

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: P333276

Luminaire Tested: **S125DIP-S1090D810U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333276  
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-S1090D810U835-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 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: 7350.7 lumens  
Efficiency: N/A  
Efficacy: 135.1 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

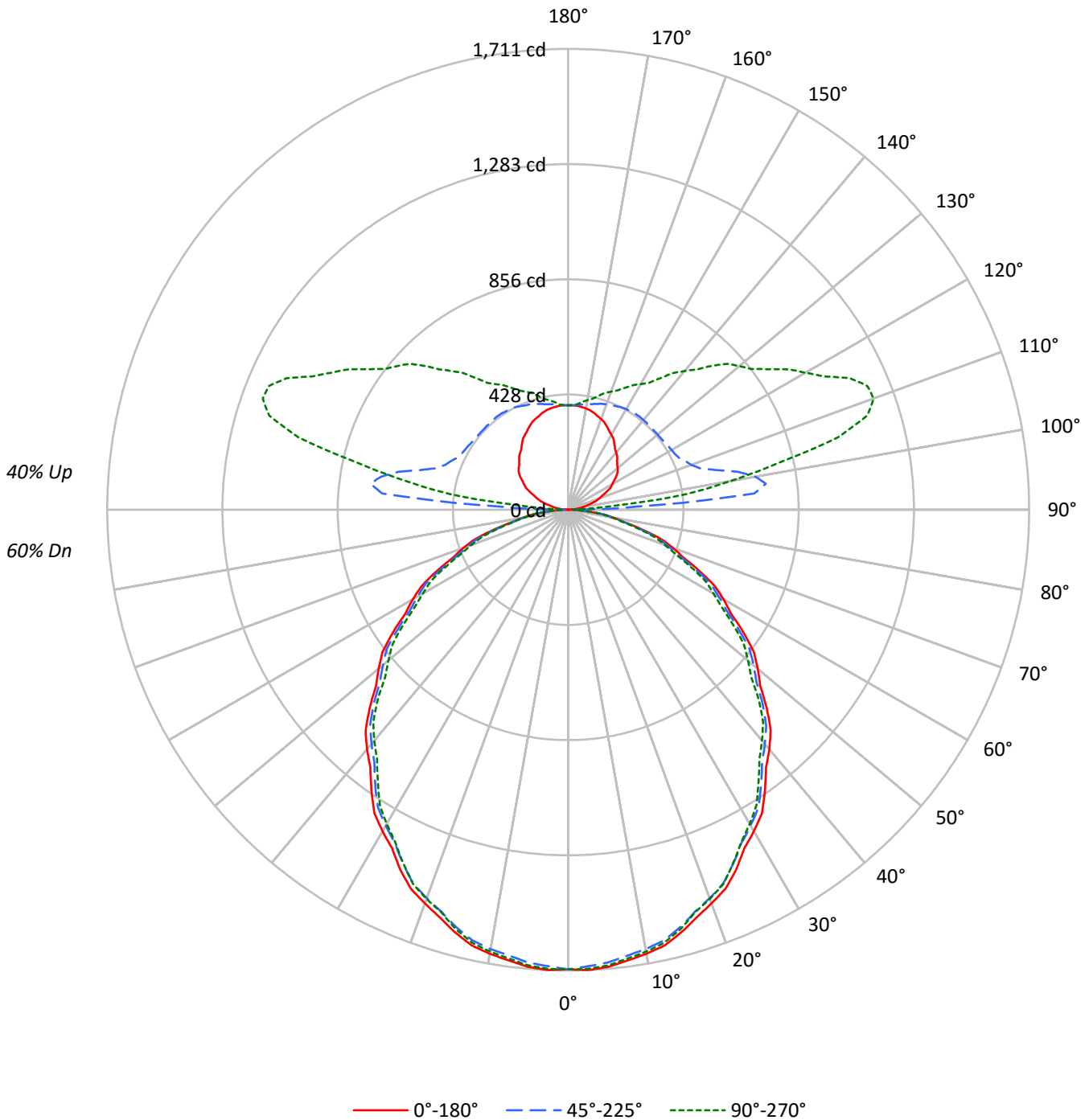
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**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	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	100	96	92	88	93	90	86	83	78	76	73	68	66	64	58	57	55	51
2	91	83	77	72	85	78	73	68	68	64	61	59	56	53	51	49	47	42
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	45	42	40	36
4	76	65	57	51	71	61	54	48	54	48	43	47	42	39	40	37	34	31
5	70	58	50	43	65	55	47	41	48	42	37	42	37	34	36	33	30	27
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23
7	60	47	39	33	56	44	37	32	39	33	29	35	30	26	30	26	23	21
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	36	29	24	45	34	27	23	30	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: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.9	2.2
10°-20°	454.5	6.2
20°-30°	671.0	9.1
30°-40°	783.0	10.7
40°-50°	786.4	10.7
50°-60°	690.3	9.4
60°-70°	514.4	7.0
70°-80°	294.1	4.0
80°-90°	87.7	1.2
90°-100°	281.1	3.8
100°-110°	604.3	8.2
110°-120°	567.1	7.7
120°-130°	459.6	6.3
130°-140°	368.8	5.0
140°-150°	278.3	3.8
150°-160°	195.9	2.7
160°-170°	115.5	1.6
170°-180°	37.6	0.5
0°-30°	1286.4	17.5
0°-40°	2069.4	28.2
0°-60°	3546.2	48.2
0°-90°	4442.4	60.4
90°-120°	1452.5	19.8
90°-150°	2559.3	34.8
90°-180°	2908.0	39.6
0°-180°	7350.7	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	18	6
95°	26	76	693	314	184	27
105°	88	124	567	1116	1036	93
115°	158	190	455	981	1154	155
125°	219	256	436	780	909	194
135°	256	308	433	654	755	199
145°	299	342	435	541	596	187
155°	341	367	424	479	500	157
165°	372	382	407	431	438	105
175°	387	387	390	395	393	37
180°	388	388	388	388	388	



TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**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	29.5	29.8	30.1	30.4	30.6	30.5	30.6	30.5	30.6	30.7
90°	0.8	1.6	3.1	4.7	6.3	7.8	8.6	10.2	10.9	12.5	13.3
92.5°	9.5	11.6	18.1	27.8	41.3	64.1	106.8	178.4	256.1	252.1	204.1
95°	25.8	26.6	32.8	41.4	58.6	93.8	177.5	349.5	565.3	692.8	677.9
97.5°	42.8	43.8	48.2	56.8	72.2	97.6	152.9	279.0	504.8	739.8	857.7
100°	54.7	56.3	59.4	68.0	82.9	106.3	151.7	253.3	450.4	706.1	901.5
102.5°	67.9	68.8	71.3	80.5	94.1	117.0	157.3	242.7	409.1	646.6	875.3
105°	88.4	88.4	92.3	100.1	112.6	134.5	168.9	238.5	369.1	566.9	791.3
107.5°	108.4	109.9	113.7	120.1	133.1	152.8	186.1	245.7	352.2	512.0	705.6
110°	122.8	124.3	127.4	134.5	146.2	166.5	198.6	252.6	347.2	486.3	656.8



TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	137.1	138.7	141.2	148.2	160.0	179.7	210.5	261.3	347.2	471.3	620.5
115°	157.9	159.5	161.9	168.9	180.6	200.2	229.1	274.4	349.5	455.1	580.9
117.5°	176.7	179.1	181.6	188.6	201.9	220.8	248.2	289.5	354.7	447.1	557.3
120°	189.2	191.6	194.7	201.7	215.0	234.6	261.9	299.5	359.7	443.3	544.2
122.5°	202.4	204.1	206.6	213.6	228.2	247.7	275.1	310.7	364.0	440.2	532.9
125°	218.9	220.5	224.4	231.4	246.3	266.6	292.4	326.0	371.4	436.3	517.6
127.5°	231.9	234.3	239.3	248.2	264.0	284.3	309.2	340.1	379.7	434.4	503.5
130°	240.0	242.4	248.6	258.8	275.2	295.6	319.8	349.5	384.7	433.2	494.2
132.5°	246.3	249.3	256.8	268.2	285.2	305.6	329.8	357.6	390.3	433.2	486.7
135°	256.5	259.6	269.0	281.5	297.9	319.0	343.3	369.1	398.0	433.2	477.7
137.5°	269.3	271.6	280.4	292.9	309.0	330.7	352.8	377.5	405.0	434.1	469.8
140°	276.8	279.1	288.5	301.0	315.9	337.0	359.7	383.1	408.1	434.7	466.0
142.5°	285.5	287.3	296.0	308.5	322.8	342.6	364.0	386.3	410.0	435.4	462.9
145°	298.7	300.2	308.1	319.0	333.1	351.1	371.4	390.9	412.1	434.7	458.2
147.5°	312.4	313.4	320.1	330.3	342.5	358.3	376.1	393.8	412.8	432.7	453.3
150°	320.6	322.1	327.6	337.8	348.7	362.0	379.2	395.6	412.8	430.8	449.6
152.5°	329.3	330.3	335.1	344.0	354.4	366.4	382.3	396.9	412.2	428.3	445.2
155°	340.9	340.9	345.6	353.4	361.2	372.2	385.5	398.0	410.5	423.8	437.9
157.5°	351.2	351.1	354.8	361.5	368.4	376.7	388.1	398.8	408.5	419.1	431.0
160°	358.1	357.3	360.5	365.9	372.2	379.2	389.4	398.8	406.6	416.0	425.4
162.5°	363.7	363.0	366.1	370.9	375.9	381.7	390.6	398.1	404.7	412.2	420.3
165°	372.2	370.6	373.0	376.9	380.0	384.7	390.9	397.2	401.9	406.6	412.8
167.5°	377.8	377.0	378.4	380.6	382.8	385.8	390.9	395.3	397.5	401.1	405.5
170°	381.6	380.8	381.6	383.1	384.7	387.0	390.9	394.1	395.6	398.0	401.1
172.5°	384.1	382.7	383.4	385.0	385.9	387.0	390.3	392.8	393.1	394.2	396.7
175°	387.0	385.5	386.3	387.0	387.0	387.0	389.4	390.9	390.2	390.2	390.9
177.5°	388.4	387.2	387.2	387.8	387.2	387.2	388.4	389.1	387.8	387.8	388.4
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**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	31.2	31.3	30.8	30.3	30.0	29.5
90°	14.1	14.9	15.6	17.2	17.2	17.2	18.0	18.0
92.5°	138.6	100.6	75.7	64.1	54.1	52.2	51.1	49.9
95°	562.2	443.3	347.2	281.5	226.0	202.5	196.3	183.7
97.5°	837.3	753.9	660.2	568.9	520.6	476.8	454.1	444.1
100°	961.7	923.4	842.9	761.6	707.6	651.3	622.4	609.9
102.5°	1003.6	1027.3	988.6	933.6	875.9	835.8	804.4	795.0
105°	978.9	1086.1	1120.5	1111.9	1086.8	1061.0	1045.4	1036.0
107.5°	890.7	1033.7	1122.0	1162.8	1175.5	1175.3	1170.2	1163.9
110°	825.7	974.2	1084.5	1150.9	1186.1	1201.0	1206.5	1206.5





TEST NUMBER: P333276

CATALOG NUMBER: S125DIP-S1090D810U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	774.4	915.4	1026.9	1105.3	1156.7	1182.2	1195.8	1201.5
115°	710.0	831.2	938.3	1023.5	1084.5	1122.0	1143.9	1154.1
117.5°	668.4	772.8	865.1	943.3	1004.3	1043.0	1064.8	1071.0
120°	645.8	739.7	825.7	894.5	952.3	989.9	1011.0	1017.2
122.5°	629.0	715.9	792.5	857.0	908.6	943.0	964.1	969.7
125°	604.4	684.2	752.2	808.5	852.3	884.3	901.5	909.3
127.5°	579.4	653.8	717.3	770.0	809.7	838.0	854.3	857.7
130°	563.7	632.6	693.5	744.4	783.5	809.3	824.9	829.6
132.5°	548.1	612.5	667.9	716.8	755.9	781.7	796.1	801.4
135°	527.8	581.7	631.8	676.3	710.7	736.5	750.6	755.3
137.5°	510.6	554.2	595.8	633.6	664.5	687.9	700.9	706.1
140°	501.2	537.9	573.9	606.7	635.7	656.0	667.7	671.6
142.5°	493.1	524.2	555.1	583.6	608.2	625.4	636.5	639.7
145°	482.4	506.7	530.9	552.0	570.8	584.1	592.7	595.8
147.5°	472.4	492.1	510.7	526.7	541.5	552.2	557.2	558.6
150°	466.8	484.0	498.8	512.9	524.7	534.0	537.2	537.9
152.5°	460.5	475.9	489.5	500.4	510.3	517.8	520.9	521.7
155°	451.2	463.7	474.6	483.2	491.0	496.5	498.8	499.6
157.5°	441.8	452.1	460.5	467.3	473.4	477.9	480.1	479.9
160°	435.5	443.3	451.2	456.6	462.1	466.0	467.6	466.8
162.5°	428.6	435.8	442.4	447.2	451.5	454.7	455.1	454.9
165°	419.1	424.6	429.3	433.2	436.3	437.9	437.9	437.9
167.5°	410.0	413.6	417.2	420.0	421.6	423.0	422.4	422.2
170°	405.0	407.4	409.7	411.3	412.8	413.6	413.6	412.8
172.5°	399.4	401.7	403.5	404.4	404.7	406.1	404.9	404.1
175°	393.3	393.3	394.9	394.9	394.9	395.6	394.1	393.3
177.5°	389.1	389.7	389.7	389.7	389.1	389.7	387.8	387.8
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8

(END OF REPORT)