

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: P333307-940

Luminaire Tested: **S125DIP-S1270D590U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333307-940  
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-S1270D590U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6501.3 lumens  
Efficiency: N/A  
Efficacy: 118.0 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: Semi-Direct

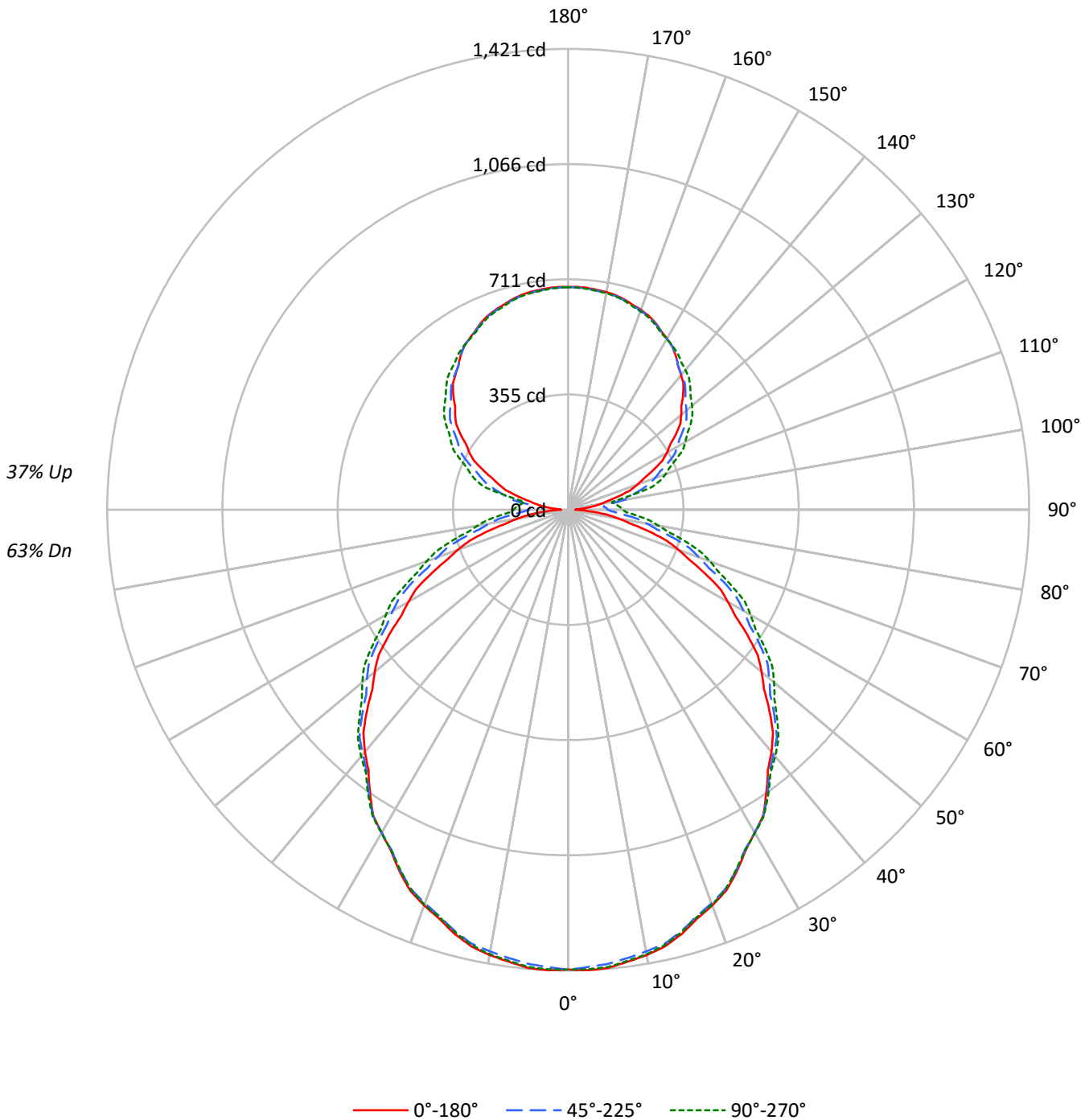
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333307-940

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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	110	110	110	110	104	104	104	104	91	91	91		79	79	79		68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	73		68	66	64		59	57	56	52
2	91	82	76	70	85	77	72	67	68	63	60		59	56	53		51	49	46	42
3	82	72	64	58	77	68	61	55	60	54	50		52	48	44		45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42		46	42	38		40	37	33	30
5	69	57	48	42	64	54	46	40	47	41	36		42	37	33		36	32	29	26
6	64	51	42	36	59	48	40	35	43	36	32		38	32	28		33	29	25	23
7	59	46	38	32	55	43	36	30	39	32	28		34	29	25		30	26	23	20
8	55	42	34	28	51	40	32	27	35	29	25		31	26	22		27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22		29	24	20		25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20		27	22	18		24	19	17	15

**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	2.1
10°-20°	380.7	5.9
20°-30°	566.1	8.7
30°-40°	670.6	10.3
40°-50°	693.3	10.7
50°-60°	638.7	9.8
60°-70°	516.3	7.9
70°-80°	345.7	5.3
80°-90°	180.7	2.8
90°-100°	125.6	1.9
100°-110°	227.9	3.5
110°-120°	328.5	5.1
120°-130°	386.0	5.9
130°-140°	397.2	6.1
140°-150°	363.7	5.6
150°-160°	292.2	4.5
160°-170°	189.0	2.9
170°-180°	65.2	1.0
0°-30°	1080.9	16.6
0°-40°	1751.4	26.9
0°-60°	3083.4	47.4
0°-90°	4126.1	63.5
90°-120°	681.9	10.5
90°-150°	1828.8	28.1
90°-180°	2375.0	36.5
0°-180°	6501.3	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	71	122	155	168	16
95°	47	81	110	141	152	51
105°	162	187	228	255	265	172
115°	289	303	338	360	366	287
125°	405	409	435	454	461	361
135°	501	503	511	528	532	386
145°	579	578	578	586	588	362
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



TEST NUMBER: P333307-940

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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	53.5	63.6	73.7	83.7	94.1	104.8	115.5	126.1	136.8	144.0
90°	22.7	33.5	44.3	55.1	65.9	77.0	88.3	99.5	110.8	122.2	129.8
92.5°	27.8	36.4	44.9	53.4	61.9	71.9	83.4	94.8	106.2	117.7	125.1
95°	47.1	54.8	62.4	70.2	77.8	84.8	91.0	97.2	103.4	109.6	117.0
97.5°	77.0	84.8	92.6	100.5	108.3	113.1	114.7	116.3	118.0	119.6	122.9
100°	100.2	107.1	113.9	120.7	127.6	136.2	146.5	156.9	167.2	177.5	167.1
102.5°	123.9	130.4	136.8	143.2	149.6	157.8	167.7	177.6	187.5	197.5	200.5
105°	162.1	167.5	172.9	178.3	183.7	191.0	200.3	209.6	218.8	228.1	234.3
107.5°	201.7	205.9	210.2	214.4	218.6	225.2	234.3	243.4	252.5	261.7	267.9
110°	227.5	231.2	234.9	238.6	242.3	248.6	257.4	266.4	275.3	284.1	289.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	252.7	255.9	259.2	262.4	265.6	271.5	280.1	288.6	297.2	305.7	310.9
115°	289.2	291.9	294.6	297.4	300.1	305.5	313.7	321.8	329.9	338.1	343.2
117.5°	327.0	328.3	329.8	331.2	332.5	337.2	345.3	353.3	361.3	369.3	374.1
120°	351.4	352.2	353.0	353.8	354.6	358.7	366.2	373.6	381.1	388.5	393.6
122.5°	371.8	372.7	373.5	374.4	375.3	379.2	386.2	393.2	400.3	407.3	412.1
125°	404.9	405.5	405.9	406.4	406.9	410.2	416.3	422.6	428.7	434.9	439.4
127.5°	435.4	435.7	435.9	436.1	436.4	439.1	444.1	449.1	454.1	459.1	463.3
130°	455.0	455.2	455.4	455.7	455.9	458.3	462.7	467.2	471.6	476.1	480.0
132.5°	473.3	473.9	474.6	475.1	475.7	477.6	480.6	483.8	486.9	489.9	494.2
135°	500.9	501.2	501.6	501.9	502.3	503.5	505.4	507.4	509.3	511.2	515.1
137.5°	526.1	526.5	526.8	527.2	527.4	528.1	528.9	529.8	530.6	531.5	535.1
140°	541.7	541.9	542.2	542.3	542.6	542.8	543.0	543.2	543.4	543.6	547.2
142.5°	556.8	556.6	556.5	556.4	556.3	556.3	556.6	556.8	557.1	557.2	560.2
145°	578.8	578.7	578.6	578.5	578.5	578.5	578.5	578.5	578.5	578.5	580.1
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.8
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



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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°	151.2	158.5	165.7	170.4	172.6	174.9	177.1	179.3
90°	137.5	145.2	152.8	157.9	160.4	162.9	165.4	167.9
92.5°	132.5	140.0	147.4	152.3	154.6	156.9	159.3	161.6
95°	124.4	131.7	139.1	143.8	146.0	148.2	150.3	152.5
97.5°	126.2	129.5	132.8	135.5	137.6	139.6	141.8	143.8
100°	156.8	146.4	136.1	131.6	133.0	134.4	135.8	137.2
102.5°	203.6	206.6	209.6	208.3	202.4	196.6	190.8	184.9
105°	240.4	246.6	252.8	256.9	259.0	261.0	263.1	265.1
107.5°	273.9	280.1	286.2	290.1	291.7	293.3	294.8	296.4
110°	295.2	300.7	306.2	310.1	312.4	314.7	317.0	319.2





TEST NUMBER: P333307-940

CATALOG NUMBER: S125DIP-S1270D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	316.1	321.3	326.5	330.1	332.1	334.1	336.1	338.1
115°	348.3	353.5	358.6	361.7	362.8	364.0	365.2	366.4
117.5°	378.7	383.3	388.1	391.3	393.1	394.8	396.7	398.5
120°	398.6	403.6	408.7	411.8	413.1	414.4	415.6	417.0
122.5°	416.9	421.6	426.4	429.4	430.6	431.8	433.0	434.2
125°	443.9	448.4	452.9	455.8	456.9	458.2	459.3	460.6
127.5°	467.7	472.0	476.4	478.9	479.9	480.9	481.9	482.8
130°	484.0	488.0	492.0	494.5	495.4	496.4	497.4	498.4
132.5°	498.5	502.7	506.9	509.4	510.1	511.0	511.7	512.4
135°	518.8	522.6	526.4	528.7	529.6	530.5	531.3	532.2
137.5°	538.9	542.5	546.3	548.4	549.0	549.7	550.4	551.0
140°	550.8	554.5	558.1	560.2	560.7	561.3	561.9	562.4
142.5°	563.1	566.1	569.0	570.8	571.3	571.9	572.5	573.0
145°	581.8	583.4	585.1	586.2	586.7	587.3	587.9	588.4
147.5°	598.4	599.1	599.7	599.9	599.6	599.4	599.1	598.9
150°	609.4	609.7	609.8	609.7	609.1	608.5	607.9	607.3
152.5°	620.0	620.3	620.5	620.2	619.5	618.7	618.0	617.2
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)