

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: P333398-940

Luminaire Tested: **S125DIW-S610D1560U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333398-940
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-S610D1560U940-4F0-1E-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: 7792.9 lumens
Efficiency: N/A
Efficacy: 128.6 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

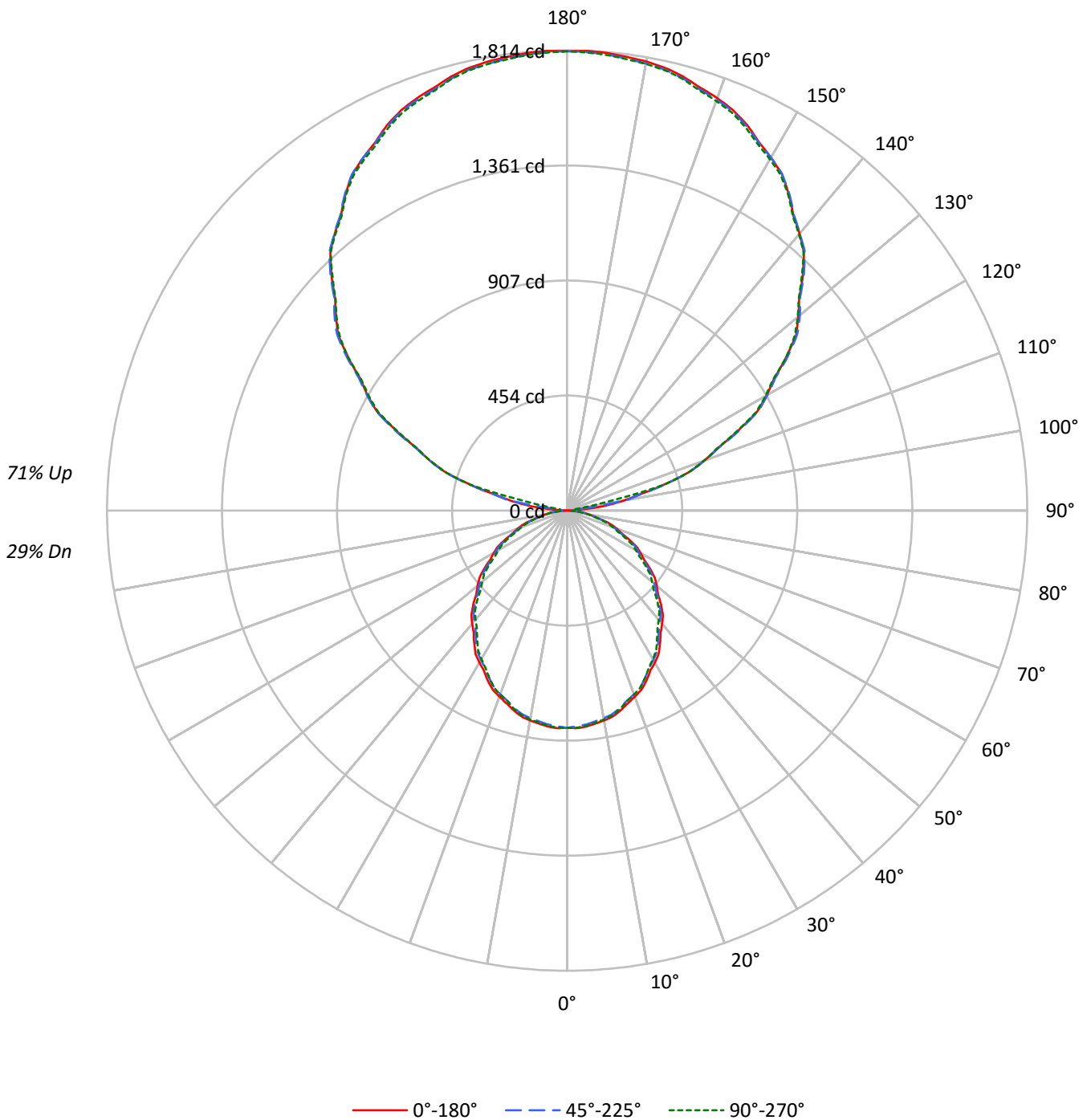
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5531	5531	5531
5°	5544	5490	5525
10°	5509	5452	5483
15°	5449	5386	5409
20°	5364	5294	5304
25°	5273	5185	5181
30°	5158	5068	5043
35°	5037	4941	4872
40°	4912	4804	4736
45°	4778	4678	4585
50°	4629	4527	4391
55°	4486	4355	4234
60°	4314	4184	4035
65°	4109	3976	3842
70°	3914	3737	3609
75°	3566	3449	3331
80°	3172	3124	3046
85°	2764	2808	2660



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	1.0
10°-20°	228.1	2.9
20°-30°	336.8	4.3
30°-40°	393.0	5.0
40°-50°	394.7	5.1
50°-60°	346.5	4.4
60°-70°	258.2	3.3
70°-80°	147.6	1.9
80°-90°	46.7	0.6
90°-100°	65.8	0.8
100°-110°	405.6	5.2
110°-120°	735.5	9.4
120°-130°	944.0	12.1
130°-140°	1015.3	13.0
140°-150°	953.0	12.2
150°-160°	770.9	9.9
160°-170°	498.6	6.4
170°-180°	172.0	2.2
0°-30°	645.6	8.3
0°-40°	1038.6	13.3
0°-60°	1779.7	22.8
0°-90°	2232.2	28.6
90°-120°	1206.9	15.5
90°-150°	4119.2	52.9
90°-180°	5561.0	71.4
0°-180°	7792.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	847	853	852	81
15°	815	813	806	809	809	230
25°	740	736	728	729	727	340
35°	639	636	627	623	618	399
45°	523	520	512	504	502	403
55°	398	396	387	381	376	356
65°	269	267	260	254	251	267
75°	143	142	138	136	134	152
85°	37	38	38	37	36	42
90°	1	12	22	28	32	5
95°	76	70	22	28	28	97
105°	395	400	400	400	399	418
115°	741	747	749	744	736	734
125°	1054	1063	1063	1058	1054	941
135°	1314	1322	1320	1316	1309	1013
145°	1524	1526	1526	1527	1520	952
155°	1678	1670	1673	1676	1666	773
165°	1771	1763	1764	1771	1761	500
175°	1811	1803	1804	1814	1803	172
180°	1811	1811	1811	1811	1811	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	858.5	858.2	857.8	857.5	857.1	856.3	855.2	853.9	852.7	851.5	852.7
5°	855.1	854.7	854.4	854.1	853.8	852.9	851.4	849.9	848.4	846.9	848.3
7.5°	847.1	846.9	846.6	846.2	846.0	845.0	843.3	841.7	840.0	838.4	839.6
10°	840.1	839.8	839.5	839.2	838.9	837.9	836.2	834.6	832.9	831.3	832.5
12.5°	831.4	830.9	830.4	829.8	829.3	828.2	826.7	825.2	823.6	822.1	823.0
15°	815.0	814.6	814.1	813.7	813.2	812.2	810.6	808.9	807.2	805.6	806.3
17.5°	796.2	795.6	794.9	794.2	793.5	792.4	790.7	788.9	787.2	785.5	786.4
20°	780.5	780.2	779.9	779.6	779.3	778.2	776.2	774.3	772.3	770.3	771.4
22.5°	764.7	764.2	763.7	763.1	762.6	761.4	759.6	757.8	755.9	754.0	754.7
25°	739.9	739.0	738.3	737.6	736.8	735.5	733.5	731.6	729.6	727.6	728.0
27.5°	710.7	710.2	709.8	709.4	708.9	707.7	705.6	703.6	701.6	699.6	699.6
30°	691.7	691.3	690.8	690.4	689.9	688.6	686.3	684.0	681.8	679.6	679.2
32.5°	671.1	670.5	669.8	669.1	668.3	667.0	665.0	663.0	660.9	659.0	658.4
35°	638.9	638.3	637.7	637.1	636.5	635.2	633.0	630.9	628.8	626.7	626.0
37.5°	605.4	604.7	604.0	603.2	602.4	601.0	599.1	597.1	595.0	593.1	592.0
40°	582.6	581.9	581.1	580.4	579.6	578.2	576.1	574.0	571.9	569.8	568.5
42.5°	558.3	557.7	557.0	556.3	555.7	554.4	552.2	550.2	548.0	545.9	544.7
45°	523.1	522.5	521.8	521.2	520.7	519.4	517.6	515.9	514.0	512.2	510.4
47.5°	485.1	485.1	485.2	485.2	485.2	484.1	482.0	479.8	477.7	475.5	473.7
50°	460.7	460.2	459.8	459.3	458.9	457.8	455.9	454.1	452.4	450.6	448.6
52.5°	435.8	435.4	435.2	434.8	434.4	433.3	431.4	429.4	427.6	425.6	423.9
55°	398.4	397.9	397.4	397.0	396.5	395.3	393.2	391.1	389.0	386.8	385.5
57.5°	358.9	358.7	358.5	358.2	358.0	357.0	355.2	353.4	351.6	349.9	348.1
60°	334.0	333.4	332.8	332.2	331.6	330.5	328.9	327.2	325.5	323.9	322.4
62.5°	308.0	307.6	307.0	306.6	306.0	305.1	303.7	302.3	300.9	299.4	297.8
65°	268.9	268.7	268.4	268.0	267.8	266.8	265.1	263.5	261.8	260.2	258.8
67.5°	231.1	230.5	229.9	229.3	228.6	227.7	226.5	225.2	224.0	222.7	221.6
70°	207.3	206.6	205.8	205.1	204.3	203.2	201.9	200.5	199.2	197.9	196.9
72.5°	181.3	180.7	180.3	179.8	179.2	178.5	177.7	176.8	175.9	175.0	174.1
75°	142.9	142.7	142.3	142.0	141.8	141.2	140.4	139.7	138.9	138.2	137.8
77.5°	107.6	107.5	107.4	107.2	107.1	106.8	106.4	106.0	105.6	105.1	104.9
80°	85.3	85.3	85.3	85.3	85.3	85.2	84.9	84.6	84.4	84.0	83.8
82.5°	65.9	65.6	65.4	65.1	64.9	64.7	64.6	64.6	64.6	64.5	64.2
85°	37.3	37.5	37.5	37.7	37.9	37.9	37.9	37.9	37.9	37.9	37.8
87.5°	14.9	15.3	15.9	16.3	16.9	17.2	17.5	17.8	18.1	18.4	18.7
90°	1.3	3.7	6.2	8.5	10.9	13.1	15.2	17.3	19.4	21.5	23.0
92.5°	20.7	19.0	17.3	15.7	14.0	14.1	16.0	17.7	19.6	21.5	23.0
95°	76.5	75.6	74.7	73.8	72.9	66.8	55.5	44.1	32.8	21.5	23.0
97.5°	159.7	161.3	162.9	164.6	166.2	155.8	133.3	110.9	88.5	66.1	57.6
100°	224.2	225.1	226.0	226.9	227.7	228.8	230.0	231.2	232.4	233.5	189.1
102.5°	289.7	290.8	291.9	293.1	294.2	295.2	295.9	296.6	297.3	298.0	289.6
105°	394.7	395.8	397.1	398.2	399.4	400.0	400.0	400.0	400.0	400.0	400.0
107.5°	503.6	503.6	503.6	503.6	503.6	503.9	504.5	505.2	505.8	506.3	506.4
110°	574.5	574.5	574.5	574.5	574.5	574.8	575.4	576.0	576.6	577.2	576.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	641.1	641.9	642.6	643.3	644.0	644.5	644.9	645.2	645.6	646.0	644.8
115°	741.0	742.4	744.0	745.5	746.9	747.8	748.1	748.4	748.8	749.0	747.8
117.5°	844.4	844.3	844.2	844.2	844.1	844.6	845.8	846.9	848.0	849.2	847.6
120°	908.7	908.5	908.2	907.9	907.6	907.9	908.7	909.6	910.5	911.4	910.9
122.5°	965.7	966.8	968.0	969.1	970.2	971.0	971.4	971.8	972.2	972.7	972.1
125°	1053.7	1055.8	1057.9	1060.0	1062.1	1063.1	1063.1	1063.1	1063.1	1063.1	1061.9
127.5°	1137.7	1139.2	1140.8	1142.3	1143.7	1144.4	1144.2	1144.1	1143.9	1143.7	1143.0
130°	1189.3	1190.8	1192.3	1193.8	1195.2	1196.1	1196.5	1196.8	1197.0	1197.4	1196.5
132.5°	1240.8	1242.6	1244.3	1246.1	1247.8	1248.3	1247.7	1247.0	1246.3	1245.7	1245.5
135°	1314.1	1315.9	1317.8	1319.6	1321.3	1321.9	1321.3	1320.7	1320.1	1319.6	1318.9
137.5°	1381.5	1383.0	1384.6	1386.2	1387.8	1388.2	1387.7	1387.1	1386.6	1386.1	1386.3
140°	1425.6	1426.2	1426.7	1427.4	1428.0	1428.1	1427.8	1427.5	1427.2	1426.9	1427.5
142.5°	1465.3	1465.6	1466.0	1466.3	1466.7	1467.1	1467.6	1467.9	1468.4	1468.8	1468.9
145°	1523.6	1524.1	1524.7	1525.4	1526.0	1526.3	1526.3	1526.3	1526.3	1526.3	1526.5
147.5°	1574.6	1574.4	1574.3	1574.2	1574.0	1574.2	1574.6	1574.9	1575.3	1575.7	1576.0
150°	1606.8	1606.1	1605.6	1605.0	1604.4	1604.4	1605.0	1605.6	1606.1	1606.8	1607.4
152.5°	1637.9	1636.6	1635.3	1634.0	1632.6	1632.3	1632.9	1633.5	1634.1	1634.7	1635.3
155°	1677.9	1676.1	1674.4	1672.6	1670.8	1670.2	1670.8	1671.3	1672.0	1672.6	1673.5
157.5°	1708.8	1707.7	1706.6	1705.6	1704.5	1704.0	1704.1	1704.1	1704.1	1704.2	1705.2
160°	1730.3	1728.5	1726.7	1724.9	1723.1	1722.3	1722.7	1723.0	1723.2	1723.6	1724.7
162.5°	1747.5	1745.7	1743.9	1742.0	1740.3	1739.5	1739.8	1740.2	1740.4	1740.7	1742.4
165°	1770.6	1768.8	1766.9	1765.1	1763.4	1762.6	1762.9	1763.3	1763.5	1763.8	1765.6
167.5°	1787.7	1785.9	1784.0	1782.2	1780.3	1779.6	1779.9	1780.1	1780.5	1780.7	1782.9
170°	1797.4	1795.3	1793.2	1791.1	1789.0	1788.1	1788.4	1788.8	1789.0	1789.3	1791.7
172.5°	1803.8	1801.8	1799.7	1797.6	1795.5	1794.7	1795.3	1795.8	1796.4	1796.9	1799.0
175°	1810.8	1809.0	1807.2	1805.4	1803.7	1803.0	1803.2	1803.5	1803.8	1804.1	1806.5
177.5°	1814.0	1812.6	1811.2	1809.7	1808.3	1807.7	1807.9	1808.2	1808.4	1808.7	1810.4
180°	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	853.9	855.2	856.3	856.8	856.8	856.6	856.5	856.4
5°	849.6	851.0	852.3	852.9	852.7	852.7	852.5	852.3
7.5°	841.0	842.3	843.6	844.3	844.1	843.9	843.8	843.6
10°	833.7	834.9	836.2	836.7	836.5	836.3	836.2	836.1
12.5°	824.0	825.0	825.9	826.4	826.3	826.3	826.3	826.3
15°	807.1	807.8	808.6	809.0	809.0	809.0	809.0	809.0
17.5°	787.4	788.3	789.3	789.3	788.5	787.8	787.1	786.3
20°	772.4	773.5	774.5	774.7	773.9	773.2	772.4	771.7
22.5°	755.5	756.2	756.9	757.0	756.4	755.9	755.4	754.9
25°	728.3	728.5	728.9	728.8	728.3	727.9	727.5	727.0
27.5°	699.7	699.8	699.8	699.6	699.2	698.7	698.3	697.9
30°	678.9	678.7	678.3	678.0	677.5	677.1	676.6	676.2
32.5°	657.9	657.3	656.7	656.1	655.3	654.5	653.6	652.8
35°	625.2	624.5	623.7	622.7	621.5	620.3	619.1	617.9
37.5°	590.8	589.8	588.6	587.7	587.0	586.4	585.7	585.0
40°	567.0	565.7	564.4	563.5	563.0	562.6	562.1	561.7
42.5°	543.5	542.2	541.0	540.0	539.3	538.7	538.0	537.3
45°	508.5	506.8	505.0	503.8	503.4	502.9	502.5	502.0
47.5°	471.8	469.9	468.1	466.7	465.7	464.6	463.5	462.4
50°	446.7	444.7	442.7	441.2	440.1	439.1	438.0	437.0
52.5°	422.1	420.4	418.7	417.3	416.2	414.9	413.8	412.6
55°	384.1	382.8	381.5	380.2	379.2	378.1	377.1	376.0
57.5°	346.3	344.6	342.9	341.7	341.2	340.5	340.0	339.5
60°	320.8	319.3	317.8	316.6	315.5	314.4	313.3	312.4
62.5°	296.2	294.6	292.9	291.8	291.0	290.1	289.3	288.5
65°	257.4	256.1	254.8	253.8	253.2	252.5	252.0	251.4
67.5°	220.5	219.4	218.2	217.4	217.0	216.7	216.3	216.0
70°	196.0	195.1	194.2	193.5	192.9	192.3	191.6	191.1
72.5°	173.0	172.0	170.9	170.1	169.5	169.0	168.4	167.7
75°	137.3	136.9	136.4	135.9	135.3	134.6	134.1	133.5
77.5°	104.6	104.3	104.1	103.7	103.3	102.9	102.5	102.0
80°	83.7	83.6	83.4	83.2	82.8	82.6	82.3	81.9
82.5°	63.9	63.7	63.4	63.2	63.2	63.1	63.0	63.0
85°	37.6	37.5	37.4	37.1	36.8	36.5	36.2	35.9
87.5°	19.0	19.3	19.6	19.7	19.6	19.6	19.5	19.4
90°	24.4	25.9	27.5	28.6	29.5	30.4	31.3	32.2
92.5°	24.4	25.9	27.5	28.4	28.8	29.2	29.7	30.1
95°	24.4	25.9	27.5	28.2	28.2	28.2	28.2	28.2
97.5°	49.2	40.8	32.4	28.2	28.2	28.2	28.2	28.2
100°	144.6	100.2	55.8	33.0	31.7	30.6	29.4	28.2
102.5°	281.2	272.8	264.4	250.0	229.7	209.5	189.1	168.9
105°	400.0	400.0	400.0	399.8	399.6	399.3	399.0	398.7
107.5°	506.5	506.5	506.6	506.1	505.2	504.4	503.5	502.6
110°	575.4	574.5	573.6	573.4	573.6	573.9	574.3	574.5



TEST NUMBER: P333398-940

CATALOG NUMBER: S125DIW-S610D1560U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	643.6	642.6	641.4	640.6	640.2	639.8	639.4	638.9
115°	746.6	745.5	744.2	742.8	741.0	739.1	737.4	735.6
117.5°	846.1	844.5	842.9	841.8	841.1	840.3	839.5	838.7
120°	910.3	909.6	909.1	908.0	906.5	905.0	903.6	902.1
122.5°	971.4	970.9	970.3	969.1	967.4	965.6	963.9	962.2
125°	1060.8	1059.5	1058.4	1057.3	1056.4	1055.5	1054.6	1053.7
127.5°	1142.4	1141.7	1141.0	1139.6	1137.4	1135.2	1133.0	1130.8
130°	1195.6	1194.7	1193.8	1192.6	1191.1	1189.6	1188.1	1186.6
132.5°	1245.4	1245.2	1245.0	1244.1	1242.7	1241.2	1239.7	1238.1
135°	1318.3	1317.8	1317.1	1315.9	1314.1	1312.3	1310.5	1308.8
137.5°	1386.3	1386.4	1386.6	1385.9	1384.3	1382.8	1381.2	1379.7
140°	1428.1	1428.7	1429.3	1428.7	1426.9	1425.1	1423.3	1421.6
142.5°	1469.0	1469.2	1469.3	1468.5	1466.6	1464.8	1463.0	1461.2
145°	1526.9	1527.1	1527.4	1526.7	1524.9	1523.1	1521.3	1519.6
147.5°	1576.4	1576.7	1577.1	1576.2	1574.0	1571.9	1569.8	1567.6
150°	1607.9	1608.6	1609.2	1608.3	1605.9	1603.5	1601.2	1598.7
152.5°	1635.9	1636.5	1637.1	1636.3	1634.1	1632.0	1629.9	1627.7
155°	1674.4	1675.3	1676.1	1675.3	1673.0	1670.6	1668.2	1665.8
157.5°	1706.1	1707.1	1708.1	1707.4	1705.0	1702.5	1700.1	1697.8
160°	1725.9	1727.2	1728.3	1727.8	1725.4	1723.0	1720.6	1718.2
162.5°	1744.1	1745.8	1747.4	1747.0	1744.4	1741.7	1739.1	1736.4
165°	1767.4	1769.2	1771.0	1770.7	1768.4	1765.9	1763.5	1761.1
167.5°	1785.0	1787.2	1789.3	1789.0	1786.4	1783.7	1781.0	1778.3
170°	1794.1	1796.5	1798.8	1798.8	1796.1	1793.4	1790.6	1788.0
172.5°	1801.2	1803.3	1805.4	1805.2	1802.5	1799.8	1797.2	1794.5
175°	1808.8	1811.2	1813.7	1813.5	1810.8	1808.1	1805.4	1802.8
177.5°	1812.0	1813.7	1815.3	1815.3	1813.3	1811.4	1809.5	1807.6
180°	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8

(END OF REPORT)