

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: P333414-927

Luminaire Tested: **S125DIW-S850D1050U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333414-927
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: S125DIW-S850D1050U927-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5920.5 lumens
Efficiency: N/A
Efficacy: 112.6 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

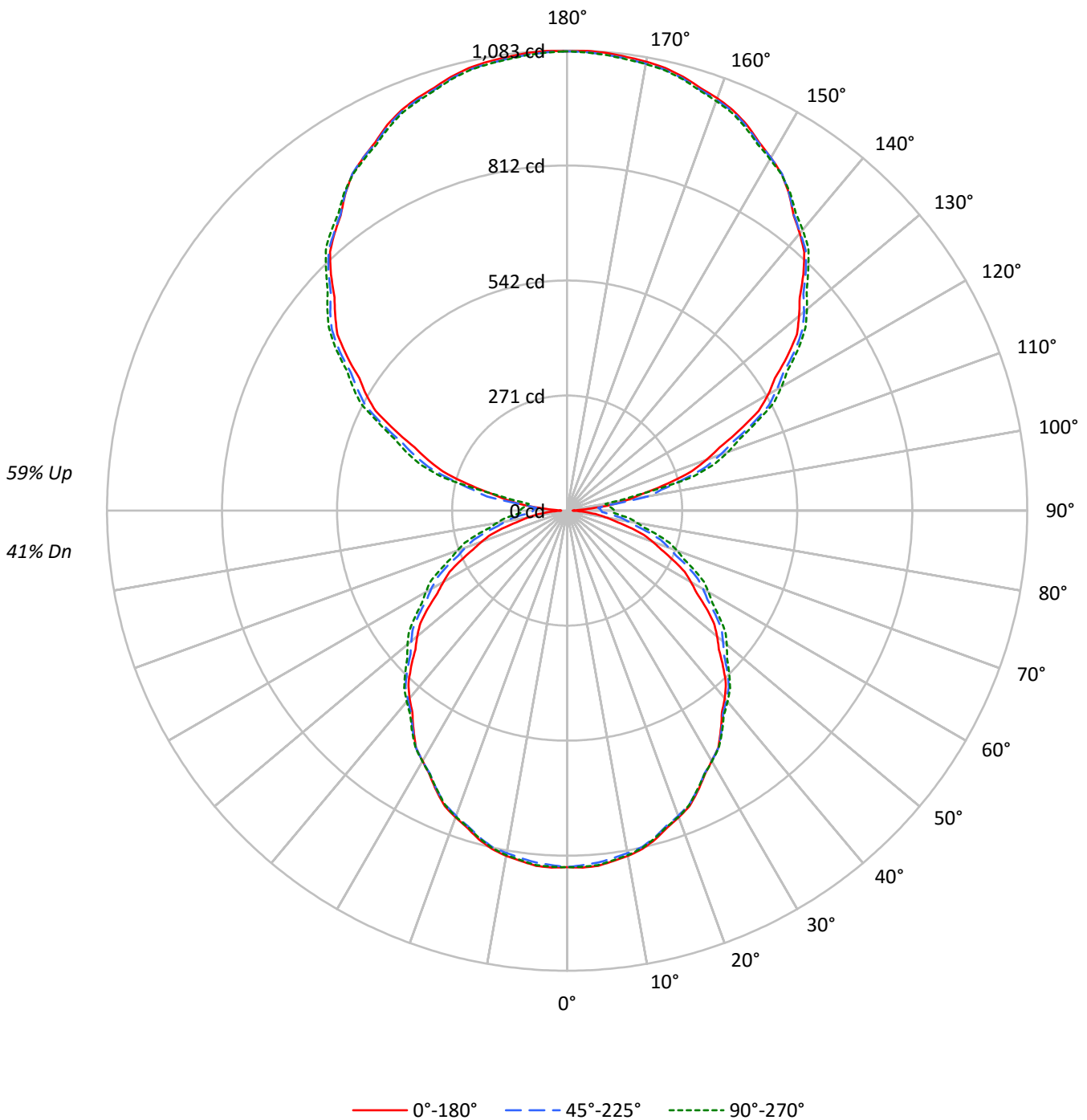
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.3
10°-20°	225.3	3.8
20°-30°	335.0	5.7
30°-40°	396.8	6.7
40°-50°	410.3	6.9
50°-60°	377.9	6.4
60°-70°	305.5	5.2
70°-80°	204.6	3.5
80°-90°	108.4	1.8
90°-100°	98.8	1.7
100°-110°	286.0	4.8
110°-120°	468.4	7.9
120°-130°	580.1	9.8
130°-140°	613.3	10.4
140°-150°	570.3	9.6
150°-160°	460.1	7.8
160°-170°	297.6	5.0
170°-180°	102.6	1.7
0°-30°	639.6	10.8
0°-40°	1036.4	17.5
0°-60°	1824.7	30.8
0°-90°	2443.1	41.3
90°-120°	853.2	14.4
90°-150°	2616.9	44.2
90°-180°	3477.0	58.7
0°-180°	5920.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	47	80	102	111	11
95°	56	74	73	94	101	67
105°	243	260	284	300	305	258
115°	447	458	479	490	491	443
125°	632	638	654	663	665	564
135°	786	790	794	803	803	606
145°	910	911	911	916	914	569
155°	1002	997	998	1000	994	461
165°	1057	1052	1053	1057	1051	298
175°	1081	1076	1077	1082	1076	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.8	32.0	38.1	44.2	50.4	56.6	63.1	69.6	76.0	82.5	86.9
90°	13.9	21.2	28.5	35.8	43.1	50.5	57.9	65.4	72.8	80.2	85.4
92.5°	24.2	28.6	33.0	37.4	41.8	47.8	55.2	62.7	70.2	77.6	82.6
95°	56.3	60.6	64.8	69.0	73.3	75.1	74.5	74.0	73.4	72.9	77.8
97.5°	105.0	110.3	115.5	120.8	126.0	124.9	117.6	110.1	102.7	95.4	94.2
100°	142.8	147.2	151.6	156.0	160.3	165.8	172.4	179.0	185.5	192.0	169.4
102.5°	181.3	185.5	189.7	193.9	198.2	203.4	209.5	215.6	221.7	227.9	226.6
105°	243.0	246.6	250.3	253.9	257.5	262.1	267.5	273.1	278.5	284.0	287.6
107.5°	307.0	309.5	312.0	314.5	317.0	321.0	326.6	332.2	337.9	343.5	347.1
110°	348.6	350.9	353.1	355.2	357.4	361.3	366.8	372.2	377.7	383.2	386.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	388.4	390.6	392.8	395.0	397.1	400.8	406.0	411.2	416.4	421.6	424.2
115°	447.2	449.3	451.5	453.7	455.9	459.4	464.4	469.3	474.2	479.1	481.7
117.5°	508.0	508.9	509.7	510.5	511.3	514.3	519.4	524.7	529.8	535.0	537.2
120°	546.5	546.9	547.2	547.6	548.0	550.6	555.3	560.1	564.7	569.5	572.3
122.5°	579.8	580.7	581.7	582.7	583.6	586.2	590.5	594.8	599.1	603.4	606.0
125°	632.2	633.3	634.4	635.4	636.5	638.8	642.5	646.2	649.8	653.5	655.7
127.5°	681.6	682.2	682.9	683.7	684.4	686.2	689.0	692.0	694.8	697.8	700.1
130°	712.3	713.0	713.8	714.5	715.2	716.8	719.6	722.3	725.1	727.9	729.8
132.5°	742.4	743.5	744.4	745.4	746.4	747.7	749.3	750.9	752.4	754.0	756.5
135°	786.0	786.9	787.7	788.7	789.6	790.4	791.4	792.3	793.2	794.2	796.1
137.5°	826.1	826.9	827.6	828.4	829.2	829.7	830.0	830.4	830.6	830.9	833.1
140°	851.7	852.1	852.4	852.8	853.1	853.3	853.3	853.3	853.3	853.3	855.7
142.5°	875.4	875.4	875.5	875.6	875.7	875.8	876.2	876.4	876.7	877.0	878.8
145°	910.1	910.4	910.5	910.7	910.9	910.9	910.9	910.9	910.9	910.9	912.0
147.5°	939.8	939.8	939.7	939.6	939.5	939.6	939.8	940.0	940.2	940.4	941.0
150°	959.0	958.7	958.3	958.0	957.6	957.6	958.0	958.3	958.7	959.0	959.4
152.5°	977.6	976.8	976.0	975.3	974.5	974.3	974.6	975.0	975.3	975.7	976.0
155°	1001.5	1000.4	999.3	998.3	997.2	996.9	997.2	997.6	997.9	998.3	998.8
157.5°	1019.9	1019.3	1018.7	1018.0	1017.3	1017.1	1017.1	1017.1	1017.2	1017.2	1017.8
160°	1032.8	1031.7	1030.6	1029.5	1028.5	1028.0	1028.2	1028.4	1028.6	1028.7	1029.4
162.5°	1043.0	1042.0	1040.8	1039.8	1038.7	1038.2	1038.5	1038.6	1038.8	1038.9	1040.0
165°	1056.8	1055.7	1054.6	1053.6	1052.5	1052.0	1052.3	1052.4	1052.6	1052.7	1053.8
167.5°	1067.0	1066.0	1064.9	1063.7	1062.6	1062.2	1062.3	1062.5	1062.7	1062.9	1064.1
170°	1072.8	1071.6	1070.3	1069.1	1067.8	1067.3	1067.5	1067.6	1067.8	1068.0	1069.4
172.5°	1076.7	1075.4	1074.1	1072.9	1071.7	1071.2	1071.5	1071.8	1072.1	1072.5	1073.7
175°	1080.8	1079.7	1078.6	1077.6	1076.5	1076.1	1076.3	1076.4	1076.7	1076.8	1078.2
177.5°	1082.8	1081.9	1081.0	1080.1	1079.3	1079.0	1079.1	1079.3	1079.3	1079.5	1080.5
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	91.3	95.7	100.1	103.0	104.3	105.8	107.1	108.5
90°	90.5	95.5	100.7	104.1	105.9	107.7	109.6	111.4
92.5°	87.5	92.5	97.4	100.7	102.2	103.8	105.3	106.8
95°	82.7	87.6	92.5	95.6	96.9	98.2	99.5	100.8
97.5°	93.0	91.8	90.6	90.7	91.9	93.2	94.4	95.6
100°	146.7	124.0	101.3	90.2	90.5	90.9	91.3	91.7
102.5°	225.2	223.9	222.6	216.4	205.4	194.4	183.4	172.4
105°	291.3	295.0	298.7	301.0	302.1	303.2	304.3	305.4
107.5°	350.9	354.5	358.1	360.3	360.8	361.5	362.0	362.7
110°	389.0	392.0	394.9	397.1	398.6	400.1	401.5	403.0



TEST NUMBER: P333414-927

CATALOG NUMBER: S125DIW-S850D1050U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	426.9	429.5	432.1	434.0	435.1	436.1	437.1	438.2
115°	484.3	486.9	489.5	490.8	490.8	490.8	490.8	490.9
117.5°	539.3	541.5	543.7	545.2	546.0	546.8	547.6	548.3
120°	575.0	577.7	580.5	582.0	582.2	582.4	582.7	582.8
122.5°	608.6	611.2	613.9	615.2	615.2	615.3	615.4	615.4
125°	657.9	660.1	662.3	663.6	664.0	664.4	664.7	665.1
127.5°	702.3	704.7	707.0	708.1	707.8	707.5	707.3	707.0
130°	731.9	733.9	735.9	737.0	737.0	737.0	737.0	737.0
132.5°	758.9	761.4	763.8	765.0	764.9	764.8	764.6	764.5
135°	798.2	800.2	802.2	803.2	803.0	802.9	802.7	802.6
137.5°	835.4	837.7	839.9	840.8	840.7	840.5	840.3	840.1
140°	858.0	860.4	862.8	863.8	863.5	863.1	862.8	862.4
142.5°	880.6	882.3	884.2	884.9	884.6	884.2	883.8	883.5
145°	913.1	914.3	915.3	915.7	915.4	915.0	914.7	914.3
147.5°	941.4	942.0	942.5	942.2	941.3	940.3	939.4	938.4
150°	959.7	960.1	960.4	960.0	958.8	957.5	956.3	955.1
152.5°	976.4	976.8	977.1	976.7	975.4	974.1	973.0	971.7
155°	999.3	999.9	1000.4	1000.0	998.5	997.1	995.7	994.3
157.5°	1018.4	1018.9	1019.5	1019.1	1017.6	1016.2	1014.8	1013.4
160°	1030.2	1030.9	1031.6	1031.2	1029.8	1028.4	1027.0	1025.6
162.5°	1041.0	1042.0	1043.0	1042.7	1041.1	1039.6	1038.0	1036.4
165°	1054.9	1056.0	1057.0	1056.9	1055.4	1054.0	1052.6	1051.1
167.5°	1065.4	1066.7	1068.0	1067.9	1066.2	1064.6	1063.0	1061.4
170°	1070.9	1072.3	1073.7	1073.6	1072.0	1070.4	1068.8	1067.1
172.5°	1075.1	1076.3	1077.6	1077.4	1075.9	1074.2	1072.6	1071.0
175°	1079.7	1081.1	1082.5	1082.4	1080.8	1079.2	1077.6	1076.0
177.5°	1081.5	1082.5	1083.5	1083.5	1082.3	1081.2	1080.1	1078.9
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8

(END OF REPORT)