

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: P332747-935

Luminaire Tested: **S124DIW-S575D470U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332747-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S575D470U935-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3654.8 lumens
Efficiency: N/A
Efficacy: 121.0 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: General Diffuse

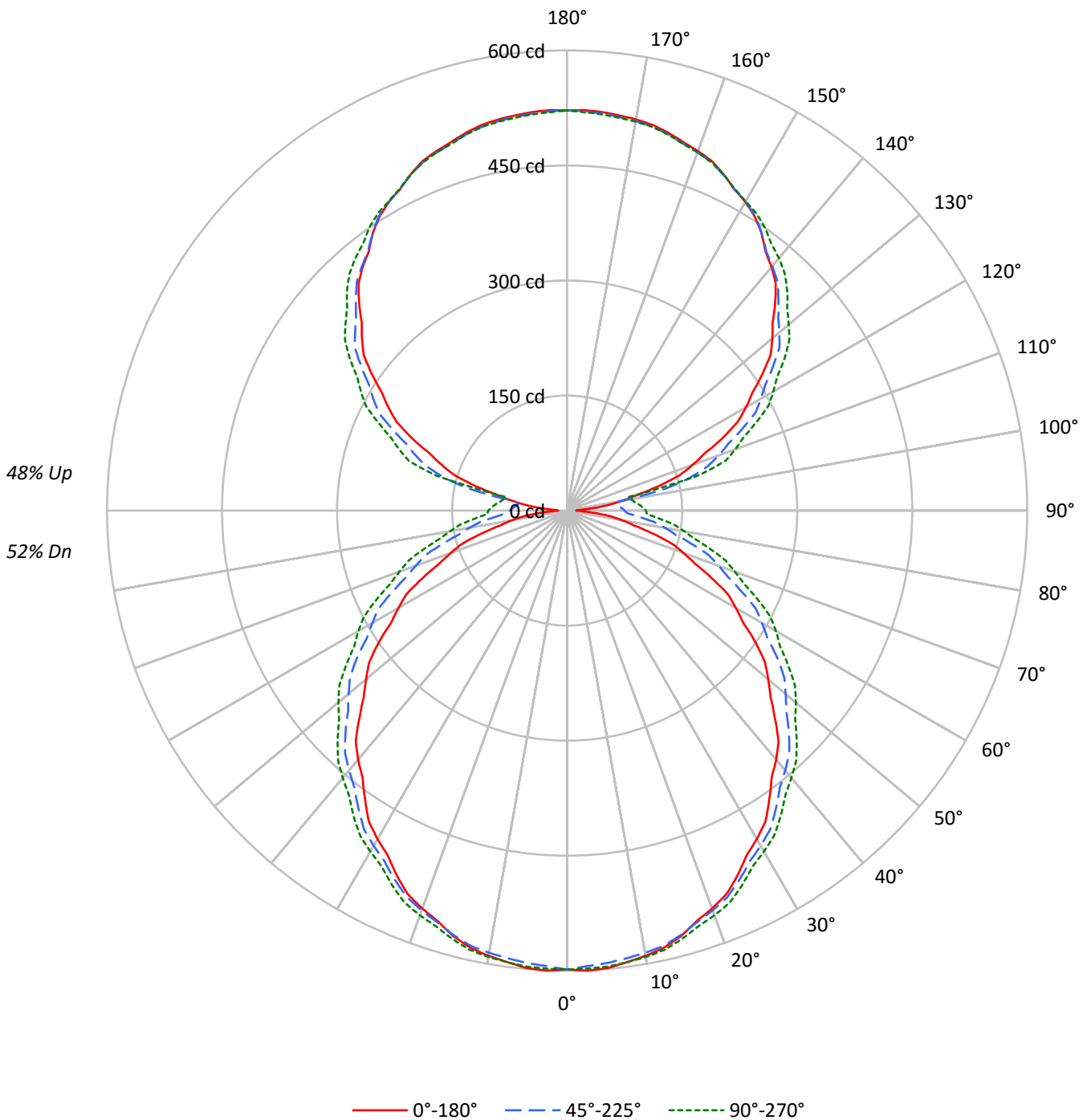
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332747-935

CATALOG NUMBER: S124DIW-S575D470U935-4F0-1E-UDD-D

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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	97	92	88	84	89	85	82	78	72	70	67	60	58	56	49	48	47	41
2	88	80	73	68	81	74	68	63	63	58	55	52	49	46	43	40	38	34
3	80	70	62	56	73	65	58	52	55	50	45	46	42	39	37	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	24
5	67	55	46	40	61	51	43	38	43	37	33	36	32	28	30	26	24	20
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	21	18	16
8	53	40	32	27	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	29	24	45	34	27	22	29	24	20	25	20	17	21	17	15	12
10	46	33	26	21	42	31	25	20	27	22	18	23	19	15	19	16	13	11

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	1.6
10°-20°	162.3	4.4
20°-30°	245.5	6.7
30°-40°	297.0	8.1
40°-50°	314.0	8.6
50°-60°	295.5	8.1
60°-70°	245.2	6.7
70°-80°	172.2	4.7
80°-90°	98.9	2.7
90°-100°	75.6	2.1
100°-110°	156.6	4.3
110°-120°	246.4	6.7
120°-130°	292.5	8.0
130°-140°	302.6	8.3
140°-150°	277.8	7.6
150°-160°	222.9	6.1
160°-170°	143.8	3.9
170°-180°	49.6	1.4
0°-30°	464.5	12.7
0°-40°	761.4	20.8
0°-60°	1370.9	37.5
0°-90°	1887.1	51.6
90°-120°	478.6	13.1
90°-150°	1351.5	37.0
90°-180°	1768.0	48.4
0°-180°	3654.8	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	43	75	96	103	8
95°	30	40	67	87	94	34
105°	124	140	166	185	178	130
115°	223	231	252	266	272	220
125°	311	313	328	341	346	278
135°	384	384	390	401	406	296
145°	442	442	442	446	450	276
155°	484	484	483	484	483	223
165°	510	508	508	511	508	144
175°	522	520	520	523	519	50
180°	522	522	522	522	522	



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CATALOG NUMBER: S124DIW-S575D470U935-4F0-1E-UDD-D

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°	20.1	26.3	32.6	38.8	45.1	51.6	58.3	64.9	71.5	78.3	82.7
90°	11.9	18.8	25.7	32.6	39.5	46.5	53.6	60.7	67.8	74.9	79.7
92.5°	15.1	20.5	25.9	31.3	36.8	43.0	50.1	57.2	64.3	71.4	76.1
95°	30.1	32.1	34.1	36.1	38.1	42.1	48.3	54.5	60.7	66.9	71.4
97.5°	53.5	59.6	65.6	71.7	77.7	79.0	75.3	71.7	68.1	64.4	68.4
100°	71.4	76.8	82.2	87.6	93.1	92.7	86.5	80.4	74.2	68.1	70.6
102.5°	92.0	96.5	101.1	105.6	110.1	114.4	118.6	122.7	126.8	131.0	119.0
105°	123.5	127.0	130.4	134.0	137.5	142.2	148.2	154.1	160.1	166.0	170.5
107.5°	153.9	156.5	159.3	162.0	164.7	168.9	174.7	180.6	186.3	192.1	196.1
110°	173.9	176.2	178.7	181.0	183.3	187.4	193.0	198.8	204.6	210.3	213.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	193.4	195.7	198.0	200.4	202.6	206.4	211.6	216.8	222.1	227.2	230.5
115°	223.3	224.9	226.5	228.1	229.7	232.8	237.5	242.2	246.8	251.6	255.0
117.5°	250.9	252.0	253.2	254.3	255.5	258.4	263.0	267.6	272.2	276.9	279.9
120°	269.1	269.8	270.7	271.5	272.2	274.7	279.0	283.3	287.5	291.7	294.8
122.5°	286.5	286.9	287.1	287.5	287.7	290.0	294.2	298.4	302.6	306.8	309.9
125°	310.9	311.2	311.3	311.5	311.8	313.6	317.2	320.7	324.3	327.8	330.9
127.5°	334.5	334.5	334.4	334.3	334.3	335.9	339.1	342.4	345.7	348.9	351.5
130°	349.3	349.2	349.1	349.1	349.0	350.3	353.0	355.6	358.3	360.9	363.7
132.5°	363.3	363.3	363.3	363.3	363.3	364.5	366.7	368.9	371.2	373.4	376.1
135°	383.7	383.7	383.6	383.5	383.4	384.0	385.5	386.8	388.2	389.6	392.2
137.5°	402.4	402.3	402.2	402.1	401.9	402.3	403.2	404.1	405.0	405.9	408.2
140°	414.6	414.6	414.7	414.7	414.7	414.8	415.2	415.5	415.8	416.1	418.4
142.5°	425.0	425.2	425.5	425.8	426.1	426.2	426.3	426.3	426.3	426.3	428.2
145°	441.6	441.7	441.9	442.0	442.0	442.1	442.1	442.1	442.1	442.1	443.1
147.5°	455.0	455.3	455.6	456.0	456.3	456.4	456.3	456.2	456.2	456.1	456.2
150°	464.6	464.9	465.0	465.2	465.5	465.5	465.4	465.3	465.2	465.1	465.1
152.5°	472.2	472.4	472.7	472.9	473.2	473.2	473.1	472.9	472.8	472.6	472.8
155°	483.5	483.5	483.6	483.7	483.8	483.7	483.5	483.2	482.9	482.7	483.0
157.5°	493.1	493.0	492.9	492.9	492.8	492.7	492.4	492.1	491.8	491.5	492.0
160°	498.7	498.4	498.2	497.9	497.7	497.5	497.4	497.3	497.2	497.1	497.7
162.5°	503.7	503.3	503.0	502.7	502.4	502.1	502.0	502.0	501.9	501.8	502.3
165°	510.0	509.5	509.1	508.7	508.2	508.1	508.1	508.1	508.1	508.1	508.8
167.5°	515.0	514.5	514.1	513.7	513.2	512.9	512.9	512.8	512.8	512.7	513.5
170°	517.8	517.3	516.8	516.3	515.7	515.5	515.6	515.7	515.7	515.8	516.5
172.5°	519.7	519.2	518.7	518.1	517.6	517.4	517.5	517.5	517.6	517.7	518.4
175°	521.7	521.2	520.6	520.1	519.6	519.4	519.5	519.6	519.7	519.8	520.6
177.5°	522.6	522.2	521.7	521.2	520.7	520.6	520.6	520.8	520.9	521.1	521.6
180°	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7



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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°	87.0	91.5	95.9	98.8	100.1	101.5	102.8	104.2
90°	84.6	89.5	94.3	97.4	98.8	100.1	101.4	102.8
92.5°	80.8	85.6	90.2	93.2	94.5	95.7	96.9	98.2
95°	75.9	80.5	85.1	88.0	89.5	90.8	92.3	93.8
97.5°	72.3	76.3	80.2	82.9	84.3	85.7	87.0	88.3
100°	73.2	75.8	78.3	80.1	81.3	82.4	83.5	84.6
102.5°	106.9	95.0	82.9	77.6	78.7	79.9	81.1	82.2
105°	175.0	179.4	184.0	185.3	183.3	181.4	179.4	177.5
107.5°	200.2	204.2	208.3	211.0	212.4	213.8	215.2	216.6
110°	217.5	221.1	224.6	227.2	228.6	230.1	231.5	233.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	233.8	237.0	240.3	242.7	244.3	245.8	247.3	248.8
115°	258.5	261.9	265.4	267.6	268.6	269.7	270.7	271.8
117.5°	283.0	286.1	289.1	291.3	292.4	293.6	294.7	295.8
120°	298.0	301.2	304.3	306.3	307.4	308.4	309.4	310.5
122.5°	313.0	316.1	319.2	321.2	322.0	323.0	323.8	324.7
125°	334.0	337.1	340.2	342.2	343.2	344.1	345.2	346.1
127.5°	354.1	356.8	359.4	361.2	362.1	363.1	364.0	365.0
130°	366.4	369.2	372.0	373.8	374.7	375.6	376.5	377.4
132.5°	378.8	381.3	384.0	385.7	386.6	387.4	388.2	389.1
135°	394.7	397.3	399.8	401.7	402.7	403.8	404.8	405.9
137.5°	410.6	412.9	415.3	416.9	417.6	418.3	419.0	419.7
140°	420.5	422.8	424.9	426.5	427.2	428.1	429.0	429.7
142.5°	430.1	432.0	433.9	435.1	435.8	436.4	437.0	437.6
145°	444.1	445.1	446.0	446.9	447.6	448.4	449.2	450.0
147.5°	456.4	456.7	456.8	457.2	457.8	458.3	458.9	459.4
150°	465.1	465.1	465.1	465.2	465.3	465.4	465.5	465.5
152.5°	472.9	473.0	473.2	473.2	473.2	473.1	473.0	473.0
155°	483.4	483.7	484.1	484.1	483.9	483.6	483.4	483.1
157.5°	492.4	492.8	493.3	493.3	492.8	492.4	492.0	491.5
160°	498.2	498.7	499.2	499.2	498.7	498.2	497.7	497.1
162.5°	502.8	503.3	503.9	503.9	503.3	502.7	502.0	501.5
165°	509.5	510.1	510.8	510.7	510.0	509.2	508.4	507.6
167.5°	514.3	515.1	515.8	515.7	514.9	514.0	513.2	512.3
170°	517.2	517.9	518.7	518.6	517.6	516.8	515.9	515.1
172.5°	519.1	519.8	520.5	520.4	519.4	518.5	517.5	516.6
175°	521.3	522.1	522.9	522.7	521.7	520.6	519.6	518.6
177.5°	522.2	522.7	523.3	523.1	522.4	521.5	520.6	519.9
180°	521.7	521.7	521.7	521.7	521.7	521.7	521.7	521.7

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