

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: P333217

Luminaire Tested: **S125DIP-S850D590U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333217  
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-S850D590U835-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 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: 5646.2 lumens  
Efficiency: N/A  
Efficacy: 140.1 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: General Diffuse

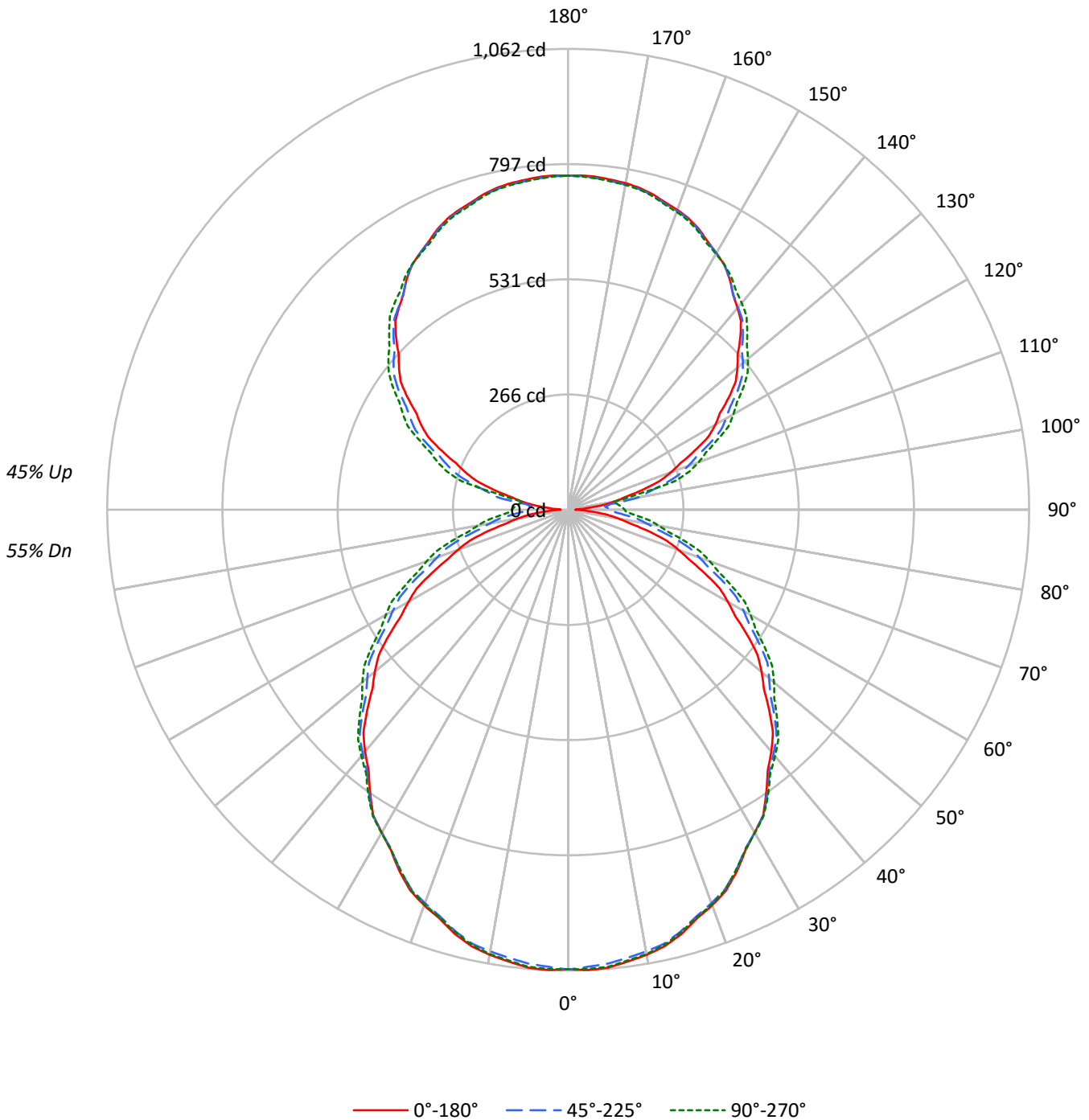
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	93	89	85	91	87	83	80	74	71	69	63	61	59	52	51	49	44
2	89	81	74	69	82	75	70	65	64	60	56	55	51	48	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	34	31
4	74	63	54	48	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	56	47	41	63	52	44	39	45	39	34	38	34	30	32	28	26	22
6	62	50	42	36	58	47	39	34	40	34	30	34	30	26	29	25	22	20
7	58	45	37	31	53	42	35	29	37	31	26	31	27	23	26	23	20	17
8	54	41	33	27	50	38	31	26	33	27	23	29	24	20	24	21	18	15
9	50	37	30	24	46	35	28	23	31	25	21	26	22	18	22	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	24	20	17	21	17	15	13

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

	0°	45°	90°
0°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.8
10°-20°	284.4	5.0
20°-30°	422.9	7.5
30°-40°	500.9	8.9
40°-50°	517.9	9.2
50°-60°	477.1	8.4
60°-70°	385.7	6.8
70°-80°	258.3	4.6
80°-90°	135.5	2.4
90°-100°	103.1	1.8
100°-110°	227.8	4.0
110°-120°	349.8	6.2
120°-130°	422.3	7.5
130°-140°	440.8	7.8
140°-150°	406.9	7.2
150°-160°	327.7	5.8
160°-170°	211.9	3.8
170°-180°	73.1	1.3
0°-30°	807.4	14.3
0°-40°	1308.3	23.2
0°-60°	2303.3	40.8
0°-90°	3082.8	54.6
90°-120°	680.7	12.1
90°-150°	1950.7	34.5
90°-180°	2563.0	45.4
0°-180°	5646.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	17	55	94	120	130	12
95°	46	71	85	110	118	52
105°	177	197	227	247	255	188
115°	321	332	359	375	378	318
125°	452	456	476	490	494	403
135°	561	563	569	581	583	432
145°	649	649	649	654	655	405
155°	713	710	711	712	708	328
165°	752	749	750	753	748	212
175°	770	766	767	771	766	73
180°	770	770	770	770	770	



TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.5	40.1	47.7	55.3	62.9	70.7	78.7	86.7	94.7	102.8	108.2
90°	17.2	25.6	34.0	42.4	50.8	59.4	68.1	76.8	85.6	94.3	100.2
92.5°	23.7	29.9	36.0	42.1	48.2	55.7	64.5	73.3	82.1	91.0	96.7
95°	46.0	51.6	57.3	62.9	68.5	72.8	75.9	78.9	81.9	84.9	90.7
97.5°	80.1	86.2	92.3	98.4	104.5	106.6	104.6	102.6	100.7	98.7	100.0
100°	106.7	111.9	117.2	122.4	127.6	134.2	142.1	150.0	157.8	165.7	151.7
102.5°	133.7	138.7	143.6	148.6	153.6	159.8	167.3	174.8	182.3	189.8	190.9
105°	177.1	181.3	185.5	189.7	193.9	199.4	206.4	213.3	220.2	227.1	231.8
107.5°	222.2	225.3	228.4	231.6	234.7	239.7	246.6	253.5	260.4	267.3	271.9
110°	251.5	254.2	257.0	259.8	262.5	267.3	274.0	280.7	287.4	294.1	298.1



TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	279.8	282.3	284.8	287.3	289.8	294.3	300.7	307.2	313.6	320.0	323.8
115°	321.2	323.4	325.7	327.9	330.2	334.4	340.5	346.6	352.7	358.9	362.5
117.5°	364.1	365.1	366.1	367.2	368.2	371.8	378.0	384.1	390.3	396.4	399.7
120°	391.4	392.0	392.6	393.1	393.7	396.8	402.5	408.2	413.9	419.6	423.3
122.5°	414.8	415.6	416.4	417.2	418.0	421.1	426.4	431.7	437.0	442.3	445.8
125°	452.0	452.7	453.3	454.0	454.7	457.3	461.9	466.5	471.1	475.8	478.9
127.5°	486.7	487.1	487.5	487.9	488.3	490.4	494.1	497.8	501.5	505.2	508.3
130°	508.6	509.0	509.4	509.8	510.2	512.1	515.5	518.8	522.2	525.5	528.4
132.5°	529.7	530.4	531.1	531.8	532.4	533.9	536.1	538.3	540.5	542.8	545.9
135°	560.6	561.2	561.7	562.2	562.8	563.7	565.1	566.4	567.8	569.1	571.9
137.5°	589.1	589.5	590.0	590.5	591.0	591.5	592.0	592.6	593.2	593.7	596.5
140°	607.0	607.2	607.5	607.7	608.0	608.1	608.2	608.4	608.5	608.6	611.4
142.5°	623.8	623.8	623.8	623.7	623.7	623.8	624.0	624.3	624.5	624.7	626.9
145°	648.6	648.6	648.6	648.7	648.7	648.7	648.7	648.7	648.7	648.7	650.0
147.5°	669.2	669.2	669.1	669.1	669.0	669.1	669.2	669.4	669.5	669.7	670.2
150°	682.9	682.7	682.4	682.2	681.9	681.9	682.2	682.4	682.7	682.9	683.2
152.5°	696.2	695.6	695.1	694.5	693.9	693.8	694.0	694.3	694.5	694.8	695.1
155°	713.2	712.4	711.7	710.9	710.1	709.9	710.1	710.4	710.6	710.9	711.3
157.5°	726.3	725.8	725.4	724.9	724.5	724.3	724.3	724.3	724.3	724.4	724.8
160°	735.4	734.7	733.9	733.1	732.4	732.1	732.2	732.3	732.4	732.6	733.1
162.5°	742.7	742.0	741.2	740.4	739.7	739.4	739.5	739.6	739.7	739.9	740.6
165°	752.5	751.8	751.0	750.3	749.5	749.2	749.3	749.4	749.6	749.7	750.4
167.5°	759.8	759.1	758.3	757.5	756.7	756.4	756.5	756.6	756.7	756.9	757.8
170°	764.0	763.1	762.2	761.3	760.4	760.0	760.1	760.3	760.4	760.5	761.5
172.5°	766.7	765.8	764.9	764.0	763.1	762.8	763.0	763.3	763.5	763.7	764.6
175°	769.7	768.9	768.1	767.4	766.6	766.3	766.4	766.6	766.7	766.8	767.8
177.5°	771.0	770.4	769.8	769.2	768.6	768.3	768.4	768.5	768.6	768.7	769.5
180°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7



TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	113.6	119.1	124.5	128.1	129.8	131.5	133.2	134.8
90°	106.2	112.1	118.1	122.0	124.0	126.0	128.0	130.0
92.5°	102.5	108.2	114.0	117.8	119.6	121.4	123.2	124.9
95°	96.4	102.1	107.8	111.5	113.1	114.7	116.3	117.9
97.5°	101.2	102.5	103.8	105.2	106.8	108.3	109.9	111.5
100°	137.7	123.6	109.6	103.0	103.9	104.7	105.6	106.5
102.5°	192.0	193.1	194.2	191.1	183.8	176.6	169.4	162.1
105°	236.4	241.0	245.6	248.7	250.1	251.6	253.1	254.6
107.5°	276.5	281.1	285.7	288.5	289.6	290.6	291.7	292.7
110°	302.2	306.2	310.2	313.0	314.8	316.5	318.3	320.0





TEST NUMBER: P333217

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	327.5	331.2	334.9	337.5	338.9	340.4	341.8	343.2
115°	366.2	369.8	373.5	375.6	376.2	376.8	377.5	378.1
117.5°	403.0	406.2	409.5	411.7	413.0	414.2	415.5	416.7
120°	426.9	430.6	434.3	436.5	437.2	438.0	438.7	439.5
122.5°	449.3	452.7	456.2	458.3	458.9	459.6	460.2	460.9
125°	482.1	485.3	488.5	490.5	491.2	492.0	492.8	493.6
127.5°	511.5	514.6	517.8	519.5	519.9	520.3	520.7	521.1
130°	531.2	534.1	536.9	538.6	539.1	539.7	540.2	540.7
132.5°	549.1	552.2	555.4	557.1	557.5	557.8	558.1	558.5
135°	574.6	577.4	580.1	581.7	582.1	582.5	582.9	583.3
137.5°	599.3	602.0	604.8	606.3	606.6	606.9	607.1	607.4
140°	614.1	616.9	619.7	621.2	621.4	621.5	621.7	621.9
142.5°	629.1	631.4	633.6	634.8	634.9	635.1	635.3	635.4
145°	651.3	652.5	653.8	654.5	654.7	654.9	655.0	655.2
147.5°	670.7	671.3	671.8	671.8	671.3	670.8	670.3	669.8
150°	683.4	683.7	683.9	683.7	682.9	682.1	681.3	680.5
152.5°	695.3	695.6	695.8	695.5	694.6	693.8	692.9	692.0
155°	711.7	712.0	712.4	712.1	711.1	710.1	709.1	708.0
157.5°	725.2	725.6	726.0	725.7	724.7	723.6	722.6	721.6
160°	733.6	734.1	734.6	734.3	733.3	732.3	731.3	730.3
162.5°	741.3	742.0	742.7	742.5	741.4	740.3	739.2	738.0
165°	751.2	752.0	752.7	752.6	751.6	750.6	749.6	748.5
167.5°	758.7	759.6	760.5	760.4	759.3	758.1	757.0	755.8
170°	762.6	763.6	764.6	764.5	763.4	762.2	761.1	760.0
172.5°	765.5	766.5	767.4	767.3	766.1	765.0	763.8	762.7
175°	768.8	769.8	770.9	770.8	769.7	768.5	767.4	766.2
177.5°	770.2	770.9	771.6	771.5	770.7	769.9	769.1	768.3
180°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7

(END OF REPORT)