

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: P331271-927

Luminaire Tested: **S122DIP-S290D925U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331271-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S290D925U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3570.6 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

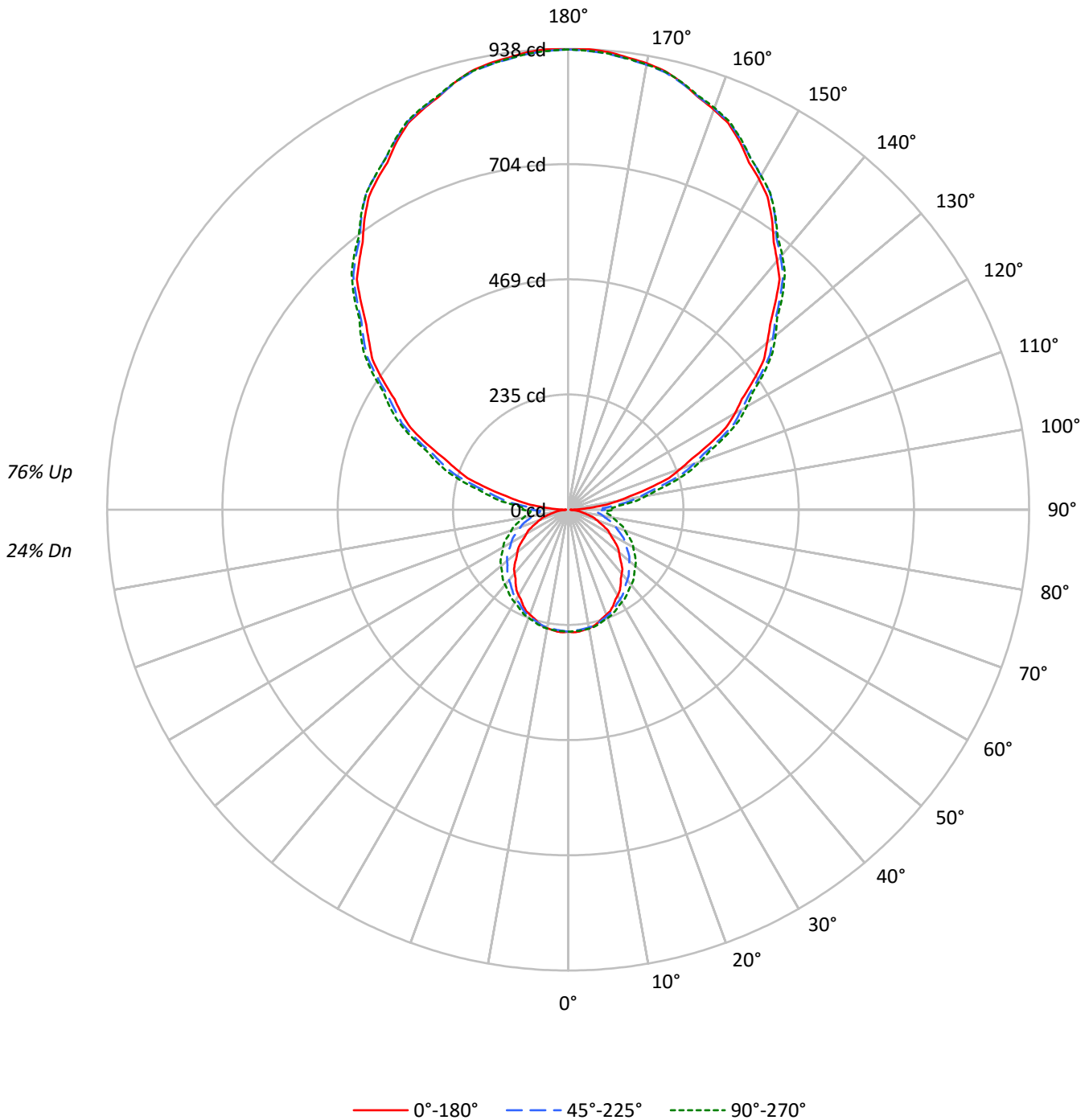
Input Watts (W): 37.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	91	87	83	79	81	77	74	71	59	57	55	42	41	40	27	26	25	18
2	83	75	69	64	73	67	62	57	51	48	45	37	34	32	23	22	21	15
3	75	66	59	53	66	59	52	47	45	41	37	32	29	27	20	19	17	12
4	69	58	50	44	60	52	45	40	40	35	31	28	25	23	18	16	15	10
5	63	51	43	38	55	46	39	34	35	30	27	25	22	20	16	14	13	9
6	58	46	38	32	51	41	34	29	32	27	23	23	19	17	15	13	11	8
7	53	41	33	28	47	37	30	25	28	24	20	21	17	15	13	11	10	7
8	49	37	30	24	43	33	27	22	26	21	18	19	15	13	12	10	9	6
9	46	34	26	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5
10	42	31	24	19	38	28	21	17	21	17	14	16	13	10	10	8	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4009	4009	4009
5°	4030	3859	3845
10°	4004	3746	3703
15°	3948	3624	3554
20°	3878	3495	3410
25°	3809	3371	3279
30°	3712	3242	3150
35°	3615	3118	3059
40°	3511	3013	2965
45°	3413	2919	2886
50°	3309	2833	2810
55°	3196	2741	2731
60°	3061	2646	2648
65°	2922	2534	2548
70°	2764	2415	2440
75°	2564	2299	2342
80°	2245	2177	2240
85°	1945	2073	2163



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	0.7
10°-20°	67.5	1.9
20°-30°	102.2	2.9
30°-40°	124.5	3.5
40°-50°	134.0	3.8
50°-60°	130.1	3.6
60°-70°	113.6	3.2
70°-80°	87.5	2.4
80°-90°	62.4	1.7
90°-100°	99.8	2.8
100°-110°	213.9	6.0
110°-120°	334.6	9.4
120°-130°	425.3	11.9
130°-140°	469.7	13.2
140°-150°	456.9	12.8
150°-160°	382.5	10.7
160°-170°	253.7	7.1
170°-180°	88.7	2.5
0°-30°	193.2	5.4
0°-40°	317.8	8.9
0°-60°	581.9	16.3
0°-90°	845.4	23.7
90°-120°	648.3	18.2
90°-150°	2000.3	56.0
90°-180°	2725.0	76.3
0°-180°	3570.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	248	248	248	248	248	
5°	249	248	246	248	248	24
15°	238	238	238	241	241	67
25°	216	218	222	226	227	99
35°	186	192	199	207	210	116
45°	153	162	175	186	190	118
55°	117	130	149	161	166	105
65°	80	98	119	133	138	79
75°	44	65	88	102	108	47
85°	13	35	58	73	78	14
90°	4	35	75	88	93	5
95°	44	69	92	105	108	49
105°	172	185	205	218	223	182
115°	318	327	341	351	353	314
125°	461	468	477	484	487	412
135°	596	604	610	616	617	460
145°	722	728	733	736	734	451
155°	826	828	831	834	832	380
165°	899	898	898	903	900	253
175°	935	933	931	936	932	89
180°	937	937	937	937	937	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3
2.5°	249.8	249.5	249.4	249.1	249.0	248.7	248.2	247.8	247.3	246.8	247.2
5°	249.1	248.8	248.6	248.3	248.0	247.7	247.2	246.8	246.3	245.8	246.3
7.5°	246.8	246.6	246.4	246.3	246.1	245.9	245.5	245.2	244.8	244.4	245.0
10°	245.1	244.9	244.8	244.6	244.5	244.2	244.0	243.8	243.5	243.3	243.9
12.5°	242.2	242.2	242.2	242.3	242.3	242.2	242.1	241.9	241.7	241.5	242.2
15°	237.5	237.7	237.8	238.0	238.1	238.2	238.2	238.2	238.2	238.2	238.9
17.5°	231.5	231.8	232.1	232.5	232.8	233.1	233.4	233.6	233.9	234.2	234.9
20°	227.4	227.8	228.2	228.6	229.0	229.4	229.7	230.0	230.4	230.7	231.6
22.5°	223.2	223.6	224.0	224.5	225.0	225.5	225.9	226.3	226.8	227.2	228.1
25°	215.9	216.5	217.1	217.6	218.2	218.8	219.5	220.2	220.9	221.7	222.6
27.5°	207.3	208.2	209.1	210.0	211.0	211.8	212.6	213.5	214.4	215.2	216.4
30°	201.5	202.6	203.6	204.6	205.7	206.8	207.8	208.8	209.8	210.9	212.1
32.5°	195.2	196.4	197.5	198.7	199.9	201.1	202.3	203.5	204.8	206.0	207.5
35°	186.1	187.4	188.8	190.1	191.5	192.9	194.5	196.0	197.5	199.0	200.7
37.5°	176.1	177.7	179.3	180.9	182.4	184.2	186.2	188.1	190.0	192.0	194.0
40°	169.5	171.3	173.0	174.8	176.5	178.5	180.6	182.8	185.0	187.1	189.2
42.5°	163.2	164.9	166.7	168.4	170.2	172.3	174.8	177.3	179.7	182.2	184.5
45°	152.6	154.7	156.9	159.1	161.2	163.7	166.5	169.3	172.1	174.9	177.4
47.5°	142.1	144.5	146.9	149.2	151.5	154.4	157.6	160.9	164.2	167.5	170.1
50°	135.0	137.4	139.9	142.4	144.9	147.9	151.5	155.1	158.7	162.3	165.0
52.5°	128.0	130.6	133.2	135.9	138.5	141.6	145.4	149.2	153.0	156.9	159.6
55°	116.9	119.9	122.7	125.6	128.5	132.0	136.2	140.3	144.5	148.6	151.5
57.5°	106.0	109.2	112.5	115.7	119.0	122.7	127.0	131.2	135.5	139.7	142.8
60°	98.2	101.7	105.1	108.5	112.0	116.0	120.6	125.1	129.7	134.2	137.3
62.5°	91.3	94.9	98.5	102.0	105.6	109.6	114.2	118.7	123.3	127.9	131.1
65°	79.9	83.8	87.7	91.7	95.5	99.9	104.6	109.3	114.1	118.7	122.1
67.5°	69.4	73.5	77.6	81.7	85.8	90.2	95.1	99.9	104.7	109.6	112.9
70°	61.9	66.1	70.2	74.4	78.5	83.1	88.0	93.0	98.0	102.9	106.4
72.5°	55.0	59.3	63.5	67.8	72.2	76.8	81.8	86.8	91.9	96.9	100.3
75°	44.3	48.7	53.2	57.7	62.2	66.9	72.1	77.2	82.3	87.5	90.9
77.5°	33.9	38.6	43.3	47.9	52.7	57.6	62.8	68.0	73.2	78.3	81.8
80°	27.0	31.8	36.8	41.6	46.5	51.6	56.7	61.9	67.1	72.3	75.7
82.5°	21.2	26.1	30.9	35.6	40.5	45.6	50.8	56.1	61.3	66.5	69.9
85°	13.0	17.9	22.9	27.8	32.8	37.8	42.9	48.1	53.2	58.3	61.6
87.5°	7.2	12.4	17.6	22.8	28.0	33.5	39.4	45.3	51.2	57.0	60.3
90°	4.4	11.2	17.9	24.6	31.4	39.2	48.2	57.2	66.2	75.2	78.0
92.5°	17.3	23.2	29.1	35.0	40.9	46.7	52.5	58.4	64.2	70.0	73.3
95°	44.0	49.5	55.1	60.5	66.1	71.4	76.5	81.7	86.8	92.0	95.0
97.5°	77.6	82.5	87.4	92.3	97.2	102.3	107.5	112.8	118.1	123.3	126.4
100°	102.9	107.3	111.6	116.0	120.4	125.1	130.1	135.1	140.1	145.0	148.1
102.5°	129.2	133.0	136.9	140.7	144.5	148.9	153.9	159.0	164.0	169.0	172.1
105°	171.7	174.6	177.4	180.3	183.2	186.8	191.3	195.8	200.3	204.9	208.0
107.5°	215.0	217.6	220.3	222.9	225.5	228.9	232.8	236.8	240.8	244.8	247.6
110°	242.6	245.2	247.9	250.5	253.2	256.4	260.4	264.3	268.2	272.1	274.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	272.9	275.3	277.7	280.1	282.5	285.5	289.1	292.7	296.3	299.8	302.0
115°	317.7	319.6	321.5	323.4	325.4	328.0	331.2	334.5	337.7	341.0	343.2
117.5°	361.9	363.8	365.8	367.8	369.8	372.0	374.3	376.7	379.0	381.4	383.3
120°	391.7	393.3	395.1	396.8	398.5	400.3	402.0	403.9	405.7	407.4	409.7
122.5°	418.8	420.6	422.5	424.3	426.0	428.0	430.0	432.1	434.0	436.1	437.8
125°	460.8	462.4	464.0	465.6	467.1	469.0	471.0	473.0	475.1	477.1	478.7
127.5°	502.1	504.0	506.0	507.9	509.8	511.4	512.9	514.3	515.8	517.2	518.6
130°	528.0	530.2	532.4	534.6	536.9	538.6	540.0	541.3	542.6	543.9	545.5
132.5°	557.1	558.9	560.7	562.4	564.3	565.9	567.2	568.5	569.9	571.2	572.4
135°	595.6	597.6	599.5	601.4	603.4	604.9	606.1	607.2	608.4	609.5	611.0
137.5°	636.6	638.2	639.8	641.3	642.9	644.0	644.8	645.6	646.5	647.3	648.6
140°	661.2	662.7	664.2	665.7	667.3	668.5	669.6	670.6	671.7	672.7	674.0
142.5°	686.6	688.1	689.6	691.1	692.6	693.6	694.3	694.9	695.5	696.2	697.3
145°	722.5	723.8	725.0	726.3	727.5	728.6	729.7	730.7	731.8	732.8	733.5
147.5°	754.9	756.5	758.0	759.4	760.9	762.0	762.7	763.3	764.1	764.8	765.2
150°	777.1	778.2	779.2	780.3	781.3	782.2	782.9	783.6	784.3	785.1	785.5
152.5°	796.7	797.8	798.8	799.9	801.0	801.9	802.7	803.6	804.4	805.3	806.0
155°	826.2	826.6	827.2	827.8	828.2	828.8	829.3	829.8	830.4	830.8	831.8
157.5°	851.3	851.6	852.0	852.3	852.7	853.0	853.3	853.7	854.0	854.3	855.5
160°	866.5	866.8	867.1	867.5	867.8	868.2	868.3	868.5	868.6	868.8	869.9
162.5°	880.4	880.4	880.5	880.6	880.7	880.7	881.0	881.1	881.3	881.5	882.6
165°	898.9	898.7	898.5	898.3	898.2	898.1	898.1	898.1	898.1	898.1	899.3
167.5°	914.3	913.9	913.3	912.8	912.3	912.0	912.0	911.9	911.9	911.8	913.1
170°	922.6	922.0	921.5	921.0	920.4	920.1	920.0	919.8	919.6	919.4	920.7
172.5°	928.3	927.7	927.2	926.7	926.1	925.8	925.7	925.4	925.3	925.1	926.4
175°	935.3	934.7	934.1	933.7	933.1	932.7	932.3	932.0	931.6	931.3	932.5
177.5°	938.1	937.6	937.2	936.8	936.4	936.0	935.7	935.5	935.2	934.9	935.7
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	248.3	248.3	248.3	248.3	248.3	248.3	248.3	248.3
2.5°	247.5	247.8	248.1	248.3	248.1	248.0	247.9	247.7
5°	246.8	247.2	247.7	247.9	247.8	247.7	247.6	247.6
7.5°	245.6	246.1	246.8	247.0	246.9	246.8	246.8	246.7
10°	244.5	245.2	245.8	246.1	246.1	246.0	245.9	245.8
12.5°	242.8	243.4	244.1	244.4	244.3	244.2	244.2	244.1
15°	239.6	240.4	241.1	241.5	241.4	241.3	241.2	241.1
17.5°	235.7	236.4	237.1	237.5	237.5	237.5	237.5	237.5
20°	232.4	233.3	234.2	234.6	234.6	234.6	234.6	234.6
22.5°	229.0	229.9	230.8	231.2	231.4	231.5	231.6	231.8
25°	223.6	224.6	225.5	226.1	226.3	226.6	226.8	227.0
27.5°	217.6	218.9	220.1	220.8	220.9	221.1	221.3	221.5
30°	213.4	214.8	216.0	216.7	217.0	217.2	217.5	217.7
32.5°	208.9	210.4	211.9	212.9	213.3	213.7	214.1	214.5
35°	202.6	204.3	206.0	207.2	207.8	208.3	208.9	209.5
37.5°	195.9	197.9	199.9	201.1	201.7	202.3	202.9	203.4
40°	191.3	193.4	195.4	196.9	197.6	198.3	199.0	199.7
42.5°	186.8	189.0	191.3	192.8	193.5	194.2	195.0	195.7
45°	179.8	182.4	184.8	186.5	187.3	188.1	188.9	189.6
47.5°	172.7	175.2	177.8	179.6	180.5	181.3	182.2	183.1
50°	167.7	170.5	173.2	175.0	175.9	176.7	177.6	178.5
52.5°	162.4	165.2	167.9	169.8	170.8	171.7	172.7	173.6
55°	154.4	157.2	160.2	162.1	163.1	164.2	165.2	166.3
57.5°	145.9	149.0	152.1	154.2	155.3	156.3	157.3	158.4
60°	140.3	143.4	146.4	148.5	149.6	150.7	151.9	153.0
62.5°	134.4	137.6	140.9	143.0	144.0	145.0	146.2	147.2
65°	125.3	128.6	131.9	134.0	135.1	136.1	137.1	138.2
67.5°	116.1	119.5	122.8	125.0	126.0	127.1	128.3	129.4
70°	109.8	113.2	116.7	118.9	119.9	120.8	121.8	122.7
72.5°	103.6	107.0	110.4	112.6	113.8	114.9	116.1	117.2
75°	94.3	97.8	101.2	103.5	104.5	105.5	106.5	107.6
77.5°	85.2	88.6	92.1	94.3	95.5	96.6	97.7	98.8
80°	79.1	82.4	85.8	88.0	89.1	90.2	91.3	92.4
82.5°	73.3	76.7	80.0	82.2	83.3	84.4	85.4	86.4
85°	65.0	68.4	71.8	74.0	75.1	76.2	77.3	78.4
87.5°	63.5	66.6	69.9	71.9	73.0	74.1	75.2	76.2
90°	80.9	83.7	86.6	88.6	89.7	90.9	92.0	93.1
92.5°	76.4	79.7	82.9	85.0	86.0	87.0	87.9	89.0
95°	98.1	101.1	104.2	106.0	106.5	107.2	107.8	108.4
97.5°	129.3	132.2	135.2	137.1	138.0	138.9	139.8	140.8
100°	151.0	154.0	156.9	158.8	159.5	160.2	160.9	161.6
102.5°	175.1	178.1	181.2	183.0	183.7	184.4	185.1	185.8
105°	211.2	214.3	217.5	219.5	220.4	221.3	222.1	223.0
107.5°	250.4	253.3	256.1	257.5	257.6	257.7	257.8	257.8
110°	277.3	279.8	282.3	283.8	284.2	284.6	284.9	285.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	304.1	306.3	308.4	309.7	310.2	310.7	311.2	311.6
115°	345.4	347.6	349.9	351.2	351.5	351.9	352.2	352.6
117.5°	385.2	387.2	389.1	390.2	390.5	390.9	391.1	391.4
120°	411.9	414.2	416.4	417.7	418.0	418.4	418.7	419.1
122.5°	439.6	441.3	443.1	444.2	444.5	444.9	445.3	445.6
125°	480.4	482.0	483.6	484.7	485.2	485.8	486.3	486.9
127.5°	519.9	521.3	522.6	523.3	523.5	523.6	523.8	523.9
130°	547.1	548.6	550.2	551.0	550.9	550.8	550.7	550.7
132.5°	573.5	574.5	575.6	576.2	576.2	576.3	576.4	576.5
135°	612.5	614.0	615.5	616.3	616.5	616.6	616.7	616.8
137.5°	650.0	651.3	652.6	653.2	653.1	652.8	652.7	652.5
140°	675.3	676.5	677.8	678.3	678.1	677.9	677.7	677.5
142.5°	698.5	699.7	700.8	701.2	700.9	700.7	700.4	700.1
145°	734.2	734.8	735.5	735.6	735.4	735.1	734.7	734.4
147.5°	765.7	766.1	766.6	766.6	766.1	765.6	765.2	764.7
150°	786.1	786.6	787.1	787.1	786.6	786.1	785.5	785.1
152.5°	806.6	807.2	807.9	807.9	807.2	806.6	806.0	805.3
155°	832.7	833.5	834.4	834.6	834.0	833.5	833.0	832.4
157.5°	856.7	857.9	859.0	859.2	858.4	857.5	856.7	855.9
160°	870.9	872.0	873.1	873.2	872.5	871.8	871.1	870.4
162.5°	883.8	885.0	886.2	886.5	885.6	884.7	883.9	883.0
165°	900.6	901.7	903.0	903.2	902.3	901.4	900.6	899.7
167.5°	914.3	915.5	916.7	916.9	916.0	915.0	914.2	913.2
170°	921.9	923.1	924.3	924.4	923.4	922.3	921.2	920.2
172.5°	927.6	928.8	930.0	930.1	929.1	928.0	926.9	925.9
175°	933.7	934.9	936.2	936.3	935.3	934.1	933.1	932.1
177.5°	936.6	937.5	938.3	938.3	937.5	936.6	935.7	934.9
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8

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