

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: P331352

Luminaire Tested: **S122DIP-S675D725U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331352  
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: S122DIP-S675D725U835-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5280.9 lumens  
Efficiency: N/A  
Efficacy: 115.1 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

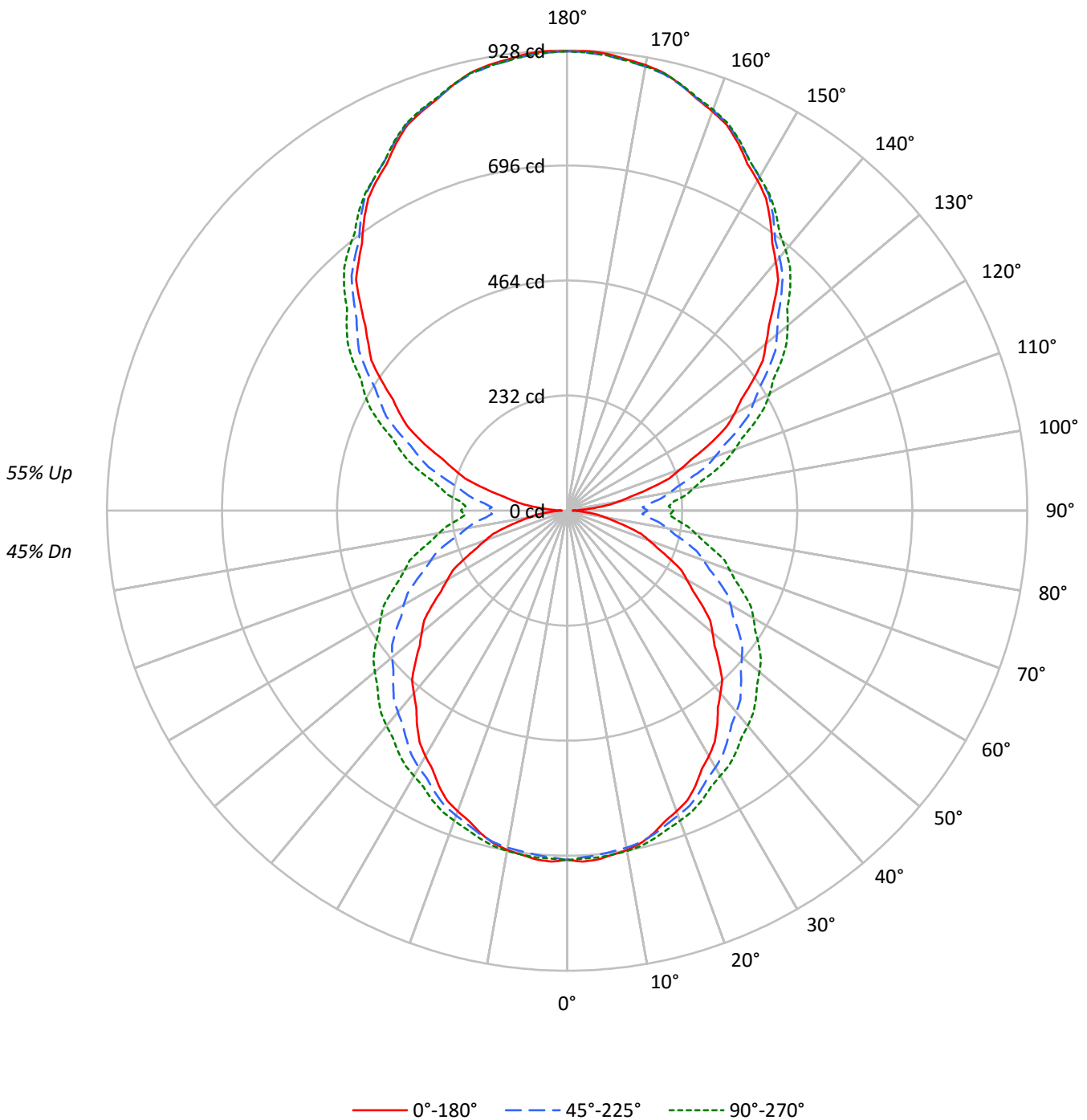
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	95	90	86	82	87	83	79	76	69	66	63	56	54	52	44	42	41	35				
2	86	78	72	66	79	72	66	61	59	55	51	48	45	42	38	35	33	28				
3	78	68	60	54	71	63	56	50	52	47	43	42	38	35	33	30	28	24				
4	71	60	52	45	65	55	48	42	46	40	36	37	33	30	29	26	24	20				
5	65	53	45	39	59	49	42	36	41	35	31	33	29	25	26	23	20	17				
6	60	48	39	33	55	44	36	31	37	31	26	30	25	22	24	20	18	15				
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13				
8	51	39	31	25	47	36	29	24	30	24	20	25	20	17	20	16	14	11				
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13	10				
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11	9				

**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	3.6
20°-30°	290.0	5.5
30°-40°	353.3	6.7
40°-50°	380.0	7.2
50°-60°	369.1	7.0
60°-70°	322.3	6.1
70°-80°	248.1	4.7
80°-90°	170.2	3.2
90°-100°	173.4	3.3
100°-110°	266.1	5.0
110°-120°	366.9	6.9
120°-130°	440.6	8.3
130°-140°	472.9	9.0
140°-150°	453.2	8.6
150°-160°	378.2	7.2
160°-170°	250.9	4.8
170°-180°	87.7	1.7
0°-30°	548.2	10.4
0°-40°	901.4	17.1
0°-60°	1650.6	31.3
0°-90°	2391.1	45.3
90°-120°	806.4	15.3
90°-150°	2173.0	41.1
90°-180°	2890.0	54.7
0°-180°	5280.9	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	162	200	214	9
95°	49	105	167	205	217	53
105°	173	206	260	296	308	183
115°	317	334	377	406	416	313
125°	457	465	494	519	528	409
135°	590	598	610	630	636	456
145°	714	720	725	731	734	446
155°	817	819	822	825	823	376
165°	889	888	888	893	890	251
175°	925	922	921	926	922	88
180°	926	926	926	926	926	



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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	62.0	75.9	90.5	105.8	121.1	136.4	151.7	160.8
90°	11.0	26.2	41.5	56.7	72.0	88.7	107.1	125.4	143.8	162.1	170.8
92.5°	23.3	37.1	50.9	64.6	78.4	92.7	107.6	122.5	137.4	152.3	161.2
95°	48.8	61.2	73.6	86.0	98.4	111.6	125.5	139.5	153.5	167.4	176.0
97.5°	81.4	92.4	103.4	114.4	125.4	137.8	151.5	165.3	179.0	192.7	201.1
100°	106.4	116.2	126.0	135.8	145.5	157.1	170.3	183.5	196.7	210.0	218.3
102.5°	131.9	140.6	149.4	158.2	167.0	177.9	190.9	203.9	216.9	229.9	238.2
105°	173.2	180.3	187.4	194.5	201.6	211.2	223.3	235.5	247.6	259.8	268.0
107.5°	215.8	221.8	227.8	233.9	239.9	248.6	259.9	271.2	282.5	293.7	301.5
110°	242.5	248.1	253.6	259.2	264.8	273.1	284.3	295.4	306.5	317.6	324.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	272.5	277.4	282.2	287.1	291.9	299.6	310.0	320.4	330.9	341.3	348.1
115°	316.7	320.3	323.8	327.4	330.9	337.6	347.5	357.3	367.2	377.0	383.7
117.5°	359.8	362.8	365.8	368.9	371.9	377.6	386.1	394.6	403.0	411.5	417.8
120°	389.2	391.5	393.8	396.1	398.4	403.4	411.1	418.7	426.4	434.1	440.5
122.5°	416.1	418.1	420.1	422.2	424.2	429.0	436.6	444.1	451.7	459.2	465.0
125°	457.0	458.5	460.1	461.6	463.2	467.4	474.1	480.8	487.6	494.3	499.9
127.5°	497.8	499.5	501.3	503.0	504.8	508.3	513.5	518.7	523.9	529.2	534.2
130°	523.4	525.4	527.5	529.5	531.5	534.7	539.2	543.6	548.0	552.4	557.5
132.5°	552.2	553.8	555.4	557.0	558.6	561.3	565.0	568.8	572.5	576.3	580.8
135°	589.6	591.5	593.4	595.3	597.2	599.5	602.1	604.7	607.4	610.0	614.6
137.5°	630.1	631.6	633.1	634.6	636.2	637.6	639.1	640.5	642.0	643.4	647.5
140°	654.5	655.8	657.1	658.5	659.8	661.1	662.5	663.8	665.1	666.4	670.1
142.5°	679.5	680.8	682.2	683.5	684.8	685.8	686.5	687.2	687.9	688.6	691.6
145°	714.4	715.6	716.9	718.1	719.3	720.4	721.5	722.5	723.5	724.6	726.1
147.5°	746.5	747.9	749.4	750.8	752.3	753.4	754.1	754.8	755.5	756.2	756.7
150°	768.4	769.4	770.4	771.5	772.5	773.4	774.1	774.8	775.5	776.2	776.7
152.5°	787.7	788.8	789.8	790.9	791.9	792.8	793.7	794.5	795.3	796.2	796.8
155°	816.8	817.3	817.9	818.4	818.9	819.4	819.9	820.5	821.0	821.5	822.4
157.5°	841.7	842.0	842.4	842.7	843.1	843.4	843.7	844.0	844.3	844.6	845.8
160°	856.7	857.0	857.4	857.7	858.1	858.3	858.5	858.7	858.9	859.0	860.1
162.5°	870.4	870.5	870.6	870.6	870.7	870.8	871.0	871.2	871.4	871.5	872.7
165°	888.7	888.6	888.4	888.2	888.0	887.9	887.9	887.9	887.9	887.9	889.2
167.5°	904.0	903.5	903.0	902.5	902.0	901.7	901.7	901.6	901.6	901.5	902.8
170°	912.2	911.7	911.1	910.6	910.1	909.7	909.6	909.4	909.2	909.0	910.3
172.5°	917.8	917.3	916.8	916.2	915.7	915.4	915.2	915.0	914.9	914.7	915.9
175°	924.7	924.2	923.6	923.1	922.6	922.2	921.8	921.5	921.1	920.8	922.0
177.5°	927.5	927.1	926.7	926.2	925.8	925.5	925.2	924.9	924.6	924.4	925.2
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2



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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°	170.0	179.2	188.4	194.5	197.4	200.3	203.3	206.2
90°	179.6	188.3	197.0	202.8	205.7	208.6	211.5	214.4
92.5°	170.2	179.1	188.1	194.0	196.7	199.5	202.2	205.0
95°	184.7	193.3	201.9	207.4	209.8	212.2	214.5	216.9
97.5°	209.5	217.9	226.3	231.8	234.5	237.1	239.7	242.4
100°	226.7	235.1	243.5	248.9	251.2	253.5	255.8	258.2
102.5°	246.6	254.9	263.3	268.6	270.9	273.3	275.6	277.9
105°	276.3	284.6	292.9	298.3	300.8	303.3	305.8	308.3
107.5°	309.3	317.0	324.8	329.5	331.2	332.9	334.6	336.3
110°	332.1	339.4	346.7	351.3	353.2	355.2	357.2	359.2





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	355.0	361.8	368.7	373.1	375.2	377.4	379.5	381.6
115°	390.3	396.9	403.6	407.9	409.8	411.8	413.8	415.8
117.5°	424.1	430.4	436.7	440.7	442.5	444.3	446.1	447.9
120°	446.8	453.2	459.5	463.7	465.7	467.6	469.6	471.6
122.5°	470.7	476.5	482.2	486.0	487.7	489.5	491.2	493.0
125°	505.5	511.1	516.7	520.5	522.3	524.2	526.1	527.9
127.5°	539.2	544.2	549.2	552.4	553.8	555.3	556.7	558.2
130°	562.6	567.7	572.8	575.9	577.0	578.1	579.3	580.4
132.5°	585.3	589.8	594.3	597.2	598.4	599.7	600.9	602.2
135°	619.1	623.7	628.3	631.3	632.6	633.9	635.2	636.4
137.5°	651.5	655.5	659.6	662.0	662.9	663.7	664.6	665.4
140°	673.7	677.3	681.0	683.1	683.8	684.4	685.1	685.8
142.5°	694.7	697.7	700.7	702.5	703.0	703.5	704.0	704.4
145°	727.7	729.2	730.7	731.7	732.1	732.6	733.0	733.5
147.5°	757.3	757.9	758.4	758.6	758.5	758.4	758.3	758.2
150°	777.2	777.7	778.3	778.3	777.7	777.2	776.7	776.2
152.5°	797.5	798.2	798.8	798.8	798.2	797.5	796.8	796.2
155°	823.2	824.1	825.0	825.2	824.6	824.1	823.6	823.1
157.5°	847.0	848.2	849.4	849.5	848.7	847.9	847.0	846.2
160°	861.1	862.2	863.2	863.4	862.7	862.0	861.3	860.6
162.5°	873.9	875.1	876.3	876.4	875.6	874.8	873.9	873.1
165°	890.4	891.6	892.8	893.0	892.1	891.2	890.4	889.5
167.5°	904.0	905.2	906.4	906.6	905.7	904.8	903.9	903.0
170°	911.5	912.7	913.9	914.0	913.0	911.9	910.9	909.8
172.5°	917.1	918.3	919.5	919.6	918.6	917.5	916.5	915.5
175°	923.2	924.4	925.6	925.7	924.7	923.6	922.6	921.6
177.5°	926.0	926.9	927.7	927.7	926.9	926.0	925.2	924.4
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2

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