

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: P333218-927

Luminaire Tested: **S125DIP-S850D590U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333218-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S850D590U927-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4220.9 lumens
Efficiency: N/A
Efficacy: 104.7 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

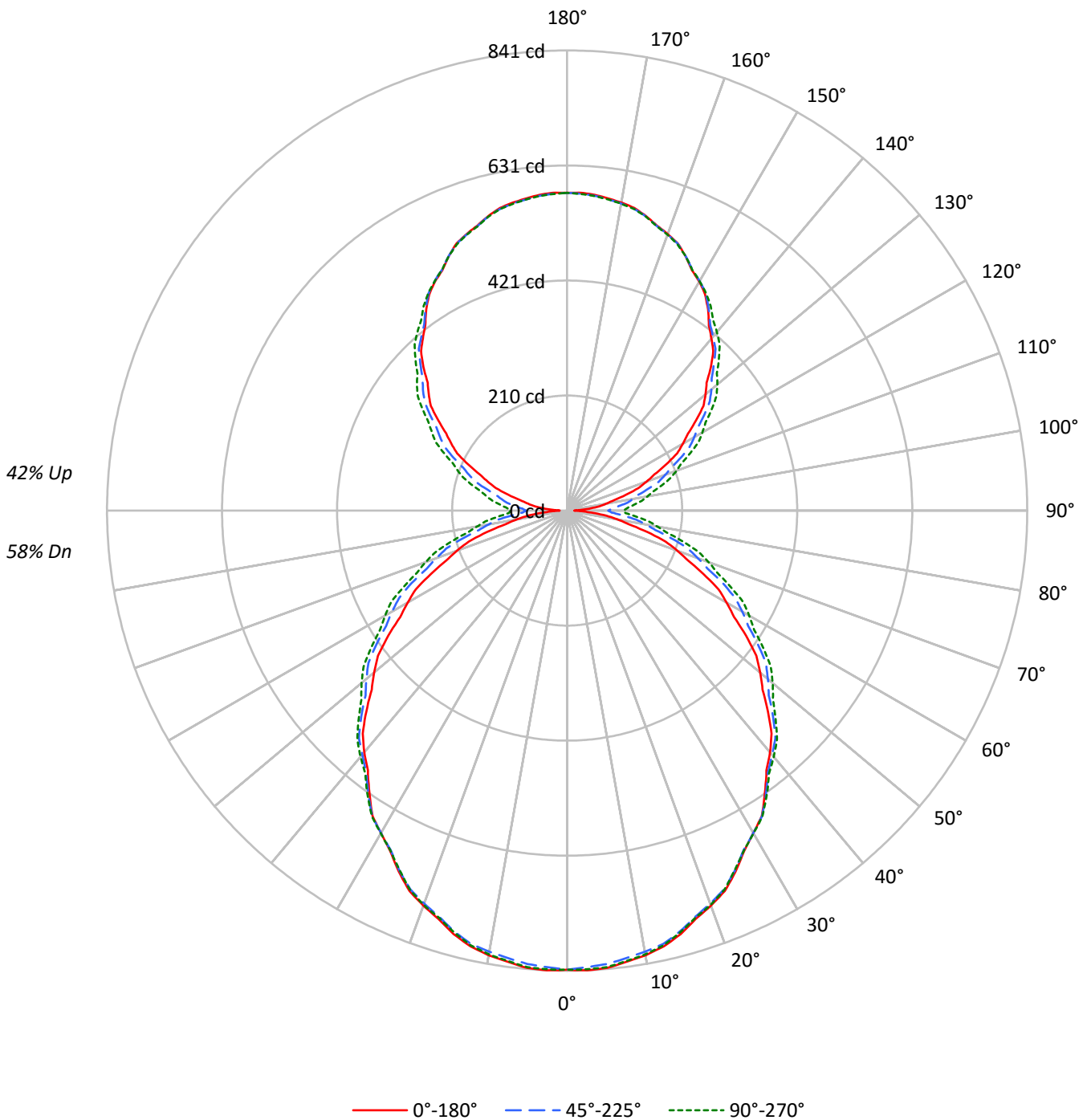
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

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	102	102	102	102	88	88	88		75	75	75		63	63	63	58
1	99	94	90	86	92	88	84	80	76	73	70		65	63	61		55	53	52	47
2	90	82	75	69	83	76	70	65	66	61	58		56	53	50		48	45	43	39
3	81	71	64	57	75	67	60	54	58	52	48		50	45	42		42	39	36	32
4	74	63	55	48	69	59	52	46	51	45	41		44	39	36		37	34	31	28
5	68	56	48	41	63	53	45	39	46	40	35		39	35	31		34	30	27	24
6	63	50	42	36	58	47	40	34	41	35	30		36	31	27		30	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27		32	27	24		28	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24		30	25	21		25	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21		27	22	19		23	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19		25	20	17		22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.9
10°-20°	225.3	5.3
20°-30°	335.0	7.9
30°-40°	396.8	9.4
40°-50°	410.3	9.7
50°-60°	377.9	9.0
60°-70°	305.5	7.2
70°-80°	204.6	4.8
80°-90°	107.4	2.5
90°-100°	98.4	2.3
100°-110°	158.8	3.8
110°-120°	224.0	5.3
120°-130°	272.7	6.5
130°-140°	294.2	7.0
140°-150°	282.6	6.7
150°-160°	236.2	5.6
160°-170°	157.0	3.7
170°-180°	54.9	1.3
0°-30°	639.6	15.2
0°-40°	1036.4	24.6
0°-60°	1824.7	43.2
0°-90°	2442.1	57.9
90°-120°	481.1	11.4
90°-150°	1330.7	31.5
90°-180°	1779.0	42.1
0°-180°	4220.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	44	75	95	103	10
95°	40	63	95	115	123	40
105°	110	126	153	172	180	118
115°	200	208	230	243	248	197
125°	288	290	306	318	322	257
135°	371	373	379	390	392	286
145°	449	450	451	455	457	280
155°	512	512	513	514	512	236
165°	557	556	557	558	556	157
175°	579	578	578	580	577	55
180°	581	581	581	581	581	



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.7	31.8	37.8	43.8	49.8	56.0	62.3	68.7	75.0	81.4	85.7
90°	13.6	20.3	26.9	33.6	40.2	47.1	53.9	60.8	67.8	74.7	79.4
92.5°	22.8	28.8	34.7	40.7	46.7	53.3	60.5	67.7	74.9	82.1	86.9
95°	40.1	45.0	50.0	54.9	59.9	66.0	73.2	80.4	87.6	94.8	99.6
97.5°	58.5	62.9	67.3	71.6	76.0	81.8	89.2	96.6	103.9	111.4	115.8
100°	72.3	76.1	80.0	83.8	87.7	93.2	100.4	107.5	114.6	121.8	126.5
102.5°	87.2	91.2	95.1	99.0	103.0	108.1	114.5	120.9	127.2	133.6	138.3
105°	110.4	113.8	117.3	120.7	124.1	128.9	135.0	141.1	147.2	153.3	157.5
107.5°	136.2	139.2	142.2	145.2	148.1	152.5	158.3	164.0	169.7	175.5	179.4
110°	154.0	156.7	159.4	162.1	164.8	168.8	174.3	179.7	185.1	190.5	194.3



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.8	174.8	176.8	178.9	180.9	184.5	189.9	195.3	200.6	206.0	209.5
115°	199.7	201.4	203.1	204.8	206.4	209.8	214.7	219.7	224.6	229.6	232.7
117.5°	226.7	227.8	228.8	229.8	230.8	233.7	238.4	243.0	247.7	252.4	255.6
120°	244.1	245.1	246.2	247.2	248.3	251.0	255.2	259.6	263.9	268.2	271.3
122.5°	262.2	262.7	263.1	263.6	264.0	266.3	270.7	275.0	279.3	283.6	286.5
125°	287.6	288.0	288.4	288.8	289.2	291.3	295.1	298.8	302.6	306.3	309.0
127.5°	313.9	314.0	314.2	314.3	314.5	316.1	319.2	322.3	325.5	328.6	331.2
130°	330.1	330.4	330.7	331.1	331.4	333.0	335.6	338.4	341.2	344.0	346.4
132.5°	345.7	346.5	347.3	348.1	348.9	350.2	352.1	354.1	356.0	358.0	360.4
135°	371.3	371.8	372.2	372.6	373.0	373.9	375.3	376.7	378.0	379.4	381.8
137.5°	395.4	395.8	396.2	396.6	397.1	397.8	398.6	399.4	400.3	401.2	403.4
140°	410.3	410.7	411.3	411.8	412.3	412.7	413.3	413.8	414.2	414.7	416.9
142.5°	425.8	426.1	426.4	426.7	426.9	427.2	427.7	428.1	428.5	429.0	430.8
145°	448.7	448.9	449.1	449.3	449.6	449.8	450.1	450.4	450.8	451.0	451.9
147.5°	469.0	469.2	469.4	469.7	469.9	470.1	470.3	470.6	470.9	471.1	471.6
150°	483.1	483.0	482.9	482.8	482.7	482.8	483.2	483.6	484.0	484.4	484.4
152.5°	494.6	494.8	495.0	495.1	495.2	495.4	495.5	495.7	495.8	496.1	496.3
155°	512.5	512.5	512.5	512.5	512.5	512.5	512.6	512.7	512.9	512.9	513.3
157.5°	528.4	528.1	527.9	527.8	527.5	527.4	527.5	527.7	527.8	527.8	528.2
160°	537.8	537.5	537.2	536.9	536.5	536.5	536.5	536.7	536.8	536.9	537.3
162.5°	546.1	545.9	545.7	545.4	545.2	545.1	545.1	545.2	545.2	545.2	545.7
165°	557.2	557.0	556.8	556.6	556.4	556.3	556.4	556.6	556.7	556.7	557.1
167.5°	566.6	566.3	565.8	565.4	565.0	564.8	564.8	564.8	564.8	564.8	565.4
170°	571.6	571.2	570.8	570.5	570.1	569.9	569.9	569.9	569.9	569.9	570.5
172.5°	575.3	574.9	574.5	574.1	573.7	573.5	573.5	573.5	573.5	573.5	574.1
175°	579.3	578.9	578.5	578.1	577.7	577.6	577.6	577.6	577.6	577.6	578.1
177.5°	581.5	581.1	580.8	580.5	580.1	580.0	579.9	579.8	579.7	579.6	580.1
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	90.0	94.3	98.6	101.5	102.8	104.2	105.5	106.8
90°	84.1	88.8	93.6	96.6	98.2	99.8	101.4	103.0
92.5°	91.7	96.3	101.1	104.2	105.7	107.2	108.7	110.2
95°	104.3	109.0	113.8	116.8	118.4	119.9	121.3	122.8
97.5°	120.3	124.8	129.4	132.3	133.6	135.0	136.4	137.8
100°	131.3	136.0	140.8	143.8	145.1	146.4	147.7	149.0
102.5°	143.0	147.7	152.3	155.3	156.8	158.1	159.5	160.9
105°	161.8	166.0	170.3	173.3	174.8	176.3	177.9	179.5
107.5°	183.3	187.2	191.2	193.6	194.7	195.8	196.9	198.1
110°	198.0	201.8	205.7	208.1	209.3	210.5	211.6	212.8



TEST NUMBER: P333218-927

CATALOG NUMBER: S125DIP-S850D590U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	212.9	216.3	219.8	222.1	223.2	224.3	225.4	226.5
115°	236.0	239.2	242.3	244.5	245.4	246.4	247.4	248.4
117.5°	258.7	262.0	265.1	267.1	268.0	268.9	269.7	270.5
120°	274.4	277.5	280.6	282.5	283.2	283.9	284.6	285.3
122.5°	289.4	292.2	295.2	297.0	297.8	298.6	299.3	300.1
125°	311.8	314.5	317.3	319.0	319.8	320.7	321.5	322.3
127.5°	333.8	336.4	339.0	340.7	341.6	342.5	343.3	344.2
130°	348.9	351.3	353.8	355.4	356.1	356.8	357.5	358.2
132.5°	362.9	365.4	367.8	369.2	369.8	370.3	370.7	371.2
135°	384.1	386.5	388.9	390.4	390.9	391.4	391.9	392.4
137.5°	405.7	408.0	410.3	411.5	411.7	411.9	412.2	412.4
140°	419.1	421.4	423.6	424.8	425.0	425.2	425.5	425.7
142.5°	432.6	434.4	436.3	437.3	437.5	437.8	438.0	438.2
145°	452.8	453.8	454.6	455.3	455.7	456.2	456.6	457.1
147.5°	472.1	472.7	473.2	473.3	472.9	472.6	472.2	471.9
150°	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.3
152.5°	496.5	496.8	497.0	496.9	496.6	496.3	496.0	495.7
155°	513.7	514.1	514.5	514.5	514.0	513.5	512.9	512.5
157.5°	528.6	529.0	529.4	529.3	528.6	528.0	527.4	526.6
160°	537.7	538.1	538.4	538.4	538.0	537.4	536.9	536.5
162.5°	546.1	546.6	547.2	547.1	546.5	545.9	545.3	544.7
165°	557.5	557.9	558.4	558.3	557.7	557.1	556.4	555.9
167.5°	566.0	566.6	567.2	567.2	566.6	565.9	565.3	564.7
170°	571.1	571.6	572.3	572.2	571.6	570.8	570.1	569.4
172.5°	574.7	575.3	575.9	575.9	575.3	574.6	574.0	573.4
175°	578.8	579.3	580.0	579.9	579.2	578.5	577.8	577.1
177.5°	580.6	581.1	581.5	581.5	581.0	580.4	579.8	579.2
180°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7

(END OF REPORT)