

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: P331307-927

Luminaire Tested: **S122DIP-S485D725U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331307-927
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-S485D725U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3612.1 lumens
Efficiency: N/A
Efficacy: 94.1 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

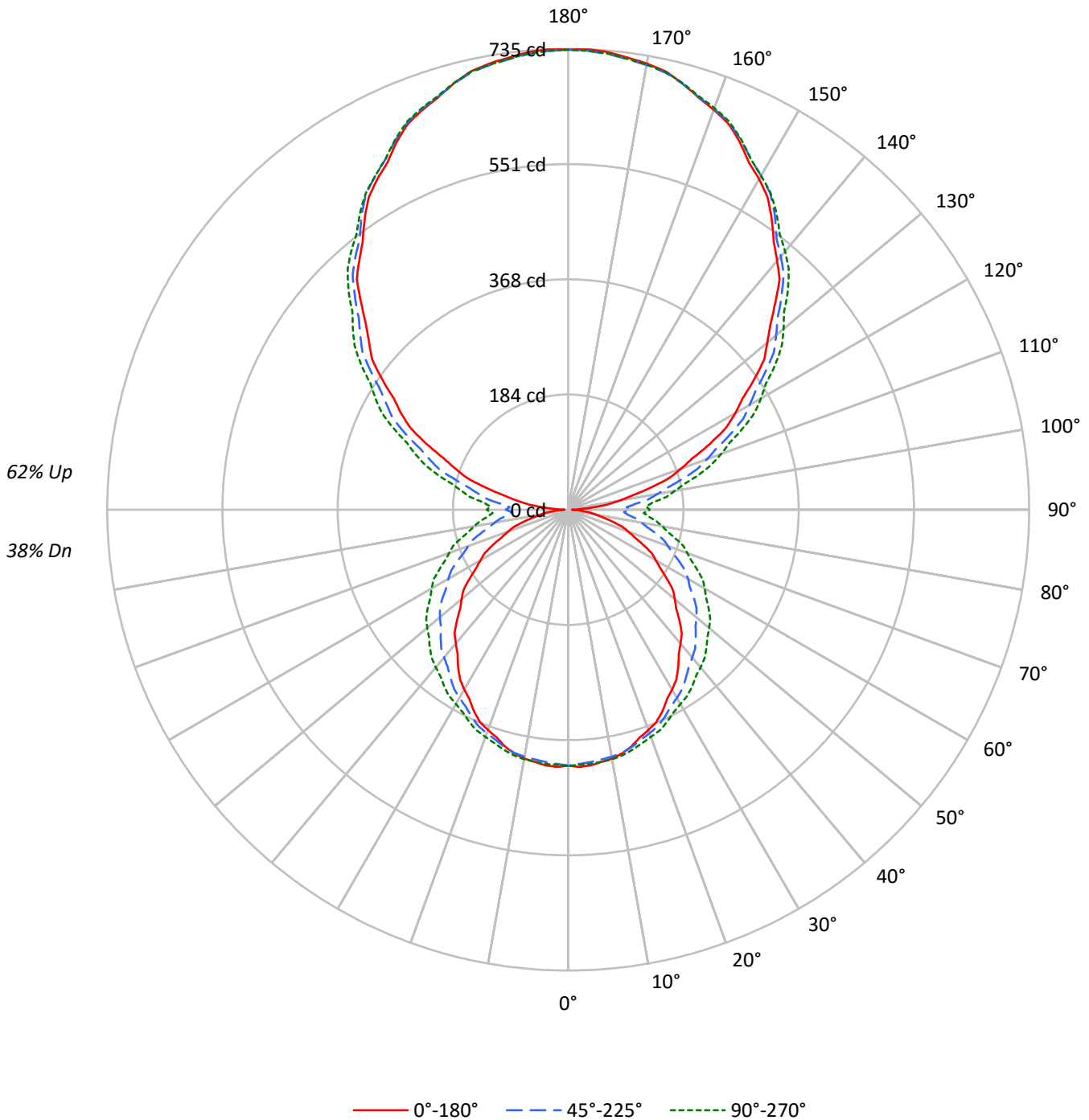
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	45	45	45	38
1	94	89	85	81	85	81	77	74	66	63	61	51	50	48	38	37	36	30
2	85	77	71	65	77	70	65	60	57	53	49	44	42	39	33	31	29	24
3	77	67	60	54	70	61	55	49	50	45	41	39	35	33	29	27	25	20
4	71	59	51	45	64	54	47	41	44	39	34	34	31	28	26	23	21	17
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	28	24	20	21	18	16	12
7	55	42	34	29	49	39	32	26	32	26	22	25	21	18	19	16	14	11
8	51	38	30	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

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	1.1
10°-20°	110.9	3.1
20°-30°	168.1	4.7
30°-40°	204.7	5.7
40°-50°	220.3	6.1
50°-60°	213.9	5.9
60°-70°	186.8	5.2
70°-80°	143.8	4.0
80°-90°	99.4	2.8
90°-100°	113.0	3.1
100°-110°	192.9	5.3
110°-120°	278.9	7.7
120°-130°	342.5	9.5
130°-140°	371.8	10.3
140°-150°	358.5	9.9
150°-160°	299.6	8.3
160°-170°	198.7	5.5
170°-180°	69.5	1.9
0°-30°	317.7	8.8
0°-40°	522.4	14.5
0°-60°	956.6	26.5
0°-90°	1386.6	38.4
90°-120°	584.8	16.2
90°-150°	1657.7	45.9
90°-180°	2226.0	61.6
0°-180°	3612.1	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°	6	49	100	121	130	6
95°	37	71	108	129	136	41
105°	136	156	187	208	216	144
115°	250	261	286	302	307	247
125°	362	368	384	398	403	323
135°	467	474	481	492	496	361
145°	566	570	574	578	579	354
155°	647	649	651	654	652	298
165°	704	703	703	707	705	198
175°	732	731	729	733	730	70
180°	734	734	734	734	734	



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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	19.9	28.0	36.2	44.4	53.0	62.0	71.0	80.0	89.0	94.3
90°	6.5	15.8	25.1	34.4	43.6	54.0	65.4	76.9	88.3	99.7	104.7
92.5°	16.5	24.8	33.1	41.4	49.7	58.3	67.1	75.9	84.7	93.6	98.7
95°	36.9	44.5	52.0	59.6	67.2	75.0	83.2	91.3	99.5	107.7	112.6
97.5°	63.0	69.6	76.4	83.1	89.8	97.2	105.3	113.4	121.4	129.6	134.4
100°	82.8	88.7	94.7	100.7	106.6	113.5	121.3	129.0	136.8	144.6	149.5
102.5°	103.1	108.4	113.8	119.1	124.4	130.9	138.6	146.2	153.9	161.6	166.5
105°	136.1	140.3	144.6	148.8	153.0	158.7	165.8	172.9	180.0	187.1	191.9
107.5°	169.9	173.6	177.2	180.9	184.5	189.6	196.1	202.7	209.3	215.8	220.3
110°	191.2	194.6	198.1	201.6	205.0	210.0	216.4	222.8	229.3	235.8	240.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	215.0	218.0	221.1	224.1	227.1	231.6	237.7	243.7	249.7	255.7	259.6
115°	250.0	252.3	254.6	256.8	259.1	263.1	268.7	274.4	280.0	285.7	289.5
117.5°	284.4	286.5	288.5	290.5	292.6	296.0	300.6	305.3	310.1	314.7	318.3
120°	307.7	309.3	310.9	312.5	314.2	317.0	321.2	325.3	329.5	333.7	337.4
122.5°	329.0	330.5	332.0	333.6	335.1	337.9	342.1	346.3	350.5	354.7	357.9
125°	361.6	362.8	364.0	365.3	366.5	369.0	372.8	376.6	380.4	384.2	387.4
127.5°	393.9	395.3	396.7	398.2	399.7	401.8	404.7	407.6	410.5	413.4	416.1
130°	414.2	415.8	417.5	419.1	420.8	422.9	425.4	427.9	430.3	432.8	435.7
132.5°	437.0	438.3	439.7	440.9	442.3	444.0	446.2	448.4	450.6	452.8	455.2
135°	466.8	468.3	469.8	471.4	472.9	474.4	476.0	477.6	479.2	480.9	483.5
137.5°	498.9	500.1	501.4	502.6	503.7	504.9	505.8	506.8	507.6	508.6	510.9
140°	518.2	519.4	520.5	521.6	522.7	523.7	524.7	525.6	526.6	527.5	529.6
142.5°	538.1	539.2	540.3	541.4	542.5	543.3	543.8	544.3	544.9	545.4	547.2
145°	565.9	566.9	567.9	568.9	569.8	570.7	571.6	572.4	573.1	574.0	575.0
147.5°	591.4	592.5	593.7	594.8	596.0	596.8	597.4	597.9	598.5	599.0	599.4
150°	608.7	609.5	610.3	611.2	612.0	612.7	613.2	613.8	614.3	614.9	615.3
152.5°	624.0	624.9	625.7	626.5	627.3	628.0	628.8	629.4	630.0	630.7	631.2
155°	647.1	647.5	647.9	648.3	648.7	649.1	649.5	650.0	650.4	650.8	651.5
157.5°	666.8	667.0	667.3	667.6	667.9	668.1	668.4	668.6	668.8	669.1	670.0
160°	678.7	678.9	679.2	679.5	679.8	679.9	680.1	680.2	680.4	680.5	681.4
162.5°	689.5	689.6	689.7	689.7	689.8	689.8	690.0	690.1	690.3	690.4	691.3
165°	704.0	703.9	703.8	703.6	703.5	703.4	703.4	703.4	703.4	703.4	704.4
167.5°	716.1	715.7	715.3	714.9	714.5	714.3	714.3	714.2	714.2	714.2	715.2
170°	722.6	722.2	721.8	721.4	721.0	720.6	720.6	720.4	720.3	720.1	721.1
172.5°	727.1	726.7	726.3	725.8	725.4	725.2	725.0	724.8	724.8	724.6	725.6
175°	732.5	732.1	731.7	731.3	730.9	730.6	730.2	730.0	729.7	729.4	730.4
177.5°	734.7	734.4	734.1	733.7	733.4	733.2	732.9	732.7	732.5	732.3	732.9
180°	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7



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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°	99.7	105.0	110.3	113.8	115.5	117.2	118.9	120.6
90°	109.7	114.7	119.7	123.0	124.8	126.5	128.2	129.9
92.5°	103.9	109.2	114.4	117.8	119.4	121.0	122.6	124.2
95°	117.6	122.6	127.6	130.8	132.1	133.4	134.7	136.0
97.5°	139.3	144.2	149.0	152.3	153.8	155.3	156.8	158.4
100°	154.3	159.2	164.1	167.2	168.5	169.8	171.1	172.4
102.5°	171.3	176.2	181.1	184.2	185.4	186.8	188.1	189.4
105°	196.9	201.8	206.6	209.8	211.2	212.7	214.1	215.6
107.5°	224.9	229.4	233.9	236.6	237.4	238.2	239.0	239.9
110°	244.2	248.3	252.6	255.2	256.3	257.3	258.3	259.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	263.5	267.4	271.2	273.8	274.9	276.0	277.2	278.3
115°	293.3	297.1	300.9	303.3	304.4	305.4	306.4	307.4
117.5°	321.9	325.4	329.0	331.2	332.2	333.1	334.0	334.9
120°	341.0	344.8	348.4	350.8	351.8	352.8	353.9	354.9
122.5°	361.2	364.4	367.7	369.7	370.7	371.5	372.5	373.4
125°	390.5	393.6	396.7	398.9	399.9	400.9	402.0	403.1
127.5°	418.9	421.7	424.5	426.2	426.9	427.6	428.3	429.0
130°	438.6	441.5	444.3	446.1	446.6	447.0	447.6	448.1
132.5°	457.6	460.1	462.6	464.1	464.7	465.3	466.0	466.5
135°	486.1	488.7	491.3	493.0	493.6	494.2	494.9	495.5
137.5°	513.2	515.6	517.8	519.1	519.5	519.8	520.2	520.5
140°	531.7	533.9	535.9	537.1	537.3	537.6	537.8	538.1
142.5°	549.0	550.7	552.5	553.5	553.7	553.8	553.9	554.1
145°	575.8	576.8	577.7	578.2	578.3	578.5	578.5	578.7
147.5°	599.8	600.2	600.6	600.7	600.6	600.3	600.2	599.9
150°	615.7	616.1	616.6	616.6	616.1	615.7	615.3	614.9
152.5°	631.8	632.3	632.8	632.8	632.3	631.8	631.2	630.7
155°	652.1	652.8	653.6	653.7	653.2	652.8	652.4	652.0
157.5°	671.0	671.9	672.9	673.0	672.3	671.7	671.0	670.3
160°	682.1	683.0	683.8	684.0	683.4	682.9	682.3	681.8
162.5°	692.3	693.2	694.2	694.3	693.6	693.0	692.3	691.7
165°	705.4	706.3	707.3	707.4	706.7	706.0	705.4	704.6
167.5°	716.1	717.1	718.0	718.2	717.5	716.8	716.1	715.3
170°	722.1	723.0	724.0	724.1	723.3	722.4	721.6	720.7
172.5°	726.5	727.5	728.4	728.5	727.7	726.8	726.0	725.2
175°	731.3	732.3	733.2	733.3	732.5	731.7	730.9	730.1
177.5°	733.6	734.3	734.9	734.9	734.3	733.6	732.9	732.3
180°	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7

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