

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: P333181-930

Luminaire Tested: **S125DIP-S610D810U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333181-930  
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-S610D810U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4600.1 lumens  
Efficiency: N/A  
Efficacy: 119.8 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: Semi-Indirect

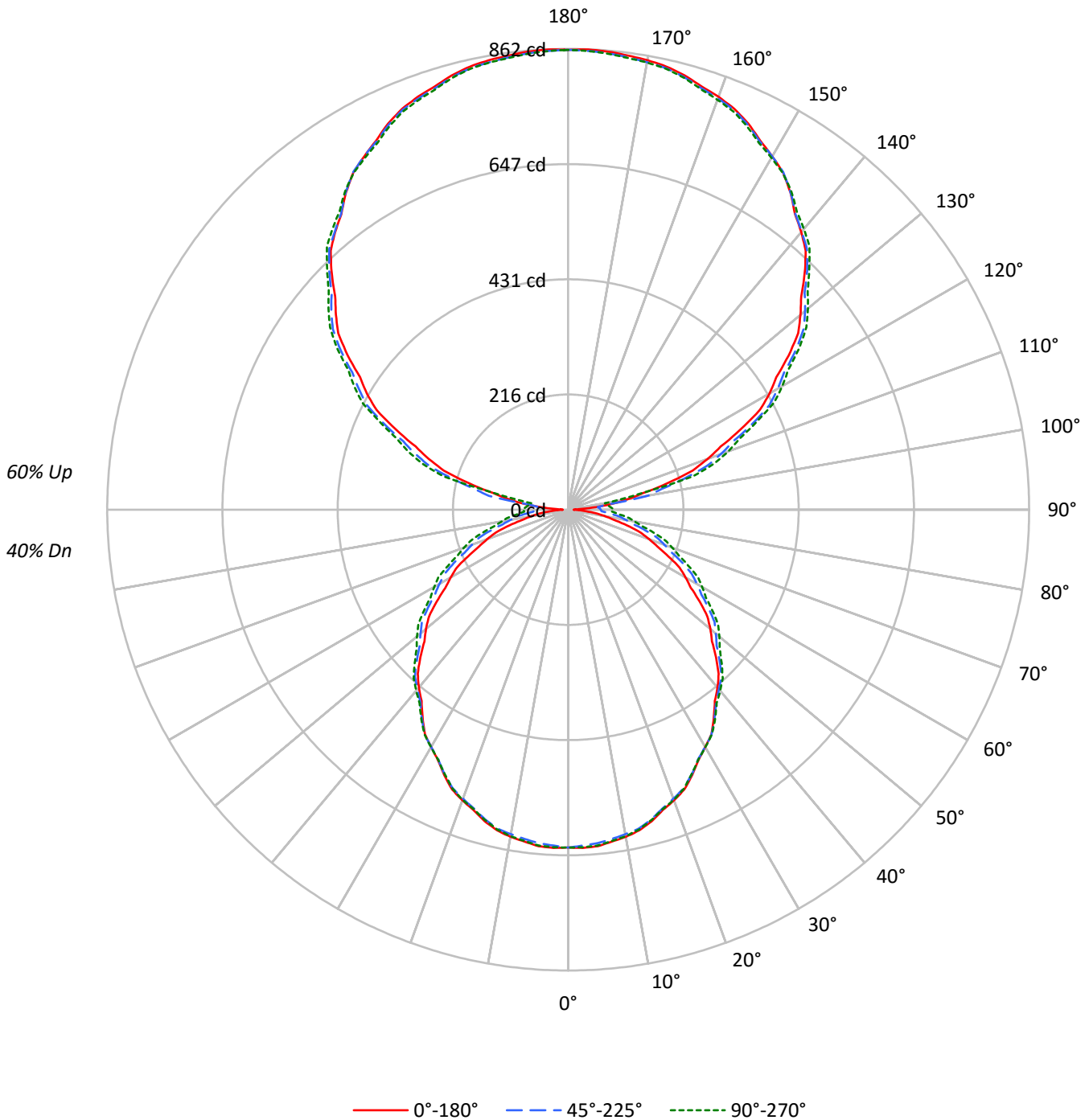
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333181-930

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**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	50	30	10	50	30	10	0		
RCR																										
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40								
1	95	90	86	83	86	82	79	76	67	65	63	53	52	50	41	39	38	32								
2	86	79	72	67	78	72	66	62	59	55	51	46	44	41	35	33	32	27								
3	78	69	61	56	71	63	56	51	51	47	43	41	38	35	31	29	27	22								
4	72	61	53	47	65	55	49	43	46	40	36	36	33	30	28	25	23	19								
5	66	54	46	40	59	49	42	37	41	35	31	32	29	25	25	22	20	16								
6	60	48	40	34	55	44	37	32	36	31	27	29	25	22	22	20	17	14								
7	56	43	36	30	51	40	33	28	33	28	24	27	23	20	20	18	15	13								
8	52	39	32	26	47	36	29	25	30	25	21	24	20	17	19	16	14	11								
9	48	36	28	23	44	33	26	22	27	22	19	22	18	15	17	14	12	10								
10	45	33	26	21	41	30	24	19	25	20	17	21	17	14	16	13	11	9								

**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	1.3
10°-20°	169.6	3.7
20°-30°	252.2	5.5
30°-40°	298.8	6.5
40°-50°	308.9	6.7
50°-60°	284.6	6.2
60°-70°	230.0	5.0
70°-80°	154.0	3.3
80°-90°	81.7	1.8
90°-100°	76.1	1.7
100°-110°	225.7	4.9
110°-120°	371.5	8.1
120°-130°	461.0	10.0
130°-140°	487.8	10.6
140°-150°	453.8	9.9
150°-160°	366.2	8.0
160°-170°	236.8	5.1
170°-180°	81.7	1.8
0°-30°	481.6	10.5
0°-40°	780.4	17.0
0°-60°	1373.8	29.9
0°-90°	1839.6	40.0
90°-120°	673.3	14.6
90°-150°	2075.8	45.1
90°-180°	2761.0	60.0
0°-180°	4600.1	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	36	61	78	85	8
95°	44	58	55	72	77	53
105°	193	206	224	236	240	205
115°	356	364	380	388	388	352
125°	503	507	519	526	528	449
135°	625	629	632	638	638	482
145°	724	725	725	728	727	453
155°	797	793	794	796	791	367
165°	841	837	838	841	836	237
175°	860	857	857	861	856	82
180°	860	860	860	860	860	



TEST NUMBER: P333181-930

CATALOG NUMBER: S125DIP-S610D810U930-4F0-1E-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°	19.5	24.1	28.7	33.3	38.0	42.7	47.6	52.5	57.4	62.3	65.6
90°	10.5	16.1	21.6	27.1	32.7	38.3	43.9	49.7	55.4	61.0	64.9
92.5°	18.8	22.0	25.3	28.6	31.9	36.4	42.0	47.7	53.3	59.0	62.8
95°	44.4	47.5	50.7	53.9	57.0	58.2	57.6	56.8	56.1	55.4	59.2
97.5°	83.2	87.2	91.2	95.1	99.1	98.1	91.9	85.8	79.7	73.5	72.4
100°	113.3	116.6	119.9	123.3	126.5	130.7	135.7	140.6	145.6	150.6	132.4
102.5°	143.9	147.2	150.3	153.5	156.8	160.7	165.3	169.9	174.6	179.2	178.0
105°	193.1	195.8	198.6	201.3	204.1	207.6	211.7	215.8	220.0	224.0	226.8
107.5°	244.0	245.9	247.8	249.6	251.5	254.6	258.9	263.1	267.3	271.6	274.3
110°	277.2	278.9	280.5	282.2	283.8	286.7	290.9	295.0	299.1	303.3	305.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	308.8	310.5	312.2	313.8	315.5	318.3	322.2	326.1	330.0	333.9	335.9
115°	355.6	357.3	359.0	360.7	362.4	365.1	368.8	372.5	376.2	379.9	381.9
117.5°	404.1	404.7	405.4	405.9	406.6	408.9	412.8	416.7	420.6	424.5	426.2
120°	434.7	435.0	435.3	435.5	435.9	437.7	441.3	445.0	448.6	452.2	454.2
122.5°	461.3	462.0	462.8	463.5	464.2	466.2	469.4	472.7	476.0	479.2	481.2
125°	503.0	503.9	504.7	505.6	506.4	508.2	510.9	513.7	516.5	519.3	520.9
127.5°	542.3	542.8	543.4	544.0	544.5	545.9	548.1	550.3	552.4	554.6	556.4
130°	566.8	567.4	567.9	568.5	569.1	570.4	572.4	574.5	576.6	578.6	580.2
132.5°	590.8	591.6	592.3	593.1	593.9	594.9	596.1	597.3	598.4	599.7	601.4
135°	625.4	626.1	626.9	627.6	628.3	629.0	629.7	630.4	631.0	631.7	633.2
137.5°	657.3	657.9	658.6	659.3	659.8	660.2	660.5	660.7	660.9	661.1	662.8
140°	677.8	678.0	678.3	678.6	678.9	679.1	679.0	679.0	679.0	679.0	680.8
142.5°	696.6	696.7	696.8	696.8	696.8	697.0	697.2	697.5	697.7	697.9	699.3
145°	724.3	724.5	724.6	724.7	724.9	725.0	725.0	725.0	725.0	725.0	725.8
147.5°	747.9	747.9	747.8	747.7	747.7	747.7	747.9	748.0	748.3	748.4	748.8
150°	763.2	763.0	762.6	762.4	762.1	762.1	762.4	762.6	763.0	763.2	763.5
152.5°	778.0	777.4	776.7	776.2	775.5	775.3	775.6	775.9	776.2	776.5	776.7
155°	797.0	796.1	795.3	794.4	793.6	793.3	793.6	793.9	794.2	794.4	794.8
157.5°	811.6	811.1	810.7	810.2	809.6	809.3	809.4	809.4	809.4	809.5	809.9
160°	821.9	821.0	820.2	819.3	818.5	818.2	818.2	818.4	818.6	818.6	819.2
162.5°	830.1	829.2	828.3	827.4	826.6	826.3	826.4	826.6	826.7	826.9	827.6
165°	841.0	840.2	839.3	838.5	837.6	837.2	837.4	837.6	837.6	837.8	838.7
167.5°	849.1	848.3	847.4	846.5	845.6	845.3	845.4	845.5	845.7	845.9	846.9
170°	853.8	852.7	851.7	850.8	849.8	849.4	849.5	849.6	849.8	849.9	851.1
172.5°	856.8	855.8	854.8	853.9	852.8	852.5	852.7	853.0	853.2	853.5	854.5
175°	860.1	859.2	858.4	857.6	856.7	856.4	856.5	856.6	856.8	857.0	858.1
177.5°	861.7	861.0	860.3	859.7	858.9	858.7	858.8	858.8	859.0	859.1	859.9
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1



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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°	68.9	72.2	75.5	77.7	78.7	79.7	80.8	81.9
90°	68.7	72.6	76.5	79.2	80.6	81.9	83.3	84.7
92.5°	66.5	70.3	74.1	76.6	77.7	78.8	80.0	81.2
95°	62.9	66.6	70.4	72.7	73.7	74.7	75.6	76.6
97.5°	71.3	70.2	69.1	69.0	70.0	70.8	71.8	72.7
100°	114.1	96.0	77.7	68.7	69.0	69.2	69.5	69.8
102.5°	176.8	175.5	174.3	169.3	160.5	151.7	142.9	134.1
105°	229.6	232.4	235.1	236.8	237.7	238.6	239.4	240.2
107.5°	277.1	279.9	282.6	284.2	284.6	285.0	285.5	285.9
110°	307.7	309.8	312.0	313.7	314.8	315.9	317.0	318.1





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CATALOG NUMBER: S125DIP-S610D810U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	337.9	339.8	341.8	343.2	344.0	344.7	345.4	346.3
115°	383.8	385.6	387.6	388.5	388.5	388.5	388.5	388.4
117.5°	427.7	429.3	431.0	432.0	432.6	433.2	433.7	434.3
120°	456.2	458.3	460.4	461.5	461.5	461.7	461.8	461.9
122.5°	483.1	485.1	487.0	488.0	488.0	488.0	488.0	488.0
125°	522.5	524.2	525.8	526.7	527.0	527.3	527.5	527.7
127.5°	558.1	559.8	561.5	562.3	562.0	561.7	561.5	561.3
130°	581.6	583.2	584.7	585.4	585.4	585.4	585.3	585.3
132.5°	603.3	605.1	607.0	607.9	607.7	607.6	607.5	607.3
135°	634.7	636.3	637.7	638.4	638.2	638.1	637.9	637.7
137.5°	664.5	666.2	667.8	668.5	668.4	668.2	668.1	667.8
140°	682.6	684.4	686.2	687.0	686.6	686.3	686.1	685.7
142.5°	700.6	702.0	703.3	703.8	703.5	703.3	703.0	702.6
145°	726.6	727.4	728.3	728.6	728.2	727.9	727.7	727.3
147.5°	749.2	749.6	750.0	749.7	749.0	748.3	747.5	746.7
150°	763.8	764.1	764.3	764.0	763.0	762.0	761.0	760.0
152.5°	777.1	777.3	777.6	777.2	776.2	775.3	774.3	773.3
155°	795.3	795.7	796.1	795.8	794.7	793.5	792.4	791.2
157.5°	810.4	810.9	811.3	811.0	809.8	808.7	807.6	806.4
160°	819.8	820.4	820.9	820.7	819.5	818.4	817.3	816.1
162.5°	828.4	829.2	830.0	829.8	828.5	827.3	826.1	824.8
165°	839.5	840.3	841.2	841.1	839.9	838.8	837.6	836.5
167.5°	847.9	848.9	849.9	849.8	848.5	847.3	846.0	844.7
170°	852.2	853.3	854.4	854.4	853.1	851.8	850.5	849.3
172.5°	855.5	856.6	857.6	857.5	856.1	854.9	853.6	852.3
175°	859.2	860.3	861.4	861.4	860.1	858.8	857.6	856.3
177.5°	860.7	861.4	862.3	862.3	861.3	860.4	859.5	858.6
180°	860.1	860.1	860.1	860.1	860.1	860.1	860.1	860.1

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