

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: P333183-930

Luminaire Tested: **S125DIP-S610D810U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333183-930  
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-S610D810U930-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

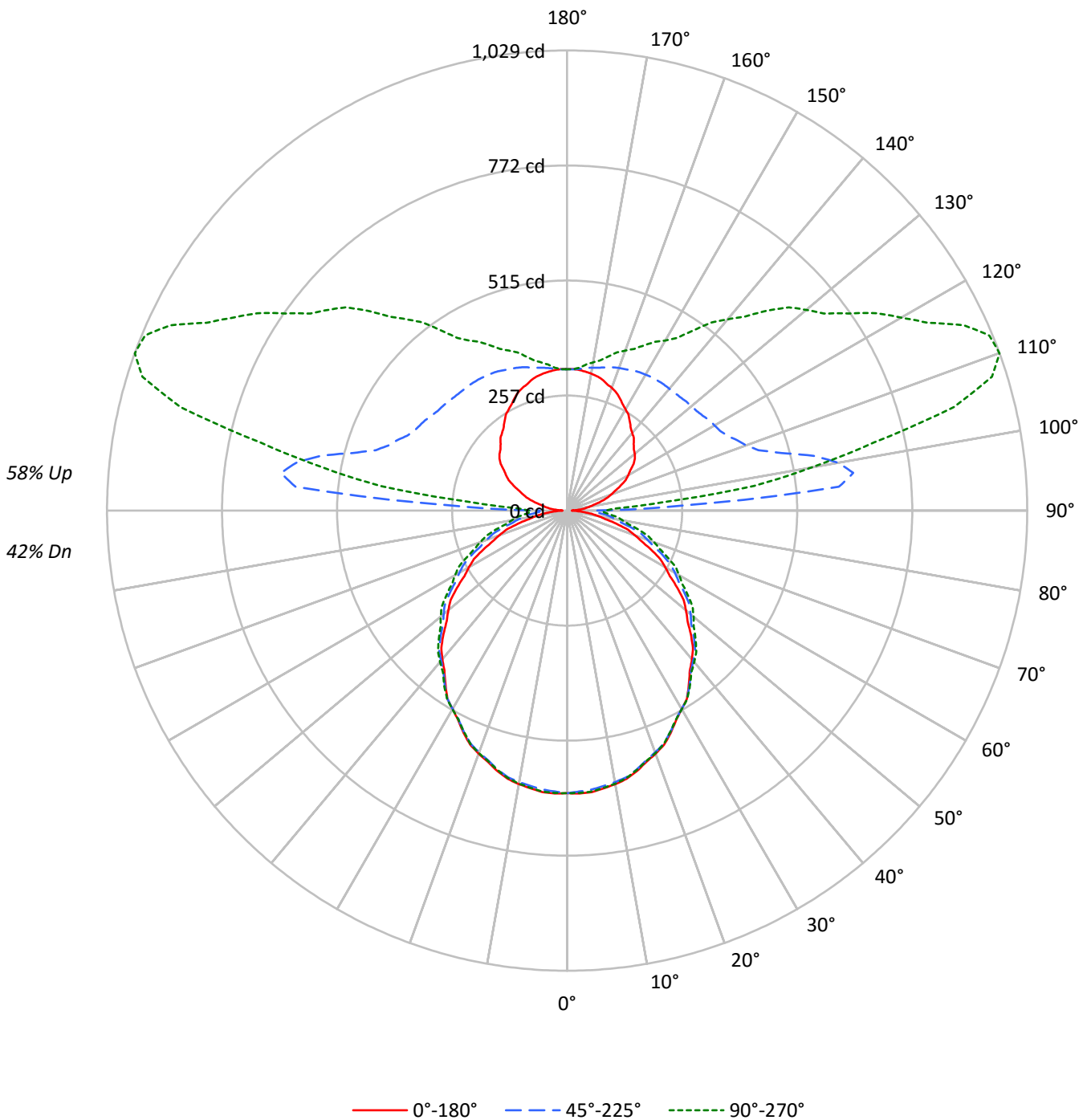
Lumens per Lamp: N/A  
Luminaire Lumens: 4329.9 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

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





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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	0
RCR																		
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	42
1	95	91	87	83	87	83	80	76	68	66	64	55	53	52	42	41	40	34
2	87	79	73	67	79	72	67	62	60	56	52	48	45	43	37	35	33	28
3	79	69	62	56	72	63	57	52	52	47	44	42	39	36	33	30	28	24
4	72	61	53	47	65	56	49	44	46	41	37	37	33	30	29	26	24	20
5	66	54	46	40	60	50	43	37	41	36	32	33	29	26	26	23	21	17
6	61	49	40	35	55	45	37	32	37	32	27	30	26	23	24	21	18	15
7	56	44	36	30	51	40	33	28	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	21	25	21	18	20	17	14	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

**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	1.4
10°-20°	169.6	3.9
20°-30°	252.2	5.8
30°-40°	298.8	6.9
40°-50°	308.9	7.1
50°-60°	284.6	6.6
60°-70°	230.0	5.3
70°-80°	154.0	3.6
80°-90°	81.7	1.9
90°-100°	274.0	6.3
100°-110°	525.7	12.1
110°-120°	484.5	11.2
120°-130°	387.3	8.9
130°-140°	306.2	7.1
140°-150°	228.0	5.3
150°-160°	159.7	3.7
160°-170°	94.2	2.2
170°-180°	30.6	0.7
0°-30°	481.6	11.1
0°-40°	780.4	18.0
0°-60°	1373.8	31.7
0°-90°	1839.6	42.5
90°-120°	1284.3	29.7
90°-150°	2205.9	50.9
90°-180°	2490.0	57.5
0°-180°	4329.9	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	84	8
95°	29	87	610	315	213	29
105°	78	117	496	956	895	82
115°	132	164	395	835	980	130
125°	181	212	370	660	769	160
135°	210	252	358	546	632	163
145°	244	279	354	445	491	153
155°	278	299	346	390	407	128
165°	304	312	332	352	357	85
175°	316	316	318	322	321	30
180°	316	316	316	316	316	



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**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	24.0	28.6	33.3	38.0	42.8	47.5	52.5	57.3	62.3	65.6
90°	10.5	15.6	21.3	27.0	32.6	38.5	43.8	49.7	55.0	61.0	64.8
92.5°	16.7	22.4	31.9	43.9	58.9	81.9	121.6	184.7	252.8	254.4	218.3
95°	29.1	33.3	42.0	52.6	70.2	103.0	175.9	320.8	501.4	610.0	601.0
97.5°	42.2	46.2	53.0	63.3	79.1	103.6	153.3	260.6	449.1	645.3	744.3
100°	51.4	55.6	61.1	70.9	85.9	108.8	150.1	237.4	402.4	615.3	777.6
102.5°	61.6	65.1	69.8	80.0	93.8	115.9	153.0	227.0	366.9	564.8	754.1
105°	77.6	79.8	85.2	93.8	106.2	127.2	159.4	220.2	330.8	496.3	681.9
107.5°	93.2	96.4	101.3	108.4	120.8	139.8	170.9	223.5	314.2	448.5	609.1
110°	104.4	107.4	111.5	119.0	130.1	149.4	179.4	227.3	308.3	425.6	567.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	116.2	118.7	122.1	129.1	140.1	158.7	187.5	232.7	306.4	411.4	535.6
115°	132.5	134.7	137.6	144.3	154.8	173.0	200.2	240.8	305.5	395.2	500.3
117.5°	147.2	149.7	152.4	158.7	170.2	187.7	213.4	250.4	307.0	385.7	477.9
120°	157.4	159.7	162.7	168.8	180.0	197.8	223.2	257.1	309.2	380.7	465.2
122.5°	167.5	169.2	171.4	177.3	189.4	206.9	232.3	264.5	311.0	376.1	454.0
125°	181.0	182.1	185.2	190.8	202.8	220.6	244.4	274.6	314.3	370.0	438.5
127.5°	190.9	192.7	196.7	203.7	216.5	234.2	256.7	284.2	318.7	365.6	424.0
130°	197.5	199.3	204.3	212.5	225.7	243.2	264.9	291.0	321.6	363.1	414.7
132.5°	202.2	204.6	210.7	220.0	233.8	251.1	272.4	296.5	324.7	361.1	406.6
135°	210.3	212.7	220.3	230.3	243.5	261.2	281.9	303.9	328.5	358.1	396.2
137.5°	220.7	222.5	229.5	239.6	252.6	270.5	288.9	309.6	332.5	356.7	387.3
140°	226.3	228.2	235.9	246.1	258.1	275.4	294.1	313.3	333.9	355.7	382.7
142.5°	233.4	234.7	241.7	251.8	263.3	279.5	297.0	315.1	334.5	355.2	379.0
145°	244.1	245.2	251.5	260.3	271.7	286.3	302.8	318.7	336.0	354.4	374.2
147.5°	254.7	255.5	261.0	269.3	279.2	292.1	306.6	321.1	336.6	352.8	369.8
150°	261.4	262.6	267.1	275.4	284.3	295.1	309.2	322.5	336.6	351.2	366.6
152.5°	268.5	269.3	273.2	280.5	288.9	298.7	311.7	323.6	336.1	349.2	363.0
155°	277.9	277.9	281.8	288.1	294.5	303.5	314.3	324.5	334.7	345.5	357.0
157.5°	286.3	286.3	289.3	294.7	300.4	307.1	316.4	325.1	333.0	341.7	351.4
160°	292.0	291.3	293.9	298.3	303.5	309.2	317.5	325.1	331.5	339.2	346.8
162.5°	296.5	296.0	298.5	302.4	306.5	311.2	318.5	324.6	330.0	336.1	342.7
165°	303.5	302.1	304.1	307.3	309.8	313.6	318.7	323.8	327.7	331.5	336.6
167.5°	308.0	307.4	308.5	310.3	312.1	314.5	318.7	322.3	324.1	327.0	330.6
170°	311.1	310.5	311.1	312.3	313.6	315.5	318.7	321.3	322.5	324.5	327.0
172.5°	313.2	312.0	312.6	313.9	314.6	315.5	318.2	320.2	320.5	321.4	323.4
175°	315.5	314.3	315.0	315.5	315.5	315.5	317.5	318.7	318.1	318.1	318.7
177.5°	316.7	315.7	315.7	316.2	315.7	315.7	316.7	317.2	316.2	316.2	316.7
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2



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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°	68.8	72.2	75.4	77.8	78.7	79.7	80.8	81.7
90°	68.6	72.4	76.2	79.6	80.6	81.4	83.1	84.1
92.5°	167.9	140.0	122.8	115.3	108.1	107.5	107.6	107.5
95°	509.6	415.7	340.4	288.9	244.5	226.3	222.3	213.0
97.5°	730.5	665.4	592.0	519.4	480.9	446.2	428.7	421.4
100°	829.5	801.2	738.4	674.0	630.8	585.7	563.0	553.6
102.5°	861.5	883.5	854.8	811.7	765.5	733.7	708.9	702.1
105°	837.7	927.8	958.5	953.4	934.0	914.0	902.1	895.4
107.5°	762.8	882.0	956.8	991.8	1003.1	1003.7	1000.4	996.1
110°	707.5	831.3	923.7	979.7	1009.4	1022.5	1027.8	1028.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	663.5	781.0	874.4	940.0	982.9	1004.7	1016.8	1022.3
115°	608.0	709.2	799.1	870.2	920.7	952.2	970.9	979.9
117.5°	570.8	658.3	735.9	801.3	851.9	884.4	903.1	909.1
120°	550.4	629.2	701.7	759.5	807.4	838.9	856.9	862.8
122.5°	534.4	607.6	672.3	726.4	769.2	798.1	816.2	821.6
125°	511.4	578.6	636.3	683.6	720.1	746.9	761.6	768.7
127.5°	487.9	550.6	604.4	648.7	681.9	705.8	719.8	723.5
130°	473.4	531.4	583.1	625.8	658.4	680.1	693.5	698.1
132.5°	458.7	513.1	560.2	601.4	633.8	655.4	667.7	672.6
135°	438.8	484.6	527.2	564.8	593.5	615.2	627.4	631.9
137.5°	422.2	459.4	495.0	526.9	552.6	572.3	583.4	588.2
140°	412.9	444.3	475.2	503.0	527.2	544.3	554.4	558.2
142.5°	404.8	431.5	458.0	482.2	502.7	517.3	526.9	530.1
145°	394.7	415.2	435.6	453.5	469.3	480.7	488.2	491.3
147.5°	385.6	401.9	417.3	430.6	442.9	451.8	456.2	457.5
150°	380.6	394.6	406.7	418.2	428.0	435.8	438.5	439.2
152.5°	375.4	388.0	399.1	408.0	416.0	422.2	424.8	425.4
155°	367.9	378.1	386.9	394.0	400.3	404.8	406.7	407.3
157.5°	360.2	368.6	375.4	381.0	386.0	389.6	391.4	391.3
160°	355.1	361.4	367.9	372.3	376.7	379.9	381.2	380.6
162.5°	349.4	355.3	360.7	364.6	368.1	370.7	371.0	370.9
165°	341.7	346.2	350.0	353.2	355.7	357.0	357.0	357.0
167.5°	334.3	337.2	340.1	342.4	343.7	344.9	344.4	344.2
170°	330.2	332.2	334.0	335.3	336.6	337.2	337.2	336.6
172.5°	325.6	327.5	329.0	329.7	330.0	331.1	330.1	329.5
175°	320.7	320.7	322.0	322.0	322.0	322.5	321.3	320.7
177.5°	317.2	317.7	317.7	317.7	317.2	317.7	316.2	316.2
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2

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