

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: P332539-935

Luminaire Tested: **S124DIP-S575D365U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332539-935
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-S575D365U935-4F0-1E-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: 3132.1 lumens
Efficiency: N/A
Efficacy: 113.9 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

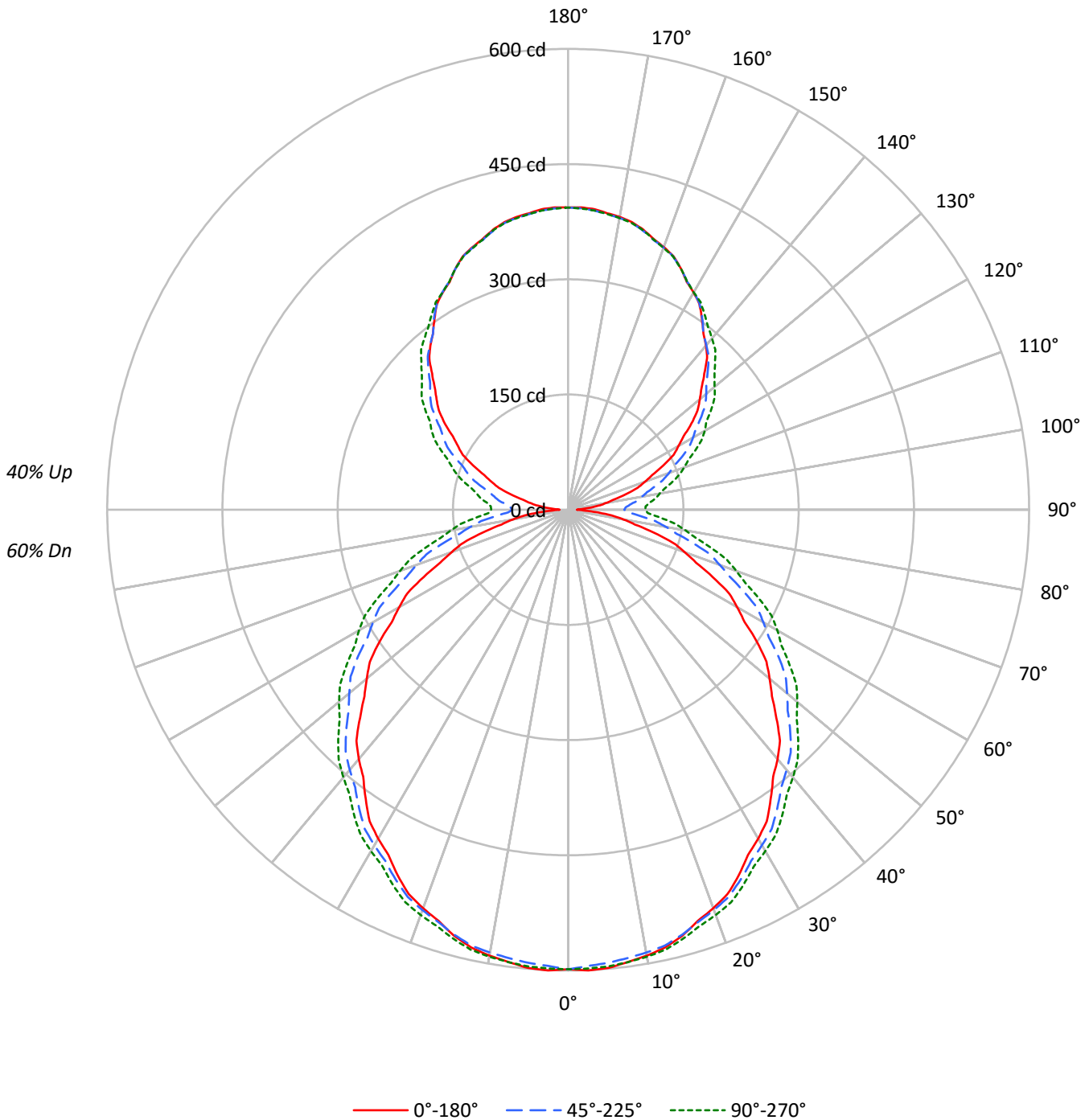
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66
1	99	94	90	86	92	88	84	80	76	73	71	66	64	62	56	54	53
2	90	81	75	69	83	76	70	65	66	62	58	57	53	50	49	46	44
3	81	71	63	57	76	67	59	54	58	52	48	50	46	42	43	39	37
4	74	63	54	48	69	59	51	45	51	45	40	44	40	36	38	34	31
5	68	56	47	41	63	52	44	39	46	39	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24
7	58	45	37	31	54	42	35	29	37	31	26	32	27	24	28	24	21
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	22	19
9	50	37	29	24	47	35	28	23	31	25	21	27	22	19	24	20	17
10	47	34	27	22	44	32	25	21	29	23	19	25	20	17	22	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.8
10°-20°	162.3	5.2
20°-30°	245.5	7.8
30°-40°	297.0	9.5
40°-50°	314.0	10.0
50°-60°	295.5	9.4
60°-70°	245.2	7.8
70°-80°	172.2	5.5
80°-90°	98.5	3.1
90°-100°	83.8	2.7
100°-110°	119.7	3.8
110°-120°	159.2	5.1
120°-130°	188.2	6.0
130°-140°	200.2	6.4
140°-150°	191.3	6.1
150°-160°	159.7	5.1
160°-170°	106.2	3.4
170°-180°	37.2	1.2
0°-30°	464.5	14.8
0°-40°	761.4	24.3
0°-60°	1370.9	43.8
0°-90°	1886.8	60.2
90°-120°	362.6	11.6
90°-150°	942.3	30.1
90°-180°	1245.0	39.7
0°-180°	3132.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	12	42	73	94	100	8
95°	27	52	82	100	106	27
105°	77	91	117	134	141	82
115°	137	144	164	177	182	135
125°	196	196	212	223	227	175
135°	251	252	257	267	270	194
145°	303	304	304	308	310	190
155°	347	347	347	348	347	160
165°	378	377	376	378	377	106
175°	393	391	391	393	391	37
180°	393	393	393	393	393	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.0	26.3	32.5	38.7	44.9	51.3	57.9	64.6	71.2	77.8	82.2
90°	11.6	18.3	25.1	31.8	38.4	45.3	52.2	59.2	66.0	73.0	77.7
92.5°	16.7	22.9	29.1	35.3	41.5	48.0	54.8	61.6	68.4	75.2	79.6
95°	26.9	32.5	38.0	43.6	49.1	55.1	61.6	68.3	74.8	81.5	85.7
97.5°	39.8	44.5	49.2	53.9	58.6	64.3	70.9	77.5	84.1	90.7	94.9
100°	49.9	54.1	58.3	62.4	66.6	71.8	78.3	84.6	91.1	97.5	101.6
102.5°	61.1	64.7	68.2	71.6	75.2	80.1	86.3	92.6	98.8	105.0	109.1
105°	76.9	80.0	83.0	86.0	89.1	93.5	99.3	105.0	110.8	116.7	120.5
107.5°	94.7	97.3	99.8	102.3	104.9	108.7	114.0	119.2	124.5	129.8	133.5
110°	106.3	108.6	110.8	113.0	115.3	118.9	124.1	129.2	134.4	139.5	142.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	118.5	120.4	122.3	124.1	126.0	129.3	134.2	139.1	143.9	148.8	152.1
115°	136.6	138.0	139.3	140.7	142.1	145.0	149.6	154.3	158.9	163.5	166.8
117.5°	154.5	155.3	156.2	157.0	157.8	160.5	164.8	169.2	173.5	177.8	180.7
120°	165.8	166.5	167.3	168.0	168.7	171.1	175.2	179.3	183.5	187.5	190.2
122.5°	178.2	178.4	178.7	178.8	179.0	181.2	185.1	189.1	193.0	197.1	199.8
125°	195.9	195.7	195.6	195.4	195.3	197.0	200.7	204.3	208.0	211.6	214.4
127.5°	212.3	212.4	212.5	212.5	212.6	214.0	216.7	219.5	222.2	225.0	227.6
130°	223.5	223.5	223.6	223.7	223.7	225.0	227.3	229.7	232.1	234.5	237.0
132.5°	235.4	235.4	235.4	235.4	235.4	236.3	238.2	240.0	241.9	243.7	246.2
135°	250.6	250.9	251.3	251.8	252.1	252.9	253.9	254.9	256.0	257.0	259.2
137.5°	267.7	267.7	267.8	267.8	267.9	268.2	268.8	269.4	270.0	270.6	272.6
140°	279.1	279.1	279.1	279.1	279.1	279.1	279.3	279.4	279.6	279.7	281.6
142.5°	289.0	289.1	289.3	289.4	289.5	289.5	289.3	289.1	289.0	288.9	290.6
145°	303.4	303.5	303.7	303.8	303.8	304.0	304.0	304.1	304.2	304.3	305.1
147.5°	317.8	318.0	318.1	318.3	318.5	318.5	318.5	318.4	318.4	318.3	318.4
150°	326.5	326.7	326.7	326.9	327.0	327.1	327.1	327.1	327.1	327.1	327.1
152.5°	334.2	334.4	334.5	334.7	334.8	334.8	334.9	335.0	335.0	335.1	335.3
155°	346.8	346.8	346.8	346.8	346.8	346.8	346.7	346.6	346.6	346.6	346.8
157.5°	357.6	357.4	357.3	357.2	357.1	357.0	357.0	357.0	357.0	357.0	357.1
160°	363.9	363.8	363.8	363.7	363.6	363.5	363.5	363.4	363.3	363.3	363.5
162.5°	369.7	369.5	369.4	369.2	369.0	368.9	368.9	368.8	368.7	368.6	369.0
165°	377.5	377.4	377.2	376.9	376.8	376.6	376.4	376.3	376.2	376.1	376.4
167.5°	383.6	383.3	383.1	382.7	382.5	382.3	382.4	382.4	382.4	382.4	382.8
170°	387.0	386.7	386.3	386.0	385.6	385.6	385.6	385.6	385.7	385.8	386.2
172.5°	389.4	389.2	388.8	388.6	388.3	388.1	388.1	388.2	388.2	388.2	388.7
175°	392.8	392.4	392.1	391.8	391.4	391.2	391.2	391.1	391.1	391.0	391.4
177.5°	393.9	393.6	393.3	393.0	392.8	392.7	392.7	392.7	392.7	392.7	393.0
180°	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	86.6	91.0	95.5	98.3	99.6	101.0	102.3	103.7
90°	82.5	87.2	92.0	95.0	96.3	97.6	98.9	100.2
92.5°	84.0	88.5	92.9	95.8	97.0	98.3	99.6	100.9
95°	89.9	94.1	98.3	101.1	102.5	103.8	105.1	106.4
97.5°	99.0	103.1	107.3	110.0	111.2	112.5	113.8	115.1
100°	105.8	109.9	114.1	116.7	117.7	118.7	119.9	120.9
102.5°	113.2	117.3	121.4	124.0	125.3	126.5	127.7	128.9
105°	124.5	128.4	132.3	135.0	136.4	137.8	139.1	140.6
107.5°	137.4	141.3	145.2	147.6	148.6	149.7	150.8	151.8
110°	146.1	149.4	152.7	155.0	156.4	157.8	159.2	160.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	155.3	158.6	161.9	164.1	165.3	166.6	167.8	169.0
115°	170.0	173.1	176.3	178.5	179.4	180.4	181.4	182.4
117.5°	183.6	186.4	189.3	191.2	192.3	193.4	194.4	195.4
120°	192.9	195.4	198.1	200.1	201.4	202.8	204.1	205.4
122.5°	202.5	205.3	208.0	209.8	210.7	211.5	212.3	213.2
125°	217.1	219.7	222.4	224.1	224.9	225.7	226.4	227.2
127.5°	230.1	232.6	235.1	236.9	237.8	238.7	239.6	240.5
130°	239.5	242.1	244.6	246.2	246.8	247.5	248.1	248.7
132.5°	248.6	251.1	253.5	255.0	255.9	256.7	257.4	258.2
135°	261.5	263.8	266.0	267.5	268.2	268.9	269.6	270.3
137.5°	274.7	276.6	278.6	280.0	280.8	281.5	282.3	283.2
140°	283.4	285.3	287.2	288.4	289.1	289.8	290.5	291.2
142.5°	292.2	293.9	295.6	296.8	297.4	298.0	298.6	299.2
145°	305.9	306.7	307.5	308.2	308.6	308.9	309.4	309.7
147.5°	318.4	318.5	318.6	318.8	319.2	319.6	320.0	320.5
150°	327.1	327.1	327.1	327.0	327.0	326.9	326.8	326.7
152.5°	335.4	335.6	335.8	335.7	335.5	335.4	335.2	335.0
155°	347.1	347.3	347.6	347.6	347.3	347.1	346.8	346.6
157.5°	357.3	357.6	357.7	357.7	357.5	357.3	357.1	356.8
160°	363.7	363.9	364.1	364.0	363.7	363.3	363.0	362.7
162.5°	369.4	369.7	370.1	370.1	369.8	369.5	369.1	368.8
165°	376.9	377.3	377.6	377.7	377.5	377.2	376.9	376.7
167.5°	383.2	383.6	384.0	384.0	383.6	383.1	382.7	382.3
170°	386.6	387.0	387.4	387.4	386.9	386.4	386.0	385.5
172.5°	389.2	389.6	390.0	390.0	389.6	389.1	388.7	388.1
175°	391.9	392.4	392.9	392.9	392.4	391.9	391.4	391.0
177.5°	393.4	393.8	394.2	394.2	393.7	393.3	392.9	392.4
180°	393.4	393.4	393.4	393.4	393.4	393.4	393.4	393.4

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