

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: P333456-940

Luminaire Tested: **S125DIW-S1090D1560U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333456-940
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-S1090D1560U940-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 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: 9367.5 lumens
Efficiency: N/A
Efficacy: 122.3 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

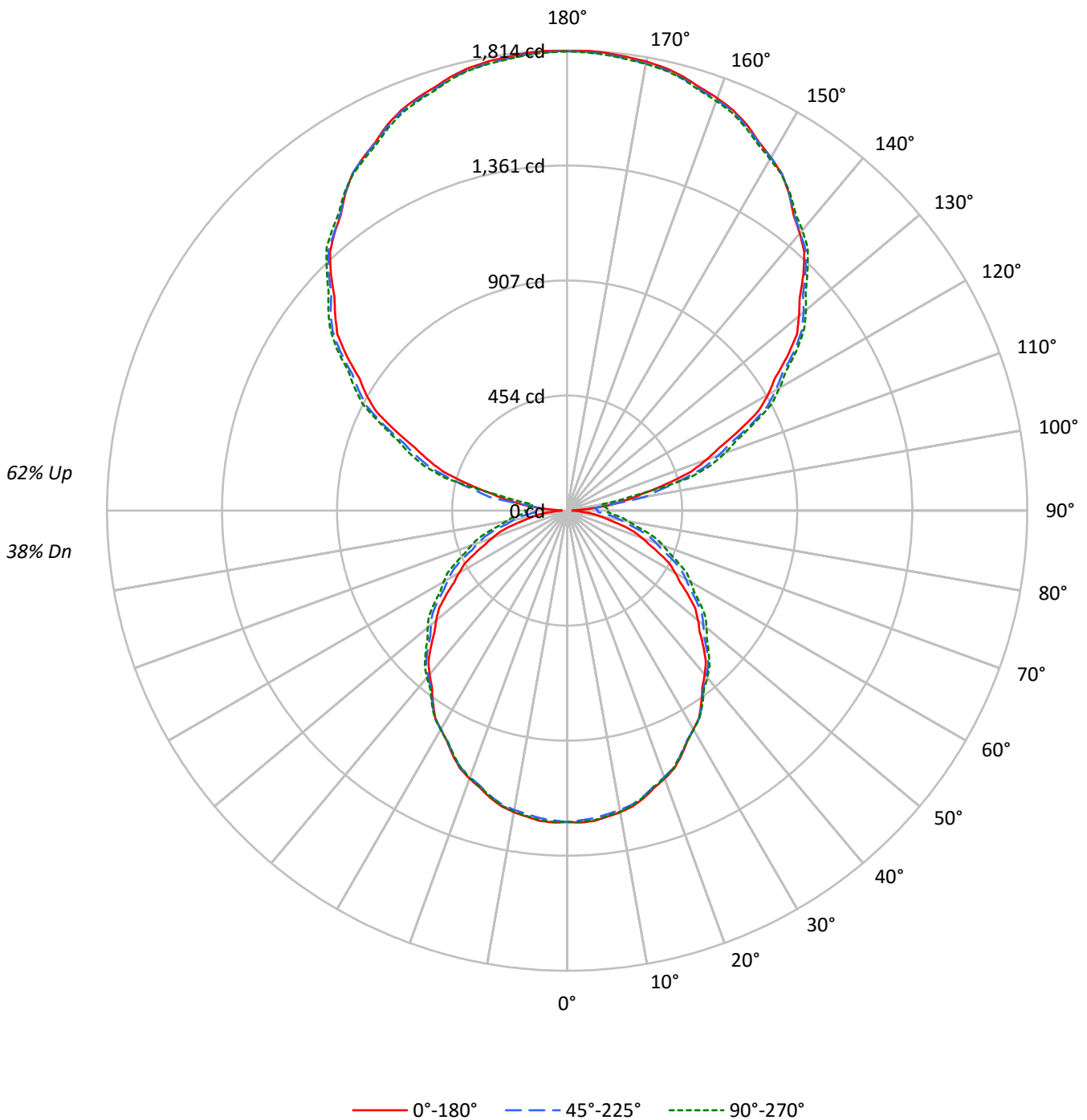
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31
2	86	78	72	67	78	71	66	61	58	54	51	45	43	40	34	32	31	25
3	78	69	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	61	53	47	64	55	48	43	45	40	36	35	32	29	27	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	51	39	32	26	47	36	29	24	30	24	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	25	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	1.2
10°-20°	329.6	3.5
20°-30°	490.2	5.2
30°-40°	580.6	6.2
40°-50°	600.3	6.4
50°-60°	553.0	5.9
60°-70°	447.0	4.8
70°-80°	299.4	3.2
80°-90°	159.0	1.7
90°-100°	152.9	1.6
100°-110°	469.8	5.0
110°-120°	778.6	8.3
120°-130°	968.4	10.3
130°-140°	1026.0	11.0
140°-150°	955.2	10.2
150°-160°	770.9	8.2
160°-170°	498.6	5.3
170°-180°	172.0	1.8
0°-30°	935.9	10.0
0°-40°	1516.5	16.2
0°-60°	2669.7	28.5
0°-90°	3575.1	38.2
90°-120°	1401.3	15.0
90°-150°	4350.9	46.4
90°-180°	5792.0	61.8
0°-180°	9367.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	71
90°	21	70	120	153	167	16
95°	92	117	109	141	151	110
105°	406	431	466	489	497	430
115°	748	764	796	811	812	741
125°	1058	1068	1091	1104	1107	945
135°	1316	1323	1329	1341	1340	1014
145°	1525	1526	1526	1533	1530	953
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	



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.8	46.9	55.9	64.9	74.0	83.3	92.7	102.3	111.8	121.3	127.8
90°	20.6	31.6	42.5	53.4	64.4	75.4	86.7	97.8	109.0	120.2	127.9
92.5°	38.0	44.2	50.5	56.7	63.0	71.7	82.8	94.0	105.1	116.4	123.8
95°	92.2	98.3	104.2	110.3	116.4	118.3	116.1	113.9	111.6	109.3	116.7
97.5°	174.0	181.8	189.7	197.5	205.5	202.5	188.9	175.2	161.6	147.9	145.1
100°	237.4	243.9	250.5	257.0	263.5	271.6	281.3	291.1	300.9	310.6	271.8
102.5°	301.9	308.3	314.6	320.9	327.3	334.9	344.0	353.0	362.1	371.2	368.2
105°	405.5	411.0	416.4	421.9	427.4	434.1	442.1	450.1	458.2	466.2	471.5
107.5°	513.0	516.7	520.3	524.0	527.6	533.6	541.9	550.2	558.5	566.8	572.1
110°	582.9	586.1	589.3	592.5	595.8	601.5	609.5	617.6	625.7	633.8	637.9



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	649.5	652.8	656.1	659.4	662.6	668.2	675.7	683.4	691.0	698.7	702.4
115°	748.2	751.5	754.9	758.3	761.6	767.0	774.2	781.5	788.7	795.9	799.6
117.5°	850.3	851.5	852.7	853.9	855.1	859.5	867.2	874.9	882.6	890.4	893.3
120°	914.8	915.3	915.8	916.3	916.8	920.6	927.6	934.7	941.7	948.8	952.7
122.5°	970.7	972.2	973.7	975.3	976.8	980.7	987.0	993.5	999.8	1006.1	1009.9
125°	1058.5	1060.3	1062.2	1064.0	1065.9	1069.4	1074.8	1080.1	1085.5	1090.8	1094.0
127.5°	1141.4	1142.6	1143.8	1145.0	1146.3	1149.0	1153.2	1157.4	1161.6	1165.8	1169.1
130°	1192.9	1194.2	1195.3	1196.6	1197.8	1200.4	1204.5	1208.5	1212.5	1216.7	1219.5
132.5°	1243.5	1245.2	1246.9	1248.6	1250.2	1252.1	1254.4	1256.6	1258.8	1261.1	1264.6
135°	1316.5	1318.0	1319.6	1321.2	1322.7	1324.0	1325.3	1326.6	1327.8	1329.2	1332.0
137.5°	1383.7	1385.0	1386.3	1387.7	1389.0	1389.9	1390.3	1390.6	1391.0	1391.4	1394.6
140°	1426.7	1427.4	1428.0	1428.5	1429.1	1429.4	1429.4	1429.4	1429.3	1429.3	1432.9
142.5°	1466.5	1466.7	1466.8	1467.0	1467.0	1467.4	1467.8	1468.3	1468.8	1469.3	1471.9
145°	1524.7	1525.1	1525.4	1525.7	1526.1	1526.3	1526.3	1526.3	1526.3	1526.3	1527.9
147.5°	1574.6	1574.4	1574.3	1574.2	1574.0	1574.2	1574.6	1574.9	1575.3	1575.7	1576.5
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



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	134.2	140.6	147.1	151.3	153.4	155.4	157.5	159.5
90°	135.5	143.1	150.8	156.0	158.7	161.5	164.3	167.0
92.5°	131.2	138.7	146.1	150.9	153.2	155.5	157.7	160.1
95°	124.1	131.5	138.8	143.5	145.3	147.2	149.1	151.0
97.5°	142.3	139.6	136.7	136.3	138.0	139.9	141.7	143.5
100°	232.9	194.1	155.3	136.1	136.5	136.9	137.3	137.8
102.5°	365.2	362.1	359.2	348.3	329.7	310.9	292.3	273.6
105°	476.9	482.2	487.6	491.1	492.7	494.3	495.8	497.4
107.5°	577.5	582.8	588.2	591.2	592.0	592.8	593.5	594.3
110°	642.1	646.3	650.5	653.7	655.9	658.1	660.2	662.4



TEST NUMBER: P333456-940

CATALOG NUMBER: S125DIW-S1090D1560U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	706.1	709.9	713.6	716.2	717.6	719.1	720.6	722.0
115°	803.3	806.8	810.5	812.2	812.0	811.8	811.6	811.5
117.5°	896.3	899.3	902.3	904.4	905.4	906.4	907.5	908.5
120°	956.6	960.6	964.6	966.6	966.7	966.8	967.0	967.1
122.5°	1013.6	1017.4	1021.1	1022.9	1022.8	1022.6	1022.5	1022.3
125°	1097.0	1100.1	1103.1	1104.9	1105.4	1105.8	1106.3	1106.7
127.5°	1172.4	1175.7	1179.0	1180.4	1179.7	1179.0	1178.4	1177.8
130°	1222.4	1225.2	1228.1	1229.4	1229.2	1229.0	1229.0	1228.8
132.5°	1268.2	1271.8	1275.3	1276.9	1276.6	1276.2	1275.9	1275.5
135°	1334.9	1337.8	1340.7	1341.8	1341.4	1341.0	1340.5	1340.1
137.5°	1397.9	1401.2	1404.5	1405.9	1405.4	1405.0	1404.4	1404.0
140°	1436.4	1439.9	1443.5	1444.8	1444.1	1443.4	1442.7	1442.0
142.5°	1474.5	1477.2	1479.8	1480.8	1480.1	1479.3	1478.6	1477.9
145°	1529.6	1531.2	1532.8	1533.2	1532.5	1531.8	1531.1	1530.4
147.5°	1577.2	1578.0	1578.8	1578.3	1576.6	1575.0	1573.3	1571.6
150°	1607.9	1608.6	1609.2	1608.4	1606.3	1604.2	1602.0	1599.9
152.5°	1635.9	1636.5	1637.1	1636.4	1634.2	1632.2	1630.0	1628.0
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)