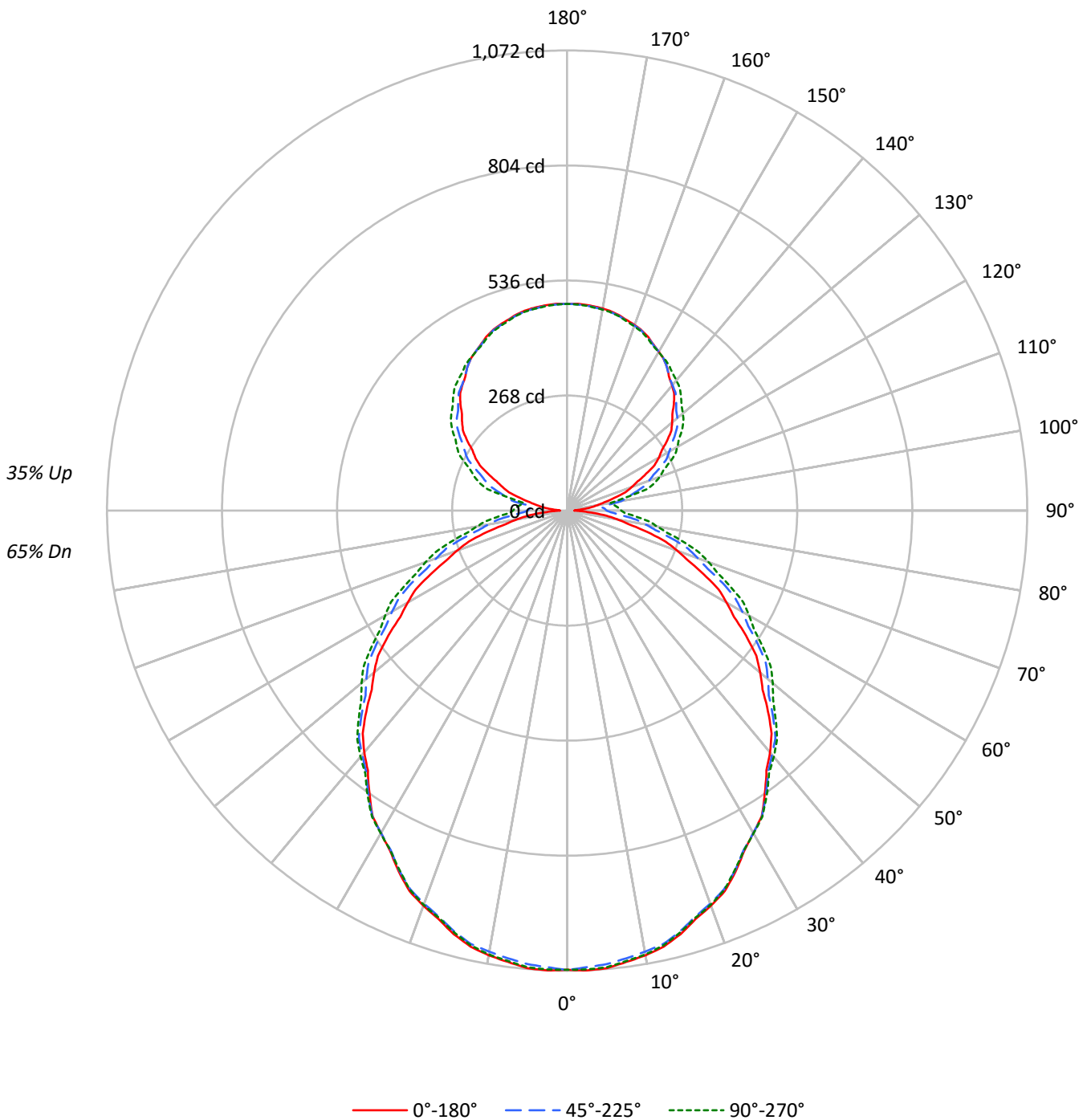
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333208-840

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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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	100	95	91	87	94	90	86	82	79	76	73	69	67	65	60	59	57	53
2	91	83	76	70	85	78	72	67	69	64	60	60	57	54	52	50	47	43
3	83	72	65	58	77	68	61	55	60	55	50	53	49	45	46	43	40	36
4	76	64	56	49	71	60	53	47	53	47	42	47	42	38	41	37	34	31
5	69	57	48	42	65	54	46	40	48	41	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	33	29	26	23
7	59	46	38	32	55	44	36	31	39	33	28	35	29	26	31	26	23	21
8	55	42	34	28	51	40	32	27	36	29	25	32	27	23	28	24	21	18
9	51	38	31	25	48	36	29	24	33	27	22	29	24	20	26	22	19	16
10	48	35	28	23	45	33	27	22	30	24	20	27	22	19	24	20	17	15

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	2.1
10°-20°	287.2	6.0
20°-30°	427.1	8.9
30°-40°	505.9	10.6
40°-50°	523.0	10.9
50°-60°	481.8	10.1
60°-70°	389.5	8.1
70°-80°	260.8	5.4
80°-90°	136.3	2.8
90°-100°	93.4	1.9
100°-110°	163.8	3.4
110°-120°	233.1	4.9
120°-130°	272.3	5.7
130°-140°	279.3	5.8
140°-150°	255.3	5.3
150°-160°	205.0	4.3
160°-170°	132.6	2.8
170°-180°	45.7	1.0
0°-30°	815.4	17.0
0°-40°	1321.2	27.6
0°-60°	2326.0	48.5
0°-90°	3112.6	64.9
90°-120°	490.3	10.2
90°-150°	1297.3	27.1
90°-180°	1681.0	35.1
0°-180°	4793.2	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°	34	60	82	106	114	37
105°	114	133	164	184	192	121
115°	203	214	240	257	262	202
125°	284	287	307	322	326	254
135°	352	353	359	372	375	271
145°	406	406	406	411	414	254
155°	446	444	445	446	443	206
165°	471	469	469	471	468	133
175°	482	480	480	482	479	46
180°	482	482	482	482	482	



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CATALOG NUMBER: S125DIP-S850D365U840-4F0-1E-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	40.4	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°	20.6	27.1	33.5	40.0	46.5	53.9	62.5	71.2	79.8	88.4	93.9
95°	33.9	39.8	45.6	51.4	57.3	62.6	67.6	72.4	77.4	82.3	87.8
97.5°	54.8	60.7	66.7	72.5	78.4	82.2	83.8	85.5	87.3	88.9	91.5
100°	71.2	76.2	81.4	86.5	91.7	98.2	105.9	113.7	121.5	129.3	122.3
102.5°	87.8	92.6	97.4	102.2	107.0	113.2	120.6	128.1	135.5	143.0	145.5
105°	114.4	118.5	122.5	126.5	130.6	136.1	143.1	150.1	157.0	164.1	168.7
107.5°	142.1	145.3	148.5	151.6	154.8	159.9	166.7	173.6	180.5	187.3	192.0
110°	160.2	162.9	165.7	168.5	171.3	176.0	182.8	189.5	196.1	202.8	207.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	177.8	180.3	182.7	185.1	187.5	192.0	198.4	204.8	211.3	217.7	221.7
115°	203.4	205.4	207.4	209.4	211.5	215.5	221.7	227.8	234.0	240.0	244.0
117.5°	229.7	230.9	231.9	233.0	234.0	237.5	243.6	249.6	255.7	261.7	265.2
120°	246.9	247.5	248.1	248.7	249.4	252.5	258.1	263.7	269.3	274.9	278.7
122.5°	261.3	261.9	262.5	263.1	263.7	266.7	272.0	277.2	282.6	287.8	291.4
125°	284.4	284.8	285.1	285.4	285.7	288.2	292.9	297.5	302.2	306.8	310.2
127.5°	305.7	305.9	306.1	306.2	306.4	308.3	312.1	315.9	319.6	323.5	326.7
130°	319.4	319.6	319.7	319.9	320.0	321.8	325.2	328.5	331.8	335.2	338.2
132.5°	332.2	332.8	333.2	333.6	334.0	335.3	337.7	340.0	342.3	344.7	347.9
135°	351.5	351.8	352.0	352.3	352.5	353.4	354.9	356.4	357.8	359.3	362.1
137.5°	369.3	369.5	369.7	369.9	370.2	370.6	371.2	371.9	372.5	373.2	376.0
140°	380.1	380.3	380.5	380.6	380.8	380.9	381.1	381.2	381.4	381.5	384.3
142.5°	390.7	390.6	390.5	390.4	390.3	390.4	390.5	390.7	390.8	391.0	393.2
145°	406.2	406.2	406.1	406.0	405.9	405.9	405.9	405.9	405.9	405.9	407.1
147.5°	418.7	418.7	418.7	418.6	418.6	418.6	418.7	418.8	418.9	419.0	419.5
150°	427.3	427.2	427.0	426.8	426.7	426.7	426.8	427.0	427.2	427.3	427.5
152.5°	435.6	435.3	434.8	434.5	434.1	434.0	434.2	434.4	434.5	434.7	434.8
155°	446.3	445.8	445.2	444.7	444.3	444.1	444.3	444.4	444.6	444.7	445.0
157.5°	454.4	454.1	453.8	453.5	453.3	453.1	453.1	453.2	453.2	453.2	453.4
160°	460.1	459.7	459.2	458.7	458.3	458.1	458.1	458.2	458.3	458.4	458.7
162.5°	464.7	464.2	463.7	463.2	462.8	462.6	462.7	462.7	462.8	462.9	463.3
165°	470.8	470.4	469.9	469.4	469.0	468.8	468.8	468.9	469.0	469.1	469.5
167.5°	475.4	474.9	474.4	473.9	473.4	473.2	473.3	473.4	473.5	473.5	474.1
170°	478.0	477.5	476.9	476.4	475.7	475.5	475.6	475.6	475.7	475.8	476.5
172.5°	479.7	479.2	478.6	478.1	477.5	477.3	477.4	477.6	477.7	477.9	478.4
175°	481.5	481.1	480.6	480.1	479.7	479.5	479.5	479.6	479.7	479.8	480.4
177.5°	482.4	482.0	481.6	481.3	480.9	480.7	480.8	480.9	480.9	481.0	481.4
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5



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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°	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°	99.5	105.0	110.7	114.3	116.0	117.8	119.6	121.3
95°	93.3	98.9	104.4	108.0	109.6	111.2	112.8	114.5
97.5°	94.2	96.8	99.5	101.6	103.2	104.8	106.3	108.0
100°	115.4	108.5	101.5	98.6	99.7	100.8	101.9	102.9
102.5°	147.9	150.5	152.9	152.1	148.1	144.1	140.2	136.1
105°	173.4	178.0	182.7	185.8	187.3	188.9	190.5	192.0
107.5°	196.5	201.2	205.8	208.7	210.0	211.2	212.4	213.6
110°	211.2	215.4	219.5	222.5	224.2	225.9	227.6	229.3



TEST NUMBER: P333208-840

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	225.6	229.5	233.5	236.2	237.7	239.2	240.8	242.3
115°	247.8	251.8	255.6	258.0	258.9	259.8	260.7	261.7
117.5°	268.8	272.4	275.9	278.3	279.7	281.1	282.5	283.9
120°	282.5	286.3	290.1	292.6	293.5	294.5	295.5	296.5
122.5°	295.1	298.7	302.3	304.6	305.5	306.4	307.4	308.3
125°	313.7	317.1	320.5	322.7	323.6	324.5	325.5	326.4
127.5°	330.0	333.3	336.5	338.5	339.3	340.1	340.8	341.6
130°	341.2	344.3	347.3	349.2	349.9	350.7	351.5	352.2
132.5°	351.1	354.4	357.6	359.4	360.0	360.6	361.2	361.7
135°	365.1	367.9	370.8	372.5	373.2	374.0	374.7	375.3
137.5°	378.8	381.5	384.4	386.0	386.5	387.1	387.6	388.1
140°	387.0	389.7	392.4	394.0	394.5	395.0	395.4	395.9
142.5°	395.5	397.7	399.9	401.2	401.7	402.1	402.6	403.0
145°	408.4	409.6	410.8	411.7	412.1	412.6	413.0	413.5
147.5°	419.9	420.4	420.9	421.0	420.9	420.7	420.6	420.4
150°	427.6	427.8	427.9	427.8	427.4	427.0	426.6	426.2
152.5°	435.0	435.2	435.4	435.2	434.6	434.1	433.6	433.0
155°	445.2	445.5	445.8	445.6	444.9	444.2	443.6	443.0
157.5°	453.7	453.9	454.2	454.0	453.4	452.7	452.1	451.5
160°	459.0	459.3	459.6	459.5	458.8	458.2	457.6	457.0
162.5°	463.8	464.2	464.7	464.5	463.8	463.1	462.5	461.8
165°	470.0	470.5	471.0	470.9	470.3	469.6	469.0	468.4
167.5°	474.7	475.2	475.8	475.7	475.0	474.3	473.6	472.9
170°	477.1	477.8	478.4	478.4	477.7	477.0	476.2	475.4
172.5°	479.0	479.6	480.1	480.1	479.4	478.6	477.9	477.2
175°	481.0	481.7	482.3	482.3	481.5	480.8	480.1	479.4
177.5°	481.9	482.3	482.7	482.7	482.2	481.7	481.2	480.7
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5

(END OF REPORT)