

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: P333172-930

Luminaire Tested: **S125DIP-S610D590U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333172-930  
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-S610D590U930-4F0-1E-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: 3885.3 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

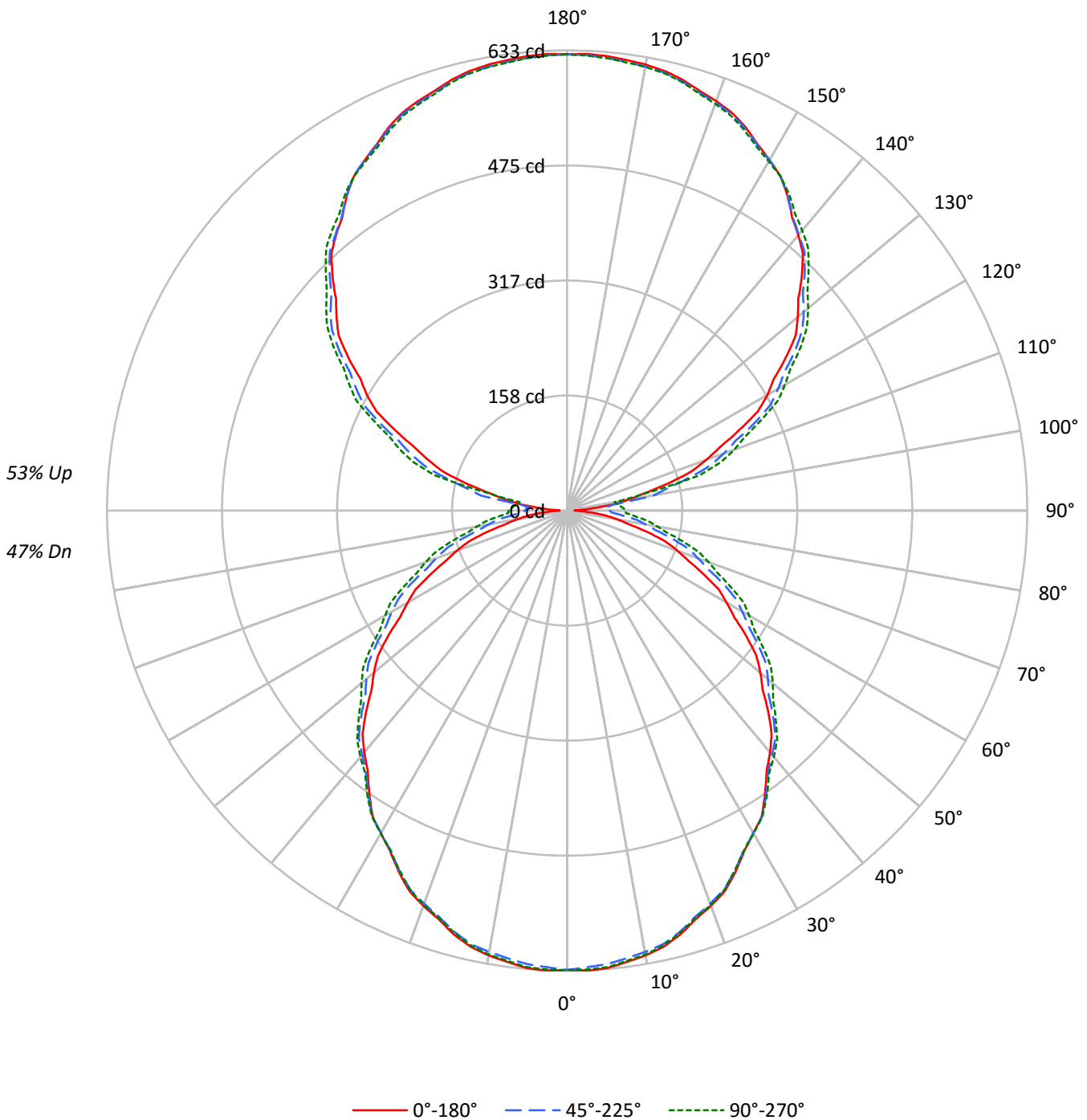
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333172-930

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

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

	0°	45°	90°
0°	4081	4081	4081
5°	4089	4005	4018
10°	4060	3934	3927
15°	4011	3849	3813
20°	3946	3742	3698
25°	3869	3629	3558
30°	3775	3505	3429
35°	3687	3390	3311
40°	3598	3269	3193
45°	3497	3166	3089
50°	3401	3054	2996
55°	3285	2948	2886
60°	3159	2827	2775
65°	3027	2702	2650
70°	2876	2529	2521
75°	2639	2363	2363
80°	2328	2164	2190
85°	2041	2028	2136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	1.5
10°-20°	169.6	4.4
20°-30°	252.2	6.5
30°-40°	298.8	7.7
40°-50°	308.9	8.0
50°-60°	284.6	7.3
60°-70°	230.0	5.9
70°-80°	154.0	4.0
80°-90°	81.2	2.1
90°-100°	67.6	1.7
100°-110°	173.6	4.5
110°-120°	277.0	7.1
120°-130°	339.7	8.7
130°-140°	357.3	9.2
140°-150°	331.4	8.5
150°-160°	267.2	6.9
160°-170°	172.8	4.4
170°-180°	59.6	1.5
0°-30°	481.6	12.4
0°-40°	780.4	20.1
0°-60°	1373.8	35.4
0°-90°	1839.1	47.3
90°-120°	518.3	13.3
90°-150°	1546.7	39.8
90°-180°	2046.0	52.7
0°-180°	3885.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	626	631	631	60
15°	603	604	600	603	601	170
25°	548	550	546	548	546	252
35°	474	478	477	479	479	297
45°	391	398	401	405	406	302
55°	300	310	320	327	330	268
65°	207	221	236	245	248	205
75°	114	130	150	162	165	121
85°	34	55	76	89	95	36
90°	10	34	58	74	81	8
95°	35	49	53	68	73	40
105°	142	154	173	185	189	151
115°	260	268	284	293	294	258
125°	368	371	383	390	392	328
135°	457	459	462	469	470	352
145°	529	529	529	532	532	330
155°	582	579	580	581	577	268
165°	614	611	611	614	610	173
175°	628	625	625	628	625	60
180°	628	628	628	628	628	



TEST NUMBER: P333172-930

CATALOG NUMBER: S125DIP-S610D590U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	633.3	633.1	632.9	632.7	632.4	631.9	631.2	630.4	629.7	628.8	629.7
5°	631.9	631.5	631.3	631.0	630.7	630.1	629.2	628.2	627.2	626.2	627.4
7.5°	626.2	626.1	626.1	625.9	625.8	625.3	624.3	623.3	622.3	621.3	622.2
10°	621.3	621.3	621.3	621.3	621.3	620.8	619.6	618.6	617.4	616.4	617.3
12.5°	614.4	614.5	614.6	614.7	614.8	614.4	613.5	612.7	611.8	610.9	611.6
15°	603.3	603.5	603.6	603.7	603.9	603.5	602.5	601.5	600.6	599.7	600.5
17.5°	589.0	589.2	589.5	589.8	590.1	589.7	588.8	587.8	586.9	585.9	586.5
20°	578.5	578.9	579.1	579.4	579.7	579.4	578.4	577.4	576.4	575.4	575.8
22.5°	566.7	567.2	567.7	568.2	568.7	568.3	567.3	566.2	565.2	564.1	564.6
25°	548.2	548.6	549.0	549.4	549.8	549.7	548.9	548.0	547.1	546.3	546.9
27.5°	527.7	528.2	528.9	529.5	530.1	529.9	529.0	528.1	527.1	526.2	526.5
30°	512.3	513.1	514.0	514.8	515.6	515.6	514.8	514.0	513.1	512.3	512.6
32.5°	498.4	499.1	499.9	500.6	501.2	501.3	500.8	500.1	499.5	498.9	499.2
35°	474.5	475.5	476.5	477.4	478.3	478.7	478.3	477.8	477.4	477.0	477.4
37.5°	450.6	451.5	452.3	453.2	454.1	454.4	454.4	454.2	454.0	454.0	454.4
40°	434.2	435.4	436.4	437.6	438.6	439.1	439.0	438.9	438.7	438.5	439.1
42.5°	416.4	417.8	419.2	420.7	422.2	423.0	423.3	423.6	423.9	424.2	424.9
45°	390.9	392.4	393.9	395.4	397.0	398.0	398.8	399.4	400.1	400.8	401.8
47.5°	364.8	366.2	367.5	368.9	370.4	371.6	372.8	374.0	375.2	376.3	377.8
50°	346.9	348.4	349.9	351.5	352.9	354.5	356.0	357.5	359.0	360.5	362.1
52.5°	328.1	329.9	331.7	333.6	335.4	337.3	339.2	341.0	342.8	344.6	346.3
55°	300.4	302.6	304.8	307.0	309.2	311.4	313.6	315.8	318.0	320.2	321.8
57.5°	272.2	274.8	277.4	280.1	282.7	285.4	287.9	290.4	292.9	295.5	297.2
60°	253.4	256.1	258.9	261.6	264.4	267.1	269.9	272.6	275.4	278.1	280.2
62.5°	235.1	237.7	240.5	243.3	246.1	248.9	251.8	254.9	257.8	260.8	263.1
65°	206.9	210.1	213.2	216.4	219.6	222.8	226.1	229.4	232.7	236.0	238.1
67.5°	180.4	183.4	186.5	189.6	192.6	195.8	199.2	202.5	205.9	209.3	211.7
70°	161.0	164.2	167.4	170.6	173.7	177.1	180.7	184.3	187.8	191.4	194.0
72.5°	142.2	145.5	148.8	152.1	155.3	158.9	162.8	166.7	170.6	174.6	177.4
75°	114.0	117.6	121.2	124.7	128.3	132.3	136.7	141.1	145.5	149.9	152.6
77.5°	86.8	91.0	95.1	99.2	103.4	107.5	111.8	116.0	120.3	124.5	127.5
80°	70.0	74.1	78.3	82.4	86.5	90.9	95.6	100.3	104.9	109.7	112.7
82.5°	54.6	58.9	63.3	67.7	72.1	76.6	81.4	86.2	91.0	95.8	98.7
85°	34.1	38.6	43.1	47.7	52.3	56.9	61.7	66.5	71.3	76.2	79.2
87.5°	19.4	24.0	28.5	33.1	37.7	42.4	47.2	52.0	56.9	61.7	65.0
90°	10.4	15.6	20.9	26.1	31.3	36.6	42.0	47.5	52.8	58.2	61.9
92.5°	16.1	19.6	23.1	26.6	30.1	34.6	39.9	45.4	50.8	56.3	59.8
95°	34.6	37.8	41.1	44.4	47.6	49.7	50.4	51.1	51.9	52.7	56.2
97.5°	62.7	66.4	70.2	74.0	77.8	78.0	74.8	71.5	68.2	65.0	65.0
100°	84.5	87.7	90.9	94.1	97.3	101.3	106.2	111.0	115.8	120.6	108.1
102.5°	106.7	109.7	112.8	115.9	119.0	122.8	127.3	131.8	136.4	141.0	140.8
105°	142.4	145.0	147.6	150.2	152.8	156.1	160.3	164.4	168.5	172.7	175.5
107.5°	179.4	181.2	183.1	185.0	186.9	189.9	194.0	198.2	202.4	206.5	209.3
110°	203.4	205.0	206.8	208.4	210.0	212.9	217.0	221.0	225.1	229.1	231.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	226.5	228.0	229.7	231.2	232.8	235.5	239.4	243.2	247.1	250.9	253.1
115°	260.5	262.0	263.4	264.9	266.4	269.0	272.6	276.4	280.1	283.7	285.8
117.5°	295.7	296.3	296.9	297.5	298.2	300.4	304.1	307.9	311.7	315.4	317.2
120°	318.0	318.3	318.6	318.9	319.3	321.1	324.7	328.1	331.6	335.0	337.2
122.5°	337.2	337.9	338.4	339.0	339.6	341.4	344.7	347.9	351.1	354.2	356.3
125°	367.6	368.2	368.8	369.4	370.0	371.6	374.4	377.2	379.9	382.6	384.4
127.5°	396.2	396.5	396.9	397.3	397.6	398.9	401.1	403.3	405.5	407.7	409.5
130°	414.0	414.3	414.7	415.2	415.5	416.7	418.7	420.8	422.8	424.9	426.5
132.5°	431.4	431.9	432.5	433.1	433.7	434.6	435.9	437.1	438.3	439.6	441.5
135°	456.6	457.1	457.6	458.1	458.5	459.2	459.9	460.7	461.5	462.2	463.8
137.5°	479.9	480.3	480.7	481.1	481.6	481.9	482.2	482.5	482.7	483.1	484.7
140°	494.6	494.8	495.0	495.2	495.5	495.5	495.6	495.6	495.7	495.7	497.4
142.5°	508.4	508.4	508.4	508.4	508.4	508.5	508.7	508.9	509.1	509.2	510.5
145°	528.6	528.6	528.7	528.8	528.9	528.9	528.9	528.9	528.9	528.9	529.7
147.5°	545.6	545.6	545.5	545.5	545.4	545.5	545.6	545.8	545.8	546.0	546.3
150°	556.8	556.6	556.4	556.2	556.0	556.0	556.2	556.4	556.6	556.8	557.0
152.5°	567.6	567.1	566.7	566.2	565.7	565.7	565.8	566.1	566.2	566.5	566.7
155°	581.5	580.8	580.2	579.6	578.9	578.8	578.9	579.2	579.4	579.6	579.9
157.5°	592.2	591.7	591.4	591.0	590.7	590.5	590.5	590.5	590.5	590.6	590.9
160°	599.6	599.0	598.3	597.7	597.1	596.9	597.0	597.0	597.1	597.3	597.7
162.5°	605.5	605.0	604.3	603.6	603.1	602.8	602.9	603.0	603.1	603.2	603.8
165°	613.5	612.9	612.3	611.7	611.1	610.8	610.9	611.0	611.1	611.2	611.8
167.5°	619.5	618.9	618.2	617.6	616.9	616.7	616.8	616.9	616.9	617.1	617.8
170°	622.9	622.2	621.4	620.7	620.0	619.6	619.7	619.9	620.0	620.0	620.9
172.5°	625.1	624.4	623.6	622.9	622.2	621.9	622.1	622.3	622.5	622.6	623.4
175°	627.5	626.9	626.2	625.7	625.0	624.8	624.8	625.0	625.1	625.2	626.0
177.5°	628.6	628.1	627.6	627.1	626.6	626.4	626.5	626.6	626.6	626.7	627.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	630.4	631.2	631.9	632.3	632.2	632.1	631.9	631.9
5°	628.4	629.6	630.6	631.1	631.0	630.9	630.7	630.6
7.5°	623.2	624.2	625.2	625.6	625.4	625.3	625.2	625.0
10°	618.3	619.2	620.2	620.6	620.5	620.4	620.2	620.0
12.5°	612.4	613.1	613.9	614.1	613.7	613.3	613.0	612.6
15°	601.3	602.1	602.9	603.1	602.5	601.9	601.4	600.9
17.5°	587.2	587.7	588.4	588.6	588.2	587.9	587.6	587.3
20°	576.3	576.7	577.2	577.3	577.3	577.3	577.3	577.3
22.5°	565.1	565.7	566.1	566.2	565.9	565.6	565.2	564.9
25°	547.5	548.0	548.5	548.5	547.8	547.1	546.4	545.8
27.5°	526.9	527.3	527.7	527.7	527.5	527.3	527.0	526.8
30°	512.8	513.1	513.4	513.5	513.3	513.1	513.1	512.9
32.5°	499.5	499.7	500.0	500.1	499.9	499.8	499.7	499.5
35°	477.8	478.3	478.7	478.8	478.8	478.8	478.8	478.8
37.5°	455.0	455.6	456.2	456.4	456.3	456.2	456.2	456.2
40°	439.7	440.3	440.8	441.2	441.5	441.7	442.1	442.3
42.5°	425.5	426.2	426.8	427.2	427.3	427.3	427.4	427.5
45°	402.7	403.7	404.6	405.2	405.4	405.4	405.6	405.8
47.5°	379.2	380.6	382.0	382.9	383.2	383.4	383.8	384.1
50°	363.5	365.1	366.6	367.5	367.9	368.4	368.8	369.2
52.5°	347.9	349.5	351.1	352.1	352.5	352.7	353.0	353.4
55°	323.3	324.8	326.3	327.3	327.9	328.5	329.0	329.5
57.5°	299.0	300.7	302.4	303.5	303.9	304.4	304.8	305.2
60°	282.3	284.3	286.4	287.6	288.0	288.5	288.9	289.3
62.5°	265.4	267.7	269.9	271.3	271.8	272.4	272.9	273.5
65°	240.1	242.2	244.3	245.6	246.1	246.7	247.2	247.8
67.5°	214.3	216.8	219.2	220.9	221.6	222.3	223.1	223.7
70°	196.7	199.3	201.9	203.6	204.4	205.2	206.1	206.9
72.5°	180.3	183.0	185.9	187.6	188.3	188.8	189.5	190.0
75°	155.4	158.2	160.9	162.7	163.3	164.0	164.7	165.4
77.5°	130.5	133.6	136.6	138.4	138.9	139.5	140.1	140.6
80°	115.7	118.7	121.7	123.5	124.1	124.7	125.2	125.7
82.5°	101.6	104.5	107.5	109.4	110.4	111.4	112.3	113.3
85°	82.3	85.3	88.3	90.3	91.5	92.5	93.7	94.7
87.5°	68.2	71.5	74.8	77.0	77.9	79.0	80.0	81.0
90°	65.6	69.3	73.0	75.4	76.7	78.0	79.2	80.6
92.5°	63.4	66.9	70.5	72.9	74.0	75.1	76.2	77.3
95°	59.8	63.3	66.9	69.1	70.0	71.0	72.0	73.0
97.5°	65.0	64.9	64.9	65.4	66.3	67.3	68.2	69.1
100°	95.6	83.1	70.5	64.5	64.9	65.3	65.7	66.1
102.5°	140.6	140.6	140.4	137.2	131.0	124.8	118.6	112.4
105°	178.2	180.9	183.7	185.5	186.4	187.2	188.1	189.0
107.5°	212.1	214.8	217.5	219.2	219.7	220.3	220.8	221.4
110°	233.7	236.0	238.4	240.0	241.1	242.1	243.2	244.3





TEST NUMBER: P333172-930

CATALOG NUMBER: S125DIP-S610D590U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	255.2	257.3	259.4	260.9	261.7	262.5	263.3	264.2
115°	287.9	289.9	292.0	293.1	293.3	293.5	293.8	293.9
117.5°	319.0	320.8	322.7	323.9	324.6	325.2	325.9	326.5
120°	339.3	341.4	343.6	344.8	345.1	345.4	345.8	346.0
122.5°	358.3	360.4	362.4	363.5	363.7	363.9	364.2	364.4
125°	386.2	388.0	389.8	390.9	391.3	391.7	392.0	392.4
127.5°	411.3	413.1	415.0	415.9	415.9	416.0	416.0	416.0
130°	428.0	429.7	431.3	432.2	432.4	432.5	432.7	432.8
132.5°	443.4	445.2	447.0	448.0	448.1	448.2	448.2	448.3
135°	465.4	466.9	468.6	469.4	469.4	469.5	469.5	469.6
137.5°	486.4	488.0	489.8	490.6	490.6	490.6	490.6	490.6
140°	499.1	500.8	502.6	503.4	503.4	503.3	503.2	503.1
142.5°	511.9	513.2	514.5	515.2	515.1	515.0	515.0	514.9
145°	530.4	531.2	532.1	532.4	532.3	532.3	532.2	532.1
147.5°	546.7	547.1	547.4	547.3	546.8	546.3	545.8	545.4
150°	557.2	557.4	557.6	557.4	556.7	556.0	555.3	554.6
152.5°	566.9	567.1	567.3	567.0	566.3	565.6	564.9	564.2
155°	580.2	580.5	580.8	580.6	579.8	578.9	578.1	577.2
157.5°	591.3	591.6	591.9	591.7	590.8	590.0	589.1	588.3
160°	598.1	598.5	598.9	598.7	597.9	597.0	596.2	595.4
162.5°	604.4	605.0	605.5	605.4	604.5	603.6	602.7	601.7
165°	612.5	613.1	613.7	613.6	612.8	612.0	611.1	610.3
167.5°	618.6	619.3	620.0	620.0	619.1	618.1	617.2	616.2
170°	621.7	622.6	623.4	623.3	622.4	621.4	620.5	619.6
172.5°	624.1	624.9	625.7	625.6	624.6	623.7	622.7	621.8
175°	626.8	627.6	628.5	628.4	627.5	626.6	625.7	624.7
177.5°	627.9	628.5	629.1	629.0	628.4	627.7	627.0	626.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5

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