

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: P333398-935

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333398-935
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-S610D1560U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7524.5 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

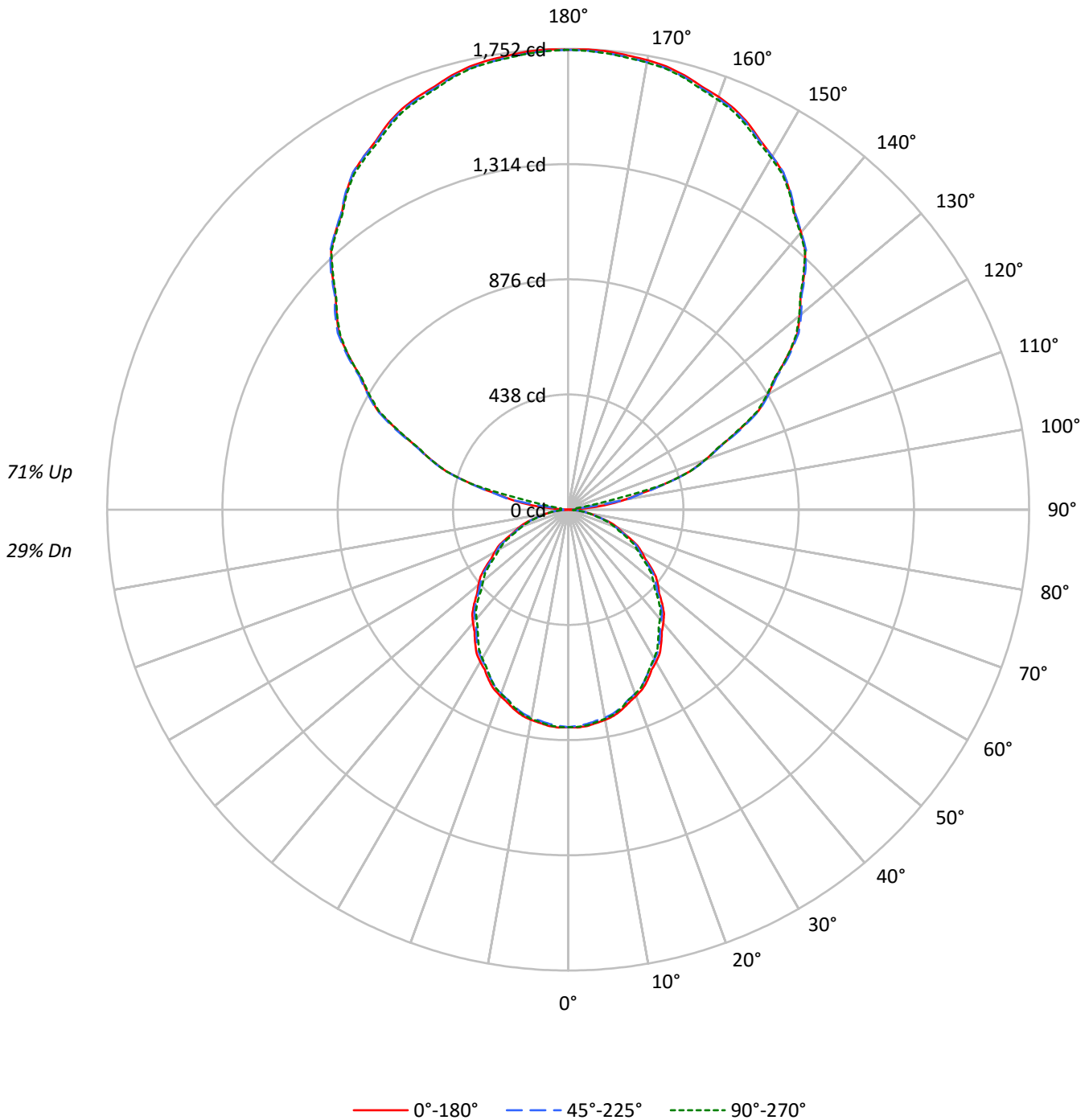
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	71	71	71	53	53	53	37	37	37	29
1	93	89	85	82	83	80	76	74	62	60	58	47	45	44	32	31	31	24
2	85	77	71	67	75	70	65	60	55	51	48	41	39	37	28	27	26	20
3	77	68	61	55	69	61	55	50	48	44	40	36	33	31	25	23	22	17
4	70	60	52	47	63	54	48	42	43	38	34	32	29	26	22	20	19	15
5	65	53	46	40	58	48	41	36	38	33	29	29	25	23	20	18	16	13
6	59	48	40	34	53	43	36	31	34	29	26	26	23	20	18	16	14	11
7	55	43	35	30	49	39	32	27	31	26	22	23	20	18	17	14	13	10
8	51	39	31	26	45	35	29	24	28	23	20	21	18	16	15	13	11	9
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	24	19	16	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5340	5340	5340
5°	5352	5301	5335
10°	5319	5264	5294
15°	5262	5201	5223
20°	5179	5112	5121
25°	5091	5007	5002
30°	4981	4894	4869
35°	4864	4771	4704
40°	4743	4639	4572
45°	4613	4517	4427
50°	4470	4372	4240
55°	4332	4206	4088
60°	4166	4039	3896
65°	3969	3839	3709
70°	3780	3609	3484
75°	3444	3331	3216
80°	3065	3016	2942
85°	2668	2712	2571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	1.0
10°-20°	220.2	2.9
20°-30°	325.2	4.3
30°-40°	379.4	5.0
40°-50°	381.1	5.1
50°-60°	334.5	4.4
60°-70°	249.3	3.3
70°-80°	142.5	1.9
80°-90°	45.1	0.6
90°-100°	63.5	0.8
100°-110°	391.6	5.2
110°-120°	710.2	9.4
120°-130°	911.5	12.1
130°-140°	980.4	13.0
140°-150°	920.2	12.2
150°-160°	744.4	9.9
160°-170°	481.4	6.4
170°-180°	166.0	2.2
0°-30°	623.4	8.3
0°-40°	1002.8	13.3
0°-60°	1718.4	22.8
0°-90°	2155.3	28.6
90°-120°	1165.3	15.5
90°-150°	3977.4	52.9
90°-180°	5369.0	71.4
0°-180°	7524.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	826	824	818	823	823	78
15°	787	785	778	781	781	222
25°	714	711	703	704	702	329
35°	617	614	605	602	597	386
45°	505	502	495	487	485	389
55°	385	382	374	368	363	343
65°	260	258	251	246	243	258
75°	138	137	134	131	129	147
85°	36	37	37	36	35	40
90°	1	12	21	27	31	5
95°	74	67	21	27	27	94
105°	381	386	386	386	385	404
115°	716	722	723	718	710	709
125°	1017	1026	1026	1021	1017	908
135°	1269	1276	1274	1271	1264	978
145°	1471	1474	1474	1474	1467	920
155°	1620	1613	1615	1618	1608	746
165°	1710	1702	1703	1710	1700	483
175°	1748	1741	1742	1751	1741	166
180°	1748	1748	1748	1748	1748	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	829.0	828.6	828.3	827.9	827.6	826.8	825.7	824.5	823.4	822.2	823.4
5°	825.6	825.3	825.0	824.7	824.4	823.5	822.1	820.6	819.2	817.7	819.1
7.5°	817.9	817.7	817.4	817.1	816.8	815.9	814.2	812.7	811.1	809.5	810.7
10°	811.1	810.9	810.6	810.3	810.0	809.1	807.4	805.9	804.3	802.7	803.8
12.5°	802.8	802.3	801.8	801.2	800.7	799.7	798.2	796.8	795.2	793.8	794.7
15°	787.0	786.5	786.1	785.7	785.2	784.2	782.6	781.0	779.4	777.8	778.5
17.5°	768.8	768.2	767.5	766.9	766.2	765.1	763.4	761.7	760.1	758.5	759.3
20°	753.6	753.3	753.0	752.8	752.4	751.4	749.5	747.6	745.7	743.8	744.9
22.5°	738.4	737.9	737.4	736.8	736.3	735.2	733.4	731.7	729.9	728.1	728.8
25°	714.4	713.6	712.9	712.2	711.4	710.2	708.3	706.4	704.5	702.6	702.9
27.5°	686.2	685.8	685.4	684.9	684.5	683.3	681.3	679.4	677.4	675.5	675.5
30°	667.9	667.4	667.0	666.6	666.2	664.9	662.7	660.5	658.3	656.2	655.8
32.5°	648.0	647.4	646.7	646.0	645.3	644.0	642.1	640.2	638.2	636.3	635.8
35°	616.9	616.3	615.7	615.2	614.6	613.3	611.2	609.2	607.2	605.1	604.4
37.5°	584.5	583.8	583.2	582.4	581.7	580.3	578.4	576.5	574.5	572.7	571.6
40°	562.6	561.9	561.1	560.4	559.6	558.3	556.3	554.2	552.2	550.2	548.9
42.5°	539.1	538.5	537.8	537.2	536.6	535.3	533.2	531.2	529.2	527.1	526.0
45°	505.1	504.5	503.9	503.3	502.7	501.5	499.8	498.1	496.3	494.6	492.8
47.5°	468.4	468.4	468.5	468.5	468.5	467.4	465.4	463.3	461.2	459.1	457.4
50°	444.9	444.4	443.9	443.5	443.1	442.0	440.2	438.5	436.8	435.1	433.2
52.5°	420.8	420.4	420.2	419.8	419.5	418.4	416.6	414.7	412.8	411.0	409.3
55°	384.7	384.2	383.7	383.3	382.9	381.7	379.6	377.6	375.6	373.5	372.2
57.5°	346.6	346.4	346.1	345.9	345.7	344.7	342.9	341.2	339.5	337.9	336.1
60°	322.5	321.9	321.3	320.7	320.2	319.1	317.5	315.9	314.3	312.7	311.3
62.5°	297.4	297.0	296.4	296.0	295.5	294.6	293.3	291.9	290.5	289.1	287.6
65°	259.7	259.4	259.2	258.8	258.6	257.6	256.0	254.4	252.8	251.2	249.9
67.5°	223.2	222.6	222.0	221.4	220.8	219.9	218.7	217.5	216.3	215.1	214.0
70°	200.2	199.5	198.7	198.0	197.3	196.2	194.9	193.6	192.3	191.1	190.1
72.5°	175.0	174.5	174.1	173.6	173.1	172.4	171.6	170.7	169.9	169.0	168.1
75°	138.0	137.8	137.4	137.2	136.9	136.4	135.6	134.9	134.1	133.5	133.0
77.5°	103.9	103.8	103.7	103.5	103.4	103.1	102.7	102.4	101.9	101.5	101.3
80°	82.4	82.4	82.4	82.4	82.4	82.3	82.0	81.7	81.5	81.1	80.9
82.5°	63.6	63.4	63.1	62.9	62.7	62.5	62.4	62.4	62.3	62.3	62.0
85°	36.0	36.2	36.2	36.4	36.6	36.6	36.6	36.6	36.6	36.6	36.5
87.5°	14.4	14.8	15.3	15.8	16.3	16.6	16.9	17.2	17.5	17.7	18.1
90°	1.3	3.6	5.9	8.2	10.5	12.7	14.7	16.7	18.7	20.8	22.2
92.5°	20.0	18.3	16.7	15.2	13.5	13.6	15.4	17.1	18.9	20.8	22.2
95°	73.9	73.0	72.2	71.3	70.4	64.5	53.6	42.6	31.7	20.8	22.2
97.5°	154.2	155.8	157.3	158.9	160.5	150.4	128.7	107.1	85.4	63.8	55.6
100°	216.5	217.3	218.2	219.0	219.9	220.9	222.1	223.3	224.4	225.5	182.6
102.5°	279.7	280.8	281.9	283.0	284.0	285.0	285.7	286.4	287.1	287.7	279.7
105°	381.1	382.2	383.4	384.5	385.6	386.2	386.2	386.2	386.2	386.2	386.2
107.5°	486.3	486.3	486.3	486.3	486.3	486.6	487.2	487.8	488.4	488.9	489.0
110°	554.7	554.7	554.7	554.7	554.7	555.0	555.6	556.2	556.7	557.3	556.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	619.1	619.7	620.4	621.1	621.8	622.3	622.7	623.0	623.4	623.7	622.6
115°	715.5	716.9	718.3	719.8	721.2	722.0	722.4	722.6	723.0	723.2	722.0
117.5°	815.3	815.2	815.1	815.1	815.0	815.5	816.7	817.7	818.8	819.9	818.4
120°	877.4	877.2	876.9	876.6	876.3	876.6	877.4	878.3	879.2	880.0	879.5
122.5°	932.5	933.5	934.6	935.7	936.8	937.5	938.0	938.3	938.7	939.2	938.6
125°	1017.4	1019.4	1021.5	1023.5	1025.5	1026.5	1026.5	1026.5	1026.5	1026.5	1025.4
127.5°	1098.5	1100.0	1101.5	1102.9	1104.3	1105.0	1104.8	1104.7	1104.5	1104.3	1103.6
130°	1148.3	1149.8	1151.2	1152.7	1154.1	1154.9	1155.3	1155.5	1155.8	1156.2	1155.3
132.5°	1198.1	1199.8	1201.4	1203.2	1204.8	1205.3	1204.7	1204.0	1203.4	1202.8	1202.6
135°	1268.9	1270.6	1272.4	1274.1	1275.8	1276.3	1275.8	1275.2	1274.6	1274.1	1273.5
137.5°	1333.9	1335.4	1337.0	1338.4	1340.0	1340.4	1339.9	1339.4	1338.9	1338.3	1338.5
140°	1376.5	1377.1	1377.6	1378.2	1378.8	1378.9	1378.6	1378.4	1378.0	1377.8	1378.4
142.5°	1414.8	1415.1	1415.5	1415.8	1416.2	1416.6	1417.0	1417.4	1417.8	1418.2	1418.3
145°	1471.1	1471.6	1472.2	1472.8	1473.4	1473.7	1473.7	1473.7	1473.7	1473.7	1473.9
147.5°	1520.4	1520.2	1520.1	1520.0	1519.8	1520.0	1520.4	1520.7	1521.0	1521.4	1521.7
150°	1551.4	1550.8	1550.3	1549.7	1549.1	1549.1	1549.7	1550.3	1550.8	1551.4	1552.0
152.5°	1581.5	1580.3	1579.0	1577.7	1576.4	1576.1	1576.7	1577.3	1577.9	1578.4	1579.0
155°	1620.1	1618.4	1616.7	1615.0	1613.3	1612.7	1613.3	1613.8	1614.4	1615.0	1615.8
157.5°	1649.9	1648.9	1647.9	1646.8	1645.8	1645.3	1645.4	1645.5	1645.5	1645.5	1646.5
160°	1670.7	1669.0	1667.2	1665.5	1663.8	1663.0	1663.4	1663.6	1663.9	1664.2	1665.3
162.5°	1687.3	1685.6	1683.9	1682.0	1680.3	1679.6	1679.9	1680.2	1680.5	1680.8	1682.4
165°	1709.6	1707.9	1706.1	1704.3	1702.6	1701.9	1702.2	1702.5	1702.8	1703.1	1704.8
167.5°	1726.1	1724.4	1722.6	1720.8	1719.0	1718.3	1718.6	1718.8	1719.2	1719.4	1721.5
170°	1735.5	1733.5	1731.5	1729.4	1727.4	1726.6	1726.8	1727.2	1727.4	1727.7	1730.0
172.5°	1741.7	1739.7	1737.7	1735.7	1733.6	1732.9	1733.5	1734.0	1734.5	1735.0	1737.1
175°	1748.4	1746.7	1745.0	1743.3	1741.5	1740.9	1741.1	1741.4	1741.7	1742.0	1744.3
177.5°	1751.5	1750.2	1748.8	1747.4	1746.0	1745.4	1745.7	1745.9	1746.1	1746.4	1748.0
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	824.5	825.7	826.8	827.3	827.2	827.1	827.0	826.9
5°	820.4	821.7	822.9	823.5	823.4	823.3	823.1	822.9
7.5°	812.0	813.3	814.6	815.2	815.0	814.9	814.8	814.6
10°	805.0	806.2	807.4	807.9	807.7	807.5	807.4	807.3
12.5°	795.7	796.6	797.5	798.0	797.9	797.9	797.9	797.8
15°	779.3	780.0	780.8	781.1	781.1	781.1	781.1	781.1
17.5°	760.3	761.1	762.1	762.2	761.4	760.7	760.0	759.2
20°	745.8	746.8	747.9	748.0	747.3	746.6	745.8	745.1
22.5°	729.4	730.1	730.8	730.9	730.4	729.9	729.4	728.9
25°	703.2	703.4	703.8	703.7	703.3	702.8	702.4	702.0
27.5°	675.6	675.7	675.7	675.5	675.1	674.7	674.2	673.8
30°	655.6	655.3	655.0	654.6	654.2	653.8	653.3	652.9
32.5°	635.2	634.6	634.1	633.5	632.7	632.0	631.1	630.3
35°	603.6	603.0	602.2	601.2	600.1	598.9	597.8	596.6
37.5°	570.5	569.5	568.3	567.5	566.8	566.2	565.5	564.8
40°	547.5	546.2	544.9	544.1	543.6	543.2	542.8	542.3
42.5°	524.8	523.6	522.4	521.4	520.7	520.1	519.4	518.8
45°	491.0	489.3	487.6	486.5	486.0	485.6	485.2	484.7
47.5°	455.6	453.7	452.0	450.6	449.6	448.6	447.5	446.5
50°	431.3	429.4	427.5	426.0	425.0	424.0	422.9	422.0
52.5°	407.6	406.0	404.3	402.9	401.8	400.6	399.5	398.4
55°	370.9	369.6	368.3	367.1	366.1	365.1	364.1	363.1
57.5°	334.4	332.8	331.1	329.9	329.4	328.8	328.3	327.8
60°	309.8	308.3	306.9	305.7	304.6	303.6	302.6	301.6
62.5°	286.0	284.5	282.8	281.7	280.9	280.1	279.3	278.5
65°	248.6	247.3	246.0	245.0	244.4	243.8	243.3	242.7
67.5°	212.9	211.8	210.7	209.9	209.6	209.2	208.9	208.5
70°	189.2	188.4	187.5	186.8	186.2	185.6	185.0	184.5
72.5°	167.0	166.1	165.1	164.3	163.7	163.2	162.6	162.0
75°	132.6	132.2	131.7	131.2	130.6	130.0	129.5	128.9
77.5°	101.0	100.7	100.5	100.1	99.7	99.4	98.9	98.5
80°	80.8	80.7	80.5	80.3	80.0	79.7	79.5	79.1
82.5°	61.7	61.5	61.2	61.0	61.0	61.0	60.9	60.9
85°	36.3	36.2	36.1	35.8	35.6	35.2	35.0	34.7
87.5°	18.3	18.6	18.9	19.0	18.9	18.9	18.9	18.8
90°	23.6	25.1	26.5	27.6	28.5	29.4	30.2	31.1
92.5°	23.6	25.1	26.5	27.4	27.8	28.2	28.7	29.0
95°	23.6	25.1	26.5	27.2	27.2	27.2	27.2	27.2
97.5°	47.5	39.4	31.3	27.2	27.2	27.2	27.2	27.2
100°	139.7	96.8	53.9	31.9	30.7	29.5	28.4	27.2
102.5°	271.5	263.4	255.3	241.4	221.8	202.2	182.6	163.1
105°	386.2	386.2	386.2	386.1	385.8	385.6	385.2	385.0
107.5°	489.0	489.0	489.1	488.7	487.8	487.0	486.1	485.3
110°	555.6	554.7	553.9	553.6	553.9	554.1	554.5	554.7



TEST NUMBER: P333398-935

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	621.5	620.4	619.3	618.5	618.2	617.8	617.3	616.9
115°	720.9	719.8	718.6	717.2	715.5	713.7	712.0	710.2
117.5°	816.9	815.5	813.9	812.8	812.1	811.3	810.5	809.8
120°	878.9	878.3	877.8	876.8	875.3	873.8	872.5	871.0
122.5°	938.0	937.5	936.9	935.7	934.1	932.4	930.7	929.0
125°	1024.2	1023.0	1021.9	1020.9	1020.0	1019.2	1018.3	1017.4
127.5°	1103.0	1102.4	1101.7	1100.4	1098.2	1096.1	1094.0	1091.8
130°	1154.4	1153.6	1152.7	1151.5	1150.1	1148.7	1147.2	1145.7
132.5°	1202.5	1202.3	1202.1	1201.3	1199.9	1198.4	1197.0	1195.5
135°	1272.9	1272.4	1271.8	1270.6	1268.9	1267.1	1265.4	1263.7
137.5°	1338.6	1338.7	1338.9	1338.2	1336.6	1335.2	1333.6	1332.1
140°	1378.9	1379.5	1380.1	1379.5	1377.8	1376.1	1374.3	1372.6
142.5°	1418.4	1418.6	1418.7	1417.9	1416.1	1414.4	1412.6	1410.9
145°	1474.3	1474.5	1474.8	1474.1	1472.4	1470.7	1469.0	1467.2
147.5°	1522.1	1522.4	1522.8	1521.9	1519.8	1517.8	1515.7	1513.6
150°	1552.6	1553.2	1553.8	1552.9	1550.6	1548.3	1546.0	1543.7
152.5°	1579.6	1580.1	1580.7	1579.9	1577.9	1575.8	1573.7	1571.7
155°	1616.7	1617.6	1618.4	1617.6	1615.4	1613.1	1610.8	1608.4
157.5°	1647.4	1648.3	1649.2	1648.6	1646.2	1643.9	1641.6	1639.3
160°	1666.5	1667.7	1668.8	1668.3	1665.9	1663.6	1661.3	1659.1
162.5°	1684.0	1685.7	1687.2	1686.8	1684.3	1681.7	1679.2	1676.6
165°	1706.5	1708.3	1710.0	1709.7	1707.4	1705.1	1702.8	1700.5
167.5°	1723.5	1725.6	1727.7	1727.4	1724.8	1722.3	1719.7	1717.1
170°	1732.3	1734.7	1736.9	1736.8	1734.2	1731.6	1729.0	1726.4
172.5°	1739.1	1741.2	1743.3	1743.0	1740.4	1737.8	1735.3	1732.7
175°	1746.5	1748.9	1751.2	1751.0	1748.4	1745.8	1743.3	1740.7
177.5°	1749.6	1751.2	1752.8	1752.7	1750.8	1749.0	1747.1	1745.3
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4

(END OF REPORT)