

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: P333275-930

Luminaire Tested: **S125DIP-S1090D810U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333275-930  
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-S1090D810U930-4F0-1E-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**

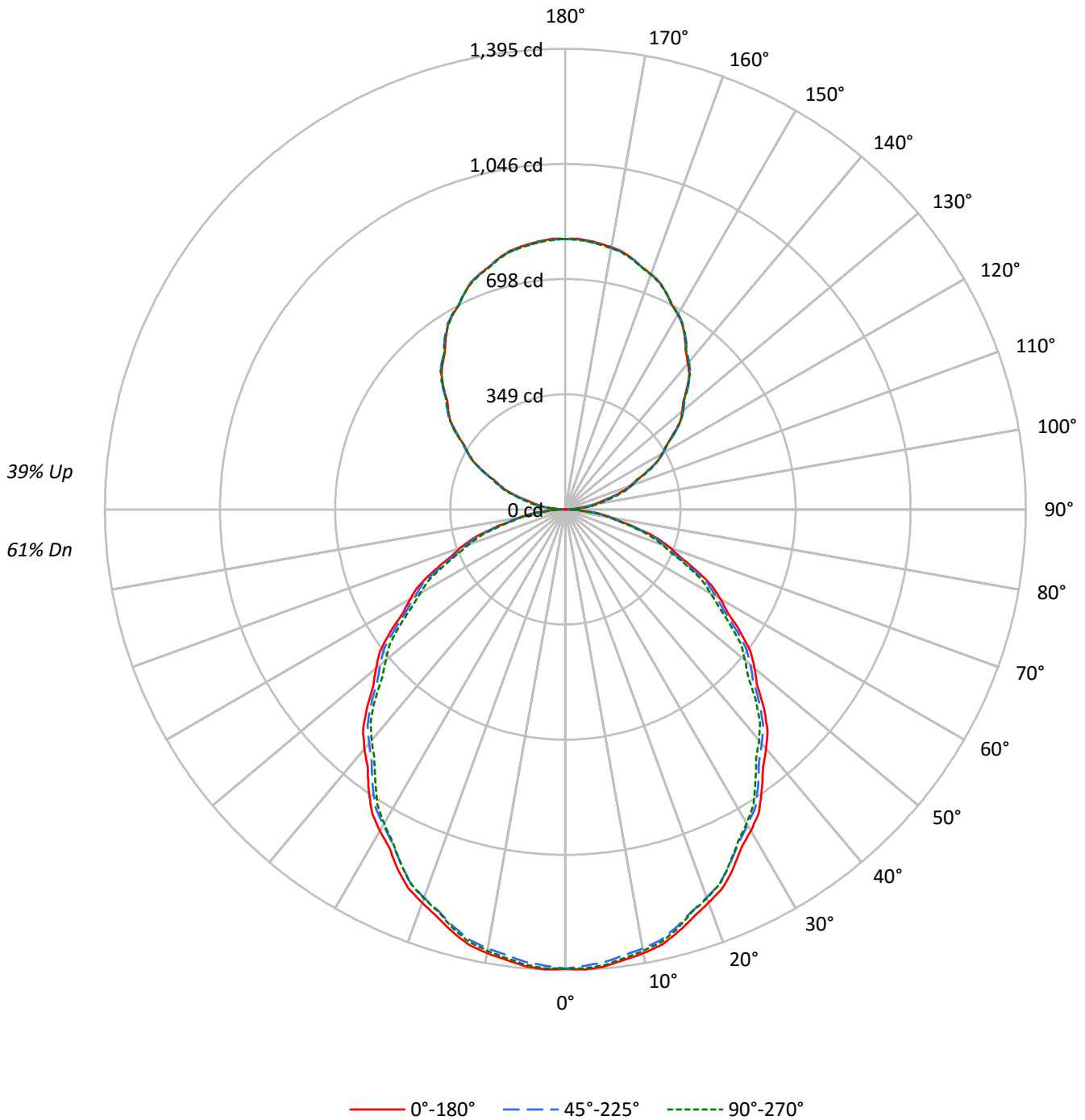
Lumens per Lamp: N/A  
Luminaire Lumens: 5907.9 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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: P333275-930  
CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-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°	8985	8985	8985
5°	9005	8919	8976
10°	8950	8857	8907
15°	8852	8750	8787
20°	8715	8601	8616
25°	8565	8424	8416
30°	8380	8232	8192
35°	8183	8027	7914
40°	7981	7804	7692
45°	7761	7600	7448
50°	7519	7354	7133
55°	7287	7076	6877
60°	7009	6795	6554
65°	6677	6460	6240
70°	6360	6069	5861
75°	5794	5602	5410
80°	5159	5077	4950
85°	4483	4565	4320



TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.2	2.2
10°-20°	370.5	6.3
20°-30°	547.1	9.3
30°-40°	638.4	10.8
40°-50°	641.2	10.9
50°-60°	562.8	9.5
60°-70°	419.4	7.1
70°-80°	239.8	4.1
80°-90°	71.5	1.2
90°-100°	54.9	0.9
100°-110°	162.0	2.7
110°-120°	274.4	4.6
120°-130°	361.2	6.1
130°-140°	404.7	6.9
140°-150°	396.7	6.7
150°-160°	333.1	5.6
160°-170°	221.5	3.7
170°-180°	77.5	1.3
0°-30°	1048.8	17.8
0°-40°	1687.2	28.6
0°-60°	2891.2	48.9
0°-90°	3621.9	61.3
90°-120°	491.4	8.3
90°-150°	1653.9	28.0
90°-180°	2286.0	38.7
0°-180°	5907.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1389	1386	1376	1385	1385	132
15°	1324	1320	1309	1314	1314	373
25°	1202	1196	1182	1184	1181	553
35°	1038	1033	1018	1012	1004	649
45°	850	845	832	819	816	655
55°	647	643	628	619	611	578
65°	437	434	423	413	408	433
75°	232	230	224	221	217	248
85°	60	62	62	60	58	68
90°	1	6	10	13	15	6
95°	41	43	49	53	55	44
105°	145	149	152	156	158	155
115°	275	277	279	278	277	272
125°	401	405	405	404	404	359
135°	522	525	526	526	523	402
145°	632	634	636	636	634	395
155°	723	723	724	726	723	333
165°	786	785	786	788	784	222
175°	817	815	815	818	814	78
180°	819	819	819	819	819	



TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1394.7	1394.2	1393.5	1392.9	1392.4	1391.1	1389.1	1387.2	1385.2	1383.2	1385.2
5°	1389.0	1388.5	1388.0	1387.6	1387.1	1385.6	1383.2	1380.7	1378.3	1375.8	1378.0
7.5°	1376.2	1375.7	1375.2	1374.8	1374.3	1372.6	1369.9	1367.3	1364.6	1361.9	1364.1
10°	1364.8	1364.3	1363.8	1363.3	1362.9	1361.2	1358.5	1355.8	1353.2	1350.5	1352.4
12.5°	1350.7	1349.8	1348.9	1348.0	1347.2	1345.5	1343.0	1340.5	1338.0	1335.5	1337.1
15°	1324.0	1323.3	1322.6	1321.8	1321.1	1319.4	1316.7	1314.0	1311.3	1308.6	1309.9
17.5°	1293.5	1292.4	1291.3	1290.2	1289.2	1287.2	1284.4	1281.7	1278.9	1276.0	1277.6
20°	1268.0	1267.5	1267.0	1266.5	1266.0	1264.1	1260.9	1257.8	1254.6	1251.4	1253.1
22.5°	1242.4	1241.5	1240.6	1239.7	1238.8	1236.9	1234.0	1230.9	1228.0	1225.0	1226.1
25°	1201.9	1200.7	1199.5	1198.2	1197.0	1194.8	1191.6	1188.5	1185.3	1182.1	1182.6
27.5°	1154.5	1153.8	1153.1	1152.3	1151.6	1149.7	1146.3	1143.0	1139.8	1136.5	1136.6
30°	1123.7	1123.0	1122.3	1121.5	1120.8	1118.6	1114.9	1111.3	1107.6	1103.9	1103.4
32.5°	1090.3	1089.2	1088.0	1086.9	1085.8	1083.6	1080.3	1077.0	1073.7	1070.5	1069.6
35°	1037.9	1036.9	1035.9	1034.9	1034.0	1031.8	1028.3	1024.9	1021.5	1018.1	1016.8
37.5°	983.5	982.3	981.0	979.8	978.6	976.4	973.1	970.0	966.7	963.5	961.6
40°	946.6	945.3	944.1	942.9	941.7	939.3	935.9	932.5	929.0	925.6	923.4
42.5°	906.9	905.9	904.9	903.8	902.8	900.6	897.2	893.7	890.3	886.9	884.8
45°	849.7	848.7	847.7	846.8	845.8	843.8	840.9	838.0	835.0	832.1	829.2
47.5°	788.1	788.1	788.1	788.2	788.2	786.5	783.0	779.4	775.9	772.4	769.4
50°	748.4	747.7	747.0	746.2	745.5	743.6	740.7	737.8	734.8	731.9	728.7
52.5°	707.9	707.4	706.9	706.3	705.8	703.9	700.8	697.7	694.6	691.4	688.6
55°	647.2	646.5	645.7	645.0	644.2	642.1	638.7	635.3	631.9	628.4	626.2
57.5°	583.1	582.7	582.4	582.0	581.6	579.9	577.0	574.1	571.3	568.3	565.5
60°	542.6	541.6	540.6	539.6	538.7	536.9	534.2	531.5	528.8	526.1	523.7
62.5°	500.3	499.5	498.8	498.0	497.3	495.7	493.3	491.1	488.8	486.5	483.8
65°	436.9	436.4	435.9	435.5	435.0	433.4	430.7	428.0	425.3	422.7	420.4
67.5°	375.5	374.5	373.5	372.4	371.5	369.9	367.9	365.9	363.9	361.9	360.0
70°	336.8	335.6	334.4	333.1	331.9	330.2	328.0	325.8	323.6	321.4	319.9
72.5°	294.6	293.7	292.9	292.0	291.2	290.1	288.7	287.2	285.8	284.4	282.7
75°	232.2	231.7	231.2	230.7	230.2	229.4	228.2	227.0	225.8	224.5	223.8
77.5°	174.8	174.6	174.4	174.2	174.0	173.6	172.8	172.2	171.5	170.8	170.4
80°	138.7	138.7	138.7	138.7	138.7	138.4	137.9	137.5	137.0	136.5	136.2
82.5°	107.0	106.6	106.2	105.8	105.4	105.2	105.1	105.0	104.8	104.8	104.4
85°	60.5	60.7	61.0	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.4
87.5°	23.9	24.1	24.4	24.5	24.8	24.9	24.9	24.9	24.9	24.9	25.1
90°	0.7	1.8	2.9	4.1	5.1	6.2	7.3	8.2	9.2	10.2	10.9
92.5°	15.4	16.2	17.0	17.8	18.6	19.6	20.8	22.0	23.2	24.5	25.4
95°	41.4	41.7	42.0	42.3	42.6	43.5	44.8	46.2	47.7	49.1	50.1
97.5°	68.9	69.0	69.1	69.2	69.3	70.4	72.3	74.3	76.2	78.2	79.1
100°	89.3	89.3	89.3	89.3	89.3	90.2	92.0	93.8	95.7	97.5	98.8
102.5°	111.2	111.8	112.3	112.9	113.5	114.2	115.1	116.1	117.0	118.0	119.4
105°	145.4	146.1	146.8	147.5	148.2	149.0	149.9	150.7	151.5	152.4	153.2
107.5°	183.1	183.8	184.5	185.2	186.0	186.6	187.3	187.9	188.6	189.2	189.6
110°	209.1	209.9	210.5	211.2	212.0	212.5	213.0	213.4	213.8	214.2	214.7



TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	235.6	236.0	236.4	236.8	237.1	237.6	238.1	238.6	239.2	239.7	239.9
115°	274.8	275.3	275.9	276.5	277.0	277.4	277.8	278.0	278.3	278.6	278.4
117.5°	314.1	314.3	314.5	314.8	315.0	315.4	315.6	315.8	316.1	316.3	316.4
120°	338.5	339.2	340.0	340.6	341.4	341.8	341.9	342.1	342.2	342.3	342.3
122.5°	365.0	365.3	365.6	365.8	366.1	366.4	366.7	367.1	367.5	367.9	367.7
125°	401.0	401.9	402.7	403.6	404.4	404.9	405.0	405.2	405.3	405.4	405.2
127.5°	439.3	439.8	440.2	440.7	441.2	441.5	441.6	441.8	442.1	442.2	442.1
130°	462.2	462.9	463.7	464.3	465.0	465.5	465.8	466.1	466.4	466.7	466.5
132.5°	485.2	486.3	487.5	488.6	489.8	490.3	490.3	490.2	490.2	490.2	490.0
135°	521.5	522.4	523.2	524.1	524.9	525.4	525.5	525.7	525.8	525.9	525.9
137.5°	555.7	556.5	557.3	558.2	559.0	559.5	559.9	560.1	560.4	560.8	560.9
140°	577.6	578.3	579.0	579.8	580.4	581.0	581.4	581.9	582.3	582.7	583.0
142.5°	599.6	600.1	600.7	601.3	601.9	602.5	603.0	603.6	604.1	604.6	604.8
145°	631.8	632.3	632.9	633.5	634.1	634.5	635.0	635.4	635.9	636.3	636.3
147.5°	661.6	661.9	662.3	662.6	662.8	663.2	663.6	663.9	664.2	664.6	664.9
150°	681.5	681.3	681.3	681.1	680.9	681.2	681.8	682.3	682.9	683.5	683.5
152.5°	697.8	698.1	698.2	698.5	698.6	698.9	699.0	699.3	699.5	699.8	700.1
155°	722.9	722.9	722.9	722.9	722.9	723.0	723.2	723.3	723.4	723.6	724.1
157.5°	745.4	745.1	744.8	744.4	744.1	744.0	744.2	744.4	744.4	744.6	745.2
160°	758.6	758.2	757.8	757.4	756.9	756.8	756.9	757.1	757.2	757.4	758.0
162.5°	770.4	770.1	769.7	769.5	769.2	769.0	769.0	769.1	769.1	769.2	769.8
165°	786.1	785.8	785.5	785.2	785.0	784.9	785.0	785.1	785.3	785.5	786.0
167.5°	799.3	798.7	798.2	797.6	797.0	796.8	796.8	796.8	796.8	796.8	797.6
170°	806.5	805.9	805.4	804.8	804.2	803.9	803.9	803.9	803.9	803.9	804.8
172.5°	811.5	811.0	810.4	809.8	809.3	809.0	809.0	809.0	809.0	809.0	809.8
175°	817.3	816.8	816.2	815.6	815.1	814.7	814.7	814.7	814.7	814.7	815.6
177.5°	820.3	819.8	819.4	818.9	818.4	818.2	818.1	817.9	817.8	817.7	818.4
180°	819.2	819.2	819.2	819.2	819.2	819.2	819.2	819.2	819.2	819.2	819.2



TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1387.2	1389.1	1391.1	1392.0	1391.8	1391.6	1391.4	1391.2
5°	1380.2	1382.4	1384.6	1385.6	1385.4	1385.1	1384.9	1384.6
7.5°	1366.2	1368.4	1370.5	1371.5	1371.3	1371.0	1370.8	1370.5
10°	1354.4	1356.3	1358.3	1359.2	1358.9	1358.7	1358.5	1358.2
12.5°	1338.6	1340.2	1341.7	1342.6	1342.5	1342.4	1342.4	1342.3
15°	1311.1	1312.3	1313.5	1314.2	1314.2	1314.2	1314.2	1314.2
17.5°	1279.1	1280.6	1282.1	1282.3	1281.1	1279.9	1278.6	1277.4
20°	1254.8	1256.5	1258.3	1258.5	1257.3	1256.1	1254.8	1253.6
22.5°	1227.3	1228.4	1229.5	1229.6	1228.8	1228.0	1227.2	1226.3
25°	1183.1	1183.6	1184.1	1183.9	1183.2	1182.4	1181.7	1181.0
27.5°	1136.7	1136.8	1136.9	1136.6	1135.9	1135.1	1134.4	1133.7
30°	1102.9	1102.4	1102.0	1101.4	1100.7	1099.9	1099.2	1098.5
32.5°	1068.7	1067.8	1067.0	1065.8	1064.5	1063.2	1061.8	1060.5
35°	1015.6	1014.4	1013.2	1011.6	1009.7	1007.7	1005.8	1003.8
37.5°	959.9	958.1	956.3	954.8	953.7	952.5	951.4	950.3
40°	921.2	919.0	916.8	915.3	914.6	913.9	913.1	912.4
42.5°	882.9	880.8	878.9	877.3	876.2	875.1	873.9	872.8
45°	826.2	823.3	820.4	818.5	817.7	817.0	816.3	815.5
47.5°	766.5	763.4	760.5	758.1	756.4	754.7	753.0	751.3
50°	725.5	722.4	719.2	716.7	715.0	713.3	711.6	709.9
52.5°	685.8	683.1	680.3	677.9	676.0	674.1	672.2	670.3
55°	624.0	621.8	619.6	617.7	616.0	614.2	612.5	610.8
57.5°	562.7	559.9	557.0	555.1	554.2	553.3	552.4	551.4
60°	521.2	518.8	516.3	514.2	512.5	510.8	509.1	507.4
62.5°	481.2	478.6	475.9	473.9	472.6	471.3	469.9	468.6
65°	418.2	416.0	413.8	412.2	411.2	410.3	409.3	408.3
67.5°	358.2	356.3	354.4	353.2	352.6	352.0	351.5	350.9
70°	318.5	317.0	315.5	314.3	313.3	312.3	311.4	310.4
72.5°	281.1	279.4	277.8	276.5	275.5	274.5	273.5	272.6
75°	223.1	222.3	221.6	220.7	219.7	218.7	217.8	216.8
77.5°	169.9	169.5	169.1	168.5	167.8	167.1	166.4	165.8
80°	136.0	135.7	135.5	135.1	134.6	134.1	133.6	133.1
82.5°	103.9	103.5	103.1	102.7	102.6	102.6	102.5	102.3
85°	61.1	60.9	60.7	60.3	59.8	59.3	58.8	58.3
87.5°	25.2	25.4	25.5	25.4	25.1	24.8	24.5	24.2
90°	11.6	12.3	13.0	13.6	14.0	14.4	14.8	15.3
92.5°	26.3	27.3	28.2	28.9	29.2	29.4	29.8	30.1
95°	51.0	52.1	53.1	53.7	54.0	54.3	54.5	54.8
97.5°	80.1	81.0	81.9	82.4	82.6	82.8	83.0	83.2
100°	100.1	101.3	102.6	103.5	103.7	104.0	104.3	104.5
102.5°	120.7	122.1	123.5	124.4	124.8	125.1	125.6	126.0
105°	154.1	154.9	155.8	156.4	156.9	157.3	157.7	158.1
107.5°	190.0	190.5	190.9	191.1	191.1	191.0	191.0	191.0
110°	215.1	215.5	215.9	216.1	215.9	215.7	215.6	215.5





TEST NUMBER: P333275-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.1	240.3	240.5	240.5	240.2	239.9	239.7	239.5
115°	278.3	278.2	278.0	277.9	277.8	277.6	277.4	277.4
117.5°	316.6	316.7	316.8	316.6	316.0	315.4	314.9	314.3
120°	342.3	342.3	342.3	342.1	341.5	341.0	340.4	339.8
122.5°	367.6	367.5	367.4	367.1	366.6	366.2	365.7	365.3
125°	404.9	404.6	404.3	404.1	404.0	403.8	403.7	403.6
127.5°	441.9	441.7	441.6	441.4	441.2	440.8	440.6	440.3
130°	466.4	466.3	466.1	465.9	465.6	465.3	465.0	464.7
132.5°	489.8	489.7	489.6	489.3	488.9	488.5	488.1	487.7
135°	525.9	525.9	525.9	525.7	525.1	524.6	524.0	523.4
137.5°	561.1	561.3	561.4	561.2	560.4	559.8	559.1	558.3
140°	583.3	583.5	583.8	583.6	582.9	582.2	581.5	580.8
142.5°	605.0	605.1	605.3	605.0	604.3	603.6	602.9	602.2
145°	636.3	636.3	636.3	636.0	635.6	635.2	634.8	634.3
147.5°	665.2	665.6	665.9	665.6	664.6	663.7	662.8	661.8
150°	683.5	683.5	683.5	683.3	683.0	682.7	682.4	682.2
152.5°	700.4	700.7	701.1	701.0	700.5	700.0	699.5	699.0
155°	724.7	725.3	725.9	725.8	725.0	724.4	723.7	722.9
157.5°	745.8	746.3	746.9	746.7	745.8	744.9	743.9	743.0
160°	758.6	759.0	759.6	759.6	758.9	758.1	757.4	756.8
162.5°	770.5	771.2	771.8	771.8	770.9	770.1	769.3	768.5
165°	786.6	787.2	787.7	787.6	786.7	785.9	785.0	784.2
167.5°	798.5	799.3	800.2	800.1	799.3	798.4	797.5	796.6
170°	805.6	806.5	807.3	807.2	806.2	805.3	804.3	803.3
172.5°	810.7	811.5	812.4	812.4	811.5	810.7	809.8	808.9
175°	816.4	817.3	818.2	818.1	817.1	816.1	815.1	814.2
177.5°	819.0	819.7	820.4	820.4	819.5	818.8	818.0	817.2
180°	819.2	819.2	819.2	819.2	819.2	819.2	819.2	819.2

(END OF REPORT)