

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: P333374-940

Luminaire Tested: **S125DIW-S610D470U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333374-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S610D470U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3900.6 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

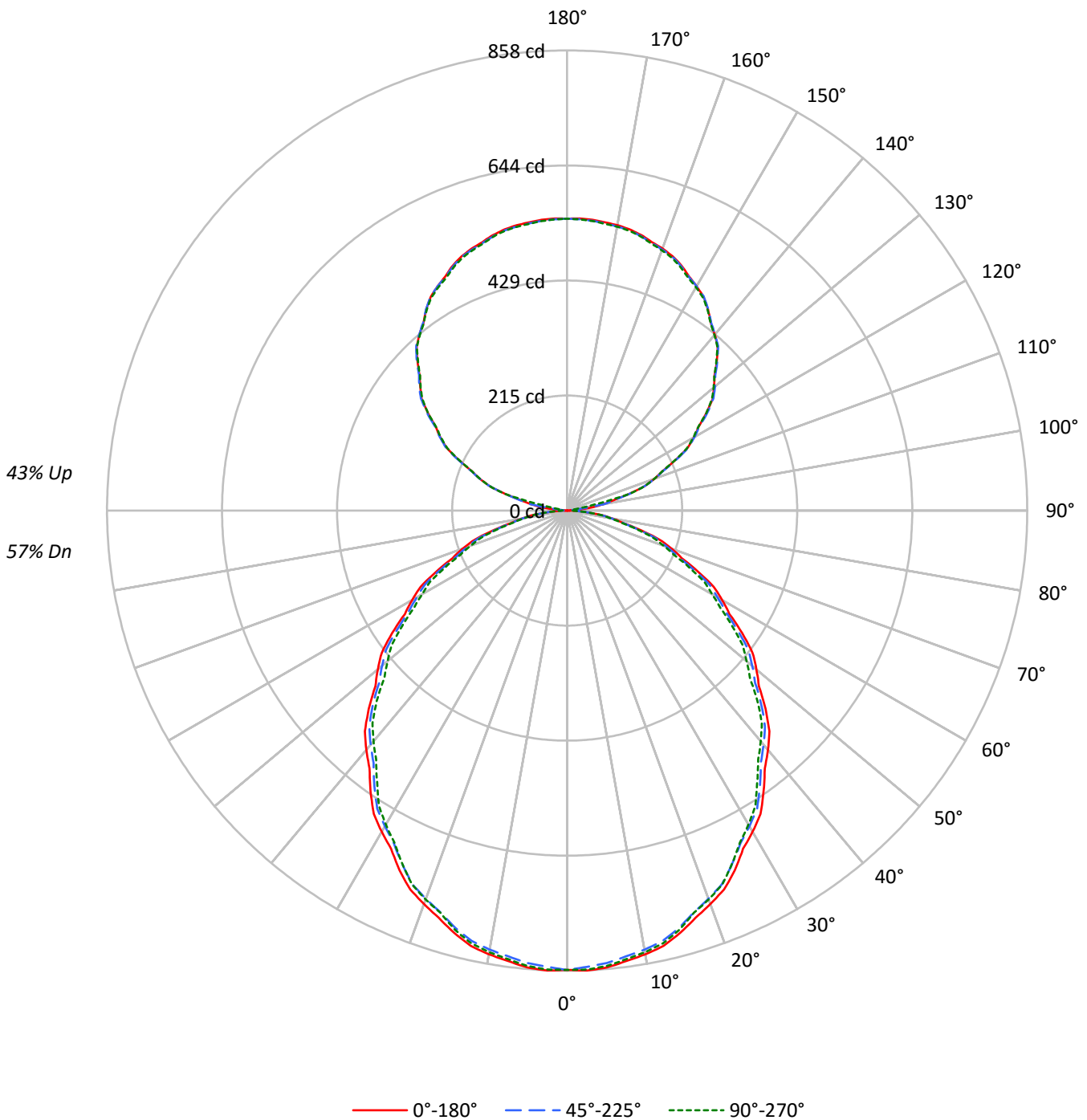
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	99	95	91	87	92	88	85	82	76	74	72	65	64	62	55	54	53	48
2	90	83	77	71	84	77	72	67	67	63	59	57	54	52	49	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	51	47	44	43	40	38	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	33	29
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	37	32	28	31	28	25	22
7	59	47	39	33	55	44	36	31	38	33	28	33	29	25	29	25	22	20
8	55	42	34	29	51	40	33	28	35	29	25	31	26	22	26	23	20	18
9	51	39	31	26	48	36	30	25	32	26	22	28	24	20	24	21	18	16
10	48	36	28	23	44	34	27	22	30	24	20	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5531	5531	5531
5°	5544	5490	5525
10°	5509	5452	5483
15°	5449	5386	5409
20°	5364	5294	5304
25°	5273	5185	5181
30°	5158	5068	5043
35°	5037	4941	4872
40°	4912	4804	4736
45°	4778	4678	4585
50°	4629	4527	4391
55°	4486	4355	4234
60°	4314	4184	4035
65°	4109	3976	3842
70°	3914	3737	3609
75°	3566	3449	3331
80°	3172	3124	3046
85°	2764	2808	2660



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	2.1
10°-20°	228.1	5.8
20°-30°	336.8	8.6
30°-40°	393.0	10.1
40°-50°	394.7	10.1
50°-60°	346.5	8.9
60°-70°	258.2	6.6
70°-80°	147.6	3.8
80°-90°	44.1	1.1
90°-100°	19.8	0.5
100°-110°	121.9	3.1
110°-120°	221.0	5.7
120°-130°	283.7	7.3
130°-140°	305.1	7.8
140°-150°	286.4	7.3
150°-160°	231.7	5.9
160°-170°	149.8	3.8
170°-180°	51.7	1.3
0°-30°	645.6	16.6
0°-40°	1038.6	26.6
0°-60°	1779.7	45.6
0°-90°	2229.5	57.2
90°-120°	362.7	9.3
90°-150°	1237.9	31.7
90°-180°	1671.0	42.8
0°-180°	3900.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	847	853	852	81
15°	815	813	806	809	809	230
25°	740	736	728	729	727	340
35°	639	636	627	623	618	399
45°	523	520	512	504	502	403
55°	398	396	387	381	376	356
65°	269	267	260	254	251	267
75°	143	142	138	136	134	152
85°	37	38	38	37	36	42
90°	0	4	6	8	10	3
95°	23	21	6	8	8	29
105°	119	120	120	120	120	126
115°	223	225	225	223	221	221
125°	317	319	320	318	317	283
135°	395	397	396	396	393	304
145°	458	459	459	459	457	286
155°	504	502	503	504	501	232
165°	532	530	530	532	529	150
175°	544	542	542	545	542	52
180°	544	544	544	544	544	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	858.5	858.2	857.8	857.5	857.1	856.3	855.2	853.9	852.7	851.5	852.7
5°	855.1	854.7	854.4	854.1	853.8	852.9	851.4	849.9	848.4	846.9	848.3
7.5°	847.1	846.9	846.6	846.2	846.0	845.0	843.3	841.7	840.0	838.4	839.6
10°	840.1	839.8	839.5	839.2	838.9	837.9	836.2	834.6	832.9	831.3	832.5
12.5°	831.4	830.9	830.4	829.8	829.3	828.2	826.7	825.2	823.6	822.1	823.0
15°	815.0	814.6	814.1	813.7	813.2	812.2	810.6	808.9	807.2	805.6	806.3
17.5°	796.2	795.6	794.9	794.2	793.5	792.4	790.7	788.9	787.2	785.5	786.4
20°	780.5	780.2	779.9	779.6	779.3	778.2	776.2	774.3	772.3	770.3	771.4
22.5°	764.7	764.2	763.7	763.1	762.6	761.4	759.6	757.8	755.9	754.0	754.7
25°	739.9	739.0	738.3	737.6	736.8	735.5	733.5	731.6	729.6	727.6	728.0
27.5°	710.7	710.2	709.8	709.4	708.9	707.7	705.6	703.6	701.6	699.6	699.6
30°	691.7	691.3	690.8	690.4	689.9	688.6	686.3	684.0	681.8	679.6	679.2
32.5°	671.1	670.5	669.8	669.1	668.3	667.0	665.0	663.0	660.9	659.0	658.4
35°	638.9	638.3	637.7	637.1	636.5	635.2	633.0	630.9	628.8	626.7	626.0
37.5°	605.4	604.7	604.0	603.2	602.4	601.0	599.1	597.1	595.0	593.1	592.0
40°	582.6	581.9	581.1	580.4	579.6	578.2	576.1	574.0	571.9	569.8	568.5
42.5°	558.3	557.7	557.0	556.3	555.7	554.4	552.2	550.2	548.0	545.9	544.7
45°	523.1	522.5	521.8	521.2	520.7	519.4	517.6	515.9	514.0	512.2	510.4
47.5°	485.1	485.1	485.2	485.2	485.2	484.1	482.0	479.8	477.7	475.5	473.7
50°	460.7	460.2	459.8	459.3	458.9	457.8	455.9	454.1	452.4	450.6	448.6
52.5°	435.8	435.4	435.2	434.8	434.4	433.3	431.4	429.4	427.6	425.6	423.9
55°	398.4	397.9	397.4	397.0	396.5	395.3	393.2	391.1	389.0	386.8	385.5
57.5°	358.9	358.7	358.5	358.2	358.0	357.0	355.2	353.4	351.6	349.9	348.1
60°	334.0	333.4	332.8	332.2	331.6	330.5	328.9	327.2	325.5	323.9	322.4
62.5°	308.0	307.6	307.0	306.6	306.0	305.1	303.7	302.3	300.9	299.4	297.8
65°	268.9	268.7	268.4	268.0	267.8	266.8	265.1	263.5	261.8	260.2	258.8
67.5°	231.1	230.5	229.9	229.3	228.6	227.7	226.5	225.2	224.0	222.7	221.6
70°	207.3	206.6	205.8	205.1	204.3	203.2	201.9	200.5	199.2	197.9	196.9
72.5°	181.3	180.7	180.3	179.8	179.2	178.5	177.7	176.8	175.9	175.0	174.1
75°	142.9	142.7	142.3	142.0	141.8	141.2	140.4	139.7	138.9	138.2	137.8
77.5°	107.6	107.5	107.4	107.2	107.1	106.8	106.4	106.0	105.6	105.1	104.9
80°	85.3	85.3	85.3	85.3	85.3	85.2	84.9	84.6	84.4	84.0	83.8
82.5°	65.9	65.6	65.4	65.1	64.9	64.7	64.6	64.6	64.6	64.5	64.2
85°	37.3	37.5	37.5	37.7	37.9	37.9	37.9	37.9	37.9	37.9	37.8
87.5°	14.7	14.9	15.0	15.2	15.2	15.3	15.3	15.3	15.3	15.4	15.5
90°	0.4	1.2	1.9	2.6	3.3	3.9	4.5	5.2	5.8	6.4	6.9
92.5°	6.2	5.7	5.2	4.7	4.2	4.2	4.8	5.4	5.9	6.4	6.9
95°	23.0	22.7	22.5	22.2	21.9	20.1	16.7	13.3	9.9	6.4	6.9
97.5°	48.0	48.5	49.0	49.5	49.9	46.8	40.0	33.3	26.6	19.9	17.3
100°	67.3	67.7	67.9	68.2	68.5	68.8	69.1	69.5	69.8	70.2	56.8
102.5°	87.0	87.4	87.7	88.1	88.5	88.7	88.9	89.1	89.3	89.5	87.0
105°	118.6	119.0	119.3	119.7	120.0	120.2	120.2	120.2	120.2	120.2	120.2
107.5°	151.3	151.3	151.3	151.3	151.3	151.4	151.6	151.8	151.9	152.1	152.2
110°	172.6	172.6	172.6	172.6	172.6	172.7	172.9	173.1	173.3	173.4	173.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.7	192.9	193.1	193.3	193.5	193.7	193.8	193.9	194.0	194.1	193.8
115°	222.7	223.1	223.6	224.0	224.4	224.7	224.8	224.9	225.0	225.1	224.7
117.5°	253.8	253.7	253.7	253.7	253.7	253.9	254.1	254.5	254.9	255.2	254.8
120°	273.1	273.0	273.0	272.9	272.8	272.9	273.1	273.4	273.7	273.9	273.8
122.5°	290.3	290.5	290.9	291.2	291.6	291.8	291.9	292.0	292.2	292.3	292.1
125°	316.6	317.3	317.9	318.5	319.1	319.5	319.5	319.5	319.5	319.5	319.1
127.5°	341.9	342.4	342.9	343.3	343.8	343.9	343.8	343.8	343.8	343.7	343.5
130°	357.4	357.8	358.3	358.7	359.2	359.4	359.5	359.6	359.7	359.8	359.5
132.5°	372.9	373.4	374.0	374.4	375.0	375.1	375.0	374.8	374.5	374.3	374.3
135°	394.9	395.5	396.0	396.5	397.1	397.3	397.1	396.9	396.7	396.5	396.4
137.5°	415.2	415.6	416.1	416.6	417.1	417.2	417.1	416.9	416.7	416.5	416.6
140°	428.4	428.6	428.7	428.9	429.1	429.2	429.1	429.0	428.9	428.8	429.0
142.5°	440.3	440.5	440.6	440.7	440.8	440.9	441.0	441.1	441.3	441.4	441.4
145°	457.9	458.1	458.3	458.4	458.6	458.7	458.7	458.7	458.7	458.7	458.8
147.5°	473.2	473.1	473.1	473.1	473.1	473.1	473.2	473.3	473.4	473.5	473.6
150°	482.9	482.7	482.5	482.3	482.1	482.1	482.3	482.5	482.7	482.9	483.0
152.5°	492.2	491.9	491.4	491.1	490.6	490.5	490.7	490.9	491.1	491.2	491.4
155°	504.3	503.7	503.2	502.7	502.1	501.9	502.1	502.3	502.5	502.7	502.9
157.5°	513.5	513.2	512.9	512.6	512.2	512.1	512.1	512.1	512.1	512.2	512.5
160°	520.0	519.4	518.9	518.4	517.8	517.6	517.7	517.8	517.9	518.0	518.4
162.5°	525.1	524.6	524.1	523.5	523.0	522.8	522.9	523.0	523.1	523.2	523.6
165°	532.1	531.5	531.0	530.5	529.9	529.7	529.8	529.9	529.9	530.0	530.6
167.5°	537.3	536.7	536.2	535.6	535.0	534.8	534.8	534.9	535.0	535.1	535.8
170°	540.2	539.6	538.9	538.2	537.6	537.3	537.4	537.5	537.6	537.7	538.4
172.5°	542.1	541.4	540.8	540.2	539.6	539.4	539.5	539.7	539.8	540.0	540.6
175°	544.2	543.7	543.1	542.6	542.1	541.8	541.9	542.0	542.1	542.2	542.9
177.5°	545.2	544.7	544.3	543.9	543.4	543.2	543.3	543.4	543.5	543.6	544.0
180°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
2.5°	853.9	855.2	856.3	856.8	856.8	856.6	856.5	856.4
5°	849.6	851.0	852.3	852.9	852.7	852.7	852.5	852.3
7.5°	841.0	842.3	843.6	844.3	844.1	843.9	843.8	843.6
10°	833.7	834.9	836.2	836.7	836.5	836.3	836.2	836.1
12.5°	824.0	825.0	825.9	826.4	826.3	826.3	826.3	826.3
15°	807.1	807.8	808.6	809.0	809.0	809.0	809.0	809.0
17.5°	787.4	788.3	789.3	789.3	788.5	787.8	787.1	786.3
20°	772.4	773.5	774.5	774.7	773.9	773.2	772.4	771.7
22.5°	755.5	756.2	756.9	757.0	756.4	755.9	755.4	754.9
25°	728.3	728.5	728.9	728.8	728.3	727.9	727.5	727.0
27.5°	699.7	699.8	699.8	699.6	699.2	698.7	698.3	697.9
30°	678.9	678.7	678.3	678.0	677.5	677.1	676.6	676.2
32.5°	657.9	657.3	656.7	656.1	655.3	654.5	653.6	652.8
35°	625.2	624.5	623.7	622.7	621.5	620.3	619.1	617.9
37.5°	590.8	589.8	588.6	587.7	587.0	586.4	585.7	585.0
40°	567.0	565.7	564.4	563.5	563.0	562.6	562.1	561.7
42.5°	543.5	542.2	541.0	540.0	539.3	538.7	538.0	537.3
45°	508.5	506.8	505.0	503.8	503.4	502.9	502.5	502.0
47.5°	471.8	469.9	468.1	466.7	465.7	464.6	463.5	462.4
50°	446.7	444.7	442.7	441.2	440.1	439.1	438.0	437.0
52.5°	422.1	420.4	418.7	417.3	416.2	414.9	413.8	412.6
55°	384.1	382.8	381.5	380.2	379.2	378.1	377.1	376.0
57.5°	346.3	344.6	342.9	341.7	341.2	340.5	340.0	339.5
60°	320.8	319.3	317.8	316.6	315.5	314.4	313.3	312.4
62.5°	296.2	294.6	292.9	291.8	291.0	290.1	289.3	288.5
65°	257.4	256.1	254.8	253.8	253.2	252.5	252.0	251.4
67.5°	220.5	219.4	218.2	217.4	217.0	216.7	216.3	216.0
70°	196.0	195.1	194.2	193.5	192.9	192.3	191.6	191.1
72.5°	173.0	172.0	170.9	170.1	169.5	169.0	168.4	167.7
75°	137.3	136.9	136.4	135.9	135.3	134.6	134.1	133.5
77.5°	104.6	104.3	104.1	103.7	103.3	102.9	102.5	102.0
80°	83.7	83.6	83.4	83.2	82.8	82.6	82.3	81.9
82.5°	63.9	63.7	63.4	63.2	63.2	63.1	63.0	63.0
85°	37.6	37.5	37.4	37.1	36.8	36.5	36.2	35.9
87.5°	15.6	15.7	15.8	15.7	15.5	15.3	15.2	15.0
90°	7.3	7.8	8.2	8.6	8.9	9.2	9.5	9.7
92.5°	7.3	7.8	8.2	8.6	8.6	8.8	8.9	9.0
95°	7.3	7.8	8.2	8.5	8.5	8.5	8.5	8.5
97.5°	14.8	12.3	9.7	8.5	8.5	8.5	8.5	8.5
100°	43.5	30.1	16.8	9.9	9.5	9.2	8.8	8.5
102.5°	84.5	81.9	79.5	75.2	69.0	63.0	56.8	50.7
105°	120.2	120.2	120.2	120.2	120.1	120.0	119.9	119.8
107.5°	152.2	152.2	152.2	152.1	151.9	151.6	151.3	151.1
110°	172.9	172.6	172.4	172.3	172.4	172.5	172.5	172.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	193.4	193.1	192.8	192.5	192.4	192.3	192.2	192.0
115°	224.4	224.0	223.6	223.2	222.7	222.1	221.6	221.1
117.5°	254.2	253.8	253.3	253.0	252.7	252.5	252.3	252.1
120°	273.6	273.4	273.2	272.9	272.4	272.0	271.5	271.1
122.5°	291.9	291.8	291.6	291.2	290.7	290.2	289.7	289.2
125°	318.8	318.4	318.1	317.7	317.4	317.2	316.9	316.6
127.5°	343.3	343.1	343.0	342.5	341.8	341.2	340.5	339.8
130°	359.3	359.0	358.7	358.4	357.9	357.5	357.0	356.6
132.5°	374.3	374.2	374.2	373.9	373.4	373.0	372.6	372.1
135°	396.2	396.0	395.8	395.5	394.9	394.4	393.9	393.3
137.5°	416.6	416.7	416.7	416.5	416.0	415.5	415.1	414.6
140°	429.2	429.4	429.5	429.4	428.8	428.3	427.8	427.2
142.5°	441.5	441.5	441.6	441.3	440.8	440.2	439.7	439.2
145°	458.9	459.0	459.1	458.8	458.3	457.7	457.2	456.6
147.5°	473.8	473.9	473.9	473.7	473.1	472.4	471.7	471.1
150°	483.2	483.4	483.6	483.3	482.6	481.9	481.2	480.5
152.5°	491.6	491.8	492.0	491.8	491.1	490.4	489.8	489.2
155°	503.2	503.5	503.7	503.5	502.7	502.0	501.3	500.6
157.5°	512.7	513.0	513.3	513.1	512.4	511.7	511.0	510.2
160°	518.7	519.1	519.4	519.2	518.5	517.8	517.1	516.4
162.5°	524.1	524.7	525.1	525.0	524.2	523.4	522.6	521.8
165°	531.2	531.7	532.3	532.2	531.5	530.7	529.9	529.2
167.5°	536.5	537.1	537.7	537.7	536.8	536.0	535.2	534.4
170°	539.1	539.9	540.6	540.6	539.8	539.0	538.1	537.3
172.5°	541.3	541.9	542.6	542.5	541.7	540.9	540.1	539.3
175°	543.6	544.3	545.0	545.0	544.2	543.4	542.6	541.8
177.5°	544.6	545.0	545.5	545.5	544.9	544.4	543.8	543.2
180°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2

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