

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: P333262-940

Luminaire Tested: **S125DIP-S1090D590U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333262-940  
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-S1090D590U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 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: 5912.0 lumens  
Efficiency: N/A  
Efficacy: 121.1 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

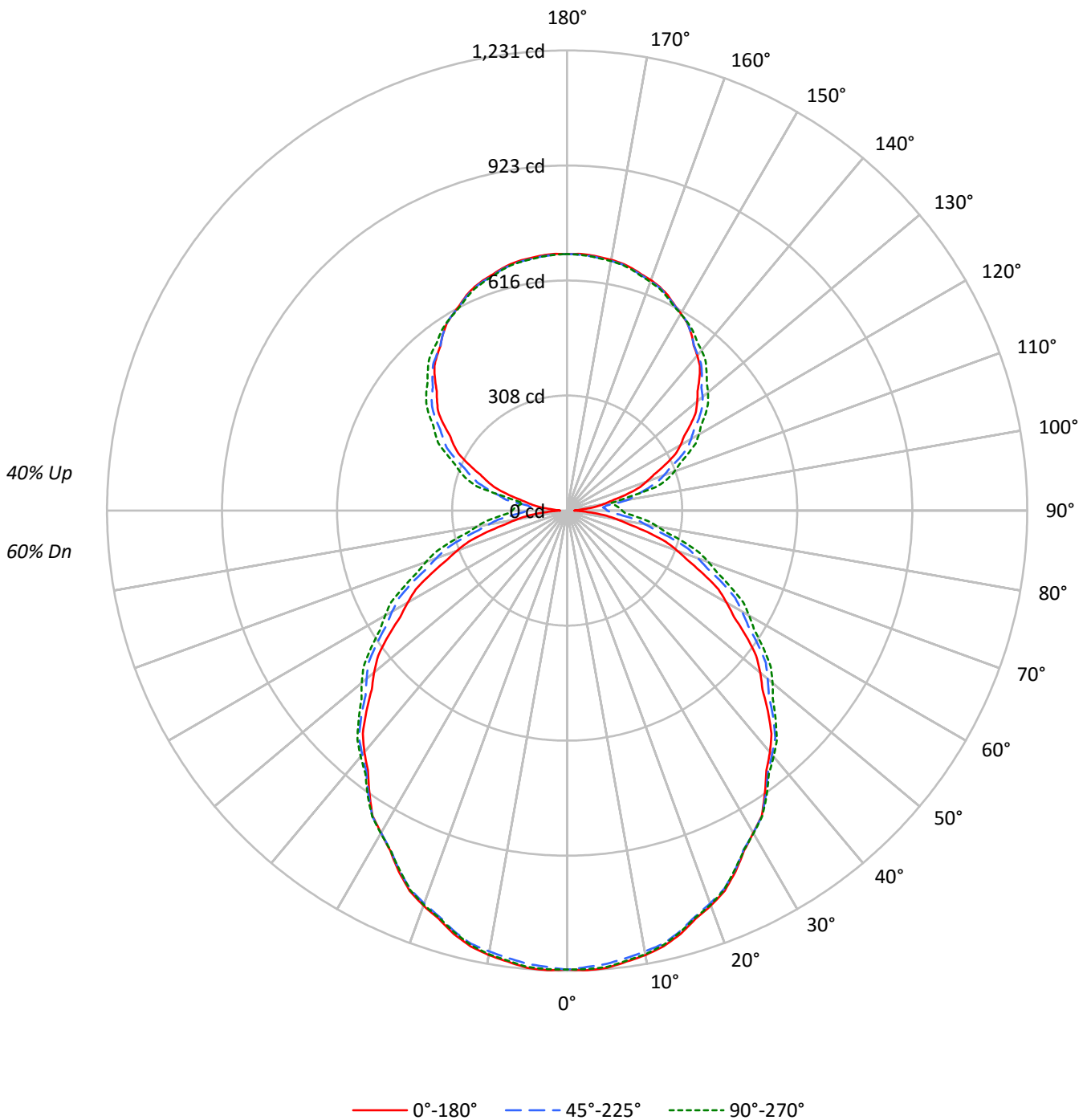
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66
1	99	94	90	86	92	88	85	81	77	74	71	66	64	62	57	55	54
2	90	82	75	70	84	77	71	66	67	62	58	58	54	51	49	47	45
3	82	72	64	58	76	67	60	55	59	53	49	51	47	43	43	40	38
4	75	63	55	49	70	59	52	46	52	46	41	45	40	37	39	35	32
5	69	56	48	42	64	53	45	40	46	40	36	40	36	32	35	31	28
6	63	51	42	36	59	48	40	34	42	36	31	36	31	28	31	28	24
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	29	25	22
8	54	41	33	28	51	39	32	27	35	29	24	30	25	22	26	22	19
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	17
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16

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

	0°	45°	90°
0°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	2.0
10°-20°	329.6	5.6
20°-30°	490.2	8.3
30°-40°	580.6	9.8
40°-50°	600.3	10.2
50°-60°	553.0	9.4
60°-70°	447.0	7.6
70°-80°	299.4	5.1
80°-90°	156.7	2.6
90°-100°	112.0	1.9
100°-110°	217.9	3.7
110°-120°	321.8	5.4
120°-130°	382.2	6.5
130°-140°	395.5	6.7
140°-150°	363.4	6.1
150°-160°	292.2	4.9
160°-170°	189.0	3.2
170°-180°	65.2	1.1
0°-30°	935.9	15.8
0°-40°	1516.5	25.7
0°-60°	2669.7	45.2
0°-90°	3572.8	60.4
90°-120°	651.8	11.0
90°-150°	1792.9	30.3
90°-180°	2339.0	39.6
0°-180°	5912.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	70
90°	20	62	107	136	147	14
95°	45	74	96	124	134	49
105°	160	182	218	241	250	170
115°	288	300	331	350	355	285
125°	404	408	431	447	452	361
135°	500	503	510	524	527	386
145°	579	578	578	585	587	361
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: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.6	46.4	55.1	63.8	72.6	81.6	90.9	100.1	109.4	118.6	124.9
90°	19.8	29.2	38.7	48.2	57.6	67.3	77.2	87.1	96.9	106.8	113.6
92.5°	25.1	32.5	39.8	47.0	54.3	63.0	72.9	83.0	93.0	103.0	109.5
95°	44.7	51.3	57.9	64.5	71.1	76.8	81.6	86.4	91.2	96.0	102.5
97.5°	74.7	81.6	88.5	95.3	102.2	105.8	106.1	106.4	106.6	106.9	109.3
100°	98.2	104.2	110.1	116.1	122.1	129.5	138.6	147.6	156.6	165.6	174.4
102.5°	122.1	127.7	133.3	138.9	144.5	151.7	160.2	168.9	177.5	186.1	194.7
105°	160.4	165.1	169.9	174.6	179.3	185.7	193.8	201.8	209.8	217.8	225.7
107.5°	200.3	203.9	207.6	211.2	214.8	220.6	228.5	236.5	244.4	252.4	259.6
110°	226.1	229.3	232.6	235.8	239.0	244.5	252.2	259.9	267.6	275.4	280.1



TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	251.4	254.2	257.1	259.9	262.8	267.9	275.3	282.7	290.2	297.6	301.9
115°	288.0	290.5	292.9	295.3	297.8	302.6	309.6	316.7	323.8	330.8	335.2
117.5°	326.0	327.3	328.4	329.7	330.8	334.9	342.0	349.0	356.0	363.0	366.9
120°	350.4	351.2	351.9	352.5	353.2	356.8	363.3	369.8	376.3	382.7	387.1
122.5°	371.0	371.8	372.6	373.4	374.3	377.7	383.8	389.9	396.0	402.1	406.2
125°	404.2	404.7	405.2	405.7	406.3	409.2	414.6	419.9	425.3	430.6	434.4
127.5°	434.8	435.2	435.4	435.7	436.0	438.4	442.6	447.0	451.3	455.6	459.3
130°	454.3	454.7	455.0	455.2	455.6	457.6	461.5	465.4	469.2	473.1	476.4
132.5°	473.0	473.6	474.1	474.7	475.4	477.0	479.7	482.2	484.9	487.5	491.2
135°	500.5	500.9	501.3	501.7	502.1	503.2	504.8	506.4	508.1	509.7	513.0
137.5°	525.8	526.1	526.6	526.9	527.3	527.8	528.5	529.2	529.9	530.7	533.9
140°	541.5	541.7	542.0	542.2	542.4	542.6	542.8	542.9	543.1	543.2	546.4
142.5°	556.5	556.5	556.4	556.3	556.2	556.3	556.5	556.7	557.0	557.1	559.7
145°	578.6	578.6	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	579.9
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.7
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



TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	131.2	137.4	143.7	147.8	149.7	151.7	153.6	155.6
90°	120.3	127.0	133.8	138.2	140.4	142.6	144.8	147.0
92.5°	116.0	122.5	129.0	133.3	135.3	137.3	139.4	141.4
95°	108.9	115.4	121.8	126.0	127.9	129.7	131.6	133.5
97.5°	111.7	114.1	116.6	118.7	120.6	122.3	124.2	126.0
100°	143.1	131.9	120.6	115.7	116.7	117.9	119.0	120.2
102.5°	190.6	192.8	195.0	193.1	187.0	180.9	174.8	168.7
105°	228.5	233.9	239.2	242.8	244.5	246.3	248.1	249.8
107.5°	263.0	268.3	273.6	277.0	278.2	279.6	280.9	282.2
110°	284.8	289.5	294.4	297.7	299.7	301.7	303.6	305.6





TEST NUMBER: P333262-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	306.4	310.9	315.3	318.3	320.1	321.8	323.5	325.2
115°	339.6	343.9	348.3	350.9	351.9	352.8	353.7	354.6
117.5°	371.0	374.9	378.9	381.6	383.1	384.6	386.2	387.7
120°	391.4	395.7	400.0	402.7	403.8	404.8	405.8	406.9
122.5°	410.4	414.5	418.6	421.1	422.0	422.9	423.9	424.9
125°	438.3	442.1	445.9	448.4	449.3	450.3	451.4	452.4
127.5°	463.1	466.7	470.5	472.7	473.4	474.1	474.8	475.5
130°	479.9	483.3	486.7	488.7	489.5	490.4	491.1	491.9
132.5°	494.9	498.6	502.2	504.4	504.9	505.5	506.0	506.6
135°	516.2	519.5	522.7	524.7	525.4	526.0	526.6	527.4
137.5°	537.1	540.2	543.4	545.3	545.7	546.3	546.7	547.2
140°	549.6	552.7	555.9	557.7	558.0	558.5	558.8	559.2
142.5°	562.3	564.8	567.4	568.9	569.3	569.6	570.1	570.4
145°	581.4	582.8	584.2	585.1	585.6	585.9	586.4	586.7
147.5°	598.3	598.9	599.4	599.6	599.2	598.9	598.5	598.2
150°	609.4	609.7	609.8	609.7	609.0	608.4	607.8	607.2
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)