

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: P333403-930

Luminaire Tested: **S125DIW-S850D470U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333403-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D470U930-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4001.1 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

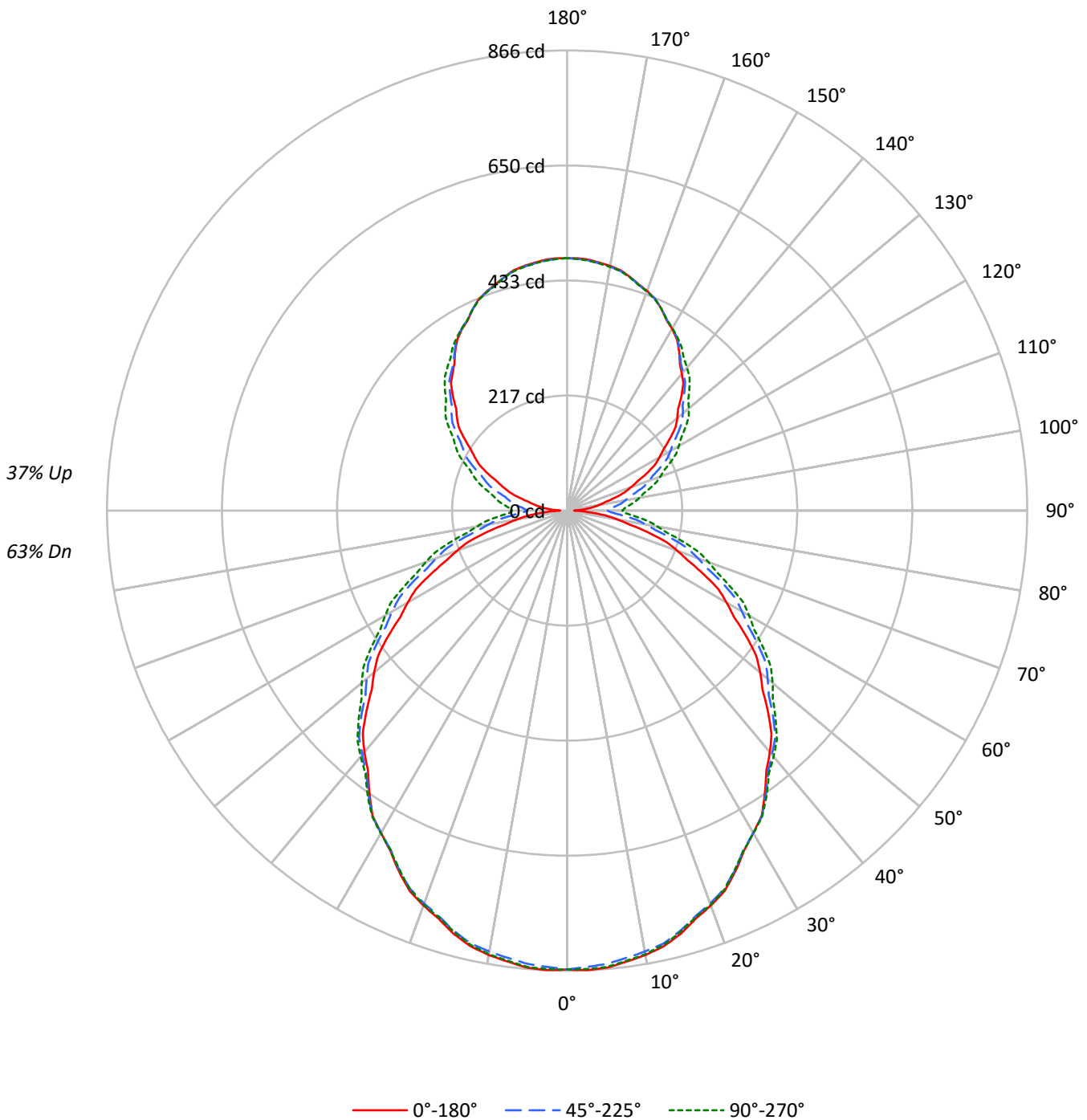
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	59	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	53	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	33	28	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5577	5577	5577
5°	5589	5475	5492
10°	5549	5377	5369
15°	5484	5260	5212
20°	5394	5115	5055
25°	5288	4960	4863
30°	5160	4791	4687
35°	5040	4634	4526
40°	4918	4469	4364
45°	4780	4328	4221
50°	4649	4175	4095
55°	4491	4030	3946
60°	4317	3865	3793
65°	4137	3693	3622
70°	3931	3457	3446
75°	3607	3230	3231
80°	3183	2957	2996
85°	2789	2770	2923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	2.0
10°-20°	231.8	5.8
20°-30°	344.8	8.6
30°-40°	408.4	10.2
40°-50°	422.2	10.6
50°-60°	389.0	9.7
60°-70°	314.4	7.9
70°-80°	210.6	5.3
80°-90°	110.2	2.8
90°-100°	93.1	2.3
100°-110°	139.1	3.5
110°-120°	189.4	4.7
120°-130°	226.5	5.7
130°-140°	242.1	6.1
140°-150°	231.4	5.8
150°-160°	193.1	4.8
160°-170°	128.4	3.2
170°-180°	44.9	1.1
0°-30°	658.3	16.5
0°-40°	1066.7	26.7
0°-60°	1877.9	46.9
0°-90°	2513.1	62.8
90°-120°	421.5	10.5
90°-150°	1121.6	28.0
90°-180°	1488.0	37.2
0°-180°	4001.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	864	862	856	862	862	82
15°	825	825	820	824	821	232
25°	749	751	747	750	746	345
35°	649	654	652	654	654	406
45°	534	543	548	553	555	412
55°	411	424	438	447	450	367
65°	283	302	323	335	339	280
75°	156	178	205	221	226	165
85°	47	75	104	122	130	50
90°	14	44	75	96	104	10
95°	35	58	90	111	118	34
105°	92	108	135	153	161	98
115°	164	173	194	209	214	163
125°	236	238	254	267	271	211
135°	304	306	312	322	325	234
145°	367	368	369	373	375	229
155°	419	419	419	421	419	193
165°	456	455	455	457	454	128
175°	474	472	472	474	472	45
180°	475	475	475	475	475	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	865.7	865.4	865.1	864.8	864.5	863.8	862.7	861.7	860.6	859.6	860.6
5°	863.6	863.3	862.9	862.5	862.2	861.3	860.0	858.7	857.4	856.1	857.5
7.5°	856.1	855.9	855.7	855.6	855.4	854.7	853.4	852.0	850.6	849.3	850.6
10°	849.3	849.3	849.3	849.3	849.3	848.6	847.0	845.5	844.0	842.5	843.8
12.5°	839.8	839.9	840.1	840.2	840.4	839.8	838.7	837.5	836.3	835.0	836.1
15°	824.8	824.9	825.1	825.2	825.5	824.9	823.6	822.3	820.9	819.6	820.8
17.5°	805.1	805.4	805.8	806.2	806.6	806.1	804.8	803.5	802.2	800.9	801.7
20°	790.8	791.2	791.6	792.0	792.4	791.9	790.6	789.3	787.9	786.6	787.2
22.5°	774.6	775.3	775.9	776.7	777.3	776.9	775.4	774.0	772.5	771.0	771.8
25°	749.3	749.9	750.5	751.1	751.6	751.3	750.2	749.1	748.0	746.8	747.5
27.5°	721.2	722.1	722.9	723.7	724.6	724.3	723.1	721.8	720.5	719.3	719.7
30°	700.3	701.4	702.5	703.6	704.7	704.7	703.6	702.5	701.4	700.3	700.7
32.5°	681.3	682.2	683.2	684.2	685.2	685.3	684.4	683.6	682.8	682.0	682.3
35°	648.6	650.0	651.3	652.6	653.9	654.3	653.7	653.1	652.6	652.0	652.6
37.5°	615.9	617.1	618.3	619.5	620.8	621.3	621.0	620.9	620.7	620.5	621.3
40°	593.5	595.1	596.6	598.1	599.6	600.2	600.1	599.9	599.7	599.5	600.2
42.5°	569.2	571.1	573.1	575.0	577.0	578.2	578.6	579.0	579.4	579.8	580.7
45°	534.3	536.4	538.4	540.5	542.6	544.0	545.0	545.9	546.9	547.8	549.2
47.5°	498.6	500.5	502.4	504.3	506.2	508.0	509.6	511.3	512.8	514.5	516.4
50°	474.2	476.2	478.3	480.4	482.4	484.5	486.6	488.7	490.7	492.8	494.9
52.5°	448.4	450.9	453.5	456.0	458.5	461.1	463.6	466.1	468.6	471.2	473.4
55°	410.7	413.7	416.7	419.7	422.7	425.7	428.8	431.8	434.7	437.7	439.9
57.5°	372.0	375.7	379.3	382.9	386.5	390.0	393.5	397.0	400.4	403.9	406.3
60°	346.3	350.1	353.8	357.6	361.3	365.2	368.9	372.7	376.4	380.2	383.0
62.5°	321.2	325.0	328.8	332.6	336.3	340.2	344.3	348.4	352.4	356.4	359.6
65°	282.8	287.1	291.5	295.8	300.1	304.5	309.1	313.6	318.1	322.6	325.5
67.5°	246.5	250.8	254.9	259.1	263.3	267.7	272.2	276.9	281.4	286.0	289.4
70°	220.1	224.5	228.8	233.2	237.5	242.1	247.0	251.8	256.7	261.6	265.2
72.5°	194.4	198.9	203.3	207.8	212.3	217.2	222.6	228.0	233.3	238.6	242.5
75°	155.8	160.7	165.6	170.5	175.4	180.8	186.9	192.9	198.9	204.9	208.6
77.5°	118.7	124.3	130.0	135.7	141.3	147.0	152.8	158.6	164.4	170.2	174.3
80°	95.7	101.3	107.0	112.6	118.3	124.3	130.7	137.1	143.5	149.9	154.0
82.5°	74.7	80.6	86.6	92.5	98.5	104.7	111.3	117.8	124.3	130.9	134.9
85°	46.6	52.7	59.0	65.2	71.4	77.8	84.4	91.0	97.6	104.1	108.3
87.5°	26.5	32.6	38.8	44.9	51.1	57.4	63.9	70.4	77.0	83.5	87.9
90°	13.9	20.6	27.3	33.9	40.6	47.5	54.5	61.4	68.4	75.3	80.1
92.5°	21.1	27.1	33.2	39.2	45.2	51.9	59.1	66.4	73.6	80.9	85.6
95°	35.1	40.1	45.2	50.2	55.3	61.4	68.6	75.8	83.1	90.3	95.0
97.5°	49.9	54.4	58.9	63.3	67.8	73.6	81.0	88.3	95.6	102.9	107.4
100°	61.1	65.0	69.0	72.9	76.9	82.3	89.4	96.5	103.6	110.7	115.4
102.5°	73.1	77.0	81.0	85.0	89.0	94.2	100.6	107.0	113.4	119.8	124.4
105°	91.9	95.3	98.7	102.2	105.6	110.3	116.5	122.6	128.7	134.9	139.2
107.5°	112.8	115.7	118.7	121.6	124.6	129.0	134.8	140.6	146.3	152.2	156.1
110°	127.1	129.8	132.5	135.2	137.8	141.9	147.4	153.0	158.4	164.0	167.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	142.5	144.6	146.5	148.5	150.6	154.3	159.7	165.2	170.6	176.0	179.5
115°	164.4	166.0	167.6	169.3	171.0	174.3	179.4	184.4	189.5	194.5	197.8
117.5°	186.3	187.3	188.3	189.3	190.3	193.2	198.0	202.8	207.6	212.3	215.6
120°	200.5	201.5	202.4	203.4	204.3	207.0	211.5	215.9	220.3	224.7	227.9
122.5°	215.2	215.6	216.0	216.4	216.8	219.2	223.6	228.0	232.4	236.8	239.7
125°	235.8	236.1	236.4	236.8	237.0	239.1	243.0	246.8	250.6	254.5	257.3
127.5°	257.1	257.2	257.3	257.4	257.5	259.2	262.4	265.5	268.7	271.9	274.6
130°	270.4	270.7	270.9	271.1	271.3	272.9	275.7	278.4	281.3	284.1	286.6
132.5°	283.1	283.7	284.4	284.9	285.6	286.9	288.9	290.9	292.9	294.9	297.5
135°	303.9	304.3	304.6	304.8	305.2	306.1	307.4	308.8	310.2	311.6	314.1
137.5°	323.6	323.9	324.2	324.6	324.9	325.5	326.3	327.1	327.9	328.7	331.1
140°	335.7	336.1	336.5	336.9	337.3	337.7	338.1	338.6	339.0	339.4	341.7
142.5°	348.4	348.5	348.7	348.9	349.1	349.4	349.8	350.1	350.4	350.8	352.7
145°	367.0	367.2	367.3	367.5	367.6	367.8	368.0	368.3	368.5	368.8	369.7
147.5°	383.5	383.7	383.8	384.0	384.3	384.4	384.6	384.8	385.0	385.2	385.7
150°	395.0	394.9	394.8	394.8	394.7	394.8	395.2	395.5	395.8	396.2	396.2
152.5°	404.5	404.6	404.7	404.8	405.0	405.0	405.2	405.4	405.4	405.6	405.8
155°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.2	419.3	419.4	419.7
157.5°	432.0	431.9	431.7	431.5	431.3	431.3	431.4	431.5	431.5	431.6	431.9
160°	439.8	439.5	439.2	439.0	438.7	438.6	438.7	438.8	438.9	439.0	439.4
162.5°	446.5	446.4	446.2	446.0	445.8	445.7	445.7	445.7	445.8	445.8	446.2
165°	455.6	455.4	455.3	455.1	454.9	454.9	455.0	455.1	455.2	455.3	455.6
167.5°	463.3	463.0	462.7	462.4	462.0	461.9	461.9	461.9	461.9	461.9	462.4
170°	467.4	467.1	466.8	466.4	466.1	465.9	465.9	465.9	465.9	465.9	466.4
172.5°	470.4	470.1	469.8	469.4	469.1	469.0	469.0	469.0	469.0	469.0	469.4
175°	473.8	473.4	473.0	472.7	472.4	472.2	472.2	472.2	472.2	472.2	472.7
177.5°	475.4	475.2	474.9	474.7	474.3	474.2	474.2	474.1	474.0	473.9	474.3
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	861.7	862.7	863.8	864.3	864.1	864.0	863.8	863.6
5°	859.1	860.5	862.1	862.7	862.5	862.3	862.2	862.0
7.5°	851.9	853.2	854.5	855.1	854.9	854.8	854.5	854.4
10°	845.1	846.4	847.7	848.3	848.2	848.0	847.7	847.6
12.5°	837.1	838.1	839.1	839.4	838.9	838.4	837.9	837.4
15°	821.9	823.0	824.2	824.3	823.6	822.8	822.1	821.3
17.5°	802.6	803.5	804.3	804.5	804.0	803.6	803.2	802.7
20°	787.7	788.3	788.9	789.1	789.1	789.1	789.1	789.1
22.5°	772.5	773.1	773.9	774.0	773.6	773.1	772.7	772.3
25°	748.4	749.1	749.8	749.7	748.8	747.9	746.9	746.0
27.5°	720.2	720.8	721.3	721.5	721.1	720.7	720.4	720.1
30°	701.0	701.4	701.7	701.9	701.6	701.5	701.3	701.1
32.5°	682.7	683.1	683.5	683.5	683.4	683.2	683.0	682.8
35°	653.1	653.7	654.3	654.5	654.5	654.5	654.5	654.5
37.5°	622.0	622.7	623.5	623.9	623.8	623.7	623.6	623.5
40°	601.0	601.8	602.5	603.1	603.4	603.8	604.2	604.5
42.5°	581.6	582.5	583.4	583.9	584.0	584.1	584.2	584.2
45°	550.5	551.8	553.1	553.8	554.1	554.2	554.4	554.6
47.5°	518.3	520.2	522.1	523.3	523.7	524.2	524.6	525.0
50°	496.9	499.0	501.1	502.4	503.0	503.5	504.1	504.7
52.5°	475.6	477.8	480.0	481.4	481.8	482.2	482.6	483.0
55°	441.9	444.0	446.1	447.4	448.2	449.0	449.7	450.5
57.5°	408.6	411.0	413.4	414.8	415.4	416.0	416.5	417.1
60°	385.8	388.7	391.5	393.1	393.7	394.3	394.8	395.4
62.5°	362.7	365.8	369.0	370.9	371.6	372.3	373.0	373.7
65°	328.2	331.1	333.9	335.7	336.5	337.2	337.9	338.7
67.5°	292.9	296.3	299.7	301.9	302.9	303.9	304.8	305.8
70°	268.8	272.4	276.0	278.3	279.4	280.5	281.7	282.8
72.5°	246.4	250.2	254.1	256.5	257.3	258.1	258.9	259.8
75°	212.5	216.2	220.0	222.3	223.2	224.2	225.1	226.1
77.5°	178.5	182.6	186.8	189.2	190.0	190.7	191.4	192.2
80°	158.2	162.3	166.4	168.8	169.7	170.4	171.1	171.9
82.5°	138.8	142.8	146.8	149.5	150.9	152.2	153.6	155.0
85°	112.4	116.6	120.7	123.5	125.1	126.5	128.1	129.6
87.5°	92.3	96.7	101.1	104.0	105.4	106.7	108.1	109.5
90°	84.8	89.5	94.3	97.4	99.0	100.6	102.2	103.7
92.5°	90.3	95.1	99.8	102.9	104.4	105.9	107.4	108.9
95°	99.7	104.4	109.1	112.2	113.7	115.2	116.7	118.1
97.5°	111.9	116.3	120.8	123.8	125.1	126.5	127.9	129.3
100°	120.1	124.8	129.5	132.5	133.8	135.1	136.4	137.6
102.5°	129.1	133.6	138.3	141.2	142.6	144.0	145.3	146.7
105°	143.4	147.7	151.9	154.8	156.4	157.9	159.5	161.1
107.5°	160.1	164.1	168.0	170.6	171.8	172.9	174.1	175.2
110°	171.6	175.5	179.2	181.8	183.0	184.3	185.5	186.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	183.1	186.6	190.2	192.6	193.7	194.9	196.1	197.2
115°	201.1	204.4	207.7	209.9	210.9	212.0	213.0	214.1
117.5°	218.8	222.1	225.3	227.5	228.4	229.4	230.3	231.3
120°	231.1	234.3	237.5	239.5	240.3	241.1	241.9	242.7
122.5°	242.7	245.7	248.7	250.6	251.4	252.3	253.2	254.0
125°	260.2	263.0	265.9	267.7	268.6	269.5	270.3	271.2
127.5°	277.3	280.0	282.7	284.5	285.4	286.3	287.3	288.2
130°	289.1	291.7	294.2	296.0	296.7	297.5	298.2	299.1
132.5°	300.0	302.6	305.2	306.7	307.3	307.8	308.3	308.9
135°	316.5	318.9	321.4	322.9	323.6	324.2	324.8	325.4
137.5°	333.4	335.7	338.0	339.3	339.7	340.1	340.4	340.7
140°	343.9	346.2	348.4	349.7	350.0	350.3	350.7	351.1
142.5°	354.5	356.4	358.2	359.4	359.7	360.0	360.4	360.8
145°	370.6	371.6	372.5	373.2	373.8	374.3	374.8	375.3
147.5°	386.2	386.7	387.2	387.3	387.1	386.9	386.7	386.5
150°	396.2	396.2	396.2	396.2	396.2	396.2	396.2	396.2
152.5°	406.0	406.2	406.3	406.3	406.1	405.9	405.6	405.3
155°	420.0	420.4	420.7	420.7	420.3	419.9	419.5	419.1
157.5°	432.3	432.6	432.9	432.8	432.3	431.7	431.2	430.6
160°	439.7	440.0	440.3	440.3	439.9	439.4	439.0	438.6
162.5°	446.6	446.9	447.4	447.4	446.9	446.4	445.9	445.4
165°	455.9	456.2	456.6	456.5	456.0	455.5	455.0	454.5
167.5°	462.8	463.3	463.8	463.8	463.3	462.8	462.3	461.8
170°	466.9	467.4	468.0	467.9	467.3	466.8	466.2	465.6
172.5°	469.9	470.4	470.9	470.9	470.3	469.9	469.4	468.9
175°	473.2	473.8	474.3	474.2	473.6	473.0	472.5	471.9
177.5°	474.7	475.2	475.6	475.5	475.1	474.6	474.1	473.7
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8

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