

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: P333595-927

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333595-927
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: S125RDIP-S1090D810U927-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5913.2 lumens
Efficiency: N/A
Efficacy: 108.7 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

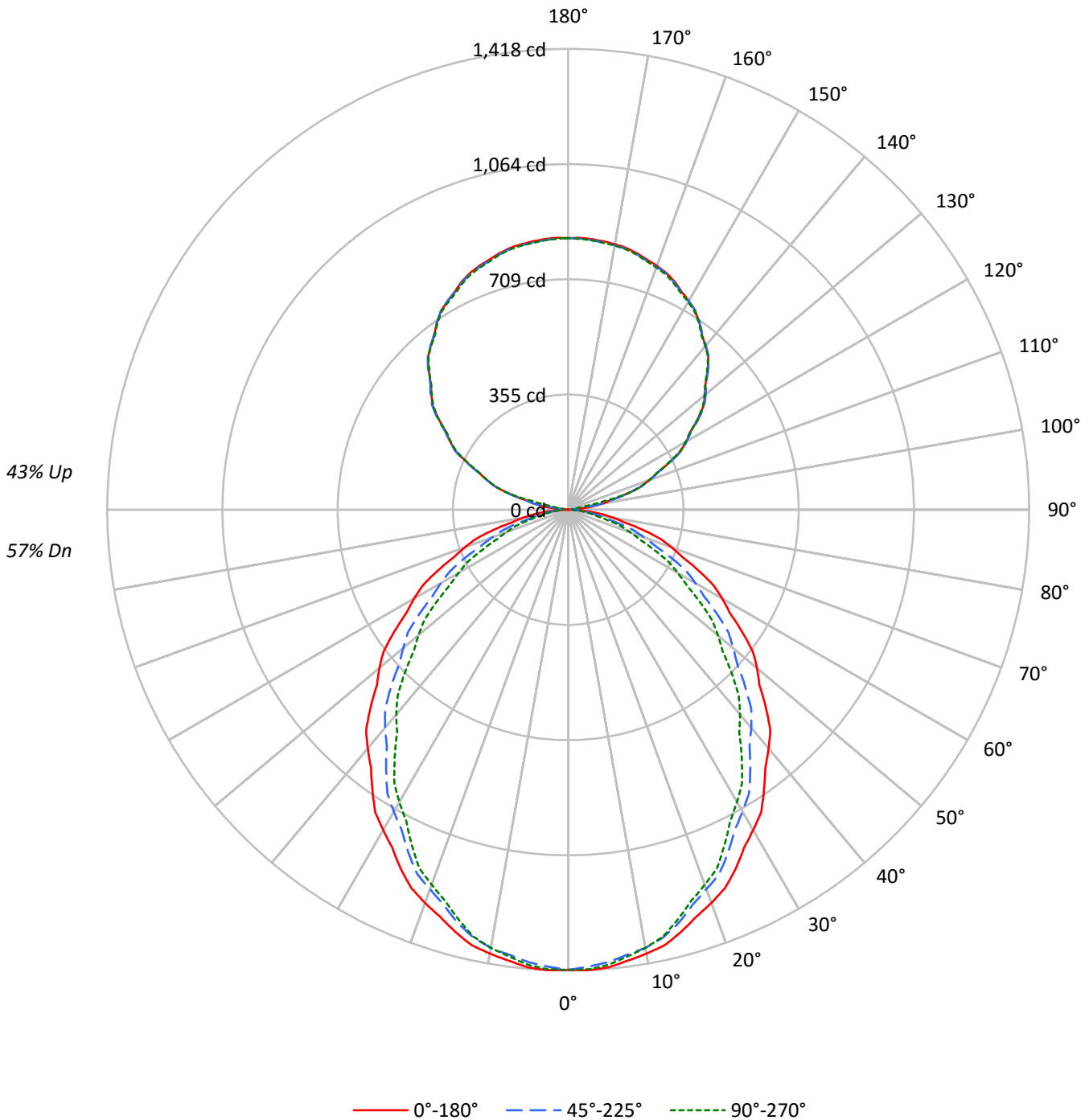
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0													
RCR																																					
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57																			
1	100	95	91	88	92	89	85	82	77	74	72	66	64	62	55	54	53	48																			
2	91	83	77	72	84	78	73	68	68	63	60	58	55	52	49	47	45	41																			
3	83	74	66	60	77	69	62	57	60	55	51	51	48	45	44	41	39	35																			
4	76	65	57	51	71	61	54	49	53	48	43	46	42	38	39	36	33	30																			
5	70	58	50	44	65	55	47	42	48	42	38	41	37	33	35	32	29	26																			
6	64	52	44	38	60	49	42	37	43	37	33	37	33	29	32	29	26	23																			
7	60	47	39	34	55	45	37	32	39	33	29	34	30	26	29	26	23	21																			
8	55	43	35	30	52	41	34	29	36	30	26	31	27	23	27	23	21	18																			
9	52	39	32	27	48	37	30	26	33	27	23	29	24	21	25	21	19	17																			
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	23	20	17	15																			

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	2.3
10°-20°	372.1	6.3
20°-30°	539.6	9.1
30°-40°	614.9	10.4
40°-50°	599.4	10.1
50°-60°	504.6	8.5
60°-70°	353.7	6.0
70°-80°	181.8	3.1
80°-90°	47.7	0.8
90°-100°	30.4	0.5
100°-110°	187.2	3.2
110°-120°	339.5	5.7
120°-130°	435.7	7.4
130°-140°	468.6	7.9
140°-150°	439.8	7.4
150°-160°	355.8	6.0
160°-170°	230.1	3.9
170°-180°	79.4	1.3
0°-30°	1044.8	17.7
0°-40°	1659.7	28.1
0°-60°	2763.6	46.7
0°-90°	3346.8	56.6
90°-120°	557.0	9.4
90°-150°	1901.1	32.2
90°-180°	2566.0	43.4
0°-180°	5913.2	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	4
95°	35	32	10	13	13	45
105°	182	184	185	185	184	193
115°	342	345	346	343	340	339
125°	486	490	491	488	486	434
135°	606	610	609	608	604	467
145°	703	704	704	705	701	440
155°	774	771	772	773	769	357
165°	817	814	814	817	813	231
175°	836	832	833	837	832	80
180°	836	836	836	836	836	



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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°	9.5	8.8	8.0	7.2	6.5	6.5	7.4	8.2	9.0	9.9	10.6
95°	35.3	34.9	34.5	34.1	33.7	30.8	25.6	20.4	15.1	9.9	10.6
97.5°	73.8	74.5	75.2	76.0	76.7	71.9	61.6	51.2	40.8	30.5	26.6
100°	103.5	103.9	104.3	104.7	105.1	105.6	106.2	106.7	107.3	107.8	87.3
102.5°	133.7	134.2	134.8	135.2	135.8	136.2	136.6	136.9	137.2	137.5	133.6
105°	182.1	182.7	183.2	183.8	184.3	184.6	184.6	184.6	184.6	184.6	184.6
107.5°	232.4	232.4	232.4	232.4	232.4	232.6	232.8	233.1	233.4	233.7	233.7
110°	265.1	265.1	265.1	265.1	265.1	265.3	265.5	265.9	266.1	266.4	266.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	295.9	296.2	296.5	296.9	297.2	297.5	297.6	297.8	297.9	298.1	297.6
115°	342.0	342.7	343.3	344.0	344.8	345.2	345.3	345.4	345.5	345.7	345.2
117.5°	389.7	389.7	389.6	389.6	389.6	389.8	390.3	390.9	391.4	391.9	391.2
120°	419.4	419.3	419.1	419.0	418.8	419.0	419.4	419.9	420.3	420.6	420.4
122.5°	445.7	446.2	446.7	447.3	447.7	448.1	448.3	448.5	448.7	448.9	448.6
125°	486.3	487.3	488.2	489.3	490.2	490.7	490.7	490.7	490.7	490.7	490.1
127.5°	525.1	525.8	526.5	527.2	527.8	528.1	528.1	528.0	527.9	527.8	527.5
130°	548.9	549.6	550.2	551.0	551.7	552.1	552.2	552.3	552.5	552.6	552.2
132.5°	572.7	573.5	574.3	575.0	575.9	576.2	575.8	575.5	575.2	574.9	574.8
135°	606.5	607.4	608.2	609.0	609.8	610.1	609.8	609.5	609.3	609.0	608.7
137.5°	637.6	638.3	639.1	639.8	640.5	640.7	640.5	640.2	640.0	639.7	639.8
140°	657.9	658.2	658.5	658.8	659.0	659.1	658.9	658.9	658.7	658.5	658.9
142.5°	676.3	676.4	676.6	676.8	676.9	677.1	677.3	677.5	677.7	677.9	677.9
145°	703.1	703.5	703.7	704.0	704.3	704.4	704.4	704.4	704.4	704.4	704.6
147.5°	726.7	726.7	726.6	726.5	726.5	726.5	726.7	726.8	727.1	727.2	727.4
150°	741.6	741.3	741.0	740.8	740.5	740.5	740.8	741.0	741.3	741.6	741.9
152.5°	756.0	755.3	754.7	754.2	753.5	753.4	753.6	753.9	754.2	754.5	754.7
155°	774.4	773.6	772.8	771.9	771.1	770.8	771.1	771.3	771.7	771.9	772.3
157.5°	788.6	788.1	787.7	787.2	786.6	786.4	786.5	786.5	786.5	786.6	787.0
160°	798.6	797.7	796.9	796.1	795.3	795.0	795.0	795.2	795.4	795.4	796.0
162.5°	806.5	805.6	804.9	804.0	803.2	802.9	803.0	803.1	803.3	803.4	804.1
165°	817.1	816.3	815.5	814.7	813.8	813.5	813.7	813.8	813.9	814.0	814.9
167.5°	825.1	824.3	823.4	822.5	821.7	821.3	821.4	821.6	821.7	821.9	822.8
170°	829.6	828.5	827.6	826.6	825.7	825.3	825.4	825.5	825.7	825.9	827.0
172.5°	832.5	831.6	830.6	829.7	828.6	828.3	828.5	828.8	829.0	829.3	830.3
175°	835.8	834.9	834.1	833.3	832.4	832.1	832.2	832.3	832.5	832.7	833.8
177.5°	837.3	836.5	835.9	835.3	834.6	834.3	834.4	834.5	834.6	834.7	835.5
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8



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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°	11.3	12.0	12.7	13.2	13.6	14.0	14.4	14.9
92.5°	11.3	12.0	12.7	13.1	13.3	13.5	13.7	13.9
95°	11.3	12.0	12.7	13.0	13.0	13.0	13.0	13.0
97.5°	22.7	18.9	15.0	13.0	13.0	13.0	13.0	13.0
100°	66.8	46.3	25.7	15.2	14.7	14.1	13.5	13.0
102.5°	129.8	125.9	122.0	115.4	106.0	96.6	87.3	78.0
105°	184.6	184.6	184.6	184.6	184.4	184.3	184.1	184.0
107.5°	233.8	233.8	233.8	233.6	233.2	232.7	232.3	232.0
110°	265.5	265.1	264.7	264.6	264.7	264.9	265.0	265.1



TEST NUMBER: P333595-927

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	297.1	296.5	296.0	295.6	295.5	295.2	295.1	294.9
115°	344.6	344.0	343.5	342.8	342.0	341.1	340.3	339.5
117.5°	390.5	389.8	389.0	388.5	388.2	387.8	387.5	387.1
120°	420.1	419.9	419.5	419.1	418.4	417.7	417.0	416.3
122.5°	448.4	448.1	447.8	447.3	446.5	445.7	444.9	444.1
125°	489.6	489.0	488.5	488.0	487.6	487.1	486.7	486.3
127.5°	527.2	527.0	526.6	525.9	525.0	523.9	522.9	521.9
130°	551.8	551.4	551.0	550.4	549.7	549.1	548.3	547.6
132.5°	574.7	574.6	574.6	574.2	573.5	572.8	572.1	571.5
135°	608.5	608.2	607.9	607.4	606.5	605.7	604.8	604.0
137.5°	639.8	639.8	639.9	639.6	638.9	638.2	637.5	636.8
140°	659.1	659.4	659.7	659.4	658.5	657.7	656.9	656.1
142.5°	678.0	678.0	678.1	677.7	676.9	676.0	675.3	674.4
145°	704.6	704.8	705.0	704.6	703.8	703.0	702.1	701.3
147.5°	727.5	727.7	727.9	727.5	726.4	725.5	724.5	723.5
150°	742.1	742.4	742.7	742.3	741.2	740.1	738.9	737.8
152.5°	755.0	755.3	755.6	755.2	754.2	753.2	752.3	751.2
155°	772.8	773.2	773.6	773.2	772.1	771.0	769.9	768.8
157.5°	787.4	787.9	788.3	788.0	786.9	785.8	784.7	783.5
160°	796.5	797.1	797.6	797.4	796.3	795.2	794.1	793.0
162.5°	804.9	805.7	806.4	806.3	805.0	803.8	802.6	801.5
165°	815.7	816.5	817.4	817.2	816.1	815.0	813.9	812.8
167.5°	823.9	824.8	825.9	825.7	824.4	823.2	822.0	820.8
170°	828.0	829.1	830.2	830.1	828.9	827.7	826.4	825.2
172.5°	831.2	832.3	833.3	833.1	831.9	830.7	829.4	828.1
175°	834.8	835.9	837.0	836.9	835.8	834.5	833.3	832.0
177.5°	836.3	837.0	837.8	837.8	836.9	836.0	835.1	834.2
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8

(END OF REPORT)