

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: P333396-930

Luminaire Tested: **S125DIW-S610D1560U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333396-930  
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-S610D1560U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 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: 7044.7 lumens  
Efficiency: N/A  
Efficacy: 116.2 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: Semi-Indirect

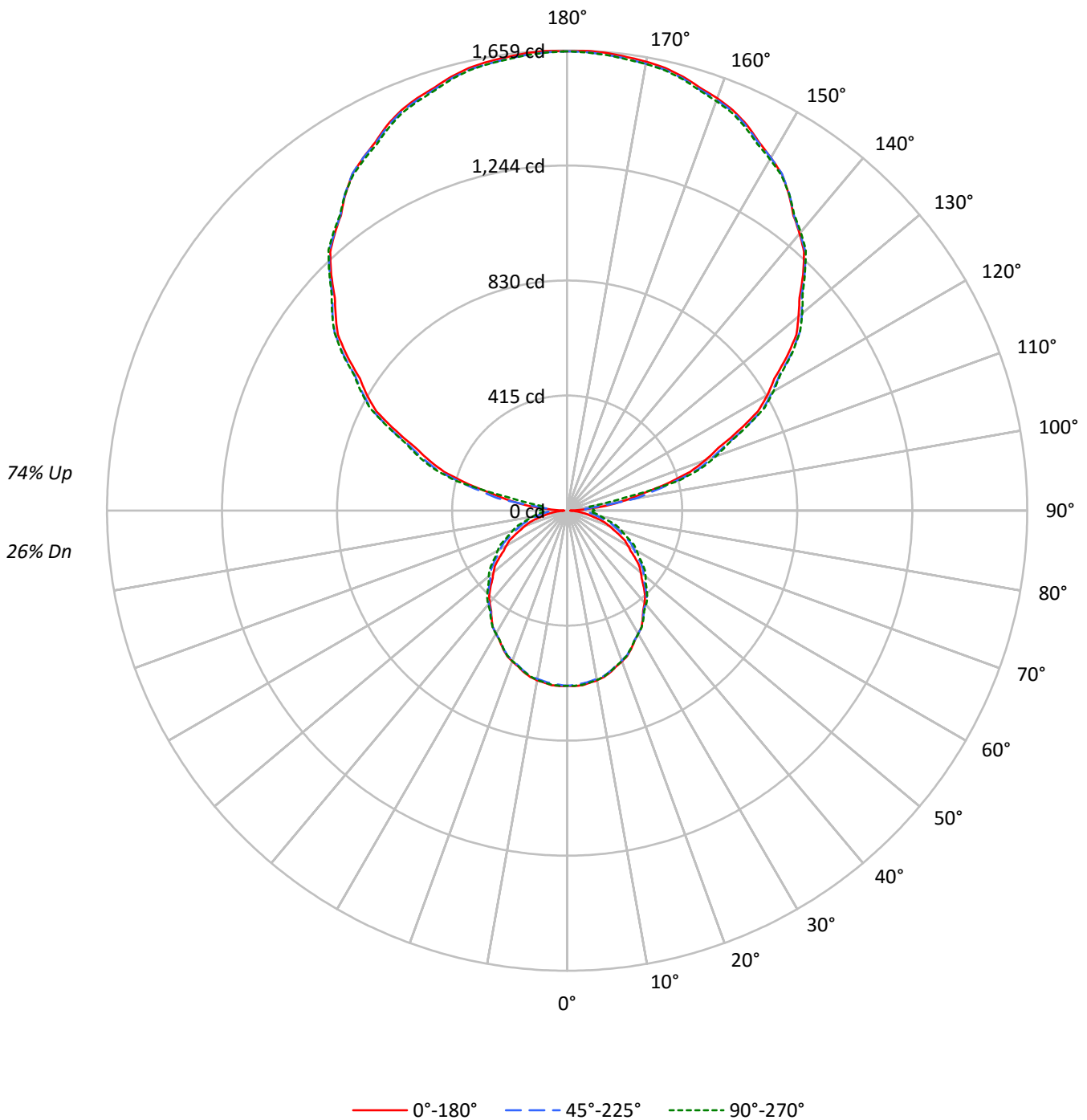
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	101	101	101	91	91	91	91	70	70	70	51	51	51	34	34	34	26
1	92	88	84	80	82	78	75	72	61	58	56	44	43	42	30	29	28	21
2	84	76	70	65	74	68	63	59	53	49	46	39	37	35	26	24	23	17
3	76	67	60	54	68	60	54	49	46	42	39	34	31	29	23	21	20	15
4	69	59	51	45	62	53	46	41	41	36	33	30	27	25	20	18	17	12
5	64	52	44	39	56	47	40	35	37	32	28	27	24	21	18	16	15	11
6	58	47	39	33	52	42	35	30	33	28	24	24	21	18	16	14	13	9
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10	7
9	46	34	27	22	41	31	25	20	25	20	17	18	15	13	13	10	9	7
10	43	31	24	20	38	28	22	18	22	18	15	17	14	11	12	10	8	6

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

	0°	45°	90°
0°	4081	4081	4081
5°	4089	4005	4018
10°	4060	3934	3927
15°	4011	3849	3813
20°	3946	3742	3698
25°	3869	3629	3558
30°	3775	3505	3429
35°	3687	3390	3311
40°	3598	3269	3193
45°	3497	3166	3089
50°	3401	3054	2996
55°	3285	2948	2886
60°	3159	2827	2775
65°	3027	2702	2650
70°	2876	2529	2521
75°	2639	2363	2363
80°	2328	2164	2190
85°	2041	2028	2136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	0.8
10°-20°	169.6	2.4
20°-30°	252.2	3.6
30°-40°	298.8	4.2
40°-50°	308.9	4.4
50°-60°	284.6	4.0
60°-70°	230.0	3.3
70°-80°	154.0	2.2
80°-90°	83.3	1.2
90°-100°	105.0	1.5
100°-110°	403.9	5.7
110°-120°	694.7	9.9
120°-130°	875.7	12.4
130°-140°	933.8	13.3
140°-150°	872.5	12.4
150°-160°	704.9	10.0
160°-170°	455.9	6.5
170°-180°	157.2	2.2
0°-30°	481.6	6.8
0°-40°	780.4	11.1
0°-60°	1373.8	19.5
0°-90°	1841.2	26.1
90°-120°	1203.5	17.1
90°-150°	3885.5	55.2
90°-180°	5203.0	73.9
0°-180°	7044.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	626	631	631	60
15°	603	604	600	603	601	170
25°	548	550	546	548	546	252
35°	474	478	477	479	479	297
45°	391	398	401	405	406	302
55°	300	310	320	327	330	268
65°	207	221	236	245	248	205
75°	114	130	150	162	165	121
85°	34	55	76	89	95	36
90°	11	41	70	90	99	10
95°	78	88	65	84	89	95
105°	366	381	400	412	415	388
115°	681	692	709	715	712	675
125°	966	974	986	991	991	862
135°	1203	1209	1211	1216	1213	927
145°	1394	1395	1396	1399	1395	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



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CATALOG NUMBER: S125DIW-S610D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	633.3	633.1	632.9	632.7	632.4	631.9	631.2	630.4	629.7	628.8	629.7
5°	631.9	631.5	631.3	631.0	630.7	630.1	629.2	628.2	627.2	626.2	627.4
7.5°	626.2	626.1	626.1	625.9	625.8	625.3	624.3	623.3	622.3	621.3	622.2
10°	621.3	621.3	621.3	621.3	621.3	620.8	619.6	618.6	617.4	616.4	617.3
12.5°	614.4	614.5	614.6	614.7	614.8	614.4	613.5	612.7	611.8	610.9	611.6
15°	603.3	603.5	603.6	603.7	603.9	603.5	602.5	601.5	600.6	599.7	600.5
17.5°	589.0	589.2	589.5	589.8	590.1	589.7	588.8	587.8	586.9	585.9	586.5
20°	578.5	578.9	579.1	579.4	579.7	579.4	578.4	577.4	576.4	575.4	575.8
22.5°	566.7	567.2	567.7	568.2	568.7	568.3	567.3	566.2	565.2	564.1	564.6
25°	548.2	548.6	549.0	549.4	549.8	549.7	548.9	548.0	547.1	546.3	546.9
27.5°	527.7	528.2	528.9	529.5	530.1	529.9	529.0	528.1	527.1	526.2	526.5
30°	512.3	513.1	514.0	514.8	515.6	515.6	514.8	514.0	513.1	512.3	512.6
32.5°	498.4	499.1	499.9	500.6	501.2	501.3	500.8	500.1	499.5	498.9	499.2
35°	474.5	475.5	476.5	477.4	478.3	478.7	478.3	477.8	477.4	477.0	477.4
37.5°	450.6	451.5	452.3	453.2	454.1	454.4	454.4	454.2	454.0	454.0	454.4
40°	434.2	435.4	436.4	437.6	438.6	439.1	439.0	438.9	438.7	438.5	439.1
42.5°	416.4	417.8	419.2	420.7	422.2	423.0	423.3	423.6	423.9	424.2	424.9
45°	390.9	392.4	393.9	395.4	397.0	398.0	398.8	399.4	400.1	400.8	401.8
47.5°	364.8	366.2	367.5	368.9	370.4	371.6	372.8	374.0	375.2	376.3	377.8
50°	346.9	348.4	349.9	351.5	352.9	354.5	356.0	357.5	359.0	360.5	362.1
52.5°	328.1	329.9	331.7	333.6	335.4	337.3	339.2	341.0	342.8	344.6	346.3
55°	300.4	302.6	304.8	307.0	309.2	311.4	313.6	315.8	318.0	320.2	321.8
57.5°	272.2	274.8	277.4	280.1	282.7	285.4	287.9	290.4	292.9	295.5	297.2
60°	253.4	256.1	258.9	261.6	264.4	267.1	269.9	272.6	275.4	278.1	280.2
62.5°	235.1	237.7	240.5	243.3	246.1	248.9	251.8	254.9	257.8	260.8	263.1
65°	206.9	210.1	213.2	216.4	219.6	222.8	226.1	229.4	232.7	236.0	238.1
67.5°	180.4	183.4	186.5	189.6	192.6	195.8	199.2	202.5	205.9	209.3	211.7
70°	161.0	164.2	167.4	170.6	173.7	177.1	180.7	184.3	187.8	191.4	194.0
72.5°	142.2	145.5	148.8	152.1	155.3	158.9	162.8	166.7	170.6	174.6	177.4
75°	114.0	117.6	121.2	124.7	128.3	132.3	136.7	141.1	145.5	149.9	152.6
77.5°	86.8	91.0	95.1	99.2	103.4	107.5	111.8	116.0	120.3	124.5	127.5
80°	70.0	74.1	78.3	82.4	86.5	90.9	95.6	100.3	104.9	109.7	112.7
82.5°	54.6	58.9	63.3	67.7	72.1	76.6	81.4	86.2	91.0	95.8	98.7
85°	34.1	38.6	43.1	47.7	52.3	56.9	61.7	66.5	71.3	76.2	79.2
87.5°	19.6	24.4	29.3	34.1	39.0	43.9	48.9	54.1	59.1	64.2	67.6
90°	11.2	17.7	24.3	30.9	37.5	44.1	50.6	57.2	63.8	70.4	74.9
92.5°	27.8	30.3	32.9	35.5	38.0	42.6	49.0	55.5	62.0	68.5	72.9
95°	78.0	80.8	83.6	86.3	89.0	87.6	81.9	76.2	70.5	64.9	69.2
97.5°	153.4	158.1	162.7	167.5	172.1	166.5	150.5	134.5	118.5	102.5	97.7
100°	211.8	215.5	219.2	222.9	226.6	231.2	236.7	242.2	247.7	253.2	215.5
102.5°	271.2	274.9	278.6	282.3	286.0	290.3	295.3	300.2	305.2	310.1	305.2
105°	366.4	369.7	373.0	376.3	379.6	383.3	387.4	391.6	395.7	399.8	402.6
107.5°	465.3	467.2	469.0	470.9	472.8	476.0	480.5	485.0	489.5	494.1	496.8
110°	529.6	531.2	533.0	534.6	536.2	539.2	543.6	548.0	552.4	556.8	558.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	590.5	592.5	594.4	596.4	598.4	601.4	605.5	609.6	613.7	617.8	619.2
115°	681.2	683.5	685.8	688.2	690.5	693.6	697.4	701.3	705.2	709.0	710.4
117.5°	775.1	775.7	776.2	776.8	777.4	779.9	784.3	788.7	793.1	797.6	798.5
120°	834.0	834.1	834.3	834.4	834.5	836.6	840.6	844.6	848.6	852.6	854.4
122.5°	885.5	886.7	888.0	889.2	890.5	892.8	896.3	899.7	903.1	906.5	908.2
125°	965.9	967.7	969.5	971.3	973.0	975.3	978.0	980.8	983.5	986.3	987.4
127.5°	1042.1	1043.3	1044.6	1045.8	1047.0	1048.7	1050.8	1052.9	1055.0	1057.0	1058.5
130°	1089.2	1090.5	1091.7	1092.9	1094.1	1095.8	1098.0	1100.2	1102.4	1104.6	1105.8
132.5°	1135.9	1137.4	1139.0	1140.5	1142.1	1143.3	1144.2	1145.1	1146.0	1146.9	1148.7
135°	1202.8	1204.3	1205.7	1207.3	1208.8	1209.7	1210.1	1210.6	1211.0	1211.4	1212.7
137.5°	1264.3	1265.6	1266.9	1268.2	1269.5	1270.2	1270.2	1270.1	1270.1	1270.1	1271.8
140°	1304.0	1304.6	1305.1	1305.7	1306.2	1306.4	1306.3	1306.1	1306.0	1305.9	1307.9
142.5°	1340.4	1340.6	1340.8	1341.0	1341.2	1341.6	1342.0	1342.4	1342.8	1343.2	1344.6
145°	1393.6	1394.0	1394.4	1394.8	1395.2	1395.5	1395.5	1395.5	1395.5	1395.5	1396.4
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.2
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	630.4	631.2	631.9	632.3	632.2	632.1	631.9	631.9
5°	628.4	629.6	630.6	631.1	631.0	630.9	630.7	630.6
7.5°	623.2	624.2	625.2	625.6	625.4	625.3	625.2	625.0
10°	618.3	619.2	620.2	620.6	620.5	620.4	620.2	620.0
12.5°	612.4	613.1	613.9	614.1	613.7	613.3	613.0	612.6
15°	601.3	602.1	602.9	603.1	602.5	601.9	601.4	600.9
17.5°	587.2	587.7	588.4	588.6	588.2	587.9	587.6	587.3
20°	576.3	576.7	577.2	577.3	577.3	577.3	577.3	577.3
22.5°	565.1	565.7	566.1	566.2	565.9	565.6	565.2	564.9
25°	547.5	548.0	548.5	548.5	547.8	547.1	546.4	545.8
27.5°	526.9	527.3	527.7	527.7	527.5	527.3	527.0	526.8
30°	512.8	513.1	513.4	513.5	513.3	513.1	513.1	512.9
32.5°	499.5	499.7	500.0	500.1	499.9	499.8	499.7	499.5
35°	477.8	478.3	478.7	478.8	478.8	478.8	478.8	478.8
37.5°	455.0	455.6	456.2	456.4	456.3	456.2	456.2	456.2
40°	439.7	440.3	440.8	441.2	441.5	441.7	442.1	442.3
42.5°	425.5	426.2	426.8	427.2	427.3	427.3	427.4	427.5
45°	402.7	403.7	404.6	405.2	405.4	405.4	405.6	405.8
47.5°	379.2	380.6	382.0	382.9	383.2	383.4	383.8	384.1
50°	363.5	365.1	366.6	367.5	367.9	368.4	368.8	369.2
52.5°	347.9	349.5	351.1	352.1	352.5	352.7	353.0	353.4
55°	323.3	324.8	326.3	327.3	327.9	328.5	329.0	329.5
57.5°	299.0	300.7	302.4	303.5	303.9	304.4	304.8	305.2
60°	282.3	284.3	286.4	287.6	288.0	288.5	288.9	289.3
62.5°	265.4	267.7	269.9	271.3	271.8	272.4	272.9	273.5
65°	240.1	242.2	244.3	245.6	246.1	246.7	247.2	247.8
67.5°	214.3	216.8	219.2	220.9	221.6	222.3	223.1	223.7
70°	196.7	199.3	201.9	203.6	204.4	205.2	206.1	206.9
72.5°	180.3	183.0	185.9	187.6	188.3	188.8	189.5	190.0
75°	155.4	158.2	160.9	162.7	163.3	164.0	164.7	165.4
77.5°	130.5	133.6	136.6	138.4	138.9	139.5	140.1	140.6
80°	115.7	118.7	121.7	123.5	124.1	124.7	125.2	125.7
82.5°	101.6	104.5	107.5	109.4	110.4	111.4	112.3	113.3
85°	82.3	85.3	88.3	90.3	91.5	92.5	93.7	94.7
87.5°	71.0	74.4	77.9	80.1	81.3	82.4	83.6	84.7
90°	79.5	84.1	88.5	91.7	93.5	95.3	97.0	98.8
92.5°	77.3	81.7	86.1	89.0	90.3	91.7	93.0	94.4
95°	73.6	78.0	82.4	85.1	86.1	87.0	88.0	88.9
97.5°	92.9	88.1	83.3	81.4	82.3	83.2	84.2	85.1
100°	177.7	140.0	102.2	83.2	82.9	82.7	82.4	82.2
102.5°	300.3	295.4	290.5	279.2	261.5	243.7	226.0	208.3
105°	405.3	408.1	410.8	412.5	413.3	413.9	414.6	415.3
107.5°	499.6	502.4	505.2	506.5	506.6	506.6	506.7	506.7
110°	560.4	562.2	564.0	565.6	566.8	568.0	569.2	570.5





TEST NUMBER: P333396-930

CATALOG NUMBER: S125DIW-S610D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	620.7	622.2	623.6	624.6	625.2	625.7	626.4	627.0
115°	711.8	713.1	714.5	714.9	714.0	713.2	712.4	711.6
117.5°	799.4	800.4	801.3	801.8	802.1	802.3	802.5	802.7
120°	856.1	857.9	859.7	860.4	859.8	859.2	858.8	858.2
122.5°	909.9	911.6	913.3	913.7	913.0	912.2	911.5	910.7
125°	988.5	989.6	990.8	991.2	991.1	991.0	990.8	990.7
127.5°	1060.0	1061.4	1062.8	1062.9	1061.7	1060.5	1059.2	1058.0
130°	1106.9	1108.0	1109.1	1109.3	1108.6	1108.0	1107.3	1106.6
132.5°	1150.4	1152.2	1153.9	1154.4	1153.6	1152.8	1152.1	1151.3
135°	1213.9	1215.1	1216.3	1216.5	1215.6	1214.6	1213.7	1212.8
137.5°	1273.5	1275.2	1277.0	1277.4	1276.5	1275.7	1274.8	1273.9
140°	1310.0	1312.1	1314.1	1314.6	1313.5	1312.4	1311.3	1310.3
142.5°	1346.0	1347.4	1348.7	1348.9	1347.9	1346.8	1345.7	1344.6
145°	1397.3	1398.3	1399.3	1399.2	1398.2	1397.1	1396.0	1394.9
147.5°	1441.7	1442.3	1442.8	1442.3	1440.5	1438.8	1437.0	1435.3
150°	1470.1	1470.7	1471.3	1470.6	1468.5	1466.5	1464.4	1462.3
152.5°	1495.7	1496.2	1496.8	1496.1	1494.2	1492.2	1490.3	1488.3
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)