

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: P332539-927

Luminaire Tested: **S124DIP-S575D365U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332539-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D365U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2881.8 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

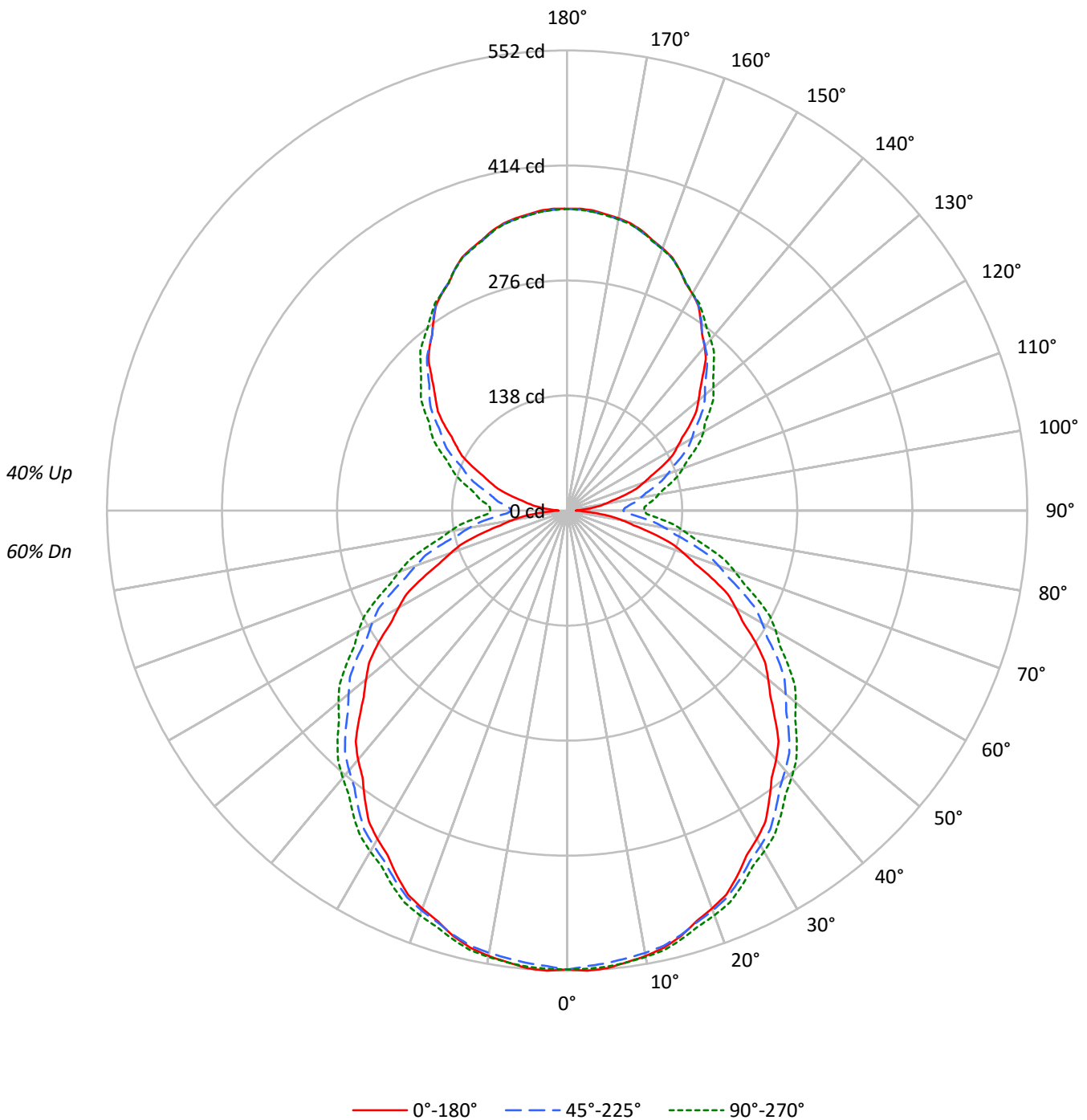
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	99	94	90	86	92	88	84	80	76	73	71	66	64	62	56	54	53	48
2	90	81	75	69	83	76	70	65	66	62	58	57	53	50	49	46	44	39
3	81	71	63	57	76	67	59	54	58	52	48	50	46	42	43	39	37	33
4	74	63	54	48	69	59	51	45	51	45	40	44	40	36	38	34	31	28
5	68	56	47	41	63	52	44	39	46	39	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	42	35	29	37	31	26	32	27	24	28	24	21	18
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	22	19	16
9	50	37	29	24	47	35	28	23	31	25	21	27	22	19	24	20	17	15
10	47	34	27	22	44	32	25	21	29	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.8
10°-20°	149.4	5.2
20°-30°	225.8	7.8
30°-40°	273.2	9.5
40°-50°	288.9	10.0
50°-60°	271.9	9.4
60°-70°	225.6	7.8
70°-80°	158.4	5.5
80°-90°	90.7	3.1
90°-100°	77.1	2.7
100°-110°	110.1	3.8
110°-120°	146.5	5.1
120°-130°	173.2	6.0
130°-140°	184.2	6.4
140°-150°	176.0	6.1
150°-160°	146.9	5.1
160°-170°	97.7	3.4
170°-180°	34.2	1.2
0°-30°	427.3	14.8
0°-40°	700.6	24.3
0°-60°	1261.3	43.8
0°-90°	1735.9	60.2
90°-120°	333.6	11.6
90°-150°	867.0	30.1
90°-180°	1146.0	39.8
0°-180°	2881.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	11	38	67	86	92	8
95°	25	48	75	92	98	25
105°	71	84	107	123	129	75
115°	126	132	150	163	168	124
125°	180	180	195	205	209	161
135°	230	232	236	245	249	178
145°	279	280	280	283	285	175
155°	319	319	319	320	319	147
165°	347	347	346	348	347	98
175°	361	360	360	362	360	34
180°	362	362	362	362	362	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.4	24.2	29.9	35.6	41.4	47.2	53.3	59.4	65.5	71.6	75.7
90°	10.7	16.9	23.1	29.2	35.3	41.7	48.0	54.4	60.8	67.2	71.5
92.5°	15.4	21.1	26.8	32.5	38.2	44.2	50.5	56.6	62.9	69.2	73.3
95°	24.8	29.9	34.9	40.1	45.2	50.7	56.7	62.8	68.8	74.9	78.8
97.5°	36.6	41.0	45.3	49.6	53.9	59.2	65.3	71.3	77.4	83.4	87.3
100°	45.9	49.7	53.6	57.4	61.2	66.1	72.0	77.9	83.8	89.7	93.5
102.5°	56.2	59.5	62.7	65.9	69.2	73.7	79.4	85.2	90.9	96.6	100.4
105°	70.7	73.6	76.4	79.1	82.0	86.0	91.3	96.6	102.0	107.3	110.9
107.5°	87.1	89.5	91.8	94.1	96.5	100.1	104.9	109.7	114.5	119.4	122.9
110°	97.8	99.9	102.0	104.0	106.1	109.4	114.2	118.9	123.7	128.3	131.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	109.0	110.7	112.5	114.2	115.9	119.0	123.5	127.9	132.4	136.9	139.9
115°	125.7	127.0	128.2	129.4	130.7	133.4	137.7	142.0	146.2	150.4	153.4
117.5°	142.1	142.9	143.7	144.4	145.2	147.7	151.6	155.7	159.6	163.6	166.3
120°	152.6	153.2	153.9	154.6	155.2	157.4	161.2	165.0	168.8	172.5	175.0
122.5°	164.0	164.1	164.4	164.5	164.7	166.7	170.3	174.0	177.6	181.3	183.9
125°	180.2	180.1	180.0	179.8	179.7	181.3	184.7	188.0	191.4	194.7	197.3
127.5°	195.4	195.4	195.5	195.5	195.6	196.9	199.4	201.9	204.5	207.0	209.4
130°	205.7	205.7	205.7	205.8	205.8	207.0	209.1	211.4	213.6	215.7	218.1
132.5°	216.6	216.6	216.6	216.6	216.6	217.5	219.2	220.9	222.6	224.3	226.5
135°	230.5	230.8	231.2	231.6	232.0	232.7	233.6	234.6	235.5	236.5	238.5
137.5°	246.3	246.3	246.4	246.4	246.4	246.8	247.3	247.9	248.4	249.0	250.8
140°	256.8	256.8	256.7	256.7	256.7	256.8	257.0	257.1	257.2	257.4	259.1
142.5°	265.9	266.0	266.2	266.3	266.3	266.3	266.2	266.0	265.9	265.8	267.4
145°	279.2	279.2	279.4	279.5	279.6	279.7	279.7	279.8	279.9	280.0	280.7
147.5°	292.4	292.6	292.7	292.9	293.0	293.0	293.0	292.9	292.9	292.9	292.9
150°	300.4	300.6	300.6	300.8	300.9	301.0	301.0	301.0	301.0	301.0	301.0
152.5°	307.5	307.7	307.8	307.9	308.0	308.1	308.2	308.2	308.2	308.3	308.5
155°	319.1	319.1	319.1	319.1	319.1	319.1	319.0	318.9	318.9	318.9	319.1
157.5°	329.0	328.8	328.8	328.7	328.5	328.4	328.4	328.4	328.4	328.4	328.6
160°	334.8	334.7	334.7	334.6	334.5	334.5	334.5	334.4	334.3	334.2	334.5
162.5°	340.2	340.0	339.8	339.7	339.5	339.5	339.4	339.3	339.2	339.1	339.5
165°	347.4	347.2	347.1	346.8	346.7	346.5	346.3	346.3	346.1	346.0	346.3
167.5°	352.9	352.7	352.4	352.1	351.9	351.7	351.8	351.8	351.8	351.8	352.2
170°	356.1	355.8	355.5	355.1	354.8	354.7	354.7	354.8	354.9	355.0	355.3
172.5°	358.3	358.1	357.7	357.5	357.3	357.1	357.1	357.2	357.2	357.2	357.6
175°	361.4	361.1	360.8	360.4	360.1	360.0	359.9	359.8	359.8	359.7	360.1
177.5°	362.4	362.2	361.9	361.6	361.4	361.3	361.3	361.3	361.3	361.3	361.6
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	79.7	83.7	87.9	90.5	91.7	92.9	94.1	95.4
90°	75.9	80.2	84.6	87.4	88.6	89.8	91.0	92.2
92.5°	77.3	81.4	85.5	88.2	89.3	90.5	91.7	92.8
95°	82.7	86.6	90.5	93.0	94.3	95.5	96.7	97.9
97.5°	91.1	94.9	98.7	101.2	102.3	103.5	104.7	105.9
100°	97.4	101.2	105.0	107.3	108.3	109.2	110.3	111.2
102.5°	104.2	107.9	111.7	114.1	115.3	116.4	117.5	118.6
105°	114.5	118.1	121.8	124.2	125.5	126.7	128.0	129.4
107.5°	126.4	130.0	133.6	135.8	136.7	137.8	138.7	139.7
110°	134.4	137.4	140.5	142.6	143.9	145.2	146.5	147.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	142.9	145.9	148.9	151.0	152.1	153.3	154.4	155.5
115°	156.4	159.3	162.2	164.2	165.1	166.0	166.9	167.8
117.5°	168.9	171.5	174.2	175.9	177.0	177.9	178.9	179.8
120°	177.4	179.8	182.3	184.1	185.3	186.6	187.7	189.0
122.5°	186.3	188.9	191.4	193.1	193.8	194.6	195.4	196.1
125°	199.7	202.2	204.6	206.2	206.9	207.6	208.3	209.1
127.5°	211.7	214.0	216.3	217.9	218.8	219.6	220.5	221.3
130°	220.4	222.8	225.1	226.6	227.1	227.7	228.2	228.9
132.5°	228.7	231.0	233.2	234.6	235.4	236.1	236.9	237.6
135°	240.6	242.7	244.8	246.1	246.8	247.4	248.0	248.7
137.5°	252.7	254.5	256.4	257.6	258.3	259.0	259.8	260.5
140°	260.8	262.5	264.3	265.4	266.0	266.6	267.3	267.9
142.5°	268.9	270.5	272.0	273.1	273.6	274.2	274.7	275.3
145°	281.5	282.2	283.0	283.5	283.9	284.2	284.6	284.9
147.5°	292.9	293.0	293.1	293.3	293.7	294.1	294.5	294.9
150°	301.0	301.0	301.0	300.9	300.9	300.8	300.7	300.6
152.5°	308.6	308.8	309.0	308.9	308.7	308.6	308.4	308.2
155°	319.3	319.6	319.8	319.8	319.6	319.3	319.1	318.9
157.5°	328.8	329.0	329.2	329.2	328.9	328.8	328.5	328.3
160°	334.6	334.8	335.0	334.9	334.6	334.3	334.0	333.7
162.5°	339.8	340.2	340.5	340.5	340.2	339.9	339.6	339.3
165°	346.7	347.1	347.5	347.5	347.3	347.1	346.8	346.6
167.5°	352.6	352.9	353.3	353.3	352.9	352.5	352.1	351.7
170°	355.7	356.1	356.5	356.4	356.0	355.5	355.1	354.7
172.5°	358.1	358.5	358.9	358.9	358.5	358.0	357.6	357.1
175°	360.6	361.0	361.5	361.5	361.0	360.6	360.1	359.7
177.5°	361.9	362.3	362.7	362.7	362.3	361.9	361.5	361.1
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9

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