

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: P333321-935

Luminaire Tested: **S125DIP-S1270D810U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333321-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1270D810U935-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6921.3 lumens  
Efficiency: N/A  
Efficacy: 114.0 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-Direct

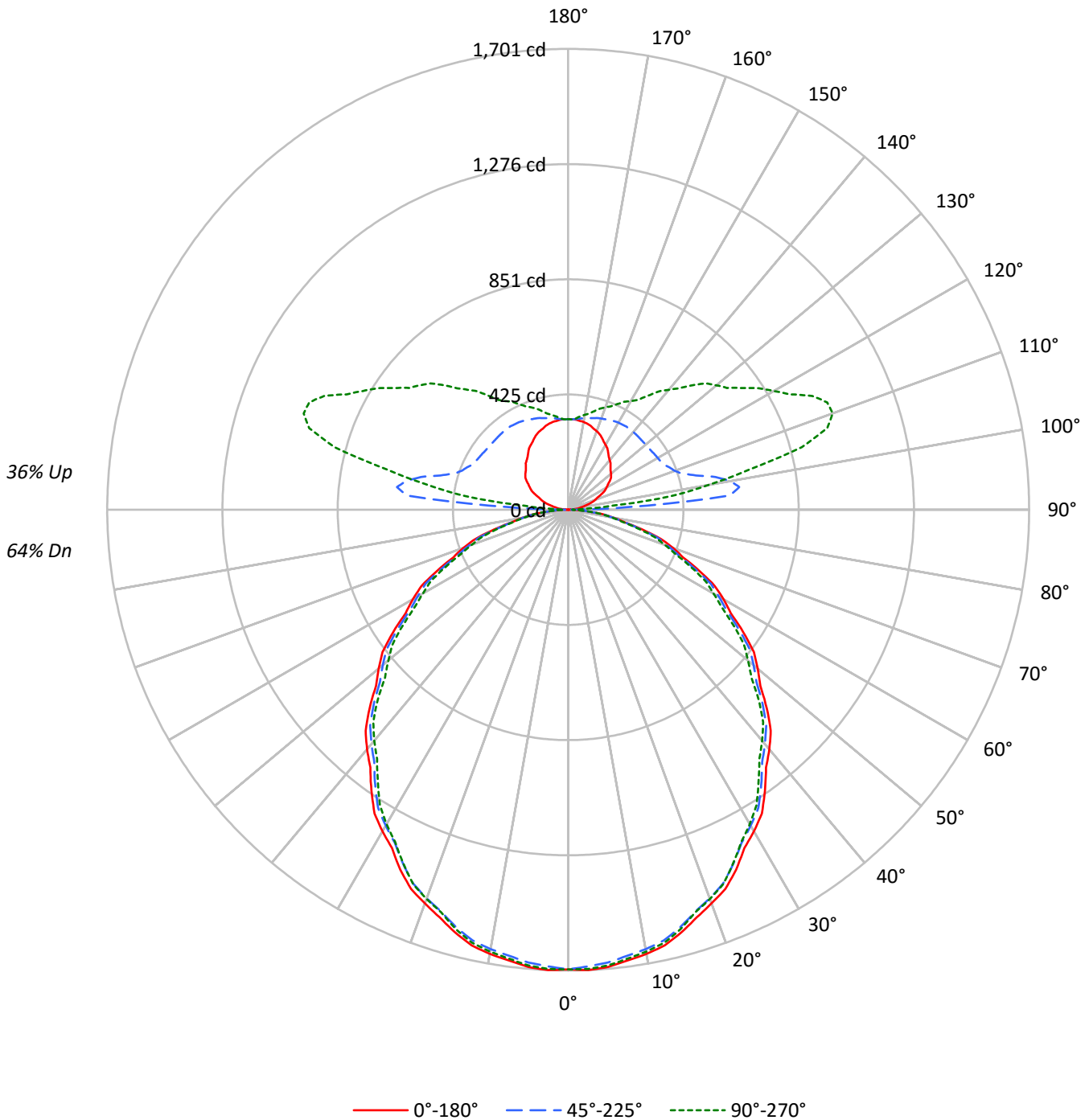
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	101	96	92	89	94	91	87	84	80	77	75	70	68	66	61	59	58	54
2	92	84	78	72	86	79	74	69	70	66	62	61	58	55	53	51	49	45
3	84	74	66	60	78	70	63	58	62	56	52	54	50	47	47	44	41	38
4	77	65	57	51	72	62	54	49	55	49	44	48	44	40	42	39	36	33
5	70	58	50	44	66	55	48	42	49	43	38	43	39	35	38	34	31	28
6	65	52	44	38	61	50	42	37	44	38	33	39	34	30	35	31	27	25
7	60	47	39	34	56	45	38	32	40	34	30	36	31	27	32	28	24	22
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22	20
9	52	39	32	27	49	38	30	26	34	28	24	30	25	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	25	21	28	23	20	25	21	18	16

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

	0°	45°	90°
0°	10959	10959	10959
5°	10983	10878	10949
10°	10916	10802	10864
15°	10797	10672	10717
20°	10628	10490	10509
25°	10446	10274	10264
30°	10221	10041	9991
35°	9980	9790	9653
40°	9732	9517	9382
45°	9465	9270	9085
50°	9171	8969	8699
55°	8888	8631	8389
60°	8548	8289	7994
65°	8145	7878	7610
70°	7757	7402	7149
75°	7069	6835	6598
80°	6289	6189	6044
85°	5476	5572	5269



TEST NUMBER: P333321-935

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.0	2.3
10°-20°	451.9	6.5
20°-30°	667.3	9.6
30°-40°	778.6	11.2
40°-50°	782.0	11.3
50°-60°	686.5	9.9
60°-70°	511.5	7.4
70°-80°	292.5	4.2
80°-90°	86.9	1.3
90°-100°	242.0	3.5
100°-110°	520.3	7.5
110°-120°	488.3	7.1
120°-130°	395.7	5.7
130°-140°	317.6	4.6
140°-150°	239.7	3.5
150°-160°	168.7	2.4
160°-170°	99.4	1.4
170°-180°	32.3	0.5
0°-30°	1279.2	18.5
0°-40°	2057.8	29.7
0°-60°	3526.3	50.9
0°-90°	4417.2	63.8
90°-120°	1250.6	18.1
90°-150°	2203.6	31.8
90°-180°	2504.0	36.2
0°-180°	6921.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1697	1697	1697	1697	1697	
5°	1694	1691	1678	1689	1689	161
15°	1615	1610	1596	1602	1603	455
25°	1466	1459	1442	1444	1440	674
35°	1266	1260	1242	1235	1224	791
45°	1036	1030	1015	999	995	798
55°	789	784	766	755	745	704
65°	533	530	516	504	498	529
75°	283	280	274	270	264	302
85°	74	75	75	74	71	82
90°	1	6	11	14	16	5
95°	22	66	596	271	158	24
105°	76	106	488	961	892	80
115°	136	164	392	845	994	134
125°	188	221	376	672	783	167
135°	221	266	373	563	650	171
145°	257	295	374	466	513	161
155°	294	316	365	412	430	135
165°	320	329	350	371	377	90
175°	333	333	336	340	339	32
180°	334	334	334	334	334	



TEST NUMBER: P333321-935

CATALOG NUMBER: S125DIP-S1270D810U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8
2.5°	1701.1	1700.4	1699.7	1698.9	1698.2	1696.7	1694.3	1691.9	1689.5	1687.1	1689.5
5°	1694.1	1693.5	1692.9	1692.3	1691.7	1690.0	1687.0	1683.9	1681.0	1678.0	1680.7
7.5°	1678.5	1677.9	1677.3	1676.7	1676.1	1674.2	1670.9	1667.7	1664.4	1661.1	1663.7
10°	1664.6	1664.0	1663.4	1662.8	1662.2	1660.3	1657.0	1653.7	1650.4	1647.1	1649.5
12.5°	1647.4	1646.3	1645.3	1644.2	1643.1	1641.1	1638.0	1635.0	1631.9	1628.8	1630.8
15°	1614.9	1614.0	1613.1	1612.2	1611.4	1609.2	1605.9	1602.7	1599.4	1596.1	1597.6
17.5°	1577.6	1576.3	1574.9	1573.6	1572.4	1569.9	1566.6	1563.1	1559.8	1556.3	1558.2
20°	1546.4	1545.8	1545.2	1544.6	1544.0	1541.8	1537.9	1534.0	1530.2	1526.3	1528.4
22.5°	1515.3	1514.2	1513.1	1512.1	1511.0	1508.6	1505.0	1501.4	1497.7	1494.1	1495.5
25°	1465.9	1464.4	1462.9	1461.5	1459.9	1457.2	1453.4	1449.5	1445.6	1441.7	1442.3
27.5°	1408.2	1407.3	1406.4	1405.5	1404.6	1402.1	1398.2	1394.1	1390.2	1386.1	1386.3
30°	1370.6	1369.7	1368.8	1367.9	1367.0	1364.3	1359.9	1355.4	1350.9	1346.4	1345.8
32.5°	1329.8	1328.4	1327.1	1325.7	1324.3	1321.6	1317.6	1313.6	1309.6	1305.6	1304.6
35°	1265.8	1264.7	1263.5	1262.3	1261.1	1258.4	1254.2	1250.1	1245.9	1241.7	1240.3
37.5°	1199.5	1198.1	1196.6	1195.1	1193.6	1190.8	1187.0	1183.0	1179.1	1175.2	1172.9
40°	1154.4	1153.0	1151.5	1150.0	1148.5	1145.6	1141.5	1137.3	1133.2	1128.9	1126.3
42.5°	1106.1	1104.9	1103.6	1102.3	1101.1	1098.4	1094.2	1090.0	1085.9	1081.7	1079.3
45°	1036.3	1035.2	1034.0	1032.8	1031.6	1029.2	1025.6	1022.0	1018.5	1014.9	1011.2
47.5°	961.1	961.2	961.3	961.3	961.4	959.2	955.0	950.7	946.4	942.1	938.5
50°	912.8	912.0	911.0	910.2	909.2	907.0	903.4	899.8	896.3	892.7	888.8
52.5°	863.4	862.8	862.1	861.4	860.8	858.6	854.7	850.9	847.1	843.3	839.9
55°	789.4	788.4	787.6	786.6	785.7	783.3	779.0	774.9	770.7	766.5	763.8
57.5°	711.2	710.8	710.2	709.8	709.3	707.3	703.8	700.3	696.7	693.2	689.7
60°	661.8	660.6	659.4	658.2	657.0	654.8	651.5	648.2	645.0	641.7	638.7
62.5°	610.3	609.3	608.4	607.3	606.4	604.6	601.8	598.9	596.2	593.3	590.1
65°	533.0	532.4	531.8	531.2	530.5	528.6	525.3	522.0	518.8	515.5	512.8
67.5°	458.1	456.8	455.6	454.3	453.1	451.2	448.8	446.3	443.8	441.3	439.1
70°	410.8	409.3	407.8	406.3	404.8	402.7	400.0	397.4	394.7	392.0	390.2
72.5°	359.2	358.2	357.2	356.2	355.2	353.8	352.1	350.3	348.6	346.9	344.8
75°	283.3	282.7	282.1	281.5	280.9	279.8	278.4	276.8	275.3	273.9	272.9
77.5°	213.2	212.9	212.7	212.5	212.2	211.7	210.9	210.0	209.1	208.4	207.8
80°	169.1	169.1	169.1	169.1	169.1	168.8	168.2	167.6	167.0	166.4	166.2
82.5°	130.4	130.0	129.5	129.1	128.5	128.3	128.1	128.0	127.9	127.8	127.3
85°	73.9	74.1	74.4	74.7	75.0	75.2	75.2	75.2	75.2	75.2	74.9
87.5°	29.1	29.3	29.5	29.8	30.0	30.2	30.1	30.1	30.0	30.0	30.2
90°	0.7	1.4	2.7	4.0	5.4	6.7	7.4	8.8	9.4	10.8	11.5
92.5°	8.2	10.0	15.6	23.9	35.6	55.2	92.0	153.6	220.5	217.1	175.7
95°	22.2	22.9	28.2	35.6	50.5	80.8	152.8	300.9	486.7	596.5	583.7
97.5°	36.9	37.7	41.5	48.9	62.2	84.0	131.6	240.2	434.6	637.0	738.5
100°	47.1	48.5	51.1	58.5	71.4	91.5	130.6	218.1	387.8	608.0	776.2
102.5°	58.5	59.2	61.4	69.3	81.0	100.7	135.4	209.0	352.2	556.7	753.6
105°	76.1	76.1	79.5	86.2	96.9	115.8	145.4	205.3	317.8	488.1	681.3
107.5°	93.3	94.6	97.9	103.4	114.6	131.6	160.2	211.5	303.2	440.8	607.5
110°	105.7	107.0	109.7	115.8	125.9	143.4	171.0	217.5	298.9	418.7	565.5



TEST NUMBER: P333321-935

CATALOG NUMBER: S125DIP-S1270D810U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	118.0	119.4	121.6	127.6	137.8	154.7	181.2	225.0	298.9	405.8	534.3
115°	136.0	137.3	139.4	145.4	155.5	172.4	197.3	236.3	300.9	391.8	500.2
117.5°	152.1	154.2	156.4	162.4	173.8	190.1	213.7	249.3	305.4	385.0	479.8
120°	162.9	165.0	167.6	173.7	185.1	202.0	225.5	257.9	309.7	381.7	468.6
122.5°	174.3	175.7	177.9	183.9	196.5	213.3	236.9	267.5	313.4	379.0	458.8
125°	188.5	189.9	193.2	199.2	212.1	229.5	251.8	280.7	319.8	375.7	445.7
127.5°	199.7	201.7	206.0	213.7	227.3	244.8	266.2	292.8	326.9	374.0	433.5
130°	206.6	208.7	214.0	222.8	236.9	254.5	275.3	300.9	331.2	373.0	425.5
132.5°	212.1	214.6	221.1	230.9	245.6	263.1	284.0	307.9	336.0	373.0	419.0
135°	220.8	223.5	231.6	242.4	256.5	274.7	295.6	317.8	342.7	373.0	411.3
137.5°	231.9	233.8	241.4	252.2	266.0	284.7	303.8	325.0	348.7	373.8	404.5
140°	238.3	240.3	248.4	259.2	272.0	290.2	309.7	329.8	351.4	374.3	401.2
142.5°	245.8	247.4	254.9	265.6	277.9	295.0	313.4	332.6	353.0	374.9	398.6
145°	257.2	258.5	265.3	274.7	286.8	302.3	319.8	336.6	354.8	374.3	394.5
147.5°	269.0	269.8	275.6	284.4	294.9	308.5	323.8	339.1	355.4	372.6	390.3
150°	276.0	277.3	282.1	290.8	300.2	311.7	326.5	340.6	355.4	370.9	387.1
152.5°	283.5	284.4	288.5	296.2	305.1	315.5	329.2	341.7	354.9	368.8	383.3
155°	293.5	293.5	297.6	304.3	311.0	320.5	331.9	342.7	353.4	364.9	377.0
157.5°	302.4	302.3	305.5	311.3	317.2	324.3	334.2	343.4	351.7	360.8	371.1
160°	308.3	307.6	310.4	315.0	320.5	326.5	335.3	343.4	350.1	358.2	366.3
162.5°	313.1	312.5	315.2	319.3	323.6	328.6	336.3	342.8	348.4	354.9	361.9
165°	320.5	319.1	321.2	324.5	327.2	331.2	336.6	342.0	346.0	350.1	355.4
167.5°	325.3	324.6	325.8	327.7	329.6	332.2	336.6	340.4	342.2	345.3	349.1
170°	328.6	327.9	328.6	329.8	331.2	333.2	336.6	339.3	340.6	342.7	345.3
172.5°	330.7	329.5	330.1	331.5	332.3	333.2	336.0	338.2	338.5	339.4	341.6
175°	333.2	331.9	332.6	333.2	333.2	333.2	335.3	336.6	336.0	336.0	336.6
177.5°	334.4	333.4	333.4	333.9	333.4	333.4	334.4	335.0	333.9	333.9	334.4
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9



TEST NUMBER: P333321-935

CATALOG NUMBER: S125DIP-S1270D810U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8
2.5°	1691.9	1694.3	1696.7	1697.7	1697.5	1697.3	1697.0	1696.8
5°	1683.3	1686.1	1688.8	1690.0	1689.6	1689.4	1689.0	1688.8
7.5°	1666.3	1669.0	1671.5	1672.8	1672.5	1672.1	1671.9	1671.5
10°	1651.9	1654.3	1656.7	1657.7	1657.4	1657.1	1656.8	1656.6
12.5°	1632.7	1634.6	1636.5	1637.4	1637.4	1637.3	1637.3	1637.2
15°	1599.1	1600.6	1602.1	1602.8	1602.8	1602.8	1602.8	1602.8
17.5°	1560.0	1561.9	1563.7	1563.9	1562.5	1561.0	1559.4	1558.0
20°	1530.5	1532.6	1534.6	1535.0	1533.4	1532.0	1530.5	1529.0
22.5°	1496.8	1498.2	1499.6	1499.8	1498.7	1497.7	1496.7	1495.7
25°	1442.9	1443.6	1444.2	1444.0	1443.1	1442.2	1441.3	1440.4
27.5°	1386.4	1386.6	1386.6	1386.2	1385.3	1384.5	1383.5	1382.7
30°	1345.2	1344.6	1344.0	1343.3	1342.4	1341.5	1340.6	1339.7
32.5°	1303.5	1302.4	1301.3	1299.9	1298.4	1296.8	1295.1	1293.6
35°	1238.7	1237.3	1235.8	1233.8	1231.4	1229.1	1226.7	1224.3
37.5°	1170.7	1168.5	1166.3	1164.5	1163.1	1161.7	1160.4	1159.0
40°	1123.6	1120.9	1118.2	1116.5	1115.5	1114.7	1113.7	1112.8
42.5°	1076.9	1074.4	1071.9	1070.1	1068.7	1067.3	1065.9	1064.5
45°	1007.7	1004.1	1000.6	998.3	997.4	996.5	995.6	994.7
47.5°	934.8	931.2	927.6	924.7	922.6	920.5	918.4	916.4
50°	884.9	881.1	877.2	874.2	872.1	870.0	868.0	865.8
52.5°	836.5	833.1	829.7	826.8	824.5	822.2	819.8	817.5
55°	761.1	758.5	755.8	753.4	751.3	749.2	747.1	745.0
57.5°	686.3	682.9	679.4	677.1	676.0	674.9	673.6	672.5
60°	635.7	632.7	629.7	627.2	625.1	623.0	621.0	618.9
62.5°	586.9	583.7	580.5	578.1	576.4	574.8	573.2	571.6
65°	510.1	507.4	504.7	502.8	501.6	500.4	499.2	498.0
67.5°	436.9	434.5	432.3	430.8	430.1	429.4	428.7	427.9
70°	388.4	386.6	384.8	383.3	382.1	380.9	379.8	378.6
72.5°	342.9	340.8	338.8	337.2	336.0	334.8	333.6	332.3
75°	272.1	271.1	270.3	269.2	268.0	266.8	265.6	264.4
77.5°	207.2	206.7	206.2	205.5	204.7	203.8	203.0	202.2
80°	165.8	165.6	165.2	164.8	164.2	163.6	163.0	162.5
82.5°	126.7	126.2	125.6	125.4	125.2	125.1	124.9	124.8
85°	74.6	74.3	74.0	73.5	72.9	72.3	71.7	71.1
87.5°	30.3	30.5	30.7	30.7	30.1	29.7	29.4	28.8
90°	12.1	12.8	13.4	14.8	14.8	14.8	15.5	15.5
92.5°	119.3	86.6	65.2	55.2	46.6	44.9	44.0	43.0
95°	484.1	381.7	298.9	242.4	194.6	174.4	169.0	158.2
97.5°	720.9	649.1	568.4	489.8	448.2	410.5	391.0	382.4
100°	828.0	795.0	725.7	655.7	609.2	560.8	535.9	525.1
102.5°	864.1	884.5	851.2	803.8	754.1	719.6	692.6	684.5
105°	842.8	935.1	964.8	957.3	935.7	913.5	900.1	892.0
107.5°	766.9	890.0	966.0	1001.2	1012.1	1011.9	1007.5	1002.1
110°	710.9	838.8	933.8	990.9	1021.2	1034.1	1038.8	1038.8





TEST NUMBER: P333321-935

CATALOG NUMBER: S125DIP-S1270D810U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	666.8	788.2	884.2	951.7	995.9	1017.9	1029.6	1034.5
115°	611.3	715.7	807.9	881.2	933.8	966.0	984.9	993.7
117.5°	575.5	665.4	744.9	812.2	864.7	898.0	916.8	922.1
120°	556.0	636.9	710.9	770.2	819.9	852.3	870.5	875.8
122.5°	541.6	616.4	682.3	737.9	782.3	811.9	830.1	834.9
125°	520.4	589.1	647.6	696.1	733.8	761.4	776.2	782.9
127.5°	498.9	562.9	617.6	663.0	697.2	721.5	735.6	738.5
130°	485.3	544.7	597.1	640.9	674.6	696.8	710.2	714.3
132.5°	471.9	527.4	575.1	617.2	650.8	673.0	685.4	690.0
135°	454.4	500.8	544.0	582.3	611.9	634.1	646.3	650.3
137.5°	439.6	477.2	513.0	545.5	572.1	592.3	603.5	608.0
140°	431.5	463.1	494.1	522.4	547.3	564.8	574.9	578.2
142.5°	424.6	451.3	477.9	502.5	523.7	538.5	548.0	550.8
145°	415.3	436.3	457.1	475.3	491.5	502.9	510.3	513.0
147.5°	406.7	423.7	439.7	453.5	466.2	475.4	479.7	481.0
150°	401.9	416.7	429.5	441.6	451.8	459.8	462.5	463.1
152.5°	396.5	409.7	421.5	430.8	439.4	445.8	448.5	449.2
155°	388.5	399.2	408.6	416.0	422.8	427.5	429.5	430.2
157.5°	380.4	389.3	396.5	402.3	407.6	411.5	413.4	413.2
160°	375.0	381.7	388.5	393.1	397.9	401.2	402.6	401.9
162.5°	369.0	375.2	380.9	385.0	388.7	391.5	391.8	391.7
165°	360.8	365.6	369.6	373.0	375.7	377.0	377.0	377.0
167.5°	353.0	356.1	359.2	361.6	363.0	364.2	363.7	363.5
170°	348.7	350.8	352.8	354.1	355.4	356.1	356.1	355.4
172.5°	343.9	345.9	347.4	348.2	348.4	349.7	348.6	347.9
175°	338.6	338.6	340.0	340.0	340.0	340.6	339.3	338.6
177.5°	335.0	335.5	335.5	335.5	335.0	335.5	333.9	333.9
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9

(END OF REPORT)