

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: P333174-840

Luminaire Tested: **S125DIP-S610D590U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333174-840
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-S610D590U840-4F0-1E-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: 4568.3 lumens
Efficiency: N/A
Efficacy: 139.3 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

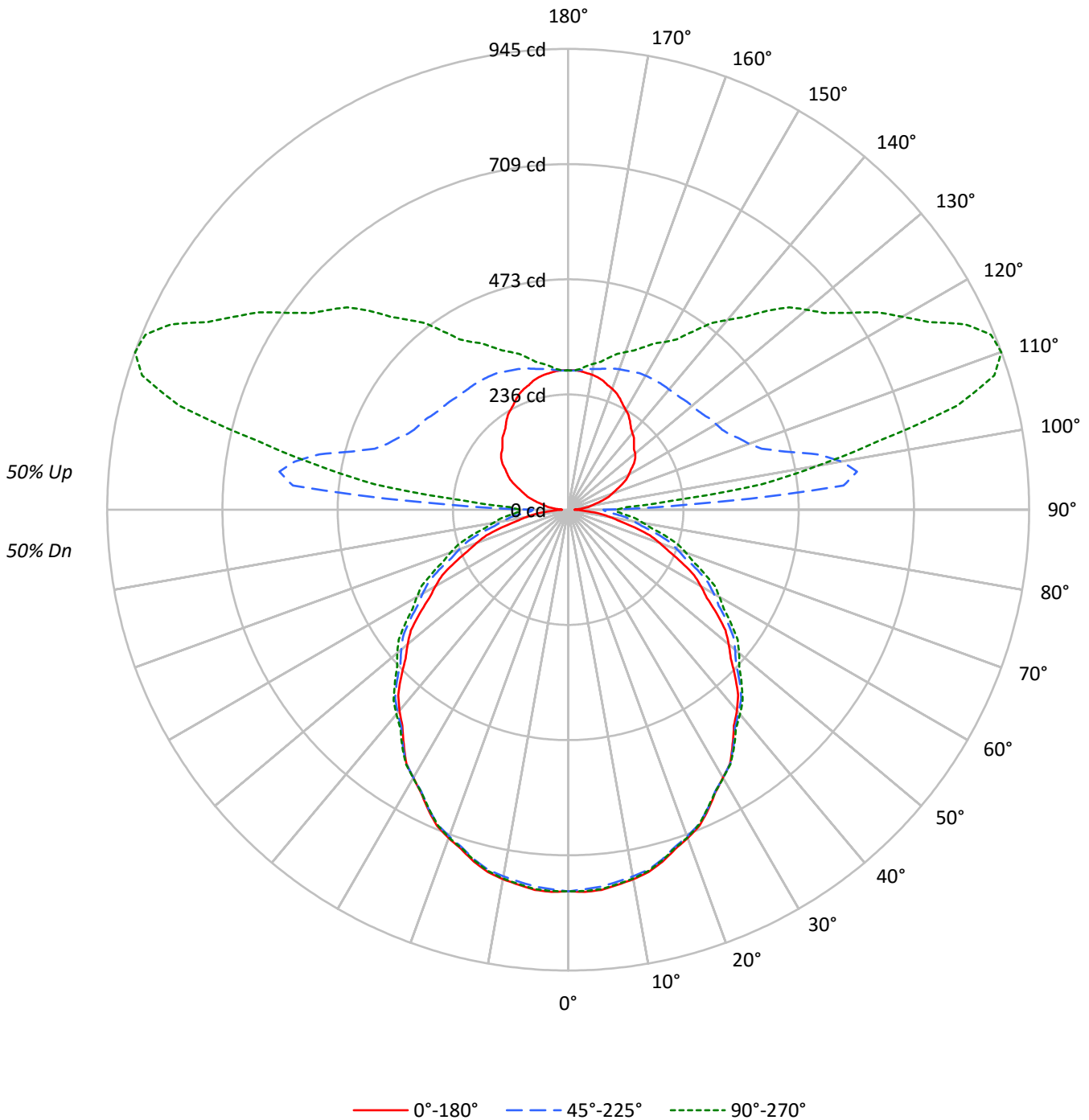
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	1.6
10°-20°	210.1	4.6
20°-30°	312.4	6.8
30°-40°	370.1	8.1
40°-50°	382.6	8.4
50°-60°	352.5	7.7
60°-70°	284.9	6.2
70°-80°	190.8	4.2
80°-90°	100.5	2.2
90°-100°	262.6	5.7
100°-110°	486.2	10.6
110°-120°	445.3	9.7
120°-130°	354.2	7.8
130°-140°	278.5	6.1
140°-150°	206.5	4.5
150°-160°	144.4	3.2
160°-170°	85.1	1.9
170°-180°	27.7	0.6
0°-30°	596.5	13.1
0°-40°	966.6	21.2
0°-60°	1701.7	37.2
0°-90°	2278.0	49.9
90°-120°	1194.0	26.1
90°-150°	2033.2	44.5
90°-180°	2290.0	50.1
0°-180°	4568.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	42	72	92	99	9
95°	29	86	566	304	214	28
105°	72	111	460	879	826	76
115°	121	151	365	766	899	119
125°	164	192	339	604	704	146
135°	190	228	325	498	576	148
145°	221	252	320	403	446	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.0	29.6	35.3	41.0	46.7	52.5	58.5	64.5	70.4	76.4	80.5
90°	12.8	18.9	25.4	32.1	38.7	45.4	51.9	58.8	65.1	72.1	76.6
92.5°	18.1	24.6	34.5	46.7	61.7	83.9	121.4	180.1	243.3	246.2	214.6
95°	29.0	34.0	43.0	53.8	70.9	102.0	169.4	301.9	466.7	566.4	559.2
97.5°	40.6	45.3	52.5	62.8	78.3	101.7	148.0	246.5	418.5	597.2	687.7
100°	48.8	53.5	59.4	69.3	83.8	105.6	144.5	224.8	375.5	569.3	716.9
102.5°	57.9	61.8	67.0	77.1	90.4	111.6	146.6	214.8	342.7	523.0	694.9
105°	72.0	74.7	80.4	88.9	100.8	120.8	151.3	207.6	309.0	459.8	628.5
107.5°	85.8	89.3	94.4	101.4	113.3	131.5	160.9	209.6	293.1	415.8	561.7
110°	95.8	99.0	103.4	110.6	121.3	139.7	168.0	212.6	287.1	394.4	523.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	106.4	109.2	112.7	119.5	129.8	147.4	174.8	216.8	284.8	380.8	493.8
115°	121.0	123.3	126.2	132.6	142.5	159.7	185.4	223.3	283.0	365.2	461.0
117.5°	134.0	136.5	139.2	145.1	155.7	172.2	196.5	231.2	283.4	355.7	439.8
120°	143.2	145.5	148.2	154.0	164.3	180.9	205.0	236.6	284.9	350.4	427.6
122.5°	152.3	153.8	155.9	161.3	172.3	188.6	212.7	242.7	285.8	345.7	416.8
125°	164.4	165.3	168.0	173.1	183.8	200.5	222.9	251.1	287.9	339.1	401.7
127.5°	173.2	174.7	178.2	184.6	196.1	212.4	233.5	259.1	291.0	334.2	387.6
130°	179.2	180.7	185.1	192.5	204.4	220.5	240.8	265.0	293.3	331.4	378.7
132.5°	183.2	185.3	190.8	199.1	211.7	227.6	247.3	269.6	295.6	328.9	370.7
135°	190.5	192.6	199.3	208.4	220.4	236.4	255.5	275.7	298.1	325.3	360.3
137.5°	199.8	201.4	207.7	216.7	228.5	244.7	261.6	280.3	301.2	323.2	351.4
140°	204.7	206.4	213.3	222.6	233.5	249.1	266.0	283.5	302.1	321.8	346.8
142.5°	211.2	212.3	218.6	227.6	238.0	252.6	268.4	284.8	302.4	321.0	343.0
145°	220.9	221.8	227.4	235.3	245.5	258.6	273.7	288.0	303.6	320.3	338.4
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.3
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	84.5	88.6	92.6	95.3	96.5	97.8	99.1	100.3
90°	81.1	85.6	90.1	93.8	95.0	96.2	98.0	99.2
92.5°	170.1	145.9	131.4	125.3	119.2	119.0	119.4	119.7
95°	477.7	393.8	326.8	280.8	241.2	225.1	221.7	213.6
97.5°	676.2	618.3	552.9	488.0	453.5	422.4	406.9	400.7
100°	764.8	740.1	684.4	626.8	588.0	547.6	527.4	519.2
102.5°	792.9	813.9	788.8	750.4	709.0	680.5	658.3	652.5
105°	770.2	852.5	881.3	877.3	860.1	842.2	831.9	826.2
107.5°	701.6	810.2	878.7	910.9	921.3	922.3	919.6	915.9
110°	650.9	763.6	848.0	899.2	926.3	938.5	943.7	944.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	610.4	717.4	802.6	862.5	901.6	921.5	932.8	938.1
115°	559.2	651.5	733.5	798.3	844.2	872.9	890.1	898.6
117.5°	524.4	604.3	675.2	734.8	780.9	810.6	827.8	833.5
120°	505.4	577.4	643.7	696.3	740.0	768.7	785.3	790.9
122.5°	490.2	557.0	616.2	665.6	704.7	731.0	747.6	752.8
125°	468.4	529.9	582.7	626.0	659.1	683.6	697.1	703.7
127.5°	446.1	503.4	552.7	593.3	623.5	645.4	658.3	661.9
130°	432.4	485.4	532.8	571.9	601.5	621.4	633.7	638.0
132.5°	418.4	468.3	511.4	549.1	578.6	598.2	609.7	614.2
135°	399.4	441.4	480.5	514.8	541.0	560.9	572.1	576.4
137.5°	383.5	417.7	450.4	479.6	503.0	521.0	531.2	535.6
140°	374.6	403.4	431.8	457.4	479.3	495.0	504.3	507.9
142.5°	366.8	391.3	415.8	437.9	456.6	470.0	478.8	481.9
145°	357.1	375.9	394.6	410.9	425.4	435.9	442.8	445.9
147.5°	348.6	363.3	377.4	389.4	400.6	408.8	412.8	414.1
150°	343.9	356.6	367.5	378.0	386.8	393.8	396.4	397.1
152.5°	339.3	350.6	360.6	368.7	376.0	381.5	383.8	384.5
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

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