

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: P332542-927

Luminaire Tested: **S124DIP-S575D365U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332542-927
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-S575D365U927-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH 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: 2979.5 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

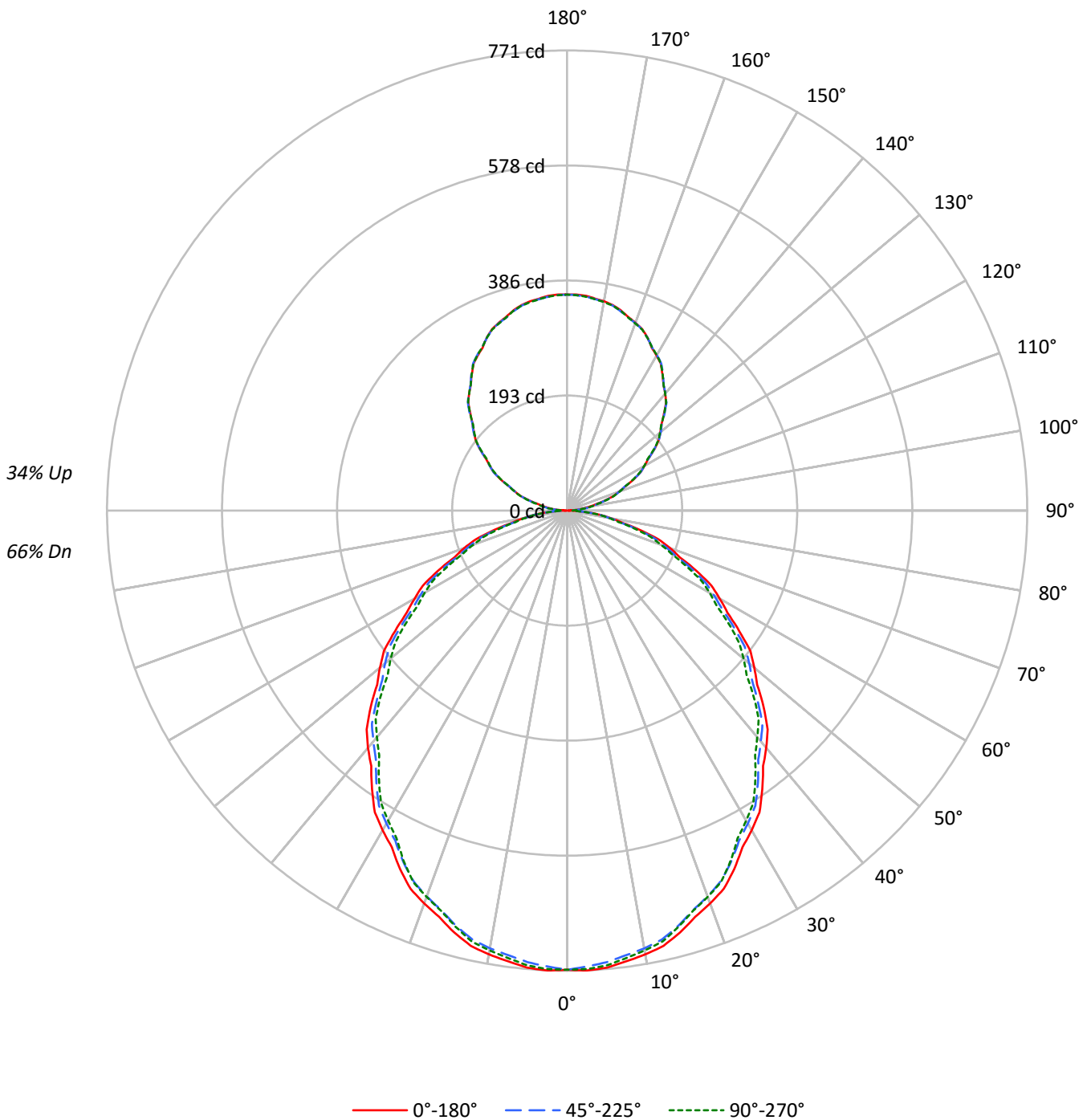
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	70	71	67	63	63	59	57	55	53	50	47
3	84	74	67	61	79	70	64	58	63	57	53	56	51	48	49	46	43	40
4	77	66	58	52	72	62	55	49	56	50	45	50	45	41	44	40	37	34
5	71	59	50	44	66	56	48	43	50	44	39	45	40	36	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	36	32	28	26
7	61	48	40	34	57	46	38	33	41	35	30	37	32	28	33	29	25	23
8	56	44	36	30	53	41	34	29	37	31	27	34	29	25	30	26	23	21
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	24	21	19
10	49	37	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6211	6211	6211
5°	6229	6155	6199
10°	6190	6105	6135
15°	6115	6018	6033
20°	6016	5910	5916
25°	5903	5787	5770
30°	5764	5643	5591
35°	5619	5492	5419
40°	5469	5321	5223
45°	5313	5151	5053
50°	5141	5001	4847
55°	4954	4807	4650
60°	4766	4589	4448
65°	4556	4380	4204
70°	4322	4102	3944
75°	3961	3768	3671
80°	3524	3380	3296
85°	3084	2973	2908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	2.4
10°-20°	204.1	6.9
20°-30°	300.5	10.1
30°-40°	349.3	11.7
40°-50°	349.3	11.7
50°-60°	305.5	10.3
60°-70°	226.9	7.6
70°-80°	128.9	4.3
80°-90°	38.3	1.3
90°-100°	23.9	0.8
100°-110°	70.7	2.4
110°-120°	120.0	4.0
120°-130°	158.3	5.3
130°-140°	177.8	6.0
140°-150°	174.7	5.9
150°-160°	146.9	4.9
160°-170°	97.7	3.3
170°-180°	34.2	1.1
0°-30°	577.0	19.4
0°-40°	926.3	31.1
0°-60°	1581.2	53.1
0°-90°	1975.3	66.3
90°-120°	214.6	7.2
90°-150°	725.3	24.3
90°-180°	1004.0	33.7
0°-180°	2979.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	769	766	760	766	765	73
15°	732	729	720	723	722	206
25°	663	658	650	650	648	305
35°	570	566	557	553	550	356
45°	465	461	451	445	443	359
55°	352	350	342	334	330	315
65°	238	235	229	223	220	236
75°	127	124	121	118	118	135
85°	33	33	32	32	31	37
90°	1	4	6	8	8	3
95°	17	19	21	22	22	19
105°	65	66	67	67	68	69
115°	122	122	122	121	121	120
125°	178	178	177	177	176	158
135°	229	231	231	230	230	177
145°	278	280	280	280	279	174
155°	319	319	319	320	319	147
165°	347	347	346	348	347	98
175°	361	360	360	362	360	34
180°	362	362	362	362	362	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3
2.5°	771.3	771.0	770.6	770.3	770.0	769.2	768.0	766.8	765.6	764.4	765.5
5°	768.7	768.2	767.6	767.1	766.5	765.5	764.0	762.5	761.0	759.5	761.0
7.5°	761.5	761.0	760.5	759.9	759.4	758.3	756.6	754.9	753.2	751.5	752.8
10°	755.1	754.6	754.1	753.5	753.0	751.8	750.0	748.2	746.5	744.7	745.8
12.5°	746.8	746.2	745.7	745.1	744.6	743.4	741.5	739.6	737.7	735.8	737.0
15°	731.7	731.2	730.6	730.1	729.5	728.3	726.2	724.1	722.1	720.0	720.8
17.5°	713.6	712.9	712.3	711.5	710.8	709.6	707.6	705.7	703.7	701.8	702.3
20°	700.3	699.6	698.9	698.2	697.5	696.2	694.1	692.1	690.0	687.9	688.3
22.5°	686.0	685.1	684.2	683.3	682.4	680.9	678.8	676.8	674.7	672.6	673.4
25°	662.7	661.7	660.8	659.8	658.9	657.4	655.5	653.6	651.6	649.7	649.9
27.5°	636.0	635.1	634.1	633.1	632.1	630.7	628.9	627.2	625.3	623.6	623.3
30°	618.3	617.2	616.1	615.0	613.9	612.4	610.7	608.9	607.1	605.4	604.8
32.5°	599.5	598.6	597.5	596.6	595.6	594.1	592.3	590.4	588.5	586.6	586.0
35°	570.2	569.3	568.3	567.4	566.4	564.9	563.0	561.1	559.2	557.3	556.3
37.5°	539.2	538.4	537.5	536.6	535.8	534.3	532.3	530.2	528.1	526.1	525.1
40°	519.0	517.9	516.8	515.8	514.7	513.1	511.0	509.0	506.9	504.9	503.5
42.5°	497.3	496.7	496.1	495.4	494.7	493.2	491.0	488.7	486.4	484.2	482.6
45°	465.4	464.5	463.5	462.6	461.6	460.0	457.8	455.6	453.4	451.2	449.7
47.5°	432.0	431.3	430.7	430.0	429.4	428.0	426.0	424.0	421.9	419.9	418.2
50°	409.3	408.8	408.2	407.7	407.1	405.9	404.0	402.0	400.1	398.2	396.3
52.5°	387.1	386.5	385.8	385.2	384.5	383.2	381.1	379.1	377.1	375.0	373.4
55°	352.0	351.6	351.2	350.8	350.4	349.2	347.3	345.3	343.4	341.5	339.8
57.5°	318.5	318.0	317.5	317.0	316.6	315.4	313.5	311.6	309.7	307.8	306.3
60°	295.2	294.6	293.9	293.2	292.6	291.3	289.5	287.7	286.0	284.2	283.0
62.5°	272.6	272.0	271.4	270.8	270.3	269.0	267.2	265.3	263.4	261.5	260.4
65°	238.5	237.9	237.2	236.5	235.8	234.8	233.5	232.0	230.7	229.3	227.9
67.5°	204.3	203.7	203.0	202.4	201.8	200.8	199.5	198.2	196.9	195.5	194.2
70°	183.1	182.1	181.2	180.2	179.3	178.2	177.1	176.0	174.9	173.8	172.8
72.5°	160.4	159.5	158.5	157.5	156.5	155.7	154.8	153.9	153.0	152.1	151.2
75°	127.0	126.3	125.6	124.9	124.2	123.6	122.9	122.2	121.5	120.8	120.3
77.5°	95.1	94.7	94.4	94.2	93.9	93.4	92.8	92.2	91.6	91.0	90.8
80°	75.8	75.4	75.0	74.6	74.1	73.8	73.6	73.3	73.0	72.7	72.5
82.5°	57.1	56.9	56.7	56.5	56.3	56.2	56.2	56.1	56.0	56.0	55.8
85°	33.3	33.3	33.3	33.3	33.3	33.1	32.9	32.6	32.3	32.1	32.1
87.5°	13.0	13.0	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.2
90°	0.9	1.5	2.2	2.9	3.6	4.2	4.7	5.1	5.6	6.2	6.5
92.5°	6.0	6.8	7.5	8.3	9.1	9.7	10.1	10.4	10.8	11.1	11.3
95°	16.8	17.3	17.9	18.5	19.0	19.6	20.0	20.4	20.8	21.3	21.5
97.5°	29.3	29.8	30.3	30.7	31.1	31.6	32.1	32.6	33.1	33.7	33.9
100°	39.2	39.5	39.7	39.9	40.2	40.6	41.1	41.7	42.3	42.9	42.9
102.5°	49.5	49.6	49.7	49.8	49.9	50.2	50.7	51.3	51.7	52.2	52.4
105°	65.2	65.3	65.4	65.4	65.4	65.6	65.9	66.1	66.4	66.6	66.8
107.5°	81.8	81.8	81.9	82.0	82.1	82.1	82.1	82.1	82.2	82.2	82.4
110°	92.9	93.1	93.2	93.3	93.4	93.5	93.4	93.3	93.2	93.2	93.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.6	104.6	104.6	104.6	104.6	104.6	104.5	104.4	104.3	104.2	104.2
115°	122.1	122.1	122.1	122.1	122.1	122.0	121.8	121.8	121.6	121.5	121.4
117.5°	138.5	138.6	138.6	138.6	138.7	138.7	138.6	138.6	138.4	138.3	138.2
120°	149.5	149.7	150.0	150.2	150.5	150.5	150.4	150.1	150.0	149.8	149.5
122.5°	160.9	161.0	161.1	161.2	161.3	161.3	161.2	161.1	161.1	161.0	160.7
125°	177.8	177.8	177.8	177.8	177.8	177.7	177.7	177.6	177.5	177.4	177.4
127.5°	193.1	193.2	193.5	193.6	193.8	193.8	193.8	193.6	193.5	193.5	193.3
130°	203.8	204.0	204.1	204.4	204.5	204.6	204.6	204.6	204.6	204.6	204.5
132.5°	214.8	214.9	215.0	215.2	215.3	215.3	215.3	215.2	215.2	215.2	215.0
135°	229.3	229.7	230.0	230.4	230.8	230.9	230.9	230.9	230.9	230.9	230.8
137.5°	245.0	245.3	245.4	245.6	245.7	245.9	246.0	246.1	246.2	246.3	246.1
140°	255.6	255.7	255.8	256.0	256.1	256.1	256.1	256.1	256.1	256.1	256.1
142.5°	265.2	265.3	265.5	265.5	265.7	265.8	265.7	265.6	265.6	265.5	265.5
145°	278.5	278.8	279.0	279.2	279.6	279.7	279.7	279.8	279.9	280.0	279.9
147.5°	291.8	292.1	292.3	292.6	292.9	293.0	293.0	292.9	292.9	292.9	292.8
150°	299.8	300.1	300.3	300.6	300.8	301.0	301.0	301.0	301.0	301.0	301.0
152.5°	307.4	307.6	307.7	307.8	308.0	308.1	308.2	308.2	308.2	308.3	308.5
155°	319.1	319.1	319.1	319.1	319.1	319.1	319.0	318.9	318.9	318.9	319.1
157.5°	329.0	328.8	328.8	328.7	328.5	328.4	328.4	328.4	328.4	328.4	328.6
160°	334.8	334.7	334.7	334.6	334.5	334.5	334.5	334.4	334.3	334.2	334.5
162.5°	340.2	340.0	339.8	339.7	339.5	339.5	339.4	339.3	339.2	339.1	339.5
165°	347.4	347.2	347.1	346.8	346.7	346.5	346.3	346.3	346.1	346.0	346.3
167.5°	352.9	352.7	352.4	352.1	351.9	351.7	351.8	351.8	351.8	351.8	352.2
170°	356.1	355.8	355.5	355.1	354.8	354.7	354.7	354.8	354.9	355.0	355.3
172.5°	358.3	358.1	357.7	357.5	357.3	357.1	357.1	357.2	357.2	357.2	357.6
175°	361.4	361.1	360.8	360.4	360.1	360.0	359.9	359.8	359.8	359.7	360.1
177.5°	362.4	362.2	361.9	361.6	361.4	361.3	361.3	361.3	361.3	361.3	361.6
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3
2.5°	766.6	767.7	768.8	769.3	769.1	769.1	769.0	768.8
5°	762.5	764.0	765.5	766.1	765.8	765.6	765.2	765.0
7.5°	754.0	755.2	756.4	756.9	756.8	756.6	756.5	756.2
10°	746.9	748.0	749.1	749.5	749.2	748.9	748.6	748.4
12.5°	738.2	739.4	740.6	741.0	740.6	740.2	739.9	739.5
15°	721.7	722.5	723.3	723.5	723.1	722.7	722.2	721.8
17.5°	702.8	703.3	703.9	703.9	703.7	703.4	703.1	702.9
20°	688.8	689.2	689.6	689.7	689.4	689.1	688.9	688.6
22.5°	674.1	674.9	675.7	675.7	675.3	674.8	674.3	673.8
25°	650.0	650.1	650.3	650.1	649.5	649.0	648.4	647.8
27.5°	623.0	622.6	622.3	621.8	621.1	620.4	619.7	619.0
30°	604.3	603.7	603.2	602.5	601.8	601.2	600.5	599.8
32.5°	585.3	584.6	584.0	583.3	582.7	581.9	581.2	580.6
35°	555.3	554.4	553.4	552.6	551.9	551.2	550.6	549.9
37.5°	524.0	522.9	521.9	520.9	520.1	519.1	518.2	517.3
40°	502.2	500.7	499.4	498.4	497.6	497.0	496.3	495.6
42.5°	481.0	479.3	477.8	476.7	476.3	475.9	475.4	474.9
45°	448.2	446.7	445.2	444.3	443.9	443.5	443.0	442.6
47.5°	416.5	414.8	413.1	411.8	410.7	409.6	408.6	407.6
50°	394.3	392.4	390.5	389.2	388.3	387.5	386.7	385.9
52.5°	371.6	369.9	368.3	366.9	365.8	364.8	363.8	362.7
55°	338.3	336.6	334.9	333.7	332.9	332.1	331.2	330.4
57.5°	304.8	303.2	301.6	300.4	299.6	298.8	298.0	297.2
60°	281.7	280.5	279.2	278.3	277.6	276.9	276.2	275.5
62.5°	259.3	258.1	257.0	256.1	255.4	254.8	254.1	253.3
65°	226.6	225.2	223.9	222.8	222.1	221.4	220.8	220.1
67.5°	192.9	191.6	190.3	189.5	189.3	189.2	188.9	188.8
70°	171.7	170.6	169.4	168.7	168.3	167.9	167.5	167.1
72.5°	150.4	149.5	148.6	148.0	147.6	147.2	146.8	146.3
75°	119.7	119.1	118.7	118.3	118.1	118.0	117.9	117.7
77.5°	90.6	90.5	90.3	90.1	89.7	89.4	89.0	88.6
80°	72.2	71.9	71.6	71.5	71.3	71.1	71.1	70.9
82.5°	55.6	55.5	55.3	55.1	55.1	54.9	54.7	54.6
85°	32.1	32.1	32.1	32.0	31.8	31.7	31.6	31.4
87.5°	13.2	13.3	13.4	13.4	13.5	13.5	13.5	13.5
90°	6.9	7.3	7.7	7.9	8.0	8.2	8.2	8.4
92.5°	11.6	11.7	12.0	12.1	12.2	12.3	12.4	12.4
95°	21.6	21.9	22.0	22.1	22.1	22.1	22.1	22.1
97.5°	34.1	34.3	34.5	34.6	34.6	34.6	34.6	34.6
100°	43.1	43.2	43.3	43.4	43.4	43.4	43.4	43.4
102.5°	52.6	52.8	52.9	53.1	53.1	53.2	53.2	53.2
105°	67.0	67.2	67.3	67.6	67.7	68.0	68.1	68.3
107.5°	82.6	82.8	82.9	83.0	83.0	83.0	83.0	82.9
110°	93.0	92.8	92.7	92.8	92.9	93.2	93.3	93.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	104.2	104.1	104.1	104.1	104.2	104.2	104.2	104.3
115°	121.4	121.3	121.2	121.2	121.1	121.0	121.0	121.0
117.5°	137.9	137.7	137.5	137.4	137.2	137.0	137.0	136.8
120°	149.2	148.9	148.5	148.5	148.5	148.7	148.8	148.9
122.5°	160.6	160.3	160.1	159.9	159.7	159.5	159.2	159.0
125°	177.2	177.1	177.0	176.8	176.7	176.6	176.5	176.3
127.5°	193.2	193.1	192.9	192.8	192.7	192.7	192.5	192.4
130°	204.4	204.2	204.1	203.9	203.7	203.4	203.2	203.0
132.5°	214.9	214.8	214.7	214.5	214.4	214.4	214.3	214.1
135°	230.7	230.6	230.4	230.3	230.1	229.9	229.7	229.6
137.5°	246.0	245.8	245.7	245.6	245.6	245.7	245.7	245.7
140°	256.0	256.0	255.9	255.8	255.8	255.7	255.6	255.6
142.5°	265.5	265.5	265.5	265.5	265.5	265.5	265.5	265.5
145°	279.8	279.7	279.7	279.6	279.4	279.2	279.0	278.8
147.5°	292.8	292.7	292.6	292.6	292.6	292.5	292.4	292.4
150°	301.0	301.0	301.0	300.9	300.9	300.8	300.7	300.6
152.5°	308.6	308.8	309.0	308.9	308.7	308.6	308.4	308.2
155°	319.3	319.6	319.8	319.8	319.6	319.3	319.1	318.9
157.5°	328.8	329.0	329.2	329.2	328.9	328.8	328.5	328.3
160°	334.6	334.8	335.0	334.9	334.6	334.3	334.0	333.7
162.5°	339.8	340.2	340.5	340.5	340.2	339.9	339.6	339.3
165°	346.7	347.1	347.5	347.5	347.3	347.1	346.8	346.6
167.5°	352.6	352.9	353.3	353.3	352.9	352.5	352.1	351.7
170°	355.7	356.1	356.5	356.4	356.0	355.5	355.1	354.7
172.5°	358.1	358.5	358.9	358.9	358.5	358.0	357.6	357.1
175°	360.6	361.0	361.5	361.5	361.0	360.6	360.1	359.7
177.5°	361.9	362.3	362.7	362.7	362.3	361.9	361.5	361.1
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9

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