

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: P331309-927

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331309-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
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-F
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3862.4 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

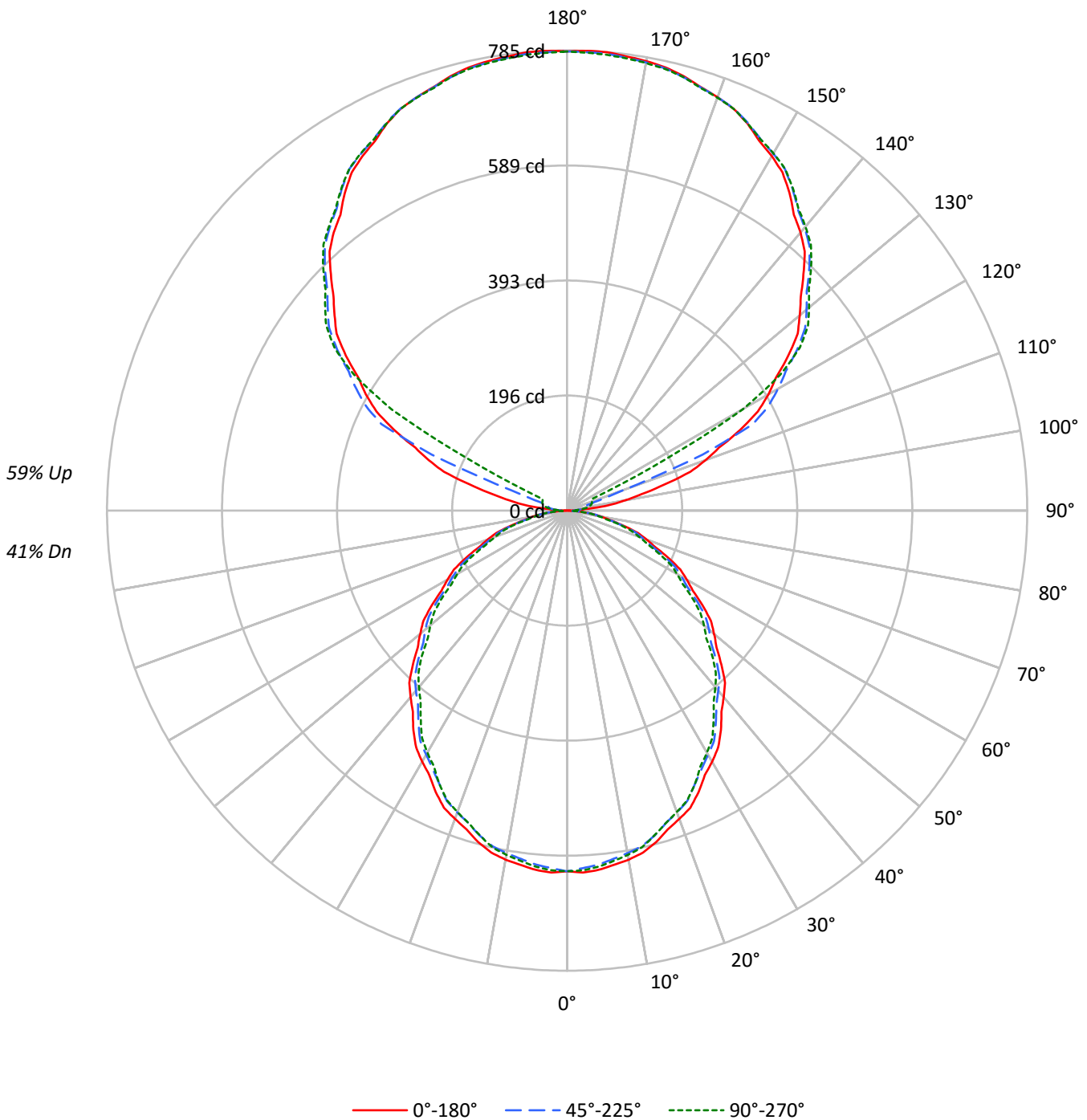
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	78	78	62	62	62	47	47	47	41
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	29
3	79	70	63	57	72	64	58	53	53	48	45	42	39	36	33	31	29	24
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	24	22	18
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16
7	57	45	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22	25	21	19	20	17	15	13
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	14	11
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9935	9935	9935
5°	9972	9828	9887
10°	9914	9729	9778
15°	9790	9603	9593
20°	9617	9414	9402
25°	9444	9180	9180
30°	9221	8968	8889
35°	9014	8712	8584
40°	8753	8456	8292
45°	8499	8200	7996
50°	8219	7935	7654
55°	7927	7626	7344
60°	7601	7259	6991
65°	7255	6896	6575
70°	6812	6453	6146
75°	6201	5939	5795
80°	5504	5337	5058
85°	4483	4279	3835



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	1.5
10°-20°	162.8	4.2
20°-30°	239.3	6.2
30°-40°	278.0	7.2
40°-50°	277.7	7.2
50°-60°	242.1	6.3
60°-70°	179.0	4.6
70°-80°	101.4	2.6
80°-90°	29.2	0.8
90°-100°	26.1	0.7
100°-110°	95.8	2.5
110°-120°	256.1	6.6
120°-130°	422.7	10.9
130°-140°	449.6	11.6
140°-150°	417.8	10.8
150°-160°	335.9	8.7
160°-170°	216.5	5.6
170°-180°	74.5	1.9
0°-30°	459.9	11.9
0°-40°	737.9	19.1
0°-60°	1257.7	32.6
0°-90°	1567.3	40.6
90°-120°	378.0	9.8
90°-150°	1668.1	43.2
90°-180°	2295.0	59.4
0°-180°	3862.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	615	613	606	611	610	58
15°	586	582	574	577	574	165
25°	530	525	515	516	515	244
35°	457	451	442	438	436	285
45°	372	368	359	353	350	287
55°	282	278	271	264	261	252
65°	190	186	180	175	172	188
75°	99	98	95	92	93	106
85°	24	24	23	21	21	28
90°	1	7	11	14	15	3
95°	37	19	22	25	24	45
105°	172	180	34	41	43	184
115°	326	336	350	100	46	321
125°	461	468	479	483	484	411
135°	570	579	584	590	589	440
145°	661	661	670	674	672	413
155°	728	724	730	733	729	335
165°	767	764	766	769	766	217
175°	785	781	782	785	780	75
180°	783	783	783	783	783	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3
2.5°	618.1	617.6	617.1	616.6	616.0	615.2	614.0	612.9	611.7	610.5	611.6
5°	615.3	614.7	614.3	613.7	613.2	612.2	610.8	609.3	607.8	606.4	607.4
7.5°	609.8	609.0	608.2	607.4	606.6	605.5	604.0	602.5	601.0	599.5	600.6
10°	604.7	603.7	602.8	601.9	600.9	599.7	598.1	596.6	595.0	593.4	594.5
12.5°	597.5	596.8	595.9	595.1	594.3	593.1	591.5	589.9	588.4	586.8	587.5
15°	585.7	584.9	584.2	583.4	582.6	581.3	579.6	577.9	576.2	574.5	575.0
17.5°	570.5	569.8	569.0	568.2	567.4	566.2	564.4	562.7	560.9	559.2	559.8
20°	559.7	558.9	558.1	557.3	556.5	555.2	553.3	551.5	549.7	547.9	548.3
22.5°	548.8	547.7	546.6	545.5	544.4	543.0	541.2	539.5	537.7	536.0	536.1
25°	530.1	529.0	528.0	527.0	525.9	524.3	522.0	519.8	517.5	515.3	515.6
27.5°	508.8	507.9	506.9	506.0	505.0	503.7	501.9	500.1	498.4	496.6	496.2
30°	494.6	493.5	492.5	491.5	490.4	488.9	486.9	485.0	483.0	481.0	480.6
32.5°	479.4	478.6	477.8	476.9	476.1	474.6	472.5	470.5	468.4	466.4	465.6
35°	457.3	456.0	454.7	453.4	452.1	450.4	448.3	446.2	444.0	442.0	441.2
37.5°	432.4	431.2	430.1	428.9	427.7	426.1	424.0	421.9	419.8	417.7	416.7
40°	415.3	414.2	413.2	412.2	411.1	409.6	407.4	405.4	403.2	401.2	400.0
42.5°	398.8	397.7	396.6	395.6	394.6	393.0	390.9	388.8	386.7	384.5	383.3
45°	372.2	371.2	370.3	369.4	368.4	367.0	365.0	363.1	361.1	359.1	357.7
47.5°	345.6	344.8	343.9	343.0	342.1	340.7	338.7	336.6	334.5	332.5	331.0
50°	327.2	326.5	325.8	325.2	324.6	323.3	321.5	319.6	317.7	315.9	314.1
52.5°	309.2	308.3	307.4	306.6	305.7	304.4	302.7	301.0	299.2	297.5	296.0
55°	281.6	280.8	280.0	279.2	278.5	277.3	275.7	274.1	272.5	270.9	269.4
57.5°	253.9	253.3	252.6	252.1	251.4	250.3	248.5	246.8	245.0	243.3	241.7
60°	235.4	235.0	234.4	233.9	233.4	232.2	230.4	228.5	226.6	224.8	223.4
62.5°	217.5	216.7	215.8	214.9	214.1	213.0	211.6	210.2	208.7	207.3	206.0
65°	189.9	189.1	188.3	187.5	186.8	185.7	184.4	183.1	181.7	180.5	179.3
67.5°	161.8	161.2	160.6	159.9	159.3	158.4	157.2	156.1	154.9	153.7	152.8
70°	144.3	143.9	143.3	142.8	142.3	141.4	140.2	139.0	137.8	136.7	135.8
72.5°	126.4	125.9	125.3	124.8	124.3	123.7	122.9	122.1	121.4	120.6	119.6
75°	99.4	99.1	98.9	98.6	98.3	97.9	97.2	96.6	95.9	95.2	94.4
77.5°	75.3	74.8	74.4	73.9	73.4	73.1	72.9	72.6	72.3	72.1	71.7
80°	59.2	59.0	58.9	58.8	58.6	58.5	58.1	57.9	57.7	57.4	57.0
82.5°	44.0	44.0	44.0	44.0	43.9	43.8	43.6	43.5	43.3	43.2	42.7
85°	24.2	24.2	24.0	23.8	23.8	23.6	23.4	23.4	23.2	23.1	22.7
87.5°	8.6	8.7	8.8	8.9	8.9	9.0	9.0	8.9	8.9	8.9	8.7
90°	0.6	2.0	3.3	4.8	6.1	7.3	8.3	9.3	10.3	11.3	12.0
92.5°	11.4	11.3	11.2	11.1	10.9	11.2	11.6	12.1	12.7	13.2	13.5
95°	36.8	32.7	28.5	24.4	20.2	18.5	19.5	20.4	21.2	22.1	22.7
97.5°	73.1	61.4	49.7	37.9	26.2	21.4	23.4	25.5	27.6	29.5	30.1
100°	100.3	83.0	65.8	48.6	31.3	23.8	25.9	28.0	30.2	32.3	33.3
102.5°	130.2	126.6	122.9	119.3	115.6	104.8	86.9	69.0	51.1	33.2	34.5
105°	172.3	176.0	179.8	183.6	187.4	172.1	137.7	103.3	68.9	34.5	36.0
107.5°	220.2	223.2	226.3	229.3	232.4	213.3	172.1	130.9	89.6	48.4	47.0
110°	251.0	253.7	256.4	259.0	261.6	244.7	208.3	172.0	135.5	99.2	86.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	280.0	282.4	284.7	287.1	289.4	286.1	277.1	268.1	259.1	250.1	204.2
115°	325.8	328.0	330.1	332.2	334.4	337.1	340.2	343.3	346.5	349.7	291.4
117.5°	366.8	369.2	371.5	373.9	376.3	378.6	380.8	382.9	385.1	387.3	373.2
120°	396.6	398.5	400.4	402.3	404.3	406.3	408.6	410.8	413.1	415.3	416.8
122.5°	422.1	424.1	426.0	428.0	430.0	432.2	434.7	437.2	439.7	442.1	443.0
125°	460.7	462.3	464.0	465.6	467.2	469.3	471.7	474.0	476.4	478.9	479.7
127.5°	495.7	497.6	499.4	501.1	503.0	504.8	506.6	508.3	510.2	511.9	513.3
130°	517.9	520.0	522.0	523.9	526.0	527.7	529.1	530.4	531.9	533.2	534.6
132.5°	540.6	542.3	544.1	545.7	547.5	549.0	550.4	551.8	553.2	554.5	555.7
135°	570.1	572.1	574.1	576.2	578.1	579.7	580.8	581.9	583.1	584.2	585.5
137.5°	599.9	601.3	602.7	604.1	605.5	606.9	608.2	609.4	610.7	612.0	613.2
140°	619.4	620.4	621.4	622.4	623.4	624.6	626.0	627.4	628.8	630.2	631.3
142.5°	635.7	636.6	637.5	638.4	639.3	640.6	642.1	643.7	645.3	646.9	647.9
145°	661.3	661.2	661.1	660.9	660.8	661.8	663.9	666.1	668.2	670.3	671.3
147.5°	683.7	683.2	682.7	682.2	681.8	682.5	684.7	686.7	688.9	691.0	691.7
150°	698.2	697.3	696.4	695.5	694.6	695.2	697.2	699.2	701.2	703.2	704.0
152.5°	710.3	709.4	708.4	707.4	706.5	706.9	708.8	710.7	712.6	714.5	715.3
155°	728.2	727.1	725.9	724.8	723.7	723.8	725.3	726.8	728.3	729.8	730.6
157.5°	742.1	741.2	740.2	739.3	738.3	738.3	739.4	740.5	741.5	742.6	743.5
160°	750.3	749.5	748.8	748.0	747.3	747.3	748.0	748.8	749.5	750.3	751.1
162.5°	757.6	756.8	756.1	755.3	754.5	754.5	755.1	755.7	756.5	757.1	758.0
165°	767.3	766.5	765.8	765.0	764.2	764.1	764.5	764.9	765.2	765.6	766.4
167.5°	774.5	773.8	773.0	772.3	771.5	771.3	771.7	772.0	772.4	772.7	773.6
170°	778.6	777.8	777.1	776.3	775.6	775.3	775.6	775.9	776.1	776.3	777.2
172.5°	781.3	780.5	779.8	779.0	778.3	778.1	778.3	778.6	778.8	779.0	780.0
175°	784.8	783.9	783.1	782.2	781.3	781.0	781.3	781.5	781.7	782.0	782.9
177.5°	785.4	784.7	784.0	783.3	782.6	782.3	782.4	782.5	782.6	782.7	783.4
180°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3
2.5°	612.7	613.7	614.7	615.2	615.0	614.7	614.6	614.3
5°	608.6	609.6	610.6	611.0	610.8	610.5	610.2	610.0
7.5°	601.7	602.7	603.8	604.1	603.9	603.6	603.2	603.0
10°	595.5	596.6	597.6	597.9	597.5	597.1	596.8	596.4
12.5°	588.3	589.0	589.7	589.9	589.6	589.4	589.1	588.7
15°	575.5	576.1	576.6	576.5	575.8	575.2	574.6	573.9
17.5°	560.4	561.0	561.7	561.6	560.9	560.4	559.8	559.1
20°	548.7	549.1	549.5	549.4	548.8	548.3	547.8	547.2
22.5°	536.1	536.2	536.3	536.2	535.9	535.6	535.3	535.0
25°	515.9	516.1	516.3	516.3	516.1	515.9	515.6	515.3
27.5°	495.8	495.4	495.0	494.6	493.9	493.3	492.7	492.0
30°	480.2	479.8	479.4	479.0	478.4	477.9	477.4	476.8
32.5°	464.9	464.2	463.5	462.9	462.3	461.8	461.3	460.7
35°	440.4	439.6	438.8	438.1	437.4	436.7	436.1	435.5
37.5°	415.7	414.8	413.8	413.0	412.3	411.7	411.1	410.5
40°	398.8	397.6	396.4	395.5	395.0	394.5	394.0	393.4
42.5°	382.0	380.7	379.4	378.4	377.6	376.9	376.2	375.4
45°	356.2	354.8	353.3	352.4	351.8	351.3	350.8	350.2
47.5°	329.5	327.9	326.4	325.3	324.5	323.8	323.0	322.2
50°	312.3	310.4	308.6	307.3	306.7	306.0	305.3	304.7
52.5°	294.5	292.9	291.4	290.2	289.3	288.4	287.6	286.7
55°	267.8	266.3	264.7	263.6	262.8	262.2	261.6	260.9
57.5°	240.2	238.6	237.1	236.1	235.5	235.0	234.6	234.0
60°	221.9	220.5	219.0	218.1	217.7	217.3	216.9	216.5
62.5°	204.6	203.3	201.9	201.1	200.5	200.0	199.6	199.0
65°	178.1	176.9	175.7	174.8	174.1	173.5	172.9	172.1
67.5°	151.9	150.9	150.0	149.3	148.8	148.2	147.7	147.2
70°	134.8	133.9	133.0	132.3	131.7	131.2	130.7	130.2
72.5°	118.7	117.8	116.9	116.2	115.8	115.3	114.9	114.5
75°	93.6	92.9	92.1	91.8	92.1	92.4	92.6	92.9
77.5°	71.3	70.9	70.5	70.1	69.7	69.4	69.0	68.6
80°	56.6	56.2	55.8	55.5	55.2	55.0	54.7	54.4
82.5°	42.2	41.7	41.2	40.9	40.9	40.8	40.7	40.7
85°	22.3	21.9	21.5	21.2	21.1	21.0	20.8	20.7
87.5°	8.5	8.3	8.2	8.0	7.9	7.9	7.8	7.8
90°	12.6	13.2	13.9	14.3	14.6	14.8	15.1	15.3
92.5°	13.8	14.1	14.4	14.7	14.8	15.0	15.1	15.3
95°	23.4	24.0	24.6	24.9	24.7	24.6	24.5	24.4
97.5°	30.6	31.1	31.6	31.9	32.1	32.2	32.4	32.6
100°	34.3	35.3	36.4	37.0	37.2	37.5	37.7	37.9
102.5°	35.8	37.2	38.4	39.3	39.6	40.0	40.3	40.7
105°	37.3	38.7	40.1	41.0	41.6	42.1	42.5	43.1
107.5°	45.6	44.1	42.8	42.3	42.8	43.3	43.8	44.3
110°	74.0	61.4	48.8	42.8	43.3	43.7	44.3	44.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	158.3	112.3	66.4	43.6	44.0	44.4	44.8	45.2
115°	233.1	174.8	116.5	82.7	73.7	64.6	55.5	46.5
117.5°	359.1	344.9	330.8	308.9	279.1	249.3	219.5	189.7
120°	418.4	419.9	421.4	413.7	396.6	379.7	362.7	345.7
122.5°	443.9	444.8	445.8	444.6	441.2	437.9	434.7	431.3
125°	480.6	481.5	482.4	483.0	483.4	483.8	484.1	484.5
127.5°	514.5	515.8	517.1	517.8	517.8	517.9	518.0	518.1
130°	536.0	537.4	538.8	539.4	539.3	539.2	539.0	538.9
132.5°	556.9	558.1	559.3	559.8	559.7	559.6	559.4	559.3
135°	586.8	588.0	589.3	589.8	589.5	589.3	589.0	588.7
137.5°	614.5	615.7	617.0	617.3	617.0	616.5	616.1	615.6
140°	632.4	633.5	634.7	634.9	634.3	633.7	633.0	632.4
142.5°	649.0	650.0	651.0	651.3	650.6	650.0	649.4	648.7
145°	672.2	673.0	673.9	674.0	673.4	672.8	672.2	671.5
147.5°	692.3	693.0	693.6	693.7	693.2	692.6	692.1	691.6
150°	704.7	705.5	706.2	706.3	705.7	705.0	704.4	703.8
152.5°	716.1	716.8	717.6	717.6	716.8	715.9	715.1	714.2
155°	731.4	732.1	732.9	732.8	731.7	730.8	729.8	728.7
157.5°	744.3	745.1	746.0	745.9	745.0	743.9	743.0	742.0
160°	751.8	752.6	753.3	753.2	752.3	751.5	750.6	749.7
162.5°	758.8	759.6	760.5	760.4	759.3	758.2	757.2	756.1
165°	767.3	768.3	769.1	769.1	768.3	767.3	766.4	765.6
167.5°	774.5	775.4	776.3	776.1	775.0	773.9	772.7	771.6
170°	778.1	779.0	779.9	779.7	778.6	777.4	776.3	775.2
172.5°	780.9	781.7	782.6	782.4	781.3	780.2	779.0	777.9
175°	783.8	784.7	785.5	785.4	784.1	782.8	781.6	780.3
177.5°	784.1	784.8	785.5	785.4	784.5	783.6	782.7	781.8
180°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2

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