

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: P333397-927

Luminaire Tested: **S125DIW-S610D1560U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333397-927  
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-S610D1560U927-4F0-1E-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: 6188.9 lumens  
Efficiency: N/A  
Efficacy: 102.1 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

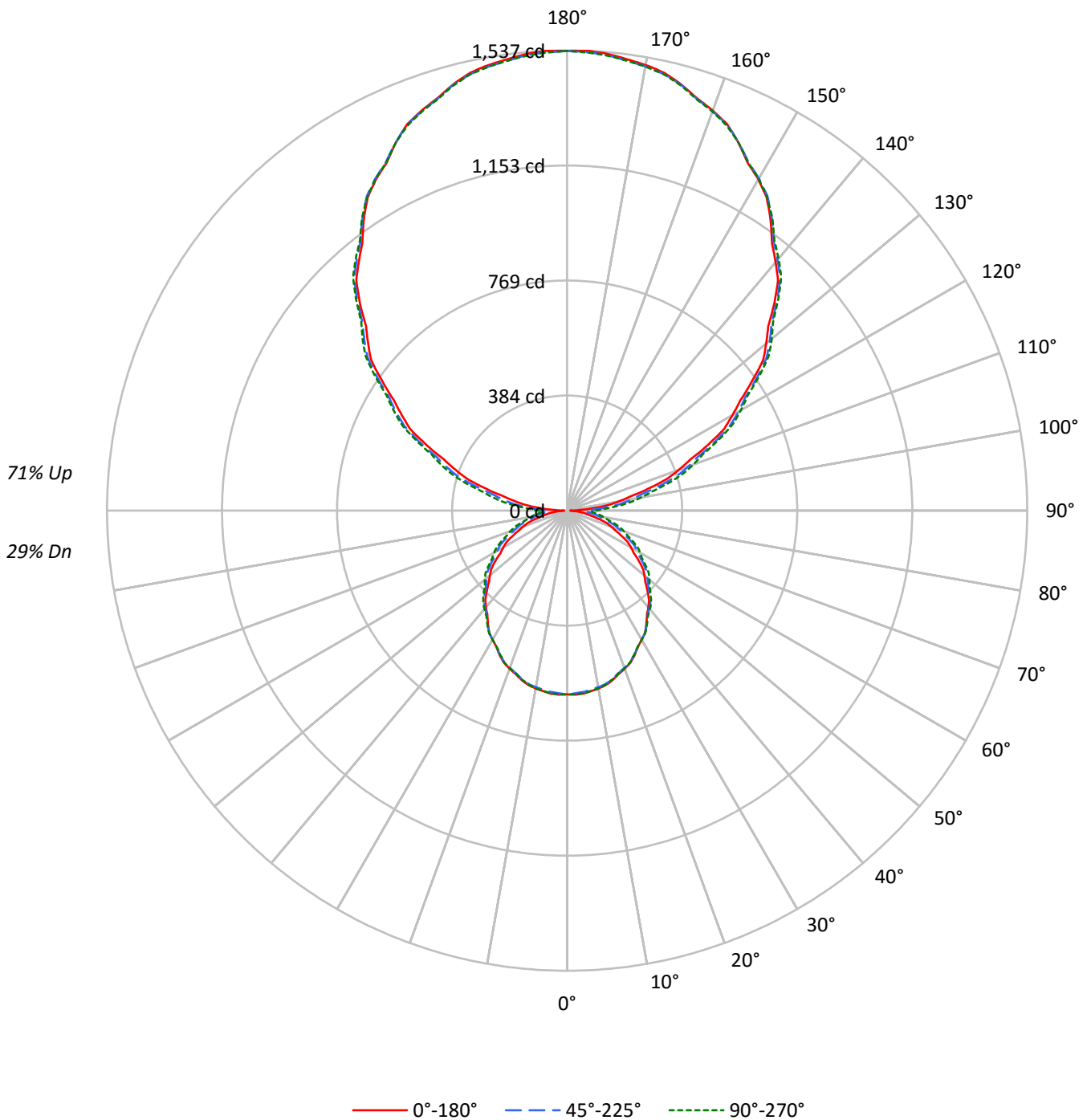
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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°	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	0.9
10°-20°	164.8	2.7
20°-30°	245.1	4.0
30°-40°	290.3	4.7
40°-50°	300.2	4.8
50°-60°	276.5	4.5
60°-70°	223.5	3.6
70°-80°	149.7	2.4
80°-90°	81.0	1.3
90°-100°	146.4	2.4
100°-110°	335.8	5.4
110°-120°	535.8	8.7
120°-130°	689.1	11.1
130°-140°	763.8	12.3
140°-150°	744.4	12.0
150°-160°	624.3	10.1
160°-170°	415.0	6.7
170°-180°	145.2	2.3
0°-30°	467.9	7.6
0°-40°	758.2	12.3
0°-60°	1334.9	21.6
0°-90°	1789.0	28.9
90°-120°	1018.0	16.4
90°-150°	3215.2	52.0
90°-180°	4400.0	71.1
0°-180°	6188.9	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	11
95°	86	104	136	157	164	89
105°	278	294	319	337	346	297
115°	519	528	546	555	558	513
125°	754	761	774	781	783	675
135°	978	985	990	998	997	754
145°	1185	1189	1192	1195	1194	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	



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**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	49.3	55.7	62.0	68.4	72.9
92.5°	37.5	43.0	48.5	53.9	59.3	65.6	72.5	79.5	86.3	93.3	98.0
95°	85.5	89.5	93.5	97.5	101.5	107.1	114.3	121.5	128.7	135.9	140.8
97.5°	136.1	139.5	142.8	146.2	149.5	155.2	163.3	171.3	179.4	187.4	191.9
100°	173.9	176.7	179.5	182.3	185.1	190.4	198.1	205.9	213.6	221.3	226.5
102.5°	214.5	218.2	221.8	225.5	229.1	233.9	239.9	245.7	251.7	257.6	262.9
105°	277.8	281.3	284.8	288.2	291.7	296.2	301.8	307.4	313.1	318.6	322.9
107.5°	347.8	350.9	354.1	357.3	360.4	364.5	369.6	374.7	379.8	384.8	388.2
110°	396.1	399.0	402.0	404.9	407.8	411.5	416.1	420.6	425.2	429.8	433.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	445.8	447.7	449.7	451.7	453.7	457.0	461.6	466.3	471.0	475.5	478.4
115°	518.6	520.5	522.5	524.5	526.6	529.6	533.5	537.6	541.5	545.6	547.7
117.5°	591.5	592.6	593.7	594.8	595.9	598.3	602.1	605.9	609.7	613.4	615.9
120°	637.4	639.1	640.9	642.6	644.4	646.9	650.2	653.6	656.9	660.2	662.5
122.5°	686.7	687.3	687.9	688.6	689.3	691.5	695.1	698.8	702.4	706.1	708.1
125°	753.9	755.3	756.9	758.3	759.7	761.9	764.9	767.8	770.8	773.7	775.3
127.5°	825.0	825.8	826.5	827.3	828.1	829.7	832.2	834.7	837.3	839.7	841.5
130°	868.0	869.2	870.4	871.6	872.7	874.6	876.9	879.4	881.8	884.2	885.8
132.5°	910.5	912.7	914.8	917.0	919.1	920.8	922.2	923.5	924.9	926.2	927.8
135°	978.5	979.9	981.4	982.9	984.4	985.6	986.9	988.1	989.3	990.5	992.2
137.5°	1042.4	1043.9	1045.3	1046.7	1048.1	1049.4	1050.4	1051.5	1052.5	1053.5	1055.4
140°	1083.1	1084.3	1085.7	1087.0	1088.4	1089.5	1090.4	1091.3	1092.3	1093.2	1095.2
142.5°	1124.1	1125.1	1126.2	1127.2	1128.1	1129.2	1130.2	1131.2	1132.3	1133.3	1134.9
145°	1184.6	1185.5	1186.5	1187.4	1188.3	1189.1	1189.9	1190.7	1191.5	1192.3	1193.0
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



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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	78.0	79.0	80.1	81.2	82.3
90°	77.3	81.7	86.1	89.1	90.9	92.6	94.3	96.1
92.5°	102.7	107.5	112.2	115.3	116.8	118.4	119.9	121.4
95°	145.5	150.4	155.1	158.3	159.7	161.2	162.6	164.1
97.5°	196.5	201.1	205.7	208.6	209.8	211.0	212.2	213.5
100°	231.7	236.9	242.1	245.3	246.7	248.0	249.4	250.7
102.5°	268.2	273.5	278.8	282.3	283.8	285.3	286.9	288.4
105°	327.2	331.4	335.7	338.7	340.5	342.2	343.9	345.6
107.5°	391.7	395.1	398.6	400.7	401.5	402.3	403.1	403.8
110°	436.4	439.7	443.1	445.0	445.8	446.4	447.1	447.7





TEST NUMBER: P333397-927

CATALOG NUMBER: S125DIW-S610D1560U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	481.2	484.0	486.8	488.5	488.9	489.3	489.8	490.3
115°	549.9	552.0	554.1	555.5	556.0	556.6	557.1	557.6
117.5°	618.4	620.9	623.4	624.6	624.4	624.2	624.1	623.9
120°	664.8	667.0	669.3	670.3	670.1	669.8	669.6	669.3
122.5°	710.0	711.9	713.9	714.9	714.8	714.8	714.7	714.7
125°	776.9	778.6	780.1	781.2	781.6	782.0	782.4	782.8
127.5°	843.2	844.9	846.6	847.6	847.8	848.1	848.3	848.6
130°	887.4	889.0	890.6	891.4	891.6	891.8	891.9	892.0
132.5°	929.5	931.1	932.6	933.3	933.2	933.0	932.8	932.6
135°	994.0	995.7	997.4	998.1	997.7	997.3	997.0	996.6
137.5°	1057.3	1059.2	1061.1	1061.7	1060.9	1060.1	1059.3	1058.5
140°	1097.2	1099.2	1101.2	1101.8	1101.1	1100.3	1099.5	1098.7
142.5°	1136.5	1138.0	1139.6	1140.0	1139.2	1138.4	1137.7	1136.9
145°	1193.7	1194.4	1195.0	1195.2	1195.0	1194.7	1194.5	1194.2
147.5°	1247.1	1247.9	1248.8	1248.5	1246.9	1245.3	1243.7	1242.2
150°	1280.8	1280.8	1280.8	1280.6	1280.2	1279.8	1279.4	1279.0
152.5°	1312.6	1313.3	1313.9	1313.8	1312.8	1311.9	1311.0	1310.0
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)