

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: P333662-840

Luminaire Tested: **S125RDIW-S610D470U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333662-840
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: S125RDIW-S610D470U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4293.8 lumens
Efficiency: N/A
Efficacy: 142.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

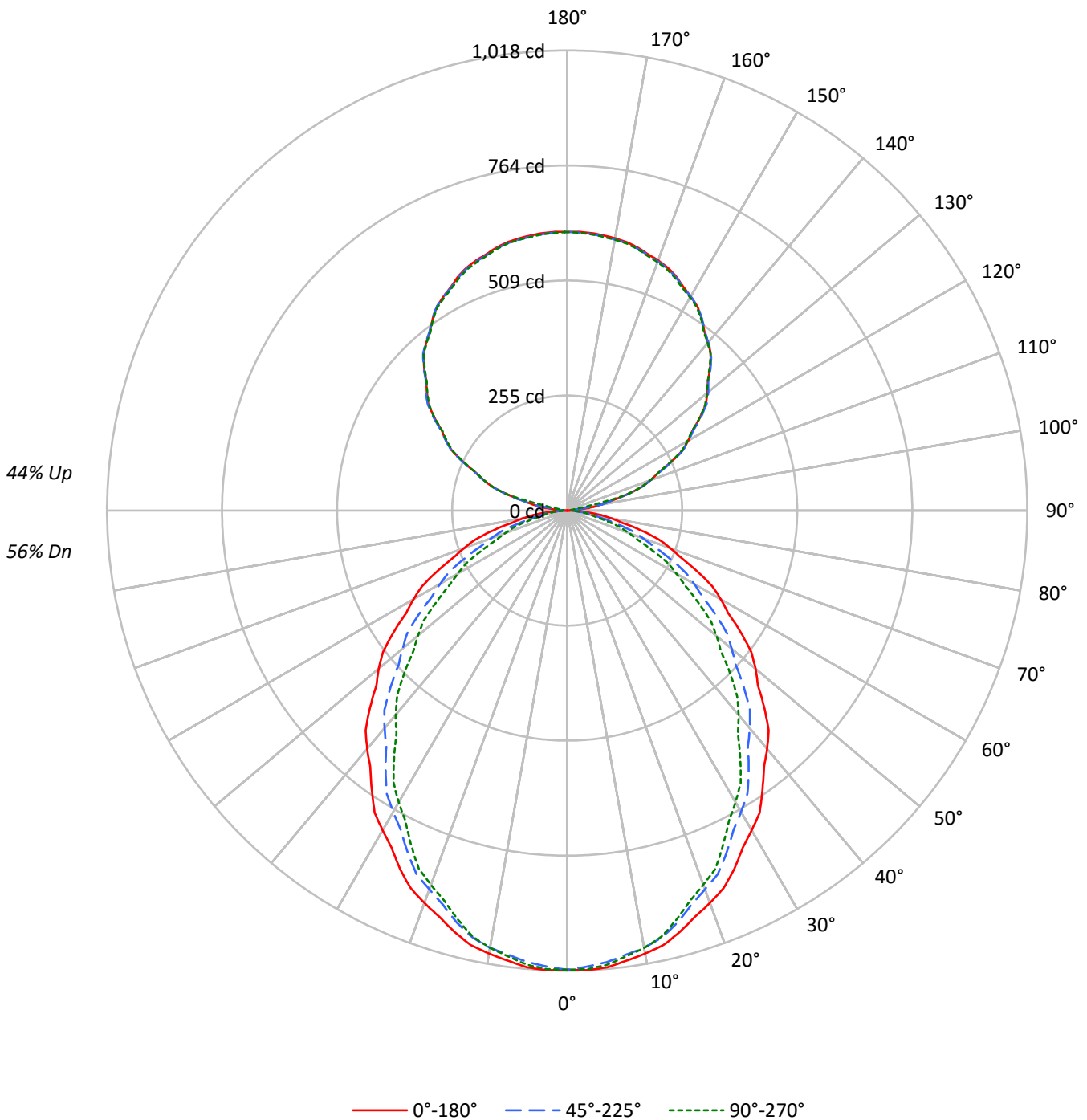
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	88	92	89	85	82	76	74	72	65	63	62	55	54	53	48
2	91	83	77	72	84	78	72	68	67	63	60	57	55	52	49	46	45	40
3	83	73	66	60	77	69	62	57	59	55	51	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	49	53	48	43	46	41	38	39	36	33	30
5	70	58	50	44	65	55	47	42	48	42	37	41	37	33	35	32	29	26
6	64	52	44	38	60	49	42	37	43	37	33	37	33	29	32	28	26	23
7	60	47	39	34	55	44	37	32	39	33	29	34	29	26	29	26	23	20
8	55	43	35	30	51	40	33	29	36	30	26	31	27	23	27	23	21	18
9	52	39	32	27	48	37	30	26	33	27	23	29	24	21	25	21	19	16
10	48	36	29	24	45	34	28	23	30	25	21	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6561	6561	6561
5°	6576	6501	6541
10°	6526	6441	6441
15°	6449	6310	6258
20°	6349	6128	6054
25°	6233	5949	5818
30°	6088	5739	5557
35°	5941	5523	5263
40°	5802	5298	4975
45°	5634	5045	4661
50°	5466	4772	4332
55°	5271	4510	3984
60°	5074	4193	3608
65°	4843	3822	3177
70°	4579	3361	2738
75°	4212	2832	2278
80°	3712	2228	1912
85°	3127	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	2.2
10°-20°	267.0	6.2
20°-30°	387.1	9.0
30°-40°	441.2	10.3
40°-50°	430.0	10.0
50°-60°	362.0	8.4
60°-70°	253.8	5.9
70°-80°	130.4	3.0
80°-90°	34.2	0.8
90°-100°	22.4	0.5
100°-110°	138.0	3.2
110°-120°	250.3	5.8
120°-130°	321.3	7.5
130°-140°	345.6	8.0
140°-150°	324.4	7.6
150°-160°	262.4	6.1
160°-170°	169.7	4.0
170°-180°	58.5	1.4
0°-30°	749.6	17.5
0°-40°	1190.8	27.7
0°-60°	1982.8	46.2
0°-90°	2401.2	55.9
90°-120°	410.7	9.6
90°-150°	1401.9	32.7
90°-180°	1893.0	44.1
0°-180°	4293.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1014	1011	1003	1010	1009	96
15°	964	959	944	943	936	272
25°	875	862	835	825	816	402
35°	754	734	700	679	668	472
45°	617	594	552	523	510	476
55°	468	442	400	367	354	418
65°	317	290	250	220	208	314
75°	169	145	114	97	91	179
85°	42	29	24	24	23	47
90°	0	4	7	10	11	3
95°	26	24	7	9	10	33
105°	134	136	136	136	136	142
115°	252	254	255	253	250	250
125°	359	362	362	360	359	320
135°	447	450	449	448	446	345
145°	519	519	520	520	517	324
155°	571	569	569	570	567	263
165°	603	600	600	603	599	170
175°	616	614	614	617	614	59
180°	616	616	616	616	616	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1017.7	1017.3	1016.9	1016.5	1016.1	1015.2	1013.8	1012.5	1011.1	1009.8	1011.1
5°	1014.3	1013.7	1013.0	1012.3	1011.6	1010.4	1008.5	1006.6	1004.7	1002.8	1004.5
7.5°	1004.4	1003.7	1003.1	1002.4	1001.8	1000.4	998.0	995.8	993.6	991.3	992.5
10°	995.1	994.6	994.1	993.6	993.1	991.7	989.3	986.9	984.5	982.1	982.6
12.5°	984.7	984.1	983.4	982.8	982.1	980.2	977.0	973.8	970.6	967.3	967.8
15°	964.5	963.4	962.4	961.4	960.4	958.1	954.5	950.9	947.4	943.7	943.6
17.5°	941.6	940.1	938.5	937.0	935.3	932.3	927.8	923.3	918.8	914.3	913.4
20°	923.8	922.1	920.4	918.7	917.0	913.4	908.0	902.5	897.1	891.6	890.7
22.5°	904.1	902.4	900.8	899.1	897.4	893.6	887.9	882.2	876.5	870.7	869.1
25°	874.7	872.1	869.6	867.1	864.4	860.0	853.7	847.4	841.1	834.8	832.6
27.5°	840.9	837.9	834.8	831.6	828.5	823.6	816.9	810.1	803.3	796.6	793.5
30°	816.4	813.1	809.9	806.7	803.4	798.2	791.0	784.0	776.8	769.6	765.7
32.5°	792.4	788.7	784.9	781.1	777.3	771.7	764.5	757.2	749.8	742.6	738.2
35°	753.5	749.4	745.3	741.2	737.1	731.2	723.6	715.9	708.2	700.5	695.6
37.5°	715.3	710.2	705.3	700.3	695.4	688.9	681.0	673.1	665.2	657.2	651.4
40°	688.2	683.2	678.0	672.9	667.8	661.2	653.0	644.8	636.6	628.4	622.0
42.5°	660.0	654.8	649.5	644.3	639.0	632.2	623.7	615.2	606.8	598.3	592.1
45°	616.9	612.0	607.0	602.1	597.1	590.0	580.6	571.2	561.8	552.4	545.6
47.5°	572.3	567.0	561.8	556.6	551.4	544.0	534.6	525.1	515.7	506.2	499.3
50°	544.0	538.4	532.7	527.1	521.5	513.8	504.1	494.4	484.6	474.9	467.8
52.5°	513.3	507.6	501.8	496.0	490.3	482.8	473.6	464.4	455.2	446.1	438.4
55°	468.1	462.6	457.2	451.7	446.3	438.7	429.2	419.6	410.1	400.5	392.8
57.5°	422.3	416.5	410.6	404.9	399.0	391.4	382.2	373.0	363.9	354.7	347.1
60°	392.8	386.9	380.9	375.0	369.0	361.4	352.1	343.0	333.8	324.6	317.1
62.5°	361.5	355.9	350.1	344.5	338.8	331.2	321.9	312.6	303.3	293.9	286.9
65°	316.9	311.1	305.3	299.5	293.7	286.3	277.2	268.2	259.1	250.1	243.3
67.5°	272.6	266.7	260.9	255.2	249.3	242.2	233.5	224.8	216.1	207.4	201.3
70°	242.5	236.7	230.9	225.1	219.2	212.1	203.6	195.1	186.5	178.0	172.7
72.5°	213.0	207.3	201.7	196.0	190.4	183.5	175.5	167.5	159.6	151.6	146.7
75°	168.8	163.7	158.5	153.5	148.3	142.2	135.0	127.8	120.7	113.5	109.8
77.5°	124.9	120.8	116.7	112.6	108.6	103.6	97.9	92.2	86.4	80.7	78.1
80°	99.8	95.6	91.6	87.5	83.4	79.0	74.1	69.4	64.6	59.9	58.3
82.5°	75.2	71.5	67.9	64.1	60.5	57.0	53.7	50.4	47.2	43.9	43.2
85°	42.2	39.1	36.1	33.0	29.9	28.0	27.1	26.3	25.4	24.5	24.3
87.5°	14.2	13.4	12.6	11.8	11.0	10.6	10.6	10.7	10.7	10.7	10.8
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.2	5.9	6.6	7.3	7.8
92.5°	7.1	6.5	5.9	5.4	4.7	4.7	5.5	6.1	6.7	7.3	7.8
95°	26.1	25.8	25.4	25.1	24.8	22.7	18.9	15.0	11.2	7.3	7.8
97.5°	54.3	54.9	55.4	56.0	56.6	53.0	45.3	37.8	30.1	22.5	19.6
100°	76.2	76.6	77.0	77.3	77.6	77.9	78.3	78.7	79.1	79.5	64.3
102.5°	98.6	99.0	99.4	99.8	100.2	100.5	100.7	100.9	101.2	101.4	98.6
105°	134.3	134.7	135.1	135.5	135.9	136.1	136.1	136.1	136.1	136.1	136.1
107.5°	171.4	171.4	171.4	171.4	171.4	171.5	171.7	171.9	172.1	172.3	172.4
110°	195.5	195.5	195.5	195.5	195.5	195.6	195.8	196.0	196.2	196.4	196.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.2	218.4	218.6	218.9	219.1	219.3	219.4	219.6	219.7	219.8	219.4
115°	252.2	252.7	253.2	253.7	254.2	254.5	254.6	254.7	254.8	254.9	254.5
117.5°	287.4	287.3	287.3	287.3	287.3	287.5	287.8	288.2	288.6	289.0	288.5
120°	309.3	309.2	309.1	309.0	308.9	309.0	309.3	309.6	309.9	310.2	310.0
122.5°	328.7	329.0	329.4	329.8	330.2	330.4	330.6	330.7	330.9	331.0	330.8
125°	358.6	359.3	360.0	360.7	361.4	361.8	361.8	361.8	361.8	361.8	361.4
127.5°	387.2	387.8	388.3	388.8	389.3	389.5	389.4	389.4	389.3	389.2	389.0
130°	404.8	405.3	405.8	406.3	406.8	407.1	407.2	407.3	407.4	407.5	407.2
132.5°	422.3	422.9	423.5	424.0	424.6	424.9	424.6	424.4	424.1	423.9	423.9
135°	447.3	447.9	448.5	449.1	449.7	449.9	449.7	449.5	449.3	449.1	448.9
137.5°	470.2	470.7	471.2	471.8	472.3	472.5	472.3	472.1	471.9	471.7	471.8
140°	485.1	485.3	485.5	485.7	485.9	486.0	485.9	485.8	485.7	485.6	485.8
142.5°	498.7	498.9	499.0	499.1	499.2	499.3	499.5	499.6	499.8	499.9	499.9
145°	518.6	518.8	519.0	519.2	519.4	519.5	519.5	519.5	519.5	519.5	519.6
147.5°	535.9	535.8	535.8	535.7	535.7	535.7	535.9	536.0	536.1	536.2	536.3
150°	546.8	546.6	546.4	546.2	546.0	546.0	546.2	546.4	546.6	546.8	547.0
152.5°	557.4	557.0	556.5	556.1	555.6	555.5	555.7	555.9	556.1	556.3	556.5
155°	571.1	570.5	569.9	569.3	568.7	568.5	568.7	568.9	569.1	569.3	569.6
157.5°	581.6	581.2	580.9	580.5	580.1	580.0	580.0	580.0	580.0	580.1	580.4
160°	588.9	588.2	587.6	587.0	586.4	586.2	586.3	586.4	586.5	586.6	587.0
162.5°	594.7	594.1	593.5	592.9	592.3	592.1	592.2	592.3	592.4	592.5	593.0
165°	602.6	602.0	601.4	600.8	600.2	599.9	600.0	600.1	600.2	600.3	600.9
167.5°	608.4	607.8	607.2	606.5	605.9	605.6	605.7	605.8	605.9	606.0	606.8
170°	611.8	611.1	610.3	609.6	608.8	608.5	608.6	608.7	608.8	608.9	609.8
172.5°	613.9	613.2	612.5	611.8	611.1	610.9	611.0	611.2	611.4	611.6	612.3
175°	616.3	615.7	615.1	614.5	613.9	613.6	613.7	613.8	613.9	614.0	614.8
177.5°	617.4	616.9	616.4	615.9	615.4	615.2	615.3	615.4	615.5	615.6	616.1
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1012.5	1013.8	1015.2	1015.8	1015.7	1015.5	1015.4	1015.3
5°	1006.2	1007.9	1009.7	1010.4	1010.0	1009.7	1009.4	1009.0
7.5°	993.7	994.9	996.1	996.5	996.1	995.7	995.4	995.0
10°	983.1	983.6	984.2	984.2	983.6	983.1	982.6	982.1
12.5°	968.2	968.6	968.9	968.7	967.9	967.1	966.3	965.5
15°	943.4	943.2	943.1	942.2	940.7	939.2	937.7	936.0
17.5°	912.6	911.7	910.9	909.8	908.6	907.3	906.1	904.7
20°	889.9	889.0	888.2	887.0	885.4	883.9	882.4	880.8
22.5°	867.4	865.7	864.0	862.5	861.3	860.0	858.8	857.5
25°	830.4	828.2	826.0	823.8	822.0	820.1	818.3	816.4
27.5°	790.4	787.3	784.2	781.7	779.9	778.1	776.3	774.5
30°	761.7	757.8	753.9	751.1	749.6	748.1	746.6	745.1
32.5°	733.9	729.6	725.3	722.2	720.1	718.2	716.3	714.4
35°	690.6	685.7	680.8	677.1	674.7	672.3	669.9	667.5
37.5°	645.4	639.4	633.5	629.3	627.0	624.8	622.5	620.2
40°	615.4	608.9	602.5	598.2	596.2	594.1	592.1	590.1
42.5°	585.9	579.7	573.5	568.9	565.9	562.9	559.9	556.9
45°	538.8	532.0	525.1	520.5	518.0	515.3	512.8	510.3
47.5°	492.2	485.1	478.2	473.2	470.4	467.6	464.7	461.9
50°	460.6	453.4	446.3	441.4	438.9	436.4	433.7	431.2
52.5°	430.7	422.9	415.3	410.1	407.6	405.1	402.4	399.9
55°	385.2	377.5	369.8	364.7	361.9	359.2	356.5	353.8
57.5°	339.6	332.1	324.7	319.6	317.2	314.8	312.5	310.0
60°	309.5	302.1	294.6	289.5	287.0	284.4	281.9	279.3
62.5°	279.9	273.0	266.0	261.3	258.7	256.2	253.6	251.1
65°	236.5	229.6	222.9	218.1	215.6	213.1	210.5	207.9
67.5°	195.0	188.7	182.5	178.3	176.3	174.3	172.2	170.2
70°	167.4	162.2	156.8	153.2	151.2	149.2	147.0	145.0
72.5°	141.9	136.9	132.1	129.0	127.6	126.2	124.9	123.5
75°	106.0	102.3	98.6	96.0	94.9	93.7	92.5	91.3
77.5°	75.4	72.8	70.2	68.5	67.6	66.7	65.8	64.9
80°	56.8	55.2	53.7	52.8	52.4	52.1	51.7	51.4
82.5°	42.4	41.7	41.0	40.6	40.4	40.2	40.0	39.8
85°	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0
87.5°	10.9	11.0	11.1	11.1	11.0	10.9	10.9	10.8
90°	8.3	8.8	9.3	9.8	10.1	10.4	10.7	11.0
92.5°	8.3	8.8	9.3	9.7	9.8	10.0	10.1	10.2
95°	8.3	8.8	9.3	9.6	9.6	9.6	9.6	9.6
97.5°	16.8	13.9	11.0	9.6	9.6	9.6	9.6	9.6
100°	49.3	34.1	19.0	11.2	10.8	10.4	10.0	9.6
102.5°	95.7	92.8	90.0	85.1	78.2	71.3	64.3	57.5
105°	136.1	136.1	136.1	136.1	136.0	135.9	135.8	135.7
107.5°	172.4	172.4	172.4	172.3	172.0	171.7	171.4	171.1
110°	195.8	195.5	195.2	195.1	195.2	195.3	195.4	195.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	219.0	218.6	218.3	218.0	217.9	217.7	217.6	217.4
115°	254.1	253.7	253.3	252.8	252.2	251.6	251.0	250.3
117.5°	287.9	287.4	286.9	286.5	286.2	286.0	285.7	285.5
120°	309.8	309.6	309.4	309.0	308.5	308.0	307.5	307.0
122.5°	330.6	330.4	330.2	329.8	329.2	328.6	328.1	327.5
125°	361.0	360.6	360.2	359.8	359.5	359.2	358.9	358.6
127.5°	388.8	388.6	388.4	387.9	387.1	386.4	385.6	384.9
130°	406.9	406.6	406.3	405.9	405.4	404.9	404.3	403.8
132.5°	423.8	423.7	423.7	423.4	422.9	422.4	421.9	421.4
135°	448.7	448.5	448.3	447.9	447.3	446.7	446.1	445.5
137.5°	471.8	471.9	471.9	471.7	471.1	470.6	470.1	469.6
140°	486.0	486.3	486.5	486.3	485.6	485.0	484.4	483.8
142.5°	500.0	500.0	500.1	499.8	499.2	498.6	498.0	497.4
145°	519.7	519.8	519.9	519.6	519.0	518.4	517.8	517.2
147.5°	536.5	536.6	536.7	536.4	535.7	535.0	534.2	533.5
150°	547.2	547.4	547.6	547.3	546.5	545.7	544.9	544.1
152.5°	556.7	556.9	557.1	556.9	556.1	555.4	554.7	554.0
155°	569.9	570.2	570.5	570.2	569.4	568.6	567.7	566.9
157.5°	580.7	581.0	581.3	581.1	580.3	579.5	578.7	577.8
160°	587.4	587.8	588.2	588.0	587.2	586.4	585.6	584.8
162.5°	593.6	594.2	594.7	594.6	593.7	592.8	591.9	591.0
165°	601.6	602.2	602.8	602.7	601.9	601.0	600.2	599.4
167.5°	607.5	608.2	608.9	608.9	607.9	607.0	606.1	605.2
170°	610.6	611.5	612.3	612.2	611.3	610.4	609.5	608.5
172.5°	613.0	613.7	614.5	614.4	613.5	612.6	611.7	610.8
175°	615.6	616.4	617.2	617.2	616.3	615.4	614.5	613.6
177.5°	616.7	617.2	617.8	617.8	617.1	616.5	615.8	615.2
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3

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