

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: P331534

Luminaire Tested: **S122DIW-S675D710U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331534
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: S122DIW-S675D710U835-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 710 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5149.6 lumens
Efficiency: N/A
Efficacy: 114.4 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: General Diffuse

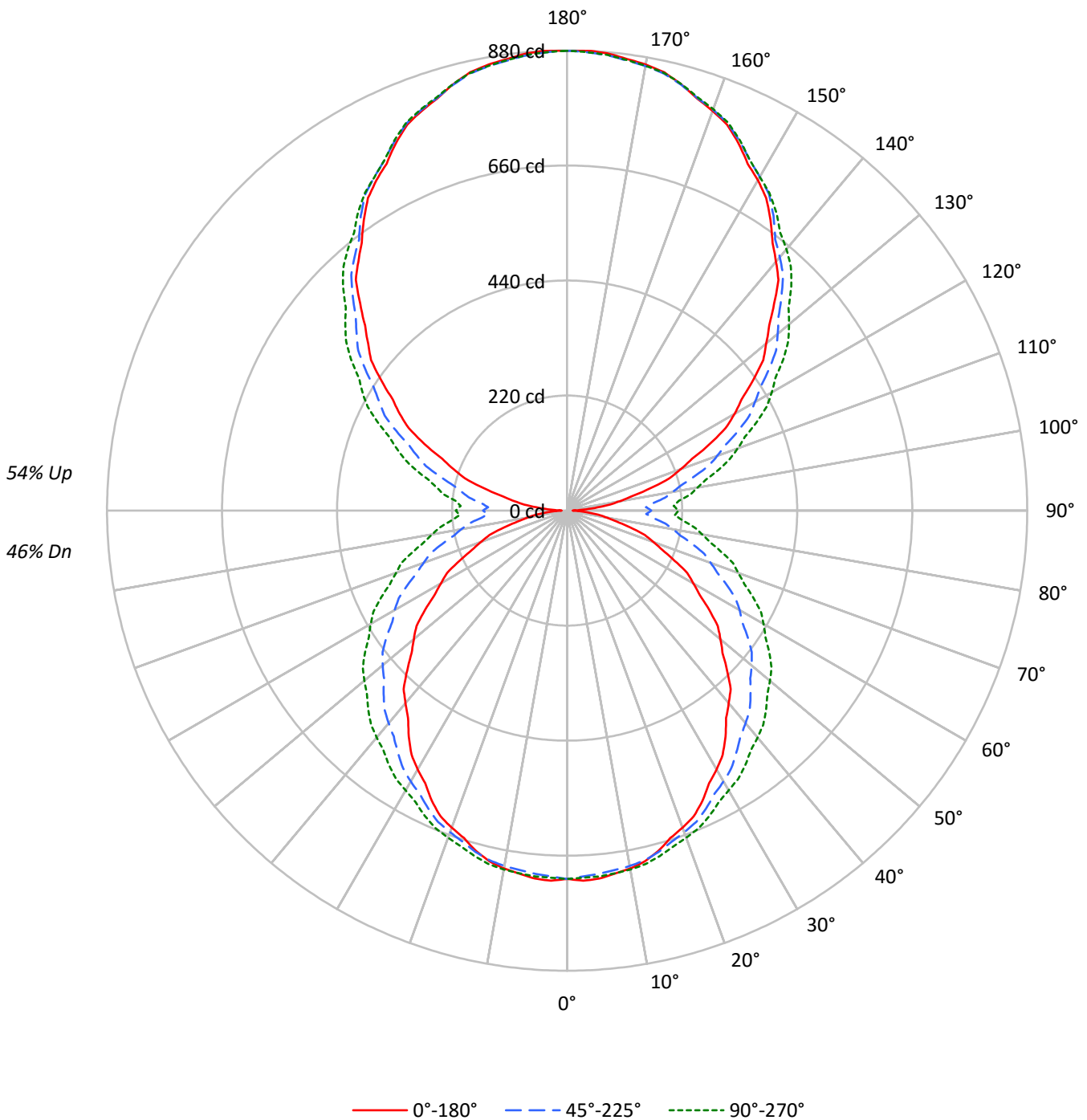
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46					46			
1	96	91	86	82	87	83	79	76	69	66	64	56	54	52	44	43	42	36					36			
2	86	78	72	66	79	72	66	61	60	55	52	49	45	43	38	36	34	29					29			
3	79	68	61	54	72	63	56	50	52	47	43	43	39	36	33	31	28	24					24			
4	72	60	52	46	65	55	48	42	46	41	36	38	33	30	30	27	24	20					20			
5	66	53	45	39	60	49	42	36	41	35	31	34	29	26	27	23	21	17					17			
6	60	48	39	33	55	44	37	31	37	31	27	30	26	22	24	21	18	15					15			
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	19	16	13					13			
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	20	17	14	12					12			
9	48	35	28	23	44	33	26	21	28	22	18	23	19	16	18	15	13	11					11			
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	12	10					10			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11373	11373	11373
5°	11428	10947	10905
10°	11356	10624	10504
15°	11200	10282	10083
20°	11002	9915	9676
25°	10807	9560	9307
30°	10532	9197	8935
35°	10254	8846	8673
40°	9960	8547	8413
45°	9681	8279	8190
50°	9382	8037	7969
55°	9070	7777	7745
60°	8686	7508	7509
65°	8287	7191	7227
70°	7841	6852	6923
75°	7270	6518	6643
80°	6370	6177	6361
85°	5506	5882	6138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	1.3
10°-20°	191.4	3.7
20°-30°	290.0	5.6
30°-40°	353.3	6.9
40°-50°	380.0	7.4
50°-60°	369.1	7.2
60°-70°	322.3	6.3
70°-80°	248.1	4.8
80°-90°	170.0	3.3
90°-100°	170.4	3.3
100°-110°	256.8	5.0
110°-120°	351.1	6.8
120°-130°	419.9	8.2
130°-140°	449.6	8.7
140°-150°	430.4	8.4
150°-160°	359.1	7.0
160°-170°	238.2	4.6
170°-180°	83.2	1.6
0°-30°	548.2	10.6
0°-40°	901.4	17.5
0°-60°	1650.6	32.1
0°-90°	2390.9	46.4
90°-120°	778.4	15.1
90°-150°	2078.2	40.4
90°-180°	2759.0	53.6
0°-180°	5149.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	706	703	697	703	702	67
15°	674	676	676	684	684	190
25°	612	620	629	641	644	281
35°	528	545	564	586	594	330
45°	433	461	496	527	538	334
55°	332	369	422	457	472	297
65°	227	277	337	377	392	225
75°	126	183	248	290	305	133
85°	37	100	165	207	222	40
90°	11	80	161	199	213	9
95°	47	103	165	202	214	51
105°	165	198	251	287	300	174
115°	301	318	361	390	400	297
125°	434	442	471	495	505	388
135°	560	568	580	600	606	433
145°	678	683	688	694	697	424
155°	775	778	780	783	781	357
165°	844	843	843	848	844	238
175°	878	876	874	879	875	83
180°	879	879	879	879	879	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	708.5	707.9	707.4	706.8	706.3	705.4	704.1	702.8	701.6	700.3	701.2
5°	706.4	705.7	705.1	704.4	703.7	702.7	701.3	700.0	698.6	697.2	698.6
7.5°	700.1	699.6	699.2	698.7	698.3	697.5	696.5	695.4	694.4	693.4	695.0
10°	695.2	694.7	694.3	693.8	693.4	692.8	692.1	691.5	690.8	690.1	691.9
12.5°	687.0	687.1	687.2	687.3	687.4	687.2	686.7	686.2	685.7	685.2	687.0
15°	673.8	674.2	674.7	675.1	675.6	675.8	675.8	675.8	675.8	675.8	677.8
17.5°	656.6	657.6	658.5	659.5	660.4	661.3	662.0	662.7	663.4	664.2	666.3
20°	645.2	646.3	647.4	648.6	649.7	650.7	651.6	652.6	653.5	654.4	656.9
22.5°	632.9	634.2	635.6	636.9	638.2	639.5	640.8	642.0	643.3	644.6	647.1
25°	612.5	614.1	615.7	617.3	618.9	620.7	622.7	624.8	626.8	628.8	631.6
27.5°	588.0	590.6	593.2	595.8	598.4	600.9	603.3	605.7	608.1	610.5	613.9
30°	571.7	574.6	577.6	580.5	583.5	586.4	589.4	592.3	595.3	598.2	601.8
32.5°	553.7	557.0	560.3	563.6	567.0	570.4	573.9	577.3	580.8	584.3	588.5
35°	527.8	531.6	535.5	539.3	543.2	547.3	551.6	555.9	560.2	564.5	569.5
37.5°	499.6	504.1	508.5	512.9	517.4	522.4	528.0	533.6	539.1	544.7	550.3
40°	480.8	485.8	490.8	495.8	500.8	506.3	512.5	518.6	524.7	530.8	536.7
42.5°	462.9	467.8	472.8	477.8	482.8	488.8	495.9	502.9	509.9	517.0	523.4
45°	432.8	439.0	445.1	451.2	457.3	464.4	472.3	480.3	488.2	496.1	503.2
47.5°	403.2	409.9	416.6	423.2	429.9	437.9	447.2	456.5	465.8	475.1	482.5
50°	382.8	389.9	396.9	403.9	410.9	419.6	429.8	440.0	450.2	460.4	468.1
52.5°	363.2	370.6	378.0	385.4	392.8	401.9	412.6	423.4	434.1	444.9	452.8
55°	331.8	339.9	348.1	356.3	364.4	374.4	386.2	398.0	409.8	421.6	429.8
57.5°	300.7	310.0	319.2	328.4	337.6	348.2	360.2	372.2	384.3	396.3	405.1
60°	278.7	288.4	298.2	308.0	317.7	329.1	342.0	354.9	367.8	380.8	389.4
62.5°	259.1	269.2	279.3	289.4	299.6	311.1	324.0	336.9	349.9	362.8	372.0
65°	226.6	237.7	248.9	260.0	271.1	283.3	296.7	310.1	323.5	336.9	346.2
67.5°	196.8	208.4	220.1	231.7	243.3	255.9	269.6	283.3	297.0	310.7	320.1
70°	175.6	187.4	199.2	211.0	222.8	235.7	249.8	263.8	277.9	292.0	301.7
72.5°	156.0	168.1	180.3	192.5	204.6	217.8	232.1	246.3	260.6	274.8	284.4
75°	125.6	138.3	151.0	163.7	176.4	190.0	204.5	219.0	233.5	248.1	257.8
77.5°	96.2	109.5	122.8	136.0	149.3	163.4	178.1	192.9	207.6	222.3	232.1
80°	76.6	90.4	104.2	118.1	131.9	146.2	161.0	175.7	190.4	205.2	214.7
82.5°	60.2	73.9	87.5	101.2	114.9	129.1	144.1	159.0	173.9	188.9	198.4
85°	36.8	50.8	64.9	78.9	93.0	107.3	121.8	136.3	150.9	165.4	174.9
87.5°	20.2	34.1	48.0	61.9	75.8	90.4	105.6	120.9	136.1	151.4	160.6
90°	11.0	26.1	41.2	56.4	71.5	88.1	106.3	124.4	142.6	160.7	169.5
92.5°	22.6	36.3	50.0	63.7	77.4	91.7	106.5	121.3	136.2	151.0	160.0
95°	46.8	59.1	71.4	83.7	96.0	109.1	123.1	137.0	150.9	164.9	173.5
97.5°	77.6	88.6	99.5	110.4	121.4	133.7	147.4	161.1	174.8	188.5	196.9
100°	101.4	111.1	120.8	130.5	140.2	151.7	164.9	178.1	191.3	204.5	212.9
102.5°	125.5	134.2	142.9	151.7	160.4	171.2	184.2	197.2	210.1	223.1	231.5
105°	164.6	171.7	178.8	185.9	192.9	202.5	214.7	226.8	238.9	251.0	259.3
107.5°	205.1	211.1	217.1	223.1	229.1	237.7	249.0	260.3	271.6	282.9	290.6
110°	230.4	235.9	241.5	247.0	252.5	260.8	272.0	283.1	294.2	305.3	312.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	258.9	263.7	268.5	273.3	278.1	285.7	296.2	306.6	317.0	327.5	334.3
115°	300.9	304.4	307.9	311.4	314.8	321.5	331.4	341.3	351.2	361.0	367.7
117.5°	341.7	344.7	347.6	350.6	353.5	359.3	367.8	376.3	384.8	393.3	399.7
120°	369.6	371.9	374.1	376.3	378.5	383.5	391.3	399.0	406.8	414.6	420.9
122.5°	395.2	397.1	399.1	401.0	402.9	407.7	415.3	422.9	430.5	438.1	443.9
125°	433.9	435.4	436.9	438.4	439.9	444.0	450.7	457.5	464.3	471.0	476.7
127.5°	472.7	474.3	476.0	477.6	479.3	482.7	488.0	493.2	498.5	503.8	508.8
130°	497.0	498.9	500.8	502.7	504.7	507.8	512.3	516.7	521.1	525.6	530.7
132.5°	524.3	525.8	527.3	528.9	530.4	533.0	536.8	540.5	544.2	548.0	552.5
135°	559.8	561.6	563.4	565.2	567.0	569.2	571.8	574.4	577.0	579.6	584.2
137.5°	598.2	599.7	601.1	602.5	604.0	605.4	606.8	608.3	609.7	611.1	615.2
140°	621.4	622.6	623.9	625.1	626.4	627.7	628.9	630.2	631.5	632.8	636.4
142.5°	645.1	646.4	647.6	648.9	650.1	651.1	651.8	652.4	653.1	653.7	656.7
145°	678.2	679.4	680.5	681.7	682.9	683.9	684.9	685.9	686.9	687.9	689.4
147.5°	708.7	710.0	711.4	712.8	714.2	715.2	715.9	716.5	717.2	717.9	718.4
150°	729.4	730.4	731.4	732.4	733.4	734.2	734.9	735.5	736.2	736.9	737.4
152.5°	747.8	748.8	749.8	750.8	751.8	752.7	753.5	754.3	755.1	755.9	756.5
155°	775.4	775.9	776.4	776.9	777.4	777.9	778.4	778.9	779.4	779.9	780.7
157.5°	799.0	799.4	799.7	800.0	800.4	800.7	801.0	801.3	801.6	801.9	803.0
160°	813.3	813.6	813.9	814.3	814.6	814.9	815.0	815.2	815.3	815.5	816.5
162.5°	826.3	826.4	826.5	826.5	826.6	826.7	826.9	827.1	827.2	827.4	828.5
165°	843.7	843.5	843.4	843.2	843.1	843.0	843.0	843.0	843.0	843.0	844.1
167.5°	858.3	857.8	857.3	856.8	856.3	856.0	856.0	855.9	855.9	855.9	857.0
170°	866.0	865.5	865.0	864.5	864.0	863.7	863.5	863.3	863.2	863.0	864.2
172.5°	871.3	870.8	870.3	869.8	869.3	869.0	868.8	868.7	868.5	868.3	869.5
175°	877.8	877.4	876.9	876.4	875.9	875.5	875.1	874.8	874.5	874.1	875.3
177.5°	880.5	880.1	879.7	879.3	878.9	878.6	878.3	878.1	877.8	877.5	878.3
180°	879.3	879.3	879.3	879.3	879.3	879.3	879.3	879.3	879.3	879.3	879.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	702.1	703.0	703.9	704.2	703.8	703.5	703.1	702.8
5°	700.0	701.3	702.7	703.3	703.0	702.8	702.6	702.3
7.5°	696.6	698.3	699.9	700.6	700.4	700.1	699.9	699.7
10°	693.7	695.5	697.4	698.1	697.9	697.7	697.5	697.2
12.5°	688.8	690.6	692.5	693.2	693.0	692.8	692.6	692.3
15°	679.9	681.9	684.0	684.9	684.7	684.4	684.2	684.0
17.5°	668.4	670.6	672.7	673.8	673.8	673.8	673.8	673.8
20°	659.4	661.9	664.3	665.6	665.6	665.6	665.6	665.6
22.5°	649.6	652.1	654.5	656.0	656.3	656.7	657.1	657.4
25°	634.3	637.0	639.7	641.4	642.1	642.8	643.5	644.2
27.5°	617.4	620.8	624.3	626.2	626.7	627.2	627.7	628.2
30°	605.5	609.1	612.7	614.9	615.6	616.3	616.9	617.6
32.5°	592.7	596.9	601.0	603.7	605.0	606.2	607.4	608.6
35°	574.5	579.5	584.5	587.8	589.4	591.0	592.5	594.1
37.5°	555.8	561.3	566.9	570.5	572.2	573.8	575.5	577.2
40°	542.6	548.5	554.4	558.4	560.4	562.5	564.5	566.6
42.5°	529.8	536.3	542.7	547.0	549.0	551.1	553.1	555.1
45°	510.2	517.2	524.3	528.9	531.2	533.5	535.7	538.0
47.5°	489.8	497.2	504.5	509.4	511.9	514.4	516.9	519.4
50°	475.8	483.5	491.3	496.4	498.9	501.4	503.8	506.3
52.5°	460.7	468.6	476.5	481.8	484.4	487.1	489.8	492.5
55°	437.9	446.1	454.3	459.8	462.8	465.7	468.7	471.6
57.5°	413.9	422.7	431.5	437.4	440.4	443.4	446.4	449.4
60°	398.0	406.6	415.3	421.2	424.3	427.5	430.7	433.9
62.5°	381.1	390.3	399.5	405.6	408.5	411.5	414.5	417.5
65°	355.5	364.8	374.1	380.2	383.2	386.1	389.1	392.0
67.5°	329.5	338.9	348.3	354.6	357.6	360.7	363.8	366.9
70°	311.5	321.2	331.0	337.2	339.9	342.7	345.4	348.1
72.5°	294.0	303.5	313.1	319.5	322.8	326.1	329.3	332.6
75°	267.6	277.3	287.1	293.4	296.4	299.3	302.3	305.2
77.5°	241.8	251.5	261.2	267.6	270.8	274.0	277.1	280.3
80°	224.2	233.8	243.3	249.7	252.8	256.0	259.2	262.4
82.5°	207.9	217.4	227.0	233.2	236.2	239.2	242.2	245.2
85°	184.4	194.0	203.5	209.8	213.0	216.2	219.4	222.5
87.5°	169.8	178.9	188.1	194.2	197.1	200.1	203.0	205.9
90°	178.2	187.0	195.7	201.5	204.4	207.3	210.2	213.1
92.5°	168.9	177.9	186.8	192.7	195.4	198.2	201.0	203.7
95°	182.1	190.8	199.4	204.9	207.3	209.7	212.1	214.4
97.5°	205.3	213.6	222.0	227.6	230.2	232.8	235.5	238.1
100°	221.3	229.7	238.1	243.4	245.8	248.1	250.4	252.7
102.5°	239.8	248.1	256.5	261.8	264.2	266.5	268.8	271.1
105°	267.6	275.9	284.1	289.5	292.0	294.5	297.0	299.5
107.5°	298.4	306.2	313.9	318.7	320.4	322.1	323.9	325.6
110°	319.8	327.1	334.3	339.0	341.0	343.0	345.0	347.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	341.2	348.1	354.9	359.4	361.6	363.7	365.8	368.0
115°	374.3	381.0	387.6	391.9	393.9	395.9	397.9	399.9
117.5°	406.0	412.3	418.6	422.7	424.5	426.3	428.1	430.0
120°	427.3	433.6	440.0	444.1	446.1	448.1	450.1	452.1
122.5°	449.7	455.5	461.2	465.0	466.8	468.6	470.3	472.1
125°	482.3	487.9	493.6	497.3	499.2	501.1	502.9	504.8
127.5°	513.8	518.9	523.9	527.1	528.6	530.1	531.5	533.0
130°	535.8	540.9	546.0	549.2	550.3	551.5	552.6	553.8
132.5°	557.1	561.6	566.1	569.0	570.3	571.6	572.9	574.2
135°	588.8	593.4	598.0	601.0	602.3	603.6	605.0	606.3
137.5°	619.2	623.2	627.3	629.7	630.6	631.5	632.4	633.3
140°	640.0	643.7	647.3	649.5	650.2	650.9	651.6	652.3
142.5°	659.8	662.8	665.9	667.6	668.2	668.7	669.2	669.7
145°	690.9	692.5	694.0	695.0	695.5	695.9	696.4	696.9
147.5°	718.9	719.5	720.0	720.3	720.2	720.1	720.0	719.9
150°	737.8	738.3	738.8	738.8	738.3	737.8	737.4	736.9
152.5°	757.1	757.7	758.4	758.4	757.7	757.1	756.5	755.9
155°	781.5	782.4	783.2	783.4	782.9	782.4	781.9	781.4
157.5°	804.1	805.2	806.3	806.5	805.7	804.9	804.1	803.3
160°	817.5	818.5	819.5	819.6	819.0	818.3	817.7	817.0
162.5°	829.6	830.8	831.9	832.0	831.2	830.5	829.7	828.9
165°	845.3	846.4	847.6	847.8	846.9	846.1	845.3	844.5
167.5°	858.2	859.3	860.5	860.6	859.8	858.9	858.1	857.2
170°	865.3	866.5	867.6	867.7	866.7	865.7	864.7	863.7
172.5°	870.7	871.8	873.0	873.0	872.1	871.1	870.1	869.1
175°	876.4	877.6	878.8	878.8	877.8	876.9	875.9	874.9
177.5°	879.1	879.9	880.7	880.7	879.9	879.1	878.3	877.5
180°	879.3	879.3	879.3	879.3	879.3	879.3	879.3	879.3

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