

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: P331316-935

Luminaire Tested: **S122DIP-S485D925U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331316-935
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-S485D925U935-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 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: 4543.8 lumens
Efficiency: N/A
Efficacy: 102.1 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

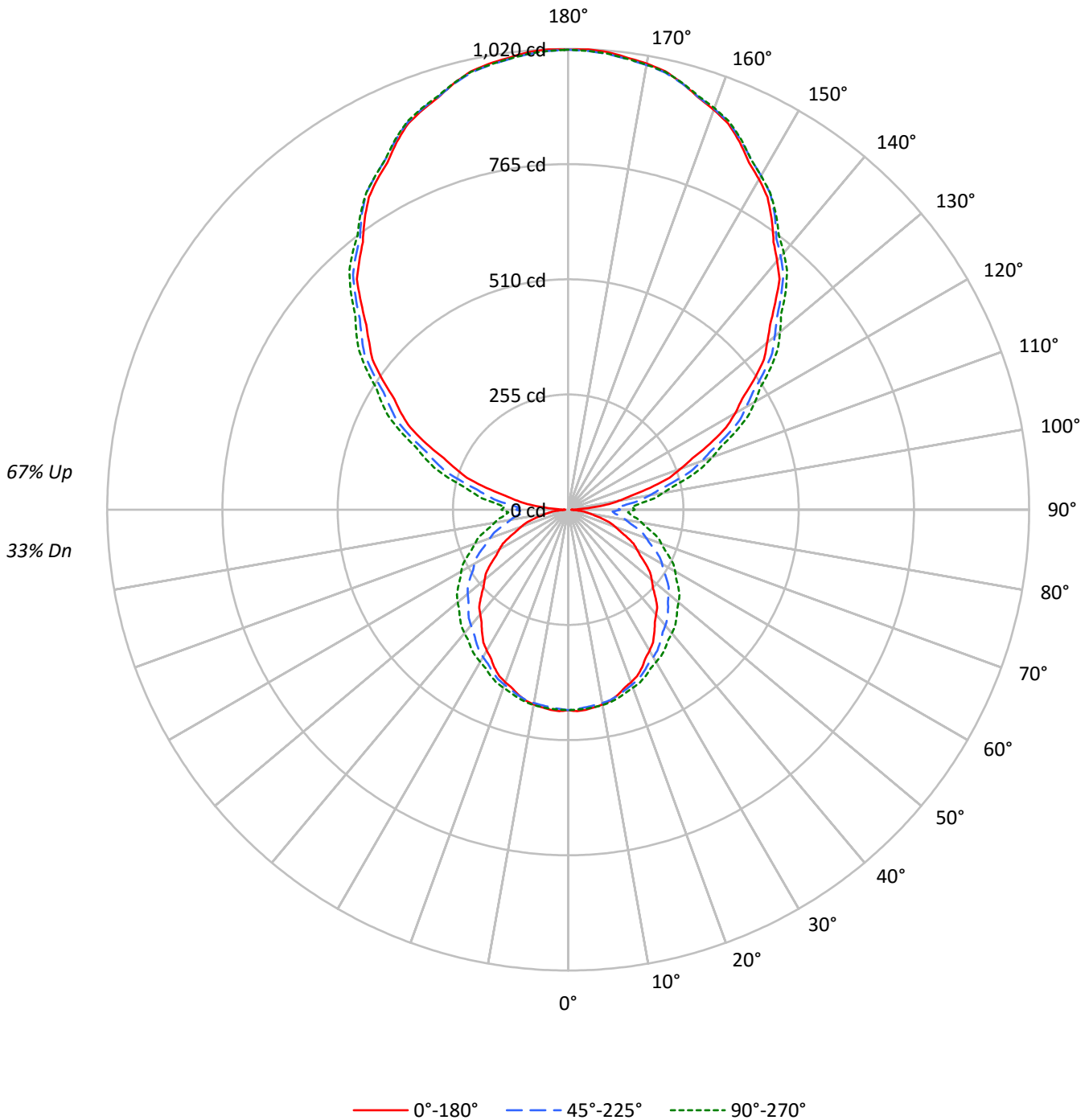
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	93	88	84	80	84	80	76	73	63	61	58	48	47	45	34	33	32	26
2	84	77	70	65	75	69	64	59	55	51	48	42	39	37	30	28	26	21
3	77	67	59	53	69	60	54	49	48	43	39	37	33	31	26	24	22	17
4	70	59	51	45	62	53	46	41	42	37	33	32	29	26	23	21	19	14
5	64	52	44	38	57	47	40	35	38	32	28	29	25	22	21	18	16	12
6	59	47	39	33	53	42	35	30	34	28	25	26	22	19	19	16	14	11
7	54	42	34	28	48	38	31	26	30	25	21	23	20	17	17	14	12	9
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8
9	47	34	27	22	42	31	25	20	25	20	17	20	16	13	14	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	14	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7164	7164	7164
5°	7199	6896	6870
10°	7153	6692	6617
15°	7055	6477	6350
20°	6930	6245	6094
25°	6807	6022	5862
30°	6634	5793	5628
35°	6458	5572	5464
40°	6275	5384	5299
45°	6100	5215	5159
50°	5912	5062	5019
55°	5713	4898	4878
60°	5473	4730	4729
65°	5222	4530	4552
70°	4938	4315	4361
75°	4578	4106	4186
80°	4008	3889	4005
85°	3471	3705	3868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	0.9
10°-20°	120.6	2.7
20°-30°	182.7	4.0
30°-40°	222.5	4.9
40°-50°	239.4	5.3
50°-60°	232.5	5.1
60°-70°	203.0	4.5
70°-80°	156.3	3.4
80°-90°	108.9	2.4
90°-100°	136.8	3.0
100°-110°	253.1	5.6
110°-120°	377.4	8.3
120°-130°	469.9	10.3
130°-140°	513.7	11.3
140°-150°	497.1	10.9
150°-160°	415.8	9.2
160°-170°	275.8	6.1
170°-180°	96.4	2.1
0°-30°	345.3	7.6
0°-40°	567.8	12.5
0°-60°	1039.7	22.9
0°-90°	1507.9	33.2
90°-120°	767.3	16.9
90°-150°	2248.0	49.5
90°-180°	3036.0	66.8
0°-180°	4543.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	445	443	439	443	442	42
15°	424	426	426	431	431	119
25°	386	390	396	404	406	177
35°	332	343	356	369	374	208
45°	273	290	312	332	339	210
55°	209	233	266	288	297	187
65°	143	175	212	238	247	142
75°	79	115	156	183	192	84
85°	23	63	104	130	140	25
90°	7	56	115	138	148	7
95°	50	89	129	152	159	55
105°	188	210	244	268	276	199
115°	346	359	386	403	409	342
125°	501	510	527	541	547	448
135°	648	657	665	677	680	500
145°	785	791	796	801	801	491
155°	898	900	903	907	905	413
165°	977	976	976	982	978	275
175°	1016	1014	1012	1018	1013	97
180°	1018	1018	1018	1018	1018	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	446.3	445.9	445.6	445.2	444.9	444.3	443.5	442.7	442.0	441.1	441.7
5°	445.0	444.5	444.1	443.7	443.2	442.6	441.8	440.9	440.1	439.2	440.1
7.5°	441.0	440.7	440.4	440.1	439.9	439.4	438.7	438.1	437.4	436.7	437.7
10°	437.9	437.6	437.3	437.0	436.8	436.4	436.0	435.6	435.1	434.7	435.8
12.5°	432.7	432.8	432.9	432.9	433.0	432.8	432.6	432.2	431.9	431.6	432.7
15°	424.4	424.6	425.0	425.2	425.5	425.7	425.7	425.7	425.7	425.7	427.0
17.5°	413.6	414.2	414.8	415.4	416.0	416.6	417.0	417.4	417.9	418.4	419.7
20°	406.4	407.1	407.9	408.5	409.2	409.9	410.4	411.0	411.6	412.2	413.7
22.5°	398.6	399.5	400.4	401.1	402.0	402.8	403.6	404.4	405.2	406.0	407.6
25°	385.8	386.8	387.8	388.8	389.8	391.0	392.3	393.6	394.9	396.1	397.8
27.5°	370.4	372.0	373.7	375.3	376.9	378.5	380.0	381.5	383.0	384.5	386.7
30°	360.1	362.0	363.8	365.7	367.6	369.4	371.3	373.1	375.0	376.8	379.1
32.5°	348.8	350.9	352.9	355.1	357.1	359.3	361.4	363.7	365.8	368.1	370.7
35°	332.4	334.8	337.3	339.8	342.2	344.7	347.4	350.2	352.8	355.6	358.7
37.5°	314.7	317.5	320.3	323.1	325.9	329.1	332.6	336.0	339.6	343.1	346.6
40°	302.9	306.0	309.2	312.3	315.5	318.9	322.8	326.7	330.5	334.4	338.1
42.5°	291.5	294.7	297.8	301.0	304.1	307.9	312.4	316.8	321.2	325.6	329.7
45°	272.7	276.5	280.3	284.2	288.1	292.5	297.5	302.5	307.5	312.5	316.9
47.5°	254.0	258.2	262.4	266.6	270.8	275.9	281.7	287.6	293.4	299.3	303.9
50°	241.2	245.6	250.0	254.4	258.8	264.2	270.7	277.2	283.6	290.0	294.9
52.5°	228.8	233.4	238.1	242.8	247.5	253.1	259.9	266.7	273.5	280.3	285.2
55°	209.0	214.1	219.3	224.4	229.5	235.8	243.3	250.7	258.1	265.5	270.7
57.5°	189.4	195.3	201.0	206.8	212.7	219.3	226.9	234.5	242.0	249.6	255.2
60°	175.6	181.7	187.9	194.0	200.1	207.2	215.4	223.5	231.7	239.9	245.3
62.5°	163.2	169.5	176.0	182.4	188.7	196.0	204.1	212.2	220.4	228.5	234.3
65°	142.8	149.7	156.8	163.8	170.7	178.5	186.9	195.4	203.8	212.2	218.1
67.5°	124.0	131.3	138.6	145.9	153.3	161.2	169.9	178.5	187.1	195.7	201.6
70°	110.6	118.0	125.4	132.9	140.3	148.4	157.3	166.2	175.0	183.9	190.0
72.5°	98.2	105.9	113.6	121.2	128.9	137.2	146.2	155.2	164.1	173.1	179.2
75°	79.1	87.1	95.1	103.1	111.1	119.7	128.8	137.9	147.1	156.3	162.4
77.5°	60.6	69.0	77.3	85.7	94.1	102.9	112.2	121.5	130.8	140.1	146.2
80°	48.2	56.9	65.7	74.4	83.1	92.1	101.4	110.6	119.9	129.2	135.3
82.5°	38.0	46.6	55.1	63.7	72.3	81.4	90.7	100.1	109.5	119.0	124.9
85°	23.2	32.0	40.9	49.8	58.5	67.6	76.7	85.8	95.1	104.2	110.2
87.5°	12.7	21.8	30.7	39.7	48.6	58.1	68.1	78.1	88.1	98.1	103.8
90°	7.3	17.9	28.4	39.0	49.6	61.6	74.9	88.3	101.6	114.9	120.3
92.5°	21.2	30.6	40.0	49.4	58.8	68.4	78.2	88.0	97.8	107.5	113.2
95°	49.9	58.5	67.1	75.7	84.3	93.1	102.1	111.1	120.0	129.0	134.4
97.5°	86.1	93.8	101.4	109.1	116.8	125.0	134.0	142.9	151.9	160.8	166.2
100°	113.7	120.5	127.3	134.1	140.9	148.6	157.1	165.7	174.3	182.9	188.1
102.5°	142.0	148.0	154.1	160.1	166.2	173.5	181.9	190.5	199.0	207.5	212.8
105°	188.0	192.7	197.4	202.1	206.8	213.1	220.9	228.7	236.5	244.4	249.7
107.5°	234.9	239.1	243.2	247.4	251.5	257.2	264.2	271.4	278.5	285.6	290.6
110°	264.7	268.6	272.7	276.6	280.7	286.2	293.2	300.1	307.1	314.2	318.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	297.6	301.2	304.7	308.2	311.9	316.8	323.4	329.8	336.4	342.9	347.0
115°	346.3	349.0	351.7	354.4	357.1	361.5	367.6	373.6	379.7	385.7	389.8
117.5°	394.1	396.7	399.2	401.7	404.3	408.0	412.9	417.8	422.7	427.5	431.3
120°	426.4	428.5	430.6	432.7	434.8	437.9	442.1	446.3	450.5	454.7	458.7
122.5°	456.0	458.1	460.0	462.1	464.2	467.4	471.7	476.0	480.3	484.6	488.0
125°	501.4	503.1	504.8	506.5	508.2	511.1	515.1	519.1	523.1	527.1	530.4
127.5°	546.2	548.3	550.3	552.3	554.3	556.9	559.9	562.8	565.8	568.9	571.7
130°	574.4	576.7	579.1	581.4	583.8	586.3	588.8	591.5	594.1	596.7	599.8
132.5°	606.1	607.9	609.8	611.7	613.5	615.7	618.0	620.4	622.8	625.3	627.8
135°	647.6	649.7	651.9	653.9	656.1	658.0	659.8	661.6	663.4	665.2	668.0
137.5°	692.2	693.9	695.5	697.2	698.9	700.3	701.5	702.6	703.7	704.8	707.3
140°	718.9	720.6	722.1	723.7	725.3	726.7	727.9	729.2	730.4	731.7	733.9
142.5°	746.5	748.0	749.6	751.2	752.8	753.9	754.6	755.4	756.0	756.7	758.7
145°	785.3	786.7	788.0	789.4	790.7	791.9	793.1	794.2	795.4	796.5	797.5
147.5°	820.5	822.2	823.8	825.4	827.0	828.2	829.0	829.7	830.4	831.2	831.7
150°	844.6	845.8	846.9	848.1	849.2	850.2	850.9	851.7	852.5	853.3	853.8
152.5°	865.9	867.1	868.2	869.4	870.6	871.6	872.5	873.4	874.3	875.2	876.0
155°	897.9	898.5	899.1	899.7	900.2	900.8	901.4	901.9	902.5	903.0	904.0
157.5°	925.2	925.6	926.0	926.3	926.8	927.1	927.5	927.8	928.2	928.5	929.8
160°	941.8	942.1	942.5	942.9	943.2	943.6	943.7	943.9	944.1	944.3	945.5
162.5°	956.8	956.9	957.0	957.1	957.2	957.3	957.5	957.7	957.9	958.0	959.3
165°	977.0	976.8	976.5	976.4	976.2	976.1	976.1	976.1	976.1	976.1	977.4
167.5°	993.8	993.2	992.6	992.0	991.5	991.2	991.2	991.1	991.1	991.0	992.4
170°	1002.7	1002.1	1001.6	1001.0	1000.4	1000.1	999.9	999.7	999.4	999.3	1000.7
172.5°	1008.9	1008.3	1007.8	1007.2	1006.6	1006.3	1006.1	1005.8	1005.6	1005.5	1006.9
175°	1016.5	1015.9	1015.3	1014.8	1014.2	1013.7	1013.3	1013.0	1012.5	1012.2	1013.5
177.5°	1019.6	1019.1	1018.6	1018.2	1017.7	1017.4	1017.0	1016.8	1016.4	1016.2	1017.0
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	442.3	442.8	443.4	443.6	443.3	443.2	442.9	442.6
5°	440.9	441.8	442.6	443.0	442.8	442.7	442.6	442.4
7.5°	438.8	439.8	440.8	441.3	441.2	441.0	440.8	440.7
10°	437.0	438.1	439.3	439.8	439.6	439.5	439.4	439.2
12.5°	433.9	435.1	436.2	436.7	436.5	436.4	436.3	436.1
15°	428.3	429.6	430.8	431.4	431.3	431.1	430.9	430.8
17.5°	421.0	422.4	423.7	424.4	424.4	424.4	424.4	424.4
20°	415.3	416.9	418.4	419.2	419.2	419.2	419.2	419.2
22.5°	409.1	410.7	412.3	413.2	413.5	413.6	413.9	414.1
25°	399.5	401.2	402.9	404.1	404.5	404.9	405.4	405.8
27.5°	388.9	391.1	393.2	394.4	394.8	395.1	395.4	395.7
30°	381.4	383.7	386.0	387.3	387.7	388.1	388.6	389.0
32.5°	373.3	375.9	378.6	380.3	381.1	381.9	382.6	383.4
35°	361.9	365.1	368.2	370.2	371.3	372.2	373.2	374.3
37.5°	350.1	353.6	357.1	359.3	360.4	361.4	362.5	363.6
40°	341.8	345.5	349.2	351.7	353.0	354.3	355.6	356.9
42.5°	333.7	337.8	341.8	344.6	345.8	347.1	348.4	349.7
45°	321.4	325.8	330.2	333.1	334.6	336.0	337.4	338.9
47.5°	308.5	313.1	317.8	320.9	322.4	324.0	325.6	327.2
50°	299.7	304.5	309.4	312.6	314.3	315.8	317.4	318.9
52.5°	290.2	295.2	300.1	303.4	305.1	306.9	308.5	310.2
55°	275.9	281.0	286.1	289.6	291.5	293.3	295.2	297.0
57.5°	260.7	266.2	271.8	275.5	277.4	279.3	281.2	283.1
60°	250.7	256.1	261.6	265.3	267.3	269.3	271.3	273.3
62.5°	240.0	245.8	251.6	255.5	257.4	259.2	261.1	263.0
65°	223.9	229.8	235.7	239.5	241.3	243.2	245.0	246.9
67.5°	207.6	213.4	219.4	223.3	225.2	227.2	229.2	231.1
70°	196.2	202.3	208.4	212.4	214.1	215.9	217.6	219.3
72.5°	185.2	191.2	197.3	201.3	203.3	205.3	207.4	209.5
75°	168.6	174.7	180.8	184.9	186.7	188.6	190.4	192.3
77.5°	152.3	158.4	164.5	168.6	170.6	172.5	174.6	176.6
80°	141.3	147.2	153.3	157.2	159.3	161.3	163.2	165.2
82.5°	131.0	137.0	142.9	146.9	148.8	150.7	152.6	154.5
85°	116.1	122.2	128.2	132.2	134.1	136.2	138.2	140.2
87.5°	109.6	115.4	121.1	124.9	126.8	128.6	130.5	132.4
90°	125.6	131.0	136.3	139.9	141.8	143.7	145.6	147.5
92.5°	118.9	124.6	130.3	134.0	135.8	137.5	139.2	141.0
95°	139.8	145.3	150.7	154.0	155.4	156.7	158.1	159.4
97.5°	171.4	176.8	182.0	185.5	187.1	188.8	190.5	192.1
100°	193.5	198.7	204.1	207.3	208.7	210.1	211.5	212.9
102.5°	218.1	223.4	228.8	232.1	233.5	234.9	236.3	237.6
105°	255.1	260.5	265.9	269.3	271.0	272.5	274.1	275.6
107.5°	295.5	300.5	305.5	308.2	308.9	309.6	310.4	311.1
110°	323.3	327.9	332.4	335.3	336.2	337.3	338.2	339.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	351.1	355.2	359.3	362.0	363.1	364.3	365.4	366.5
115°	393.9	398.0	402.1	404.7	405.6	406.7	407.7	408.6
117.5°	435.1	438.9	442.6	445.0	445.8	446.7	447.6	448.5
120°	462.7	466.7	470.7	473.2	474.2	475.2	476.2	477.2
122.5°	491.5	494.9	498.3	500.5	501.4	502.3	503.3	504.2
125°	533.6	536.9	540.3	542.4	543.5	544.6	545.7	546.8
127.5°	574.5	577.5	580.3	582.0	582.7	583.3	584.0	584.6
130°	602.8	605.9	608.9	610.6	611.0	611.4	611.7	612.2
132.5°	630.2	632.7	635.2	636.6	637.1	637.7	638.3	638.8
135°	670.9	673.6	676.5	678.2	678.7	679.3	679.9	680.4
137.5°	709.8	712.2	714.7	716.1	716.3	716.5	716.7	716.9
140°	736.2	738.5	740.8	742.0	742.1	742.2	742.3	742.4
142.5°	760.7	762.7	764.7	765.6	765.6	765.6	765.6	765.5
145°	798.6	799.7	800.7	801.2	801.2	801.1	801.1	801.0
147.5°	832.3	832.8	833.4	833.4	833.0	832.7	832.3	831.9
150°	854.4	855.0	855.5	855.5	855.0	854.4	853.8	853.3
152.5°	876.7	877.4	878.1	878.1	877.4	876.7	876.0	875.2
155°	905.0	905.9	906.9	907.1	906.5	905.9	905.3	904.7
157.5°	931.1	932.4	933.7	933.8	933.0	932.0	931.1	930.2
160°	946.6	947.7	948.9	949.1	948.3	947.5	946.8	946.0
162.5°	960.6	961.9	963.2	963.5	962.5	961.6	960.7	959.8
165°	978.8	980.1	981.5	981.6	980.7	979.7	978.8	977.8
167.5°	993.7	995.1	996.3	996.5	995.6	994.5	993.6	992.6
170°	1001.9	1003.3	1004.6	1004.7	1003.6	1002.5	1001.3	1000.1
172.5°	1008.1	1009.5	1010.8	1010.9	1009.8	1008.7	1007.5	1006.3
175°	1014.9	1016.2	1017.5	1017.6	1016.5	1015.3	1014.2	1013.1
177.5°	1018.0	1018.9	1019.8	1019.8	1018.9	1018.0	1017.0	1016.2
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2

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