

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: P333174-830

Luminaire Tested: **S125DIP-S610D590U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333174-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S610D590U830-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4263.8 lumens
Efficiency: N/A
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

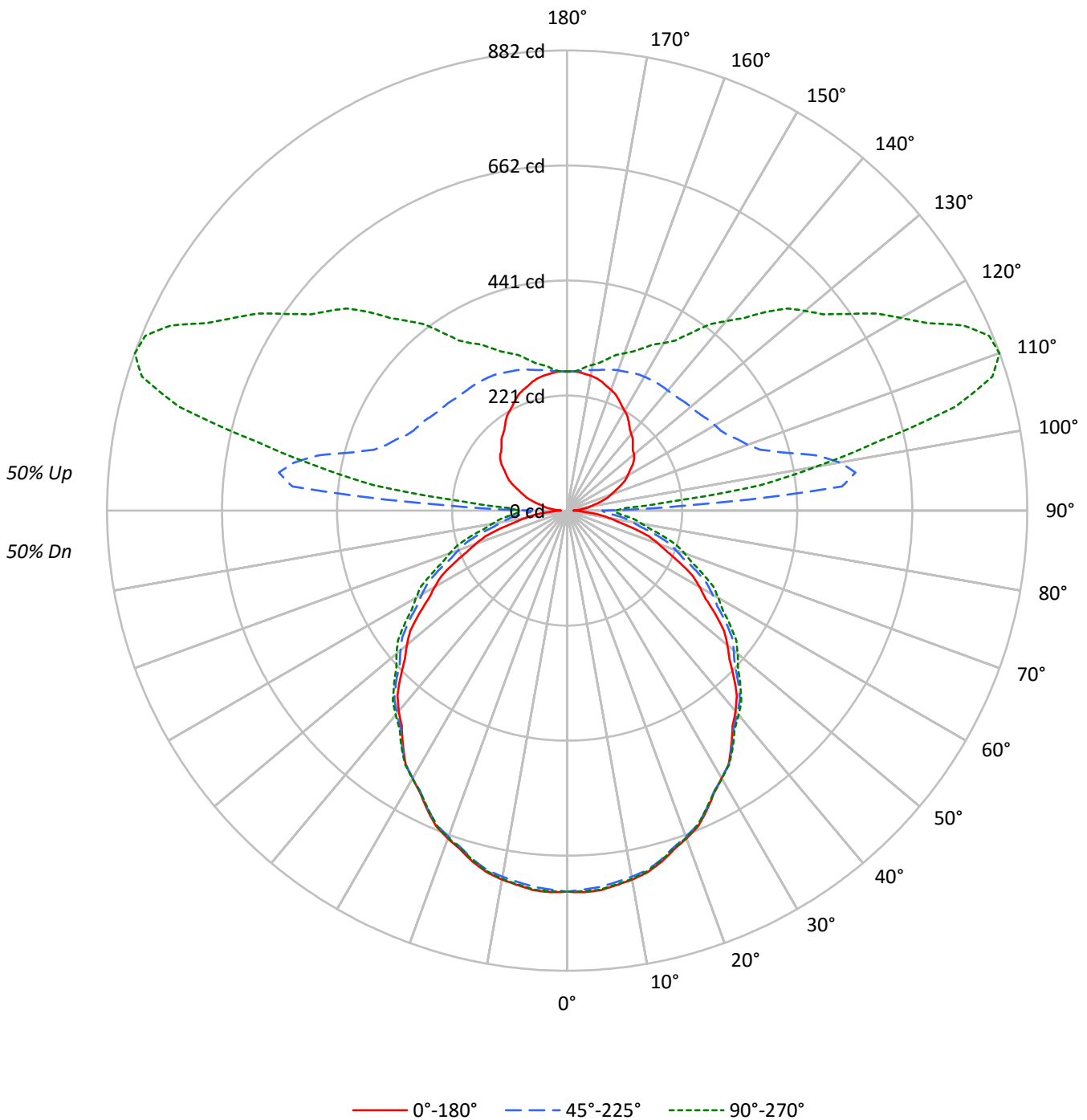
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56	56	56	50
1	97	92	88	84	89	85	82	78	72	69	67		60	58	56		48	47	46	40
2	88	80	74	68	81	74	68	64	63	58	55		52	49	46		42	40	38	33
3	80	70	63	57	73	65	58	53	55	50	46		46	42	39		37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39		41	36	33		33	30	27	24
5	67	55	47	41	62	51	44	38	43	38	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	45	36	31	52	41	34	29	35	30	25		30	25	22		24	21	18	16
8	53	40	33	27	49	38	30	26	32	27	22		27	23	19		22	19	16	14
9	49	37	29	24	45	34	27	23	30	24	20		25	21	17		21	17	15	13
10	46	34	26	22	42	32	25	20	27	22	18		23	19	16		19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4718	4718	4718
5°	4727	4630	4645
10°	4693	4548	4541
15°	4638	4449	4409
20°	4562	4326	4276
25°	4473	4195	4112
30°	4364	4051	3964
35°	4263	3919	3829
40°	4160	3779	3691
45°	4043	3661	3570
50°	3932	3531	3463
55°	3798	3408	3337
60°	3652	3269	3208
65°	3499	3124	3063
70°	3326	2924	2915
75°	3052	2732	2732
80°	2694	2501	2532
85°	2358	2344	2469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	1.6
10°-20°	196.1	4.6
20°-30°	291.6	6.8
30°-40°	345.4	8.1
40°-50°	357.1	8.4
50°-60°	329.0	7.7
60°-70°	265.9	6.2
70°-80°	178.1	4.2
80°-90°	93.8	2.2
90°-100°	245.1	5.7
100°-110°	453.7	10.6
110°-120°	415.6	9.7
120°-130°	330.6	7.8
130°-140°	260.0	6.1
140°-150°	192.7	4.5
150°-160°	134.7	3.2
160°-170°	79.4	1.9
170°-180°	25.8	0.6
0°-30°	556.7	13.1
0°-40°	902.2	21.2
0°-60°	1588.2	37.2
0°-90°	2126.1	49.9
90°-120°	1114.4	26.1
90°-150°	1897.7	44.5
90°-180°	2138.0	50.1
0°-180°	4263.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	729	724	729	729	69
15°	698	698	693	697	695	196
25°	634	636	632	634	631	292
35°	549	553	551	554	554	343
45°	452	460	463	468	469	349
55°	347	359	370	378	381	310
65°	239	256	273	283	286	237
75°	132	151	173	187	191	140
85°	39	63	88	103	110	42
90°	12	39	67	86	93	9
95°	27	81	529	284	199	26
105°	67	103	429	821	771	71
115°	113	141	341	715	839	111
125°	153	179	316	564	657	136
135°	178	213	304	464	538	138
145°	206	235	299	376	416	129
155°	234	252	291	329	344	108
165°	256	263	280	296	301	72
175°	266	266	268	272	270	25
180°	267	267	267	267	267	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	732.2	731.9	731.7	731.4	731.1	730.6	729.7	728.8	727.9	727.0	727.9
5°	730.5	730.1	729.8	729.5	729.2	728.5	727.4	726.2	725.1	724.0	725.3
7.5°	724.0	723.9	723.8	723.6	723.5	722.8	721.7	720.6	719.4	718.3	719.3
10°	718.3	718.3	718.3	718.3	718.3	717.7	716.3	715.1	713.8	712.6	713.7
12.5°	710.3	710.4	710.5	710.7	710.8	710.3	709.3	708.3	707.3	706.2	707.1
15°	697.5	697.7	697.9	698.0	698.1	697.7	696.5	695.4	694.4	693.2	694.2
17.5°	680.9	681.2	681.6	681.8	682.2	681.7	680.7	679.6	678.4	677.3	678.1
20°	668.8	669.2	669.5	669.9	670.1	669.8	668.6	667.5	666.4	665.2	665.7
22.5°	655.2	655.7	656.3	656.9	657.4	657.0	655.8	654.6	653.4	652.1	652.7
25°	633.8	634.2	634.7	635.2	635.7	635.5	634.5	633.6	632.5	631.6	632.3
27.5°	610.0	610.7	611.4	612.1	612.8	612.7	611.5	610.5	609.4	608.3	608.7
30°	592.2	593.2	594.2	595.1	596.1	596.1	595.1	594.2	593.2	592.2	592.6
32.5°	576.2	577.0	577.9	578.7	579.5	579.6	578.9	578.2	577.5	576.7	577.1
35°	548.6	549.7	550.8	551.9	553.0	553.4	552.9	552.3	551.9	551.4	551.9
37.5°	520.9	522.0	522.9	524.0	525.0	525.4	525.3	525.1	524.9	524.8	525.4
40°	502.0	503.3	504.5	505.9	507.1	507.7	507.5	507.4	507.2	507.0	507.7
42.5°	481.4	483.1	484.7	486.4	488.0	489.0	489.4	489.7	490.0	490.4	491.2
45°	451.9	453.6	455.3	457.1	458.9	460.1	461.0	461.8	462.5	463.4	464.5
47.5°	421.7	423.3	424.9	426.5	428.2	429.6	431.0	432.3	433.8	435.1	436.8
50°	401.1	402.7	404.5	406.3	408.0	409.8	411.5	413.3	415.0	416.8	418.6
52.5°	379.3	381.4	383.5	385.7	387.8	389.9	392.1	394.2	396.3	398.4	400.3
55°	347.3	349.9	352.4	355.0	357.5	360.1	362.6	365.1	367.7	370.2	372.0
57.5°	314.7	317.7	320.7	323.9	326.9	329.9	332.8	335.7	338.7	341.6	343.6
60°	292.9	296.1	299.3	302.5	305.7	308.8	312.0	315.2	318.4	321.5	324.0
62.5°	271.7	274.8	278.1	281.3	284.5	287.8	291.2	294.6	298.0	301.5	304.2
65°	239.2	242.9	246.5	250.2	253.8	257.6	261.4	265.2	269.0	272.9	275.2
67.5°	208.6	212.1	215.6	219.1	222.6	226.4	230.3	234.1	238.0	242.0	244.8
70°	186.2	189.8	193.5	197.2	200.9	204.7	208.9	213.0	217.2	221.3	224.3
72.5°	164.4	168.2	172.0	175.8	179.6	183.7	188.2	192.7	197.3	201.8	205.1
75°	131.8	135.9	140.1	144.2	148.4	153.0	158.1	163.2	168.2	173.3	176.4
77.5°	100.4	105.2	110.0	114.7	119.5	124.3	129.2	134.1	139.0	143.9	147.4
80°	81.0	85.7	90.5	95.3	100.0	105.1	110.6	115.9	121.3	126.8	130.3
82.5°	63.2	68.1	73.2	78.2	83.3	88.6	94.1	99.6	105.2	110.7	114.0
85°	39.4	44.7	49.9	55.1	60.4	65.8	71.4	76.9	82.5	88.1	91.6
87.5°	22.4	27.6	33.0	38.3	43.5	49.0	54.6	60.2	65.7	71.4	75.1
90°	12.0	17.6	23.8	30.0	36.1	42.4	48.4	54.9	60.8	67.3	71.5
92.5°	16.9	23.0	32.2	43.5	57.6	78.3	113.3	168.1	227.1	229.8	200.3
95°	27.1	31.8	40.2	50.2	66.2	95.2	158.1	281.8	435.5	528.7	521.9
97.5°	37.9	42.3	49.0	58.6	73.0	94.9	138.2	230.1	390.6	557.4	641.9
100°	45.5	50.0	55.4	64.7	78.2	98.6	134.9	209.8	350.4	531.3	669.1
102.5°	54.0	57.7	62.5	71.9	84.4	104.2	136.9	200.5	319.9	488.1	648.6
105°	67.2	69.7	75.0	82.9	94.1	112.7	141.2	193.8	288.4	429.1	586.6
107.5°	80.1	83.3	88.1	94.6	105.8	122.7	150.1	195.7	273.5	388.0	524.2
110°	89.4	92.4	96.5	103.2	113.2	130.4	156.8	198.4	268.0	368.1	488.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	99.3	101.9	105.2	111.5	121.1	137.6	163.2	202.4	265.8	355.4	460.9
115°	112.9	115.1	117.8	123.8	133.0	149.0	173.1	208.4	264.1	340.8	430.3
117.5°	125.1	127.4	129.9	135.4	145.3	160.7	183.4	215.7	264.5	332.0	410.5
120°	133.7	135.8	138.4	143.7	153.4	168.8	191.3	220.8	265.9	327.1	399.1
122.5°	142.1	143.5	145.5	150.5	160.8	176.1	198.5	226.5	266.7	322.6	389.0
125°	153.4	154.3	156.8	161.6	171.5	187.1	208.0	234.3	268.7	316.5	374.9
127.5°	161.6	163.1	166.4	172.3	183.0	198.2	217.9	241.9	271.6	311.9	361.7
130°	167.2	168.6	172.8	179.6	190.8	205.8	224.7	247.3	273.7	309.3	353.5
132.5°	171.0	173.0	178.0	185.9	197.6	212.4	230.8	251.7	275.9	307.0	346.0
135°	177.8	179.7	186.1	194.5	205.7	220.6	238.5	257.3	278.2	303.6	336.3
137.5°	186.4	187.9	193.9	202.3	213.3	228.4	244.1	261.6	281.2	301.6	328.0
140°	191.1	192.7	199.1	207.7	217.9	232.5	248.3	264.6	281.9	300.4	323.7
142.5°	197.1	198.1	204.1	212.4	222.2	235.7	250.5	265.8	282.2	299.6	320.1
145°	206.1	207.0	212.3	219.6	229.1	241.4	255.4	268.8	283.3	299.0	315.8
147.5°	214.8	215.5	220.1	227.1	235.4	246.4	258.6	270.8	283.9	297.6	312.0
150°	220.5	221.5	225.3	232.2	239.8	248.9	260.8	272.0	283.9	296.2	309.2
152.5°	226.5	227.1	230.5	236.6	243.6	251.9	262.9	272.9	283.4	294.5	306.1
155°	234.4	234.4	237.6	243.0	248.4	255.9	265.0	273.6	282.3	291.4	301.0
157.5°	241.5	241.4	244.0	248.6	253.4	259.0	266.9	274.2	280.9	288.1	296.3
160°	246.3	245.7	247.9	251.7	255.9	260.8	267.8	274.2	279.6	286.1	292.5
162.5°	250.2	249.6	251.8	255.1	258.5	262.5	268.6	273.8	278.3	283.4	289.1
165°	255.9	254.9	256.5	259.1	261.3	264.6	268.8	273.1	276.4	279.6	283.9
167.5°	259.8	259.3	260.2	261.7	263.3	265.2	268.8	271.8	273.3	275.8	278.8
170°	262.4	261.8	262.4	263.4	264.6	266.2	268.8	271.0	272.0	273.6	275.8
172.5°	264.1	263.2	263.6	264.8	265.4	266.2	268.4	270.1	270.3	271.1	272.8
175°	266.2	265.0	265.6	266.2	266.2	266.2	267.8	268.8	268.2	268.2	268.8
177.5°	267.1	266.3	266.3	266.6	266.3	266.3	267.1	267.5	266.6	266.6	267.1
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	728.8	729.7	730.6	730.9	730.8	730.8	730.6	730.5
5°	726.5	727.8	729.1	729.6	729.5	729.3	729.2	729.1
7.5°	720.5	721.6	722.7	723.2	723.0	722.9	722.7	722.6
10°	714.8	715.9	717.0	717.5	717.4	717.2	717.0	716.8
12.5°	707.9	708.8	709.7	709.9	709.5	709.1	708.7	708.2
15°	695.1	696.1	697.0	697.2	696.5	695.9	695.3	694.7
17.5°	678.8	679.5	680.2	680.4	680.0	679.7	679.3	678.9
20°	666.3	666.8	667.2	667.4	667.4	667.4	667.4	667.4
22.5°	653.3	653.9	654.5	654.6	654.2	653.8	653.5	653.1
25°	632.9	633.6	634.1	634.1	633.3	632.5	631.7	630.9
27.5°	609.2	609.6	610.1	610.1	609.8	609.5	609.3	609.0
30°	592.9	593.2	593.5	593.6	593.4	593.2	593.1	593.0
32.5°	577.4	577.7	578.1	578.2	578.0	577.8	577.7	577.5
35°	552.3	552.9	553.4	553.6	553.6	553.6	553.6	553.6
37.5°	526.0	526.7	527.4	527.6	527.5	527.4	527.4	527.4
40°	508.3	509.0	509.5	510.0	510.4	510.7	511.0	511.3
42.5°	491.9	492.7	493.4	493.9	494.0	494.0	494.1	494.2
45°	465.5	466.7	467.8	468.4	468.6	468.7	468.9	469.1
47.5°	438.4	440.0	441.6	442.6	443.0	443.3	443.7	444.0
50°	420.3	422.1	423.8	424.9	425.4	425.8	426.3	426.8
52.5°	402.2	404.1	406.0	407.1	407.5	407.7	408.1	408.5
55°	373.7	375.5	377.2	378.4	379.1	379.8	380.3	381.0
57.5°	345.6	347.6	349.6	350.8	351.4	351.9	352.3	352.8
60°	326.3	328.7	331.1	332.5	333.0	333.5	333.9	334.4
62.5°	306.8	309.4	312.1	313.7	314.2	314.9	315.5	316.1
65°	277.6	280.0	282.4	283.9	284.6	285.2	285.8	286.4
67.5°	247.7	250.6	253.4	255.3	256.2	257.0	257.9	258.6
70°	227.3	230.4	233.4	235.4	236.3	237.2	238.3	239.2
72.5°	208.4	211.6	214.9	216.9	217.6	218.3	219.0	219.7
75°	179.6	182.9	186.1	188.0	188.8	189.6	190.4	191.2
77.5°	150.9	154.5	158.0	160.0	160.6	161.3	161.9	162.6
80°	133.7	137.2	140.7	142.8	143.5	144.1	144.8	145.3
82.5°	117.4	120.8	124.2	126.5	127.6	128.8	129.9	131.0
85°	95.1	98.6	102.1	104.4	105.8	107.0	108.3	109.5
87.5°	78.9	82.7	86.4	89.0	90.1	91.2	92.5	93.6
90°	75.7	79.9	84.1	87.6	88.7	89.8	91.4	92.6
92.5°	158.7	136.2	122.6	117.0	111.2	111.0	111.4	111.7
95°	445.8	367.6	305.0	262.1	225.1	210.1	206.9	199.3
97.5°	631.1	577.1	516.0	455.4	423.3	394.3	379.8	374.0
100°	713.8	690.8	638.8	585.0	548.8	511.1	492.2	484.6
102.5°	740.1	759.6	736.2	700.4	661.8	635.2	614.4	609.0
105°	718.9	795.7	822.6	818.8	802.8	786.1	776.5	771.1
107.5°	654.8	756.2	820.1	850.2	859.9	860.8	858.3	854.9
110°	607.5	712.7	791.5	839.2	864.6	875.9	880.8	881.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	569.7	669.6	749.1	805.0	841.5	860.1	870.6	875.5
115°	521.9	608.0	684.6	745.1	788.0	814.7	830.8	838.7
117.5°	489.5	564.0	630.2	685.8	728.9	756.6	772.6	778.0
120°	471.7	538.9	600.8	649.9	690.7	717.5	732.9	738.2
122.5°	457.5	519.9	575.1	621.2	657.7	682.3	697.8	702.6
125°	437.2	494.6	543.8	584.3	615.2	638.0	650.6	656.8
127.5°	416.3	469.9	515.9	553.7	581.9	602.4	614.4	617.7
130°	403.6	453.1	497.3	533.8	561.4	579.9	591.4	595.5
132.5°	390.5	437.1	477.3	512.5	540.0	558.4	569.0	573.3
135°	372.8	412.0	448.5	480.5	504.9	523.5	534.0	538.0
137.5°	358.0	389.8	420.4	447.6	469.5	486.3	495.8	499.9
140°	349.6	376.5	403.0	426.9	447.3	462.0	470.7	474.0
142.5°	342.3	365.2	388.0	408.7	426.1	438.7	446.9	449.8
145°	333.3	350.8	368.3	383.5	397.0	406.8	413.3	416.1
147.5°	325.4	339.1	352.2	363.4	373.9	381.5	385.3	386.5
150°	320.9	332.8	343.0	352.8	361.0	367.6	369.9	370.6
152.5°	316.7	327.3	336.6	344.1	350.9	356.1	358.3	358.8
155°	310.2	318.9	326.3	332.2	337.6	341.4	343.0	343.6
157.5°	303.8	310.9	316.7	321.3	325.5	328.6	330.1	330.0
160°	299.4	304.8	310.2	314.0	317.7	320.5	321.5	320.9
162.5°	294.7	299.7	304.2	307.6	310.5	312.7	312.9	312.8
165°	288.1	291.9	295.2	297.8	300.0	301.0	301.0	301.0
167.5°	281.9	284.5	286.9	288.8	289.9	290.9	290.4	290.3
170°	278.5	280.1	281.7	282.8	283.9	284.5	284.5	283.9
172.5°	274.7	276.3	277.4	278.1	278.3	279.3	278.4	277.9
175°	270.4	270.4	271.5	271.5	271.5	272.0	271.0	270.4
177.5°	267.5	268.0	268.0	268.0	267.5	268.0	266.6	266.6
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6

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