

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: P332539-930

Luminaire Tested: **SA4XXDIP-C575D365U930-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332539-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C575D365U930-4F0-1E-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: 2965.9 lumens  
Efficiency: N/A  
Efficacy: 107.9 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

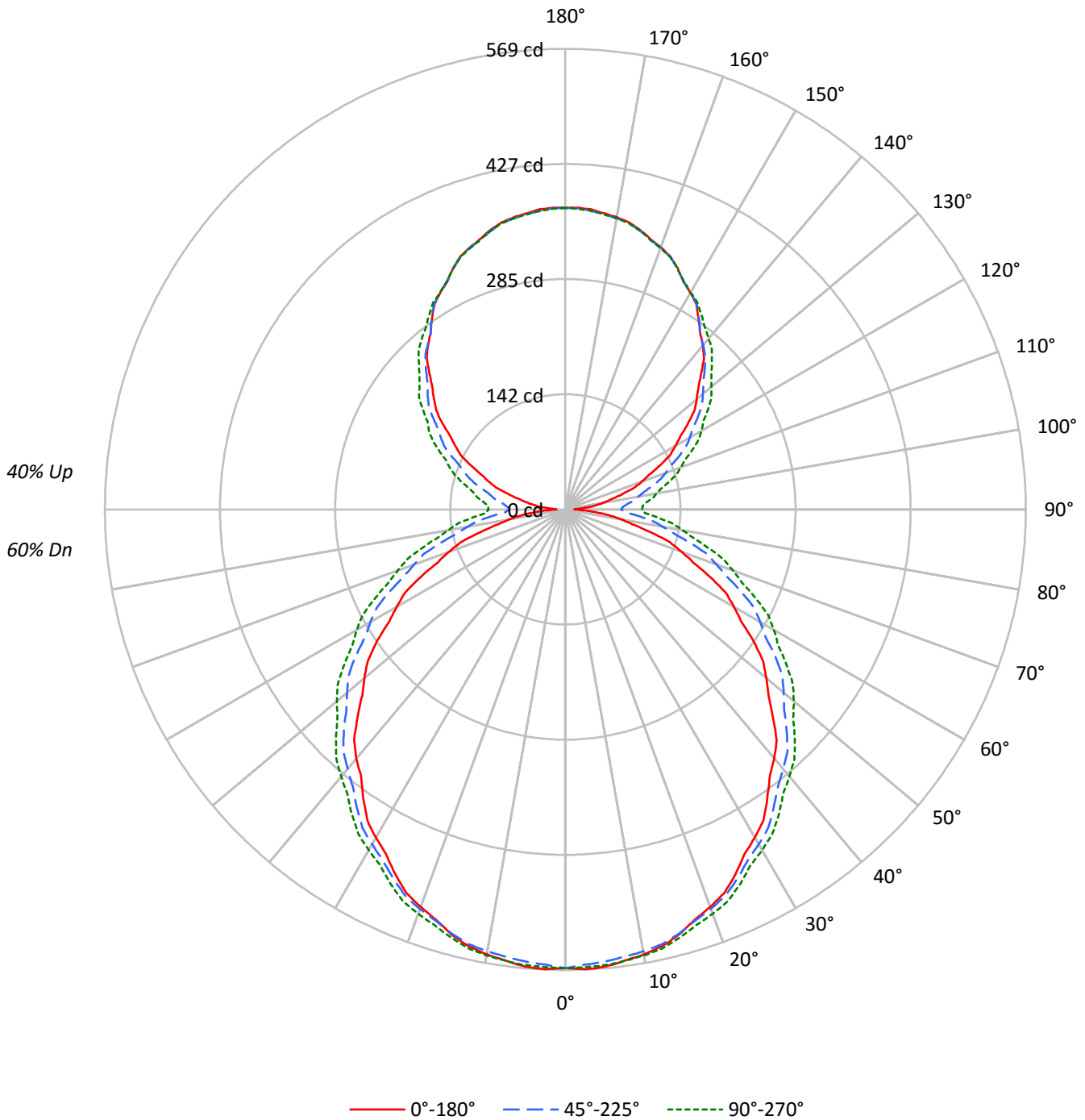
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	1.8
10°-20°	153.7	5.2
20°-30°	232.4	7.8
30°-40°	281.2	9.5
40°-50°	297.3	10.0
50°-60°	279.8	9.4
60°-70°	232.1	7.8
70°-80°	163.1	5.5
80°-90°	93.3	3.1
90°-100°	79.3	2.7
100°-110°	113.3	3.8
110°-120°	150.7	5.1
120°-130°	178.2	6.0
130°-140°	189.6	6.4
140°-150°	181.1	6.1
150°-160°	151.2	5.1
160°-170°	100.6	3.4
170°-180°	35.2	1.2
0°-30°	439.8	14.8
0°-40°	721.0	24.3
0°-60°	1298.1	43.8
0°-90°	1786.6	60.2
90°-120°	343.3	11.6
90°-150°	892.3	30.1
90°-180°	1179.0	39.8
0°-180°	2965.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	11	40	69	88	95	8
95°	26	49	77	94	101	26
105°	73	86	110	127	133	78
115°	129	136	155	168	173	128
125°	186	186	200	211	215	165
135°	237	239	243	253	256	184
145°	287	288	288	292	293	180
155°	328	328	328	329	328	151
165°	358	357	356	358	357	101
175°	372	371	370	372	370	35
180°	372	372	372	372	372	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	18.9	24.9	30.7	36.6	42.6	48.6	54.9	61.1	67.4	73.7	77.9
90°	11.0	17.4	23.7	30.1	36.4	42.9	49.4	56.0	62.5	69.1	73.6
92.5°	15.8	21.7	27.6	33.4	39.3	45.5	51.9	58.3	64.7	71.2	75.4
95°	25.5	30.7	36.0	41.3	46.5	52.2	58.4	64.7	70.8	77.1	81.1
97.5°	37.7	42.2	46.6	51.0	55.5	60.9	67.2	73.4	79.7	85.9	89.8
100°	47.3	51.2	55.2	59.1	63.0	68.0	74.1	80.1	86.3	92.3	96.2
102.5°	57.9	61.2	64.6	67.8	71.2	75.8	81.7	87.6	93.5	99.5	103.3
105°	72.8	75.7	78.6	81.4	84.4	88.5	94.0	99.5	104.9	110.5	114.1
107.5°	89.7	92.1	94.5	96.9	99.3	103.0	107.9	112.9	117.9	122.9	126.5
110°	100.7	102.8	104.9	107.0	109.2	112.6	117.5	122.4	127.3	132.1	135.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	112.2	114.0	115.8	117.5	119.3	122.5	127.1	131.7	136.2	140.9	144.0
115°	129.4	130.7	131.9	133.2	134.5	137.3	141.7	146.1	150.5	154.8	157.9
117.5°	146.3	147.1	147.9	148.6	149.4	152.0	156.0	160.2	164.3	168.4	171.1
120°	157.0	157.7	158.4	159.1	159.7	162.0	165.9	169.8	173.7	177.6	180.1
122.5°	168.8	168.9	169.2	169.3	169.5	171.5	175.3	179.0	182.8	186.6	189.2
125°	185.5	185.3	185.2	185.1	184.9	186.5	190.0	193.5	197.0	200.4	203.0
127.5°	201.1	201.1	201.2	201.2	201.3	202.6	205.2	207.8	210.4	213.0	215.5
130°	211.7	211.7	211.7	211.8	211.8	213.0	215.2	217.5	219.8	222.0	224.5
132.5°	222.9	222.9	222.9	222.9	222.9	223.8	225.6	227.3	229.1	230.8	233.1
135°	237.3	237.6	238.0	238.4	238.7	239.5	240.4	241.4	242.4	243.4	245.5
137.5°	253.5	253.5	253.6	253.6	253.6	254.0	254.5	255.1	255.7	256.2	258.1
140°	264.3	264.3	264.2	264.2	264.2	264.3	264.5	264.6	264.7	264.9	266.7
142.5°	273.7	273.8	273.9	274.0	274.1	274.1	273.9	273.8	273.7	273.5	275.2
145°	287.3	287.4	287.6	287.6	287.7	287.9	287.9	288.0	288.0	288.1	288.9
147.5°	300.9	301.1	301.3	301.4	301.6	301.6	301.6	301.5	301.5	301.4	301.5
150°	309.2	309.3	309.4	309.6	309.7	309.7	309.7	309.7	309.7	309.7	309.7
152.5°	316.5	316.7	316.7	316.9	317.0	317.1	317.2	317.2	317.2	317.3	317.5
155°	328.4	328.4	328.4	328.4	328.4	328.4	328.3	328.2	328.2	328.2	328.4
157.5°	338.6	338.4	338.3	338.3	338.1	338.0	338.0	338.0	338.0	338.0	338.2
160°	344.5	344.5	344.5	344.4	344.3	344.2	344.2	344.1	344.1	344.0	344.2
162.5°	350.1	349.9	349.8	349.6	349.4	349.4	349.3	349.2	349.1	349.0	349.4
165°	357.5	357.3	357.2	356.9	356.8	356.6	356.4	356.4	356.2	356.1	356.4
167.5°	363.2	363.0	362.7	362.4	362.2	362.0	362.1	362.1	362.1	362.1	362.5
170°	366.5	366.2	365.8	365.5	365.2	365.1	365.1	365.2	365.3	365.3	365.7
172.5°	368.8	368.5	368.2	367.9	367.7	367.5	367.5	367.6	367.6	367.6	368.0
175°	371.9	371.6	371.3	371.0	370.6	370.5	370.4	370.3	370.3	370.2	370.6
177.5°	373.0	372.8	372.4	372.2	371.9	371.9	371.9	371.9	371.9	371.9	372.2
180°	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	82.0	86.2	90.4	93.1	94.3	95.6	96.9	98.2
90°	78.1	82.6	87.1	89.9	91.2	92.4	93.7	94.9
92.5°	79.6	83.8	88.0	90.7	91.9	93.1	94.3	95.6
95°	85.1	89.1	93.1	95.7	97.0	98.2	99.5	100.8
97.5°	93.8	97.7	101.6	104.2	105.3	106.6	107.8	109.0
100°	100.2	104.1	108.0	110.5	111.5	112.4	113.5	114.5
102.5°	107.2	111.0	115.0	117.4	118.6	119.8	120.9	122.1
105°	117.9	121.6	125.3	127.8	129.1	130.4	131.8	133.1
107.5°	130.1	133.8	137.5	139.7	140.7	141.8	142.8	143.7
110°	138.4	141.5	144.6	146.8	148.1	149.4	150.7	152.1





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	147.1	150.2	153.3	155.4	156.5	157.8	158.9	160.0
115°	160.9	164.0	167.0	169.0	169.9	170.8	171.8	172.7
117.5°	173.8	176.5	179.3	181.1	182.1	183.1	184.1	185.1
120°	182.6	185.1	187.6	189.5	190.7	192.0	193.2	194.5
122.5°	191.8	194.4	197.0	198.7	199.5	200.2	201.1	201.9
125°	205.5	208.1	210.6	212.2	213.0	213.7	214.4	215.2
127.5°	217.8	220.3	222.7	224.3	225.2	226.0	226.9	227.7
130°	226.8	229.3	231.6	233.2	233.7	234.3	234.9	235.5
132.5°	235.4	237.7	240.0	241.5	242.3	243.0	243.8	244.5
135°	247.6	249.8	251.9	253.3	254.0	254.6	255.3	255.9
137.5°	260.1	262.0	263.8	265.1	265.9	266.6	267.3	268.2
140°	268.4	270.2	272.0	273.1	273.8	274.4	275.1	275.7
142.5°	276.7	278.3	279.9	281.0	281.6	282.2	282.7	283.3
145°	289.7	290.4	291.2	291.8	292.2	292.5	292.9	293.3
147.5°	301.5	301.6	301.7	301.9	302.2	302.6	303.0	303.5
150°	309.7	309.7	309.7	309.7	309.7	309.6	309.5	309.4
152.5°	317.6	317.8	318.0	317.9	317.7	317.6	317.4	317.2
155°	328.6	328.9	329.1	329.1	328.9	328.6	328.4	328.2
157.5°	338.3	338.6	338.8	338.8	338.5	338.3	338.1	337.9
160°	344.4	344.5	344.8	344.7	344.4	344.1	343.7	343.4
162.5°	349.8	350.1	350.4	350.4	350.2	349.8	349.5	349.2
165°	356.9	357.3	357.6	357.7	357.4	357.2	356.9	356.7
167.5°	362.9	363.2	363.6	363.6	363.2	362.8	362.4	362.0
170°	366.1	366.5	366.9	366.8	366.4	365.9	365.5	365.0
172.5°	368.5	368.9	369.3	369.3	368.9	368.4	368.0	367.5
175°	371.1	371.5	372.0	372.0	371.5	371.1	370.6	370.2
177.5°	372.5	372.9	373.2	373.2	372.8	372.4	372.0	371.6
180°	372.5	372.5	372.5	372.5	372.5	372.5	372.5	372.5

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