

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: P333289

Luminaire Tested: **S125DIP-S1090D1205U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333289
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S1090D1205U835-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9082.5 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

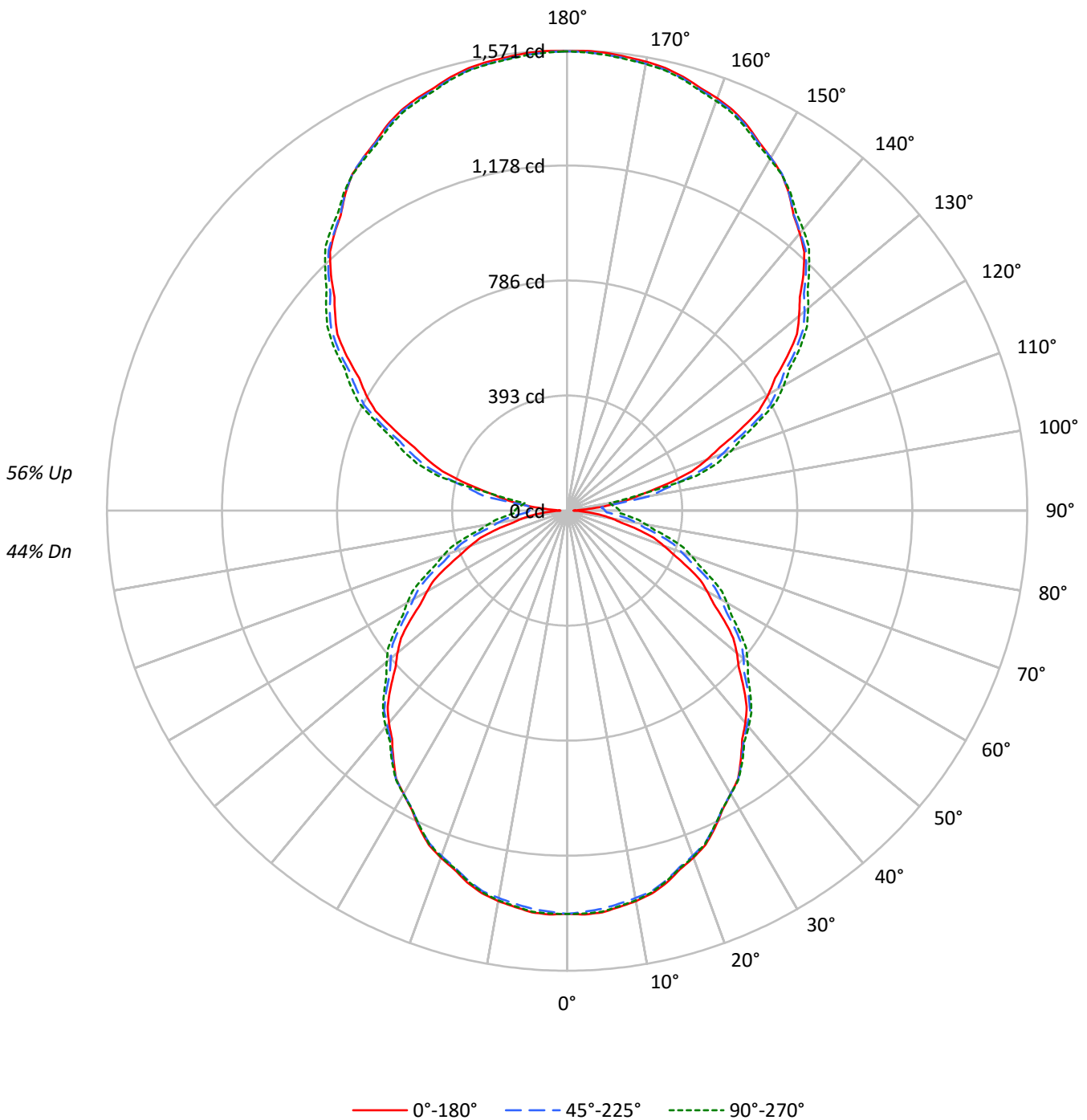
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	83	87	84	80	77	69	67	64	56	54	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	29
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	55	45	38	32	38	32	28	31	26	23	24	21	19	16
7	56	44	36	30	51	41	33	28	34	28	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	25	22	25	21	18	20	17	15	12
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8893	8893	8893
5°	8911	8729	8756
10°	8847	8573	8560
15°	8743	8387	8310
20°	8601	8156	8061
25°	8432	7909	7752
30°	8227	7637	7473
35°	8036	7388	7217
40°	7841	7125	6959
45°	7621	6900	6730
50°	7412	6656	6528
55°	7159	6425	6290
60°	6883	6162	6048
65°	6596	5888	5775
70°	6269	5512	5495
75°	5751	5151	5149
80°	5072	4712	4775
85°	4441	4417	4657



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	1.4
10°-20°	369.6	4.1
20°-30°	549.7	6.1
30°-40°	651.1	7.2
40°-50°	673.2	7.4
50°-60°	620.1	6.8
60°-70°	501.3	5.5
70°-80°	335.7	3.7
80°-90°	177.4	2.0
90°-100°	154.7	1.7
100°-110°	423.2	4.7
110°-120°	685.1	7.5
120°-130°	844.7	9.3
130°-140°	891.0	9.8
140°-150°	827.5	9.1
150°-160°	667.5	7.3
160°-170°	431.7	4.8
170°-180°	148.9	1.6
0°-30°	1049.5	11.6
0°-40°	1700.6	18.7
0°-60°	2994.0	33.0
0°-90°	4008.3	44.1
90°-120°	1262.9	13.9
90°-150°	3826.2	42.1
90°-180°	5074.0	55.9
0°-180°	9082.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1374	1365	1375	1374	131
15°	1315	1316	1307	1314	1310	370
25°	1195	1198	1191	1195	1189	550
35°	1034	1043	1040	1043	1044	647
45°	852	866	873	882	884	657
55°	655	676	698	712	718	585
65°	451	482	514	534	540	447
75°	248	284	327	353	360	263
85°	74	119	166	195	206	79
90°	23	75	129	165	179	17
95°	84	114	117	151	162	98
105°	354	381	421	447	456	375
115°	650	666	701	720	722	644
125°	918	926	952	968	972	819
135°	1140	1146	1153	1168	1168	879
145°	1320	1321	1321	1329	1328	825
155°	1453	1446	1448	1451	1442	669
165°	1533	1526	1527	1533	1525	433
175°	1568	1561	1562	1570	1561	149
180°	1568	1568	1568	1568	1568	



TEST NUMBER: P333289

CATALOG NUMBER: S125DIP-S1090D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1380.2	1379.7	1379.2	1378.8	1378.3	1377.2	1375.5	1373.8	1372.2	1370.5	1372.2
5°	1377.0	1376.4	1375.8	1375.2	1374.6	1373.2	1371.1	1369.0	1366.9	1364.8	1367.2
7.5°	1364.8	1364.6	1364.3	1364.1	1363.9	1362.7	1360.5	1358.3	1356.2	1354.0	1356.1
10°	1354.0	1354.0	1354.0	1354.0	1354.0	1352.8	1350.4	1348.0	1345.6	1343.2	1345.3
12.5°	1338.9	1339.1	1339.4	1339.6	1339.9	1339.0	1337.1	1335.2	1333.3	1331.3	1333.0
15°	1314.9	1315.2	1315.5	1315.8	1316.1	1315.2	1313.1	1311.0	1308.9	1306.8	1308.6
17.5°	1283.5	1284.1	1284.7	1285.3	1285.9	1285.2	1283.1	1281.0	1278.9	1276.8	1278.2
20°	1260.9	1261.5	1262.1	1262.7	1263.3	1262.5	1260.4	1258.3	1256.2	1254.1	1255.0
22.5°	1234.9	1236.0	1237.1	1238.2	1239.3	1238.6	1236.3	1234.0	1231.6	1229.3	1230.4
25°	1194.7	1195.6	1196.5	1197.4	1198.3	1197.9	1196.1	1194.3	1192.5	1190.7	1191.9
27.5°	1149.9	1151.2	1152.5	1153.9	1155.2	1154.8	1152.8	1150.7	1148.7	1146.7	1147.5
30°	1116.4	1118.2	1120.0	1121.8	1123.6	1123.6	1121.8	1120.0	1118.2	1116.4	1117.0
32.5°	1086.2	1087.7	1089.3	1090.9	1092.4	1092.5	1091.2	1089.9	1088.6	1087.3	1087.9
35°	1034.1	1036.2	1038.3	1040.4	1042.5	1043.1	1042.2	1041.3	1040.4	1039.5	1040.4
37.5°	982.0	983.9	985.8	987.7	989.6	990.5	990.2	989.9	989.6	989.3	990.5
40°	946.3	948.7	951.1	953.5	955.9	957.0	956.7	956.4	956.1	955.8	957.0
42.5°	907.4	910.6	913.7	916.8	919.9	921.8	922.5	923.1	923.8	924.5	925.9
45°	851.8	855.1	858.4	861.7	865.0	867.4	868.9	870.4	871.9	873.4	875.5
47.5°	794.9	797.9	801.0	804.0	807.1	809.9	812.5	815.1	817.7	820.2	823.3
50°	756.0	759.3	762.6	765.9	769.2	772.5	775.8	779.1	782.4	785.7	789.0
52.5°	714.9	719.0	723.0	727.0	731.0	735.0	739.1	743.1	747.1	751.1	754.7
55°	654.7	659.5	664.3	669.1	673.9	678.7	683.5	688.3	693.1	697.9	701.2
57.5°	593.2	598.9	604.7	610.5	616.2	621.9	627.4	632.9	638.4	643.9	647.7
60°	552.1	558.1	564.1	570.1	576.1	582.1	588.1	594.1	600.1	606.1	610.6
62.5°	512.2	518.2	524.2	530.2	536.2	542.4	548.9	555.4	561.9	568.3	573.3
65°	450.9	457.8	464.7	471.6	478.5	485.5	492.7	499.9	507.1	514.3	518.8
67.5°	393.1	399.8	406.4	413.1	419.7	426.7	434.1	441.4	448.7	456.0	461.5
70°	351.0	357.9	364.8	371.7	378.6	385.9	393.7	401.5	409.3	417.1	422.8
72.5°	310.0	317.1	324.2	331.4	338.5	346.3	354.9	363.4	371.9	380.4	386.6
75°	248.4	256.2	264.0	271.8	279.6	288.3	297.9	307.5	317.1	326.7	332.7
77.5°	189.3	198.3	207.3	216.3	225.3	234.4	243.6	252.9	262.1	271.3	277.9
80°	152.5	161.5	170.5	179.5	188.5	198.1	208.3	218.5	228.7	238.9	245.5
82.5°	119.1	128.5	138.0	147.5	157.0	166.9	177.4	187.8	198.3	208.7	215.1
85°	74.2	84.1	94.0	103.9	113.8	124.0	134.5	145.0	155.5	166.0	172.6
87.5°	42.4	52.4	62.4	72.4	82.4	92.7	103.3	113.8	124.4	134.9	142.1
90°	22.8	34.4	46.1	57.8	69.4	81.3	93.3	105.3	117.3	129.3	137.5
92.5°	37.3	44.8	52.2	59.6	67.1	76.8	88.8	100.9	112.9	125.0	132.9
95°	83.8	90.8	97.8	104.9	111.9	115.6	116.0	116.4	116.8	117.1	125.0
97.5°	154.2	162.6	171.1	179.5	187.9	187.3	177.7	168.1	158.6	149.0	148.0
100°	208.9	216.0	223.1	230.2	237.2	246.1	256.7	267.4	278.0	288.6	256.4
102.5°	264.6	271.4	278.2	285.0	291.8	300.2	310.1	320.1	330.1	340.1	338.9
105°	353.8	359.7	365.5	371.3	377.2	384.6	393.6	402.6	411.6	420.6	426.6
107.5°	446.6	450.7	454.7	458.8	462.9	469.5	478.7	487.8	497.0	506.1	512.1
110°	506.9	510.5	514.1	517.7	521.3	527.5	536.4	545.4	554.3	563.2	568.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	564.5	568.0	571.5	575.0	578.5	584.5	593.0	601.4	609.9	618.4	622.8
115°	649.6	653.0	656.4	659.8	663.2	668.9	677.0	685.0	693.1	701.1	705.5
117.5°	737.8	739.1	740.4	741.7	743.1	747.9	756.3	764.6	773.0	781.4	785.1
120°	793.5	794.2	794.8	795.5	796.1	800.3	807.9	815.6	823.3	831.0	835.6
122.5°	841.7	843.1	844.5	845.9	847.3	851.6	858.6	865.6	872.6	879.6	884.0
125°	917.7	919.2	920.7	922.2	923.7	927.5	933.5	939.5	945.5	951.5	955.3
127.5°	989.1	990.1	991.1	992.1	993.1	996.0	1000.7	1005.5	1010.3	1015.0	1018.9
130°	1033.7	1034.7	1035.7	1036.7	1037.7	1040.4	1044.9	1049.3	1053.8	1058.3	1061.7
132.5°	1077.3	1078.7	1080.2	1081.6	1083.0	1085.1	1087.8	1090.4	1093.1	1095.8	1099.8
135°	1140.5	1141.7	1143.0	1144.2	1145.5	1146.9	1148.5	1150.1	1151.6	1153.2	1156.6
137.5°	1198.5	1199.7	1200.8	1201.9	1203.0	1203.8	1204.3	1204.9	1205.5	1206.0	1209.7
140°	1235.6	1236.1	1236.6	1237.1	1237.7	1237.9	1238.0	1238.0	1238.1	1238.1	1241.9
142.5°	1270.0	1270.1	1270.1	1270.2	1270.3	1270.5	1270.9	1271.4	1271.8	1272.2	1275.1
145°	1320.4	1320.6	1320.9	1321.1	1321.3	1321.4	1321.4	1321.4	1321.4	1321.4	1323.2
147.5°	1363.2	1363.1	1363.0	1362.9	1362.8	1362.9	1363.2	1363.5	1363.9	1364.2	1365.0
150°	1391.1	1390.6	1390.1	1389.6	1389.1	1389.1	1389.6	1390.1	1390.6	1391.1	1391.6
152.5°	1418.1	1417.0	1415.8	1414.7	1413.5	1413.2	1413.8	1414.3	1414.8	1415.3	1415.8
155°	1452.7	1451.2	1449.6	1448.1	1446.5	1446.0	1446.5	1447.0	1447.6	1448.1	1448.9
157.5°	1479.5	1478.5	1477.6	1476.7	1475.7	1475.3	1475.4	1475.4	1475.5	1475.5	1476.3
160°	1498.1	1496.5	1495.0	1493.4	1491.9	1491.2	1491.5	1491.7	1492.0	1492.2	1493.3
162.5°	1512.9	1511.4	1509.8	1508.3	1506.7	1506.1	1506.3	1506.6	1506.9	1507.1	1508.6
165°	1532.9	1531.4	1529.8	1528.3	1526.7	1526.1	1526.3	1526.6	1526.8	1527.1	1528.7
167.5°	1547.8	1546.2	1544.6	1543.0	1541.4	1540.7	1541.0	1541.2	1541.5	1541.8	1543.6
170°	1556.2	1554.4	1552.5	1550.7	1548.9	1548.2	1548.4	1548.7	1548.9	1549.2	1551.3
172.5°	1561.7	1559.9	1558.1	1556.3	1554.5	1553.8	1554.3	1554.8	1555.2	1555.7	1557.6
175°	1567.8	1566.2	1564.7	1563.1	1561.6	1560.9	1561.2	1561.5	1561.7	1562.0	1564.0
177.5°	1570.6	1569.3	1568.1	1566.9	1565.6	1565.1	1565.3	1565.5	1565.7	1565.9	1567.4
180°	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1373.8	1375.5	1377.2	1377.9	1377.7	1377.4	1377.2	1377.0
5°	1369.6	1372.0	1374.4	1375.5	1375.2	1374.9	1374.6	1374.3
7.5°	1358.2	1360.3	1362.4	1363.3	1363.0	1362.7	1362.4	1362.1
10°	1347.4	1349.5	1351.6	1352.5	1352.2	1351.9	1351.6	1351.3
12.5°	1334.6	1336.2	1337.8	1338.2	1337.5	1336.7	1335.9	1335.1
15°	1310.4	1312.2	1314.0	1314.3	1313.1	1311.9	1310.7	1309.5
17.5°	1279.6	1280.9	1282.3	1282.6	1281.9	1281.2	1280.5	1279.8
20°	1255.9	1256.8	1257.7	1258.2	1258.2	1258.2	1258.2	1258.2
22.5°	1231.6	1232.7	1233.8	1234.0	1233.3	1232.6	1231.9	1231.2
25°	1193.1	1194.3	1195.5	1195.3	1193.8	1192.3	1190.8	1189.3
27.5°	1148.3	1149.2	1150.0	1150.2	1149.6	1149.1	1148.5	1148.0
30°	1117.6	1118.2	1118.8	1119.0	1118.7	1118.4	1118.1	1117.8
32.5°	1088.5	1089.1	1089.7	1089.8	1089.5	1089.2	1088.9	1088.6
35°	1041.3	1042.2	1043.1	1043.5	1043.5	1043.5	1043.5	1043.5
37.5°	991.7	992.9	994.1	994.6	994.5	994.4	994.2	994.1
40°	958.2	959.4	960.6	961.5	962.1	962.7	963.3	963.9
42.5°	927.3	928.8	930.2	931.0	931.1	931.2	931.4	931.5
45°	877.6	879.7	881.8	883.0	883.3	883.6	883.9	884.2
47.5°	826.4	829.4	832.5	834.3	835.0	835.7	836.3	837.0
50°	792.3	795.6	798.9	801.0	801.9	802.8	803.7	804.6
52.5°	758.2	761.7	765.3	767.4	768.0	768.7	769.4	770.0
55°	704.5	707.8	711.1	713.4	714.6	715.8	717.0	718.2
57.5°	651.5	655.3	659.1	661.4	662.3	663.2	664.1	665.0
60°	615.1	619.6	624.1	626.8	627.7	628.6	629.5	630.4
62.5°	578.3	583.3	588.3	591.3	592.5	593.6	594.7	595.9
65°	523.3	527.8	532.3	535.2	536.4	537.6	538.8	540.0
67.5°	466.9	472.4	477.9	481.4	482.9	484.5	486.0	487.6
70°	428.5	434.2	439.9	443.7	445.5	447.3	449.1	450.9
72.5°	392.8	399.0	405.1	408.9	410.2	411.5	412.8	414.2
75°	338.7	344.7	350.7	354.4	355.9	357.4	358.9	360.4
77.5°	284.5	291.1	297.7	301.6	302.8	304.0	305.2	306.4
80°	252.1	258.7	265.3	269.2	270.4	271.6	272.8	274.0
82.5°	221.4	227.8	234.1	238.4	240.6	242.7	244.9	247.0
85°	179.2	185.8	192.4	196.9	199.3	201.7	204.1	206.5
87.5°	149.3	156.4	163.6	168.3	170.5	172.8	175.0	177.3
90°	145.7	153.9	162.1	167.6	170.5	173.3	176.2	179.1
92.5°	140.9	148.8	156.8	162.0	164.4	166.9	169.4	171.8
95°	132.9	140.8	148.7	153.7	155.8	157.9	160.0	162.1
97.5°	147.0	146.0	145.0	145.6	147.6	149.7	151.7	153.7
100°	224.3	192.1	159.9	144.2	145.0	145.7	146.5	147.3
102.5°	337.6	336.4	335.2	326.7	310.9	295.2	279.4	263.6
105°	432.6	438.6	444.6	448.5	450.3	452.2	454.0	455.9
107.5°	518.1	524.1	530.1	533.6	534.7	535.8	536.9	538.0
110°	573.0	578.0	582.9	586.5	588.9	591.2	593.6	596.0



TEST NUMBER: P333289

CATALOG NUMBER: S125DIP-S1090D1205U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	627.3	631.8	636.3	639.4	641.1	642.9	644.6	646.3
115°	709.9	714.2	718.6	720.9	721.2	721.4	721.7	721.9
117.5°	788.9	792.6	796.4	799.0	800.3	801.7	803.1	804.4
120°	840.1	844.7	849.3	851.9	852.4	852.9	853.4	853.9
122.5°	888.3	892.7	897.0	899.3	899.6	899.9	900.2	900.6
125°	959.0	962.8	966.6	968.8	969.5	970.3	971.0	971.7
127.5°	1022.8	1026.6	1030.5	1032.4	1032.2	1032.0	1031.8	1031.7
130°	1065.1	1068.5	1072.0	1073.8	1074.0	1074.2	1074.4	1074.6
132.5°	1103.9	1107.9	1112.0	1114.0	1113.9	1113.9	1113.9	1113.8
135°	1160.0	1163.4	1166.8	1168.4	1168.4	1168.3	1168.3	1168.2
137.5°	1213.3	1216.9	1220.6	1222.3	1222.2	1222.0	1221.9	1221.8
140°	1245.7	1249.5	1253.4	1255.1	1254.7	1254.4	1254.1	1253.7
142.5°	1278.0	1281.0	1283.9	1285.2	1284.8	1284.5	1284.1	1283.8
145°	1324.9	1326.7	1328.4	1329.1	1328.8	1328.4	1328.1	1327.7
147.5°	1365.7	1366.5	1367.3	1367.1	1365.7	1364.4	1363.1	1361.8
150°	1392.2	1392.7	1393.2	1392.6	1390.8	1389.0	1387.3	1385.5
152.5°	1416.3	1416.9	1417.4	1416.7	1414.9	1413.1	1411.3	1409.5
155°	1449.6	1450.4	1451.2	1450.5	1448.5	1446.4	1444.3	1442.3
157.5°	1477.2	1478.0	1478.8	1478.2	1476.1	1474.1	1472.0	1469.9
160°	1494.3	1495.3	1496.4	1495.9	1493.8	1491.7	1489.7	1487.6
162.5°	1510.0	1511.5	1512.9	1512.5	1510.2	1507.9	1505.7	1503.4
165°	1530.2	1531.8	1533.3	1533.0	1531.0	1528.9	1526.8	1524.8
167.5°	1545.5	1547.3	1549.2	1549.0	1546.6	1544.3	1542.0	1539.7
170°	1553.3	1555.4	1557.5	1557.3	1555.0	1552.7	1550.4	1548.0
172.5°	1559.4	1561.3	1563.1	1562.9	1560.6	1558.3	1555.9	1553.6
175°	1566.1	1568.2	1570.2	1570.1	1567.8	1565.5	1563.1	1560.8
177.5°	1568.8	1570.3	1571.7	1571.6	1570.0	1568.3	1566.6	1565.0
180°	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8

(END OF REPORT)