

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: P333603-940

Luminaire Tested: **S125RDIP-S1090D1035U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333603-940  
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: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7078.8 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

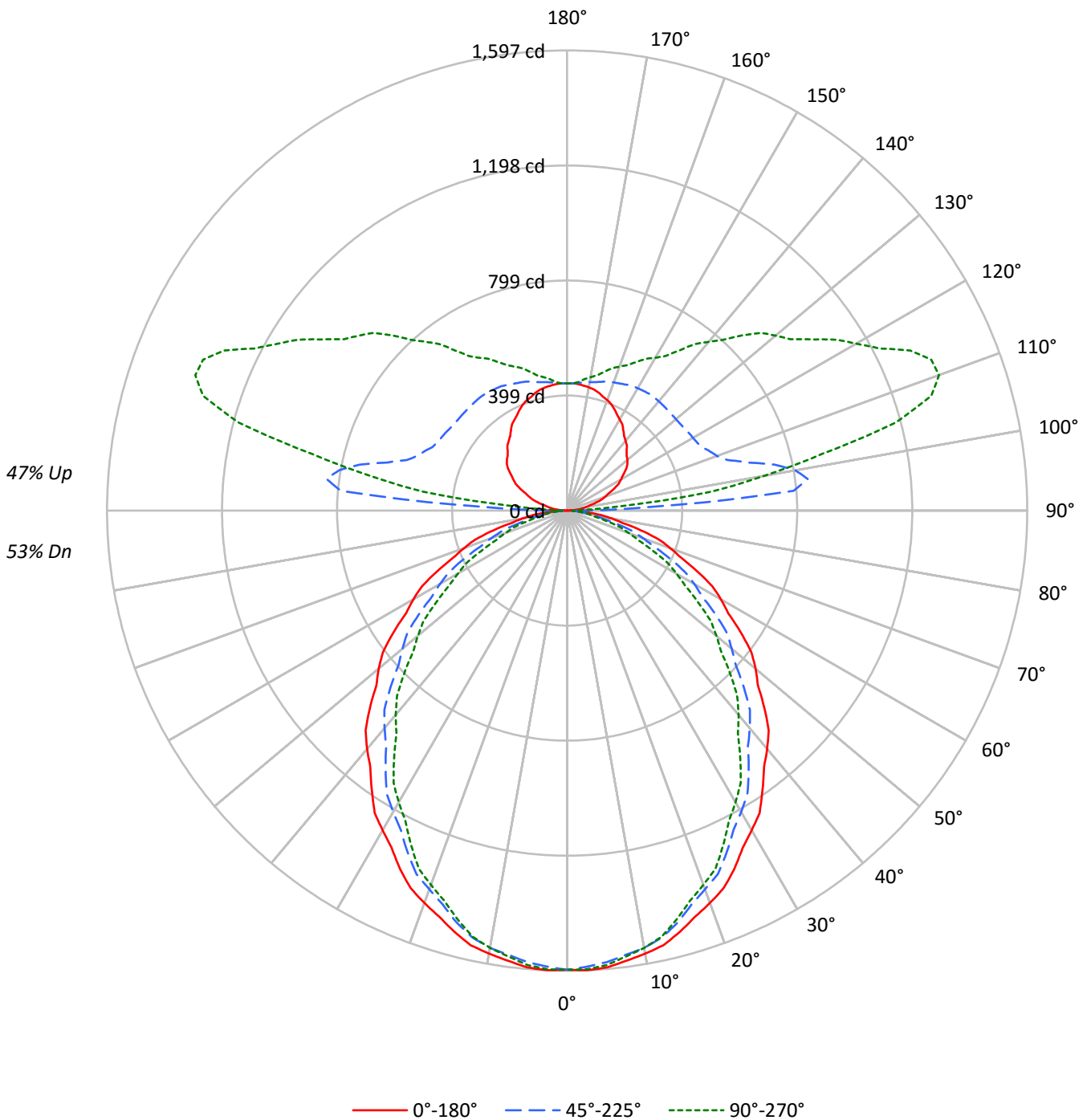
Input Watts (W): 60.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	99	94	91	87	91	88	84	81	75	73	70	63	62	60	53	51	50	45
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	38
3	82	73	66	60	76	68	62	56	58	54	50	50	46	43	41	39	37	33
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	30	28	25
6	64	52	44	38	59	49	41	36	42	36	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	32	38	33	28	33	28	25	28	24	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	32	26	47	37	30	25	32	27	23	28	23	20	24	20	18	16
10	48	36	29	24	44	34	27	23	30	24	21	26	21	18	22	19	16	14

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

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



TEST NUMBER: P333603-940

CATALOG NUMBER: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.9	2.1
10°-20°	418.8	5.9
20°-30°	607.3	8.6
30°-40°	692.2	9.8
40°-50°	674.7	9.5
50°-60°	567.9	8.0
60°-70°	398.1	5.6
70°-80°	204.6	2.9
80°-90°	54.1	0.8
90°-100°	320.0	4.5
100°-110°	688.0	9.7
110°-120°	645.7	9.1
120°-130°	523.3	7.4
130°-140°	419.9	5.9
140°-150°	316.9	4.5
150°-160°	223.1	3.2
160°-170°	131.5	1.9
170°-180°	42.8	0.6
0°-30°	1176.0	16.6
0°-40°	1868.2	26.4
0°-60°	3110.9	43.9
0°-90°	3767.8	53.2
90°-120°	1653.7	23.4
90°-150°	2913.7	41.2
90°-180°	3311.0	46.8
0°-180°	7078.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	1	8	14	19	20	5
95°	29	87	789	358	209	31
105°	101	141	645	1271	1180	106
115°	180	217	518	1117	1314	177
125°	249	292	497	888	1035	221
135°	292	351	493	745	860	227
145°	340	389	495	616	678	213
155°	388	418	482	545	569	179
165°	424	435	463	491	498	119
175°	441	441	444	450	448	42
180°	442	442	442	442	442	



TEST NUMBER: P333603-940

CATALOG NUMBER: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.3	21.0	19.9	18.7	17.6	17.1	17.0	17.2	17.1	17.3	17.5
90°	0.9	1.8	3.6	5.4	7.1	8.9	9.8	11.6	12.5	14.3	15.2
92.5°	10.9	13.2	20.7	31.7	47.0	73.0	121.6	203.1	291.6	287.0	232.3
95°	29.3	30.2	37.4	47.2	66.8	106.8	202.1	397.9	643.6	788.7	771.8
97.5°	48.8	49.8	54.8	64.6	82.2	111.1	174.2	317.6	574.7	842.3	976.5
100°	62.3	64.1	67.7	77.4	94.3	121.1	172.7	288.4	512.7	803.8	1026.4
102.5°	77.3	78.3	81.1	91.7	107.2	133.1	179.1	276.3	465.7	736.2	996.5
105°	100.6	100.6	105.0	114.0	128.2	153.1	192.3	271.5	420.2	645.3	900.9
107.5°	123.4	125.2	129.4	136.7	151.5	174.0	211.9	279.7	400.9	582.9	803.3
110°	139.7	141.5	145.1	153.1	166.5	189.6	226.1	287.5	395.2	553.7	747.7



TEST NUMBER: P333603-940

CATALOG NUMBER: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	156.1	157.9	160.8	168.8	182.1	204.6	239.6	297.5	395.2	536.6	706.4
115°	179.9	181.6	184.2	192.3	205.6	227.9	260.8	312.5	397.9	518.1	661.4
117.5°	201.2	203.8	206.7	214.7	229.9	251.4	282.6	329.6	403.8	509.0	634.5
120°	215.4	218.1	221.7	229.7	244.8	267.1	298.2	340.9	409.5	504.7	619.6
122.5°	230.4	232.3	235.1	243.2	259.8	282.0	313.2	353.7	414.5	501.1	606.7
125°	249.2	251.0	255.5	263.5	280.4	303.5	333.0	371.2	422.8	496.7	589.3
127.5°	264.0	266.7	272.4	282.6	300.5	323.7	352.0	387.2	432.3	494.5	573.3
130°	273.3	276.0	283.1	294.6	313.3	336.4	364.1	397.9	438.0	493.1	562.6
132.5°	280.4	283.7	292.3	305.3	324.8	347.9	375.5	407.2	444.3	493.1	554.0
135°	291.9	295.5	306.2	320.5	339.1	363.2	390.7	420.2	453.1	493.1	543.9
137.5°	306.6	309.2	319.2	333.5	351.8	376.6	401.6	429.8	461.1	494.2	534.8
140°	315.1	317.8	328.5	342.7	359.6	383.7	409.5	436.2	464.7	494.9	530.6
142.5°	325.1	327.1	337.0	351.2	367.5	390.0	414.5	439.7	466.8	495.6	527.0
145°	340.0	341.8	350.7	363.2	379.2	399.7	422.8	445.1	469.1	494.9	521.7
147.5°	355.7	356.8	364.4	376.0	389.9	407.9	428.2	448.3	470.0	492.6	516.1
150°	365.0	366.8	373.0	384.6	397.0	412.1	431.8	450.4	470.0	490.4	511.8
152.5°	375.0	376.0	381.6	391.6	403.4	417.1	435.3	451.8	469.3	487.7	506.8
155°	388.1	388.1	393.4	402.3	411.3	423.7	438.8	453.1	467.3	482.5	498.5
157.5°	399.8	399.7	403.9	411.6	419.5	428.9	441.8	454.0	465.0	477.2	490.6
160°	407.7	406.8	410.4	416.6	423.7	431.8	443.3	454.0	462.9	473.6	484.3
162.5°	414.1	413.2	416.8	422.3	428.0	434.6	444.7	453.3	460.7	469.3	478.6
165°	423.7	422.0	424.6	429.1	432.7	438.0	445.1	452.2	457.5	462.9	470.0
167.5°	430.2	429.3	430.9	433.4	435.9	439.2	445.1	450.0	452.5	456.6	461.6
170°	434.4	433.5	434.4	436.2	438.0	440.6	445.1	448.6	450.4	453.1	456.6
172.5°	437.3	435.7	436.6	438.3	439.3	440.6	444.3	447.2	447.5	448.8	451.7
175°	440.6	438.8	439.7	440.6	440.6	440.6	443.3	445.1	444.2	444.2	445.1
177.5°	442.2	440.8	440.8	441.5	440.8	440.8	442.2	442.9	441.5	441.5	442.2
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5



TEST NUMBER: P333603-940

CATALOG NUMBER: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	17.7	17.8	18.0	18.3	18.0	17.8	17.8	17.6
90°	16.1	16.9	17.8	19.6	19.6	19.6	20.5	20.5
92.5°	157.7	114.5	86.1	73.0	61.6	59.5	58.2	56.8
95°	640.1	504.7	395.2	320.5	257.3	230.6	223.5	209.2
97.5°	953.2	858.3	751.6	647.6	592.7	542.8	517.0	505.6
100°	1094.9	1051.3	959.6	867.0	805.6	741.5	708.6	694.4
102.5°	1142.6	1169.5	1125.5	1062.8	997.2	951.6	915.8	905.1
105°	1114.5	1236.4	1275.6	1265.8	1237.3	1208.0	1190.2	1179.5
107.5°	1014.1	1176.8	1277.4	1323.8	1338.3	1338.1	1332.2	1325.1
110°	940.0	1109.1	1234.7	1310.4	1350.4	1367.3	1373.5	1373.5





TEST NUMBER: P333603-940

CATALOG NUMBER: S125RDIP-S1090D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	881.6	1042.2	1169.1	1258.4	1316.9	1345.9	1361.5	1367.8
115°	808.2	946.3	1068.2	1165.2	1234.7	1277.4	1302.3	1313.9
117.5°	760.9	879.9	984.9	1073.9	1143.4	1187.5	1212.2	1219.3
120°	735.3	842.1	940.0	1018.3	1084.2	1126.9	1151.0	1158.2
122.5°	716.0	815.0	902.2	975.6	1034.4	1073.5	1097.6	1104.0
125°	688.1	778.9	856.3	920.4	970.3	1006.7	1026.4	1035.3
127.5°	659.6	744.4	816.6	876.6	921.9	954.0	972.6	976.5
130°	641.9	720.1	789.6	847.5	892.0	921.3	939.1	944.5
132.5°	624.0	697.3	760.4	816.1	860.6	890.0	906.3	912.4
135°	600.8	662.3	719.3	770.0	809.1	838.6	854.5	859.9
137.5°	581.3	631.0	678.3	721.4	756.4	783.2	798.0	803.8
140°	570.6	612.4	653.4	690.8	723.7	746.9	760.2	764.6
142.5°	561.3	596.7	632.0	664.4	692.4	711.9	724.6	728.3
145°	549.2	576.8	604.4	628.5	649.8	664.9	674.8	678.3
147.5°	537.9	560.3	581.5	599.6	616.5	628.7	634.4	636.0
150°	531.5	551.0	567.9	584.0	597.3	608.0	611.5	612.4
152.5°	524.3	541.7	557.2	569.7	580.9	589.5	593.0	593.9
155°	513.6	527.9	540.4	550.1	559.0	565.3	567.9	568.8
157.5°	502.9	514.7	524.3	532.0	539.0	544.0	546.5	546.4
160°	495.8	504.7	513.6	519.9	526.1	530.6	532.4	531.5
162.5°	488.0	496.1	503.6	509.2	514.0	517.7	518.1	517.9
165°	477.2	483.4	488.7	493.1	496.7	498.5	498.5	498.5
167.5°	466.8	470.9	475.0	478.2	480.0	481.6	480.9	480.7
170°	461.1	463.8	466.5	468.2	470.0	470.9	470.9	470.0
172.5°	454.7	457.4	459.3	460.4	460.7	462.4	460.9	460.0
175°	447.7	447.7	449.5	449.5	449.5	450.4	448.6	447.7
177.5°	442.9	443.6	443.6	443.6	442.9	443.6	441.5	441.5
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5

(END OF REPORT)