

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: P333316-940

Luminaire Tested: **S125DIP-S1270D810U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333316-940  
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-S1270D810U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7283.1 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

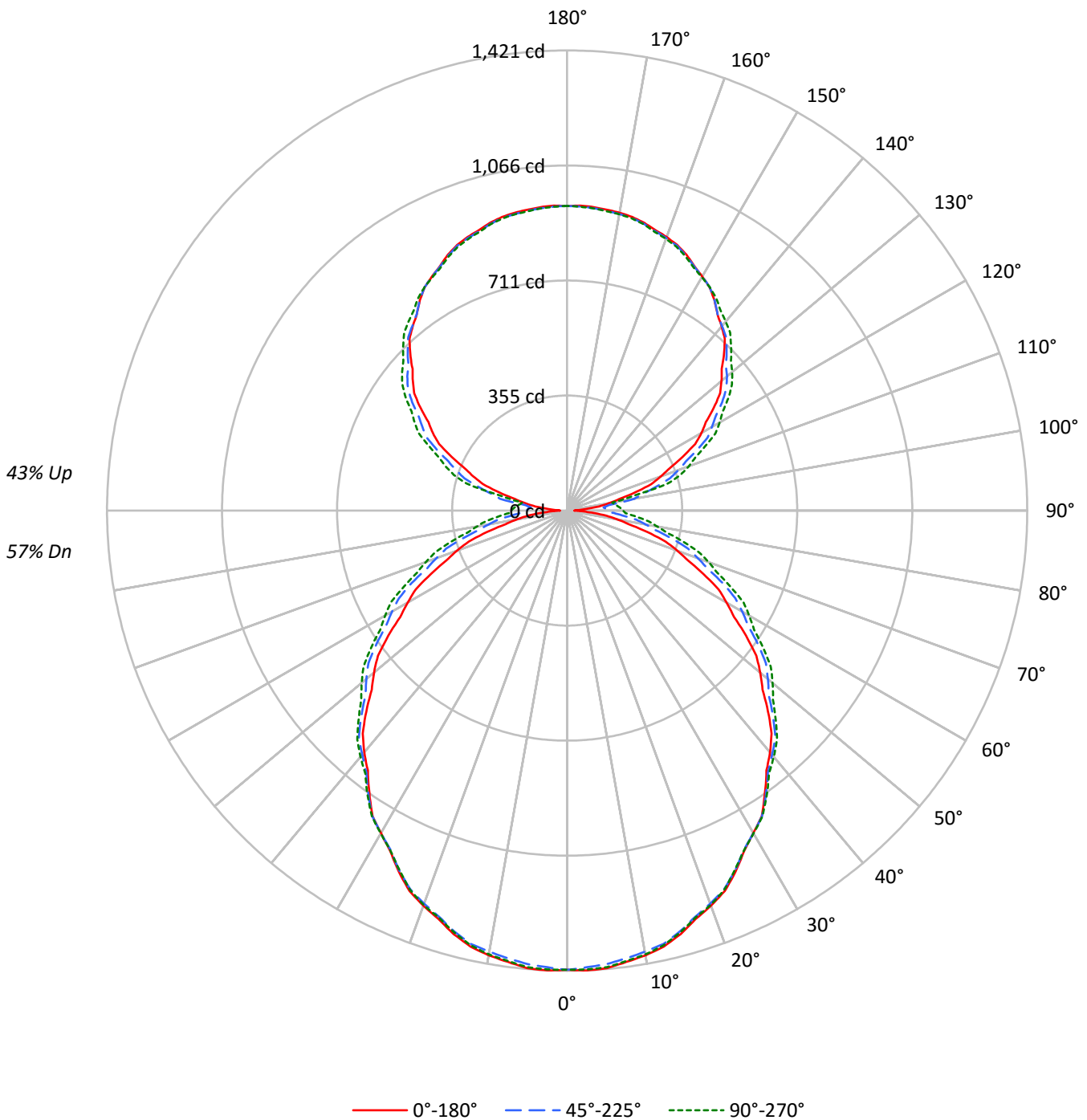
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	98	94	89	86	91	87	84	80	75	72	70	64	62	60	54	52	51	46
2	89	81	75	69	83	76	70	65	65	61	57	56	52	49	47	44	42	38
3	81	71	63	57	75	66	60	54	57	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	37	33	30	27
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	26	23
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	23	21	18
8	54	41	33	28	50	39	31	26	34	28	24	29	24	21	25	21	18	16
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13

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

	0°	45°	90°
0°	9159	9159	9159
5°	9177	8990	9018
10°	9112	8829	8816
15°	9004	8637	8558
20°	8857	8400	8301
25°	8683	8145	7984
30°	8473	7865	7696
35°	8276	7608	7432
40°	8075	7338	7167
45°	7849	7106	6931
50°	7633	6854	6723
55°	7373	6618	6478
60°	7089	6346	6229
65°	6792	6064	5947
70°	6457	5677	5658
75°	5923	5304	5304
80°	5225	4854	4918
85°	4578	4550	4797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.1	1.8
10°-20°	380.7	5.2
20°-30°	566.1	7.8
30°-40°	670.6	9.2
40°-50°	693.3	9.5
50°-60°	638.7	8.8
60°-70°	516.3	7.1
70°-80°	345.7	4.7
80°-90°	181.3	2.5
90°-100°	134.8	1.9
100°-110°	284.9	3.9
110°-120°	431.8	5.9
120°-130°	518.6	7.1
130°-140°	539.8	7.4
140°-150°	497.6	6.8
150°-160°	400.5	5.5
160°-170°	259.0	3.6
170°-180°	89.3	1.2
0°-30°	1080.9	14.8
0°-40°	1751.4	24.0
0°-60°	3083.4	42.3
0°-90°	4126.7	56.7
90°-120°	851.5	11.7
90°-150°	2407.5	33.1
90°-180°	3156.0	43.3
0°-180°	7283.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1418	1415	1406	1416	1415	134
15°	1354	1355	1346	1353	1348	381
25°	1230	1234	1226	1231	1225	566
35°	1065	1074	1070	1074	1075	666
45°	877	892	900	909	911	677
55°	674	696	719	734	740	603
65°	464	496	530	550	556	461
75°	256	292	336	363	371	271
85°	76	123	171	201	213	81
90°	23	73	125	159	172	16
95°	58	91	113	145	156	65
105°	218	244	284	311	321	231
115°	393	408	443	465	470	390
125°	553	558	584	603	609	494
135°	686	689	697	712	716	528
145°	793	793	793	800	802	495
155°	872	868	869	871	865	401
165°	920	916	916	920	915	260
175°	941	937	937	942	937	90
180°	941	941	941	941	941	



TEST NUMBER: P333316-940

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1
2.5°	1421.4	1420.9	1420.4	1420.0	1419.4	1418.4	1416.6	1414.9	1413.2	1411.4	1413.2
5°	1418.1	1417.5	1416.8	1416.2	1415.6	1414.3	1412.0	1409.9	1407.7	1405.6	1408.0
7.5°	1405.6	1405.3	1405.1	1404.8	1404.6	1403.4	1401.1	1398.9	1396.7	1394.5	1396.6
10°	1394.5	1394.5	1394.5	1394.5	1394.5	1393.2	1390.7	1388.3	1385.8	1383.3	1385.5
12.5°	1378.9	1379.1	1379.4	1379.7	1379.8	1379.0	1377.1	1375.0	1373.1	1371.1	1372.8
15°	1354.2	1354.4	1354.8	1355.0	1355.4	1354.4	1352.3	1350.1	1348.0	1345.8	1347.6
17.5°	1321.9	1322.5	1323.1	1323.7	1324.4	1323.6	1321.4	1319.3	1317.1	1314.9	1316.3
20°	1298.5	1299.1	1299.8	1300.4	1301.0	1300.2	1298.1	1295.9	1293.7	1291.6	1292.5
22.5°	1271.8	1272.9	1274.1	1275.1	1276.3	1275.6	1273.2	1270.8	1268.4	1266.0	1267.1
25°	1230.4	1231.4	1232.3	1233.1	1234.1	1233.7	1231.8	1229.9	1228.1	1226.2	1227.4
27.5°	1184.3	1185.6	1187.0	1188.3	1189.7	1189.3	1187.2	1185.1	1183.0	1180.9	1181.8
30°	1149.8	1151.6	1153.4	1155.3	1157.2	1157.2	1155.3	1153.4	1151.6	1149.8	1150.4
32.5°	1118.7	1120.3	1121.9	1123.5	1125.1	1125.2	1123.8	1122.5	1121.1	1119.7	1120.3
35°	1065.0	1067.1	1069.3	1071.5	1073.6	1074.2	1073.3	1072.4	1071.5	1070.5	1071.5
37.5°	1011.3	1013.3	1015.2	1017.3	1019.2	1020.0	1019.8	1019.4	1019.1	1018.8	1020.0
40°	974.6	977.0	979.5	982.0	984.4	985.5	985.3	984.9	984.6	984.4	985.5
42.5°	934.5	937.7	940.9	944.1	947.4	949.3	950.0	950.7	951.4	952.1	953.5
45°	877.3	880.7	884.0	887.4	890.8	893.3	894.9	896.4	898.0	899.5	901.7
47.5°	818.6	821.7	824.9	828.0	831.2	834.1	836.8	839.5	842.0	844.7	847.9
50°	778.6	781.9	785.3	788.7	792.2	795.6	799.0	802.4	805.7	809.1	812.5
52.5°	736.3	740.5	744.6	748.7	752.9	757.0	761.2	765.3	769.4	773.6	777.2
55°	674.3	679.2	684.2	689.1	694.0	699.0	703.9	708.9	713.8	718.8	722.2
57.5°	610.9	616.8	622.8	628.7	634.6	640.4	646.1	651.8	657.5	663.2	667.1
60°	568.6	574.8	580.9	587.2	593.3	599.5	605.7	611.9	618.0	624.2	628.8
62.5°	527.4	533.7	539.8	546.0	552.1	558.7	565.3	571.9	578.6	585.3	590.4
65°	464.3	471.4	478.6	485.7	492.8	500.1	507.5	514.9	522.3	529.7	534.3
67.5°	404.8	411.7	418.6	425.4	432.3	439.5	447.0	454.6	462.1	469.7	475.3
70°	361.5	368.5	375.7	382.8	389.9	397.4	405.5	413.6	421.6	429.6	435.5
72.5°	319.2	326.5	333.9	341.3	348.7	356.7	365.4	374.3	383.0	391.8	398.1
75°	255.8	263.9	271.9	279.9	287.9	296.9	306.7	316.6	326.5	336.4	342.6
77.5°	194.9	204.2	213.5	222.7	232.0	241.4	250.9	260.4	269.9	279.5	286.2
80°	157.1	166.4	175.7	184.9	194.2	204.0	214.5	225.1	235.6	246.1	252.9
82.5°	122.6	132.4	142.1	151.9	161.7	171.9	182.7	193.4	204.2	214.9	221.5
85°	76.5	86.7	96.8	107.1	117.3	127.8	138.6	149.4	160.2	171.0	177.8
87.5°	43.5	53.7	63.8	73.9	84.1	94.5	105.2	115.9	126.6	137.3	144.6
90°	22.9	34.1	45.2	56.4	67.4	78.8	90.4	102.0	113.6	125.2	133.0
92.5°	30.8	39.1	47.3	55.6	63.8	73.8	85.6	97.3	109.0	120.7	128.3
95°	57.8	65.4	72.9	80.5	88.1	94.2	98.8	103.4	108.1	112.6	120.2
97.5°	99.4	107.5	115.6	123.6	131.6	134.9	133.4	131.9	130.4	128.9	131.0
100°	131.8	138.7	145.6	152.6	159.5	168.3	178.8	189.3	199.8	210.4	193.7
102.5°	164.7	171.3	177.8	184.4	191.0	199.3	209.3	219.4	229.3	239.3	241.2
105°	217.6	223.1	228.6	234.3	239.8	247.2	256.5	265.7	275.0	284.3	290.4
107.5°	272.5	276.7	280.9	285.1	289.3	296.0	305.2	314.4	323.6	332.9	338.9
110°	308.2	311.9	315.6	319.3	323.1	329.4	338.3	347.3	356.2	365.2	370.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	342.8	346.2	349.5	352.8	356.1	362.1	370.7	379.2	387.9	396.5	401.5
115°	393.2	396.2	399.1	402.1	405.0	410.6	418.7	427.0	435.2	443.4	448.3
117.5°	445.6	447.0	448.4	449.8	451.1	455.9	464.1	472.3	480.5	488.7	493.1
120°	479.0	479.8	480.6	481.3	482.1	486.3	493.9	501.5	509.1	516.6	521.6
122.5°	507.6	508.5	509.5	510.6	511.6	515.7	522.7	529.8	536.9	543.9	548.7
125°	552.9	553.8	554.6	555.4	556.1	559.5	565.8	571.9	578.1	584.2	588.6
127.5°	595.2	595.8	596.2	596.6	597.1	599.9	604.8	609.8	614.7	619.7	623.9
130°	622.1	622.5	622.9	623.4	623.9	626.3	630.9	635.3	639.8	644.3	648.2
132.5°	647.7	648.5	649.3	650.2	651.0	653.0	655.9	659.0	661.9	664.9	669.1
135°	685.5	686.1	686.7	687.3	688.0	689.2	691.1	692.9	694.7	696.6	700.3
137.5°	720.2	720.8	721.3	721.9	722.5	723.1	723.9	724.7	725.4	726.2	730.0
140°	742.0	742.3	742.6	742.9	743.2	743.4	743.6	743.8	744.0	744.0	747.8
142.5°	762.6	762.6	762.5	762.4	762.4	762.5	762.8	763.0	763.3	763.6	766.6
145°	792.9	792.9	792.9	792.9	792.9	792.9	792.9	792.9	792.9	792.9	794.6
147.5°	818.0	818.0	817.9	817.8	817.8	817.8	818.0	818.1	818.4	818.6	819.2
150°	834.7	834.5	834.1	833.8	833.5	833.5	833.8	834.1	834.5	834.7	835.1
152.5°	851.0	850.2	849.5	848.9	848.2	848.0	848.3	848.6	848.9	849.3	849.5
155°	871.7	870.8	869.9	868.9	868.0	867.6	868.0	868.3	868.6	868.9	869.3
157.5°	887.7	887.2	886.6	886.1	885.5	885.2	885.3	885.3	885.3	885.4	885.8
160°	898.9	898.0	897.1	896.1	895.2	894.8	894.9	895.1	895.3	895.4	896.0
162.5°	907.9	906.9	906.0	905.0	904.1	903.7	903.8	904.0	904.2	904.4	905.2
165°	919.8	918.9	917.9	917.0	916.1	915.7	915.9	916.1	916.1	916.3	917.3
167.5°	928.7	927.8	926.8	925.9	924.9	924.5	924.6	924.8	925.0	925.1	926.2
170°	933.8	932.6	931.6	930.5	929.4	929.0	929.1	929.3	929.4	929.6	930.9
172.5°	937.1	936.0	935.0	933.9	932.7	932.4	932.6	932.9	933.2	933.4	934.6
175°	940.8	939.8	938.9	938.0	937.0	936.7	936.7	936.9	937.1	937.3	938.5
177.5°	942.4	941.6	940.9	940.2	939.4	939.1	939.2	939.3	939.5	939.6	940.5
180°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1	1418.1
2.5°	1414.9	1416.6	1418.4	1419.1	1418.8	1418.6	1418.4	1418.1
5°	1410.5	1413.0	1415.5	1416.6	1416.2	1415.9	1415.6	1415.3
7.5°	1398.7	1401.0	1403.1	1404.0	1403.7	1403.4	1403.1	1402.8
10°	1387.7	1389.8	1392.0	1392.9	1392.6	1392.3	1392.0	1391.7
12.5°	1374.4	1376.1	1377.8	1378.2	1377.4	1376.6	1375.8	1375.0
15°	1349.5	1351.4	1353.2	1353.5	1352.3	1351.0	1349.8	1348.5
17.5°	1317.8	1319.2	1320.6	1321.0	1320.2	1319.5	1318.8	1317.9
20°	1293.4	1294.3	1295.3	1295.7	1295.7	1295.7	1295.7	1295.7
22.5°	1268.4	1269.5	1270.7	1270.9	1270.2	1269.4	1268.6	1267.9
25°	1228.7	1229.9	1231.2	1231.0	1229.5	1227.9	1226.4	1224.9
27.5°	1182.7	1183.5	1184.4	1184.5	1183.9	1183.4	1182.9	1182.3
30°	1151.0	1151.6	1152.3	1152.4	1152.1	1151.7	1151.5	1151.1
32.5°	1121.0	1121.6	1122.2	1122.4	1122.0	1121.8	1121.4	1121.1
35°	1072.4	1073.3	1074.2	1074.7	1074.7	1074.7	1074.7	1074.7
37.5°	1021.3	1022.5	1023.8	1024.3	1024.1	1024.0	1024.0	1023.8
40°	986.8	988.0	989.3	990.2	990.8	991.4	992.0	992.7
42.5°	955.0	956.5	958.0	958.8	958.9	959.0	959.2	959.3
45°	903.8	906.0	908.1	909.4	909.7	910.0	910.3	910.6
47.5°	851.0	854.2	857.4	859.3	860.0	860.6	861.3	862.0
50°	815.9	819.3	822.8	824.9	825.8	826.8	827.7	828.6
52.5°	780.9	784.5	788.1	790.3	790.9	791.7	792.4	793.0
55°	725.6	729.0	732.4	734.7	735.9	737.2	738.4	739.7
57.5°	670.9	674.8	678.8	681.2	682.1	683.0	683.9	684.8
60°	633.5	638.1	642.7	645.5	646.5	647.4	648.4	649.3
62.5°	595.6	600.7	605.8	608.9	610.1	611.4	612.5	613.7
65°	539.0	543.6	548.2	551.2	552.4	553.7	554.9	556.1
67.5°	480.9	486.5	492.1	495.7	497.3	498.9	500.6	502.2
70°	441.3	447.2	453.1	456.9	458.8	460.7	462.5	464.3
72.5°	404.5	410.9	417.2	421.1	422.5	423.8	425.2	426.5
75°	348.8	355.0	361.1	365.1	366.6	368.1	369.7	371.2
77.5°	293.0	299.8	306.7	310.7	311.9	313.1	314.3	315.6
80°	259.7	266.4	273.3	277.3	278.5	279.7	281.0	282.2
82.5°	228.0	234.6	241.1	245.5	247.7	249.9	252.2	254.4
85°	184.6	191.4	198.2	202.9	205.3	207.8	210.3	212.7
87.5°	151.9	159.2	166.4	171.2	173.4	175.7	177.9	180.2
90°	140.9	148.8	156.7	161.9	164.6	167.2	169.8	172.5
92.5°	136.0	143.7	151.2	156.2	158.6	161.0	163.4	165.8
95°	127.8	135.4	142.9	147.8	150.0	152.1	154.3	156.5
97.5°	133.0	135.2	137.3	139.5	141.5	143.7	145.7	147.8
100°	177.1	160.5	143.9	136.3	137.5	138.7	139.9	141.2
102.5°	243.1	245.0	246.8	243.4	234.7	226.0	217.4	208.7
105°	296.7	302.8	309.0	313.1	315.1	317.1	319.1	321.1
107.5°	345.1	351.2	357.4	361.2	362.7	364.1	365.6	367.0
110°	376.0	381.4	386.8	390.7	393.0	395.3	397.6	399.9





TEST NUMBER: P333316-940

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	406.5	411.5	416.6	420.1	422.0	424.0	426.0	427.8
115°	453.3	458.2	463.2	466.0	467.0	467.9	468.8	469.8
117.5°	497.6	502.0	506.5	509.5	511.2	512.9	514.6	516.4
120°	526.5	531.5	536.4	539.4	540.5	541.5	542.6	543.7
122.5°	553.3	558.0	562.8	565.5	566.5	567.5	568.5	569.4
125°	592.9	597.3	601.5	604.3	605.4	606.5	607.5	608.6
127.5°	628.2	632.4	636.7	639.1	639.7	640.4	641.1	641.7
130°	652.0	655.9	659.7	662.0	662.8	663.6	664.3	665.1
132.5°	673.4	677.6	681.9	684.2	684.7	685.3	685.8	686.3
135°	704.0	707.8	711.4	713.6	714.3	714.9	715.4	716.0
137.5°	733.6	737.4	741.0	743.2	743.5	744.0	744.4	744.8
140°	751.4	755.2	758.9	760.9	761.3	761.5	761.8	762.1
142.5°	769.5	772.5	775.4	777.1	777.4	777.8	778.0	778.4
145°	796.3	798.0	799.7	800.7	801.0	801.3	801.6	801.9
147.5°	819.9	820.6	821.3	821.4	820.8	820.2	819.7	819.1
150°	835.4	835.7	836.0	835.7	834.7	833.8	832.9	832.0
152.5°	849.9	850.2	850.5	850.1	849.1	848.0	846.9	845.9
155°	869.9	870.3	870.8	870.4	869.2	867.9	866.7	865.4
157.5°	886.4	886.9	887.3	887.0	885.7	884.5	883.2	882.0
160°	896.6	897.2	897.9	897.6	896.3	895.1	893.9	892.6
162.5°	906.1	907.0	907.8	907.6	906.2	904.8	903.5	902.1
165°	918.2	919.1	920.1	919.9	918.6	917.4	916.1	914.9
167.5°	927.4	928.4	929.6	929.4	928.0	926.7	925.2	923.9
170°	932.0	933.3	934.5	934.4	933.1	931.7	930.2	928.9
172.5°	935.7	936.8	938.0	937.8	936.4	935.0	933.6	932.2
175°	939.7	940.9	942.2	942.1	940.8	939.3	938.0	936.6
177.5°	941.4	942.2	943.1	943.1	942.0	941.0	940.0	939.1
180°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8

(END OF REPORT)