

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: P333396-927

Luminaire Tested: **S125DIW-S610D1560U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333396-927  
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-S610D1560U927-4F0-1E-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: 6844.9 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

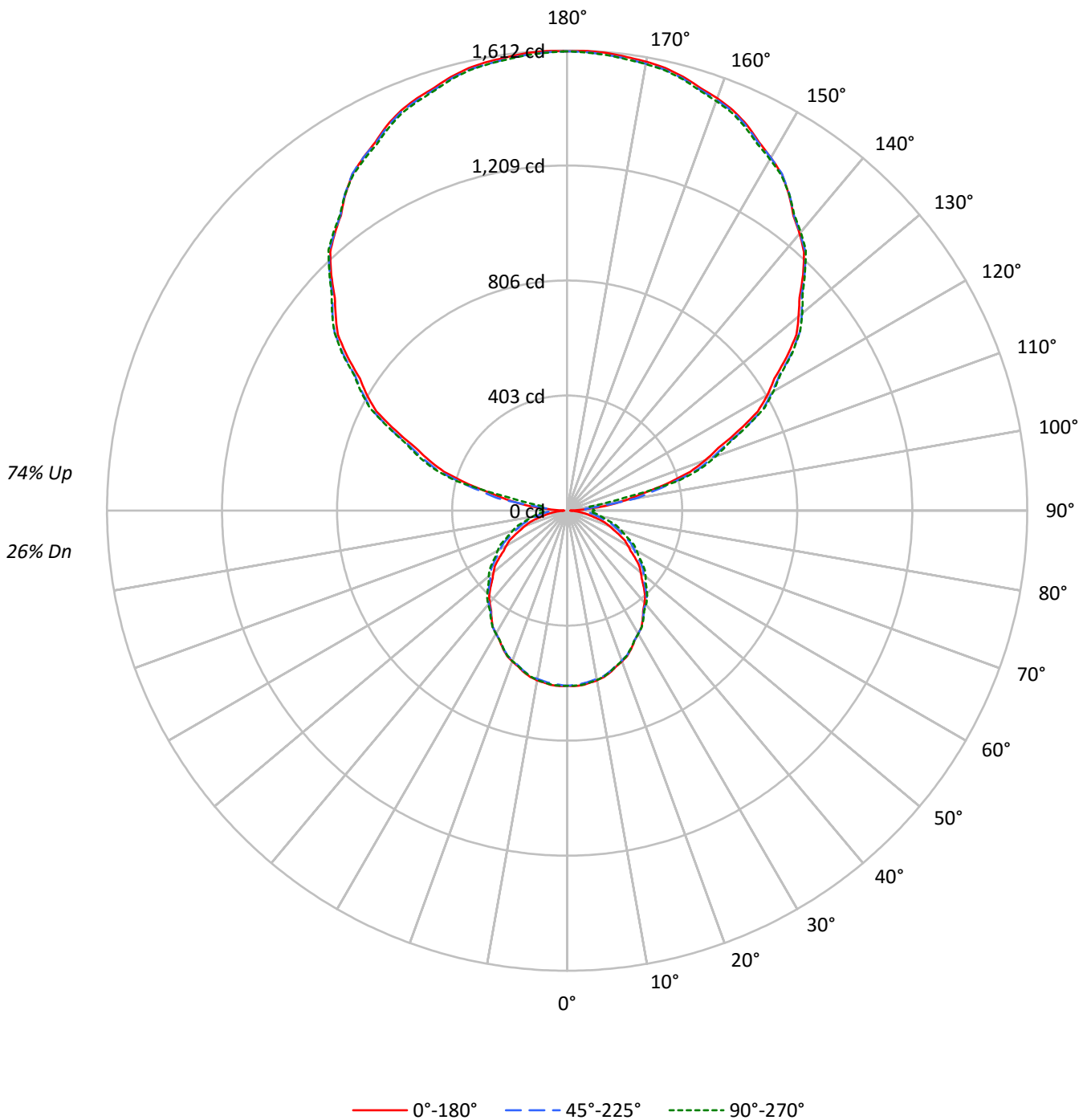
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333396-927

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### Luminous Intensity Polar Plot





TEST NUMBER: P333396-927

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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°	3965	3965	3965
5°	3973	3892	3904
10°	3945	3822	3817
15°	3898	3740	3705
20°	3834	3636	3593
25°	3759	3526	3457
30°	3667	3405	3332
35°	3583	3293	3217
40°	3496	3176	3103
45°	3398	3076	3001
50°	3305	2967	2910
55°	3192	2865	2804
60°	3069	2747	2697
65°	2942	2625	2574
70°	2795	2458	2451
75°	2563	2297	2296
80°	2262	2101	2129
85°	1981	1972	2077



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.1	0.8
10°-20°	164.8	2.4
20°-30°	245.1	3.6
30°-40°	290.3	4.2
40°-50°	300.2	4.4
50°-60°	276.5	4.0
60°-70°	223.5	3.3
70°-80°	149.7	2.2
80°-90°	81.0	1.2
90°-100°	102.0	1.5
100°-110°	392.4	5.7
110°-120°	675.0	9.9
120°-130°	850.8	12.4
130°-140°	907.3	13.3
140°-150°	847.7	12.4
150°-160°	684.9	10.0
160°-170°	442.9	6.5
170°-180°	152.8	2.2
0°-30°	467.9	6.8
0°-40°	758.2	11.1
0°-60°	1334.9	19.5
0°-90°	1789.0	26.1
90°-120°	1169.4	17.1
90°-150°	3775.3	55.2
90°-180°	5056.0	73.9
0°-180°	6844.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	614	613	608	613	613	58
15°	586	587	583	586	584	165
25°	533	534	531	533	530	245
35°	461	465	463	465	465	288
45°	380	386	389	393	394	293
55°	292	302	311	318	320	261
65°	201	215	229	238	241	199
75°	111	127	146	157	161	117
85°	33	53	74	87	92	35
90°	11	40	68	88	96	9
95°	76	86	63	81	86	93
105°	356	371	388	400	404	377
115°	662	672	689	694	691	656
125°	938	946	958	963	963	838
135°	1169	1175	1177	1182	1178	901
145°	1354	1356	1356	1360	1355	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	



TEST NUMBER: P333396-927

CATALOG NUMBER: S125DIW-S610D1560U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	615.4	615.1	615.0	614.7	614.5	614.0	613.3	612.5	611.8	611.0	611.8
5°	613.9	613.6	613.4	613.1	612.8	612.3	611.3	610.4	609.4	608.5	609.6
7.5°	608.5	608.4	608.3	608.2	608.1	607.5	606.6	605.6	604.7	603.7	604.6
10°	603.7	603.7	603.7	603.7	603.7	603.2	602.1	601.0	599.9	598.9	599.8
12.5°	597.0	597.1	597.1	597.3	597.4	597.0	596.1	595.3	594.5	593.6	594.3
15°	586.2	586.4	586.5	586.6	586.8	586.4	585.4	584.5	583.6	582.7	583.4
17.5°	572.3	572.5	572.8	573.1	573.4	573.0	572.1	571.2	570.2	569.3	569.9
20°	562.1	562.4	562.7	563.0	563.2	562.9	562.0	561.0	560.1	559.1	559.5
22.5°	550.6	551.1	551.6	552.1	552.5	552.2	551.2	550.2	549.1	548.1	548.6
25°	532.7	533.1	533.5	533.9	534.2	534.1	533.3	532.5	531.6	530.8	531.4
27.5°	512.7	513.3	513.9	514.4	515.1	514.9	514.0	513.1	512.1	511.3	511.6
30°	497.7	498.6	499.4	500.2	501.0	501.0	500.2	499.4	498.6	497.7	498.0
32.5°	484.3	485.0	485.7	486.4	487.0	487.1	486.6	485.9	485.4	484.7	485.1
35°	461.1	462.0	463.0	463.8	464.8	465.1	464.7	464.2	463.8	463.4	463.8
37.5°	437.8	438.7	439.5	440.4	441.2	441.6	441.5	441.3	441.2	441.1	441.6
40°	421.9	423.0	424.1	425.2	426.2	426.7	426.5	426.4	426.3	426.1	426.7
42.5°	404.6	406.0	407.3	408.8	410.2	411.0	411.3	411.6	411.9	412.2	412.8
45°	379.8	381.3	382.7	384.2	385.7	386.7	387.5	388.1	388.7	389.4	390.4
47.5°	354.4	355.8	357.1	358.5	359.9	361.1	362.3	363.4	364.6	365.7	367.1
50°	337.1	338.5	340.0	341.5	342.9	344.4	345.9	347.4	348.8	350.3	351.8
52.5°	318.8	320.5	322.3	324.2	325.9	327.7	329.5	331.3	333.1	334.9	336.4
55°	291.9	294.1	296.2	298.3	300.5	302.6	304.8	306.9	309.0	311.2	312.7
57.5°	264.5	267.0	269.6	272.2	274.7	277.3	279.7	282.2	284.6	287.1	288.8
60°	246.2	248.8	251.5	254.2	256.9	259.5	262.2	264.9	267.6	270.2	272.3
62.5°	228.4	231.0	233.7	236.4	239.1	241.9	244.7	247.6	250.5	253.4	255.6
65°	201.1	204.1	207.2	210.2	213.3	216.5	219.7	222.9	226.1	229.3	231.3
67.5°	175.3	178.2	181.2	184.2	187.1	190.3	193.5	196.8	200.0	203.4	205.7
70°	156.5	159.5	162.6	165.7	168.8	172.1	175.5	179.0	182.5	186.0	188.5
72.5°	138.2	141.4	144.6	147.7	150.9	154.4	158.2	162.0	165.8	169.6	172.4
75°	110.7	114.2	117.7	121.2	124.7	128.6	132.8	137.1	141.4	145.7	148.3
77.5°	84.4	88.4	92.4	96.4	100.4	104.5	108.6	112.7	116.8	121.0	123.9
80°	68.0	72.0	76.0	80.1	84.1	88.3	92.9	97.4	102.0	106.5	109.5
82.5°	53.1	57.3	61.6	65.8	70.0	74.5	79.1	83.7	88.4	93.1	95.9
85°	33.1	37.5	41.9	46.3	50.8	55.3	60.0	64.6	69.3	74.1	77.0
87.5°	19.0	23.7	28.4	33.1	37.9	42.6	47.5	52.5	57.4	62.3	65.7
90°	10.9	17.2	23.6	30.0	36.4	42.9	49.2	55.6	62.0	68.4	72.8
92.5°	27.0	29.5	32.0	34.5	36.9	41.4	47.6	53.9	60.2	66.5	70.8
95°	75.8	78.5	81.2	83.8	86.5	85.1	79.6	74.1	68.5	63.1	67.3
97.5°	149.0	153.6	158.1	162.7	167.2	161.8	146.2	130.7	115.1	99.6	94.9
100°	205.8	209.4	213.0	216.6	220.1	224.7	230.0	235.4	240.7	246.1	209.4
102.5°	263.5	267.1	270.7	274.3	277.9	282.1	286.9	291.7	296.5	301.3	296.6
105°	356.0	359.3	362.4	365.6	368.8	372.4	376.4	380.5	384.4	388.5	391.2
107.5°	452.1	453.9	455.7	457.6	459.4	462.5	466.9	471.3	475.6	480.1	482.8
110°	514.6	516.2	517.8	519.4	521.0	523.9	528.2	532.5	536.8	541.1	542.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	573.8	575.7	577.6	579.5	581.5	584.4	588.4	592.3	596.3	600.2	601.7
115°	661.9	664.2	666.4	668.7	670.9	673.9	677.6	681.4	685.2	688.9	690.2
117.5°	753.1	753.7	754.2	754.8	755.3	757.8	762.1	766.4	770.6	775.0	775.9
120°	810.3	810.5	810.6	810.7	810.9	812.9	816.7	820.6	824.5	828.4	830.1
122.5°	860.4	861.6	862.8	864.0	865.2	867.4	870.8	874.2	877.5	880.8	882.5
125°	938.5	940.2	942.0	943.7	945.4	947.6	950.3	953.0	955.6	958.3	959.4
127.5°	1012.6	1013.8	1014.9	1016.1	1017.3	1019.0	1021.0	1023.0	1025.1	1027.1	1028.5
130°	1058.4	1059.5	1060.7	1061.9	1063.1	1064.8	1066.9	1069.1	1071.2	1073.3	1074.4
132.5°	1103.7	1105.2	1106.7	1108.2	1109.7	1110.9	1111.7	1112.6	1113.5	1114.4	1116.1
135°	1168.7	1170.1	1171.6	1173.1	1174.5	1175.4	1175.8	1176.2	1176.6	1177.0	1178.3
137.5°	1228.4	1229.7	1231.0	1232.2	1233.5	1234.1	1234.1	1234.1	1234.1	1234.1	1235.7
140°	1267.0	1267.6	1268.1	1268.7	1269.2	1269.4	1269.2	1269.1	1269.0	1268.8	1270.8
142.5°	1302.3	1302.6	1302.7	1303.0	1303.2	1303.5	1303.9	1304.3	1304.7	1305.1	1306.5
145°	1354.1	1354.5	1354.9	1355.3	1355.7	1355.9	1355.9	1355.9	1355.9	1355.9	1356.8
147.5°	1398.8	1398.7	1398.6	1398.5	1398.4	1398.5	1398.8	1399.2	1399.5	1399.8	1400.3
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°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	612.5	613.3	614.0	614.3	614.3	614.2	614.0	613.9
5°	610.6	611.7	612.8	613.2	613.1	613.0	612.8	612.8
7.5°	605.5	606.5	607.4	607.8	607.7	607.6	607.4	607.3
10°	600.8	601.7	602.6	603.0	602.9	602.8	602.6	602.5
12.5°	595.0	595.7	596.5	596.7	596.3	596.0	595.6	595.2
15°	584.2	585.0	585.8	586.0	585.4	584.9	584.4	583.8
17.5°	570.5	571.1	571.7	571.9	571.6	571.2	570.9	570.6
20°	560.0	560.4	560.8	560.9	560.9	560.9	560.9	560.9
22.5°	549.1	549.6	550.1	550.2	549.9	549.5	549.2	548.9
25°	532.0	532.5	533.0	533.0	532.3	531.6	530.9	530.3
27.5°	512.0	512.4	512.8	512.8	512.5	512.3	512.1	511.8
30°	498.3	498.6	498.8	498.9	498.8	498.6	498.5	498.4
32.5°	485.3	485.5	485.8	485.9	485.8	485.6	485.5	485.4
35°	464.2	464.7	465.1	465.2	465.2	465.2	465.2	465.2
37.5°	442.1	442.7	443.2	443.5	443.4	443.3	443.3	443.2
40°	427.2	427.8	428.3	428.6	429.0	429.2	429.5	429.8
42.5°	413.4	414.1	414.7	415.1	415.2	415.2	415.3	415.3
45°	391.3	392.2	393.2	393.7	393.9	394.0	394.1	394.3
47.5°	368.4	369.8	371.1	372.0	372.3	372.6	372.9	373.2
50°	353.2	354.7	356.2	357.1	357.5	357.9	358.3	358.7
52.5°	338.0	339.6	341.2	342.1	342.5	342.7	343.0	343.3
55°	314.1	315.6	317.0	318.1	318.6	319.2	319.6	320.2
57.5°	290.5	292.2	293.8	294.9	295.3	295.7	296.1	296.5
60°	274.3	276.2	278.3	279.5	279.9	280.3	280.7	281.1
62.5°	257.9	260.1	262.3	263.6	264.1	264.7	265.1	265.7
65°	233.3	235.4	237.3	238.6	239.2	239.7	240.2	240.7
67.5°	208.2	210.6	213.0	214.6	215.3	216.0	216.7	217.4
70°	191.1	193.6	196.1	197.8	198.6	199.4	200.3	201.1
72.5°	175.2	177.8	180.6	182.3	182.9	183.5	184.1	184.7
75°	151.0	153.7	156.4	158.0	158.7	159.4	160.0	160.7
77.5°	126.8	129.8	132.8	134.5	135.0	135.5	136.1	136.7
80°	112.4	115.3	118.3	120.0	120.6	121.1	121.7	122.2
82.5°	98.7	101.6	104.4	106.3	107.3	108.2	109.2	110.1
85°	79.9	82.9	85.8	87.8	88.9	89.9	91.0	92.1
87.5°	69.0	72.3	75.7	77.9	79.0	80.1	81.2	82.3
90°	77.2	81.7	86.0	89.1	90.9	92.6	94.3	96.0
92.5°	75.1	79.4	83.7	86.5	87.8	89.1	90.4	91.7
95°	71.5	75.8	80.1	82.7	83.7	84.5	85.5	86.4
97.5°	90.3	85.6	81.0	79.1	80.0	80.9	81.8	82.7
100°	172.7	136.0	99.3	80.9	80.6	80.3	80.1	79.9
102.5°	291.8	287.0	282.3	271.2	254.1	236.8	219.6	202.4
105°	393.8	396.5	399.2	400.8	401.6	402.2	402.8	403.5
107.5°	485.4	488.1	490.8	492.2	492.3	492.3	492.3	492.3
110°	544.5	546.3	548.0	549.5	550.7	551.9	553.1	554.4





TEST NUMBER: P333396-927

CATALOG NUMBER: S125DIW-S610D1560U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	603.1	604.5	605.9	606.9	607.4	608.0	608.6	609.2
115°	691.6	692.9	694.3	694.6	693.8	693.0	692.2	691.4
117.5°	776.7	777.7	778.6	779.1	779.3	779.6	779.7	780.0
120°	831.9	833.6	835.4	836.0	835.4	834.9	834.4	833.9
122.5°	884.1	885.7	887.4	887.8	887.1	886.4	885.7	884.9
125°	960.4	961.6	962.7	963.1	963.0	962.9	962.7	962.6
127.5°	1029.9	1031.3	1032.7	1032.8	1031.6	1030.4	1029.2	1028.0
130°	1075.5	1076.6	1077.7	1077.8	1077.2	1076.6	1075.9	1075.2
132.5°	1117.8	1119.5	1121.2	1121.7	1120.9	1120.1	1119.4	1118.6
135°	1179.5	1180.7	1181.9	1182.0	1181.1	1180.2	1179.2	1178.4
137.5°	1237.4	1239.1	1240.8	1241.2	1240.3	1239.5	1238.7	1237.8
140°	1272.9	1274.9	1276.8	1277.3	1276.3	1275.2	1274.1	1273.1
142.5°	1307.8	1309.2	1310.5	1310.7	1309.6	1308.6	1307.5	1306.5
145°	1357.7	1358.7	1359.6	1359.5	1358.5	1357.5	1356.4	1355.3
147.5°	1400.8	1401.4	1401.9	1401.4	1399.6	1398.0	1396.3	1394.6
150°	1428.5	1429.0	1429.6	1428.9	1426.9	1424.9	1422.8	1420.9
152.5°	1453.3	1453.8	1454.4	1453.7	1451.8	1449.9	1448.0	1446.1
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)