

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: P333426-927

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333426-927  
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-S850D1560U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7542.6 lumens  
Efficiency: N/A  
Efficacy: 110.8 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

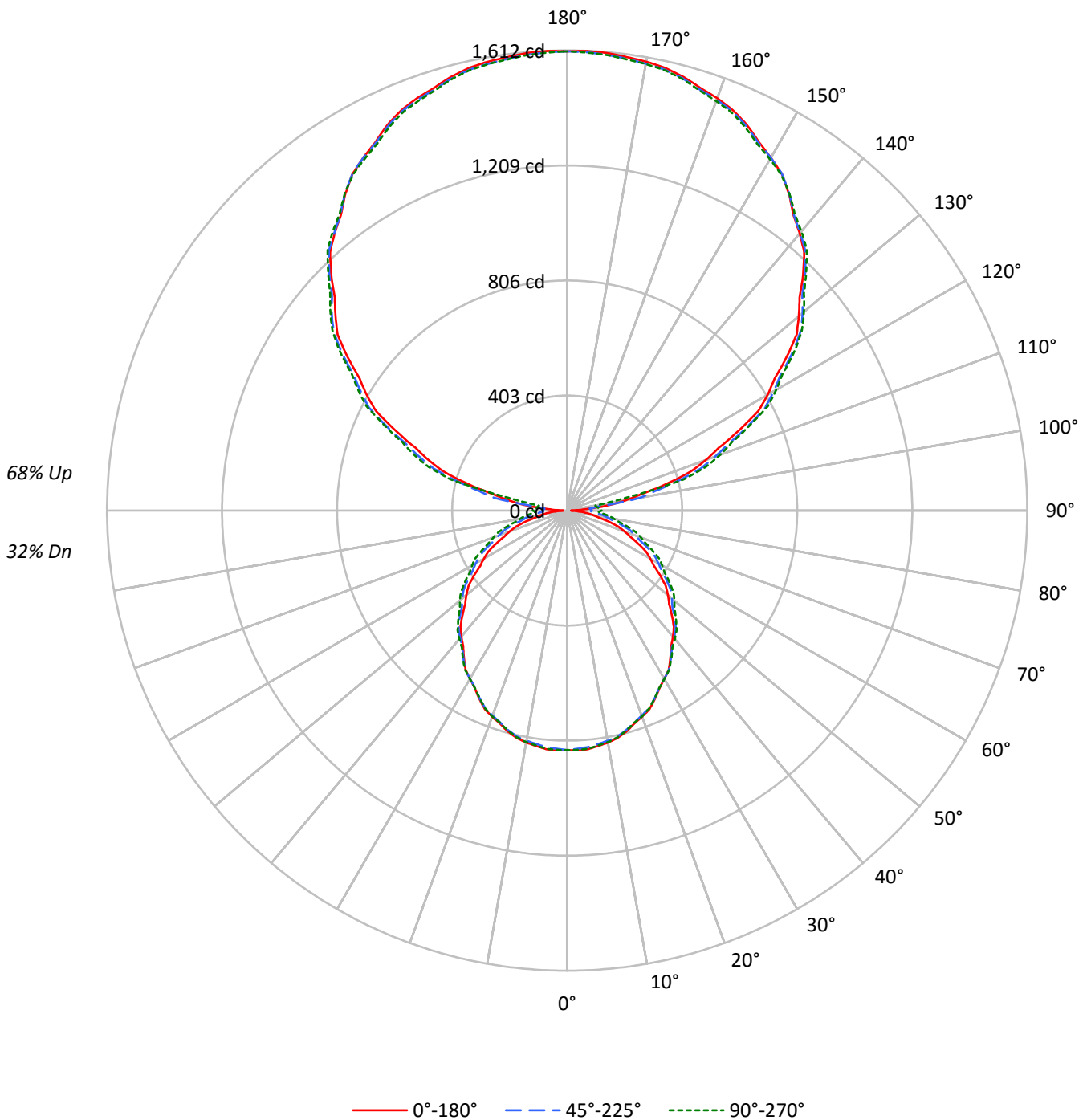
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333426-927

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

**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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	32
1	93	89	85	81	84	80	77	74	64	61	59	48	47	46	35	34	33	26
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22
3	77	68	60	55	69	61	55	50	49	44	41	37	34	32	26	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	65	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17	13
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	20	18	17	15	13	10
8	51	39	31	26	45	35	28	24	28	23	20	22	18	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	12	11	8
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7

**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	1.1
10°-20°	225.3	3.0
20°-30°	335.0	4.4
30°-40°	396.8	5.3
40°-50°	410.3	5.4
50°-60°	377.9	5.0
60°-70°	305.5	4.1
70°-80°	204.6	2.7
80°-90°	109.5	1.5
90°-100°	118.0	1.6
100°-110°	404.2	5.4
110°-120°	682.9	9.1
120°-130°	855.3	11.3
130°-140°	909.3	12.1
140°-150°	848.1	11.2
150°-160°	684.9	9.1
160°-170°	442.9	5.9
170°-180°	152.8	2.0
0°-30°	639.6	8.5
0°-40°	1036.4	13.7
0°-60°	1824.7	24.2
0°-90°	2444.2	32.4
90°-120°	1205.1	16.0
90°-150°	3817.8	50.6
90°-180°	5098.0	67.6
0°-180°	7542.6	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	86	111	121	12
95°	79	95	79	102	109	95
105°	358	376	401	416	422	379
115°	663	676	698	707	705	657
125°	939	947	963	971	972	839
135°	1169	1175	1179	1186	1184	901
145°	1354	1356	1356	1361	1357	846
155°	1491	1484	1486	1489	1480	686
165°	1573	1566	1567	1573	1565	444
175°	1609	1602	1603	1611	1602	153
180°	1609	1609	1609	1609	1609	



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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°	25.9	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	86.5	92.1
92.5°	30.2	34.1	38.1	42.0	45.9	51.9	59.9	67.9	75.9	83.9	89.3
95°	78.7	82.6	86.6	90.5	94.5	94.6	90.7	86.8	83.0	79.1	84.5
97.5°	151.6	157.3	163.0	168.7	174.4	170.3	156.4	142.5	128.6	114.6	111.0
100°	208.2	212.9	217.5	222.1	226.7	232.5	239.4	246.4	253.3	260.2	224.5
102.5°	265.7	270.3	274.8	279.4	283.9	289.4	295.7	302.1	308.4	314.7	311.0
105°	358.0	362.0	366.0	369.9	373.9	378.7	384.1	389.7	395.1	400.6	404.3
107.5°	453.8	456.3	458.8	461.3	463.8	467.9	473.7	479.5	485.3	491.2	494.8
110°	516.2	518.3	520.5	522.8	524.9	528.9	534.5	540.2	545.8	551.4	554.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	575.3	577.7	580.1	582.5	584.9	588.7	594.0	599.3	604.6	609.9	612.2
115°	663.2	665.8	668.4	671.1	673.6	677.5	682.5	687.5	692.5	697.5	699.7
117.5°	754.2	755.0	755.7	756.5	757.3	760.5	766.0	771.5	777.1	782.5	784.3
120°	811.4	811.7	812.0	812.3	812.5	815.2	820.2	825.2	830.2	835.2	837.8
122.5°	861.3	862.6	863.9	865.1	866.4	869.3	873.7	878.1	882.6	887.0	889.4
125°	939.4	941.1	942.8	944.4	946.1	948.8	952.4	956.1	959.7	963.4	965.3
127.5°	1013.3	1014.4	1015.5	1016.7	1017.8	1019.8	1022.6	1025.5	1028.3	1031.2	1033.3
130°	1059.1	1060.2	1061.3	1062.5	1063.6	1065.6	1068.4	1071.3	1074.0	1076.9	1078.6
132.5°	1104.1	1105.6	1107.2	1108.7	1110.2	1111.6	1113.0	1114.4	1115.8	1117.2	1119.6
135°	1169.1	1170.5	1172.0	1173.3	1174.7	1175.8	1176.5	1177.3	1178.1	1178.8	1180.7
137.5°	1228.8	1230.0	1231.3	1232.5	1233.7	1234.5	1234.5	1234.7	1234.9	1235.0	1237.3
140°	1267.3	1267.8	1268.4	1268.8	1269.4	1269.6	1269.6	1269.5	1269.4	1269.3	1271.8
142.5°	1302.6	1302.7	1302.9	1303.1	1303.2	1303.5	1303.9	1304.3	1304.8	1305.2	1307.0
145°	1354.3	1354.7	1355.0	1355.3	1355.7	1355.9	1355.9	1355.9	1355.9	1355.9	1357.1
147.5°	1398.8	1398.7	1398.6	1398.5	1398.4	1398.5	1398.8	1399.2	1399.5	1399.8	1400.4
150°	1427.4	1426.9	1426.4	1425.8	1425.3	1425.3	1425.8	1426.4	1426.9	1427.4	1428.0
152.5°	1455.1	1454.0	1452.8	1451.6	1450.4	1450.1	1450.6	1451.2	1451.8	1452.2	1452.8
155°	1490.6	1489.1	1487.5	1485.9	1484.3	1483.8	1484.3	1484.8	1485.3	1485.9	1486.7
157.5°	1518.1	1517.1	1516.2	1515.2	1514.3	1513.8	1513.9	1513.9	1513.9	1514.0	1514.9
160°	1537.2	1535.6	1534.0	1532.4	1530.8	1530.1	1530.4	1530.7	1530.9	1531.2	1532.2
162.5°	1552.4	1550.9	1549.3	1547.6	1546.0	1545.4	1545.6	1545.9	1546.2	1546.4	1547.9
165°	1573.0	1571.4	1569.7	1568.1	1566.5	1565.9	1566.1	1566.5	1566.7	1566.9	1568.5
167.5°	1588.2	1586.6	1584.9	1583.3	1581.6	1581.0	1581.2	1581.4	1581.8	1582.0	1583.9
170°	1596.8	1594.9	1593.1	1591.2	1589.4	1588.6	1588.8	1589.1	1589.4	1589.6	1591.7
172.5°	1602.5	1600.7	1598.8	1597.0	1595.1	1594.4	1594.9	1595.4	1595.9	1596.3	1598.2
175°	1608.7	1607.1	1605.5	1603.9	1602.3	1601.7	1602.0	1602.2	1602.5	1602.7	1604.9
177.5°	1611.5	1610.3	1609.0	1607.7	1606.5	1605.9	1606.1	1606.4	1606.5	1606.8	1608.3
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7



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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°	92.8	97.2	101.6	104.6	106.1	107.5	108.9	110.4
90°	97.6	103.1	108.7	112.5	114.5	116.6	118.7	120.7
92.5°	94.7	100.1	105.4	108.9	110.6	112.3	113.9	115.6
95°	89.8	95.2	100.5	103.9	105.1	106.4	107.7	108.9
97.5°	107.3	103.7	100.1	98.9	100.1	101.4	102.6	103.9
100°	188.9	153.2	117.6	99.7	99.8	99.8	99.9	99.9
102.5°	307.2	303.4	299.6	289.3	272.4	255.5	238.5	221.6
105°	407.9	411.6	415.3	417.6	418.6	419.6	420.6	421.7
107.5°	498.4	502.2	505.8	507.8	508.2	508.5	508.8	509.1
110°	556.8	559.5	562.1	564.3	565.9	567.4	568.9	570.5





TEST NUMBER: P333426-927

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	614.5	616.9	619.2	620.8	621.7	622.6	623.5	624.4
115°	702.0	704.2	706.5	707.3	706.8	706.3	705.8	705.4
117.5°	786.0	787.7	789.4	790.6	791.2	791.7	792.3	792.8
120°	840.3	843.0	845.5	846.7	846.4	846.3	846.1	845.8
122.5°	891.8	894.3	896.7	897.7	897.2	896.8	896.4	896.0
125°	967.1	969.0	970.8	971.8	971.9	972.1	972.2	972.3
127.5°	1035.4	1037.5	1039.7	1040.3	1039.3	1038.5	1037.6	1036.6
130°	1080.4	1082.2	1083.9	1084.7	1084.2	1083.8	1083.4	1083.0
132.5°	1122.0	1124.4	1126.8	1127.7	1127.1	1126.6	1126.0	1125.5
135°	1182.5	1184.4	1186.2	1186.8	1186.1	1185.4	1184.8	1184.1
137.5°	1239.5	1241.8	1244.0	1244.8	1244.2	1243.6	1242.9	1242.3
140°	1274.4	1276.9	1279.5	1280.3	1279.5	1278.6	1277.7	1276.8
142.5°	1308.8	1310.7	1312.5	1313.0	1312.1	1311.2	1310.3	1309.6
145°	1358.3	1359.5	1360.6	1360.7	1359.9	1359.1	1358.2	1357.3
147.5°	1401.0	1401.6	1402.2	1401.8	1400.2	1398.6	1397.0	1395.4
150°	1428.5	1429.0	1429.6	1428.9	1427.0	1425.0	1423.1	1421.1
152.5°	1453.3	1453.8	1454.4	1453.7	1451.8	1449.9	1448.1	1446.2
155°	1487.5	1488.3	1489.1	1488.4	1486.3	1484.2	1482.0	1479.9
157.5°	1515.7	1516.6	1517.4	1516.8	1514.7	1512.5	1510.4	1508.3
160°	1533.3	1534.4	1535.4	1534.9	1532.8	1530.7	1528.5	1526.5
162.5°	1549.4	1550.9	1552.4	1552.0	1549.7	1547.3	1545.0	1542.6
165°	1570.1	1571.8	1573.4	1573.0	1571.0	1568.8	1566.7	1564.6
167.5°	1585.8	1587.7	1589.6	1589.4	1587.0	1584.6	1582.2	1579.8
170°	1593.9	1596.0	1598.1	1598.0	1595.6	1593.2	1590.8	1588.4
172.5°	1600.1	1602.0	1603.9	1603.7	1601.3	1598.9	1596.6	1594.2
175°	1606.9	1609.1	1611.2	1611.1	1608.7	1606.3	1603.9	1601.6
177.5°	1609.8	1611.2	1612.7	1612.6	1610.9	1609.2	1607.5	1605.8
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7

(END OF REPORT)