

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: P333265-940

Luminaire Tested: **S125DIP-S1090D590U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333265-940
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-S1090D590U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6068.4 lumens
Efficiency: N/A
Efficacy: 124.4 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

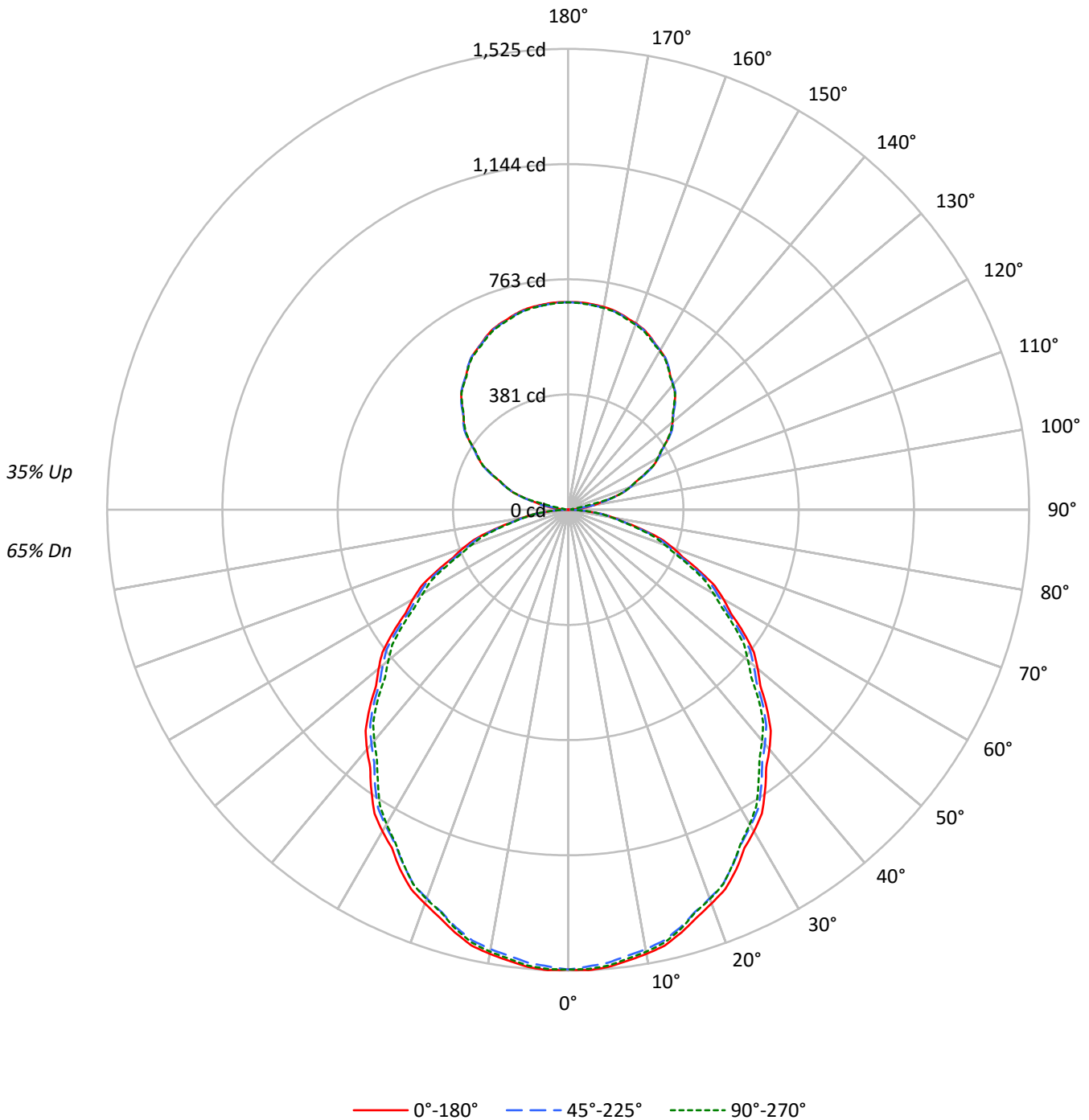
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	101	97	93	89	95	91	88	84	80	78	75	71	69	67	62	60	59	55
2	92	84	78	73	86	80	74	69	71	66	62	62	59	56	54	52	50	46
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39
4	77	66	58	51	72	62	55	49	55	49	45	49	44	41	43	39	36	33
5	71	59	50	44	66	55	48	42	50	43	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	25
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	22
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16

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	2.4
10°-20°	405.3	6.7
20°-30°	598.4	9.9
30°-40°	698.2	11.5
40°-50°	701.3	11.6
50°-60°	615.6	10.1
60°-70°	458.7	7.6
70°-80°	262.3	4.3
80°-90°	77.7	1.3
90°-100°	24.9	0.4
100°-110°	153.7	2.5
110°-120°	278.8	4.6
120°-130°	357.8	5.9
130°-140°	384.8	6.3
140°-150°	361.2	6.0
150°-160°	292.2	4.8
160°-170°	189.0	3.1
170°-180°	65.2	1.1
0°-30°	1147.1	18.9
0°-40°	1845.3	30.4
0°-60°	3162.2	52.1
0°-90°	3960.8	65.3
90°-120°	457.4	7.5
90°-150°	1561.2	25.7
90°-180°	2108.0	34.7
0°-180°	6068.4	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°	0	5	8	11	12	5
95°	29	26	8	11	11	37
105°	150	152	152	152	151	159
115°	281	283	284	282	279	278
125°	399	403	403	401	399	357
135°	498	501	500	499	496	384
145°	578	578	578	579	576	361
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



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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°	26.1	26.3	26.5	26.7	26.8	26.9	26.8	26.8	26.8	26.7	26.8
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	7.8	7.2	6.6	6.0	5.3	5.4	6.1	6.8	7.4	8.1	8.7
95°	29.0	28.6	28.4	28.0	27.6	25.3	21.0	16.8	12.4	8.1	8.7
97.5°	60.5	61.2	61.8	62.3	63.0	59.0	50.6	42.0	33.5	25.1	21.8
100°	85.0	85.3	85.6	86.0	86.3	86.7	87.2	87.7	88.1	88.5	71.7
102.5°	109.8	110.2	110.7	111.1	111.5	111.8	112.1	112.4	112.7	113.0	109.8
105°	149.5	150.0	150.5	151.0	151.4	151.6	151.6	151.6	151.6	151.6	151.6
107.5°	190.9	190.9	190.9	190.9	190.9	191.0	191.2	191.5	191.7	191.9	191.9
110°	217.8	217.8	217.8	217.8	217.8	217.8	218.1	218.3	218.6	218.7	218.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	243.0	243.3	243.5	243.8	244.1	244.2	244.4	244.5	244.7	244.8	244.4
115°	280.8	281.4	282.0	282.5	283.1	283.5	283.6	283.7	283.7	283.9	283.5
117.5°	320.0	319.9	319.9	319.9	319.9	320.1	320.6	321.0	321.4	321.8	321.3
120°	344.5	344.3	344.2	344.1	343.9	344.1	344.5	344.7	345.1	345.4	345.2
122.5°	366.0	366.4	366.8	367.3	367.7	368.0	368.2	368.4	368.5	368.6	368.5
125°	399.4	400.2	400.9	401.7	402.5	403.0	403.0	403.0	403.0	403.0	402.5
127.5°	431.2	431.8	432.4	432.9	433.5	433.7	433.6	433.6	433.5	433.5	433.2
130°	450.8	451.3	451.9	452.5	453.0	453.3	453.4	453.6	453.7	453.8	453.4
132.5°	470.3	470.9	471.6	472.3	472.9	473.1	472.9	472.6	472.3	472.2	472.1
135°	498.1	498.7	499.4	500.1	500.8	501.1	500.8	500.5	500.3	500.1	499.9
137.5°	523.6	524.2	524.8	525.4	525.9	526.2	525.9	525.8	525.6	525.3	525.4
140°	540.3	540.6	540.7	541.0	541.2	541.3	541.2	541.0	540.9	540.8	541.0
142.5°	555.4	555.5	555.6	555.8	555.9	556.1	556.2	556.3	556.5	556.7	556.7
145°	577.5	577.7	577.9	578.1	578.4	578.5	578.5	578.5	578.5	578.5	578.5
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.4
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



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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°	26.9	27.0	27.1	27.0	26.7	26.3	25.9	25.6
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	9.3	9.8	10.4	10.8	10.9	11.1	11.2	11.4
95°	9.3	9.8	10.4	10.7	10.7	10.7	10.7	10.7
97.5°	18.6	15.4	12.3	10.7	10.7	10.7	10.7	10.7
100°	54.8	38.0	21.1	12.5	12.0	11.6	11.1	10.7
102.5°	106.6	103.3	100.2	94.8	87.0	79.4	71.7	64.0
105°	151.6	151.6	151.6	151.6	151.4	151.3	151.2	151.1
107.5°	192.0	192.0	192.0	191.8	191.5	191.2	190.8	190.5
110°	218.1	217.8	217.4	217.3	217.4	217.5	217.7	217.8



TEST NUMBER: P333265-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	244.0	243.5	243.1	242.8	242.6	242.5	242.4	242.2
115°	282.9	282.5	282.0	281.5	280.8	280.2	279.5	278.8
117.5°	320.7	320.0	319.5	319.1	318.8	318.4	318.2	317.9
120°	345.0	344.7	344.6	344.1	343.6	343.0	342.4	341.9
122.5°	368.2	368.0	367.7	367.3	366.7	366.0	365.3	364.7
125°	402.1	401.5	401.1	400.7	400.4	400.0	399.8	399.4
127.5°	432.9	432.7	432.5	431.9	431.1	430.3	429.4	428.6
130°	453.2	452.8	452.5	452.0	451.5	450.8	450.3	449.8
132.5°	472.0	471.9	471.9	471.5	471.0	470.4	469.8	469.3
135°	499.6	499.4	499.2	498.7	498.1	497.4	496.7	496.1
137.5°	525.4	525.5	525.5	525.2	524.7	524.1	523.5	522.9
140°	541.3	541.4	541.7	541.4	540.8	540.1	539.5	538.8
142.5°	556.8	556.8	556.9	556.5	555.9	555.2	554.5	553.8
145°	578.7	578.8	578.9	578.6	577.9	577.3	576.6	575.9
147.5°	597.4	597.6	597.7	597.4	596.6	595.8	594.9	594.1
150°	609.4	609.7	609.8	609.6	608.7	607.7	606.8	605.9
152.5°	620.0	620.3	620.5	620.2	619.4	618.6	617.7	616.9
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)