

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: P333310-935

Luminaire Tested: **S125DIP-S1270D590U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333310-935  
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-S1270D590U935-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6451.7 lumens  
Efficiency: N/A  
Efficacy: 117.1 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

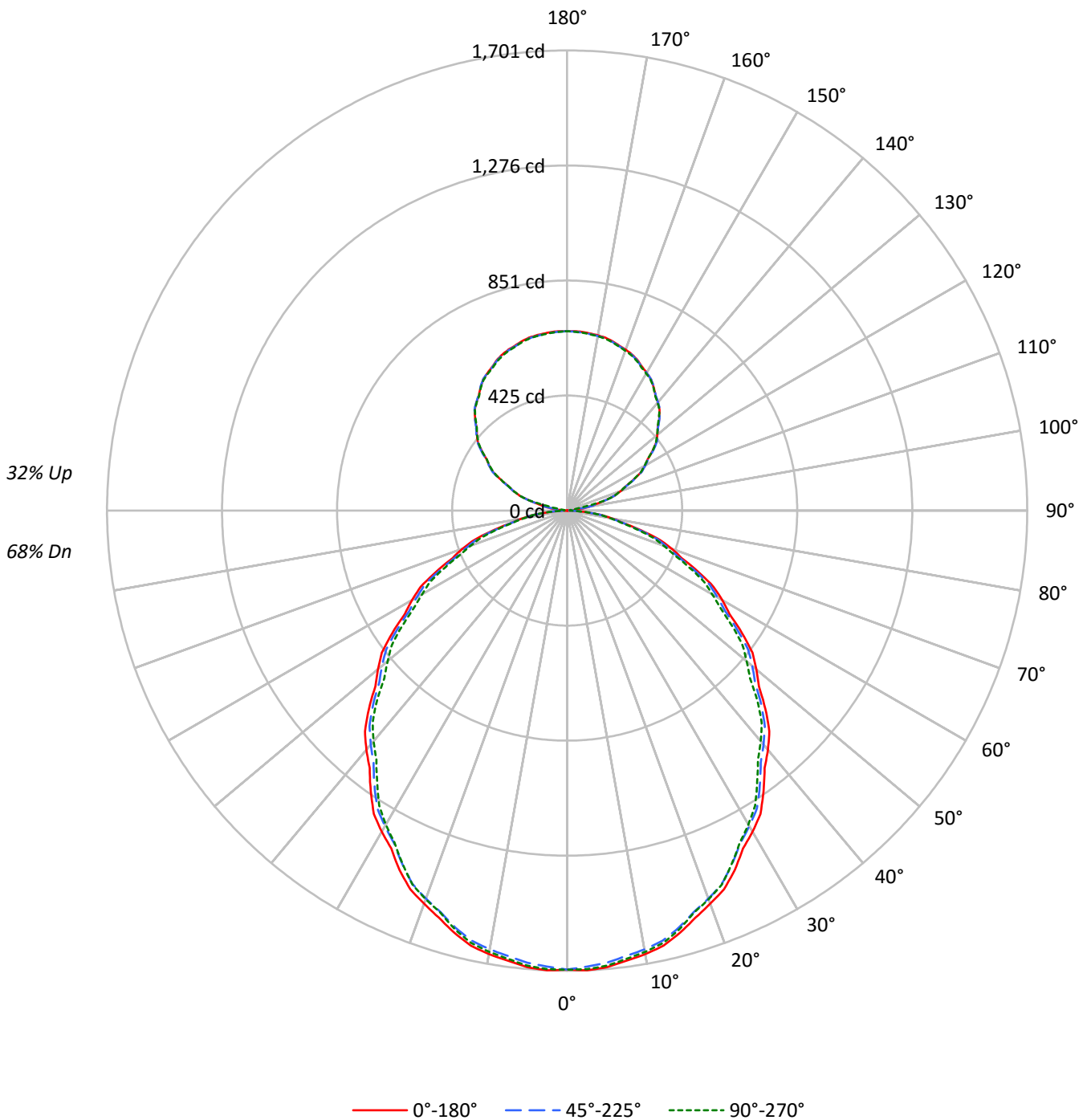
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	68
1	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	62	57
2	93	85	79	73	87	80	75	70	72	67	64	64	61	58	57	54	52	48
3	85	75	67	61	80	71	64	58	63	58	53	57	52	49	50	47	44	41
4	77	66	58	52	73	63	55	50	56	50	46	50	46	42	45	41	38	35
5	71	59	51	44	67	56	48	43	51	44	39	45	40	36	40	36	33	30
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29	27
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	34	29	26	24
8	56	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23	21
9	53	40	32	27	50	38	31	26	35	29	24	32	26	23	28	24	21	19
10	49	37	29	24	47	35	28	24	32	26	22	29	24	21	26	22	19	17

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.0	2.5
10°-20°	451.9	7.0
20°-30°	667.3	10.3
30°-40°	778.6	12.1
40°-50°	782.0	12.1
50°-60°	686.5	10.6
60°-70°	511.5	7.9
70°-80°	292.5	4.5
80°-90°	86.5	1.3
90°-100°	24.1	0.4
100°-110°	148.4	2.3
110°-120°	269.2	4.2
120°-130°	345.5	5.4
130°-140°	371.6	5.8
140°-150°	348.8	5.4
150°-160°	282.1	4.4
160°-170°	182.5	2.8
170°-180°	62.9	1.0
0°-30°	1279.2	19.8
0°-40°	2057.8	31.9
0°-60°	3526.3	54.7
0°-90°	4416.7	68.5
90°-120°	441.7	6.8
90°-150°	1507.5	23.4
90°-180°	2035.0	31.5
0°-180°	6451.7	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°	0	4	8	10	12	5
95°	28	26	8	10	10	36
105°	144	146	146	146	146	153
115°	271	274	274	272	269	269
125°	386	389	389	387	386	344
135°	481	484	483	482	479	371
145°	558	558	558	559	556	349
155°	614	611	612	613	610	283
165°	648	645	646	648	644	183
175°	663	660	660	664	660	63
180°	663	663	663	663	663	



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**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	29.4	29.6	29.8	29.9	29.8	29.7	29.6	29.5	29.6
90°	0.5	1.4	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.4
92.5°	7.6	7.0	6.4	5.8	5.1	5.2	5.9	6.5	7.1	7.8	8.4
95°	28.0	27.6	27.4	27.0	26.7	24.5	20.3	16.2	12.0	7.8	8.4
97.5°	58.5	59.1	59.7	60.2	60.8	57.0	48.8	40.6	32.4	24.2	21.1
100°	82.1	82.4	82.7	83.0	83.3	83.7	84.2	84.6	85.1	85.5	69.2
102.5°	106.0	106.4	106.9	107.3	107.6	108.0	108.2	108.6	108.8	109.1	106.0
105°	144.4	144.8	145.3	145.8	146.2	146.4	146.4	146.4	146.4	146.4	146.4
107.5°	184.3	184.3	184.3	184.3	184.3	184.4	184.6	184.9	185.1	185.3	185.3
110°	210.3	210.3	210.3	210.3	210.3	210.3	210.6	210.8	211.0	211.2	210.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	234.6	234.9	235.1	235.4	235.7	235.8	236.0	236.1	236.3	236.3	236.0
115°	271.1	271.7	272.2	272.8	273.4	273.7	273.8	273.9	274.0	274.1	273.7
117.5°	309.0	308.9	308.9	308.9	308.9	309.1	309.5	310.0	310.3	310.7	310.2
120°	332.6	332.4	332.3	332.3	332.1	332.3	332.6	332.9	333.2	333.6	333.3
122.5°	353.4	353.8	354.2	354.6	355.1	355.3	355.5	355.7	355.8	355.9	355.8
125°	385.6	386.4	387.1	387.9	388.7	389.1	389.1	389.1	389.1	389.1	388.7
127.5°	416.4	416.9	417.5	418.0	418.5	418.8	418.7	418.7	418.6	418.5	418.3
130°	435.2	435.8	436.4	436.9	437.4	437.7	437.8	438.0	438.1	438.2	437.8
132.5°	454.1	454.7	455.4	456.0	456.6	456.8	456.6	456.3	456.1	455.9	455.8
135°	481.0	481.6	482.2	482.8	483.5	483.8	483.5	483.3	483.1	482.8	482.7
137.5°	505.6	506.2	506.7	507.3	507.8	508.1	507.8	507.6	507.5	507.2	507.3
140°	521.7	521.9	522.1	522.4	522.5	522.6	522.5	522.4	522.3	522.2	522.4
142.5°	536.2	536.4	536.5	536.7	536.7	536.9	537.1	537.2	537.4	537.5	537.5
145°	557.6	557.8	558.0	558.2	558.4	558.5	558.5	558.5	558.5	558.5	558.6
147.5°	576.2	576.2	576.1	576.1	576.0	576.1	576.2	576.4	576.4	576.6	576.8
150°	588.0	587.8	587.5	587.4	587.1	587.1	587.4	587.5	587.8	588.0	588.2
152.5°	599.4	598.9	598.5	598.0	597.4	597.4	597.5	597.8	598.0	598.2	598.5
155°	614.1	613.4	612.8	612.1	611.4	611.2	611.4	611.7	611.8	612.1	612.4
157.5°	625.3	624.9	624.6	624.1	623.8	623.6	623.6	623.6	623.6	623.7	624.1
160°	633.2	632.6	631.9	631.2	630.6	630.3	630.4	630.5	630.6	630.8	631.2
162.5°	639.5	638.9	638.2	637.5	636.9	636.6	636.7	636.8	636.9	637.1	637.7
165°	647.9	647.3	646.6	646.0	645.3	645.1	645.1	645.2	645.4	645.5	646.1
167.5°	654.2	653.6	652.9	652.2	651.5	651.3	651.3	651.4	651.5	651.7	652.5
170°	657.8	657.0	656.3	655.5	654.7	654.4	654.4	654.6	654.7	654.8	655.7
172.5°	660.1	659.4	658.6	657.8	657.0	656.8	656.9	657.2	657.4	657.5	658.3
175°	662.7	662.0	661.3	660.7	660.0	659.8	659.9	660.0	660.1	660.2	661.1
177.5°	663.8	663.3	662.8	662.3	661.8	661.5	661.6	661.7	661.8	661.9	662.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7



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**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°	29.7	29.8	30.0	29.8	29.4	28.9	28.6	28.2
90°	9.0	9.5	10.1	10.5	10.8	11.1	11.5	11.8
92.5°	9.0	9.5	10.1	10.4	10.5	10.7	10.8	11.0
95°	9.0	9.5	10.1	10.3	10.3	10.3	10.3	10.3
97.5°	18.0	14.9	11.9	10.3	10.3	10.3	10.3	10.3
100°	53.0	36.7	20.4	12.1	11.6	11.2	10.8	10.3
102.5°	102.9	99.8	96.8	91.5	84.0	76.6	69.2	61.8
105°	146.4	146.4	146.4	146.4	146.2	146.1	146.0	145.9
107.5°	185.4	185.4	185.4	185.2	184.9	184.6	184.3	183.9
110°	210.6	210.3	209.9	209.8	209.9	210.0	210.2	210.3





TEST NUMBER: P333310-935

CATALOG NUMBER: S125DIP-S1270D590U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	235.6	235.1	234.7	234.5	234.3	234.1	234.0	233.8
115°	273.2	272.8	272.3	271.8	271.1	270.5	269.8	269.2
117.5°	309.6	309.0	308.5	308.1	307.8	307.5	307.2	306.9
120°	333.1	332.9	332.7	332.3	331.7	331.2	330.6	330.1
122.5°	355.5	355.3	355.1	354.6	354.0	353.4	352.8	352.1
125°	388.2	387.7	387.3	386.9	386.6	386.2	386.0	385.6
127.5°	418.0	417.8	417.6	417.1	416.2	415.4	414.7	413.8
130°	437.6	437.2	436.9	436.4	435.9	435.3	434.8	434.3
132.5°	455.7	455.6	455.6	455.3	454.8	454.2	453.7	453.1
135°	482.4	482.2	482.0	481.6	481.0	480.3	479.6	479.0
137.5°	507.3	507.4	507.4	507.1	506.6	506.0	505.5	504.9
140°	522.6	522.8	523.1	522.8	522.2	521.5	520.9	520.2
142.5°	537.6	537.6	537.7	537.4	536.7	536.1	535.4	534.8
145°	558.8	558.9	559.0	558.7	558.0	557.4	556.7	556.0
147.5°	576.9	577.0	577.1	576.8	576.0	575.2	574.5	573.7
150°	588.4	588.7	588.8	588.6	587.7	586.8	585.9	585.0
152.5°	598.7	598.9	599.1	598.8	598.1	597.3	596.4	595.6
155°	612.8	613.0	613.4	613.1	612.3	611.4	610.5	609.6
157.5°	624.4	624.7	625.1	624.8	624.0	623.0	622.2	621.3
160°	631.6	632.1	632.5	632.2	631.4	630.5	629.6	628.8
162.5°	638.3	638.9	639.5	639.3	638.3	637.4	636.5	635.4
165°	646.8	647.5	648.1	648.0	647.1	646.3	645.4	644.5
167.5°	653.2	654.0	654.8	654.7	653.8	652.7	651.8	650.7
170°	656.6	657.5	658.3	658.2	657.3	656.3	655.3	654.4
172.5°	659.1	660.0	660.7	660.6	659.6	658.7	657.6	656.7
175°	661.9	662.8	663.7	663.7	662.7	661.7	660.7	659.7
177.5°	663.1	663.7	664.3	664.3	663.6	662.9	662.2	661.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7

(END OF REPORT)