

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: P331660-927

Luminaire Tested: **SA2XXRDIP-C485D725U927-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331660-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-C485D725U927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3641.6 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

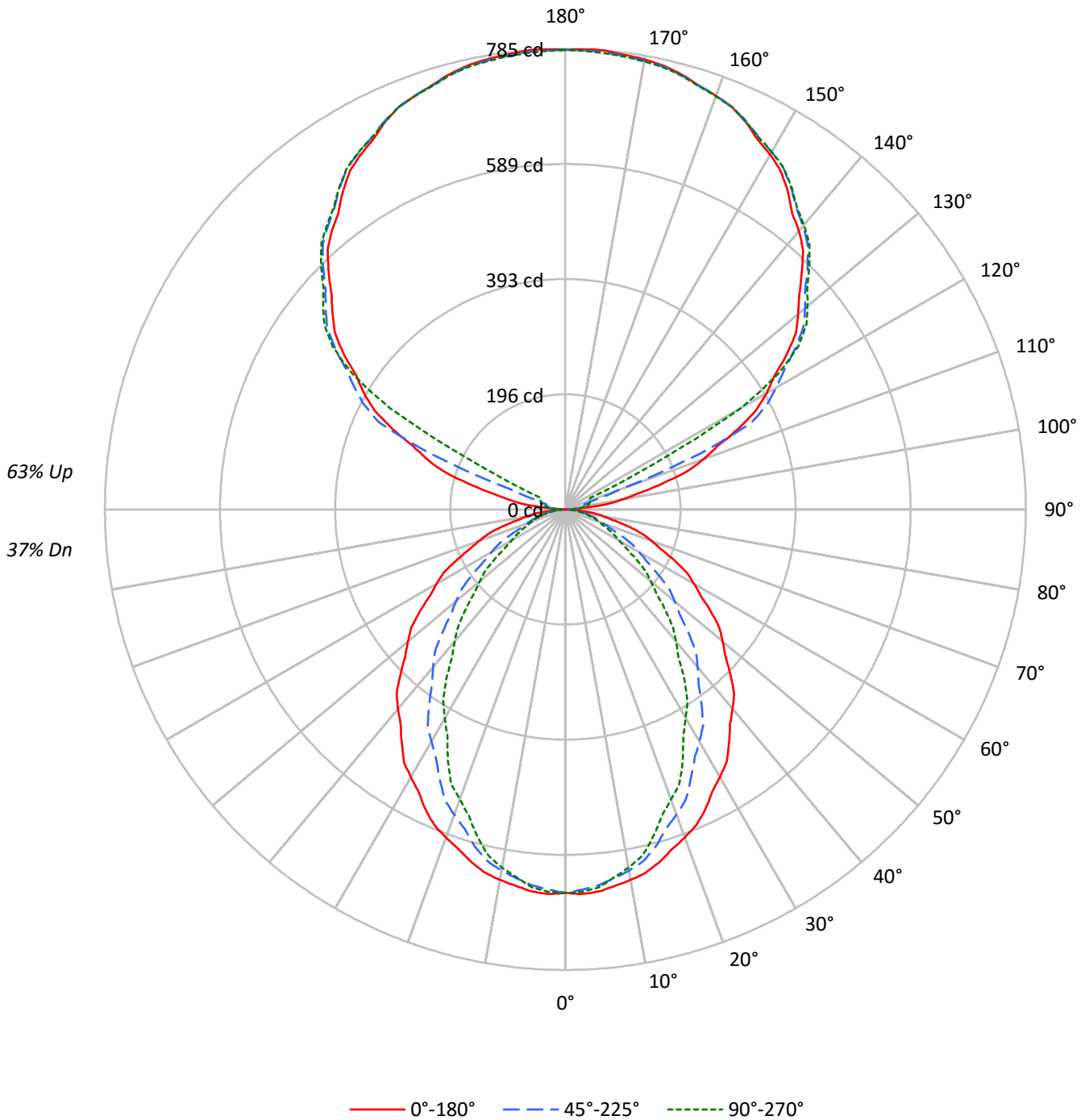
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37
1	95	91	87	84	86	83	80	77	67	65	63	53	51	50	40	39	38	32
2	87	80	74	69	79	73	68	64	59	56	53	47	44	42	35	34	32	27
3	80	71	64	58	72	64	58	54	53	48	45	42	39	36	32	30	28	23
4	73	63	55	49	66	57	51	46	47	42	38	37	34	31	28	26	24	20
5	67	56	48	42	61	51	44	39	42	37	33	34	30	27	26	23	22	18
6	62	50	42	37	56	46	39	34	38	33	29	30	27	24	23	21	19	16
7	57	45	38	32	52	42	35	30	34	29	26	28	24	21	21	19	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15	13
9	49	38	30	25	45	35	28	24	29	24	20	23	20	17	18	16	14	12
10	46	34	27	23	42	32	26	21	27	22	18	22	18	16	17	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10555	10555	10555
5°	10595	10423	10481
10°	10516	10252	10165
15°	10394	9949	9663
20°	10227	9514	9036
25°	10055	9021	8432
30°	9818	8516	7655
35°	9585	7965	6974
40°	9352	7396	6184
45°	9079	6754	5471
50°	8796	6106	4770
55°	8510	5413	4096
60°	8176	4682	3400
65°	7798	3931	3095
70°	7345	3238	2851
75°	6787	2951	2658
80°	5997	2641	2427
85°	4705	2075	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	1.7
10°-20°	168.0	4.6
20°-30°	235.9	6.5
30°-40°	257.3	7.1
40°-50°	236.6	6.5
50°-60°	185.8	5.1
60°-70°	121.1	3.3
70°-80°	62.5	1.7
80°-90°	18.1	0.5
90°-100°	26.1	0.7
100°-110°	95.8	2.6
110°-120°	256.1	7.0
120°-130°	422.7	11.6
130°-140°	449.6	12.3
140°-150°	417.8	11.5
150°-160°	335.9	9.2
160°-170°	216.5	5.9
170°-180°	74.5	2.0
0°-30°	465.2	12.8
0°-40°	722.4	19.8
0°-60°	1144.8	31.4
0°-90°	1346.5	37.0
90°-120°	378.0	10.4
90°-150°	1668.1	45.8
90°-180°	2295.0	63.0
0°-180°	3641.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	650	643	648	647	62
15°	622	615	595	584	578	175
25°	564	544	506	483	473	259
35°	486	455	404	368	354	304
45°	398	357	296	255	240	307
55°	302	255	192	158	146	270
65°	204	156	103	84	81	202
75°	109	69	47	43	43	115
85°	25	14	11	11	11	30
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°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	656.1	655.6	655.1	654.5	654.0	653.2	652.0	650.9	649.7	648.6	649.6
5°	653.7	653.1	652.4	651.8	651.1	649.9	648.2	646.5	644.8	643.1	644.3
7.5°	647.0	646.2	645.4	644.5	643.7	642.3	640.3	638.3	636.4	634.4	634.7
10°	641.4	640.4	639.4	638.6	637.6	635.9	633.3	630.6	628.0	625.3	625.0
12.5°	634.2	633.1	631.9	630.8	629.7	627.5	624.1	620.8	617.3	614.0	613.3
15°	621.8	620.4	618.9	617.4	616.0	613.1	608.6	604.1	599.7	595.2	592.7
17.5°	606.6	604.4	602.1	599.9	597.7	593.7	588.0	582.3	576.6	570.8	567.8
20°	595.2	592.6	589.9	587.3	584.6	580.0	573.5	566.9	560.3	553.7	550.5
22.5°	582.9	580.0	576.9	574.0	571.1	565.9	558.5	551.0	543.7	536.2	532.0
25°	564.4	560.2	556.0	551.8	547.6	541.1	532.4	523.8	515.1	506.4	501.1
27.5°	542.2	537.6	533.0	528.5	523.9	516.7	506.9	497.1	487.4	477.5	471.3
30°	526.6	521.6	516.6	511.6	506.6	498.8	488.3	477.8	467.2	456.8	450.0
32.5°	511.4	505.6	499.7	493.9	488.1	479.7	469.1	458.3	447.6	436.9	429.2
35°	486.3	479.6	472.9	466.2	459.5	450.4	438.8	427.2	415.7	404.1	395.8
37.5°	461.2	453.8	446.5	439.1	431.8	421.9	409.6	397.3	384.9	372.6	363.5
40°	443.7	435.9	427.9	420.1	412.2	401.9	389.1	376.4	363.6	350.9	341.5
42.5°	425.7	417.4	409.1	400.8	392.5	381.8	368.6	355.4	342.2	329.1	319.4
45°	397.6	388.8	379.9	371.1	362.3	351.0	337.2	323.4	309.6	295.8	286.5
47.5°	370.1	360.8	351.5	342.1	332.8	321.0	306.7	292.5	278.2	264.0	254.7
50°	350.2	340.9	331.6	322.3	312.9	301.0	286.5	272.1	257.6	243.1	234.1
52.5°	330.8	321.1	311.3	301.6	291.8	279.9	265.7	251.6	237.4	223.3	214.5
55°	302.3	292.1	281.8	271.6	261.3	249.1	234.9	220.7	206.4	192.3	184.4
57.5°	273.1	262.6	252.1	241.5	231.0	219.0	205.3	191.6	178.0	164.4	157.1
60°	253.2	242.7	232.2	221.7	211.1	199.2	185.6	172.1	158.5	145.0	138.2
62.5°	233.8	223.3	212.8	202.2	191.7	180.1	167.2	154.2	141.3	128.4	122.0
65°	204.1	193.5	182.8	172.1	161.5	150.3	138.5	126.6	114.8	102.9	98.5
67.5°	175.5	164.9	154.3	143.8	133.2	122.6	111.9	101.3	90.6	80.0	78.0
70°	155.6	145.4	135.1	124.8	114.5	104.9	95.9	86.7	77.7	68.6	67.3
72.5°	136.7	126.8	117.0	107.2	97.4	88.8	81.5	74.2	66.9	59.7	58.5
75°	108.8	99.7	90.5	81.3	72.0	65.2	60.8	56.2	51.8	47.3	46.4
77.5°	81.5	73.4	65.4	57.3	49.3	44.1	42.0	39.8	37.6	35.5	34.9
80°	64.5	57.8	51.1	44.4	37.6	33.7	32.3	31.1	29.7	28.4	27.9
82.5°	48.9	43.6	38.4	33.2	28.0	24.9	24.0	23.1	22.2	21.3	21.0
85°	25.4	22.7	19.9	17.2	14.4	12.8	12.4	12.0	11.6	11.2	11.2
87.5°	7.7	7.1	6.6	6.0	5.5	5.2	5.5	5.6	5.9	6.0	6.1
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°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	650.6	651.7	652.8	653.2	653.0	652.8	652.5	652.4
5°	645.5	646.7	647.8	648.2	647.8	647.5	647.1	646.7
7.5°	635.0	635.3	635.7	635.6	634.9	634.1	633.5	632.8
10°	624.6	624.2	623.8	623.2	622.4	621.6	620.8	620.0
12.5°	612.6	611.9	611.2	610.1	608.8	607.5	606.2	604.9
15°	590.2	587.7	585.2	583.3	581.9	580.7	579.3	578.1
17.5°	564.8	561.9	558.9	556.3	554.1	551.8	549.5	547.2
20°	547.2	543.9	540.6	537.5	534.6	531.7	528.9	525.9
22.5°	527.8	523.6	519.4	516.1	514.0	511.8	509.7	507.5
25°	495.7	490.3	484.9	481.2	479.2	477.2	475.3	473.3
27.5°	465.0	458.7	452.4	447.7	444.6	441.5	438.3	435.2
30°	443.3	436.7	429.9	424.8	421.2	417.7	414.2	410.6
32.5°	421.5	413.9	406.2	400.8	397.4	394.1	390.7	387.4
35°	387.5	379.2	371.0	365.4	362.5	359.6	356.7	353.8
37.5°	354.3	345.2	336.1	329.9	326.6	323.3	320.0	316.6
40°	332.2	322.8	313.5	307.1	303.7	300.3	296.8	293.4
42.5°	309.7	300.1	290.5	284.0	280.7	277.3	274.0	270.7
45°	277.1	267.8	258.5	252.2	249.1	245.9	242.7	239.6
47.5°	245.4	236.1	226.9	220.8	217.9	215.1	212.1	209.3
50°	225.0	215.9	206.8	201.0	198.2	195.4	192.7	189.9
52.5°	205.7	197.0	188.2	182.6	180.1	177.5	174.9	172.4
55°	176.5	168.6	160.7	155.5	153.0	150.5	148.1	145.5
57.5°	149.9	142.7	135.5	130.8	128.7	126.6	124.5	122.3
60°	131.5	124.8	118.1	113.8	111.6	109.5	107.4	105.3
62.5°	115.6	109.2	102.8	99.0	97.8	96.5	95.2	94.0
65°	94.0	89.5	85.1	82.6	82.2	81.8	81.4	81.0
67.5°	75.9	73.8	71.8	70.6	70.1	69.7	69.3	68.8
70°	66.0	64.7	63.4	62.4	61.9	61.4	60.8	60.4
72.5°	57.4	56.3	55.2	54.5	54.2	53.9	53.6	53.2
75°	45.5	44.6	43.6	43.1	43.0	42.9	42.7	42.6
77.5°	34.5	33.9	33.4	33.0	32.8	32.6	32.4	32.2
80°	27.3	26.9	26.3	26.1	26.1	26.1	26.1	26.1
82.5°	20.7	20.4	20.0	19.9	19.9	19.9	19.9	19.9
85°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
87.5°	6.1	6.1	6.1	6.2	6.3	6.3	6.3	6.3
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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