

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: P333275

Luminaire Tested: **S125DIP-S1090D810U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333275  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
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-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7246.3 lumens  
Efficiency: N/A  
Efficacy: 133.2 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: Semi-Direct

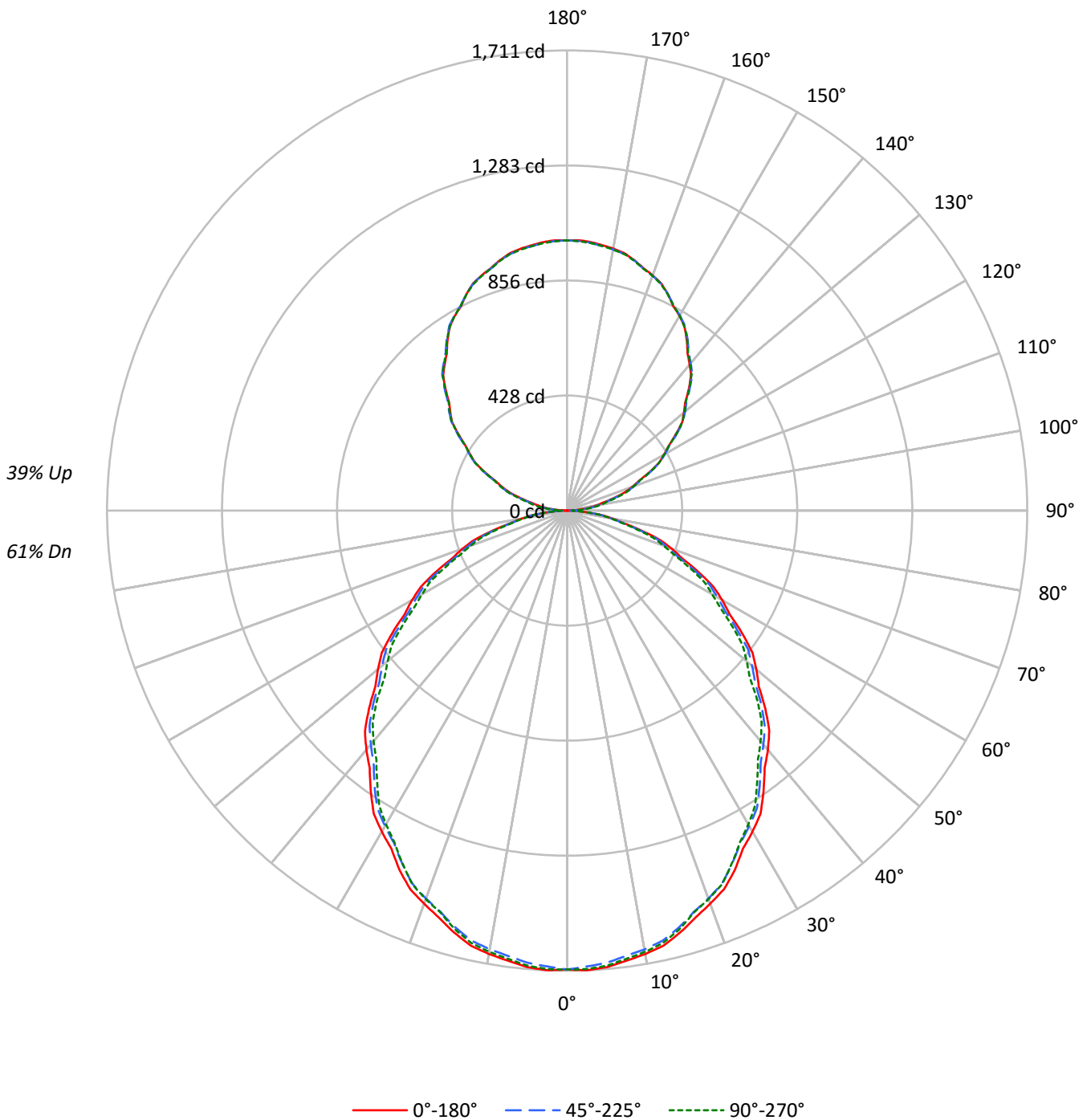
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**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	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	96	92	88	94	90	86	83	79	76	74	68	66	65	59	57	56	51
2	91	84	77	72	85	78	73	68	69	65	61	60	57	54	52	49	47	43
3	83	74	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	36
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	37	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	33	29	35	30	26	30	27	24	21
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	32	26	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	22	19	24	20	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



TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.9	2.2
10°-20°	454.5	6.3
20°-30°	671.0	9.3
30°-40°	783.0	10.8
40°-50°	786.4	10.9
50°-60°	690.3	9.5
60°-70°	514.4	7.1
70°-80°	294.1	4.1
80°-90°	87.8	1.2
90°-100°	67.3	0.9
100°-110°	198.7	2.7
110°-120°	336.6	4.6
120°-130°	443.0	6.1
130°-140°	496.4	6.9
140°-150°	486.5	6.7
150°-160°	408.6	5.6
160°-170°	271.6	3.7
170°-180°	95.1	1.3
0°-30°	1286.4	17.8
0°-40°	2069.4	28.6
0°-60°	3546.2	48.9
0°-90°	4442.4	61.3
90°-120°	602.7	8.3
90°-150°	2028.6	28.0
90°-180°	2804.0	38.7
0°-180°	7246.3	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	7
95°	51	53	60	66	67	54
105°	178	182	187	191	194	190
115°	337	340	342	341	340	333
125°	492	496	497	496	495	440
135°	640	644	645	645	642	493
145°	775	778	780	780	778	484
155°	887	887	888	890	887	408
165°	964	963	963	966	962	272
175°	1002	1000	999	1003	999	95
180°	1005	1005	1005	1005	1005	



TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**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°	18.9	19.9	20.9	21.8	22.8	24.0	25.5	27.0	28.5	30.0	31.2
95°	50.8	51.2	51.5	51.9	52.2	53.3	55.0	56.7	58.5	60.2	61.4
97.5°	84.5	84.6	84.7	84.9	85.0	86.3	88.7	91.1	93.5	95.9	97.0
100°	109.5	109.5	109.5	109.5	109.5	110.6	112.9	115.1	117.4	119.6	121.2
102.5°	136.4	137.1	137.8	138.5	139.2	140.1	141.2	142.4	143.5	144.7	146.4
105°	178.3	179.2	180.0	180.9	181.8	182.7	183.8	184.8	185.8	186.9	187.9
107.5°	224.6	225.4	226.3	227.2	228.1	228.9	229.7	230.5	231.3	232.1	232.6
110°	256.5	257.4	258.2	259.1	260.0	260.7	261.2	261.7	262.2	262.7	263.3



TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	289.0	289.5	289.9	290.4	290.8	291.4	292.0	292.7	293.4	294.0	294.3
115°	337.0	337.7	338.4	339.1	339.8	340.3	340.7	341.0	341.4	341.7	341.5
117.5°	385.2	385.5	385.8	386.1	386.4	386.8	387.1	387.4	387.7	388.0	388.1
120°	415.2	416.1	417.0	417.8	418.7	419.2	419.4	419.6	419.7	419.9	419.9
122.5°	447.7	448.1	448.4	448.7	449.0	449.4	449.8	450.3	450.7	451.2	451.0
125°	491.8	492.9	493.9	495.0	496.0	496.6	496.8	497.0	497.1	497.3	497.0
127.5°	538.8	539.4	539.9	540.5	541.1	541.5	541.7	541.9	542.2	542.4	542.2
130°	566.9	567.8	568.7	569.5	570.4	571.0	571.3	571.7	572.0	572.4	572.2
132.5°	595.1	596.5	597.9	599.3	600.8	601.4	601.4	601.3	601.2	601.2	601.0
135°	639.6	640.7	641.7	642.8	643.8	644.4	644.6	644.8	644.9	645.1	645.1
137.5°	681.6	682.6	683.6	684.6	685.6	686.3	686.7	687.0	687.4	687.8	688.0
140°	708.5	709.3	710.2	711.1	711.9	712.6	713.1	713.7	714.2	714.7	715.1
142.5°	735.4	736.1	736.8	737.5	738.3	739.0	739.6	740.3	740.9	741.6	741.8
145°	774.9	775.6	776.3	777.0	777.7	778.3	778.8	779.3	779.9	780.4	780.4
147.5°	811.5	811.9	812.3	812.7	813.0	813.4	813.9	814.3	814.7	815.1	815.5
150°	835.9	835.7	835.6	835.4	835.2	835.5	836.2	836.9	837.6	838.3	838.3
152.5°	855.9	856.2	856.4	856.7	856.9	857.2	857.4	857.7	858.0	858.3	858.7
155°	886.7	886.7	886.7	886.7	886.7	886.8	887.0	887.2	887.3	887.5	888.2
157.5°	914.3	913.9	913.5	913.1	912.7	912.6	912.8	913.0	913.1	913.3	914.0
160°	930.5	930.0	929.5	929.0	928.4	928.3	928.4	928.6	928.8	929.0	929.7
162.5°	944.9	944.5	944.1	943.8	943.4	943.2	943.2	943.3	943.3	943.4	944.2
165°	964.2	963.8	963.5	963.1	962.8	962.7	962.8	963.0	963.2	963.4	964.1
167.5°	980.4	979.7	979.0	978.3	977.6	977.3	977.3	977.3	977.3	977.3	978.3
170°	989.2	988.5	987.8	987.1	986.4	986.0	986.0	986.0	986.0	986.0	987.1
172.5°	995.4	994.7	994.0	993.3	992.6	992.3	992.3	992.3	992.3	992.3	993.3
175°	1002.5	1001.8	1001.1	1000.4	999.7	999.3	999.3	999.3	999.3	999.3	1000.4
177.5°	1006.1	1005.5	1005.0	1004.4	1003.8	1003.5	1003.4	1003.2	1003.1	1002.9	1003.8
180°	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8



TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**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°	14.2	15.1	16.0	16.7	17.2	17.7	18.2	18.8
92.5°	32.3	33.5	34.6	35.4	35.8	36.1	36.5	36.9
95°	62.6	63.9	65.1	65.9	66.2	66.6	66.9	67.2
97.5°	98.2	99.3	100.5	101.1	101.3	101.5	101.8	102.0
100°	122.8	124.3	125.9	126.9	127.2	127.5	127.9	128.2
102.5°	148.1	149.8	151.5	152.6	153.1	153.5	154.0	154.5
105°	189.0	190.0	191.1	191.8	192.4	192.9	193.4	193.9
107.5°	233.1	233.6	234.2	234.4	234.4	234.3	234.3	234.3
110°	263.8	264.3	264.8	265.0	264.8	264.6	264.5	264.3





TEST NUMBER: P333275

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	294.5	294.7	295.0	295.0	294.6	294.3	294.0	293.7
115°	341.4	341.2	341.0	340.8	340.7	340.5	340.3	340.2
117.5°	388.3	388.4	388.6	388.3	387.6	386.9	386.2	385.5
120°	419.9	419.9	419.9	419.6	418.9	418.2	417.5	416.8
122.5°	450.9	450.8	450.6	450.3	449.7	449.2	448.6	448.1
125°	496.6	496.3	495.9	495.7	495.5	495.3	495.2	495.0
127.5°	542.0	541.8	541.7	541.4	541.1	540.7	540.4	540.0
130°	572.0	571.9	571.7	571.4	571.1	570.7	570.4	570.0
132.5°	600.8	600.6	600.5	600.1	599.7	599.2	598.7	598.2
135°	645.1	645.1	645.1	644.8	644.1	643.4	642.7	642.0
137.5°	688.2	688.4	688.6	688.3	687.4	686.6	685.7	684.8
140°	715.4	715.7	716.1	715.8	715.0	714.1	713.2	712.4
142.5°	742.0	742.2	742.4	742.1	741.2	740.4	739.5	738.6
145°	780.4	780.4	780.4	780.1	779.6	779.1	778.6	778.0
147.5°	815.9	816.4	816.8	816.4	815.2	814.0	812.9	811.7
150°	838.3	838.3	838.3	838.1	837.7	837.4	837.0	836.7
152.5°	859.1	859.5	859.9	859.8	859.2	858.6	858.0	857.3
155°	888.9	889.6	890.3	890.2	889.3	888.5	887.6	886.7
157.5°	914.7	915.4	916.1	915.9	914.7	913.6	912.4	911.3
160°	930.4	931.0	931.7	931.7	930.8	929.9	929.0	928.2
162.5°	945.0	945.9	946.7	946.6	945.6	944.6	943.6	942.6
165°	964.8	965.5	966.1	966.0	964.9	963.9	962.8	961.8
167.5°	979.4	980.4	981.5	981.4	980.4	979.3	978.2	977.1
170°	988.1	989.2	990.2	990.1	988.9	987.7	986.5	985.3
172.5°	994.4	995.4	996.5	996.5	995.4	994.3	993.2	992.1
175°	1001.4	1002.5	1003.5	1003.4	1002.2	1001.0	999.8	998.6
177.5°	1004.6	1005.4	1006.3	1006.2	1005.2	1004.3	1003.3	1002.3
180°	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8	1004.8

(END OF REPORT)