

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: P333486-940

Luminaire Tested: **S125DIW-S1270D1560U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333486-940  
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-S1270D1560U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 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: 9956.8 lumens  
Efficiency: N/A  
Efficacy: 120.1 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: General Diffuse

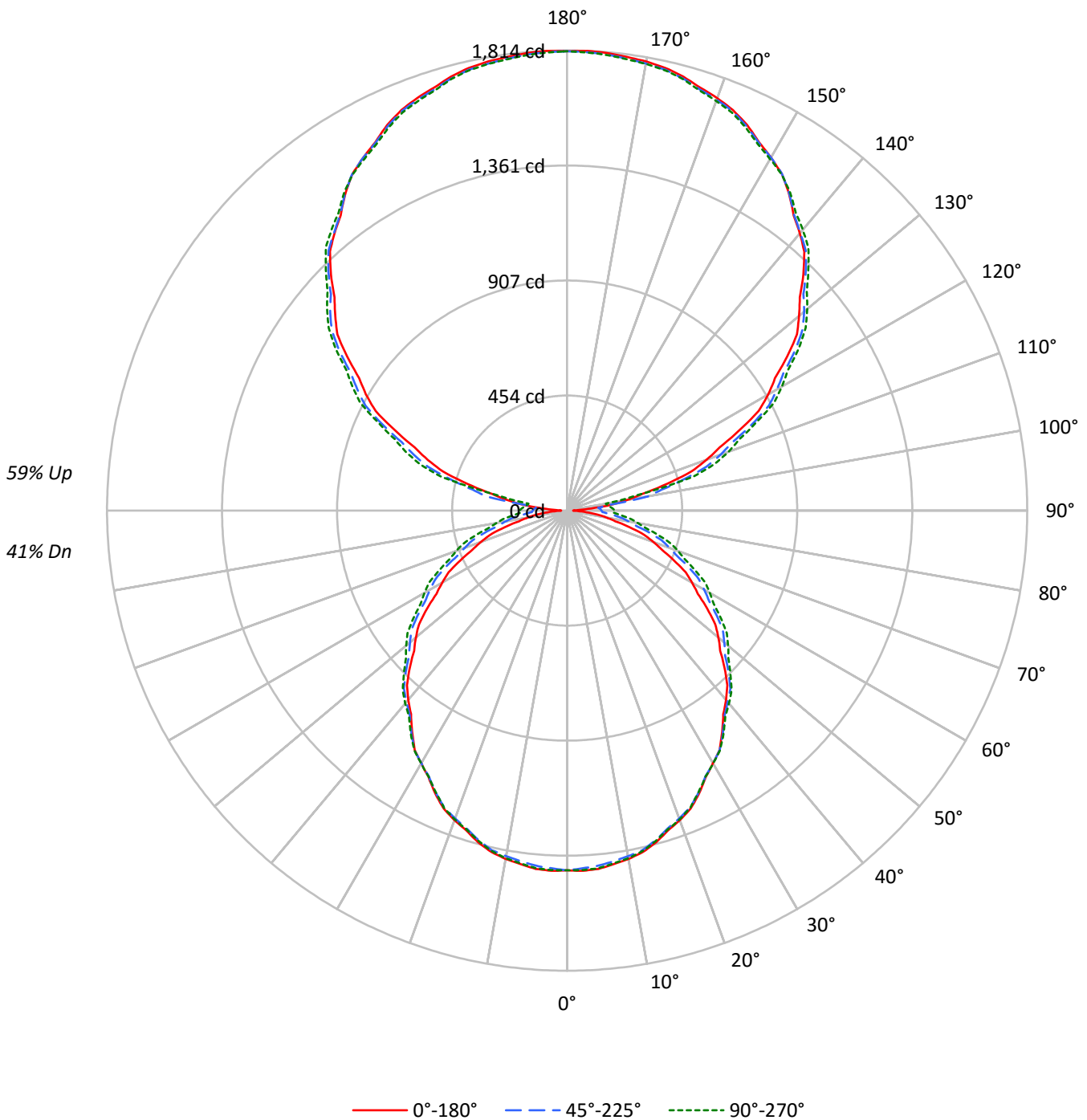
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333486-940

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### Luminous Intensity Polar Plot





TEST NUMBER: P333486-940

CATALOG NUMBER: S125DIW-S1270D1560U940-4F0-1E-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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	26	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	26	20	17	21	17	14	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9159	9159	9159
5°	9177	8990	9018
10°	9112	8829	8816
15°	9004	8637	8558
20°	8857	8400	8301
25°	8683	8145	7984
30°	8473	7865	7696
35°	8276	7608	7432
40°	8075	7338	7167
45°	7849	7106	6931
50°	7633	6854	6723
55°	7373	6618	6478
60°	7089	6346	6229
65°	6792	6064	5947
70°	6457	5677	5658
75°	5923	5304	5304
80°	5225	4854	4918
85°	4578	4550	4797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.1	1.3
10°-20°	380.7	3.8
20°-30°	566.1	5.7
30°-40°	670.6	6.7
40°-50°	693.3	7.0
50°-60°	638.7	6.4
60°-70°	516.3	5.2
70°-80°	345.7	3.5
80°-90°	183.1	1.8
90°-100°	166.4	1.7
100°-110°	479.7	4.8
110°-120°	785.3	7.9
120°-130°	972.2	9.8
130°-140°	1027.7	10.3
140°-150°	955.5	9.6
150°-160°	770.9	7.7
160°-170°	498.6	5.0
170°-180°	172.0	1.7
0°-30°	1080.9	10.9
0°-40°	1751.4	17.6
0°-60°	3083.4	31.0
0°-90°	4128.5	41.5
90°-120°	1431.4	14.4
90°-150°	4386.8	44.1
90°-180°	5828.0	58.5
0°-180°	9956.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1418	1415	1406	1416	1415	134
15°	1354	1355	1346	1353	1348	381
25°	1230	1234	1226	1231	1225	566
35°	1065	1074	1070	1074	1075	666
45°	877	892	900	909	911	677
55°	674	696	719	734	740	603
65°	464	496	530	550	556	461
75°	256	292	336	363	371	271
85°	76	123	171	201	213	81
90°	24	79	136	173	188	18
95°	95	125	123	159	170	112
105°	407	436	476	503	513	432
115°	749	767	803	822	823	743
125°	1059	1068	1095	1111	1115	946
135°	1317	1324	1331	1345	1345	1015
145°	1525	1526	1526	1534	1532	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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1
2.5°	1421.4	1420.9	1420.4	1420.0	1419.4	1418.4	1416.6	1414.9	1413.2	1411.4	1413.2
5°	1418.1	1417.5	1416.8	1416.2	1415.6	1414.3	1412.0	1409.9	1407.7	1405.6	1408.0
7.5°	1405.6	1405.3	1405.1	1404.8	1404.6	1403.4	1401.1	1398.9	1396.7	1394.5	1396.6
10°	1394.5	1394.5	1394.5	1394.5	1394.5	1393.2	1390.7	1388.3	1385.8	1383.3	1385.5
12.5°	1378.9	1379.1	1379.4	1379.7	1379.8	1379.0	1377.1	1375.0	1373.1	1371.1	1372.8
15°	1354.2	1354.4	1354.8	1355.0	1355.4	1354.4	1352.3	1350.1	1348.0	1345.8	1347.6
17.5°	1321.9	1322.5	1323.1	1323.7	1324.4	1323.6	1321.4	1319.3	1317.1	1314.9	1316.3
20°	1298.5	1299.1	1299.8	1300.4	1301.0	1300.2	1298.1	1295.9	1293.7	1291.6	1292.5
22.5°	1271.8	1272.9	1274.1	1275.1	1276.3	1275.6	1273.2	1270.8	1268.4	1266.0	1267.1
25°	1230.4	1231.4	1232.3	1233.1	1234.1	1233.7	1231.8	1229.9	1228.1	1226.2	1227.4
27.5°	1184.3	1185.6	1187.0	1188.3	1189.7	1189.3	1187.2	1185.1	1183.0	1180.9	1181.8
30°	1149.8	1151.6	1153.4	1155.3	1157.2	1157.2	1155.3	1153.4	1151.6	1149.8	1150.4
32.5°	1118.7	1120.3	1121.9	1123.5	1125.1	1125.2	1123.8	1122.5	1121.1	1119.7	1120.3
35°	1065.0	1067.1	1069.3	1071.5	1073.6	1074.2	1073.3	1072.4	1071.5	1070.5	1071.5
37.5°	1011.3	1013.3	1015.2	1017.3	1019.2	1020.0	1019.8	1019.4	1019.1	1018.8	1020.0
40°	974.6	977.0	979.5	982.0	984.4	985.5	985.3	984.9	984.6	984.4	985.5
42.5°	934.5	937.7	940.9	944.1	947.4	949.3	950.0	950.7	951.4	952.1	953.5
45°	877.3	880.7	884.0	887.4	890.8	893.3	894.9	896.4	898.0	899.5	901.7
47.5°	818.6	821.7	824.9	828.0	831.2	834.1	836.8	839.5	842.0	844.7	847.9
50°	778.6	781.9	785.3	788.7	792.2	795.6	799.0	802.4	805.7	809.1	812.5
52.5°	736.3	740.5	744.6	748.7	752.9	757.0	761.2	765.3	769.4	773.6	777.2
55°	674.3	679.2	684.2	689.1	694.0	699.0	703.9	708.9	713.8	718.8	722.2
57.5°	610.9	616.8	622.8	628.7	634.6	640.4	646.1	651.8	657.5	663.2	667.1
60°	568.6	574.8	580.9	587.2	593.3	599.5	605.7	611.9	618.0	624.2	628.8
62.5°	527.4	533.7	539.8	546.0	552.1	558.7	565.3	571.9	578.6	585.3	590.4
65°	464.3	471.4	478.6	485.7	492.8	500.1	507.5	514.9	522.3	529.7	534.3
67.5°	404.8	411.7	418.6	425.4	432.3	439.5	447.0	454.6	462.1	469.7	475.3
70°	361.5	368.5	375.7	382.8	389.9	397.4	405.5	413.6	421.6	429.6	435.5
72.5°	319.2	326.5	333.9	341.3	348.7	356.7	365.4	374.3	383.0	391.8	398.1
75°	255.8	263.9	271.9	279.9	287.9	296.9	306.7	316.6	326.5	336.4	342.6
77.5°	194.9	204.2	213.5	222.7	232.0	241.4	250.9	260.4	269.9	279.5	286.2
80°	157.1	166.4	175.7	184.9	194.2	204.0	214.5	225.1	235.6	246.1	252.9
82.5°	122.6	132.4	142.1	151.9	161.7	171.9	182.7	193.4	204.2	214.9	221.5
85°	76.5	86.7	96.8	107.1	117.3	127.8	138.6	149.4	160.2	171.0	177.8
87.5°	43.6	54.0	64.4	74.7	85.1	95.8	106.6	117.6	128.5	139.5	146.9
90°	23.6	35.8	48.2	60.4	72.7	85.1	97.7	110.3	122.9	135.5	144.1
92.5°	40.7	48.2	55.6	63.1	70.6	80.6	93.3	105.8	118.4	131.0	139.4
95°	94.6	101.7	108.9	116.0	123.1	126.3	125.5	124.7	123.8	123.0	131.3
97.5°	176.1	184.9	193.9	202.7	211.5	209.8	197.5	185.2	172.9	160.6	158.6
100°	239.4	246.8	254.2	261.6	269.0	278.2	289.3	300.4	311.5	322.5	284.5
102.5°	303.9	311.0	318.1	325.2	332.3	341.1	351.4	361.9	372.2	382.5	380.3
105°	407.2	413.3	419.5	425.6	431.7	439.4	448.7	458.0	467.3	476.4	482.7
107.5°	514.5	518.7	522.9	527.1	531.3	538.1	547.6	557.1	566.6	576.1	582.3
110°	584.2	588.0	591.7	595.4	599.1	605.6	614.8	624.0	633.3	642.6	647.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	650.9	654.5	658.2	661.9	665.6	671.8	680.6	689.3	698.0	706.9	711.3
115°	749.3	753.0	756.6	760.3	763.9	769.9	778.3	786.6	794.9	803.3	807.6
117.5°	851.3	852.7	854.0	855.3	856.8	861.7	870.5	879.2	888.0	896.7	900.4
120°	915.7	916.3	916.9	917.6	918.2	922.6	930.6	938.5	946.6	954.6	959.2
122.5°	971.5	973.1	974.6	976.2	977.8	982.2	989.4	996.8	1004.1	1011.3	1015.7
125°	1059.3	1061.0	1062.8	1064.6	1066.4	1070.4	1076.6	1082.7	1089.0	1095.1	1098.9
127.5°	1141.9	1143.1	1144.3	1145.5	1146.7	1149.7	1154.6	1159.5	1164.4	1169.2	1173.1
130°	1193.5	1194.6	1195.9	1197.0	1198.2	1201.1	1205.8	1210.4	1215.0	1219.6	1223.1
132.5°	1243.9	1245.5	1247.2	1248.9	1250.6	1252.8	1255.4	1258.1	1260.8	1263.5	1267.7
135°	1317.0	1318.4	1319.9	1321.3	1322.9	1324.4	1326.0	1327.5	1329.1	1330.6	1334.1
137.5°	1384.0	1385.4	1386.6	1387.9	1389.3	1390.2	1390.7	1391.2	1391.7	1392.2	1396.0
140°	1426.9	1427.5	1428.2	1428.8	1429.3	1429.7	1429.7	1429.7	1429.7	1429.7	1433.7
142.5°	1466.7	1466.8	1467.0	1467.0	1467.1	1467.4	1467.9	1468.4	1468.8	1469.4	1472.4
145°	1524.9	1525.3	1525.5	1525.8	1526.1	1526.3	1526.3	1526.3	1526.3	1526.3	1528.1
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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1
2.5°	1414.9	1416.6	1418.4	1419.1	1418.8	1418.6	1418.4	1418.1
5°	1410.5	1413.0	1415.5	1416.6	1416.2	1415.9	1415.6	1415.3
7.5°	1398.7	1401.0	1403.1	1404.0	1403.7	1403.4	1403.1	1402.8
10°	1387.7	1389.8	1392.0	1392.9	1392.6	1392.3	1392.0	1391.7
12.5°	1374.4	1376.1	1377.8	1378.2	1377.4	1376.6	1375.8	1375.0
15°	1349.5	1351.4	1353.2	1353.5	1352.3	1351.0	1349.8	1348.5
17.5°	1317.8	1319.2	1320.6	1321.0	1320.2	1319.5	1318.8	1317.9
20°	1293.4	1294.3	1295.3	1295.7	1295.7	1295.7	1295.7	1295.7
22.5°	1268.4	1269.5	1270.7	1270.9	1270.2	1269.4	1268.6	1267.9
25°	1228.7	1229.9	1231.2	1231.0	1229.5	1227.9	1226.4	1224.9
27.5°	1182.7	1183.5	1184.4	1184.5	1183.9	1183.4	1182.9	1182.3
30°	1151.0	1151.6	1152.3	1152.4	1152.1	1151.7	1151.5	1151.1
32.5°	1121.0	1121.6	1122.2	1122.4	1122.0	1121.8	1121.4	1121.1
35°	1072.4	1073.3	1074.2	1074.7	1074.7	1074.7	1074.7	1074.7
37.5°	1021.3	1022.5	1023.8	1024.3	1024.1	1024.0	1024.0	1023.8
40°	986.8	988.0	989.3	990.2	990.8	991.4	992.0	992.7
42.5°	955.0	956.5	958.0	958.8	958.9	959.0	959.2	959.3
45°	903.8	906.0	908.1	909.4	909.7	910.0	910.3	910.6
47.5°	851.0	854.2	857.4	859.3	860.0	860.6	861.3	862.0
50°	815.9	819.3	822.8	824.9	825.8	826.8	827.7	828.6
52.5°	780.9	784.5	788.1	790.3	790.9	791.7	792.4	793.0
55°	725.6	729.0	732.4	734.7	735.9	737.2	738.4	739.7
57.5°	670.9	674.8	678.8	681.2	682.1	683.0	683.9	684.8
60°	633.5	638.1	642.7	645.5	646.5	647.4	648.4	649.3
62.5°	595.6	600.7	605.8	608.9	610.1	611.4	612.5	613.7
65°	539.0	543.6	548.2	551.2	552.4	553.7	554.9	556.1
67.5°	480.9	486.5	492.1	495.7	497.3	498.9	500.6	502.2
70°	441.3	447.2	453.1	456.9	458.8	460.7	462.5	464.3
72.5°	404.5	410.9	417.2	421.1	422.5	423.8	425.2	426.5
75°	348.8	355.0	361.1	365.1	366.6	368.1	369.7	371.2
77.5°	293.0	299.8	306.7	310.7	311.9	313.1	314.3	315.6
80°	259.7	266.4	273.3	277.3	278.5	279.7	281.0	282.2
82.5°	228.0	234.6	241.1	245.5	247.7	249.9	252.2	254.4
85°	184.6	191.4	198.2	202.9	205.3	207.8	210.3	212.7
87.5°	154.3	161.7	169.1	173.9	176.3	178.6	180.9	183.2
90°	152.7	161.3	169.9	175.7	178.8	181.8	184.9	187.9
92.5°	147.8	156.0	164.4	169.9	172.5	175.0	177.6	180.2
95°	139.6	147.8	156.1	161.3	163.5	165.7	167.8	170.0
97.5°	156.8	154.8	152.9	153.0	155.1	157.2	159.3	161.4
100°	246.6	208.7	170.7	152.0	152.8	153.4	154.1	154.7
102.5°	378.2	376.0	373.8	363.6	345.1	326.7	308.3	289.8
105°	488.8	495.0	501.2	505.2	507.1	509.0	510.8	512.6
107.5°	588.4	594.7	600.8	604.4	605.5	606.5	607.5	608.5
110°	652.5	657.5	662.5	666.2	668.6	671.1	673.5	676.0





TEST NUMBER: P333486-940

CATALOG NUMBER: S125DIW-S1270D1560U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	715.8	720.3	724.8	727.9	729.7	731.4	733.2	734.9
115°	812.0	816.4	820.7	823.0	823.0	823.0	823.1	823.2
117.5°	904.1	907.9	911.5	914.0	915.3	916.7	918.0	919.4
120°	963.9	968.5	973.2	975.7	976.1	976.4	976.8	977.1
122.5°	1020.1	1024.6	1028.9	1031.2	1031.4	1031.4	1031.6	1031.7
125°	1102.6	1106.3	1110.1	1112.3	1112.9	1113.6	1114.3	1114.9
127.5°	1177.1	1181.0	1184.9	1186.7	1186.2	1185.8	1185.4	1185.0
130°	1226.5	1229.9	1233.3	1235.1	1235.1	1235.2	1235.2	1235.3
132.5°	1271.8	1275.9	1280.1	1282.0	1281.8	1281.7	1281.5	1281.3
135°	1337.5	1340.9	1344.3	1345.9	1345.7	1345.4	1345.1	1345.0
137.5°	1399.7	1403.6	1407.3	1409.0	1408.7	1408.4	1408.0	1407.7
140°	1437.7	1441.6	1445.6	1447.4	1446.8	1446.3	1445.7	1445.2
142.5°	1475.4	1478.5	1481.4	1482.6	1482.1	1481.6	1481.0	1480.4
145°	1529.9	1531.8	1533.7	1534.3	1533.7	1533.1	1532.6	1532.0
147.5°	1577.3	1578.2	1579.0	1578.7	1577.1	1575.5	1573.9	1572.4
150°	1607.9	1608.6	1609.2	1608.5	1606.3	1604.3	1602.2	1600.1
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)