

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: P333427-927

Luminaire Tested: **S125DIW-S850D1560U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333427-927
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: S125DIW-S850D1560U927-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6886.6 lumens
Efficiency: N/A
Efficacy: 101.1 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-Indirect

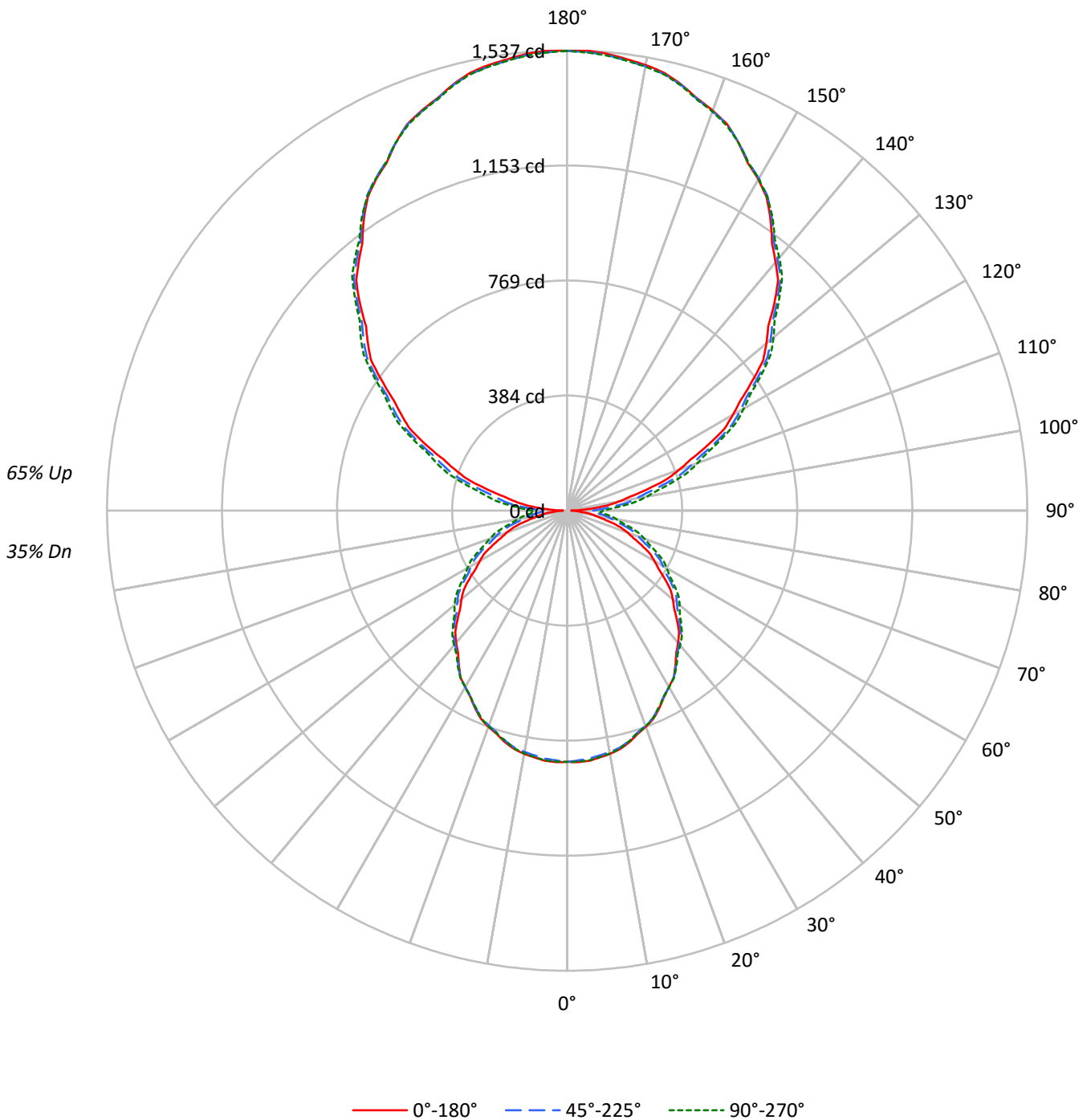
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333427-927

CATALOG NUMBER: S125DIW-S850D1560U927-4F0-1E-UDD-D1

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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	41	39	36	33	28	26	25	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	20	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	14	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	15	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8

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	1.2
10°-20°	225.3	3.3
20°-30°	335.0	4.9
30°-40°	396.8	5.8
40°-50°	410.3	6.0
50°-60°	377.9	5.5
60°-70°	305.5	4.4
70°-80°	204.6	3.0
80°-90°	109.5	1.6
90°-100°	162.4	2.4
100°-110°	347.5	5.0
110°-120°	543.7	7.9
120°-130°	693.6	10.1
130°-140°	765.7	11.1
140°-150°	744.8	10.8
150°-160°	624.3	9.1
160°-170°	415.0	6.0
170°-180°	145.2	2.1
0°-30°	639.6	9.3
0°-40°	1036.4	15.1
0°-60°	1824.7	26.5
0°-90°	2444.2	35.5
90°-120°	1053.6	15.3
90°-150°	3257.7	47.3
90°-180°	4442.0	64.5
0°-180°	6886.6	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	50	87	111	121	13
95°	88	113	152	177	187	91
105°	280	300	331	354	364	299
115°	520	531	554	567	572	514
125°	755	762	779	789	792	676
135°	979	985	992	1002	1002	754
145°	1185	1189	1192	1196	1196	740
155°	1355	1355	1356	1360	1355	624
165°	1473	1471	1472	1476	1470	415
175°	1532	1527	1527	1533	1526	145
180°	1535	1535	1535	1535	1535	



TEST NUMBER: P333427-927

CATALOG NUMBER: S125DIW-S850D1560U927-4F0-1E-UDD-D1

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°	25.9	32.2	38.4	44.8	51.0	57.4	64.0	70.6	77.2	83.8	88.2
90°	14.3	22.3	30.3	38.3	46.3	54.3	62.3	70.4	78.5	86.6	92.1
92.5°	40.8	47.7	54.6	61.5	68.4	76.1	84.8	93.4	102.0	110.7	116.5
95°	88.3	93.6	98.9	104.2	109.5	116.5	125.4	134.3	143.1	152.0	158.0
97.5°	138.7	143.2	147.7	152.2	156.7	163.7	173.4	183.1	192.7	202.4	208.0
100°	176.3	180.1	184.0	187.8	191.7	198.2	207.6	216.8	226.2	235.4	241.7
102.5°	216.7	221.3	226.0	230.6	235.2	241.2	248.7	256.1	263.6	271.1	277.3
105°	279.8	284.1	288.3	292.6	296.8	302.5	309.6	316.6	323.7	330.8	336.0
107.5°	349.5	353.4	357.2	361.0	364.8	369.9	376.4	382.9	389.4	395.9	400.3
110°	397.6	401.2	404.6	408.2	411.7	416.5	422.4	428.3	434.2	440.1	444.3



TEST NUMBER: P333427-927

CATALOG NUMBER: S125DIW-S850D1560U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	447.3	449.8	452.3	454.6	457.1	461.4	467.3	473.3	479.3	485.3	488.9
115°	519.8	522.2	524.6	526.9	529.3	533.1	538.4	543.6	548.9	554.2	557.2
117.5°	592.6	594.0	595.2	596.6	597.9	601.0	606.0	611.0	616.0	621.0	624.3
120°	638.5	640.4	642.3	644.1	646.0	649.2	653.6	658.1	662.6	667.1	670.2
122.5°	687.5	688.3	689.0	689.8	690.5	693.2	698.0	702.7	707.5	712.3	715.0
125°	754.8	756.2	757.6	759.0	760.4	763.1	767.0	771.0	774.8	778.8	781.2
127.5°	825.6	826.3	827.1	827.8	828.5	830.5	833.9	837.2	840.5	843.8	846.3
130°	868.6	869.8	870.9	872.1	873.2	875.4	878.5	881.5	884.6	887.7	890.0
132.5°	911.0	913.1	915.3	917.4	919.6	921.5	923.4	925.3	927.2	929.1	931.4
135°	979.0	980.3	981.8	983.2	984.6	986.0	987.6	989.1	990.7	992.2	994.6
137.5°	1042.8	1044.2	1045.6	1047.0	1048.4	1049.7	1050.9	1052.1	1053.3	1054.5	1057.0
140°	1083.2	1084.6	1085.9	1087.3	1088.5	1089.7	1090.7	1091.7	1092.7	1093.6	1096.1
142.5°	1124.3	1125.3	1126.3	1127.3	1128.2	1129.3	1130.3	1131.3	1132.3	1133.5	1135.4
145°	1184.8	1185.7	1186.5	1187.5	1188.4	1189.1	1189.9	1190.7	1191.5	1192.3	1193.3
147.5°	1239.9	1240.5	1241.0	1241.7	1242.2	1242.9	1243.5	1244.1	1244.8	1245.4	1246.3
150°	1277.2	1276.9	1276.7	1276.4	1276.1	1276.5	1277.6	1278.7	1279.7	1280.8	1280.8
152.5°	1307.7	1308.1	1308.5	1308.8	1309.2	1309.6	1310.1	1310.5	1310.9	1311.4	1312.0
155°	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1355.3	1355.5	1355.7	1356.1	1357.1
157.5°	1396.9	1396.3	1395.7	1395.1	1394.6	1394.4	1394.6	1395.0	1395.2	1395.4	1396.5
160°	1421.7	1420.9	1420.1	1419.4	1418.6	1418.3	1418.6	1418.8	1419.1	1419.4	1420.4
162.5°	1443.8	1443.1	1442.6	1442.0	1441.4	1441.1	1441.1	1441.2	1441.3	1441.3	1442.6
165°	1473.1	1472.6	1472.0	1471.6	1471.0	1470.8	1471.2	1471.4	1471.6	1472.0	1473.0
167.5°	1497.9	1496.9	1495.9	1494.8	1493.7	1493.2	1493.2	1493.2	1493.2	1493.2	1494.8
170°	1511.3	1510.3	1509.2	1508.2	1507.1	1506.6	1506.6	1506.6	1506.6	1506.6	1508.2
172.5°	1520.9	1519.9	1518.8	1517.7	1516.6	1516.2	1516.2	1516.2	1516.2	1516.2	1517.7
175°	1531.7	1530.6	1529.5	1528.4	1527.4	1526.9	1526.9	1526.9	1526.9	1526.9	1528.4
177.5°	1537.2	1536.3	1535.5	1534.6	1533.7	1533.2	1533.0	1532.8	1532.6	1532.4	1533.7
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2



TEST NUMBER: P333427-927

CATALOG NUMBER: S125DIW-S850D1560U927-4F0-1E-UDD-D1

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°	92.8	97.2	101.6	104.6	106.1	107.5	108.9	110.4
90°	97.7	103.1	108.7	112.5	114.6	116.7	118.7	120.8
92.5°	122.3	128.2	134.0	137.8	139.7	141.5	143.4	145.2
95°	163.8	169.7	175.5	179.4	181.3	183.1	184.8	186.6
97.5°	213.6	219.2	224.8	228.4	229.9	231.5	233.1	234.6
100°	247.9	254.1	260.4	264.3	265.9	267.5	269.2	270.8
102.5°	283.6	289.9	296.2	300.3	302.1	304.0	305.8	307.7
105°	341.3	346.6	351.8	355.5	357.5	359.6	361.7	363.8
107.5°	404.7	409.2	413.6	416.3	417.4	418.5	419.5	420.6
110°	448.6	452.9	457.2	459.9	460.8	461.8	462.9	463.9



TEST NUMBER: P333427-927

CATALOG NUMBER: S125DIW-S850D1560U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	492.7	496.4	500.0	502.3	503.1	503.9	504.7	505.5
115°	560.2	563.2	566.3	568.2	569.0	569.9	570.7	571.6
117.5°	627.6	630.9	634.2	636.0	636.2	636.4	636.5	636.8
120°	673.3	676.4	679.5	681.1	681.1	681.1	681.2	681.2
122.5°	717.7	720.5	723.3	724.8	725.0	725.2	725.5	725.7
125°	783.5	785.9	788.4	789.9	790.5	791.2	791.8	792.5
127.5°	848.7	851.1	853.6	855.1	855.6	856.1	856.7	857.1
130°	892.3	894.6	896.9	898.3	898.6	899.0	899.4	899.8
132.5°	933.7	936.0	938.3	939.4	939.4	939.4	939.4	939.4
135°	997.0	999.3	1001.7	1002.9	1002.7	1002.6	1002.4	1002.3
137.5°	1059.5	1061.9	1064.5	1065.3	1064.8	1064.1	1063.6	1063.0
140°	1098.8	1101.3	1103.8	1104.8	1104.1	1103.6	1103.0	1102.4
142.5°	1137.5	1139.6	1141.5	1142.3	1141.7	1141.1	1140.5	1139.9
145°	1194.2	1195.1	1196.0	1196.4	1196.4	1196.3	1196.3	1196.2
147.5°	1247.3	1248.2	1249.1	1248.9	1247.4	1245.9	1244.4	1242.9
150°	1280.8	1280.8	1280.8	1280.6	1280.2	1279.9	1279.5	1279.2
152.5°	1312.6	1313.3	1313.9	1313.8	1312.8	1311.9	1311.0	1310.1
155°	1358.1	1359.2	1360.3	1360.2	1358.8	1357.5	1356.1	1354.9
157.5°	1397.6	1398.7	1399.7	1399.4	1397.6	1395.8	1394.1	1392.3
160°	1421.5	1422.5	1423.6	1423.5	1422.1	1420.8	1419.5	1418.2
162.5°	1443.9	1445.2	1446.4	1446.3	1444.8	1443.2	1441.7	1440.1
165°	1474.0	1475.1	1476.2	1475.9	1474.3	1472.7	1471.2	1469.5
167.5°	1496.4	1497.9	1499.5	1499.5	1497.9	1496.3	1494.6	1492.9
170°	1509.7	1511.3	1512.9	1512.8	1510.9	1509.1	1507.2	1505.4
172.5°	1519.3	1520.9	1522.5	1522.5	1520.8	1519.2	1517.5	1515.9
175°	1530.1	1531.7	1533.3	1533.1	1531.3	1529.4	1527.6	1525.7
177.5°	1534.9	1536.2	1537.5	1537.4	1535.9	1534.4	1532.9	1531.4
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2

(END OF REPORT)