

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: P333172-927

Luminaire Tested: **S125DIP-S610D590U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333172-927  
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-S610D590U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 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: 3775.1 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

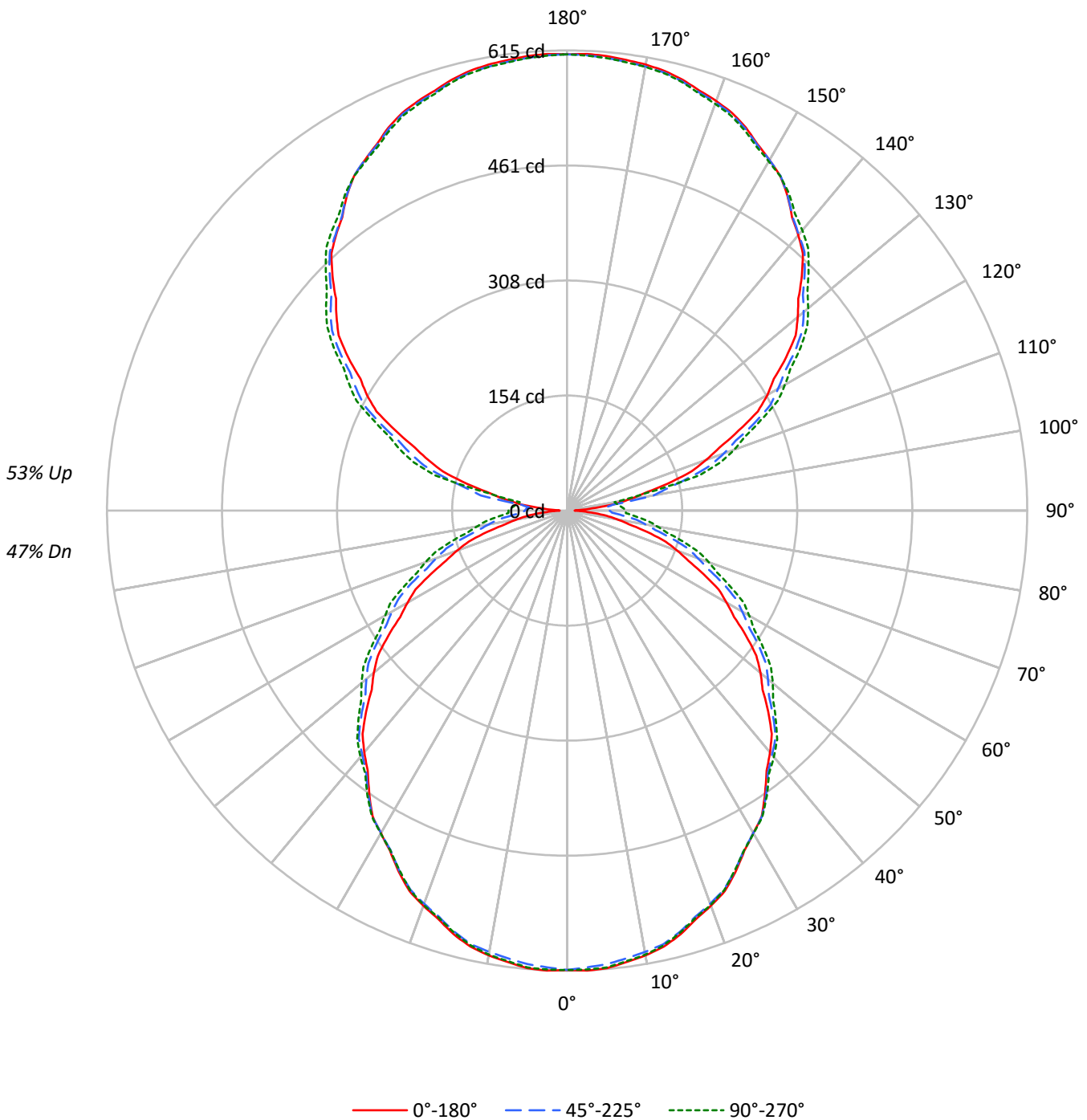
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	96	92	88	84	88	84	81	78	71	68	66	58	56	54	46	45	44	38
2	88	80	73	68	80	73	68	63	62	57	54	51	48	45	40	38	36	32
3	80	70	62	56	73	64	58	52	54	49	45	44	41	38	36	33	31	26
4	73	62	54	47	67	57	50	44	48	42	38	39	35	32	32	29	26	23
5	67	55	47	40	61	51	43	38	43	37	33	35	31	28	28	25	23	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	26	22	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	21	23	20	18	15
8	53	40	32	27	48	37	30	25	32	26	22	26	22	19	22	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	20	17	14	12
10	46	34	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

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

	0°	45°	90°
0°	3965	3965	3965
5°	3973	3892	3904
10°	3945	3822	3817
15°	3898	3740	3705
20°	3834	3636	3593
25°	3759	3526	3457
30°	3667	3405	3332
35°	3583	3293	3217
40°	3496	3176	3103
45°	3398	3076	3001
50°	3305	2967	2910
55°	3192	2865	2804
60°	3069	2747	2697
65°	2942	2625	2574
70°	2795	2458	2451
75°	2563	2297	2296
80°	2262	2101	2129
85°	1981	1972	2077



TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.1	1.5
10°-20°	164.8	4.4
20°-30°	245.1	6.5
30°-40°	290.3	7.7
40°-50°	300.2	8.0
50°-60°	276.5	7.3
60°-70°	223.5	5.9
70°-80°	149.7	4.0
80°-90°	78.9	2.1
90°-100°	65.7	1.7
100°-110°	168.7	4.5
110°-120°	269.2	7.1
120°-130°	330.1	8.7
130°-140°	347.2	9.2
140°-150°	322.0	8.5
150°-160°	259.6	6.9
160°-170°	167.9	4.4
170°-180°	57.9	1.5
0°-30°	467.9	12.4
0°-40°	758.2	20.1
0°-60°	1334.9	35.4
0°-90°	1786.9	47.3
90°-120°	503.6	13.3
90°-150°	1502.8	39.8
90°-180°	1988.0	52.7
0°-180°	3775.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	614	613	608	613	613	58
15°	586	587	583	586	584	165
25°	533	534	531	533	530	245
35°	461	465	463	465	465	288
45°	380	386	389	393	394	293
55°	292	302	311	318	320	261
65°	201	215	229	238	241	199
75°	111	127	146	157	161	117
85°	33	53	74	87	92	35
90°	10	33	57	72	78	7
95°	34	47	51	66	71	39
105°	138	150	168	179	184	147
115°	253	260	276	284	286	251
125°	357	360	372	379	381	319
135°	444	446	449	456	456	342
145°	514	514	514	517	517	321
155°	565	562	563	564	561	260
165°	596	594	594	596	593	168
175°	610	607	607	611	607	58
180°	610	610	610	610	610	



TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	615.4	615.1	615.0	614.7	614.5	614.0	613.3	612.5	611.8	611.0	611.8
5°	613.9	613.6	613.4	613.1	612.8	612.3	611.3	610.4	609.4	608.5	609.6
7.5°	608.5	608.4	608.3	608.2	608.1	607.5	606.6	605.6	604.7	603.7	604.6
10°	603.7	603.7	603.7	603.7	603.7	603.2	602.1	601.0	599.9	598.9	599.8
12.5°	597.0	597.1	597.1	597.3	597.4	597.0	596.1	595.3	594.5	593.6	594.3
15°	586.2	586.4	586.5	586.6	586.8	586.4	585.4	584.5	583.6	582.7	583.4
17.5°	572.3	572.5	572.8	573.1	573.4	573.0	572.1	571.2	570.2	569.3	569.9
20°	562.1	562.4	562.7	563.0	563.2	562.9	562.0	561.0	560.1	559.1	559.5
22.5°	550.6	551.1	551.6	552.1	552.5	552.2	551.2	550.2	549.1	548.1	548.6
25°	532.7	533.1	533.5	533.9	534.2	534.1	533.3	532.5	531.6	530.8	531.4
27.5°	512.7	513.3	513.9	514.4	515.1	514.9	514.0	513.1	512.1	511.3	511.6
30°	497.7	498.6	499.4	500.2	501.0	501.0	500.2	499.4	498.6	497.7	498.0
32.5°	484.3	485.0	485.7	486.4	487.0	487.1	486.6	485.9	485.4	484.7	485.1
35°	461.1	462.0	463.0	463.8	464.8	465.1	464.7	464.2	463.8	463.4	463.8
37.5°	437.8	438.7	439.5	440.4	441.2	441.6	441.5	441.3	441.2	441.1	441.6
40°	421.9	423.0	424.1	425.2	426.2	426.7	426.5	426.4	426.3	426.1	426.7
42.5°	404.6	406.0	407.3	408.8	410.2	411.0	411.3	411.6	411.9	412.2	412.8
45°	379.8	381.3	382.7	384.2	385.7	386.7	387.5	388.1	388.7	389.4	390.4
47.5°	354.4	355.8	357.1	358.5	359.9	361.1	362.3	363.4	364.6	365.7	367.1
50°	337.1	338.5	340.0	341.5	342.9	344.4	345.9	347.4	348.8	350.3	351.8
52.5°	318.8	320.5	322.3	324.2	325.9	327.7	329.5	331.3	333.1	334.9	336.4
55°	291.9	294.1	296.2	298.3	300.5	302.6	304.8	306.9	309.0	311.2	312.7
57.5°	264.5	267.0	269.6	272.2	274.7	277.3	279.7	282.2	284.6	287.1	288.8
60°	246.2	248.8	251.5	254.2	256.9	259.5	262.2	264.9	267.6	270.2	272.3
62.5°	228.4	231.0	233.7	236.4	239.1	241.9	244.7	247.6	250.5	253.4	255.6
65°	201.1	204.1	207.2	210.2	213.3	216.5	219.7	222.9	226.1	229.3	231.3
67.5°	175.3	178.2	181.2	184.2	187.1	190.3	193.5	196.8	200.0	203.4	205.7
70°	156.5	159.5	162.6	165.7	168.8	172.1	175.5	179.0	182.5	186.0	188.5
72.5°	138.2	141.4	144.6	147.7	150.9	154.4	158.2	162.0	165.8	169.6	172.4
75°	110.7	114.2	117.7	121.2	124.7	128.6	132.8	137.1	141.4	145.7	148.3
77.5°	84.4	88.4	92.4	96.4	100.4	104.5	108.6	112.7	116.8	121.0	123.9
80°	68.0	72.0	76.0	80.1	84.1	88.3	92.9	97.4	102.0	106.5	109.5
82.5°	53.1	57.3	61.6	65.8	70.0	74.5	79.1	83.7	88.4	93.1	95.9
85°	33.1	37.5	41.9	46.3	50.8	55.3	60.0	64.6	69.3	74.1	77.0
87.5°	18.9	23.3	27.7	32.2	36.6	41.2	45.9	50.5	55.3	60.0	63.1
90°	10.1	15.1	20.3	25.3	30.4	35.6	40.8	46.1	51.3	56.6	60.1
92.5°	15.6	19.0	22.4	25.8	29.2	33.6	38.8	44.1	49.4	54.7	58.1
95°	33.6	36.8	39.9	43.1	46.3	48.2	49.0	49.7	50.5	51.2	54.6
97.5°	60.9	64.6	68.2	71.9	75.6	75.8	72.6	69.5	66.3	63.1	63.1
100°	82.1	85.2	88.3	91.4	94.5	98.5	103.1	107.8	112.5	117.2	105.0
102.5°	103.7	106.6	109.6	112.6	115.6	119.3	123.7	128.1	132.5	137.0	136.8
105°	138.3	140.9	143.4	145.9	148.5	151.7	155.7	159.8	163.7	167.8	170.5
107.5°	174.3	176.1	177.9	179.7	181.6	184.5	188.5	192.6	196.6	200.7	203.4
110°	197.6	199.2	200.9	202.5	204.1	206.8	210.8	214.8	218.7	222.6	224.9



TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	220.1	221.6	223.2	224.7	226.2	228.8	232.6	236.3	240.1	243.8	245.9
115°	253.1	254.5	256.0	257.4	258.9	261.3	264.9	268.5	272.1	275.7	277.7
117.5°	287.3	287.9	288.5	289.1	289.7	291.8	295.5	299.1	302.9	306.5	308.2
120°	309.0	309.3	309.6	309.9	310.2	312.0	315.4	318.8	322.2	325.5	327.6
122.5°	327.6	328.3	328.8	329.4	329.9	331.8	334.9	338.0	341.1	344.2	346.2
125°	357.2	357.7	358.3	358.9	359.5	361.1	363.8	366.5	369.2	371.8	373.5
127.5°	384.9	385.2	385.6	386.0	386.3	387.6	389.8	391.9	394.0	396.2	397.9
130°	402.3	402.6	403.0	403.4	403.7	404.9	406.9	408.8	410.8	412.8	414.4
132.5°	419.1	419.7	420.3	420.8	421.4	422.2	423.5	424.7	425.9	427.1	429.0
135°	443.7	444.2	444.7	445.1	445.5	446.2	446.9	447.7	448.4	449.1	450.7
137.5°	466.3	466.7	467.1	467.5	467.9	468.3	468.5	468.8	469.1	469.4	471.0
140°	480.6	480.8	481.0	481.2	481.4	481.5	481.6	481.6	481.6	481.6	483.3
142.5°	494.0	494.0	494.0	494.0	494.0	494.1	494.3	494.5	494.6	494.8	496.1
145°	513.6	513.7	513.7	513.8	513.9	513.9	513.9	513.9	513.9	513.9	514.7
147.5°	530.1	530.1	530.0	530.0	530.0	530.0	530.1	530.3	530.4	530.5	530.8
150°	541.0	540.8	540.6	540.4	540.2	540.2	540.4	540.6	540.8	541.0	541.2
152.5°	551.5	551.0	550.6	550.2	549.7	549.6	549.8	550.0	550.2	550.4	550.6
155°	565.0	564.4	563.8	563.2	562.5	562.4	562.5	562.8	562.9	563.2	563.5
157.5°	575.4	575.0	574.6	574.3	573.9	573.8	573.8	573.8	573.8	573.9	574.2
160°	582.6	582.0	581.4	580.7	580.2	580.0	580.0	580.1	580.2	580.4	580.7
162.5°	588.4	587.8	587.2	586.5	586.0	585.7	585.8	585.9	586.0	586.1	586.7
165°	596.1	595.6	594.9	594.4	593.7	593.5	593.6	593.7	593.8	593.9	594.5
167.5°	601.9	601.3	600.7	600.1	599.4	599.2	599.3	599.4	599.4	599.6	600.3
170°	605.2	604.5	603.8	603.1	602.4	602.1	602.1	602.3	602.4	602.5	603.2
172.5°	607.4	606.7	605.9	605.2	604.5	604.3	604.4	604.7	604.8	605.0	605.7
175°	609.7	609.1	608.5	607.9	607.3	607.0	607.1	607.3	607.4	607.4	608.2
177.5°	610.8	610.3	609.8	609.3	608.9	608.6	608.7	608.8	608.9	609.0	609.6
180°	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7



TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
2.5°	612.5	613.3	614.0	614.3	614.3	614.2	614.0	613.9
5°	610.6	611.7	612.8	613.2	613.1	613.0	612.8	612.8
7.5°	605.5	606.5	607.4	607.8	607.7	607.6	607.4	607.3
10°	600.8	601.7	602.6	603.0	602.9	602.8	602.6	602.5
12.5°	595.0	595.7	596.5	596.7	596.3	596.0	595.6	595.2
15°	584.2	585.0	585.8	586.0	585.4	584.9	584.4	583.8
17.5°	570.5	571.1	571.7	571.9	571.6	571.2	570.9	570.6
20°	560.0	560.4	560.8	560.9	560.9	560.9	560.9	560.9
22.5°	549.1	549.6	550.1	550.2	549.9	549.5	549.2	548.9
25°	532.0	532.5	533.0	533.0	532.3	531.6	530.9	530.3
27.5°	512.0	512.4	512.8	512.8	512.5	512.3	512.1	511.8
30°	498.3	498.6	498.8	498.9	498.8	498.6	498.5	498.4
32.5°	485.3	485.5	485.8	485.9	485.8	485.6	485.5	485.4
35°	464.2	464.7	465.1	465.2	465.2	465.2	465.2	465.2
37.5°	442.1	442.7	443.2	443.5	443.4	443.3	443.3	443.2
40°	427.2	427.8	428.3	428.6	429.0	429.2	429.5	429.8
42.5°	413.4	414.1	414.7	415.1	415.2	415.2	415.3	415.3
45°	391.3	392.2	393.2	393.7	393.9	394.0	394.1	394.3
47.5°	368.4	369.8	371.1	372.0	372.3	372.6	372.9	373.2
50°	353.2	354.7	356.2	357.1	357.5	357.9	358.3	358.7
52.5°	338.0	339.6	341.2	342.1	342.5	342.7	343.0	343.3
55°	314.1	315.6	317.0	318.1	318.6	319.2	319.6	320.2
57.5°	290.5	292.2	293.8	294.9	295.3	295.7	296.1	296.5
60°	274.3	276.2	278.3	279.5	279.9	280.3	280.7	281.1
62.5°	257.9	260.1	262.3	263.6	264.1	264.7	265.1	265.7
65°	233.3	235.4	237.3	238.6	239.2	239.7	240.2	240.7
67.5°	208.2	210.6	213.0	214.6	215.3	216.0	216.7	217.4
70°	191.1	193.6	196.1	197.8	198.6	199.4	200.3	201.1
72.5°	175.2	177.8	180.6	182.3	182.9	183.5	184.1	184.7
75°	151.0	153.7	156.4	158.0	158.7	159.4	160.0	160.7
77.5°	126.8	129.8	132.8	134.5	135.0	135.5	136.1	136.7
80°	112.4	115.3	118.3	120.0	120.6	121.1	121.7	122.2
82.5°	98.7	101.6	104.4	106.3	107.3	108.2	109.2	110.1
85°	79.9	82.9	85.8	87.8	88.9	89.9	91.0	92.1
87.5°	66.3	69.5	72.6	74.8	75.7	76.8	77.7	78.7
90°	63.8	67.3	70.9	73.3	74.5	75.8	77.0	78.3
92.5°	61.6	65.0	68.5	70.8	71.9	73.0	74.1	75.1
95°	58.1	61.5	65.0	67.2	68.0	69.0	69.9	70.9
97.5°	63.1	63.1	63.1	63.5	64.4	65.4	66.2	67.2
100°	92.8	80.7	68.5	62.7	63.1	63.5	63.8	64.2
102.5°	136.7	136.6	136.4	133.3	127.3	121.3	115.3	109.2
105°	173.2	175.8	178.5	180.2	181.1	181.9	182.8	183.6
107.5°	206.0	208.7	211.4	212.9	213.5	214.0	214.5	215.1
110°	227.1	229.3	231.6	233.2	234.2	235.3	236.3	237.4





TEST NUMBER: P333172-927

CATALOG NUMBER: S125DIP-S610D590U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	248.0	250.0	252.1	253.5	254.3	255.1	255.9	256.7
115°	279.7	281.7	283.7	284.8	285.0	285.2	285.4	285.6
117.5°	310.0	311.7	313.5	314.7	315.4	316.0	316.6	317.3
120°	329.7	331.8	333.8	335.0	335.3	335.6	336.0	336.2
122.5°	348.2	350.1	352.1	353.2	353.4	353.6	353.9	354.1
125°	375.3	377.0	378.7	379.8	380.2	380.6	380.9	381.3
127.5°	399.7	401.4	403.2	404.1	404.1	404.2	404.2	404.3
130°	415.9	417.5	419.1	419.9	420.1	420.3	420.4	420.6
132.5°	430.8	432.5	434.4	435.3	435.4	435.5	435.5	435.5
135°	452.2	453.7	455.3	456.1	456.1	456.2	456.2	456.3
137.5°	472.6	474.2	475.9	476.7	476.7	476.7	476.7	476.7
140°	485.0	486.6	488.3	489.2	489.1	489.0	488.9	488.9
142.5°	497.4	498.7	499.9	500.6	500.5	500.4	500.4	500.3
145°	515.4	516.2	517.0	517.3	517.2	517.2	517.1	517.1
147.5°	531.2	531.6	531.9	531.8	531.3	530.8	530.4	529.9
150°	541.4	541.6	541.8	541.6	540.9	540.3	539.6	538.9
152.5°	550.8	551.0	551.2	551.0	550.2	549.5	548.9	548.2
155°	563.8	564.0	564.4	564.1	563.3	562.5	561.7	560.9
157.5°	574.5	574.8	575.1	574.9	574.1	573.2	572.4	571.6
160°	581.1	581.5	581.9	581.7	580.9	580.1	579.3	578.5
162.5°	587.2	587.8	588.4	588.2	587.3	586.5	585.6	584.6
165°	595.1	595.7	596.3	596.2	595.4	594.6	593.8	592.9
167.5°	601.0	601.7	602.5	602.4	601.5	600.6	599.7	598.7
170°	604.1	604.9	605.7	605.6	604.8	603.8	602.9	602.1
172.5°	606.4	607.2	607.9	607.8	606.9	606.0	605.1	604.2
175°	609.0	609.8	610.7	610.6	609.7	608.8	607.9	607.0
177.5°	610.1	610.7	611.2	611.2	610.5	609.9	609.3	608.6
180°	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7

(END OF REPORT)