

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: P333285-935

Luminaire Tested: **S125DIP-S1090D1035U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333285-935  
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-S1090D1035U935-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7022.4 lumens  
Efficiency: N/A  
Efficacy: 116.1 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: General Diffuse

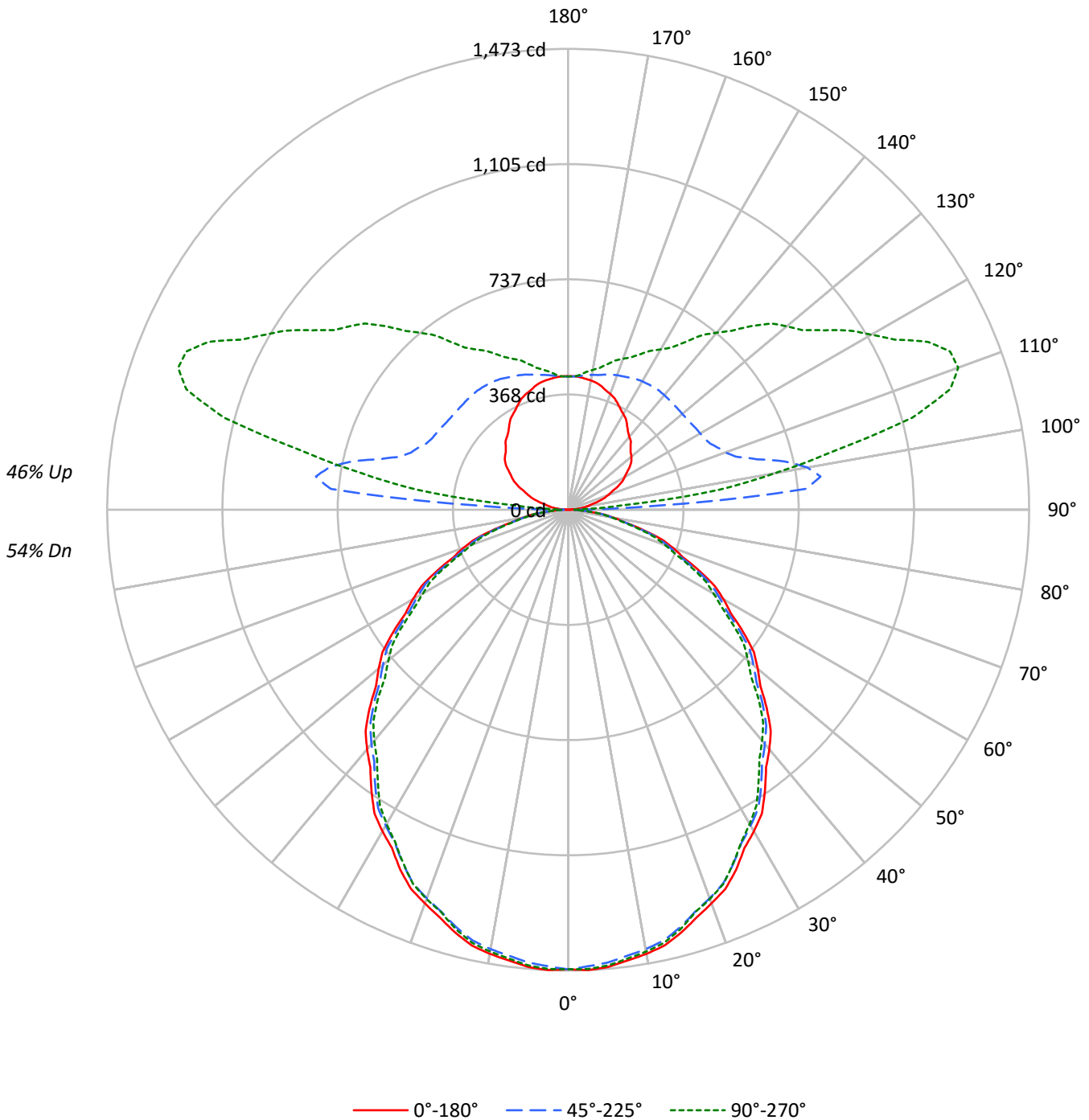
Input Watts (W): 60.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	73	70	64	62	60	53	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43	38
3	82	72	65	59	76	67	61	56	58	53	49	49	46	42	41	39	36	32
4	75	64	56	50	69	60	53	47	52	46	42	44	40	36	37	34	31	28
5	69	57	49	43	64	53	46	40	46	40	36	40	35	32	33	30	27	24
6	63	51	43	37	59	48	41	35	42	36	31	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	28	24	21	19
8	54	42	34	29	50	39	32	27	34	29	25	30	25	22	25	22	19	17
9	51	38	31	26	47	36	29	24	32	26	22	27	23	20	23	20	17	15
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	22	18	16	14

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

	0°	45°	90°
0°	9489	9489	9489
5°	9510	9419	9479
10°	9452	9353	9406
15°	9349	9240	9279
20°	9203	9082	9099
25°	9045	8896	8888
30°	8850	8694	8651
35°	8642	8476	8358
40°	8427	8241	8123
45°	8195	8026	7867
50°	7941	7766	7533
55°	7696	7473	7264
60°	7401	7177	6921
65°	7051	6820	6589
70°	6717	6409	6190
75°	6119	5916	5712
80°	5449	5359	5229
85°	4735	4824	4565



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.5	2.0
10°-20°	391.3	5.6
20°-30°	577.8	8.2
30°-40°	674.2	9.6
40°-50°	677.1	9.6
50°-60°	594.4	8.5
60°-70°	442.9	6.3
70°-80°	253.2	3.6
80°-90°	76.1	1.1
90°-100°	309.0	4.4
100°-110°	664.3	9.5
110°-120°	623.4	8.9
120°-130°	505.2	7.2
130°-140°	405.5	5.8
140°-150°	306.0	4.4
150°-160°	215.4	3.1
160°-170°	126.9	1.8
170°-180°	41.3	0.6
0°-30°	1107.6	15.8
0°-40°	1781.8	25.4
0°-60°	3053.3	43.5
0°-90°	3825.4	54.5
90°-120°	1596.7	22.7
90°-150°	2813.4	40.1
90°-180°	3197.0	45.5
0°-180°	7022.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1467	1464	1453	1463	1462	139
15°	1398	1394	1382	1388	1388	394
25°	1269	1263	1248	1250	1247	584
35°	1096	1091	1075	1069	1060	685
45°	897	892	879	865	861	691
55°	684	679	664	653	645	610
65°	461	458	446	436	431	458
75°	245	243	237	234	229	261
85°	64	65	65	64	62	71
90°	1	8	14	18	20	5
95°	28	84	762	346	202	30
105°	97	136	623	1227	1139	102
115°	174	209	500	1078	1269	171
125°	241	282	480	858	1000	213
135°	282	339	476	719	830	219
145°	328	376	478	595	655	206
155°	375	403	466	526	549	173
165°	409	420	447	474	481	115
175°	425	425	429	434	432	40
180°	426	426	426	426	426	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1472.9	1472.3	1471.6	1471.0	1470.4	1469.0	1467.0	1464.9	1462.8	1460.8	1462.8
5°	1466.9	1466.4	1465.9	1465.3	1464.8	1463.3	1460.7	1458.1	1455.5	1452.9	1455.3
7.5°	1453.4	1452.9	1452.3	1451.8	1451.3	1449.6	1446.7	1443.9	1441.1	1438.2	1440.5
10°	1441.3	1440.8	1440.3	1439.8	1439.2	1437.5	1434.7	1431.8	1429.0	1426.2	1428.2
12.5°	1426.4	1425.5	1424.5	1423.6	1422.7	1420.9	1418.2	1415.7	1413.0	1410.3	1412.0
15°	1398.3	1397.5	1396.7	1395.9	1395.2	1393.4	1390.5	1387.7	1384.8	1382.0	1383.3
17.5°	1366.0	1364.9	1363.7	1362.5	1361.4	1359.3	1356.4	1353.5	1350.6	1347.6	1349.2
20°	1339.0	1338.5	1338.0	1337.5	1337.0	1335.0	1331.6	1328.3	1324.9	1321.5	1323.4
22.5°	1312.0	1311.1	1310.2	1309.2	1308.3	1306.2	1303.1	1299.9	1296.8	1293.7	1294.9
25°	1269.3	1268.0	1266.7	1265.4	1264.1	1261.8	1258.4	1255.1	1251.7	1248.4	1248.9
27.5°	1219.3	1218.5	1217.7	1216.9	1216.2	1214.1	1210.6	1207.1	1203.7	1200.2	1200.3
30°	1186.7	1185.9	1185.2	1184.4	1183.6	1181.3	1177.4	1173.5	1169.7	1165.8	1165.3
32.5°	1151.4	1150.2	1149.0	1147.8	1146.7	1144.4	1140.8	1137.4	1133.9	1130.5	1129.5
35°	1096.1	1095.0	1094.0	1093.0	1091.9	1089.6	1086.0	1082.4	1078.7	1075.1	1073.8
37.5°	1038.6	1037.3	1036.0	1034.7	1033.5	1031.1	1027.7	1024.3	1020.9	1017.5	1015.5
40°	999.6	998.3	997.0	995.7	994.5	992.0	988.3	984.7	981.1	977.5	975.2
42.5°	957.8	956.7	955.6	954.5	953.4	951.1	947.4	943.8	940.2	936.6	934.4
45°	897.3	896.3	895.3	894.2	893.2	891.1	888.0	884.9	881.8	878.7	875.6
47.5°	832.2	832.2	832.3	832.4	832.4	830.6	826.9	823.1	819.4	815.7	812.5
50°	790.4	789.6	788.8	788.1	787.3	785.3	782.2	779.1	776.0	772.9	769.6
52.5°	747.6	747.0	746.5	745.9	745.4	743.4	740.1	736.8	733.5	730.1	727.2
55°	683.5	682.7	681.9	681.1	680.4	678.1	674.5	670.9	667.3	663.7	661.3
57.5°	615.8	615.4	615.0	614.6	614.2	612.4	609.3	606.3	603.3	600.2	597.2
60°	573.0	572.0	570.9	569.9	568.9	567.0	564.1	561.3	558.4	555.6	553.0
62.5°	528.4	527.5	526.8	525.9	525.1	523.5	521.0	518.6	516.2	513.8	510.9
65°	461.4	460.9	460.4	459.9	459.3	457.7	454.9	452.0	449.2	446.3	444.0
67.5°	396.6	395.5	394.4	393.3	392.3	390.6	388.5	386.4	384.3	382.2	380.2
70°	355.7	354.4	353.1	351.8	350.5	348.7	346.4	344.1	341.7	339.4	337.9
72.5°	311.1	310.1	309.3	308.4	307.5	306.3	304.9	303.3	301.9	300.3	298.6
75°	245.2	244.7	244.2	243.7	243.1	242.3	241.0	239.7	238.4	237.1	236.3
77.5°	184.6	184.3	184.2	184.0	183.7	183.3	182.5	181.8	181.2	180.4	179.9
80°	146.5	146.5	146.5	146.5	146.5	146.2	145.7	145.2	144.6	144.1	143.9
82.5°	113.0	112.5	112.2	111.8	111.3	111.1	111.0	110.9	110.7	110.6	110.2
85°	63.9	64.1	64.4	64.7	64.9	65.1	65.1	65.1	65.1	65.1	64.8
87.5°	25.3	25.5	25.8	26.2	26.5	26.7	26.7	26.9	26.8	26.9	27.1
90°	0.9	1.7	3.4	5.2	6.9	8.6	9.5	11.2	12.1	13.8	14.6
92.5°	10.5	12.7	20.0	30.6	45.4	70.5	117.4	196.1	281.5	277.1	224.3
95°	28.3	29.2	36.1	45.5	64.5	103.1	195.1	384.2	621.5	761.6	745.2
97.5°	47.1	48.1	53.0	62.4	79.4	107.3	168.2	306.7	554.9	813.3	942.9
100°	60.2	61.9	65.3	74.7	91.1	116.9	166.8	278.4	495.1	776.1	991.0
102.5°	74.6	75.6	78.4	88.5	103.5	128.5	173.0	266.8	449.7	710.8	962.2
105°	97.1	97.1	101.4	110.0	123.8	147.8	185.6	262.2	405.7	623.1	869.9
107.5°	119.2	120.9	124.9	132.0	146.3	168.0	204.6	270.1	387.1	562.8	775.6
110°	134.9	136.6	140.1	147.8	160.7	183.0	218.3	277.6	381.6	534.6	721.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.8	152.5	155.2	163.0	175.8	197.5	231.4	287.2	381.6	518.1	682.1
115°	173.7	175.3	177.9	185.6	198.5	220.1	251.8	301.7	384.2	500.2	638.6
117.5°	194.2	196.8	199.6	207.3	222.0	242.7	272.9	318.2	389.9	491.5	612.7
120°	208.0	210.6	214.0	221.8	236.3	257.9	287.9	329.2	395.4	487.3	598.2
122.5°	222.5	224.3	227.0	234.8	250.8	272.3	302.4	341.6	400.2	483.9	585.8
125°	240.6	242.4	246.7	254.4	270.8	293.1	321.5	358.4	408.3	479.6	569.0
127.5°	254.9	257.5	263.0	272.9	290.2	312.5	339.8	373.8	417.4	477.5	553.5
130°	263.9	266.5	273.4	284.5	302.6	324.9	351.5	384.2	422.9	476.1	543.2
132.5°	270.8	274.0	282.2	294.8	313.6	335.9	362.6	393.1	429.0	476.1	534.9
135°	281.9	285.3	295.7	309.4	327.4	350.7	377.3	405.7	437.5	476.1	525.1
137.5°	296.0	298.6	308.2	322.0	339.7	363.6	387.8	415.0	445.2	477.2	516.4
140°	304.3	306.9	317.2	330.9	347.2	370.5	395.4	421.2	448.7	477.9	512.3
142.5°	313.9	315.8	325.4	339.1	354.8	376.6	400.2	424.6	450.7	478.5	508.9
145°	328.3	330.0	338.6	350.7	366.2	385.9	408.3	429.7	453.0	477.9	503.7
147.5°	343.5	344.5	351.9	363.1	376.4	393.8	413.5	432.8	453.8	475.6	498.3
150°	352.4	354.1	360.2	371.3	383.3	398.0	416.9	434.9	453.8	473.6	494.2
152.5°	362.1	363.1	368.4	378.2	389.5	402.8	420.3	436.3	453.1	470.9	489.4
155°	374.7	374.7	379.9	388.5	397.1	409.1	423.7	437.5	451.3	465.9	481.3
157.5°	386.1	385.9	390.0	397.4	405.0	414.1	426.6	438.3	449.0	460.7	473.7
160°	393.6	392.8	396.2	402.3	409.1	416.9	428.0	438.3	446.9	457.3	467.6
162.5°	399.8	399.0	402.4	407.8	413.3	419.7	429.4	437.6	444.9	453.1	462.1
165°	409.1	407.4	410.0	414.3	417.8	422.9	429.7	436.6	441.8	446.9	453.8
167.5°	415.3	414.5	416.0	418.4	420.9	424.0	429.7	434.5	437.0	440.9	445.7
170°	419.5	418.6	419.5	421.2	422.9	425.4	429.7	433.2	434.9	437.5	440.9
172.5°	422.2	420.7	421.5	423.2	424.2	425.4	429.0	431.8	432.1	433.3	436.1
175°	425.4	423.7	424.6	425.4	425.4	425.4	428.0	429.7	428.9	428.9	429.7
177.5°	427.0	425.6	425.6	426.3	425.6	425.6	427.0	427.7	426.3	426.3	427.0
180°	426.3	426.3	426.3	426.3	426.3	426.3	426.3	426.3	426.3	426.3	426.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1464.9	1467.0	1469.0	1470.0	1469.8	1469.6	1469.4	1469.2
5°	1457.6	1459.9	1462.2	1463.3	1463.0	1462.8	1462.5	1462.2
7.5°	1442.8	1445.1	1447.3	1448.4	1448.1	1447.9	1447.6	1447.3
10°	1430.3	1432.4	1434.4	1435.4	1435.1	1434.9	1434.6	1434.3
12.5°	1413.7	1415.3	1416.9	1417.8	1417.7	1417.6	1417.6	1417.6
15°	1384.6	1385.9	1387.2	1387.8	1387.8	1387.8	1387.8	1387.8
17.5°	1350.8	1352.4	1354.0	1354.2	1352.9	1351.6	1350.3	1349.0
20°	1325.2	1327.0	1328.8	1329.0	1327.7	1326.5	1325.2	1323.9
22.5°	1296.1	1297.3	1298.4	1298.6	1297.7	1296.8	1296.0	1295.0
25°	1249.4	1249.9	1250.4	1250.3	1249.5	1248.7	1247.9	1247.2
27.5°	1200.4	1200.5	1200.7	1200.3	1199.5	1198.8	1198.0	1197.2
30°	1164.8	1164.2	1163.7	1163.1	1162.4	1161.6	1160.8	1160.0
32.5°	1128.6	1127.7	1126.8	1125.6	1124.2	1122.8	1121.4	1120.0
35°	1072.5	1071.3	1070.0	1068.3	1066.3	1064.2	1062.1	1060.1
37.5°	1013.7	1011.8	1009.9	1008.3	1007.1	1005.9	1004.7	1003.6
40°	972.8	970.5	968.2	966.6	965.9	965.1	964.3	963.5
42.5°	932.4	930.2	928.2	926.4	925.3	924.1	922.9	921.7
45°	872.5	869.4	866.3	864.4	863.6	862.8	862.0	861.3
47.5°	809.4	806.2	803.1	800.6	798.8	797.0	795.2	793.4
50°	766.2	762.8	759.5	756.9	755.1	753.3	751.5	749.7
52.5°	724.3	721.3	718.4	715.9	713.9	711.9	709.9	707.8
55°	659.0	656.7	654.4	652.3	650.5	648.7	646.9	645.1
57.5°	594.3	591.2	588.2	586.3	585.3	584.3	583.3	582.3
60°	550.4	547.9	545.3	543.0	541.2	539.4	537.6	535.8
62.5°	508.2	505.4	502.6	500.5	499.1	497.7	496.3	494.9
65°	441.7	439.4	437.0	435.3	434.3	433.3	432.2	431.2
67.5°	378.2	376.3	374.3	373.0	372.4	371.8	371.2	370.6
70°	336.3	334.8	333.2	331.9	330.9	329.8	328.8	327.8
72.5°	296.9	295.1	293.3	292.0	290.9	289.9	288.9	287.8
75°	235.6	234.8	234.0	233.1	232.0	231.0	230.0	228.9
77.5°	179.4	179.0	178.6	178.0	177.2	176.5	175.7	175.0
80°	143.6	143.4	143.1	142.7	142.2	141.6	141.1	140.6
82.5°	109.7	109.3	108.8	108.5	108.4	108.3	108.2	108.1
85°	64.6	64.3	64.1	63.6	63.1	62.6	62.1	61.6
87.5°	27.3	27.5	27.6	27.7	27.4	26.9	26.7	26.3
90°	15.5	16.4	17.2	18.9	18.9	18.9	19.8	19.8
92.5°	152.3	110.6	83.2	70.5	59.5	57.4	56.2	54.8
95°	618.0	487.3	381.6	309.4	248.4	222.7	215.8	202.0
97.5°	920.4	828.7	725.7	625.3	572.3	524.1	499.2	488.2
100°	1057.2	1015.1	926.5	837.2	777.8	716.0	684.2	670.5
102.5°	1103.3	1129.2	1086.8	1026.2	962.9	918.9	884.2	873.9
105°	1076.1	1193.9	1231.7	1222.2	1194.7	1166.4	1149.2	1138.8
107.5°	979.1	1136.3	1233.4	1278.2	1292.2	1292.0	1286.3	1279.4
110°	907.7	1070.9	1192.1	1265.2	1303.9	1320.2	1326.2	1326.2





TEST NUMBER: P333285-935

CATALOG NUMBER: S125DIP-S1090D1035U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	851.3	1006.3	1128.9	1215.0	1271.5	1299.6	1314.6	1320.7
115°	780.4	913.7	1031.4	1125.1	1192.1	1233.4	1257.5	1268.7
117.5°	734.7	849.5	951.0	1036.9	1104.0	1146.6	1170.4	1177.3
120°	710.0	813.1	907.7	983.3	1046.9	1088.1	1111.4	1118.3
122.5°	691.4	787.0	871.2	942.0	998.8	1036.6	1059.8	1066.0
125°	664.4	752.1	826.8	888.7	936.9	972.1	991.0	999.6
127.5°	636.9	718.8	788.5	846.4	890.1	921.2	939.1	942.9
130°	619.7	695.3	762.4	818.3	861.3	889.6	906.8	912.0
132.5°	602.5	673.3	734.2	788.0	831.0	859.4	875.1	881.0
135°	580.1	639.5	694.5	743.5	781.3	809.7	825.1	830.3
137.5°	561.3	609.2	655.0	696.5	730.4	756.2	770.5	776.1
140°	551.0	591.3	630.9	667.0	698.8	721.2	734.0	738.3
142.5°	542.0	576.2	610.3	641.5	668.6	687.4	699.6	703.3
145°	530.3	557.0	583.6	606.8	627.4	642.0	651.5	655.0
147.5°	519.4	541.0	561.5	578.9	595.3	607.0	612.5	614.1
150°	513.2	532.0	548.4	563.9	576.7	587.0	590.5	591.3
152.5°	506.3	523.1	538.0	550.1	560.9	569.2	572.6	573.4
155°	495.9	509.7	521.8	531.2	539.8	545.8	548.4	549.2
157.5°	485.6	497.0	506.3	513.7	520.4	525.3	527.7	527.5
160°	478.7	487.3	495.9	502.0	508.0	512.3	514.0	513.2
162.5°	471.2	479.1	486.3	491.6	496.3	499.9	500.2	500.1
165°	460.7	466.7	471.9	476.1	479.6	481.3	481.3	481.3
167.5°	450.7	454.7	458.7	461.8	463.5	465.0	464.3	464.2
170°	445.2	447.8	450.4	452.1	453.8	454.7	454.7	453.8
172.5°	439.0	441.6	443.5	444.5	444.9	446.4	445.1	444.2
175°	432.3	432.3	434.0	434.0	434.0	434.9	433.2	432.3
177.5°	427.7	428.3	428.3	428.3	427.7	428.3	426.3	426.3
180°	426.3	426.3	426.3	426.3	426.3	426.3	426.3	426.3

(END OF REPORT)