

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: P333262-830

Luminaire Tested: **S125DIP-S1090D590U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333262-830  
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-S1090D590U830-4F0-1E-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**

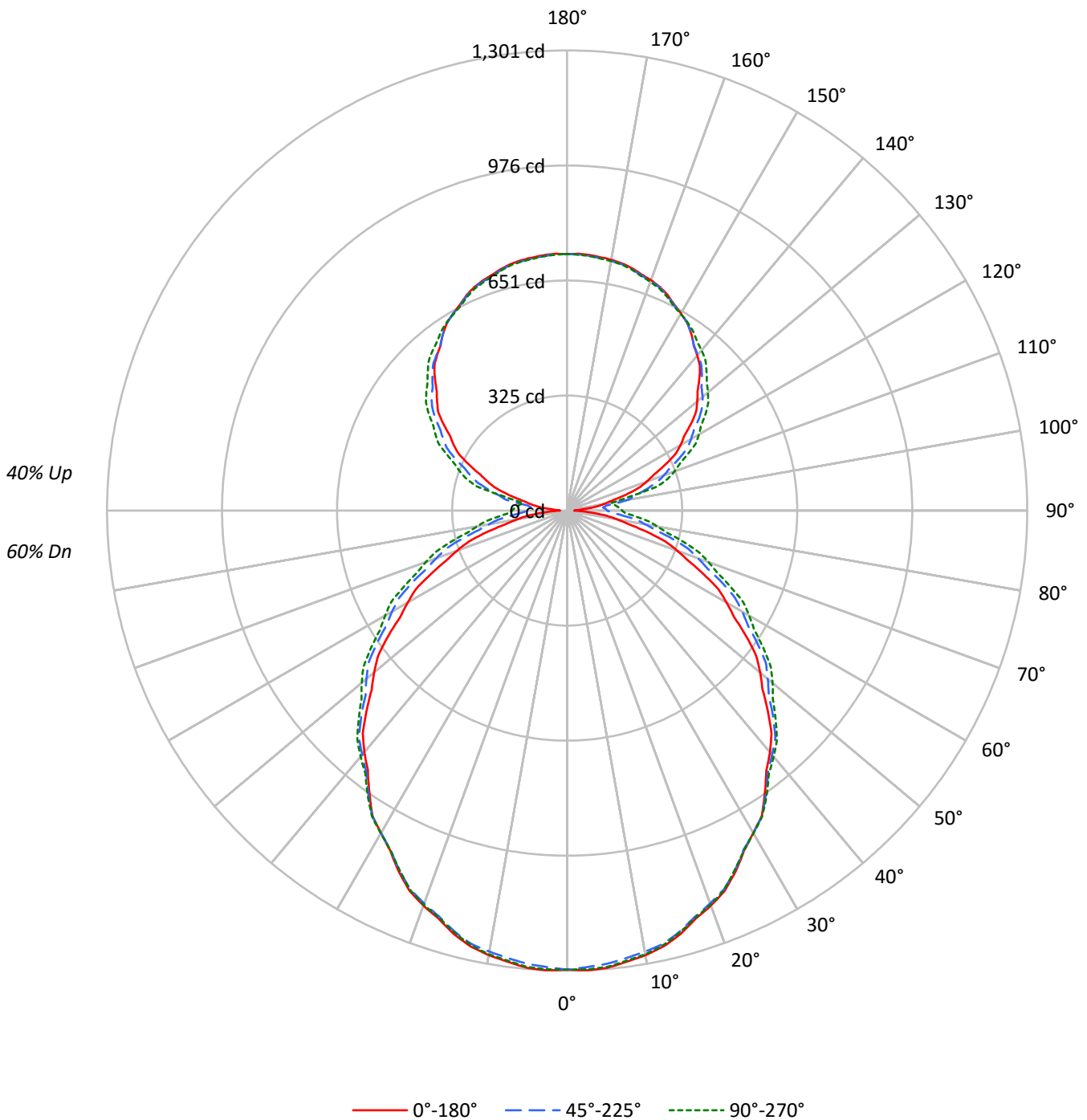
Lumens per Lamp: N/A  
Luminaire Lumens: 6249.0 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct  
  
Input Watts (W): 48.8  
Input Voltage (V): 120  
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: P333262-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333262-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-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°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.7	2.0
10°-20°	348.4	5.6
20°-30°	518.1	8.3
30°-40°	613.7	9.8
40°-50°	634.5	10.2
50°-60°	584.5	9.4
60°-70°	472.5	7.6
70°-80°	316.4	5.1
80°-90°	165.6	2.6
90°-100°	118.4	1.9
100°-110°	230.4	3.7
110°-120°	340.2	5.4
120°-130°	404.0	6.5
130°-140°	418.0	6.7
140°-150°	384.1	6.1
150°-160°	308.9	4.9
160°-170°	199.7	3.2
170°-180°	68.9	1.1
0°-30°	989.2	15.8
0°-40°	1602.9	25.7
0°-60°	2821.9	45.2
0°-90°	3776.4	60.4
90°-120°	689.0	11.0
90°-150°	1895.1	30.3
90°-180°	2473.0	39.6
0°-180°	6249.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	66	113	144	155	15
95°	47	78	102	131	141	52
105°	170	193	230	255	264	180
115°	304	317	350	370	375	302
125°	427	431	455	473	478	381
135°	529	531	539	554	557	408
145°	612	611	611	618	620	382
155°	672	669	670	671	667	310
165°	709	706	707	709	706	200
175°	726	722	723	727	722	69
180°	726	726	726	726	726	



TEST NUMBER: P333262-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.8	49.0	58.2	67.5	76.7	86.2	96.0	105.8	115.6	125.4	132.1
90°	20.9	30.9	40.9	50.9	60.9	71.2	81.6	92.1	102.5	112.9	120.1
92.5°	26.6	34.3	42.0	49.7	57.4	66.5	77.1	87.8	98.3	108.9	115.7
95°	47.2	54.2	61.2	68.1	75.1	81.2	86.2	91.3	96.4	101.5	108.3
97.5°	79.0	86.2	93.5	100.8	108.0	111.8	112.2	112.4	112.7	113.0	115.6
100°	103.8	110.1	116.4	122.7	129.0	136.9	146.5	156.0	165.5	175.0	183.2
102.5°	129.0	135.0	140.9	146.8	152.8	160.3	169.4	178.5	187.7	196.7	199.1
105°	169.6	174.6	179.6	184.5	189.5	196.3	204.8	213.3	221.8	230.3	235.9
107.5°	211.7	215.6	219.4	223.2	227.1	233.2	241.6	250.0	258.4	266.7	272.3
110°	239.0	242.4	245.8	249.2	252.6	258.4	266.6	274.8	282.9	291.1	296.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	265.7	268.7	271.7	274.8	277.8	283.1	291.0	298.8	306.7	314.5	319.1
115°	304.4	307.1	309.6	312.2	314.8	319.8	327.3	334.8	342.2	349.7	354.3
117.5°	344.6	345.9	347.1	348.5	349.7	354.0	361.5	368.9	376.3	383.7	387.9
120°	370.4	371.2	371.9	372.6	373.3	377.1	384.0	390.9	397.8	404.5	409.2
122.5°	392.2	393.0	393.9	394.7	395.6	399.3	405.7	412.2	418.6	425.0	429.3
125°	427.3	427.8	428.3	428.9	429.4	432.5	438.2	443.8	449.5	455.2	459.2
127.5°	459.6	460.0	460.2	460.5	460.9	463.4	467.9	472.5	477.0	481.5	485.5
130°	480.2	480.6	480.9	481.2	481.5	483.7	487.8	491.9	496.0	500.0	503.6
132.5°	499.9	500.6	501.1	501.8	502.5	504.2	507.0	509.7	512.6	515.3	519.2
135°	529.0	529.4	529.9	530.3	530.7	531.9	533.6	535.3	537.1	538.8	542.2
137.5°	555.7	556.1	556.6	556.9	557.3	557.9	558.6	559.4	560.2	560.9	564.3
140°	572.4	572.6	572.9	573.1	573.3	573.5	573.7	573.8	574.0	574.2	577.5
142.5°	588.2	588.2	588.1	588.1	588.0	588.1	588.2	588.4	588.7	588.9	591.6
145°	611.6	611.6	611.5	611.5	611.4	611.4	611.4	611.4	611.4	611.4	612.9
147.5°	630.7	630.7	630.7	630.7	630.6	630.7	630.7	630.9	631.0	631.2	631.8
150°	643.7	643.5	643.2	643.0	642.7	642.7	643.0	643.2	643.5	643.7	643.9
152.5°	656.2	655.6	655.2	654.6	654.0	653.9	654.1	654.4	654.6	654.9	655.2
155°	672.2	671.5	670.8	670.1	669.3	669.1	669.3	669.6	669.8	670.1	670.4
157.5°	684.6	684.1	683.7	683.2	682.9	682.7	682.7	682.7	682.7	682.8	683.2
160°	693.1	692.5	691.7	691.0	690.3	690.0	690.1	690.2	690.3	690.5	691.0
162.5°	700.0	699.4	698.6	697.9	697.2	696.9	697.0	697.1	697.2	697.4	698.0
165°	709.3	708.6	707.8	707.2	706.4	706.2	706.2	706.3	706.5	706.6	707.3
167.5°	716.1	715.5	714.7	714.0	713.2	712.9	713.0	713.1	713.2	713.4	714.3
170°	720.1	719.3	718.4	717.6	716.7	716.3	716.4	716.6	716.7	716.8	717.7
172.5°	722.6	721.8	721.0	720.1	719.3	719.0	719.2	719.4	719.6	719.8	720.7
175°	725.5	724.7	724.0	723.3	722.6	722.3	722.4	722.6	722.6	722.7	723.7
177.5°	726.7	726.1	725.6	725.0	724.4	724.2	724.2	724.3	724.4	724.5	725.3
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	138.6	145.2	151.8	156.2	158.3	160.3	162.4	164.5
90°	127.1	134.2	141.4	146.1	148.4	150.7	153.1	155.4
92.5°	122.6	129.5	136.4	140.9	143.0	145.2	147.3	149.5
95°	115.1	122.0	128.8	133.2	135.2	137.1	139.1	141.1
97.5°	118.1	120.6	123.3	125.5	127.4	129.3	131.3	133.2
100°	151.3	139.4	127.5	122.2	123.4	124.6	125.8	127.1
102.5°	201.4	203.8	206.1	204.1	197.7	191.2	184.7	178.3
105°	241.6	247.2	252.9	256.7	258.4	260.3	262.2	264.0
107.5°	278.0	283.6	289.2	292.8	294.1	295.5	296.9	298.3
110°	301.0	306.0	311.1	314.6	316.8	318.9	320.9	323.0





TEST NUMBER: P333262-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.9	328.6	333.3	336.5	338.4	340.2	342.0	343.7
115°	358.9	363.5	368.2	370.9	371.9	372.9	373.9	374.8
117.5°	392.1	396.2	400.5	403.3	404.9	406.5	408.2	409.8
120°	413.7	418.3	422.8	425.7	426.8	427.9	429.0	430.1
122.5°	433.8	438.1	442.4	445.1	446.1	447.0	448.1	449.1
125°	463.3	467.3	471.4	473.9	474.9	476.0	477.1	478.2
127.5°	489.5	493.3	497.3	499.6	500.4	501.1	501.9	502.7
130°	507.3	510.9	514.4	516.6	517.5	518.3	519.1	519.9
132.5°	523.1	527.0	530.8	533.1	533.7	534.3	534.9	535.5
135°	545.6	549.1	552.5	554.6	555.3	556.0	556.7	557.4
137.5°	567.7	571.0	574.4	576.4	576.8	577.4	577.9	578.4
140°	580.9	584.2	587.6	589.5	589.8	590.3	590.7	591.1
142.5°	594.4	597.0	599.7	601.3	601.7	602.1	602.6	602.9
145°	614.5	616.0	617.6	618.5	619.0	619.3	619.8	620.2
147.5°	632.4	633.0	633.6	633.8	633.4	633.0	632.6	632.4
150°	644.1	644.4	644.6	644.4	643.8	643.1	642.4	641.8
152.5°	655.3	655.6	655.8	655.5	654.8	653.9	653.2	652.3
155°	670.8	671.1	671.5	671.2	670.2	669.3	668.4	667.3
157.5°	683.5	683.9	684.3	684.0	683.1	682.0	681.1	680.1
160°	691.4	691.9	692.4	692.1	691.2	690.2	689.3	688.3
162.5°	698.7	699.4	700.0	699.8	698.8	697.8	696.7	695.6
165°	708.0	708.8	709.5	709.4	708.4	707.5	706.5	705.5
167.5°	715.1	716.0	716.8	716.7	715.7	714.5	713.5	712.4
170°	718.8	719.7	720.7	720.6	719.5	718.4	717.4	716.3
172.5°	721.5	722.5	723.3	723.2	722.1	721.0	719.9	718.9
175°	724.6	725.6	726.6	726.5	725.5	724.3	723.3	722.2
177.5°	725.9	726.6	727.3	727.2	726.4	725.7	724.9	724.2
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5

(END OF REPORT)