

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: P333256-940

Luminaire Tested: **S125DIP-S1090D365U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333256-940
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-S1090D365U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5266.0 lumens
Efficiency: N/A
Efficacy: 121.1 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: Semi-Direct

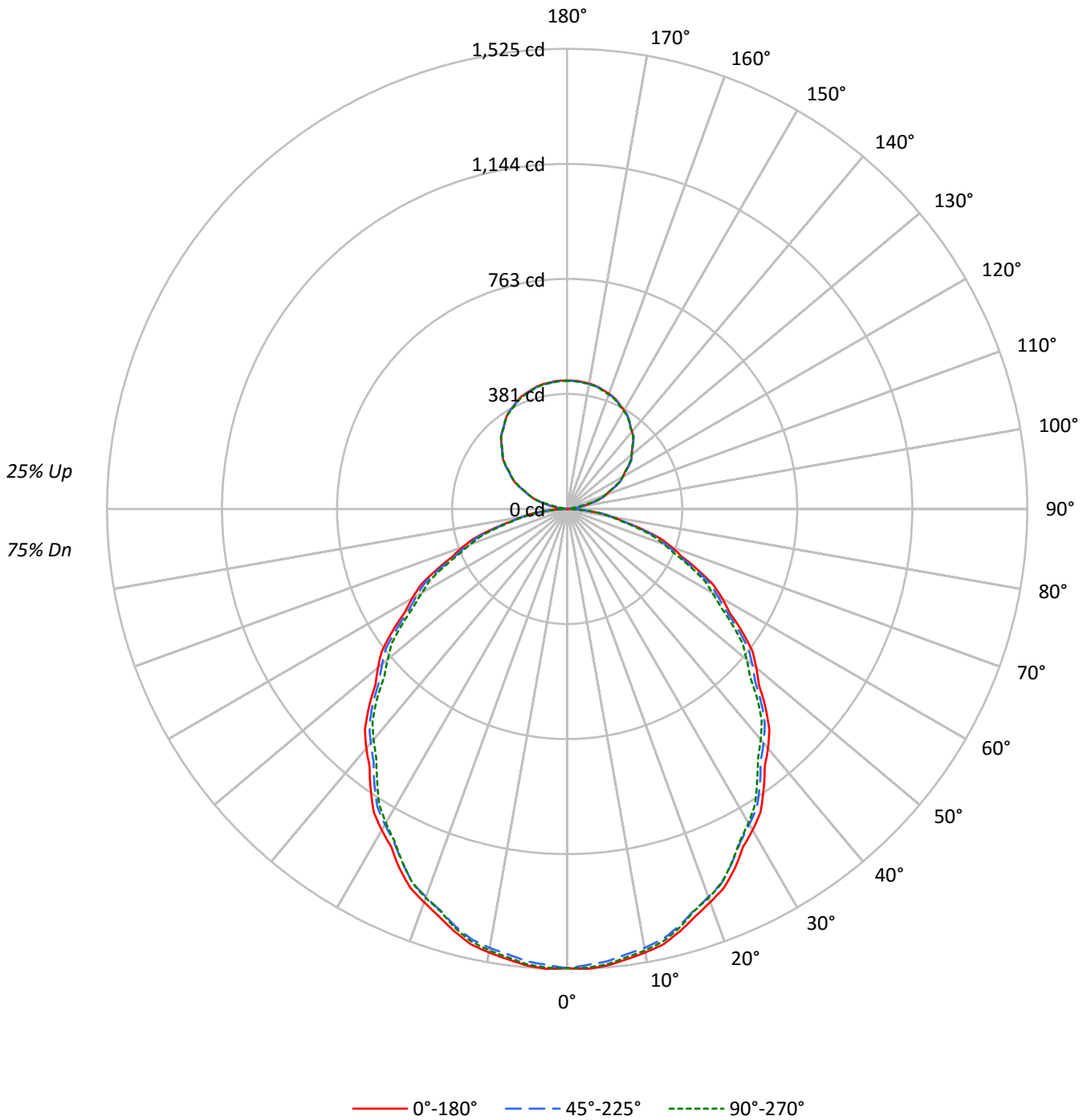
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67	63
2	94	86	80	74	89	82	77	72	75	70	66	68	64	61	62	59	56	53
3	86	76	68	62	81	72	65	60	66	60	56	60	56	52	55	51	48	45
4	79	67	59	53	74	64	57	51	59	52	48	54	48	44	49	45	41	38
5	72	60	52	45	68	58	50	44	53	46	41	48	43	39	44	39	36	33
6	67	54	46	39	63	52	44	38	48	41	36	44	38	34	40	35	32	29
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28	26
8	57	45	36	31	55	43	35	30	40	33	28	36	31	27	33	29	25	23
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	23	21
10	50	38	30	25	48	36	29	24	34	27	23	31	26	22	29	24	21	19

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



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	2.7
10°-20°	405.3	7.7
20°-30°	598.4	11.4
30°-40°	698.2	13.3
40°-50°	701.3	13.3
50°-60°	615.6	11.7
60°-70°	458.7	8.7
70°-80°	262.3	5.0
80°-90°	77.2	1.5
90°-100°	15.5	0.3
100°-110°	95.2	1.8
110°-120°	172.7	3.3
120°-130°	221.7	4.2
130°-140°	238.4	4.5
140°-150°	223.8	4.2
150°-160°	181.0	3.4
160°-170°	117.1	2.2
170°-180°	40.4	0.8
0°-30°	1147.1	21.8
0°-40°	1845.3	35.0
0°-60°	3162.2	60.0
0°-90°	3960.3	75.2
90°-120°	283.4	5.4
90°-150°	967.3	18.4
90°-180°	1306.0	24.8
0°-180°	5266.0	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°	0	3	5	7	8	4
95°	18	16	5	6	7	23
105°	93	94	94	94	94	98
115°	174	176	176	175	173	172
125°	247	250	250	248	247	221
135°	309	310	310	309	307	238
145°	358	358	358	359	357	224
155°	394	392	393	394	391	181
165°	416	414	414	416	414	117
175°	425	424	424	426	423	40
180°	425	425	425	425	425	



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

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°	26.0	26.2	26.3	26.4	26.5	26.5	26.4	26.3	26.1	26.0	26.1
90°	0.4	0.9	1.4	2.0	2.6	3.1	3.6	4.1	4.5	5.1	5.4
92.5°	4.8	4.5	4.1	3.7	3.3	3.3	3.7	4.2	4.6	5.1	5.4
95°	17.9	17.7	17.6	17.3	17.1	15.7	13.0	10.3	7.7	5.1	5.4
97.5°	37.5	37.9	38.3	38.6	39.1	36.6	31.3	26.0	20.8	15.5	13.6
100°	52.6	52.9	53.1	53.2	53.5	53.7	54.0	54.3	54.6	54.8	44.4
102.5°	68.0	68.3	68.6	68.8	69.1	69.3	69.5	69.6	69.8	70.0	68.0
105°	92.6	92.9	93.3	93.5	93.8	93.9	93.9	93.9	93.9	93.9	93.9
107.5°	118.2	118.2	118.2	118.2	118.2	118.3	118.5	118.6	118.8	118.9	118.9
110°	134.9	134.9	134.9	134.9	134.9	135.0	135.1	135.3	135.4	135.5	135.4



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.5	150.7	150.9	151.1	151.2	151.3	151.4	151.5	151.6	151.7	151.4
115°	174.0	174.3	174.7	175.0	175.4	175.6	175.7	175.8	175.8	175.8	175.6
117.5°	198.2	198.2	198.2	198.2	198.2	198.3	198.6	198.9	199.1	199.4	199.0
120°	213.4	213.3	213.3	213.2	213.1	213.2	213.4	213.6	213.8	214.0	213.9
122.5°	226.8	227.0	227.3	227.6	227.8	228.0	228.1	228.2	228.3	228.4	228.3
125°	247.4	247.9	248.4	248.9	249.4	249.7	249.7	249.7	249.7	249.7	249.3
127.5°	267.2	267.5	267.9	268.2	268.6	268.8	268.7	268.7	268.6	268.6	268.4
130°	279.3	279.6	280.0	280.4	280.7	280.9	281.0	281.0	281.1	281.2	281.0
132.5°	291.4	291.8	292.2	292.6	293.0	293.1	293.0	292.8	292.7	292.5	292.5
135°	308.6	309.0	309.4	309.9	310.2	310.4	310.2	310.1	310.0	309.9	309.7
137.5°	324.4	324.8	325.1	325.5	325.8	326.0	325.8	325.7	325.6	325.5	325.5
140°	334.7	334.9	335.0	335.2	335.3	335.4	335.3	335.2	335.1	335.1	335.2
142.5°	344.1	344.2	344.3	344.3	344.4	344.5	344.6	344.7	344.8	344.9	344.9
145°	357.8	357.9	358.0	358.2	358.3	358.4	358.4	358.4	358.4	358.4	358.5
147.5°	369.7	369.7	369.7	369.6	369.6	369.6	369.7	369.8	369.9	370.0	370.1
150°	377.3	377.2	377.0	376.8	376.7	376.7	376.8	377.0	377.2	377.3	377.5
152.5°	384.6	384.3	384.0	383.7	383.3	383.3	383.4	383.6	383.7	383.9	384.0
155°	394.0	393.6	393.2	392.7	392.4	392.2	392.4	392.4	392.6	392.7	393.0
157.5°	401.3	401.0	400.7	400.5	400.3	400.1	400.1	400.2	400.2	400.2	400.4
160°	406.3	405.9	405.5	405.0	404.7	404.5	404.5	404.6	404.7	404.7	405.0
162.5°	410.4	409.9	409.5	409.0	408.7	408.5	408.6	408.6	408.7	408.8	409.1
165°	415.7	415.4	414.9	414.5	414.1	413.9	413.9	414.0	414.1	414.2	414.6
167.5°	419.8	419.4	418.9	418.5	418.0	417.9	417.9	418.0	418.1	418.1	418.7
170°	422.0	421.6	421.1	420.6	420.1	419.9	420.0	420.0	420.1	420.2	420.7
172.5°	423.6	423.1	422.6	422.1	421.6	421.4	421.5	421.7	421.8	422.0	422.4
175°	425.2	424.8	424.4	423.9	423.6	423.4	423.4	423.5	423.6	423.7	424.2
177.5°	426.0	425.6	425.3	425.0	424.6	424.5	424.5	424.6	424.6	424.7	425.1
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

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°	26.2	26.2	26.3	26.1	25.8	25.4	25.0	24.6
90°	5.7	6.1	6.4	6.7	7.0	7.1	7.3	7.6
92.5°	5.7	6.1	6.4	6.7	6.8	6.9	7.0	7.0
95°	5.7	6.1	6.4	6.6	6.6	6.6	6.6	6.6
97.5°	11.6	9.5	7.6	6.6	6.6	6.6	6.6	6.6
100°	34.0	23.5	13.1	7.8	7.5	7.2	6.9	6.6
102.5°	66.0	64.0	62.1	58.7	53.9	49.2	44.4	39.7
105°	93.9	93.9	93.9	93.9	93.8	93.7	93.7	93.6
107.5°	119.0	119.0	119.0	118.9	118.7	118.4	118.2	118.0
110°	135.1	134.9	134.7	134.6	134.7	134.7	134.8	134.9



TEST NUMBER: P333256-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	151.1	150.9	150.6	150.4	150.3	150.3	150.2	150.1
115°	175.3	175.0	174.8	174.4	174.0	173.6	173.2	172.7
117.5°	198.7	198.3	198.0	197.7	197.5	197.3	197.2	197.0
120°	213.7	213.6	213.5	213.2	212.9	212.5	212.1	211.8
122.5°	228.1	228.0	227.8	227.6	227.1	226.8	226.3	226.0
125°	249.1	248.8	248.5	248.3	248.1	247.9	247.6	247.4
127.5°	268.2	268.0	268.0	267.6	267.1	266.5	266.1	265.6
130°	280.7	280.5	280.4	280.0	279.7	279.4	279.0	278.7
132.5°	292.4	292.4	292.3	292.1	291.8	291.4	291.1	290.8
135°	309.6	309.4	309.2	309.0	308.6	308.2	307.7	307.3
137.5°	325.6	325.6	325.6	325.4	325.0	324.7	324.3	324.0
140°	335.4	335.5	335.6	335.5	335.1	334.7	334.2	333.8
142.5°	344.9	345.0	345.0	344.8	344.4	343.9	343.6	343.1
145°	358.6	358.6	358.6	358.5	358.1	357.7	357.2	356.8
147.5°	370.1	370.2	370.3	370.1	369.6	369.1	368.6	368.1
150°	377.6	377.7	377.8	377.6	377.1	376.6	375.9	375.4
152.5°	384.1	384.2	384.4	384.2	383.7	383.3	382.7	382.2
155°	393.2	393.3	393.6	393.4	392.9	392.3	391.7	391.2
157.5°	400.6	400.8	401.1	400.9	400.4	399.8	399.2	398.7
160°	405.3	405.6	405.8	405.7	405.1	404.6	404.0	403.5
162.5°	409.6	409.9	410.4	410.2	409.6	408.9	408.4	407.8
165°	415.0	415.4	415.9	415.8	415.3	414.6	414.1	413.6
167.5°	419.2	419.6	420.2	420.1	419.5	418.8	418.2	417.6
170°	421.2	421.9	422.4	422.4	421.8	421.2	420.4	419.8
172.5°	422.9	423.5	423.9	423.9	423.3	422.6	422.0	421.3
175°	424.7	425.3	425.9	425.9	425.2	424.5	423.9	423.3
177.5°	425.5	425.9	426.2	426.2	425.8	425.3	424.9	424.5
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2

(END OF REPORT)