

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: P333397-935

Luminaire Tested: **S125DIW-S610D1560U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333397-935  
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-S610D1560U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 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: 6726.5 lumens  
Efficiency: N/A  
Efficacy: 111.0 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

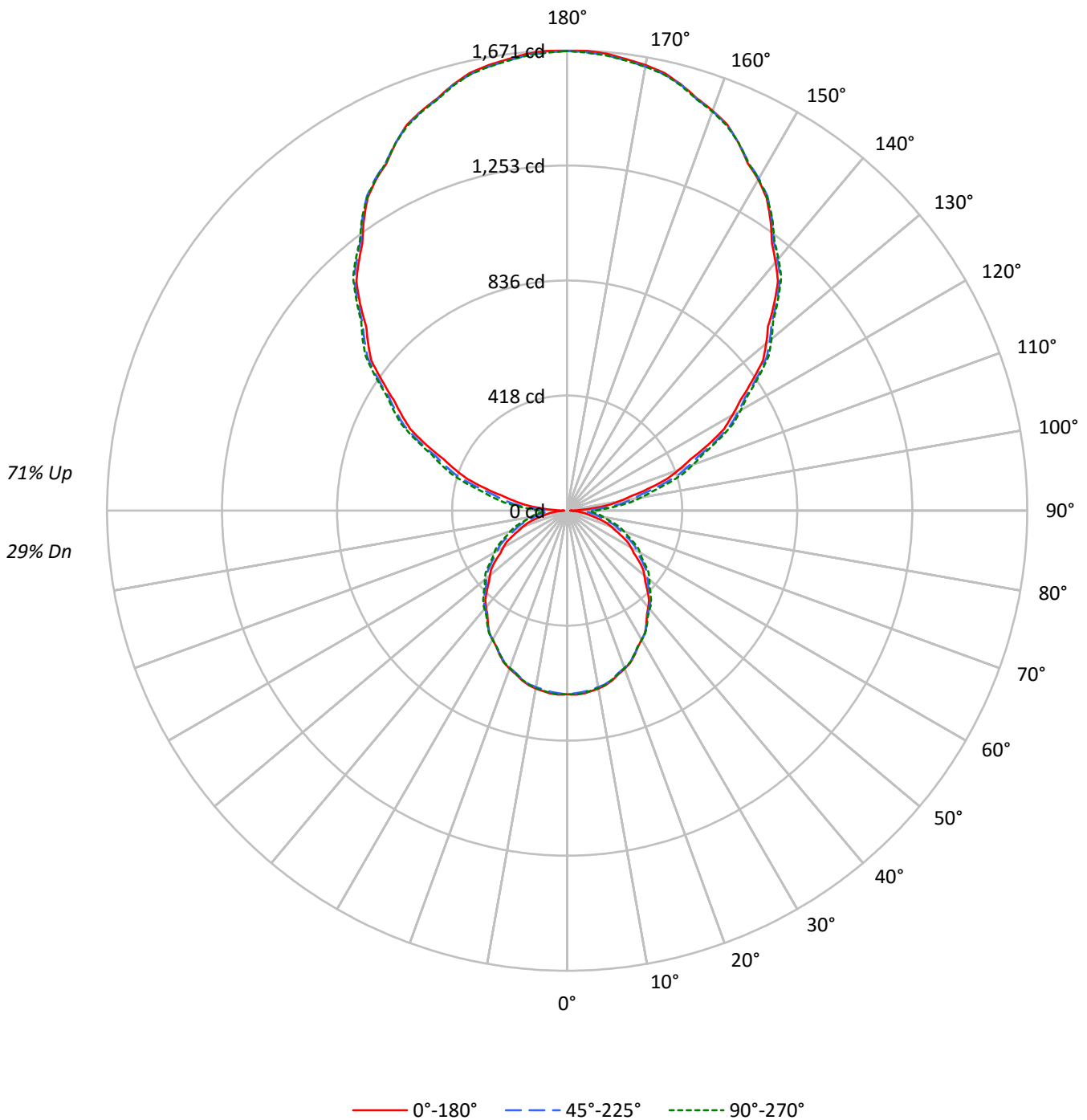
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	77	67	60	54	68	60	54	49	47	43	40	35	33	30	24	23	21	16
4	70	59	52	46	62	53	47	42	42	37	33	31	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	19	17	16	12
6	59	47	39	33	52	42	36	31	34	29	25	25	22	19	18	15	14	10
7	54	42	35	29	48	38	31	27	30	25	22	23	19	17	16	14	12	9
8	50	38	31	26	45	35	28	23	28	23	19	21	17	15	15	12	11	8
9	47	35	27	23	42	31	25	21	25	20	17	19	16	13	14	11	10	7
10	43	32	25	20	39	29	23	18	23	18	15	18	14	12	13	10	9	7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4310	4310	4310
5°	4318	4229	4243
10°	4288	4154	4148
15°	4236	4064	4027
20°	4168	3952	3906
25°	4086	3833	3757
30°	3987	3701	3622
35°	3894	3580	3497
40°	3800	3452	3372
45°	3693	3344	3261
50°	3592	3225	3163
55°	3469	3114	3048
60°	3336	2986	2931
65°	3196	2854	2799
70°	3036	2672	2663
75°	2788	2496	2496
80°	2461	2284	2314
85°	2155	2142	2255



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	0.9
10°-20°	179.1	2.7
20°-30°	266.4	4.0
30°-40°	315.5	4.7
40°-50°	326.2	4.8
50°-60°	300.5	4.5
60°-70°	242.9	3.6
70°-80°	162.7	2.4
80°-90°	88.0	1.3
90°-100°	159.1	2.4
100°-110°	364.9	5.4
110°-120°	582.4	8.7
120°-130°	748.9	11.1
130°-140°	830.1	12.3
140°-150°	809.1	12.0
150°-160°	678.6	10.1
160°-170°	451.1	6.7
170°-180°	157.9	2.3
0°-30°	508.6	7.6
0°-40°	824.1	12.3
0°-60°	1450.8	21.6
0°-90°	1944.5	28.9
90°-120°	1106.4	16.4
90°-150°	3494.6	52.0
90°-180°	4782.0	71.1
0°-180°	6726.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	667	666	661	666	666	63
15°	637	638	633	637	635	179
25°	579	581	577	579	576	266
35°	501	505	504	506	506	313
45°	413	420	423	428	428	318
55°	317	328	338	345	348	284
65°	218	234	249	259	262	217
75°	120	138	158	171	175	128
85°	36	58	80	94	100	38
90°	12	43	74	95	104	12
95°	93	113	148	170	178	97
105°	302	319	346	367	376	322
115°	564	574	593	603	606	557
125°	819	827	841	848	851	733
135°	1064	1071	1076	1084	1083	819
145°	1288	1292	1296	1299	1298	804
155°	1473	1473	1474	1478	1473	678
165°	1601	1599	1600	1604	1597	451
175°	1665	1660	1660	1666	1658	158
180°	1669	1669	1669	1669	1669	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	668.8	668.6	668.4	668.1	667.9	667.4	666.6	665.7	665.0	664.1	665.0
5°	667.3	666.9	666.7	666.4	666.1	665.5	664.4	663.4	662.4	661.3	662.5
7.5°	661.3	661.2	661.2	661.0	660.9	660.3	659.3	658.2	657.2	656.2	657.1
10°	656.2	656.2	656.2	656.2	656.2	655.6	654.4	653.2	652.0	650.9	651.9
12.5°	648.8	648.9	649.0	649.2	649.3	648.8	647.9	647.0	646.1	645.1	645.9
15°	637.1	637.3	637.5	637.6	637.7	637.3	636.3	635.2	634.3	633.3	634.1
17.5°	622.0	622.2	622.6	622.8	623.2	622.8	621.8	620.8	619.7	618.7	619.4
20°	611.0	611.3	611.6	611.9	612.2	611.8	610.8	609.8	608.7	607.7	608.1
22.5°	598.5	599.0	599.5	600.0	600.5	600.2	599.1	598.0	596.8	595.7	596.2
25°	578.9	579.4	579.8	580.2	580.7	580.5	579.6	578.8	577.8	577.0	577.6
27.5°	557.2	557.8	558.5	559.1	559.8	559.6	558.6	557.7	556.6	555.7	556.0
30°	541.0	541.9	542.8	543.6	544.5	544.5	543.6	542.8	541.9	541.0	541.3
32.5°	526.3	527.1	527.9	528.7	529.3	529.4	528.8	528.1	527.5	526.8	527.2
35°	501.1	502.1	503.2	504.1	505.1	505.5	505.1	504.5	504.1	503.7	504.1
37.5°	475.9	476.8	477.7	478.6	479.6	479.9	479.8	479.7	479.5	479.4	479.9
40°	458.6	459.8	460.9	462.1	463.2	463.7	463.6	463.5	463.3	463.1	463.7
42.5°	439.7	441.3	442.7	444.3	445.8	446.7	447.0	447.4	447.6	448.0	448.7
45°	412.8	414.4	415.9	417.6	419.2	420.3	421.1	421.8	422.5	423.3	424.3
47.5°	385.2	386.7	388.1	389.6	391.2	392.4	393.7	394.9	396.2	397.4	399.0
50°	366.4	367.9	369.5	371.2	372.7	374.4	375.9	377.5	379.1	380.7	382.4
52.5°	346.5	348.4	350.3	352.3	354.2	356.2	358.2	360.1	362.1	363.9	365.7
55°	317.3	319.6	321.9	324.3	326.6	328.9	331.2	333.6	335.9	338.2	339.8
57.5°	287.5	290.2	293.0	295.8	298.6	301.4	304.0	306.7	309.4	312.0	313.8
60°	267.6	270.4	273.4	276.3	279.2	282.1	285.0	287.9	290.8	293.7	295.9
62.5°	248.2	251.1	254.0	256.9	259.8	262.9	266.0	269.1	272.2	275.4	277.8
65°	218.5	221.9	225.2	228.5	231.9	235.3	238.8	242.3	245.7	249.3	251.4
67.5°	190.5	193.7	196.9	200.2	203.4	206.8	210.3	213.9	217.4	221.0	223.6
70°	170.0	173.4	176.8	180.1	183.5	187.0	190.8	194.6	198.4	202.2	204.9
72.5°	150.2	153.7	157.1	160.6	164.0	167.8	171.9	176.1	180.2	184.3	187.4
75°	120.4	124.2	127.9	131.7	135.5	139.7	144.4	149.0	153.7	158.3	161.2
77.5°	91.7	96.1	100.5	104.8	109.2	113.6	118.0	122.5	127.0	131.5	134.7
80°	74.0	78.3	82.7	87.0	91.4	96.0	101.0	105.9	110.8	115.8	119.0
82.5°	57.7	62.3	66.9	71.5	76.1	80.9	85.9	91.0	96.1	101.2	104.2
85°	36.0	40.8	45.5	50.4	55.2	60.1	65.2	70.3	75.3	80.5	83.7
87.5°	20.7	25.7	30.9	36.0	41.2	46.3	51.7	57.1	62.4	67.8	71.4
90°	11.8	18.7	25.7	32.6	39.6	46.6	53.6	60.5	67.4	74.4	79.2
92.5°	40.8	46.8	52.7	58.6	64.5	71.3	78.8	86.4	93.8	101.4	106.5
95°	92.9	97.3	101.6	106.0	110.3	116.4	124.2	132.1	139.9	147.7	153.0
97.5°	147.9	151.6	155.2	158.9	162.5	168.7	177.5	186.1	194.9	203.7	208.6
100°	189.0	192.0	195.1	198.1	201.2	206.9	215.3	223.8	232.1	240.6	246.2
102.5°	233.2	237.1	241.1	245.0	249.0	254.3	260.7	267.1	273.5	280.0	285.8
105°	302.0	305.7	309.5	313.2	317.0	321.9	328.0	334.2	340.3	346.3	350.9
107.5°	378.1	381.4	384.9	388.3	391.8	396.1	401.7	407.3	412.8	418.3	422.0
110°	430.5	433.7	436.9	440.1	443.2	447.3	452.3	457.2	462.1	467.1	470.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	484.5	486.6	488.8	490.9	493.1	496.7	501.7	506.8	511.9	516.9	520.0
115°	563.6	565.8	567.9	570.1	572.3	575.6	579.9	584.3	588.6	593.0	595.3
117.5°	642.9	644.1	645.3	646.5	647.6	650.3	654.4	658.5	662.6	666.7	669.4
120°	692.8	694.7	696.5	698.4	700.3	703.1	706.7	710.3	713.9	717.6	720.1
122.5°	746.3	747.0	747.7	748.5	749.2	751.6	755.5	759.5	763.4	767.4	769.6
125°	819.4	821.0	822.6	824.1	825.7	828.1	831.3	834.5	837.8	840.9	842.7
127.5°	896.6	897.5	898.3	899.1	900.0	901.8	904.5	907.2	910.0	912.7	914.6
130°	943.4	944.7	946.0	947.3	948.6	950.5	953.1	955.8	958.4	961.0	962.8
132.5°	989.6	992.0	994.3	996.6	998.9	1000.8	1002.3	1003.8	1005.2	1006.7	1008.4
135°	1063.5	1065.1	1066.7	1068.2	1069.9	1071.3	1072.6	1073.9	1075.2	1076.5	1078.4
137.5°	1133.0	1134.5	1136.1	1137.6	1139.2	1140.6	1141.7	1142.8	1143.9	1145.0	1147.1
140°	1177.2	1178.5	1180.0	1181.5	1182.9	1184.1	1185.2	1186.1	1187.1	1188.2	1190.3
142.5°	1221.8	1222.9	1224.0	1225.1	1226.2	1227.3	1228.4	1229.5	1230.6	1231.7	1233.5
145°	1287.5	1288.5	1289.5	1290.6	1291.5	1292.4	1293.3	1294.2	1295.0	1295.9	1296.7
147.5°	1347.6	1348.2	1348.8	1349.5	1350.1	1350.8	1351.5	1352.2	1352.9	1353.6	1354.5
150°	1388.1	1387.8	1387.6	1387.2	1387.0	1387.4	1388.5	1389.7	1390.9	1392.1	1392.1
152.5°	1421.3	1421.8	1422.2	1422.5	1423.0	1423.4	1423.9	1424.4	1424.8	1425.3	1426.0
155°	1472.6	1472.6	1472.6	1472.6	1472.6	1472.7	1473.0	1473.3	1473.5	1473.9	1475.0
157.5°	1518.2	1517.6	1517.0	1516.3	1515.7	1515.5	1515.8	1516.1	1516.4	1516.7	1517.9
160°	1545.2	1544.4	1543.5	1542.7	1541.8	1541.5	1541.8	1542.1	1542.4	1542.7	1543.8
162.5°	1569.2	1568.5	1567.9	1567.3	1566.6	1566.3	1566.3	1566.4	1566.5	1566.5	1568.0
165°	1601.1	1600.5	1599.9	1599.4	1598.8	1598.6	1599.0	1599.2	1599.5	1599.8	1600.9
167.5°	1628.1	1626.9	1625.8	1624.6	1623.5	1622.9	1622.9	1622.9	1622.9	1622.9	1624.6
170°	1642.6	1641.5	1640.3	1639.2	1638.1	1637.4	1637.4	1637.4	1637.4	1637.4	1639.2
172.5°	1653.0	1651.9	1650.7	1649.6	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.6
175°	1664.7	1663.5	1662.4	1661.2	1660.1	1659.5	1659.5	1659.5	1659.5	1659.5	1661.2
177.5°	1670.7	1669.7	1668.9	1667.9	1667.0	1666.4	1666.2	1665.9	1665.7	1665.5	1666.9
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	665.7	666.6	667.4	667.7	667.6	667.5	667.4	667.3
5°	663.7	664.9	666.0	666.5	666.4	666.2	666.1	666.0
7.5°	658.1	659.2	660.2	660.6	660.5	660.4	660.2	660.0
10°	653.0	653.9	655.0	655.4	655.3	655.1	655.0	654.8
12.5°	646.7	647.5	648.3	648.5	648.1	647.7	647.4	647.0
15°	635.0	635.8	636.7	636.9	636.3	635.7	635.2	634.6
17.5°	620.1	620.7	621.4	621.6	621.2	620.9	620.5	620.2
20°	608.6	609.1	609.5	609.7	609.7	609.7	609.7	609.7
22.5°	596.8	597.4	597.9	598.0	597.6	597.3	596.9	596.6
25°	578.2	578.8	579.3	579.3	578.5	577.8	577.0	576.4
27.5°	556.5	556.9	557.3	557.3	557.1	556.8	556.6	556.3
30°	541.6	541.9	542.2	542.3	542.1	541.9	541.8	541.7
32.5°	527.4	527.7	528.1	528.1	528.0	527.8	527.7	527.5
35°	504.5	505.1	505.5	505.7	505.7	505.7	505.7	505.7
37.5°	480.5	481.1	481.7	482.0	481.9	481.8	481.8	481.7
40°	464.3	464.9	465.5	465.9	466.2	466.5	466.8	467.1
42.5°	449.4	450.0	450.7	451.2	451.3	451.3	451.3	451.4
45°	425.2	426.3	427.3	427.9	428.1	428.2	428.3	428.5
47.5°	400.5	401.9	403.4	404.3	404.7	404.9	405.3	405.6
50°	383.9	385.6	387.1	388.1	388.6	389.0	389.4	389.9
52.5°	367.4	369.1	370.8	371.9	372.2	372.5	372.8	373.2
55°	341.4	343.0	344.6	345.7	346.3	346.9	347.4	348.0
57.5°	315.7	317.5	319.3	320.5	321.0	321.4	321.8	322.3
60°	298.1	300.2	302.5	303.8	304.2	304.6	305.1	305.5
62.5°	280.3	282.7	285.1	286.5	287.1	287.7	288.2	288.8
65°	253.6	255.8	258.0	259.3	259.9	260.5	261.1	261.7
67.5°	226.3	228.9	231.5	233.2	234.0	234.8	235.6	236.3
70°	207.7	210.4	213.2	215.0	215.9	216.7	217.7	218.5
72.5°	190.4	193.3	196.3	198.1	198.8	199.4	200.1	200.7
75°	164.1	167.0	170.0	171.8	172.5	173.2	173.9	174.7
77.5°	137.8	141.1	144.3	146.2	146.7	147.3	147.9	148.5
80°	122.2	125.4	128.5	130.4	131.0	131.6	132.2	132.8
82.5°	107.3	110.4	113.5	115.5	116.6	117.6	118.6	119.7
85°	86.9	90.1	93.2	95.4	96.6	97.7	98.9	100.0
87.5°	75.0	78.6	82.3	84.7	85.8	87.0	88.3	89.5
90°	84.0	88.8	93.6	96.9	98.8	100.7	102.5	104.4
92.5°	111.7	116.8	121.9	125.4	127.0	128.6	130.3	131.9
95°	158.2	163.4	168.6	172.0	173.6	175.2	176.8	178.4
97.5°	213.6	218.5	223.5	226.7	228.0	229.4	230.7	232.0
100°	251.8	257.5	263.1	266.7	268.1	269.6	271.0	272.5
102.5°	291.5	297.3	303.1	306.8	308.5	310.1	311.9	313.5
105°	355.6	360.2	364.9	368.2	370.1	372.0	373.8	375.7
107.5°	425.8	429.5	433.3	435.5	436.4	437.2	438.1	438.9
110°	474.3	477.9	481.6	483.7	484.5	485.2	485.9	486.6





TEST NUMBER: P333397-935

CATALOG NUMBER: S125DIW-S610D1560U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	523.0	526.1	529.1	530.9	531.4	531.8	532.4	532.9
115°	597.6	599.9	602.3	603.7	604.3	604.9	605.5	606.1
117.5°	672.1	674.9	677.5	678.8	678.6	678.5	678.3	678.1
120°	722.6	725.0	727.5	728.6	728.3	728.0	727.7	727.5
122.5°	771.7	773.8	775.9	777.0	776.9	776.9	776.8	776.8
125°	844.4	846.2	847.9	849.0	849.5	849.9	850.3	850.8
127.5°	916.4	918.3	920.2	921.2	921.4	921.8	922.0	922.3
130°	964.5	966.2	967.9	968.9	969.1	969.2	969.4	969.5
132.5°	1010.2	1011.9	1013.7	1014.4	1014.3	1014.1	1013.8	1013.7
135°	1080.3	1082.2	1084.1	1084.8	1084.3	1083.9	1083.6	1083.1
137.5°	1149.2	1151.2	1153.3	1153.9	1153.1	1152.2	1151.3	1150.5
140°	1192.5	1194.7	1196.9	1197.6	1196.7	1195.8	1195.0	1194.1
142.5°	1235.2	1236.9	1238.6	1239.1	1238.2	1237.3	1236.5	1235.6
145°	1297.4	1298.1	1298.8	1299.1	1298.8	1298.5	1298.2	1298.0
147.5°	1355.5	1356.3	1357.3	1356.9	1355.2	1353.5	1351.8	1350.1
150°	1392.1	1392.1	1392.1	1391.8	1391.4	1390.9	1390.5	1390.1
152.5°	1426.7	1427.4	1428.1	1427.9	1426.8	1425.8	1424.9	1423.8
155°	1476.1	1477.3	1478.4	1478.3	1476.9	1475.4	1473.9	1472.6
157.5°	1519.0	1520.2	1521.3	1521.0	1519.0	1517.1	1515.2	1513.3
160°	1545.0	1546.1	1547.3	1547.1	1545.7	1544.2	1542.8	1541.4
162.5°	1569.3	1570.7	1572.1	1571.9	1570.3	1568.6	1566.9	1565.2
165°	1602.1	1603.3	1604.4	1604.1	1602.4	1600.7	1599.0	1597.2
167.5°	1626.3	1628.1	1629.8	1629.8	1628.0	1626.3	1624.4	1622.6
170°	1640.9	1642.6	1644.3	1644.3	1642.2	1640.2	1638.1	1636.2
172.5°	1651.3	1653.0	1654.8	1654.8	1652.9	1651.1	1649.3	1647.6
175°	1663.0	1664.7	1666.5	1666.3	1664.3	1662.2	1660.3	1658.2
177.5°	1668.3	1669.7	1671.0	1670.9	1669.3	1667.7	1666.0	1664.5
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6

(END OF REPORT)