

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: P333596-927

Luminaire Tested: **S125RDIP-S1090D810U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333596-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S1090D810U927-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5567.9 lumens  
Efficiency: N/A  
Efficacy: 102.4 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: Semi-Direct

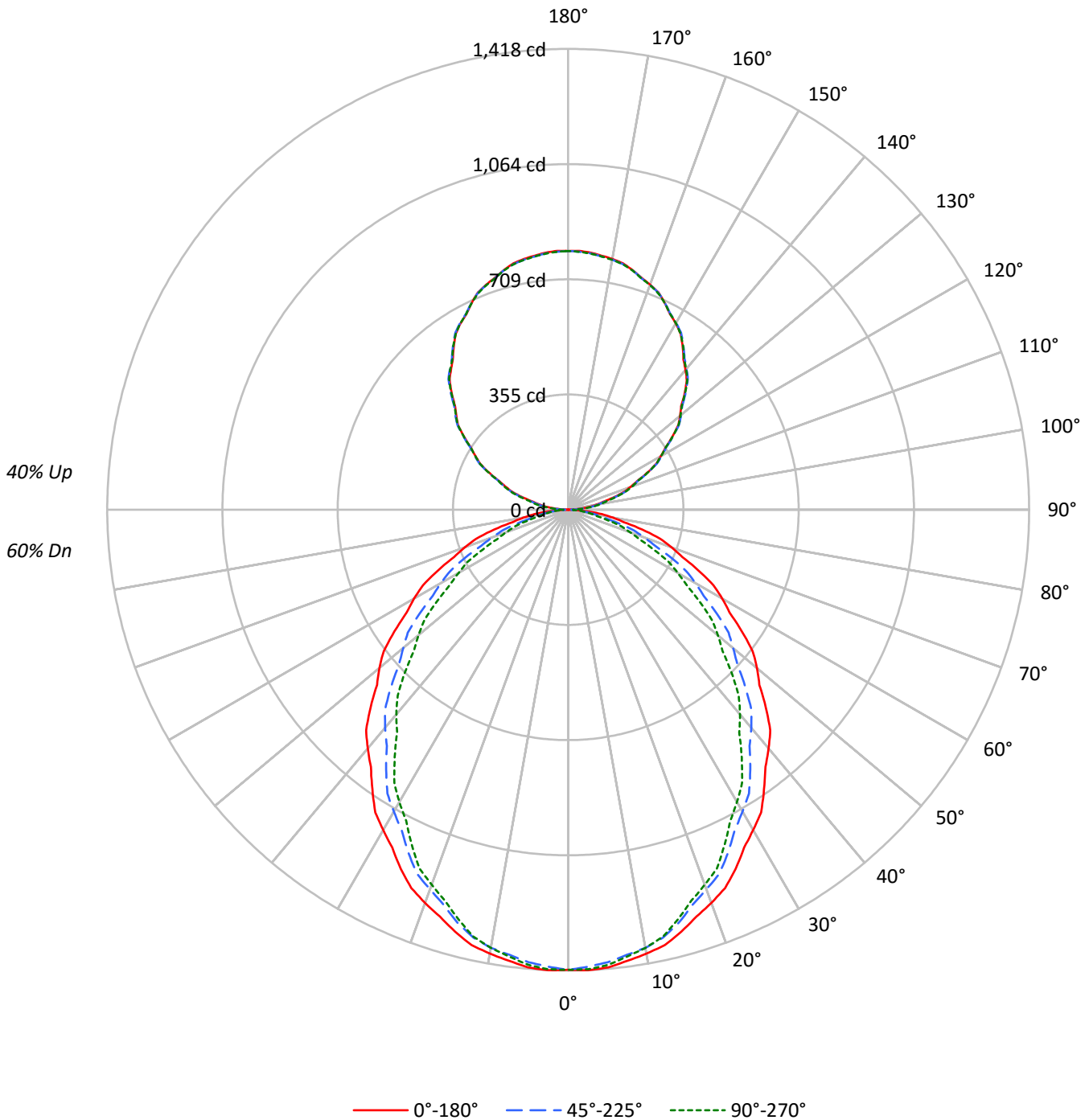
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**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	110	110	110	110	102	102	102	102	89	89	89		77	77	77		65	65	65	60
1	100	96	92	89	94	90	87	84	78	76	74		68	66	64		58	57	56	51
2	92	84	78	73	85	79	74	69	69	65	61		60	57	54		52	49	47	43
3	84	74	67	61	78	70	63	58	61	56	52		53	49	46		46	43	41	37
4	77	66	58	52	71	62	55	49	55	49	45		48	43	40		41	38	35	32
5	71	59	51	45	66	55	48	43	49	43	39		43	38	35		37	34	31	28
6	65	53	45	39	61	50	43	37	44	38	34		39	34	30		34	30	27	25
7	60	48	40	34	56	45	38	33	40	34	30		35	31	27		31	27	24	22
8	56	44	36	30	52	41	34	29	37	31	27		32	28	24		28	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24		30	25	22		26	23	20	18
10	49	37	29	25	46	35	28	24	31	26	22		28	23	20		24	21	18	16

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

	0°	45°	90°
0°	9144	9144	9144
5°	9166	9061	9117
10°	9096	8977	8977
15°	8988	8795	8723
20°	8849	8541	8438
25°	8688	8292	8109
30°	8486	7999	7744
35°	8280	7698	7335
40°	8088	7384	6933
45°	7853	7033	6495
50°	7618	6650	6038
55°	7346	6286	5551
60°	7073	5842	5028
65°	6748	5327	4429
70°	6381	4685	3816
75°	5871	3950	3174
80°	5170	3102	2663
85°	4357	2534	2379



TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.1	2.4
10°-20°	372.1	6.7
20°-30°	539.6	9.7
30°-40°	614.9	11.0
40°-50°	599.4	10.8
50°-60°	504.6	9.1
60°-70°	353.7	6.4
70°-80°	181.8	3.3
80°-90°	47.7	0.9
90°-100°	53.3	1.0
100°-110°	157.4	2.8
110°-120°	266.7	4.8
120°-130°	350.9	6.3
130°-140°	393.2	7.1
140°-150°	385.4	6.9
150°-160°	323.7	5.8
160°-170°	215.2	3.9
170°-180°	75.3	1.4
0°-30°	1044.8	18.8
0°-40°	1659.7	29.8
0°-60°	2763.6	49.6
0°-90°	3346.8	60.1
90°-120°	477.4	8.6
90°-150°	1607.0	28.9
90°-180°	2221.0	39.9
0°-180°	5567.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1414	1409	1398	1408	1406	134
15°	1344	1337	1315	1314	1305	379
25°	1219	1202	1164	1150	1138	561
35°	1050	1023	976	946	930	657
45°	860	827	770	729	711	663
55°	652	617	558	512	493	583
65°	442	404	349	307	290	437
75°	235	202	158	136	127	249
85°	59	40	34	33	32	66
90°	1	6	10	13	15	5
95°	40	42	48	52	53	43
105°	141	144	148	152	154	151
115°	267	269	271	270	270	264
125°	390	393	394	393	392	349
135°	507	510	511	511	509	390
145°	614	616	618	618	616	384
155°	702	702	703	705	702	323
165°	764	763	763	765	762	215
175°	794	792	792	795	791	75
180°	796	796	796	796	796	



TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1418.5	1417.9	1417.4	1416.7	1416.2	1415.0	1413.1	1411.2	1409.3	1407.4	1409.3
5°	1413.8	1412.9	1411.9	1411.0	1410.0	1408.2	1405.6	1403.0	1400.3	1397.7	1400.1
7.5°	1399.9	1399.0	1398.0	1397.2	1396.2	1394.2	1391.1	1388.0	1384.8	1381.7	1383.4
10°	1387.0	1386.3	1385.6	1384.9	1384.2	1382.2	1378.9	1375.5	1372.2	1368.9	1369.6
12.5°	1372.5	1371.6	1370.7	1369.8	1368.9	1366.2	1361.8	1357.2	1352.8	1348.3	1348.8
15°	1344.3	1342.8	1341.4	1340.0	1338.6	1335.4	1330.4	1325.4	1320.4	1315.4	1315.2
17.5°	1312.4	1310.2	1308.1	1305.8	1303.6	1299.4	1293.2	1286.9	1280.6	1274.3	1273.1
20°	1287.6	1285.2	1282.9	1280.5	1278.1	1273.1	1265.5	1257.9	1250.3	1242.7	1241.5
22.5°	1260.2	1257.8	1255.5	1253.1	1250.7	1245.5	1237.5	1229.5	1221.5	1213.5	1211.2
25°	1219.2	1215.6	1212.0	1208.5	1204.9	1198.7	1189.9	1181.1	1172.4	1163.6	1160.5
27.5°	1172.1	1167.8	1163.4	1159.1	1154.8	1148.0	1138.5	1129.1	1119.7	1110.2	1106.0
30°	1137.9	1133.4	1128.9	1124.3	1119.8	1112.5	1102.6	1092.6	1082.6	1072.6	1067.1
32.5°	1104.5	1099.2	1093.9	1088.7	1083.4	1075.7	1065.5	1055.3	1045.1	1035.0	1029.0
35°	1050.2	1044.5	1038.8	1033.1	1027.4	1019.1	1008.4	997.8	987.1	976.4	969.5
37.5°	996.9	990.0	983.0	976.1	969.2	960.2	949.1	938.1	927.1	916.1	907.8
40°	959.3	952.1	945.0	937.9	930.7	921.5	910.1	898.7	887.2	875.8	866.8
42.5°	919.9	912.6	905.3	897.9	890.7	881.1	869.3	857.5	845.7	833.9	825.3
45°	859.8	852.9	846.1	839.2	832.3	822.3	809.2	796.1	783.1	770.0	760.5
47.5°	797.6	790.3	783.0	775.8	768.5	758.3	745.1	731.9	718.7	705.6	695.8
50°	758.2	750.4	742.5	734.7	726.8	716.1	702.6	689.0	675.5	661.9	652.0
52.5°	715.4	707.4	699.3	691.3	683.3	672.9	660.1	647.3	634.5	621.8	611.0
55°	652.4	644.8	637.2	629.5	621.9	611.5	598.2	584.9	571.6	558.3	547.6
57.5°	588.6	580.5	572.4	564.2	556.1	545.7	532.8	520.0	507.2	494.3	483.9
60°	547.6	539.2	530.9	522.6	514.3	503.7	490.8	478.0	465.2	452.3	441.9
62.5°	503.9	496.0	488.1	480.1	472.1	461.7	448.7	435.6	422.6	409.6	399.9
65°	441.6	433.6	425.5	417.4	409.3	399.0	386.4	373.8	361.2	348.6	339.1
67.5°	379.9	371.8	363.7	355.6	347.5	337.5	325.3	313.3	301.3	289.1	280.5
70°	337.9	329.9	321.8	313.7	305.6	295.6	283.8	271.9	260.0	248.1	240.7
72.5°	296.9	289.0	281.1	273.2	265.3	255.8	244.7	233.5	222.4	211.4	204.5
75°	235.3	228.1	221.0	213.9	206.8	198.2	188.2	178.2	168.3	158.3	153.0
77.5°	174.1	168.4	162.7	157.0	151.3	144.4	136.5	128.5	120.5	112.5	108.8
80°	139.0	133.3	127.6	121.9	116.2	110.0	103.4	96.7	90.1	83.4	81.3
82.5°	104.8	99.7	94.5	89.4	84.3	79.5	74.9	70.3	65.8	61.2	60.2
85°	58.8	54.5	50.2	45.9	41.7	39.0	37.8	36.6	35.4	34.2	34.0
87.5°	19.8	18.7	17.6	16.5	15.4	14.8	14.8	14.8	14.8	14.8	15.0
90°	0.6	1.7	2.9	4.0	5.0	6.0	7.1	8.0	9.0	9.9	10.6
92.5°	15.0	15.8	16.6	17.3	18.1	19.0	20.2	21.4	22.6	23.8	24.7
95°	40.2	40.6	40.8	41.1	41.4	42.2	43.6	44.9	46.3	47.7	48.6
97.5°	66.9	67.0	67.1	67.3	67.3	68.4	70.3	72.2	74.1	76.0	76.8
100°	86.7	86.7	86.7	86.7	86.7	87.6	89.4	91.2	93.0	94.7	96.0
102.5°	108.1	108.6	109.2	109.7	110.3	111.0	111.9	112.8	113.7	114.6	116.0
105°	141.2	142.0	142.6	143.3	144.0	144.7	145.6	146.4	147.2	148.1	148.9
107.5°	177.9	178.6	179.3	180.0	180.7	181.3	182.0	182.6	183.2	183.9	184.3
110°	203.2	203.9	204.5	205.3	206.0	206.5	206.9	207.3	207.7	208.1	208.6



TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	228.9	229.3	229.7	230.0	230.4	230.8	231.3	231.9	232.4	232.9	233.1
115°	267.0	267.5	268.1	268.6	269.2	269.6	269.9	270.1	270.5	270.7	270.5
117.5°	305.1	305.4	305.6	305.9	306.1	306.4	306.7	306.9	307.1	307.4	307.4
120°	328.9	329.6	330.3	331.0	331.7	332.1	332.2	332.4	332.5	332.6	332.6
122.5°	354.7	355.0	355.2	355.5	355.7	356.0	356.3	356.7	357.0	357.4	357.3
125°	389.6	390.5	391.3	392.1	392.9	393.4	393.6	393.7	393.8	394.0	393.7
127.5°	426.8	427.3	427.7	428.2	428.6	429.0	429.1	429.3	429.5	429.7	429.5
130°	449.1	449.8	450.5	451.1	451.9	452.3	452.6	452.9	453.1	453.4	453.3
132.5°	471.4	472.5	473.6	474.8	475.9	476.4	476.4	476.3	476.3	476.3	476.1
135°	506.7	507.6	508.3	509.2	510.0	510.5	510.6	510.8	510.9	511.0	511.0
137.5°	540.0	540.7	541.5	542.3	543.1	543.7	544.0	544.2	544.5	544.9	545.0
140°	561.3	561.9	562.6	563.3	564.0	564.5	564.9	565.4	565.8	566.2	566.5
142.5°	582.6	583.1	583.7	584.2	584.9	585.4	585.9	586.5	586.9	587.5	587.6
145°	613.9	614.4	615.0	615.5	616.1	616.6	617.0	617.3	617.8	618.2	618.2
147.5°	642.9	643.2	643.5	643.8	644.0	644.4	644.8	645.1	645.4	645.7	646.0
150°	662.2	662.0	661.9	661.8	661.6	661.9	662.4	663.0	663.5	664.1	664.1
152.5°	678.0	678.3	678.4	678.7	678.8	679.1	679.2	679.5	679.7	679.9	680.2
155°	702.4	702.4	702.4	702.4	702.4	702.5	702.7	702.8	702.9	703.1	703.6
157.5°	724.3	724.0	723.7	723.3	723.0	722.9	723.1	723.3	723.3	723.5	724.1
160°	737.1	736.7	736.3	735.9	735.5	735.4	735.5	735.6	735.8	735.9	736.5
162.5°	748.5	748.2	747.9	747.7	747.3	747.2	747.2	747.3	747.3	747.3	748.0
165°	763.8	763.5	763.3	763.0	762.7	762.6	762.7	762.9	763.0	763.2	763.7
167.5°	776.7	776.1	775.5	775.0	774.4	774.2	774.2	774.2	774.2	774.2	775.0
170°	783.6	783.1	782.5	782.0	781.4	781.1	781.1	781.1	781.1	781.1	782.0
172.5°	788.5	788.0	787.4	786.9	786.3	786.1	786.1	786.1	786.1	786.1	786.9
175°	794.2	793.6	793.1	792.5	791.9	791.6	791.6	791.6	791.6	791.6	792.5
177.5°	797.0	796.5	796.1	795.7	795.2	795.0	794.9	794.7	794.6	794.5	795.2
180°	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0



TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1411.2	1413.1	1415.0	1415.8	1415.6	1415.5	1415.2	1415.1
5°	1402.5	1404.9	1407.2	1408.2	1407.7	1407.2	1406.8	1406.3
7.5°	1385.1	1386.7	1388.4	1388.9	1388.4	1387.9	1387.3	1386.8
10°	1370.3	1371.0	1371.7	1371.7	1371.0	1370.3	1369.6	1368.9
12.5°	1349.4	1349.9	1350.4	1350.1	1349.0	1348.0	1346.9	1345.8
15°	1314.9	1314.7	1314.5	1313.3	1311.1	1309.0	1306.9	1304.7
17.5°	1271.9	1270.7	1269.6	1268.1	1266.3	1264.6	1262.8	1261.1
20°	1240.3	1239.1	1237.9	1236.3	1234.1	1232.0	1229.9	1227.7
22.5°	1208.9	1206.6	1204.3	1202.2	1200.5	1198.7	1196.9	1195.2
25°	1157.4	1154.3	1151.2	1148.3	1145.7	1143.1	1140.5	1137.9
27.5°	1101.6	1097.3	1093.0	1089.6	1087.0	1084.5	1082.0	1079.5
30°	1061.7	1056.2	1050.8	1046.9	1044.8	1042.7	1040.5	1038.4
32.5°	1022.9	1016.8	1010.8	1006.5	1003.8	1001.1	998.3	995.6
35°	962.6	955.7	948.8	943.7	940.4	937.1	933.7	930.4
37.5°	899.5	891.3	883.0	877.3	874.0	870.8	867.5	864.3
40°	857.8	848.7	839.7	833.8	830.9	828.1	825.2	822.4
42.5°	816.7	807.9	799.3	792.9	788.7	784.6	780.4	776.2
45°	751.0	741.5	732.0	725.4	721.8	718.3	714.7	711.1
47.5°	686.0	676.2	666.5	659.6	655.6	651.6	647.8	643.8
50°	642.0	632.0	622.0	615.3	611.7	608.2	604.6	601.0
52.5°	600.3	589.5	578.8	571.6	568.1	564.5	560.9	557.4
55°	536.9	526.2	515.5	508.2	504.4	500.6	496.8	493.0
57.5°	473.4	463.0	452.5	445.5	442.2	438.8	435.4	432.1
60°	431.4	421.0	410.5	403.5	400.0	396.4	392.8	389.3
62.5°	390.2	380.5	370.8	364.2	360.6	357.0	353.5	349.9
65°	329.6	320.1	310.6	304.0	300.5	296.9	293.3	289.8
67.5°	271.8	263.1	254.4	248.6	245.7	242.9	240.0	237.2
70°	233.4	226.0	218.6	213.5	210.6	207.8	204.9	202.1
72.5°	197.7	190.9	184.1	179.7	177.8	175.9	174.0	172.1
75°	147.8	142.6	137.4	133.9	132.2	130.6	128.9	127.2
77.5°	105.2	101.6	97.8	95.4	94.2	92.9	91.7	90.5
80°	79.1	77.0	74.9	73.5	73.0	72.6	72.1	71.6
82.5°	59.2	58.1	57.2	56.6	56.2	55.9	55.7	55.4
85°	33.7	33.5	33.3	33.0	32.8	32.6	32.3	32.1
87.5°	15.1	15.2	15.4	15.4	15.3	15.1	15.1	15.0
90°	11.2	12.0	12.7	13.2	13.6	14.0	14.4	14.9
92.5°	25.6	26.5	27.4	28.0	28.4	28.6	28.9	29.2
95°	49.6	50.6	51.6	52.2	52.4	52.8	53.0	53.2
97.5°	77.8	78.7	79.6	80.1	80.2	80.4	80.6	80.8
100°	97.3	98.5	99.7	100.5	100.8	101.0	101.3	101.6
102.5°	117.3	118.7	120.0	120.9	121.3	121.6	122.0	122.4
105°	149.7	150.5	151.4	151.9	152.4	152.8	153.2	153.6
107.5°	184.7	185.1	185.5	185.7	185.7	185.6	185.6	185.6
110°	209.0	209.4	209.8	209.9	209.8	209.6	209.5	209.4





TEST NUMBER: P333596-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	233.3	233.5	233.7	233.7	233.4	233.1	232.9	232.7
115°	270.5	270.3	270.1	270.0	269.9	269.7	269.6	269.5
117.5°	307.6	307.7	307.8	307.6	307.0	306.5	305.9	305.4
120°	332.6	332.6	332.6	332.4	331.8	331.3	330.7	330.2
122.5°	357.2	357.1	357.0	356.7	356.2	355.8	355.4	355.0
125°	393.4	393.2	392.8	392.7	392.5	392.4	392.3	392.1
127.5°	429.4	429.2	429.1	428.9	428.6	428.3	428.1	427.8
130°	453.1	453.0	452.9	452.7	452.4	452.1	451.9	451.5
132.5°	475.9	475.8	475.7	475.4	475.1	474.7	474.3	473.9
135°	511.0	511.0	511.0	510.8	510.2	509.7	509.1	508.6
137.5°	545.2	545.3	545.5	545.3	544.5	543.9	543.2	542.5
140°	566.7	567.0	567.3	567.0	566.4	565.7	565.0	564.4
142.5°	587.8	588.0	588.1	587.9	587.2	586.5	585.8	585.1
145°	618.2	618.2	618.2	618.0	617.6	617.2	616.8	616.3
147.5°	646.3	646.7	647.1	646.7	645.8	644.8	644.0	643.0
150°	664.1	664.1	664.1	663.9	663.6	663.4	663.1	662.8
152.5°	680.6	680.9	681.2	681.1	680.6	680.2	679.7	679.1
155°	704.2	704.7	705.3	705.2	704.5	703.9	703.1	702.4
157.5°	724.6	725.2	725.7	725.6	724.6	723.7	722.8	721.9
160°	737.0	737.5	738.1	738.1	737.4	736.7	735.9	735.3
162.5°	748.6	749.3	750.0	749.9	749.1	748.3	747.5	746.7
165°	764.3	764.9	765.3	765.2	764.4	763.6	762.7	761.9
167.5°	775.9	776.7	777.5	777.4	776.7	775.8	774.9	774.0
170°	782.8	783.6	784.4	784.3	783.4	782.4	781.5	780.5
172.5°	787.7	788.5	789.4	789.4	788.5	787.7	786.8	785.9
175°	793.3	794.2	795.0	794.9	793.9	793.0	792.0	791.1
177.5°	795.8	796.5	797.2	797.1	796.3	795.6	794.8	794.0
180°	796.0	796.0	796.0	796.0	796.0	796.0	796.0	796.0

(END OF REPORT)