

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: P333274

Luminaire Tested: **S125DIP-S1090D810U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333274  
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: S125DIP-S1090D810U835-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7682.1 lumens  
Efficiency: N/A  
Efficacy: 141.2 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: General Diffuse

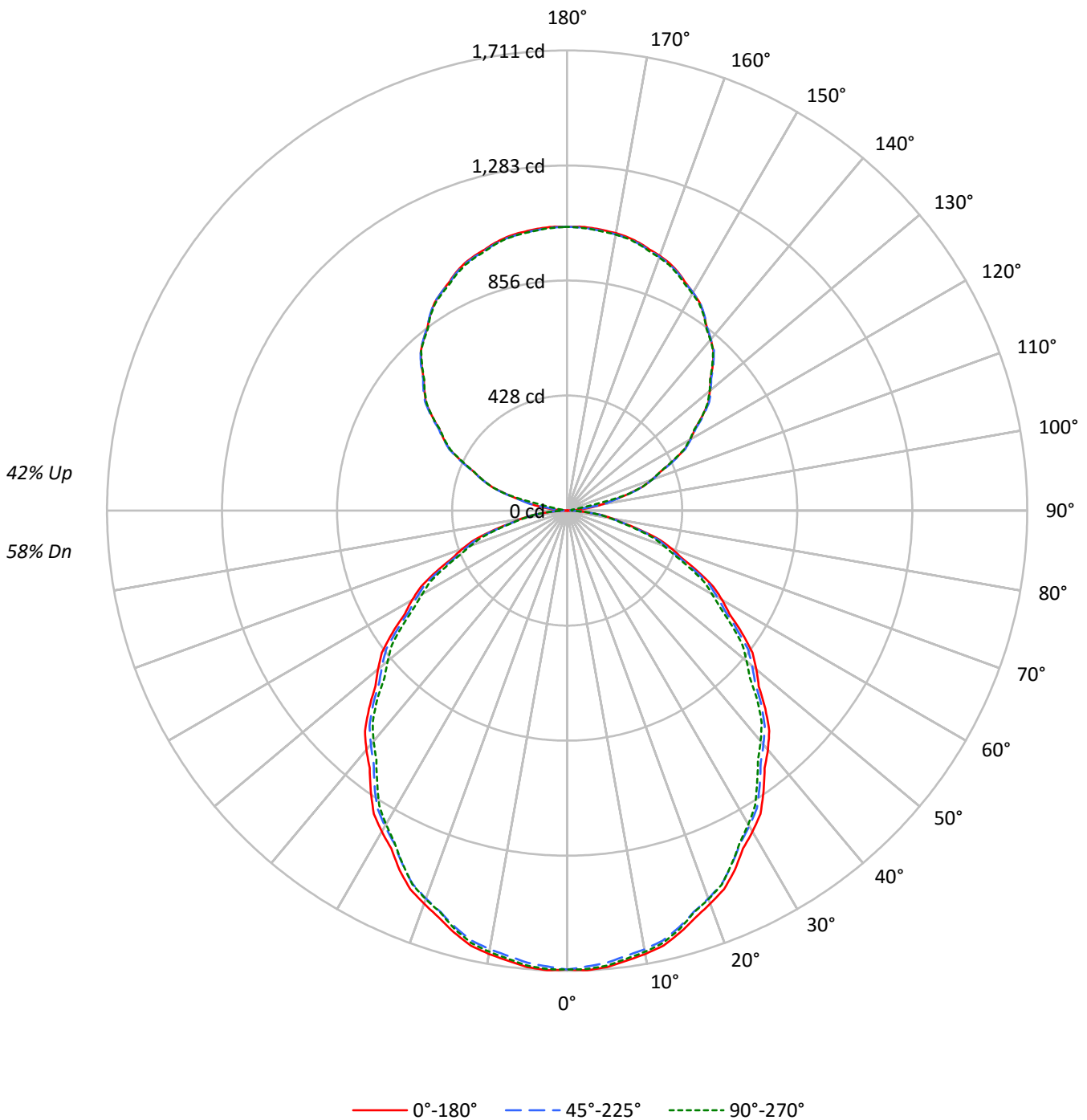
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	95	91	88	93	89	85	82	77	74	72	66	64	62	56	55	53	49
2	91	83	77	71	84	78	72	67	67	63	60	58	55	52	49	47	45	41
3	83	73	65	59	77	68	62	56	59	54	50	51	47	44	43	41	38	34
4	76	65	57	50	70	60	53	48	53	47	43	46	41	38	39	36	33	29
5	69	58	49	43	64	54	47	41	47	41	37	41	36	33	35	31	29	26
6	64	52	43	38	59	49	41	36	43	37	32	37	32	29	32	28	25	22
7	59	47	39	33	55	44	37	31	39	33	28	34	29	25	29	25	22	20
8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	25	21	18	16
10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	17	15

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

	0°	45°	90°
0°	11021	11021	11021
5°	11045	10940	11010
10°	10978	10863	10925
15°	10858	10732	10777
20°	10689	10549	10568
25°	10505	10332	10322
30°	10279	10097	10047
35°	10037	9845	9707
40°	9788	9571	9435
45°	9519	9322	9136
50°	9224	9020	8748
55°	8938	8679	8436
60°	8596	8335	8038
65°	8189	7922	7653
70°	7801	7444	7189
75°	7107	6872	6635
80°	6326	6226	6073
85°	5498	5602	5298



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.9	2.1
10°-20°	454.5	5.9
20°-30°	671.0	8.7
30°-40°	783.0	10.2
40°-50°	786.4	10.2
50°-60°	690.3	9.0
60°-70°	514.4	6.7
70°-80°	294.1	3.8
80°-90°	87.8	1.1
90°-100°	38.3	0.5
100°-110°	236.3	3.1
110°-120°	428.5	5.6
120°-130°	550.0	7.2
130°-140°	591.5	7.7
140°-150°	555.2	7.2
150°-160°	449.1	5.8
160°-170°	290.5	3.8
170°-180°	100.2	1.3
0°-30°	1286.4	16.7
0°-40°	2069.4	26.9
0°-60°	3546.2	46.2
0°-90°	4442.4	57.8
90°-120°	703.1	9.2
90°-150°	2399.9	31.2
90°-180°	3240.0	42.2
0°-180°	7682.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1700	1688	1699	1698	162
15°	1624	1619	1605	1612	1612	458
25°	1474	1467	1450	1452	1448	678
35°	1273	1267	1249	1242	1231	796
45°	1042	1036	1021	1005	1000	803
55°	794	789	771	759	749	708
65°	536	533	518	507	501	532
75°	285	282	275	271	266	304
85°	74	76	76	74	72	83
90°	1	7	12	16	19	6
95°	45	41	12	16	16	57
105°	230	233	233	233	232	244
115°	432	435	436	433	429	428
125°	614	619	619	616	614	548
135°	766	770	769	767	762	590
145°	888	889	889	890	885	555
155°	978	973	974	976	970	450
165°	1032	1027	1028	1032	1026	291
175°	1055	1051	1051	1057	1050	100
180°	1055	1055	1055	1055	1055	



TEST NUMBER: P333274

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1710.7	1710.0	1709.2	1708.5	1707.8	1706.2	1703.8	1701.4	1699.0	1696.6	1699.0
5°	1703.7	1703.1	1702.5	1701.9	1701.3	1699.5	1696.5	1693.5	1690.5	1687.5	1690.2
7.5°	1688.0	1687.4	1686.8	1686.2	1685.6	1683.6	1680.3	1677.0	1673.7	1670.4	1673.1
10°	1674.0	1673.4	1672.8	1672.2	1671.6	1669.6	1666.3	1663.0	1659.7	1656.4	1658.8
12.5°	1656.7	1655.6	1654.5	1653.4	1652.4	1650.3	1647.2	1644.2	1641.1	1638.0	1640.0
15°	1624.0	1623.1	1622.2	1621.3	1620.4	1618.3	1615.0	1611.7	1608.4	1605.1	1606.6
17.5°	1586.5	1585.2	1583.8	1582.5	1581.2	1578.8	1575.4	1572.0	1568.6	1565.1	1567.0
20°	1555.2	1554.6	1554.0	1553.4	1552.8	1550.5	1546.6	1542.7	1538.8	1534.9	1537.0
22.5°	1523.8	1522.8	1521.7	1520.6	1519.5	1517.1	1513.5	1509.8	1506.2	1502.5	1503.9
25°	1474.2	1472.7	1471.2	1469.7	1468.2	1465.5	1461.6	1457.7	1453.8	1449.9	1450.5
27.5°	1416.1	1415.2	1414.3	1413.4	1412.5	1410.1	1406.0	1402.0	1398.0	1394.0	1394.1
30°	1378.3	1377.4	1376.5	1375.6	1374.7	1372.0	1367.5	1363.0	1358.5	1354.0	1353.4
32.5°	1337.3	1335.9	1334.5	1333.1	1331.8	1329.1	1325.0	1321.0	1317.0	1313.0	1311.9
35°	1273.0	1271.8	1270.6	1269.4	1268.2	1265.5	1261.3	1257.1	1252.9	1248.7	1247.2
37.5°	1206.3	1204.8	1203.3	1201.8	1200.3	1197.6	1193.6	1189.7	1185.7	1181.8	1179.5
40°	1161.0	1159.5	1158.0	1156.5	1155.0	1152.1	1147.9	1143.7	1139.5	1135.3	1132.6
42.5°	1112.4	1111.1	1109.9	1108.6	1107.3	1104.6	1100.4	1096.2	1092.0	1087.8	1085.3
45°	1042.2	1041.0	1039.8	1038.6	1037.4	1035.0	1031.4	1027.8	1024.2	1020.6	1017.0
47.5°	966.6	966.6	966.7	966.8	966.8	964.7	960.4	956.0	951.7	947.4	943.7
50°	918.0	917.1	916.2	915.3	914.4	912.1	908.5	904.9	901.3	897.7	893.8
52.5°	868.3	867.6	867.0	866.3	865.7	863.4	859.6	855.7	851.9	848.0	844.6
55°	793.8	792.9	792.0	791.1	790.2	787.6	783.4	779.2	775.0	770.8	768.1
57.5°	715.2	714.7	714.3	713.8	713.3	711.3	707.7	704.2	700.7	697.1	693.6
60°	665.5	664.3	663.1	661.9	660.7	658.5	655.2	651.9	648.6	645.3	642.3
62.5°	613.7	612.7	611.8	610.8	609.9	608.0	605.1	602.3	599.5	596.7	593.4
65°	535.9	535.3	534.7	534.1	533.5	531.6	528.3	525.0	521.7	518.4	515.7
67.5°	460.6	459.3	458.1	456.8	455.6	453.7	451.2	448.8	446.3	443.9	441.6
70°	413.1	411.6	410.1	408.6	407.1	405.0	402.3	399.6	396.9	394.2	392.4
72.5°	361.3	360.2	359.2	358.2	357.2	355.8	354.1	352.3	350.6	348.8	346.8
75°	284.8	284.2	283.6	283.0	282.4	281.4	279.9	278.4	276.9	275.4	274.5
77.5°	214.4	214.1	213.9	213.7	213.4	212.9	212.0	211.2	210.4	209.5	209.0
80°	170.1	170.1	170.1	170.1	170.1	169.8	169.2	168.6	168.0	167.4	167.1
82.5°	131.2	130.7	130.3	129.8	129.3	129.0	128.9	128.8	128.6	128.5	128.0
85°	74.2	74.5	74.8	75.1	75.4	75.6	75.6	75.6	75.6	75.6	75.3
87.5°	29.3	29.6	29.9	30.1	30.4	30.6	30.6	30.6	30.6	30.6	30.8
90°	0.8	2.2	3.6	5.0	6.3	7.6	8.9	10.1	11.3	12.5	13.4
92.5°	12.0	11.1	10.1	9.1	8.2	8.2	9.3	10.4	11.4	12.5	13.4
95°	44.6	44.1	43.5	43.0	42.5	38.9	32.3	25.7	19.1	12.5	13.4
97.5°	93.1	94.0	94.9	95.9	96.8	90.8	77.7	64.6	51.5	38.5	33.6
100°	130.6	131.1	131.6	132.2	132.7	133.3	134.0	134.7	135.4	136.1	110.2
102.5°	168.8	169.4	170.1	170.7	171.4	171.9	172.4	172.8	173.2	173.6	168.7
105°	229.9	230.6	231.3	232.0	232.7	233.0	233.0	233.0	233.0	233.0	233.0
107.5°	293.4	293.4	293.4	293.4	293.4	293.6	293.9	294.3	294.6	295.0	295.0
110°	334.7	334.7	334.7	334.7	334.7	334.9	335.2	335.6	335.9	336.3	335.8



TEST NUMBER: P333274

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	373.5	373.9	374.3	374.8	375.2	375.5	375.7	375.9	376.1	376.3	375.7
115°	431.7	432.6	433.4	434.3	435.2	435.7	435.9	436.0	436.2	436.4	435.7
117.5°	491.9	491.9	491.8	491.8	491.8	492.1	492.7	493.4	494.1	494.7	493.8
120°	529.4	529.3	529.1	528.9	528.7	528.9	529.4	530.0	530.5	531.0	530.7
122.5°	562.6	563.3	563.9	564.6	565.2	565.7	565.9	566.2	566.4	566.7	566.3
125°	613.9	615.1	616.3	617.6	618.8	619.4	619.4	619.4	619.4	619.4	618.7
127.5°	662.9	663.7	664.6	665.5	666.3	666.7	666.6	666.5	666.4	666.3	665.9
130°	692.9	693.8	694.6	695.5	696.4	696.9	697.1	697.2	697.4	697.6	697.1
132.5°	722.9	723.9	724.9	725.9	727.0	727.3	726.9	726.5	726.1	725.7	725.6
135°	765.6	766.7	767.7	768.8	769.8	770.1	769.8	769.4	769.1	768.8	768.4
137.5°	804.9	805.8	806.7	807.6	808.5	808.8	808.5	808.2	807.9	807.5	807.6
140°	830.5	830.9	831.2	831.6	831.9	832.0	831.8	831.7	831.5	831.3	831.7
142.5°	853.7	853.9	854.1	854.3	854.5	854.7	855.0	855.2	855.5	855.7	855.8
145°	887.6	888.0	888.3	888.7	889.0	889.2	889.2	889.2	889.2	889.2	889.4
147.5°	917.3	917.3	917.2	917.1	917.1	917.1	917.3	917.5	917.8	918.0	918.2
150°	936.1	935.8	935.4	935.1	934.7	934.7	935.1	935.4	935.8	936.1	936.5
152.5°	954.3	953.5	952.7	952.0	951.2	951.0	951.3	951.7	952.0	952.4	952.7
155°	977.6	976.5	975.5	974.4	973.4	973.0	973.4	973.7	974.1	974.4	974.9
157.5°	995.5	994.9	994.3	993.7	993.0	992.7	992.8	992.8	992.8	992.9	993.4
160°	1008.1	1007.0	1006.0	1004.9	1003.9	1003.5	1003.6	1003.8	1004.0	1004.1	1004.8
162.5°	1018.1	1017.0	1016.0	1014.9	1013.9	1013.5	1013.6	1013.8	1014.0	1014.2	1015.1
165°	1031.5	1030.5	1029.4	1028.4	1027.3	1026.9	1027.1	1027.3	1027.4	1027.6	1028.7
167.5°	1041.5	1040.5	1039.4	1038.3	1037.2	1036.8	1036.9	1037.1	1037.3	1037.5	1038.7
170°	1047.2	1045.9	1044.7	1043.5	1042.3	1041.8	1041.9	1042.1	1042.3	1042.5	1043.9
172.5°	1050.9	1049.7	1048.5	1047.3	1046.0	1045.6	1045.9	1046.2	1046.5	1046.8	1048.1
175°	1055.0	1053.9	1052.9	1051.9	1050.8	1050.4	1050.5	1050.7	1050.9	1051.1	1052.5
177.5°	1056.9	1056.0	1055.2	1054.4	1053.5	1053.2	1053.3	1053.4	1053.6	1053.7	1054.7
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0



TEST NUMBER: P333274

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1701.4	1703.8	1706.2	1707.3	1707.1	1706.8	1706.6	1706.4
5°	1692.9	1695.6	1698.3	1699.5	1699.2	1698.9	1698.6	1698.3
7.5°	1675.7	1678.4	1681.0	1682.2	1681.9	1681.6	1681.3	1681.0
10°	1661.2	1663.6	1666.0	1667.1	1666.8	1666.5	1666.2	1665.9
12.5°	1641.9	1643.8	1645.7	1646.7	1646.6	1646.5	1646.5	1646.4
15°	1608.1	1609.6	1611.1	1611.9	1611.9	1611.9	1611.9	1611.9
17.5°	1568.9	1570.7	1572.6	1572.8	1571.3	1569.8	1568.3	1566.8
20°	1539.1	1541.2	1543.3	1543.6	1542.1	1540.6	1539.1	1537.6
22.5°	1505.3	1506.7	1508.0	1508.2	1507.2	1506.2	1505.2	1504.1
25°	1451.1	1451.7	1452.3	1452.1	1451.2	1450.3	1449.4	1448.5
27.5°	1394.2	1394.3	1394.5	1394.1	1393.2	1392.3	1391.4	1390.5
30°	1352.8	1352.2	1351.6	1350.9	1350.0	1349.1	1348.2	1347.3
32.5°	1310.8	1309.7	1308.7	1307.3	1305.7	1304.1	1302.4	1300.8
35°	1245.7	1244.2	1242.7	1240.8	1238.4	1236.0	1233.6	1231.2
37.5°	1177.3	1175.1	1172.9	1171.1	1169.7	1168.3	1166.9	1165.6
40°	1129.9	1127.2	1124.5	1122.7	1121.8	1120.9	1120.0	1119.1
42.5°	1082.9	1080.4	1078.0	1076.0	1074.7	1073.3	1071.9	1070.5
45°	1013.4	1009.8	1006.2	1003.9	1003.0	1002.1	1001.2	1000.3
47.5°	940.1	936.4	932.8	929.9	927.8	925.7	923.6	921.5
50°	889.9	886.0	882.1	879.1	877.0	874.9	872.8	870.7
52.5°	841.2	837.8	834.4	831.5	829.1	826.8	824.5	822.1
55°	765.4	762.7	760.0	757.6	755.5	753.4	751.3	749.2
57.5°	690.2	686.7	683.2	680.9	679.8	678.6	677.5	676.3
60°	639.3	636.3	633.3	630.7	628.6	626.5	624.4	622.3
62.5°	590.2	587.0	583.7	581.3	579.7	578.1	576.4	574.8
65°	513.0	510.3	507.6	505.6	504.4	503.2	502.0	500.8
67.5°	439.3	437.0	434.7	433.2	432.5	431.8	431.1	430.4
70°	390.6	388.8	387.0	385.5	384.3	383.1	381.9	380.7
72.5°	344.8	342.7	340.7	339.1	337.9	336.7	335.5	334.3
75°	273.6	272.7	271.8	270.7	269.5	268.3	267.1	265.9
77.5°	208.4	207.9	207.4	206.7	205.8	205.0	204.1	203.3
80°	166.8	166.5	166.2	165.7	165.1	164.5	163.9	163.3
82.5°	127.4	126.9	126.4	126.0	125.9	125.8	125.7	125.5
85°	75.0	74.7	74.4	73.9	73.3	72.7	72.1	71.5
87.5°	30.9	31.1	31.3	31.2	30.8	30.4	30.0	29.7
90°	14.3	15.1	16.0	16.7	17.2	17.7	18.2	18.8
92.5°	14.3	15.1	16.0	16.5	16.8	17.0	17.3	17.5
95°	14.3	15.1	16.0	16.4	16.4	16.4	16.4	16.4
97.5°	28.7	23.8	18.9	16.4	16.4	16.4	16.4	16.4
100°	84.3	58.4	32.5	19.2	18.5	17.8	17.1	16.4
102.5°	163.8	158.9	154.0	145.7	133.8	122.0	110.2	98.4
105°	233.0	233.0	233.0	233.0	232.8	232.6	232.4	232.3
107.5°	295.1	295.1	295.1	294.9	294.4	293.8	293.3	292.8
110°	335.2	334.7	334.2	334.0	334.2	334.4	334.5	334.7





TEST NUMBER: P333274

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	375.0	374.3	373.7	373.2	373.0	372.7	372.5	372.3
115°	435.0	434.3	433.6	432.7	431.7	430.6	429.6	428.6
117.5°	492.9	492.0	491.1	490.4	490.0	489.5	489.1	488.6
120°	530.3	530.0	529.6	529.0	528.1	527.3	526.4	525.5
122.5°	566.0	565.6	565.3	564.6	563.6	562.6	561.6	560.6
125°	618.0	617.3	616.6	616.0	615.5	614.9	614.4	613.9
127.5°	665.5	665.2	664.8	663.9	662.7	661.4	660.1	658.8
130°	696.5	696.0	695.5	694.8	693.9	693.1	692.2	691.3
132.5°	725.5	725.4	725.3	724.8	724.0	723.1	722.2	721.4
135°	768.1	767.7	767.4	766.7	765.6	764.6	763.5	762.5
137.5°	807.7	807.7	807.8	807.4	806.5	805.6	804.7	803.8
140°	832.0	832.4	832.7	832.4	831.3	830.3	829.2	828.2
142.5°	855.9	855.9	856.0	855.5	854.5	853.4	852.4	851.3
145°	889.5	889.7	889.9	889.4	888.4	887.4	886.3	885.3
147.5°	918.4	918.6	918.8	918.3	917.0	915.8	914.5	913.3
150°	936.8	937.2	937.5	937.0	935.6	934.2	932.8	931.4
152.5°	953.1	953.4	953.8	953.3	952.1	950.8	949.6	948.3
155°	975.5	976.0	976.5	976.1	974.7	973.3	971.9	970.5
157.5°	994.0	994.6	995.1	994.7	993.3	991.9	990.5	989.1
160°	1005.5	1006.2	1006.9	1006.6	1005.2	1003.8	1002.4	1001.0
162.5°	1016.1	1017.1	1018.0	1017.8	1016.2	1014.7	1013.2	1011.7
165°	1029.7	1030.7	1031.8	1031.6	1030.2	1028.8	1027.4	1026.0
167.5°	1040.0	1041.2	1042.5	1042.3	1040.7	1039.2	1037.6	1036.1
170°	1045.2	1046.6	1048.0	1047.9	1046.4	1044.8	1043.2	1041.7
172.5°	1049.3	1050.6	1051.9	1051.7	1050.1	1048.6	1047.0	1045.4
175°	1053.8	1055.2	1056.6	1056.5	1055.0	1053.4	1051.9	1050.3
177.5°	1055.7	1056.6	1057.6	1057.6	1056.4	1055.3	1054.2	1053.1
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0

(END OF REPORT)