

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: P333219-935

Luminaire Tested: **S125DIP-S850D590U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333219-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S850D590U935-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4653.2 lumens
Efficiency: N/A
Efficacy: 115.5 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

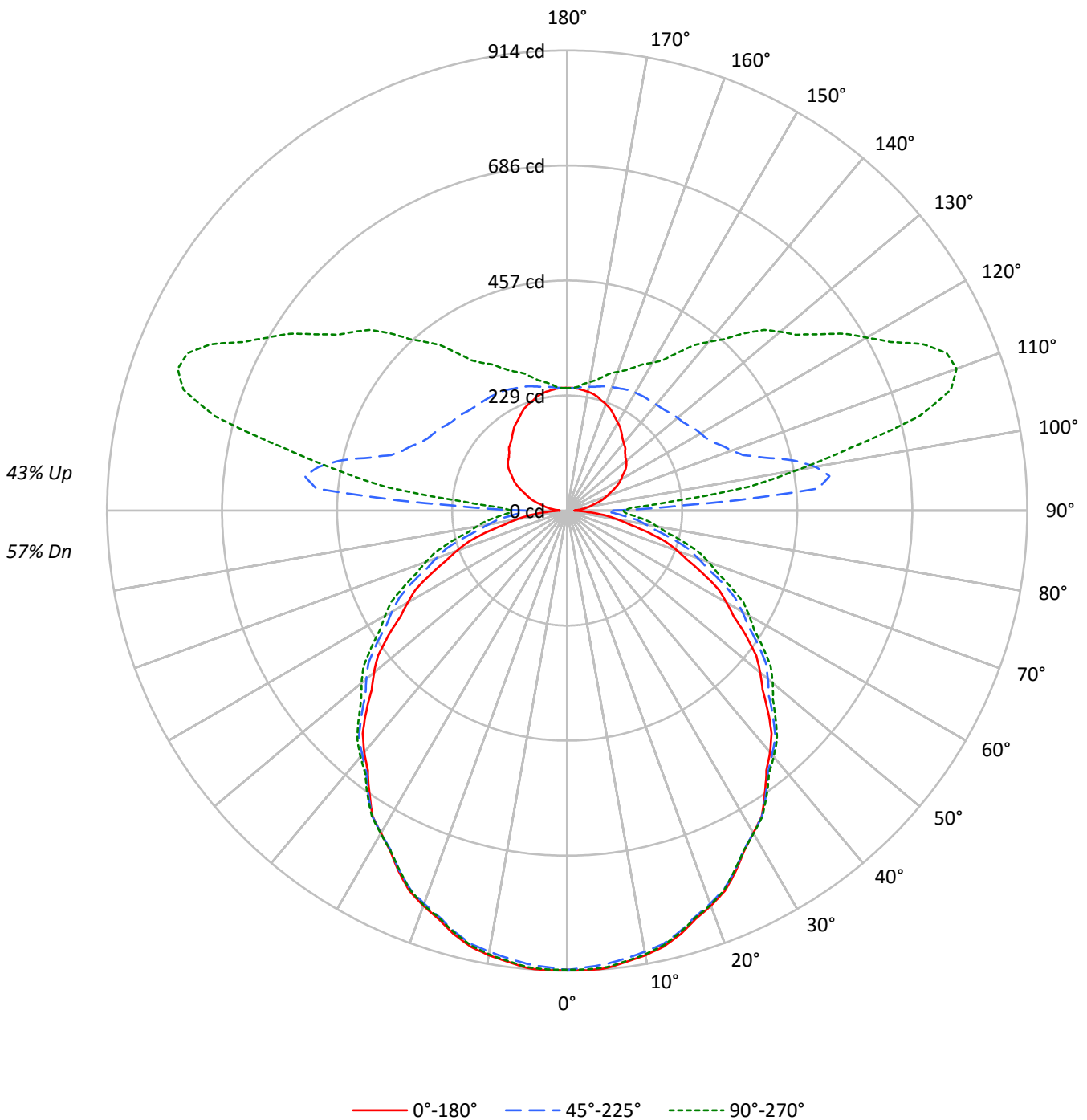
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	99	94	90	86	91	87	84	80	75	72	70	64	62	60	54	53	51	46
2	89	81	75	69	83	76	70	65	65	61	57	56	53	50	47	45	42	38
3	81	71	64	57	75	67	60	54	57	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	41	44	39	35	37	33	31	27
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	27	23
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24	29	25	21	25	21	18	16
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	1.9
10°-20°	244.8	5.3
20°-30°	364.1	7.8
30°-40°	431.3	9.3
40°-50°	445.9	9.6
50°-60°	410.8	8.8
60°-70°	332.0	7.1
70°-80°	222.4	4.8
80°-90°	116.7	2.5
90°-100°	241.3	5.2
100°-110°	427.3	9.2
110°-120°	388.2	8.3
120°-130°	306.9	6.6
130°-140°	239.6	5.1
140°-150°	176.4	3.8
150°-160°	123.1	2.6
160°-170°	72.5	1.6
170°-180°	23.6	0.5
0°-30°	695.2	14.9
0°-40°	1126.5	24.2
0°-60°	1983.2	42.6
0°-90°	2654.3	57.0
90°-120°	1056.8	22.7
90°-150°	1779.7	38.2
90°-180°	1999.0	43.0
0°-180°	4653.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	47	81	103	111	10
95°	28	83	500	282	207	26
105°	64	101	405	768	724	67
115°	105	132	321	666	781	103
125°	141	165	295	524	610	125
135°	163	195	279	429	498	126
145°	188	215	273	344	382	118
155°	214	230	266	301	314	99
165°	234	240	255	271	275	66
175°	243	243	245	248	247	23
180°	244	244	244	244	244	



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.0	34.4	41.0	47.5	54.2	60.9	67.8	74.6	81.5	88.5	93.2
90°	14.8	21.6	29.0	36.3	43.7	51.2	58.5	66.2	73.4	81.2	86.3
92.5°	18.9	26.0	36.1	48.0	62.3	83.1	116.8	168.7	224.5	228.8	203.0
95°	27.8	33.5	42.6	53.1	69.1	97.2	156.5	271.3	413.6	500.4	495.5
97.5°	37.5	42.7	50.1	60.2	74.6	96.0	137.3	223.0	371.3	525.6	603.7
100°	44.3	49.3	55.5	65.1	78.6	98.6	133.5	203.6	333.7	500.8	627.7
102.5°	51.7	56.2	61.6	71.3	83.7	103.1	134.6	194.4	305.1	460.5	608.1
105°	63.5	66.7	72.3	80.4	91.5	109.8	137.4	187.1	275.0	405.3	550.2
107.5°	75.1	78.7	83.8	90.5	101.3	118.0	144.6	187.8	260.4	366.5	492.1
110°	83.3	86.7	91.1	97.9	107.6	124.4	150.1	189.5	254.5	347.5	458.4



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	92.4	95.3	98.8	105.1	114.3	130.4	155.2	192.5	251.8	335.2	432.6
115°	104.6	106.9	109.8	115.6	124.4	139.9	163.2	196.9	249.3	320.7	403.4
117.5°	115.5	117.9	120.4	125.7	134.9	149.7	171.8	202.6	248.5	311.4	384.0
120°	123.3	125.4	127.9	132.9	141.9	156.8	178.6	206.7	249.1	306.2	372.9
122.5°	130.9	132.2	134.1	138.8	148.2	162.8	184.4	211.2	249.1	301.4	362.8
125°	141.1	141.9	144.1	148.4	157.5	172.1	192.3	217.4	249.9	294.6	348.9
127.5°	148.4	149.6	152.6	158.0	167.7	182.0	200.9	223.6	251.7	289.3	335.7
130°	153.4	154.7	158.5	164.6	174.8	188.8	206.8	228.3	253.1	286.4	327.5
132.5°	156.7	158.5	163.2	170.3	181.0	194.8	212.2	231.8	254.5	283.5	319.9
135°	162.9	164.6	170.3	178.0	188.1	202.0	218.6	236.2	255.7	279.2	309.8
137.5°	170.7	172.1	177.5	185.1	195.1	209.0	223.5	239.7	257.7	276.6	301.4
140°	174.8	176.2	182.1	190.0	199.3	212.7	227.1	242.0	258.0	274.8	296.7
142.5°	180.3	181.2	186.5	194.2	203.0	215.4	228.9	242.9	257.9	273.8	293.0
145°	188.5	189.3	194.0	200.7	209.3	220.5	233.3	245.6	258.8	273.1	288.8
147.5°	196.2	196.8	201.0	207.4	215.1	225.1	236.3	247.4	259.3	271.8	285.1
150°	201.4	202.3	205.8	212.2	219.0	227.4	238.2	248.5	259.3	270.6	282.4
152.5°	206.9	207.4	210.5	216.1	222.6	230.1	240.1	249.3	258.9	269.1	279.7
155°	214.1	214.1	217.1	222.0	226.9	233.8	242.1	249.9	257.9	266.2	275.0
157.5°	220.6	220.5	222.9	227.1	231.4	236.6	243.8	250.5	256.6	263.2	270.7
160°	225.0	224.5	226.4	229.9	233.8	238.2	244.6	250.5	255.4	261.3	267.2
162.5°	228.5	228.0	230.0	233.0	236.2	239.8	245.4	250.1	254.3	258.9	264.1
165°	233.8	232.8	234.3	236.7	238.7	241.7	245.6	249.5	252.4	255.4	259.3
167.5°	237.3	236.9	237.7	239.1	240.5	242.3	245.6	248.3	249.7	251.9	254.7
170°	239.7	239.2	239.7	240.6	241.7	243.1	245.6	247.5	248.5	249.9	251.9
172.5°	241.3	240.4	240.8	241.9	242.5	243.1	245.2	246.8	246.9	247.6	249.2
175°	243.1	242.1	242.6	243.1	243.1	243.1	244.6	245.6	245.0	245.0	245.6
177.5°	244.0	243.2	243.2	243.6	243.2	243.2	244.0	244.4	243.6	243.6	244.0
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	97.8	102.5	107.2	110.4	111.8	113.1	114.6	116.0
90°	91.3	96.3	101.4	105.4	106.8	108.1	110.0	111.4
92.5°	166.3	146.9	135.7	131.3	126.4	126.6	127.3	127.9
95°	427.1	356.9	300.8	262.4	228.9	215.6	213.1	206.6
97.5°	595.0	546.9	492.2	437.6	408.6	382.5	369.5	364.6
100°	669.7	649.8	603.4	555.0	522.3	488.1	471.1	464.4
102.5°	692.8	711.7	691.4	659.4	624.4	600.5	581.9	577.2
105°	672.0	743.3	768.9	766.1	751.8	737.0	728.6	724.1
107.5°	612.3	706.0	765.4	793.7	802.8	803.9	801.9	799.3
110°	568.3	665.3	738.3	782.6	806.2	816.9	821.7	823.1



TEST NUMBER: P333219-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	532.8	625.0	698.7	750.4	784.1	801.5	811.5	816.4
115°	488.0	567.7	638.5	694.5	734.0	758.7	773.7	781.3
117.5°	457.2	526.2	587.5	638.9	678.6	704.3	719.4	724.6
120°	440.1	502.5	559.9	605.4	642.9	667.7	682.2	687.3
122.5°	426.4	484.2	535.5	578.2	611.8	634.6	649.1	653.8
125°	406.6	459.9	505.8	543.2	571.7	592.8	604.6	610.5
127.5°	386.2	435.9	478.8	513.9	540.0	559.0	570.3	573.7
130°	374.0	420.0	461.1	494.9	520.5	537.6	548.5	552.4
132.5°	361.3	404.6	442.1	474.7	500.1	517.1	526.9	531.2
135°	343.8	380.3	414.3	444.1	466.7	483.9	493.8	497.7
137.5°	329.3	359.1	387.5	412.9	433.1	448.6	457.5	461.6
140°	321.0	346.2	371.0	393.1	412.1	425.7	433.9	437.1
142.5°	313.8	335.2	356.5	375.7	391.9	403.6	411.3	414.2
145°	305.1	321.2	337.4	351.6	364.2	373.3	379.5	382.3
147.5°	297.4	310.0	322.1	332.4	342.2	349.1	352.7	353.9
150°	293.2	304.0	313.3	322.3	329.8	336.0	338.1	338.8
152.5°	289.3	298.9	307.5	314.4	320.6	325.4	327.4	327.9
155°	283.4	291.3	298.1	303.5	308.4	311.9	313.3	313.8
157.5°	277.5	284.0	289.3	293.5	297.3	300.1	301.5	301.4
160°	273.5	278.4	283.4	286.8	290.2	292.7	293.7	293.2
162.5°	269.2	273.8	277.8	280.9	283.6	285.7	285.9	285.8
165°	263.2	266.7	269.7	272.1	274.1	275.0	275.0	275.0
167.5°	257.5	259.8	262.1	263.8	264.8	265.7	265.3	265.2
170°	254.4	255.9	257.4	258.3	259.3	259.8	259.8	259.3
172.5°	250.9	252.4	253.4	254.0	254.3	255.1	254.3	253.8
175°	247.0	247.0	248.1	248.1	248.1	248.5	247.5	247.0
177.5°	244.4	244.8	244.8	244.8	244.4	244.8	243.6	243.6
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6

(END OF REPORT)