

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: P333262-935

Luminaire Tested: **S125DIP-S1090D590U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333262-935  
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-S1090D590U935-4F0-1E-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: 5708.4 lumens  
Efficiency: N/A  
Efficacy: 117.0 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

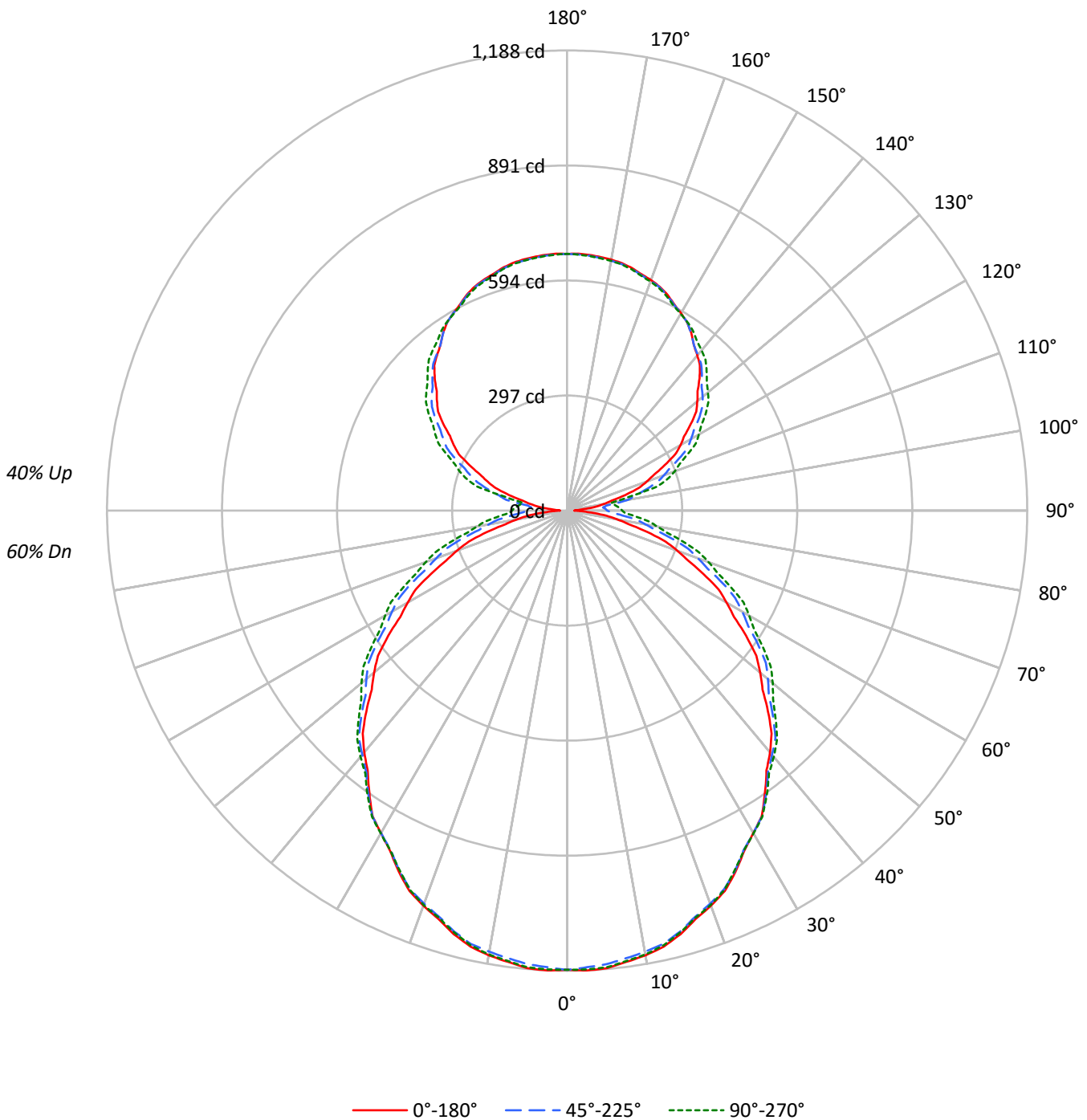
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333262-935

CATALOG NUMBER: S125DIP-S1090D590U935-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333262-935

CATALOG NUMBER: S125DIP-S1090D590U935-4F0-1E-UDD-D

**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	102	102	102	102	89	89	89		77	77	77		66	66	66	60
1	99	94	90	86	92	88	85	81	77	74	71		66	64	62		57	55	54	49
2	90	82	75	70	84	77	71	66	67	62	58		58	54	51		49	47	45	40
3	82	72	64	58	76	67	60	55	59	53	49		51	47	43		43	40	38	34
4	75	63	55	49	70	59	52	46	52	46	41		45	40	37		39	35	32	29
5	69	56	48	42	64	53	45	40	46	40	36		40	36	32		35	31	28	25
6	63	51	42	36	59	48	40	34	42	36	31		36	31	28		31	28	24	22
7	58	46	37	32	54	43	35	30	38	32	27		33	28	24		29	25	22	19
8	54	41	33	28	51	39	32	27	35	29	24		30	25	22		26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22		28	23	20		24	20	17	15
10	47	35	27	22	44	33	26	21	29	24	20		26	21	18		23	19	16	14

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

	0°	45°	90°
0°	7657	7657	7657
5°	7672	7516	7539
10°	7617	7381	7370
15°	7527	7221	7155
20°	7405	7022	6940
25°	7259	6810	6675
30°	7083	6575	6434
35°	6919	6361	6214
40°	6751	6134	5991
45°	6562	5941	5794
50°	6381	5731	5621
55°	6164	5532	5416
60°	5927	5306	5207
65°	5679	5069	4972
70°	5397	4745	4731
75°	4952	4435	4434
80°	4367	4057	4111
85°	3824	3802	4009



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.1	2.0
10°-20°	318.2	5.6
20°-30°	473.3	8.3
30°-40°	560.6	9.8
40°-50°	579.6	10.2
50°-60°	533.9	9.4
60°-70°	431.6	7.6
70°-80°	289.0	5.1
80°-90°	151.3	2.6
90°-100°	108.2	1.9
100°-110°	210.4	3.7
110°-120°	310.7	5.4
120°-130°	369.1	6.5
130°-140°	381.9	6.7
140°-150°	350.9	6.1
150°-160°	282.1	4.9
160°-170°	182.5	3.2
170°-180°	62.9	1.1
0°-30°	903.6	15.8
0°-40°	1464.2	25.7
0°-60°	2577.8	45.2
0°-90°	3449.7	60.4
90°-120°	629.4	11.0
90°-150°	1731.1	30.3
90°-180°	2259.0	39.6
0°-180°	5708.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1186	1183	1175	1184	1183	112
15°	1132	1133	1125	1132	1128	319
25°	1029	1032	1025	1029	1024	473
35°	890	898	895	898	898	557
45°	733	746	752	760	761	566
55°	564	582	601	613	618	504
65°	388	415	443	460	465	385
75°	214	244	281	304	310	227
85°	64	102	143	168	178	68
90°	19	60	103	131	142	14
95°	43	71	93	120	129	48
105°	155	176	210	233	241	164
115°	278	290	319	338	342	276
125°	390	394	416	432	437	348
135°	483	485	492	506	509	372
145°	559	558	558	565	566	349
155°	614	611	612	613	610	283
165°	648	645	646	648	644	183
175°	663	660	660	664	660	63
180°	663	663	663	663	663	



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CATALOG NUMBER: S125DIP-S1090D590U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1188.4	1187.9	1187.5	1187.1	1186.7	1185.8	1184.3	1182.8	1181.5	1180.0	1181.5
5°	1185.6	1185.1	1184.6	1184.0	1183.5	1182.3	1180.5	1178.7	1176.9	1175.1	1177.2
7.5°	1175.1	1174.9	1174.7	1174.5	1174.3	1173.3	1171.4	1169.5	1167.7	1165.8	1167.6
10°	1165.8	1165.8	1165.8	1165.8	1165.8	1164.8	1162.7	1160.6	1158.6	1156.5	1158.3
12.5°	1152.8	1153.0	1153.2	1153.4	1153.7	1152.9	1151.2	1149.6	1148.0	1146.2	1147.7
15°	1132.1	1132.4	1132.6	1132.9	1133.2	1132.4	1130.6	1128.8	1127.0	1125.2	1126.7
17.5°	1105.1	1105.6	1106.1	1106.6	1107.2	1106.6	1104.7	1102.9	1101.1	1099.3	1100.5
20°	1085.6	1086.2	1086.7	1087.2	1087.7	1087.0	1085.2	1083.4	1081.6	1079.8	1080.6
22.5°	1063.2	1064.2	1065.1	1066.1	1067.0	1066.4	1064.5	1062.5	1060.4	1058.4	1059.4
25°	1028.6	1029.4	1030.2	1031.0	1031.7	1031.4	1029.8	1028.3	1026.7	1025.2	1026.2
27.5°	990.1	991.2	992.3	993.5	994.6	994.3	992.6	990.8	989.0	987.3	988.0
30°	961.2	962.8	964.3	965.9	967.4	967.4	965.9	964.3	962.8	961.2	961.7
32.5°	935.2	936.5	937.9	939.3	940.6	940.6	939.5	938.4	937.3	936.2	936.7
35°	890.4	892.2	894.0	895.8	897.6	898.1	897.3	896.6	895.8	895.0	895.8
37.5°	845.5	847.1	848.8	850.4	852.0	852.8	852.6	852.3	852.0	851.8	852.8
40°	814.8	816.8	818.9	821.0	823.0	824.0	823.7	823.5	823.2	822.9	824.0
42.5°	781.3	784.0	786.7	789.4	792.0	793.7	794.3	794.8	795.4	796.0	797.2
45°	733.4	736.2	739.1	741.9	744.8	746.8	748.1	749.4	750.7	752.0	753.8
47.5°	684.4	687.0	689.7	692.2	694.9	697.3	699.6	701.8	704.0	706.2	708.9
50°	650.9	653.8	656.6	659.4	662.3	665.1	668.0	670.8	673.6	676.5	679.3
52.5°	615.5	619.1	622.5	625.9	629.4	632.8	636.4	639.8	643.3	646.7	649.8
55°	563.7	567.8	572.0	576.1	580.2	584.4	588.5	592.6	596.8	600.9	603.7
57.5°	510.7	515.7	520.6	525.6	530.5	535.5	540.2	544.9	549.7	554.4	557.7
60°	475.4	480.5	485.7	490.9	496.0	501.2	506.4	511.5	516.7	521.9	525.7
62.5°	441.0	446.2	451.3	456.5	461.7	467.0	472.6	478.2	483.8	489.3	493.6
65°	388.2	394.2	400.1	406.0	412.0	418.0	424.2	430.4	436.6	442.8	446.7
67.5°	338.5	344.2	349.9	355.7	361.4	367.4	373.8	380.0	386.3	392.6	397.4
70°	302.2	308.2	314.1	320.0	326.0	332.3	339.0	345.7	352.4	359.1	364.0
72.5°	266.9	273.0	279.1	285.3	291.4	298.2	305.6	312.9	320.2	327.5	332.9
75°	213.9	220.6	227.3	234.0	240.7	248.2	256.5	264.8	273.0	281.3	286.5
77.5°	163.0	170.7	178.5	186.2	194.0	201.8	209.7	217.7	225.7	233.6	239.3
80°	131.3	139.1	146.8	154.5	162.3	170.6	179.3	188.1	196.9	205.7	211.4
82.5°	102.5	110.6	118.8	127.0	135.2	143.7	152.7	161.7	170.7	179.7	185.2
85°	63.9	72.4	80.9	89.5	98.0	106.8	115.8	124.8	133.9	142.9	148.6
87.5°	36.3	44.8	53.2	61.6	70.1	78.8	87.7	96.7	105.6	114.5	120.6
90°	19.1	28.2	37.4	46.5	55.6	65.0	74.6	84.1	93.6	103.1	109.7
92.5°	24.3	31.3	38.4	45.4	52.4	60.8	70.4	80.2	89.8	99.4	105.7
95°	43.1	49.5	55.9	62.3	68.6	74.1	78.8	83.4	88.1	92.7	98.9
97.5°	72.2	78.8	85.4	92.0	98.7	102.1	102.5	102.7	103.0	103.2	105.6
100°	94.8	100.6	106.3	112.1	117.9	125.0	133.8	142.5	151.2	159.9	149.0
102.5°	117.9	123.3	128.7	134.1	139.6	146.5	154.7	163.1	171.4	179.7	181.8
105°	154.9	159.5	164.0	168.6	173.1	179.3	187.1	194.8	202.6	210.3	215.5
107.5°	193.4	196.9	200.4	203.9	207.4	213.0	220.7	228.3	236.0	243.7	248.7
110°	218.3	221.4	224.5	227.6	230.7	236.1	243.5	251.0	258.4	265.9	270.4



TEST NUMBER: P333262-935

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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	242.7	245.5	248.2	251.0	253.7	258.6	265.8	272.9	280.2	287.3	291.5
115°	278.1	280.5	282.8	285.2	287.6	292.1	298.9	305.8	312.6	319.4	323.6
117.5°	314.8	316.0	317.1	318.3	319.4	323.4	330.2	337.0	343.7	350.5	354.3
120°	338.4	339.1	339.8	340.4	341.0	344.5	350.8	357.1	363.3	369.5	373.8
122.5°	358.3	359.0	359.8	360.6	361.4	364.7	370.6	376.5	382.4	388.2	392.2
125°	390.3	390.8	391.2	391.8	392.3	395.1	400.3	405.4	410.6	415.8	419.5
127.5°	419.8	420.2	420.4	420.7	421.0	423.3	427.4	431.6	435.8	439.9	443.5
130°	438.7	439.0	439.3	439.5	439.9	441.9	445.6	449.4	453.1	456.8	460.0
132.5°	456.7	457.3	457.8	458.4	459.0	460.5	463.1	465.6	468.2	470.7	474.3
135°	483.3	483.6	484.1	484.4	484.8	485.9	487.4	489.0	490.6	492.1	495.3
137.5°	507.6	508.0	508.4	508.8	509.1	509.6	510.3	511.0	511.7	512.4	515.5
140°	522.9	523.1	523.3	523.5	523.7	523.9	524.1	524.2	524.3	524.5	527.5
142.5°	537.4	537.4	537.3	537.2	537.1	537.2	537.4	537.5	537.8	538.0	540.4
145°	558.7	558.7	558.6	558.6	558.5	558.5	558.5	558.5	558.5	558.5	559.9
147.5°	576.2	576.2	576.1	576.1	576.0	576.1	576.2	576.4	576.4	576.6	577.1
150°	588.0	587.8	587.5	587.4	587.1	587.1	587.4	587.5	587.8	588.0	588.2
152.5°	599.4	598.9	598.5	598.0	597.4	597.4	597.5	597.8	598.0	598.2	598.5
155°	614.1	613.4	612.8	612.1	611.4	611.2	611.4	611.7	611.8	612.1	612.4
157.5°	625.3	624.9	624.6	624.1	623.8	623.6	623.6	623.6	623.6	623.7	624.1
160°	633.2	632.6	631.9	631.2	630.6	630.3	630.4	630.5	630.6	630.8	631.2
162.5°	639.5	638.9	638.2	637.5	636.9	636.6	636.7	636.8	636.9	637.1	637.7
165°	647.9	647.3	646.6	646.0	645.3	645.1	645.1	645.2	645.4	645.5	646.1
167.5°	654.2	653.6	652.9	652.2	651.5	651.3	651.3	651.4	651.5	651.7	652.5
170°	657.8	657.0	656.3	655.5	654.7	654.4	654.4	654.6	654.7	654.8	655.7
172.5°	660.1	659.4	658.6	657.8	657.0	656.8	656.9	657.2	657.4	657.5	658.3
175°	662.7	662.0	661.3	660.7	660.0	659.8	659.9	660.0	660.1	660.2	661.1
177.5°	663.8	663.3	662.8	662.3	661.8	661.5	661.6	661.7	661.8	661.9	662.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1182.8	1184.3	1185.8	1186.4	1186.2	1185.9	1185.8	1185.6
5°	1179.2	1181.3	1183.4	1184.3	1184.0	1183.8	1183.5	1183.3
7.5°	1169.4	1171.2	1173.0	1173.8	1173.5	1173.3	1173.0	1172.8
10°	1160.1	1161.9	1163.7	1164.5	1164.2	1164.0	1163.7	1163.5
12.5°	1149.1	1150.5	1151.8	1152.2	1151.6	1150.9	1150.2	1149.5
15°	1128.3	1129.8	1131.4	1131.6	1130.6	1129.5	1128.5	1127.5
17.5°	1101.7	1102.9	1104.1	1104.3	1103.7	1103.1	1102.5	1101.9
20°	1081.3	1082.1	1082.9	1083.3	1083.3	1083.3	1083.3	1083.3
22.5°	1060.4	1061.4	1062.3	1062.5	1061.9	1061.3	1060.7	1060.1
25°	1027.3	1028.3	1029.3	1029.2	1027.9	1026.6	1025.3	1024.0
27.5°	988.7	989.5	990.2	990.3	989.8	989.4	988.9	988.4
30°	962.3	962.8	963.3	963.5	963.2	962.9	962.7	962.4
32.5°	937.2	937.7	938.2	938.3	938.1	937.8	937.5	937.3
35°	896.6	897.3	898.1	898.5	898.5	898.5	898.5	898.5
37.5°	853.9	854.9	855.9	856.4	856.3	856.2	856.0	855.9
40°	825.0	826.0	827.1	827.9	828.4	828.9	829.4	829.9
42.5°	798.4	799.7	800.9	801.6	801.7	801.8	801.9	802.0
45°	755.6	757.4	759.2	760.3	760.5	760.8	761.0	761.3
47.5°	711.5	714.1	716.8	718.3	718.9	719.5	720.1	720.7
50°	682.2	685.0	687.9	689.7	690.4	691.2	692.0	692.8
52.5°	652.8	655.8	658.9	660.7	661.2	661.9	662.5	663.0
55°	606.6	609.4	612.3	614.2	615.3	616.3	617.3	618.4
57.5°	560.9	564.2	567.5	569.5	570.2	571.0	571.8	572.6
60°	529.6	533.5	537.4	539.7	540.4	541.2	542.0	542.8
62.5°	497.9	502.2	506.5	509.1	510.1	511.1	512.0	513.1
65°	450.6	454.4	458.3	460.8	461.8	462.9	463.9	464.9
67.5°	402.0	406.7	411.5	414.5	415.8	417.2	418.4	419.8
70°	368.9	373.8	378.8	382.0	383.6	385.1	386.7	388.2
72.5°	338.2	343.5	348.8	352.1	353.2	354.3	355.4	356.6
75°	291.6	296.8	302.0	305.1	306.4	307.7	309.0	310.3
77.5°	245.0	250.6	256.3	259.7	260.7	261.7	262.8	263.8
80°	217.1	222.7	228.4	231.8	232.8	233.8	234.9	235.9
82.5°	190.6	196.1	201.6	205.3	207.2	209.0	210.9	212.7
85°	154.3	160.0	165.7	169.5	171.6	173.7	175.7	177.8
87.5°	126.7	132.7	138.7	142.7	144.6	146.5	148.4	150.2
90°	116.1	122.6	129.2	133.5	135.5	137.7	139.8	142.0
92.5°	112.0	118.3	124.6	128.7	130.6	132.6	134.6	136.6
95°	105.1	111.4	117.6	121.7	123.5	125.3	127.1	128.9
97.5°	107.9	110.2	112.6	114.6	116.4	118.1	119.9	121.7
100°	138.2	127.3	116.5	111.7	112.7	113.8	114.9	116.1
102.5°	184.0	186.1	188.3	186.4	180.6	174.7	168.8	162.9
105°	220.7	225.8	231.0	234.5	236.1	237.8	239.5	241.2
107.5°	253.9	259.1	264.2	267.4	268.6	269.9	271.2	272.5
110°	275.0	279.6	284.2	287.4	289.4	291.3	293.2	295.1





TEST NUMBER: P333262-935

CATALOG NUMBER: S125DIP-S1090D590U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	295.8	300.1	304.4	307.4	309.1	310.7	312.4	314.0
115°	327.9	332.1	336.3	338.8	339.8	340.6	341.6	342.4
117.5°	358.2	362.0	365.8	368.4	369.9	371.3	372.9	374.4
120°	377.9	382.1	386.2	388.8	389.9	390.9	391.8	392.9
122.5°	396.2	400.2	404.2	406.6	407.5	408.4	409.3	410.3
125°	423.2	426.9	430.6	432.9	433.9	434.8	435.8	436.8
127.5°	447.1	450.6	454.3	456.4	457.1	457.8	458.5	459.2
130°	463.4	466.7	469.9	471.9	472.7	473.5	474.2	474.9
132.5°	477.9	481.4	484.9	487.0	487.5	488.1	488.6	489.1
135°	498.4	501.6	504.7	506.6	507.3	507.9	508.5	509.2
137.5°	518.6	521.6	524.7	526.5	526.9	527.4	527.9	528.4
140°	530.6	533.6	536.7	538.5	538.8	539.2	539.6	539.9
142.5°	542.9	545.4	547.9	549.3	549.7	550.0	550.4	550.8
145°	561.4	562.7	564.1	565.0	565.4	565.8	566.2	566.5
147.5°	577.7	578.2	578.8	578.9	578.6	578.2	577.9	577.6
150°	588.4	588.7	588.8	588.7	588.1	587.5	586.9	586.3
152.5°	598.7	598.9	599.1	598.8	598.1	597.4	596.7	595.9
155°	612.8	613.0	613.4	613.1	612.3	611.4	610.5	609.6
157.5°	624.4	624.7	625.1	624.8	624.0	623.0	622.2	621.3
160°	631.6	632.1	632.5	632.2	631.4	630.5	629.6	628.8
162.5°	638.3	638.9	639.5	639.3	638.3	637.4	636.5	635.4
165°	646.8	647.5	648.1	648.0	647.1	646.3	645.4	644.5
167.5°	653.2	654.0	654.8	654.7	653.8	652.7	651.8	650.7
170°	656.6	657.5	658.3	658.2	657.3	656.3	655.3	654.4
172.5°	659.1	660.0	660.7	660.6	659.6	658.7	657.6	656.7
175°	661.9	662.8	663.7	663.7	662.7	661.7	660.7	659.7
177.5°	663.1	663.7	664.3	664.3	663.6	662.9	662.2	661.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7

(END OF REPORT)