

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: P331316-927

Luminaire Tested: **SA2XXDIP-C485D925U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331316-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D925U927-4F0-1E-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: 4180.7 lumens
Efficiency: N/A
Efficacy: 93.9 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

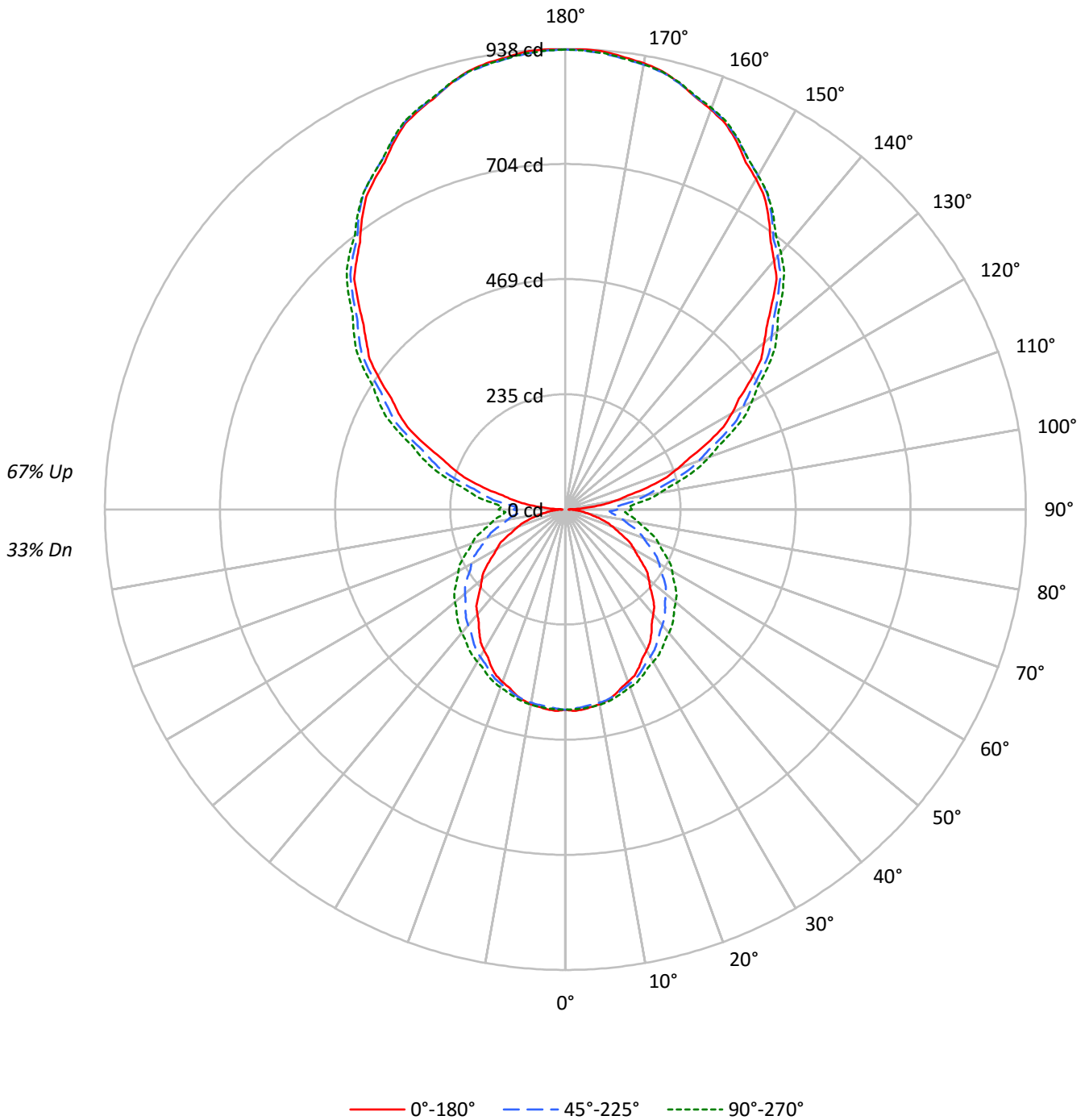
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	6591	6591	6591
5°	6623	6345	6320
10°	6581	6158	6088
15°	6491	5959	5843
20°	6376	5745	5607
25°	6263	5540	5394
30°	6103	5330	5178
35°	5943	5127	5028
40°	5773	4954	4876
45°	5612	4799	4746
50°	5439	4657	4618
55°	5257	4507	4488
60°	5033	4351	4351
65°	4802	4169	4189
70°	4546	3970	4013
75°	4214	3778	3850
80°	3692	3579	3685
85°	3187	3410	3559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	0.9
10°-20°	110.9	2.7
20°-30°	168.1	4.0
30°-40°	204.7	4.9
40°-50°	220.3	5.3
50°-60°	213.9	5.1
60°-70°	186.8	4.5
70°-80°	143.8	3.4
80°-90°	100.2	2.4
90°-100°	125.8	3.0
100°-110°	232.9	5.6
110°-120°	347.2	8.3
120°-130°	432.3	10.3
130°-140°	472.7	11.3
140°-150°	457.4	10.9
150°-160°	382.5	9.2
160°-170°	253.7	6.1
170°-180°	88.7	2.1
0°-30°	317.7	7.6
0°-40°	522.4	12.5
0°-60°	956.6	22.9
0°-90°	1387.4	33.2
90°-120°	706.0	16.9
90°-150°	2068.3	49.5
90°-180°	2793.0	66.8
0°-180°	4180.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	409	408	404	407	407	39
15°	390	392	392	397	396	110
25°	355	359	364	371	373	163
35°	306	316	327	340	344	191
45°	251	267	288	305	312	194
55°	192	214	244	265	273	172
65°	131	161	195	219	227	130
75°	73	106	144	168	177	77
85°	21	58	96	120	129	23
90°	7	51	106	127	136	6
95°	46	82	119	140	147	51
105°	173	193	225	246	254	183
115°	319	331	355	371	376	315
125°	461	469	485	498	503	412
135°	596	604	612	623	626	460
145°	722	728	733	737	737	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°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	410.6	410.3	410.0	409.6	409.3	408.8	408.1	407.3	406.6	405.8	406.4
5°	409.4	409.0	408.6	408.2	407.8	407.3	406.5	405.7	404.9	404.1	404.9
7.5°	405.8	405.4	405.2	405.0	404.7	404.3	403.6	403.1	402.4	401.8	402.7
10°	402.9	402.7	402.3	402.1	401.9	401.6	401.2	400.8	400.4	400.0	401.0
12.5°	398.2	398.2	398.3	398.3	398.4	398.2	398.0	397.7	397.4	397.1	398.2
15°	390.5	390.7	391.0	391.3	391.5	391.7	391.7	391.7	391.7	391.7	392.8
17.5°	380.6	381.1	381.7	382.2	382.8	383.3	383.7	384.0	384.5	384.9	386.1
20°	373.9	374.5	375.3	375.9	376.5	377.2	377.6	378.2	378.7	379.2	380.6
22.5°	366.8	367.6	368.4	369.1	369.9	370.6	371.4	372.1	372.8	373.6	375.0
25°	355.0	355.9	356.8	357.7	358.6	359.7	360.9	362.1	363.3	364.4	366.0
27.5°	340.8	342.3	343.8	345.3	346.7	348.2	349.6	351.0	352.4	353.8	355.8
30°	331.3	333.0	334.7	336.4	338.2	339.8	341.6	343.3	345.0	346.7	348.8
32.5°	320.9	322.8	324.7	326.7	328.6	330.6	332.6	334.6	336.6	338.7	341.0
35°	305.9	308.1	310.4	312.6	314.8	317.2	319.6	322.2	324.6	327.2	330.0
37.5°	289.5	292.2	294.7	297.3	299.8	302.8	306.0	309.2	312.4	315.7	318.9
40°	278.7	281.5	284.5	287.3	290.3	293.4	297.0	300.6	304.1	307.7	311.1
42.5°	268.2	271.2	274.0	276.9	279.8	283.3	287.4	291.4	295.6	299.6	303.3
45°	250.9	254.4	257.9	261.5	265.1	269.1	273.7	278.3	283.0	287.6	291.6
47.5°	233.7	237.6	241.5	245.3	249.1	253.8	259.2	264.6	270.0	275.4	279.6
50°	221.9	225.9	230.0	234.1	238.1	243.1	249.1	255.0	260.9	266.8	271.3
52.5°	210.5	214.8	219.0	223.4	227.7	232.9	239.2	245.3	251.6	257.9	262.4
55°	192.3	197.0	201.8	206.4	211.2	217.0	223.9	230.7	237.5	244.3	249.1
57.5°	174.3	179.7	185.0	190.3	195.7	201.8	208.7	215.7	222.7	229.7	234.8
60°	161.5	167.2	172.9	178.5	184.1	190.7	198.2	205.7	213.2	220.7	225.7
62.5°	150.1	156.0	161.9	167.8	173.6	180.3	187.7	195.3	202.8	210.2	215.6
65°	131.3	137.8	144.3	150.7	157.1	164.2	172.0	179.7	187.5	195.3	200.7
67.5°	114.1	120.8	127.5	134.3	141.0	148.3	156.3	164.2	172.1	180.1	185.5
70°	101.8	108.6	115.4	122.2	129.1	136.6	144.7	152.9	161.1	169.2	174.8
72.5°	90.4	97.4	104.5	111.5	118.6	126.3	134.5	142.8	151.0	159.2	164.9
75°	72.8	80.2	87.5	94.8	102.2	110.1	118.5	126.9	135.4	143.8	149.4
77.5°	55.8	63.5	71.1	78.8	86.6	94.7	103.2	111.8	120.3	128.9	134.5
80°	44.4	52.4	60.4	68.4	76.4	84.8	93.3	101.8	110.4	118.9	124.5
82.5°	34.9	42.9	50.7	58.6	66.5	74.9	83.5	92.1	100.8	109.5	114.9
85°	21.3	29.5	37.6	45.8	53.9	62.2	70.6	79.0	87.5	95.9	101.4
87.5°	11.7	20.0	28.3	36.5	44.8	53.5	62.7	71.9	81.0	90.2	95.5
90°	6.7	16.5	26.1	35.9	45.6	56.6	68.9	81.2	93.5	105.8	110.7
92.5°	19.5	28.1	36.8	45.5	54.1	62.9	71.9	81.0	90.0	98.9	104.2
95°	45.9	53.8	61.7	69.6	77.6	85.6	94.0	102.2	110.4	118.7	123.7
97.5°	79.2	86.3	93.3	100.4	107.4	115.0	123.3	131.5	139.7	148.0	152.9
100°	104.6	110.8	117.1	123.3	129.6	136.7	144.6	152.5	160.3	168.3	173.1
102.5°	130.6	136.2	141.8	147.3	152.9	159.6	167.4	175.2	183.1	190.9	195.7
105°	172.9	177.3	181.6	185.9	190.3	196.1	203.3	210.4	217.6	224.8	229.7
107.5°	216.1	220.0	223.8	227.6	231.4	236.6	243.1	249.7	256.3	262.8	267.4
110°	243.5	247.2	250.9	254.5	258.3	263.3	269.7	276.2	282.6	289.1	293.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	273.9	277.1	280.4	283.6	286.9	291.5	297.5	303.5	309.5	315.4	319.2
115°	318.6	321.1	323.6	326.1	328.6	332.6	338.2	343.7	349.4	354.9	358.6
117.5°	362.6	365.0	367.3	369.6	372.0	375.4	379.9	384.4	388.9	393.3	396.8
120°	392.3	394.3	396.2	398.1	400.1	402.9	406.8	410.7	414.5	418.4	422.0
122.5°	419.5	421.4	423.3	425.2	427.1	430.0	434.0	437.9	441.9	445.8	449.0
125°	461.3	462.9	464.5	466.0	467.6	470.2	474.0	477.6	481.3	485.0	488.0
127.5°	502.6	504.5	506.3	508.2	510.0	512.4	515.2	517.8	520.6	523.4	526.0
130°	528.5	530.6	532.8	535.0	537.1	539.4	541.8	544.2	546.6	549.0	551.8
132.5°	557.6	559.3	561.0	562.8	564.5	566.5	568.6	570.8	573.1	575.3	577.6
135°	595.9	597.8	599.8	601.7	603.6	605.4	607.0	608.7	610.4	612.0	614.7
137.5°	636.8	638.4	639.9	641.5	643.0	644.4	645.4	646.4	647.5	648.5	650.8
140°	661.5	663.0	664.4	665.8	667.3	668.6	669.7	670.9	672.0	673.2	675.3
142.5°	686.8	688.2	689.7	691.2	692.6	693.6	694.3	695.0	695.6	696.2	698.1
145°	722.5	723.8	725.0	726.3	727.5	728.6	729.7	730.7	731.8	732.8	733.8
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°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	406.9	407.4	408.0	408.1	407.9	407.7	407.5	407.3
5°	405.7	406.5	407.3	407.6	407.4	407.3	407.2	407.0
7.5°	403.7	404.6	405.6	406.0	405.9	405.8	405.6	405.5
10°	402.0	403.1	404.2	404.6	404.5	404.3	404.3	404.1
12.5°	399.2	400.3	401.3	401.8	401.6	401.5	401.4	401.2
15°	394.0	395.2	396.4	396.9	396.8	396.6	396.5	396.4
17.5°	387.4	388.6	389.8	390.5	390.5	390.5	390.5	390.5
20°	382.1	383.6	385.0	385.7	385.7	385.7	385.7	385.7
22.5°	376.4	377.9	379.4	380.2	380.4	380.6	380.8	381.0
25°	367.6	369.2	370.7	371.8	372.2	372.6	373.0	373.4
27.5°	357.8	359.8	361.8	362.9	363.2	363.5	363.8	364.1
30°	350.9	353.0	355.1	356.3	356.7	357.1	357.5	357.9
32.5°	343.5	345.9	348.3	349.9	350.6	351.3	352.0	352.8
35°	333.0	335.9	338.7	340.6	341.6	342.5	343.4	344.4
37.5°	322.1	325.3	328.5	330.6	331.6	332.6	333.5	334.5
40°	314.5	317.9	321.3	323.6	324.8	326.0	327.2	328.4
42.5°	307.0	310.8	314.5	317.0	318.1	319.3	320.5	321.7
45°	295.7	299.8	303.8	306.5	307.8	309.2	310.5	311.8
47.5°	283.8	288.1	292.4	295.2	296.7	298.1	299.6	301.0
50°	275.8	280.2	284.7	287.6	289.1	290.6	292.0	293.4
52.5°	267.0	271.6	276.2	279.2	280.7	282.3	283.8	285.4
55°	253.8	258.6	263.2	266.5	268.2	269.9	271.6	273.3
57.5°	239.9	244.9	250.1	253.5	255.2	257.0	258.7	260.5
60°	230.7	235.7	240.7	244.1	245.9	247.8	249.6	251.4
62.5°	220.9	226.2	231.5	235.0	236.8	238.5	240.3	242.0
65°	206.0	211.4	216.8	220.4	222.0	223.8	225.5	227.2
67.5°	191.0	196.4	201.8	205.5	207.2	209.1	210.9	212.6
70°	180.5	186.2	191.8	195.4	197.0	198.6	200.2	201.8
72.5°	170.4	175.9	181.5	185.2	187.0	188.9	190.8	192.7
75°	155.1	160.7	166.4	170.1	171.7	173.5	175.2	176.9
77.5°	140.1	145.8	151.4	155.1	156.9	158.8	160.7	162.5
80°	130.0	135.5	141.0	144.7	146.6	148.4	150.2	152.0
82.5°	120.5	126.0	131.5	135.1	136.9	138.6	140.4	142.1
85°	106.9	112.4	118.0	121.6	123.4	125.3	127.1	129.0
87.5°	100.8	106.2	111.5	114.9	116.7	118.4	120.1	121.8
90°	115.6	120.5	125.4	128.7	130.5	132.2	134.0	135.7
92.5°	109.4	114.6	119.9	123.3	124.9	126.5	128.1	129.8
95°	128.7	133.6	138.6	141.7	143.0	144.2	145.4	146.6
97.5°	157.7	162.6	167.5	170.6	172.1	173.7	175.2	176.7
100°	178.0	182.8	187.7	190.8	192.0	193.3	194.6	195.9
102.5°	200.7	205.6	210.5	213.6	214.8	216.1	217.4	218.6
105°	234.7	239.6	244.6	247.8	249.3	250.7	252.2	253.6
107.5°	271.9	276.5	281.1	283.6	284.2	284.9	285.6	286.2
110°	297.5	301.7	305.9	308.5	309.3	310.3	311.2	312.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.1	326.9	330.6	333.0	334.1	335.2	336.2	337.2
115°	362.4	366.2	369.9	372.3	373.2	374.1	375.1	376.0
117.5°	400.3	403.8	407.3	409.4	410.2	411.0	411.9	412.6
120°	425.7	429.4	433.1	435.4	436.3	437.2	438.2	439.0
122.5°	452.2	455.3	458.5	460.5	461.4	462.2	463.0	463.9
125°	491.0	494.0	497.1	499.1	500.1	501.1	502.1	503.1
127.5°	528.6	531.3	533.9	535.5	536.1	536.7	537.3	537.9
130°	554.6	557.5	560.2	561.8	562.1	562.5	562.8	563.2
132.5°	579.8	582.1	584.4	585.7	586.2	586.8	587.2	587.7
135°	617.3	619.8	622.4	624.0	624.5	625.0	625.6	626.1
137.5°	653.1	655.3	657.6	658.9	659.0	659.3	659.4	659.6
140°	677.4	679.5	681.6	682.7	682.8	682.9	682.9	683.0
142.5°	699.9	701.7	703.5	704.4	704.4	704.4	704.4	704.3
145°	734.7	735.8	736.7	737.2	737.1	737.0	737.0	737.0
147.5°	765.8	766.3	766.8	766.8	766.4	766.1	765.8	765.4
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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