

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: P333228-840

Luminaire Tested: **S125DIP-S850D810U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333228-840
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-S850D810U840-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6252.7 lumens
Efficiency: N/A
Efficacy: 136.2 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

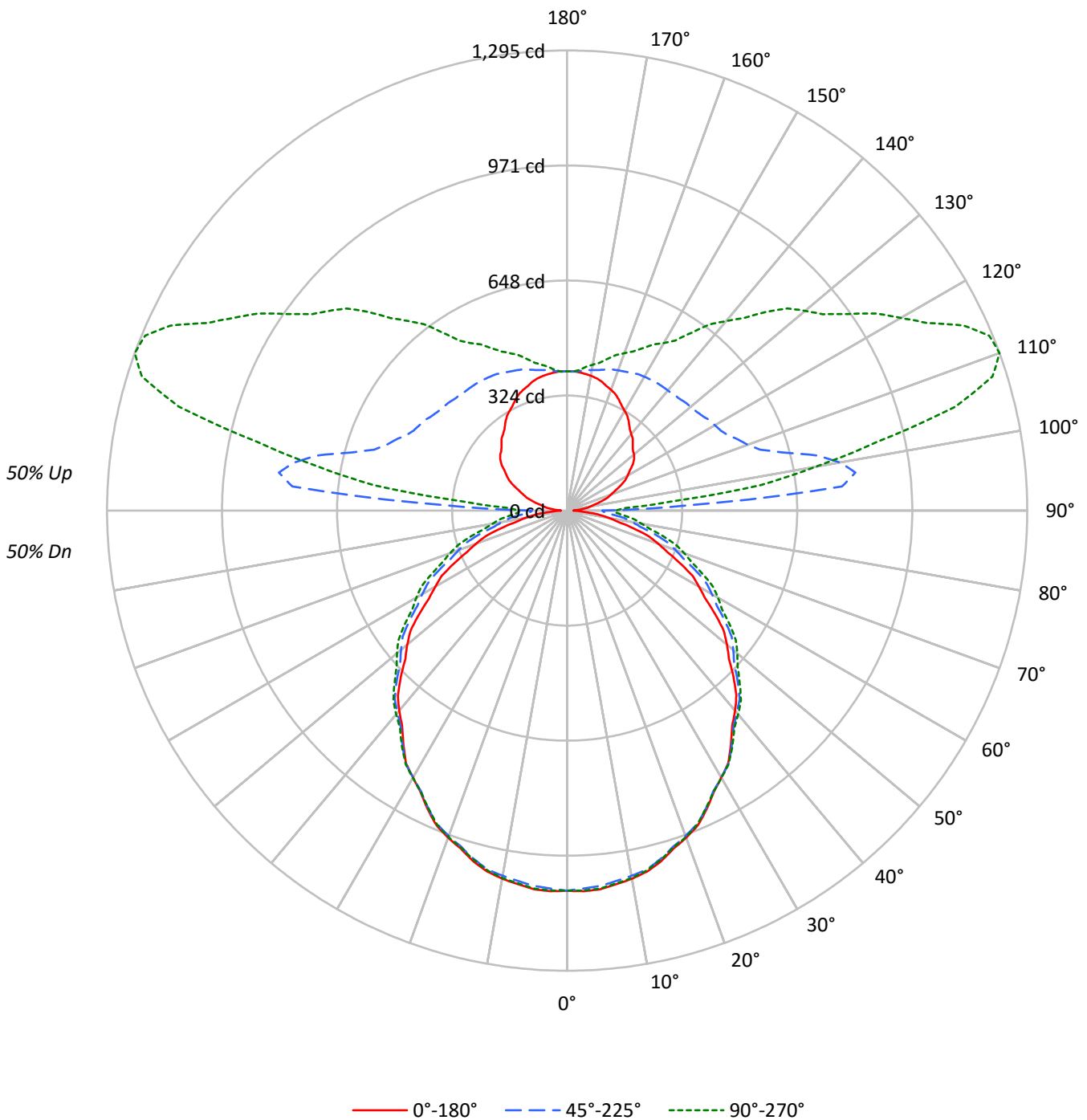
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	92	88	84	89	85	82	78	72	69	67	60	58	56	48	47	46	40
2	88	80	74	68	81	74	68	64	63	58	55	52	49	46	42	40	38	33
3	80	70	63	57	73	65	58	53	55	50	46	46	42	39	37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39	41	36	33	33	30	27	24
5	67	55	47	41	62	51	44	38	43	38	33	36	32	28	30	26	24	20
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	45	36	31	52	41	34	29	35	30	25	30	25	22	24	21	18	16
8	53	40	33	27	49	38	30	26	32	27	22	27	23	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	21	17	21	17	15	13
10	46	34	26	22	42	31	25	20	27	22	18	23	19	16	19	16	13	11

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	1.6
10°-20°	287.2	4.6
20°-30°	427.1	6.8
30°-40°	505.9	8.1
40°-50°	523.0	8.4
50°-60°	481.8	7.7
60°-70°	389.5	6.2
70°-80°	260.8	4.2
80°-90°	137.4	2.2
90°-100°	359.8	5.8
100°-110°	666.2	10.7
110°-120°	610.2	9.8
120°-130°	485.4	7.8
130°-140°	381.8	6.1
140°-150°	283.0	4.5
150°-160°	197.9	3.2
160°-170°	116.6	1.9
170°-180°	37.9	0.6
0°-30°	815.4	13.0
0°-40°	1321.2	21.1
0°-60°	2326.0	37.2
0°-90°	3113.8	49.8
90°-120°	1636.2	26.2
90°-150°	2786.4	44.6
90°-180°	3139.0	50.2
0°-180°	6252.7	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	58	99	126	136	13
95°	40	118	776	416	293	38
105°	99	152	630	1205	1132	104
115°	166	207	500	1050	1232	163
125°	225	263	465	828	964	200
135°	261	313	446	682	790	203
145°	303	346	439	552	611	189
155°	344	370	428	484	504	158
165°	376	386	411	436	442	106
175°	391	391	394	399	397	37
180°	392	392	392	392	392	



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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	40.5	48.3	56.0	63.8	71.8	79.9	88.2	96.2	104.5	110.0
90°	17.6	25.9	34.8	43.9	52.9	62.2	70.9	80.4	89.2	98.7	104.8
92.5°	24.7	33.7	47.3	63.9	84.4	114.9	166.2	246.6	333.3	337.2	293.9
95°	39.7	46.6	58.9	73.6	97.0	139.7	232.1	413.6	639.5	776.2	766.3
97.5°	55.6	62.0	71.9	86.0	107.1	139.3	202.9	337.8	573.4	818.4	942.4
100°	66.9	73.3	81.3	94.9	114.8	144.7	197.9	308.0	514.5	780.1	982.4
102.5°	79.3	84.7	91.8	105.6	123.8	152.8	200.9	294.3	469.6	716.8	952.4
105°	98.7	102.4	110.1	121.7	138.0	165.5	207.2	284.6	423.4	630.2	861.4
107.5°	117.6	122.4	129.4	139.0	155.2	180.1	220.5	287.3	401.6	569.7	769.8
110°	131.3	135.7	141.7	151.6	166.2	191.4	230.2	291.2	393.3	540.5	717.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	145.8	149.7	154.4	163.8	177.8	202.1	239.4	297.1	390.2	521.9	676.8
115°	165.8	169.1	173.0	181.8	195.2	218.8	254.1	305.9	387.8	500.5	631.8
117.5°	183.7	187.1	190.8	198.9	213.4	235.9	269.3	316.7	388.3	487.4	602.7
120°	196.3	199.3	203.3	211.1	225.2	247.9	280.9	324.2	390.4	480.2	586.0
122.5°	208.7	210.9	213.7	221.1	236.1	258.6	291.4	332.5	391.6	473.7	571.1
125°	225.3	226.6	230.4	237.2	252.0	274.7	305.5	344.1	394.6	464.7	550.6
127.5°	237.3	239.4	244.3	253.1	268.8	291.1	320.0	355.2	398.9	458.0	531.3
130°	245.6	247.7	253.8	263.8	280.1	302.2	329.9	363.2	402.0	454.2	519.1
132.5°	251.1	254.0	261.6	273.0	290.1	311.9	338.9	369.5	405.1	450.9	508.2
135°	261.1	264.0	273.3	285.7	302.1	324.1	350.1	377.8	408.7	445.9	493.8
137.5°	273.9	276.0	284.7	297.1	313.2	335.5	358.5	384.3	412.8	443.0	481.8
140°	280.5	283.0	292.5	305.1	320.0	341.5	364.7	388.5	414.0	441.1	475.2
142.5°	289.4	290.9	299.6	312.0	326.3	346.3	367.9	390.4	414.4	440.1	470.1
145°	302.7	304.1	311.6	322.6	336.5	354.6	375.1	394.8	416.2	439.0	463.8
147.5°	315.5	316.5	323.3	333.6	345.9	361.8	379.8	397.7	416.9	437.0	458.2
150°	323.8	325.3	330.8	341.1	352.1	365.6	382.9	399.5	416.9	435.0	454.0
152.5°	332.5	333.6	338.4	347.4	357.9	370.0	386.1	400.8	416.3	432.5	449.6
155°	344.3	344.3	349.0	356.9	364.8	375.9	389.3	401.9	414.5	428.0	442.2
157.5°	354.7	354.6	358.3	365.1	372.0	380.4	391.9	402.7	412.5	423.2	435.3
160°	361.6	360.8	364.1	369.5	375.9	382.9	393.2	402.7	410.6	420.1	429.6
162.5°	367.3	366.6	369.7	374.6	379.6	385.5	394.5	402.0	408.7	416.3	424.4
165°	375.9	374.3	376.7	380.6	383.7	388.5	394.8	401.1	405.9	410.6	416.9
167.5°	381.5	380.7	382.1	384.4	386.6	389.6	394.8	399.2	401.4	405.1	409.5
170°	385.4	384.6	385.4	386.9	388.5	390.8	394.8	398.0	399.5	401.9	405.1
172.5°	387.9	386.5	387.2	388.8	389.7	390.8	394.2	396.7	397.0	398.1	400.6
175°	390.8	389.3	390.1	390.8	390.8	390.8	393.2	394.8	394.0	394.0	394.8
177.5°	392.2	391.0	391.0	391.6	391.0	391.0	392.2	392.9	391.6	391.6	392.2
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6



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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°	115.5	121.0	126.5	130.4	132.0	133.6	135.4	137.0
90°	111.0	117.0	123.2	128.4	130.0	131.6	134.0	135.6
92.5°	232.9	199.8	179.8	171.5	163.0	162.8	163.3	163.6
95°	654.6	539.7	447.7	384.8	330.3	308.2	303.6	292.6
97.5°	926.7	847.4	757.6	668.6	621.5	578.9	557.4	549.0
100°	1048.1	1014.3	937.9	858.9	805.9	750.4	722.6	711.3
102.5°	1086.7	1115.3	1081.0	1028.4	971.6	932.5	902.2	894.1
105°	1055.6	1168.4	1207.8	1202.3	1178.6	1154.3	1140.0	1132.3
107.5°	961.4	1110.3	1204.2	1248.4	1262.6	1263.9	1260.2	1255.4
110°	892.0	1046.4	1162.2	1232.3	1269.5	1286.2	1293.3	1294.9



TEST NUMBER: P333228-840

CATALOG NUMBER: S125DIP-S850D810U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	836.5	983.1	1099.9	1182.0	1235.6	1263.0	1278.4	1285.7
115°	766.3	892.8	1005.2	1094.1	1157.1	1196.4	1219.9	1231.5
117.5°	718.7	828.2	925.3	1007.0	1070.3	1111.0	1134.5	1142.5
120°	692.7	791.3	882.2	954.3	1014.2	1053.5	1076.2	1083.9
122.5°	671.9	763.5	844.7	912.2	965.7	1001.9	1024.6	1031.7
125°	642.0	726.2	798.6	858.0	903.3	936.9	955.4	964.4
127.5°	611.3	689.9	757.5	813.1	854.5	884.5	902.3	907.1
130°	592.6	665.4	730.2	783.8	824.4	851.6	868.6	874.4
132.5°	573.5	641.8	700.9	752.6	792.9	820.0	835.6	841.8
135°	547.4	604.9	658.5	705.6	741.5	768.7	784.2	790.0
137.5°	525.7	572.5	617.3	657.3	689.4	714.0	728.0	734.2
140°	513.3	553.0	591.9	626.8	657.0	678.4	691.3	696.1
142.5°	502.7	536.3	569.8	600.1	625.8	644.1	656.3	660.6
145°	489.5	515.1	540.8	563.2	583.1	597.4	607.0	611.2
147.5°	477.9	498.1	517.3	533.8	549.2	560.4	565.8	567.6
150°	471.4	488.8	503.7	518.1	530.2	539.9	543.3	544.3
152.5°	465.0	480.6	494.3	505.3	515.3	523.0	526.2	527.0
155°	455.7	468.3	479.3	488.0	495.8	501.4	503.7	504.5
157.5°	446.2	456.6	465.0	471.9	478.1	482.6	484.8	484.6
160°	439.8	447.7	455.7	461.1	466.7	470.6	472.2	471.4
162.5°	432.8	440.1	446.8	451.6	456.0	459.2	459.6	459.4
165°	423.2	428.8	433.5	437.5	440.6	442.2	442.2	442.2
167.5°	414.0	417.7	421.3	424.1	425.8	427.2	426.6	426.4
170°	409.0	411.4	413.7	415.4	416.9	417.7	417.7	416.9
172.5°	403.3	405.7	407.5	408.4	408.7	410.1	408.9	408.1
175°	397.2	397.2	398.8	398.8	398.8	399.5	398.0	397.2
177.5°	392.9	393.5	393.5	393.5	392.9	393.5	391.6	391.6
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6

(END OF REPORT)