

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: P333292-940

Luminaire Tested: **S125DIP-S1090D1205U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333292-940  
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-S1090D1205U940-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8255.4 lumens  
Efficiency: N/A  
Efficacy: 126.2 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

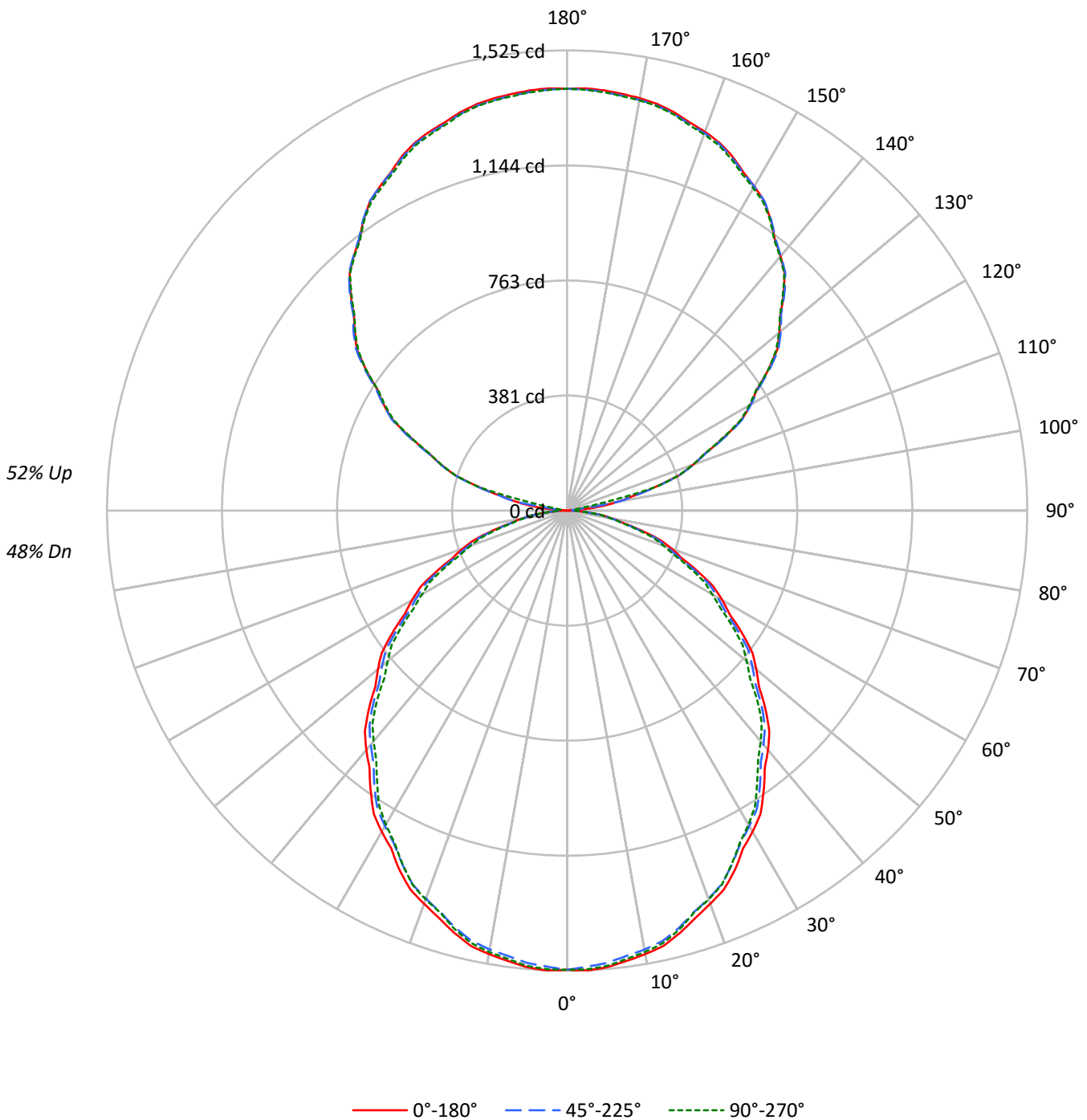
Input Watts (W): 65.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	97	93	89	86	89	86	82	79	72	70	67	59	58	56	48	47	46	40
2	89	81	75	70	81	75	69	65	63	59	56	52	49	47	42	40	38	34
3	81	71	64	58	74	66	59	54	56	51	47	46	43	40	37	35	33	29
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	39	44	39	34	37	33	29	30	27	25	21
6	62	50	42	36	57	47	39	34	40	34	30	33	29	26	27	24	22	19
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	22	19	17
8	54	41	33	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13
10	47	34	27	22	43	32	26	21	28	22	19	23	19	16	20	16	14	12

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

	0°	45°	90°
0°	9827	9827	9827
5°	9849	9756	9818
10°	9789	9686	9742
15°	9682	9570	9610
20°	9531	9407	9423
25°	9368	9213	9204
30°	9165	9004	8959
35°	8949	8779	8656
40°	8728	8535	8413
45°	8488	8312	8147
50°	8225	8043	7801
55°	7970	7739	7523
60°	7665	7432	7167
65°	7303	7065	6825
70°	6956	6637	6411
75°	6338	6128	5916
80°	5642	5553	5415
85°	4905	4994	4728



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.5	1.7
10°-20°	405.3	4.9
20°-30°	598.4	7.2
30°-40°	698.2	8.5
40°-50°	701.3	8.5
50°-60°	615.6	7.5
60°-70°	458.7	5.6
70°-80°	262.3	3.2
80°-90°	79.2	1.0
90°-100°	50.8	0.6
100°-110°	313.1	3.8
110°-120°	567.9	6.9
120°-130°	728.8	8.8
130°-140°	783.9	9.5
140°-150°	735.8	8.9
150°-160°	595.2	7.2
160°-170°	384.9	4.7
170°-180°	132.8	1.6
0°-30°	1147.1	13.9
0°-40°	1845.3	22.4
0°-60°	3162.2	38.3
0°-90°	3962.3	48.0
90°-120°	931.8	11.3
90°-150°	3180.2	38.5
90°-180°	4293.0	52.0
0°-180°	8255.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1516	1505	1515	1514	144
15°	1448	1444	1431	1437	1437	408
25°	1315	1308	1293	1295	1292	605
35°	1135	1130	1114	1107	1098	710
45°	929	924	910	896	892	716
55°	708	703	687	677	668	632
65°	478	475	462	452	447	474
75°	254	251	246	242	237	271
85°	66	67	67	66	64	74
90°	1	9	17	22	25	6
95°	59	54	17	22	22	75
105°	305	309	309	309	308	323
115°	572	577	578	574	568	567
125°	814	820	821	817	814	726
135°	1015	1020	1019	1016	1010	782
145°	1176	1178	1178	1179	1173	735
155°	1295	1290	1291	1294	1286	597
165°	1367	1361	1362	1367	1360	386
175°	1398	1392	1393	1400	1392	133
180°	1398	1398	1398	1398	1398	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1525.4	1524.8	1524.1	1523.5	1522.9	1521.4	1519.3	1517.2	1515.0	1512.9	1515.0
5°	1519.2	1518.7	1518.1	1517.6	1517.1	1515.5	1512.8	1510.1	1507.4	1504.8	1507.2
7.5°	1505.2	1504.7	1504.1	1503.6	1503.1	1501.3	1498.3	1495.4	1492.5	1489.5	1491.9
10°	1492.7	1492.2	1491.7	1491.1	1490.6	1488.8	1485.9	1482.9	1480.0	1477.0	1479.2
12.5°	1477.3	1476.3	1475.3	1474.4	1473.5	1471.6	1468.8	1466.2	1463.4	1460.6	1462.4
15°	1448.1	1447.3	1446.5	1445.7	1444.9	1443.1	1440.1	1437.2	1434.2	1431.3	1432.6
17.5°	1414.7	1413.5	1412.3	1411.1	1410.0	1407.8	1404.8	1401.8	1398.7	1395.6	1397.3
20°	1386.8	1386.3	1385.7	1385.2	1384.6	1382.6	1379.1	1375.6	1372.2	1368.7	1370.6
22.5°	1358.8	1357.9	1356.9	1355.9	1355.0	1352.8	1349.6	1346.3	1343.1	1339.8	1341.0
25°	1314.6	1313.2	1311.9	1310.5	1309.2	1306.8	1303.3	1299.8	1296.4	1292.9	1293.4
27.5°	1262.8	1261.9	1261.1	1260.3	1259.5	1257.4	1253.7	1250.2	1246.6	1243.0	1243.1
30°	1229.0	1228.2	1227.4	1226.6	1225.8	1223.4	1219.4	1215.4	1211.4	1207.4	1206.8
32.5°	1192.5	1191.2	1190.0	1188.7	1187.6	1185.2	1181.5	1177.9	1174.4	1170.8	1169.8
35°	1135.1	1134.1	1133.0	1131.9	1130.9	1128.5	1124.7	1121.0	1117.2	1113.5	1112.1
37.5°	1075.7	1074.3	1073.0	1071.7	1070.3	1067.9	1064.3	1060.9	1057.3	1053.8	1051.8
40°	1035.3	1033.9	1032.6	1031.3	1029.9	1027.3	1023.6	1019.8	1016.1	1012.4	1010.0
42.5°	991.9	990.8	989.7	988.6	987.4	985.0	981.2	977.5	973.7	970.0	967.8
45°	929.3	928.3	927.2	926.1	925.1	922.9	919.7	916.5	913.3	910.1	906.9
47.5°	861.9	861.9	862.0	862.1	862.1	860.2	856.4	852.5	848.6	844.8	841.5
50°	818.6	817.8	817.0	816.2	815.4	813.3	810.1	806.9	803.7	800.5	797.0
52.5°	774.3	773.6	773.1	772.5	772.0	769.9	766.5	763.0	759.6	756.2	753.1
55°	707.8	707.0	706.2	705.4	704.6	702.3	698.6	694.8	691.1	687.3	684.9
57.5°	637.8	637.3	636.9	636.5	636.1	634.3	631.1	627.9	624.8	621.6	618.5
60°	593.4	592.4	591.3	590.2	589.2	587.2	584.2	581.3	578.4	575.4	572.7
62.5°	547.2	546.4	545.5	544.7	543.9	542.2	539.6	537.1	534.6	532.1	529.1
65°	477.9	477.3	476.8	476.3	475.7	474.0	471.1	468.1	465.2	462.3	459.9
67.5°	410.7	409.6	408.5	407.3	406.3	404.6	402.3	400.2	398.0	395.8	393.8
70°	368.4	367.0	365.7	364.4	363.0	361.1	358.7	356.3	353.9	351.5	349.9
72.5°	322.2	321.2	320.3	319.4	318.5	317.3	315.8	314.1	312.6	311.0	309.2
75°	254.0	253.4	252.9	252.4	251.8	250.9	249.6	248.3	246.9	245.6	244.8
77.5°	191.2	190.9	190.7	190.6	190.3	189.8	189.0	188.3	187.6	186.8	186.4
80°	151.7	151.7	151.7	151.7	151.7	151.4	150.9	150.3	149.8	149.3	149.0
82.5°	117.0	116.5	116.2	115.7	115.3	115.0	114.9	114.9	114.7	114.6	114.1
85°	66.2	66.4	66.7	67.0	67.2	67.4	67.4	67.4	67.4	67.4	67.1
87.5°	26.2	26.6	26.9	27.3	27.6	27.9	28.0	28.2	28.3	28.4	28.6
90°	1.1	2.9	4.7	6.6	8.4	10.2	11.8	13.4	15.0	16.6	17.7
92.5°	16.0	14.7	13.4	12.1	10.8	10.9	12.3	13.7	15.2	16.6	17.7
95°	59.0	58.4	57.7	57.0	56.3	51.6	42.8	34.1	25.3	16.6	17.7
97.5°	123.3	124.6	125.8	127.1	128.3	120.3	102.9	85.6	68.3	51.0	44.5
100°	173.1	173.8	174.4	175.1	175.8	176.6	177.5	178.5	179.4	180.3	146.0
102.5°	223.6	224.5	225.4	226.2	227.1	227.8	228.4	229.0	229.5	230.1	223.6
105°	304.7	305.6	306.5	307.5	308.4	308.8	308.8	308.8	308.8	308.8	308.8
107.5°	388.9	388.9	388.9	388.9	388.9	389.1	389.5	389.9	390.5	390.9	390.9
110°	443.5	443.5	443.5	443.5	443.5	443.8	444.3	444.7	445.1	445.6	445.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	495.0	495.5	496.1	496.6	497.1	497.6	497.8	498.1	498.4	498.6	497.8
115°	572.0	573.2	574.4	575.5	576.7	577.4	577.6	577.8	578.0	578.3	577.4
117.5°	651.8	651.8	651.8	651.8	651.7	652.1	653.0	653.8	654.7	655.6	654.4
120°	701.6	701.3	701.2	700.9	700.7	700.9	701.6	702.3	702.9	703.6	703.2
122.5°	745.6	746.5	747.3	748.1	749.0	749.7	749.9	750.3	750.6	750.9	750.5
125°	813.5	815.1	816.7	818.3	819.9	820.7	820.7	820.7	820.7	820.7	819.8
127.5°	878.4	879.6	880.7	881.8	883.0	883.5	883.3	883.2	883.1	883.0	882.4
130°	918.2	919.4	920.5	921.7	922.8	923.5	923.7	924.0	924.2	924.4	923.7
132.5°	958.0	959.3	960.6	962.0	963.3	963.8	963.2	962.7	962.2	961.7	961.6
135°	1014.6	1015.9	1017.4	1018.7	1020.1	1020.6	1020.1	1019.7	1019.1	1018.7	1018.2
137.5°	1066.6	1067.8	1069.0	1070.1	1071.4	1071.7	1071.4	1070.9	1070.5	1070.1	1070.2
140°	1100.5	1101.1	1101.5	1102.0	1102.4	1102.5	1102.3	1102.1	1101.9	1101.6	1102.1
142.5°	1131.2	1131.5	1131.8	1132.1	1132.4	1132.7	1133.0	1133.3	1133.6	1134.0	1134.1
145°	1176.3	1176.7	1177.1	1177.6	1178.0	1178.3	1178.3	1178.3	1178.3	1178.3	1178.6
147.5°	1215.6	1215.5	1215.4	1215.3	1215.2	1215.3	1215.6	1215.8	1216.2	1216.5	1216.7
150°	1240.5	1240.0	1239.6	1239.1	1238.7	1238.7	1239.1	1239.6	1240.0	1240.5	1240.9
152.5°	1264.5	1263.6	1262.5	1261.5	1260.4	1260.2	1260.7	1261.1	1261.6	1262.0	1262.5
155°	1295.4	1294.1	1292.6	1291.3	1289.9	1289.4	1289.9	1290.3	1290.8	1291.3	1292.0
157.5°	1319.3	1318.4	1317.6	1316.8	1315.9	1315.5	1315.6	1315.6	1315.7	1315.7	1316.4
160°	1335.9	1334.4	1333.1	1331.7	1330.3	1329.7	1330.0	1330.2	1330.4	1330.6	1331.6
162.5°	1349.1	1347.7	1346.3	1345.0	1343.5	1343.0	1343.2	1343.5	1343.7	1343.9	1345.2
165°	1366.9	1365.6	1364.1	1362.8	1361.4	1360.8	1361.0	1361.3	1361.5	1361.7	1363.2
167.5°	1380.2	1378.8	1377.3	1375.9	1374.5	1373.9	1374.1	1374.3	1374.6	1374.8	1376.4
170°	1387.7	1386.1	1384.4	1382.8	1381.2	1380.5	1380.7	1381.0	1381.2	1381.4	1383.3
172.5°	1392.6	1391.0	1389.4	1387.8	1386.2	1385.5	1386.0	1386.4	1386.8	1387.2	1388.9
175°	1398.0	1396.6	1395.3	1393.8	1392.5	1391.9	1392.1	1392.4	1392.6	1392.9	1394.6
177.5°	1400.5	1399.4	1398.3	1397.2	1396.1	1395.6	1395.8	1396.0	1396.2	1396.3	1397.7
180°	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1517.2	1519.3	1521.4	1522.4	1522.2	1522.0	1521.8	1521.6
5°	1509.6	1512.0	1514.4	1515.5	1515.2	1514.9	1514.7	1514.4
7.5°	1494.2	1496.6	1499.0	1500.0	1499.8	1499.5	1499.2	1499.0
10°	1481.3	1483.5	1485.6	1486.6	1486.3	1486.0	1485.8	1485.5
12.5°	1464.1	1465.8	1467.5	1468.4	1468.3	1468.2	1468.2	1468.1
15°	1434.0	1435.3	1436.6	1437.3	1437.3	1437.3	1437.3	1437.3
17.5°	1399.0	1400.6	1402.3	1402.5	1401.1	1399.8	1398.5	1397.1
20°	1372.4	1374.3	1376.2	1376.4	1375.1	1373.8	1372.4	1371.1
22.5°	1342.3	1343.5	1344.7	1344.9	1344.0	1343.1	1342.2	1341.2
25°	1294.0	1294.5	1295.0	1294.9	1294.1	1293.2	1292.4	1291.6
27.5°	1243.2	1243.3	1243.5	1243.1	1242.3	1241.5	1240.7	1239.9
30°	1206.3	1205.8	1205.2	1204.6	1203.8	1203.0	1202.2	1201.4
32.5°	1168.9	1167.9	1167.0	1165.7	1164.3	1162.9	1161.4	1159.9
35°	1110.8	1109.5	1108.1	1106.4	1104.3	1102.2	1100.0	1097.9
37.5°	1049.8	1047.8	1045.9	1044.3	1043.0	1041.8	1040.5	1039.4
40°	1007.5	1005.1	1002.7	1001.1	1000.3	999.5	998.7	997.9
42.5°	965.6	963.4	961.3	959.5	958.3	957.1	955.8	954.6
45°	903.7	900.4	897.2	895.2	894.4	893.6	892.8	892.0
47.5°	838.3	835.0	831.8	829.2	827.3	825.5	823.6	821.7
50°	793.5	790.1	786.6	783.9	782.0	780.2	778.3	776.4
52.5°	750.1	747.1	744.0	741.5	739.3	737.3	735.2	733.1
55°	682.5	680.1	677.7	675.6	673.7	671.8	669.9	668.1
57.5°	615.5	612.3	609.2	607.2	606.2	605.1	604.1	603.1
60°	570.1	567.4	564.7	562.4	560.5	558.7	556.8	554.9
62.5°	526.3	523.4	520.5	518.4	516.9	515.5	514.0	512.6
65°	457.4	455.0	452.6	450.8	449.8	448.7	447.6	446.6
67.5°	391.7	389.7	387.6	386.3	385.7	385.0	384.4	383.8
70°	348.3	346.7	345.1	343.8	342.7	341.6	340.5	339.5
72.5°	307.5	305.6	303.8	302.4	301.3	300.2	299.2	298.1
75°	244.0	243.2	242.4	241.4	240.3	239.2	238.2	237.1
77.5°	185.8	185.4	184.9	184.3	183.5	182.8	182.0	181.3
80°	148.7	148.5	148.2	147.8	147.2	146.7	146.2	145.6
82.5°	113.6	113.2	112.7	112.4	112.3	112.2	112.1	111.9
85°	66.9	66.6	66.3	65.9	65.4	64.8	64.3	63.8
87.5°	28.8	29.1	29.2	29.2	29.0	28.6	28.4	28.1
90°	18.9	20.1	21.2	22.1	22.8	23.5	24.2	24.9
92.5°	18.9	20.1	21.2	21.9	22.2	22.6	22.9	23.2
95°	18.9	20.1	21.2	21.8	21.8	21.8	21.8	21.8
97.5°	38.0	31.5	25.0	21.8	21.8	21.8	21.8	21.8
100°	111.7	77.4	43.1	25.4	24.5	23.6	22.6	21.8
102.5°	217.0	210.6	204.1	193.1	177.4	161.7	146.1	130.4
105°	308.8	308.8	308.8	308.7	308.4	308.3	308.0	307.8
107.5°	391.0	391.0	391.1	390.7	390.0	389.4	388.7	388.0
110°	444.3	443.5	442.8	442.6	442.8	443.1	443.4	443.5





TEST NUMBER: P333292-940

CATALOG NUMBER: S125DIP-S1090D1205U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	497.0	496.1	495.2	494.5	494.3	493.9	493.7	493.3
115°	576.4	575.5	574.6	573.5	572.0	570.7	569.3	567.9
117.5°	653.2	652.0	650.8	649.9	649.3	648.7	648.1	647.5
120°	702.8	702.3	701.9	701.1	699.9	698.7	697.6	696.4
122.5°	750.0	749.6	749.1	748.1	746.8	745.5	744.2	742.9
125°	818.9	818.0	817.1	816.3	815.6	814.9	814.2	813.5
127.5°	881.9	881.5	880.9	879.9	878.2	876.4	874.7	873.0
130°	923.0	922.3	921.7	920.7	919.5	918.5	917.3	916.1
132.5°	961.4	961.3	961.2	960.6	959.4	958.2	957.1	955.9
135°	1017.8	1017.4	1016.9	1015.9	1014.6	1013.2	1011.8	1010.4
137.5°	1070.3	1070.4	1070.5	1070.0	1068.7	1067.6	1066.3	1065.1
140°	1102.5	1103.0	1103.5	1103.0	1101.6	1100.3	1098.9	1097.5
142.5°	1134.2	1134.3	1134.3	1133.7	1132.3	1131.0	1129.5	1128.2
145°	1178.8	1179.0	1179.2	1178.7	1177.2	1175.9	1174.5	1173.1
147.5°	1217.0	1217.3	1217.5	1216.8	1215.2	1213.5	1211.9	1210.2
150°	1241.4	1241.9	1242.3	1241.6	1239.8	1238.0	1236.1	1234.3
152.5°	1262.9	1263.5	1263.9	1263.3	1261.6	1260.0	1258.3	1256.7
155°	1292.6	1293.3	1294.1	1293.4	1291.6	1289.8	1287.9	1286.1
157.5°	1317.2	1317.9	1318.7	1318.1	1316.3	1314.5	1312.6	1310.7
160°	1332.5	1333.4	1334.4	1333.9	1332.0	1330.2	1328.4	1326.5
162.5°	1346.5	1347.8	1349.1	1348.7	1346.7	1344.6	1342.6	1340.6
165°	1364.5	1365.9	1367.3	1367.0	1365.2	1363.3	1361.5	1359.7
167.5°	1378.1	1379.7	1381.4	1381.3	1379.1	1377.1	1375.0	1373.0
170°	1385.1	1387.0	1388.8	1388.7	1386.6	1384.6	1382.5	1380.4
172.5°	1390.5	1392.2	1393.8	1393.7	1391.6	1389.6	1387.4	1385.4
175°	1396.5	1398.4	1400.2	1400.1	1398.0	1396.0	1393.8	1391.8
177.5°	1398.9	1400.3	1401.5	1401.4	1400.0	1398.5	1397.0	1395.5
180°	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0

(END OF REPORT)