

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: P333590-927

Luminaire Tested: **S125RDIP-S1090D590U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333590-927  
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-S1090D590U927-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4966.7 lumens  
Efficiency: N/A  
Efficacy: 101.8 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

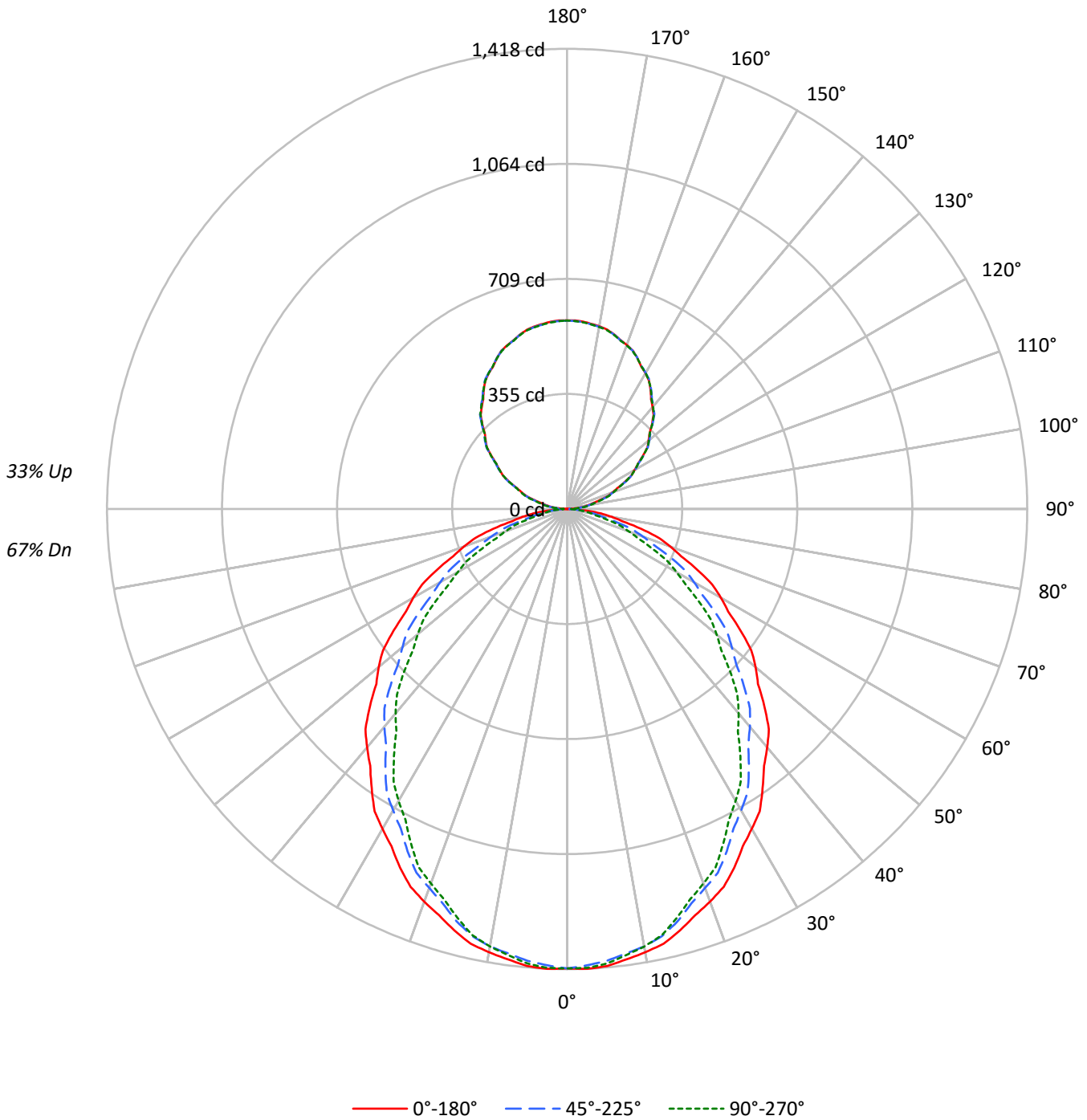
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	102	98	94	90	96	92	89	86	82	80	77	73	71	69	64	63	62	57				
2	93	86	79	74	88	81	76	71	72	68	64	64	61	58	57	54	52	49				
3	85	76	68	62	80	72	65	60	64	59	54	57	53	50	51	47	45	41				
4	78	67	59	53	73	64	56	51	57	51	47	51	46	43	45	42	39	36				
5	72	60	52	46	68	57	50	44	51	45	41	46	41	37	41	37	34	31				
6	66	54	46	40	62	51	44	38	46	40	36	42	37	33	37	33	30	27				
7	61	49	41	35	58	47	39	34	42	36	32	38	33	29	34	30	27	24				
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	31	27	24	22				
9	53	41	33	28	50	39	32	27	36	30	25	32	27	24	29	25	22	20				
10	50	38	30	25	47	36	29	25	33	27	23	30	25	21	27	23	20	18				

**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	2.7
10°-20°	372.1	7.5
20°-30°	539.6	10.9
30°-40°	614.9	12.4
40°-50°	599.4	12.1
50°-60°	504.6	10.2
60°-70°	353.7	7.1
70°-80°	181.8	3.7
80°-90°	47.2	1.0
90°-100°	38.9	0.8
100°-110°	114.9	2.3
110°-120°	194.5	3.9
120°-130°	256.0	5.2
130°-140°	286.9	5.8
140°-150°	281.2	5.7
150°-160°	236.2	4.8
160°-170°	157.0	3.2
170°-180°	54.9	1.1
0°-30°	1044.8	21.0
0°-40°	1659.7	33.4
0°-60°	2763.6	55.6
0°-90°	3346.3	67.4
90°-120°	348.3	7.0
90°-150°	1172.4	23.6
90°-180°	1620.0	32.6
0°-180°	4966.7	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°	0	4	7	10	11	4
95°	29	30	35	38	39	31
105°	103	105	108	111	112	110
115°	195	197	198	197	197	193
125°	284	287	287	287	286	254
135°	370	372	373	373	371	285
145°	448	450	451	451	450	280
155°	512	512	513	514	512	236
165°	557	556	557	558	556	157
175°	579	578	578	580	577	55
180°	581	581	581	581	581	



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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	18.6	17.4	16.2	15.1	14.5	14.4	14.4	14.3	14.3	14.4
90°	0.5	1.3	2.1	2.9	3.6	4.4	5.1	5.9	6.5	7.2	7.8
92.5°	10.9	11.5	12.0	12.6	13.2	13.9	14.7	15.6	16.5	17.3	18.0
95°	29.4	29.5	29.8	29.9	30.2	30.8	31.8	32.8	33.8	34.8	35.5
97.5°	48.8	48.9	49.0	49.0	49.1	49.8	51.3	52.6	54.0	55.4	56.1
100°	63.3	63.3	63.3	63.3	63.3	63.9	65.2	66.5	67.8	69.2	70.0
102.5°	78.8	79.2	79.6	80.0	80.4	81.0	81.6	82.3	82.9	83.6	84.6
105°	103.1	103.5	104.0	104.6	105.0	105.6	106.2	106.8	107.4	108.0	108.6
107.5°	129.8	130.3	130.8	131.3	131.8	132.3	132.8	133.2	133.6	134.1	134.4
110°	148.2	148.7	149.2	149.7	150.3	150.7	150.9	151.2	151.5	151.9	152.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.0	167.3	167.5	167.8	168.1	168.4	168.8	169.1	169.5	169.9	170.1
115°	194.8	195.2	195.6	196.0	196.4	196.7	196.9	197.1	197.3	197.5	197.4
117.5°	222.6	222.8	223.0	223.2	223.3	223.6	223.7	223.9	224.0	224.3	224.3
120°	240.0	240.5	241.0	241.5	242.0	242.2	242.4	242.5	242.6	242.6	242.6
122.5°	258.8	259.0	259.1	259.3	259.5	259.7	260.0	260.2	260.5	260.8	260.7
125°	284.2	284.9	285.4	286.1	286.7	287.0	287.1	287.2	287.3	287.4	287.2
127.5°	311.4	311.7	312.0	312.4	312.8	313.0	313.1	313.2	313.3	313.5	313.4
130°	327.6	328.1	328.7	329.2	329.6	330.0	330.2	330.4	330.6	330.8	330.7
132.5°	343.9	344.8	345.5	346.3	347.2	347.6	347.5	347.5	347.5	347.5	347.4
135°	369.6	370.3	370.9	371.5	372.1	372.4	372.6	372.6	372.7	372.8	372.8
137.5°	393.9	394.5	395.1	395.6	396.2	396.6	396.9	397.0	397.3	397.5	397.6
140°	409.4	410.0	410.4	410.9	411.5	411.9	412.2	412.5	412.7	413.0	413.3
142.5°	425.0	425.4	425.8	426.3	426.7	427.1	427.5	427.9	428.3	428.6	428.7
145°	447.8	448.2	448.7	449.1	449.5	449.8	450.1	450.4	450.8	451.0	451.0
147.5°	469.0	469.2	469.4	469.7	469.9	470.1	470.3	470.6	470.9	471.1	471.3
150°	483.1	483.0	482.9	482.8	482.7	482.8	483.2	483.6	484.0	484.4	484.4
152.5°	494.6	494.8	495.0	495.1	495.2	495.4	495.5	495.7	495.8	496.1	496.3
155°	512.5	512.5	512.5	512.5	512.5	512.5	512.6	512.7	512.9	512.9	513.3
157.5°	528.4	528.1	527.9	527.8	527.5	527.4	527.5	527.7	527.8	527.8	528.2
160°	537.8	537.5	537.2	536.9	536.5	536.5	536.5	536.7	536.8	536.9	537.3
162.5°	546.1	545.9	545.7	545.4	545.2	545.1	545.1	545.2	545.2	545.2	545.7
165°	557.2	557.0	556.8	556.6	556.4	556.3	556.4	556.6	556.7	556.7	557.1
167.5°	566.6	566.3	565.8	565.4	565.0	564.8	564.8	564.8	564.8	564.8	565.4
170°	571.6	571.2	570.8	570.5	570.1	569.9	569.9	569.9	569.9	569.9	570.5
172.5°	575.3	574.9	574.5	574.1	573.7	573.5	573.5	573.5	573.5	573.5	574.1
175°	579.3	578.9	578.5	578.1	577.7	577.6	577.6	577.6	577.6	577.6	578.1
177.5°	581.5	581.1	580.8	580.5	580.1	580.0	579.9	579.8	579.7	579.6	580.1
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7



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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°	14.5	14.6	14.7	14.7	14.5	14.4	14.3	14.2
90°	8.2	8.7	9.3	9.7	10.0	10.2	10.5	10.9
92.5°	18.7	19.3	20.0	20.4	20.7	20.9	21.1	21.3
95°	36.2	36.9	37.6	38.0	38.3	38.5	38.7	38.9
97.5°	56.7	57.4	58.1	58.5	58.5	58.7	58.8	58.9
100°	71.0	71.9	72.7	73.3	73.5	73.8	73.9	74.1
102.5°	85.6	86.6	87.5	88.2	88.5	88.7	89.0	89.3
105°	109.2	109.8	110.4	110.9	111.1	111.5	111.8	112.1
107.5°	134.8	135.1	135.3	135.5	135.5	135.5	135.4	135.4
110°	152.4	152.7	153.0	153.1	153.0	153.0	152.8	152.7





TEST NUMBER: P333590-927

CATALOG NUMBER: S125RDIP-S1090D590U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.2	170.3	170.5	170.5	170.3	170.1	169.9	169.8
115°	197.3	197.2	197.1	197.0	196.9	196.8	196.7	196.6
117.5°	224.4	224.5	224.6	224.4	224.0	223.6	223.2	222.8
120°	242.6	242.6	242.6	242.5	242.1	241.7	241.3	240.9
122.5°	260.6	260.5	260.5	260.2	259.9	259.6	259.3	259.0
125°	287.0	286.8	286.6	286.5	286.4	286.3	286.1	286.1
127.5°	313.2	313.1	313.1	312.9	312.7	312.5	312.3	312.1
130°	330.6	330.5	330.4	330.3	330.0	329.9	329.6	329.5
132.5°	347.2	347.1	347.1	346.8	346.6	346.3	346.0	345.7
135°	372.8	372.8	372.8	372.6	372.2	371.9	371.5	371.1
137.5°	397.8	397.8	398.0	397.8	397.3	396.8	396.3	395.8
140°	413.4	413.7	413.8	413.7	413.2	412.7	412.2	411.7
142.5°	428.8	429.0	429.0	428.9	428.4	427.9	427.4	426.9
145°	451.0	451.0	451.0	450.8	450.6	450.3	450.0	449.6
147.5°	471.6	471.8	472.1	471.8	471.1	470.5	469.8	469.1
150°	484.4	484.4	484.4	484.3	484.2	483.9	483.8	483.5
152.5°	496.5	496.8	497.0	496.9	496.5	496.2	495.8	495.5
155°	513.7	514.1	514.5	514.5	514.0	513.5	512.9	512.5
157.5°	528.6	529.0	529.4	529.3	528.6	528.0	527.4	526.6
160°	537.7	538.1	538.4	538.4	538.0	537.4	536.9	536.5
162.5°	546.1	546.6	547.2	547.1	546.5	545.9	545.3	544.7
165°	557.5	557.9	558.4	558.3	557.7	557.1	556.4	555.9
167.5°	566.0	566.6	567.2	567.2	566.6	565.9	565.3	564.7
170°	571.1	571.6	572.3	572.2	571.6	570.8	570.1	569.4
172.5°	574.7	575.3	575.9	575.9	575.3	574.6	574.0	573.4
175°	578.8	579.3	580.0	579.9	579.2	578.5	577.8	577.1
177.5°	580.6	581.1	581.5	581.5	581.0	580.4	579.8	579.2
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7

(END OF REPORT)