

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: P333609-940

Luminaire Tested: **S125RDIP-S1090D1205U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333609-940
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: S125RDIP-S1090D1205U940-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7622.1 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

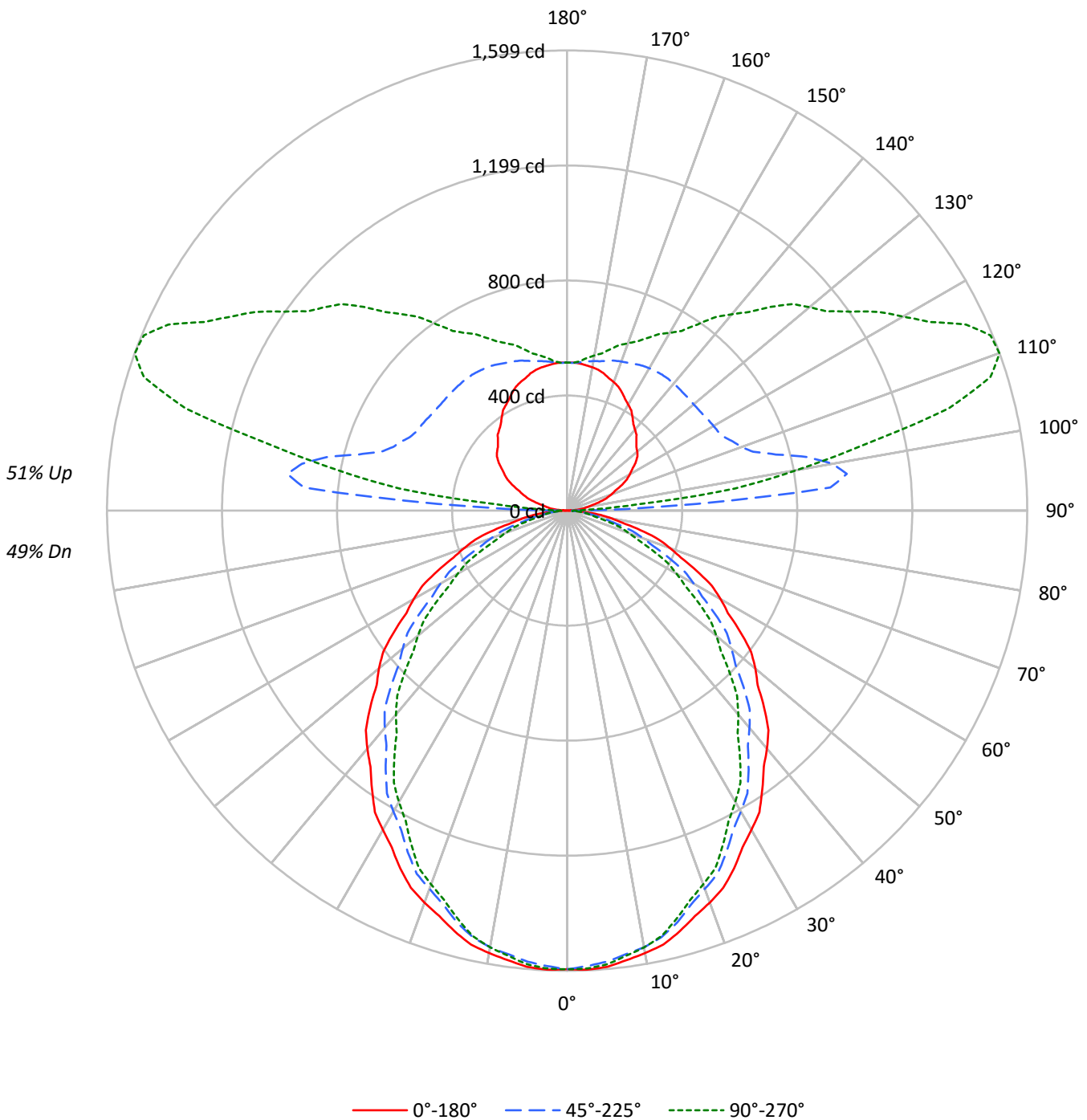
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56
1	98	94	90	86	90	86	83	80	73	71	69	61	59	58	49	48	47
2	89	82	76	71	82	76	71	66	64	60	57	54	51	48	44	42	40
3	82	72	65	59	75	67	61	56	57	52	48	48	44	41	39	37	34
4	75	64	56	50	69	59	53	47	51	45	41	43	39	35	35	32	30
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	32	29	26
6	63	51	43	38	58	48	41	35	41	35	31	35	30	27	29	26	23
7	59	46	38	33	54	43	36	31	37	32	28	32	27	24	26	23	21
8	54	42	34	29	50	39	32	28	34	28	25	29	25	21	24	21	18
9	51	38	31	26	47	36	29	25	31	26	22	27	22	19	22	19	17
10	47	35	28	23	44	33	27	22	29	23	20	25	20	18	21	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	2.0
10°-20°	418.8	5.5
20°-30°	607.3	8.0
30°-40°	692.2	9.1
40°-50°	674.7	8.9
50°-60°	567.9	7.5
60°-70°	398.1	5.2
70°-80°	204.6	2.7
80°-90°	54.5	0.7
90°-100°	372.5	4.9
100°-110°	800.8	10.5
110°-120°	751.5	9.9
120°-130°	609.1	8.0
130°-140°	488.8	6.4
140°-150°	368.8	4.8
150°-160°	259.6	3.4
160°-170°	153.0	2.0
170°-180°	49.8	0.7
0°-30°	1176.0	15.4
0°-40°	1868.2	24.5
0°-60°	3110.9	40.8
0°-90°	3768.2	49.4
90°-120°	1924.8	25.3
90°-150°	3391.5	44.5
90°-180°	3854.0	50.6
0°-180°	7622.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	1	9	17	22	24	5
95°	34	101	918	416	244	36
105°	117	164	751	1479	1373	123
115°	209	252	603	1300	1529	206
125°	290	340	578	1034	1205	257
135°	340	409	574	867	1001	264
145°	396	453	576	718	790	248
155°	452	486	562	635	662	208
165°	493	507	539	571	580	139
175°	513	513	517	523	521	49
180°	514	514	514	514	514	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.4	21.0	20.0	18.9	17.8	17.4	17.4	17.6	17.6	17.7	18.0
90°	1.1	2.1	4.1	6.2	8.3	10.3	11.4	13.5	14.5	16.6	17.7
92.5°	12.7	15.3	24.1	36.9	54.8	85.0	141.5	236.5	339.5	334.0	270.5
95°	34.2	35.2	43.5	54.9	77.7	124.3	235.2	463.2	749.1	918.0	898.3
97.5°	56.8	58.1	63.8	75.3	95.8	129.3	202.7	369.7	669.0	980.3	1136.7
100°	72.5	74.6	78.7	90.2	109.9	140.9	201.0	335.7	596.8	935.6	1194.6
102.5°	90.0	91.2	94.5	106.7	124.8	155.0	208.5	321.6	542.1	856.8	1159.8
105°	117.1	117.1	122.3	132.6	149.2	178.3	223.8	316.0	489.0	751.2	1048.6
107.5°	143.6	145.7	150.6	159.2	176.4	202.4	246.6	325.6	466.6	678.4	935.0
110°	162.6	164.8	168.9	178.3	193.8	220.7	263.1	334.7	460.0	644.4	870.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.7	183.8	187.1	196.4	212.0	238.1	278.9	346.3	460.0	624.6	822.2
115°	209.3	211.3	214.5	223.8	239.3	265.3	303.6	363.6	463.2	603.1	769.8
117.5°	234.2	237.3	240.6	249.9	267.5	292.6	328.9	383.6	470.0	592.5	738.5
120°	250.7	253.9	258.0	267.3	284.9	310.9	347.1	396.8	476.6	587.5	721.1
122.5°	268.1	270.5	273.8	283.0	302.4	328.2	364.5	411.8	482.4	583.4	706.2
125°	290.1	292.2	297.4	306.7	326.4	353.3	387.5	432.0	492.1	578.2	685.9
127.5°	307.3	310.4	317.1	328.9	349.8	376.7	409.7	450.8	503.1	575.7	667.3
130°	318.1	321.2	329.5	343.0	364.7	391.6	423.7	463.2	509.8	574.0	654.9
132.5°	326.4	330.3	340.3	355.4	378.0	404.9	437.0	473.9	517.2	574.0	644.9
135°	339.8	344.0	356.4	373.0	394.8	422.8	454.9	489.0	527.4	574.0	633.1
137.5°	356.9	360.0	371.6	388.2	409.5	438.3	467.5	500.2	536.7	575.2	622.5
140°	366.8	369.9	382.4	399.0	418.6	446.6	476.6	507.7	540.8	576.0	617.5
142.5°	378.4	380.7	392.3	408.8	427.8	454.1	482.4	511.8	543.3	576.9	613.4
145°	395.8	397.9	408.2	422.8	441.4	465.2	492.1	518.1	546.1	576.0	607.2
147.5°	414.0	415.3	424.2	437.7	453.8	474.7	498.4	521.8	547.1	573.4	600.7
150°	424.8	426.9	434.2	447.6	462.1	479.7	502.5	524.3	547.1	570.9	595.8
152.5°	436.4	437.7	444.1	455.9	469.6	485.5	506.7	525.9	546.3	567.6	590.0
155°	451.7	451.7	458.0	468.3	478.7	493.2	510.8	527.4	543.9	561.6	580.2
157.5°	465.5	465.2	470.2	479.1	488.2	499.2	514.3	528.4	541.3	555.4	571.1
160°	474.6	473.5	477.7	484.9	493.2	502.5	516.0	528.4	538.8	551.3	563.7
162.5°	482.0	481.0	485.1	491.5	498.2	505.9	517.6	527.6	536.3	546.3	557.1
165°	493.2	491.2	494.3	499.4	503.5	509.8	518.1	526.4	532.5	538.8	547.1
167.5°	500.7	499.6	501.5	504.4	507.3	511.2	518.1	523.9	526.7	531.5	537.3
170°	505.6	504.6	505.6	507.7	509.8	512.9	518.1	522.2	524.3	527.4	531.5
172.5°	509.0	507.1	508.1	510.1	511.4	512.9	517.2	520.6	520.9	522.5	525.8
175°	512.9	510.8	511.8	512.9	512.9	512.9	516.0	518.1	517.0	517.0	518.1
177.5°	514.8	513.1	513.1	513.9	513.1	513.1	514.8	515.6	513.9	513.9	514.8
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	18.2	18.4	18.5	18.9	18.7	18.5	18.5	18.3
90°	18.6	19.7	20.7	22.8	22.8	22.8	23.8	23.8
92.5°	183.6	133.2	100.3	85.0	71.7	69.2	67.8	66.1
95°	744.9	587.5	460.0	373.0	299.4	268.3	260.1	243.5
97.5°	1109.5	999.1	874.9	753.9	689.8	631.9	601.8	588.5
100°	1274.4	1223.7	1117.0	1009.1	937.7	863.1	824.7	808.2
102.5°	1330.0	1361.3	1310.1	1237.2	1160.7	1107.6	1066.0	1053.6
105°	1297.3	1439.2	1484.8	1473.4	1440.2	1406.0	1385.3	1372.9
107.5°	1180.4	1369.8	1486.8	1541.0	1557.7	1557.6	1550.7	1542.4
110°	1094.1	1291.0	1437.1	1525.2	1571.8	1591.5	1598.7	1598.7



TEST NUMBER: P333609-940

CATALOG NUMBER: S125RDIP-S1090D1205U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1026.2	1213.1	1360.8	1464.6	1532.9	1566.6	1584.7	1592.1
115°	940.8	1101.4	1243.3	1356.3	1437.1	1486.8	1515.8	1529.3
117.5°	885.6	1024.1	1146.4	1250.0	1330.8	1382.2	1411.0	1419.2
120°	855.9	980.2	1094.1	1185.4	1262.0	1311.7	1339.7	1348.0
122.5°	833.5	948.7	1050.3	1135.6	1204.0	1249.6	1277.6	1285.0
125°	800.9	906.6	996.8	1071.4	1129.4	1171.9	1194.6	1205.1
127.5°	767.8	866.4	950.6	1020.4	1073.0	1110.5	1132.1	1136.7
130°	747.1	838.2	919.1	986.4	1038.2	1072.4	1093.1	1099.3
132.5°	726.3	811.7	885.0	949.9	1001.7	1035.9	1055.0	1062.0
135°	699.4	770.9	837.2	896.3	941.8	976.1	994.7	1000.9
137.5°	676.6	734.4	789.5	839.7	880.5	911.6	928.8	935.6
140°	664.1	712.8	760.5	804.1	842.4	869.3	884.8	890.0
142.5°	653.4	694.6	735.7	773.4	805.9	828.7	843.4	847.7
145°	639.3	671.4	703.6	731.5	756.3	774.0	785.4	789.5
147.5°	626.1	652.1	676.8	697.9	717.6	731.7	738.3	740.2
150°	618.6	641.4	661.0	679.7	695.3	707.7	711.9	712.8
152.5°	610.3	630.6	648.6	663.2	676.2	686.1	690.3	691.3
155°	597.8	614.4	628.9	640.3	650.7	657.9	661.0	662.1
157.5°	585.4	599.1	610.3	619.2	627.2	633.3	636.1	636.0
160°	577.1	587.5	597.8	605.1	612.3	617.5	619.6	618.6
162.5°	568.0	577.6	586.2	592.6	598.2	602.6	603.1	602.8
165°	555.4	562.6	568.8	574.0	578.2	580.2	580.2	580.2
167.5°	543.3	548.1	552.9	556.6	558.7	560.5	559.7	559.5
170°	536.7	539.8	543.0	545.0	547.1	548.1	548.1	547.1
172.5°	529.2	532.4	534.7	535.9	536.3	538.1	536.5	535.5
175°	521.2	521.2	523.3	523.3	523.3	524.3	522.2	521.2
177.5°	515.6	516.4	516.4	516.4	515.6	516.4	513.9	513.9
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9

(END OF REPORT)