

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: P331452-927

Luminaire Tested: **SA2XXDIP-C1005D925U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331452-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D925U927-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

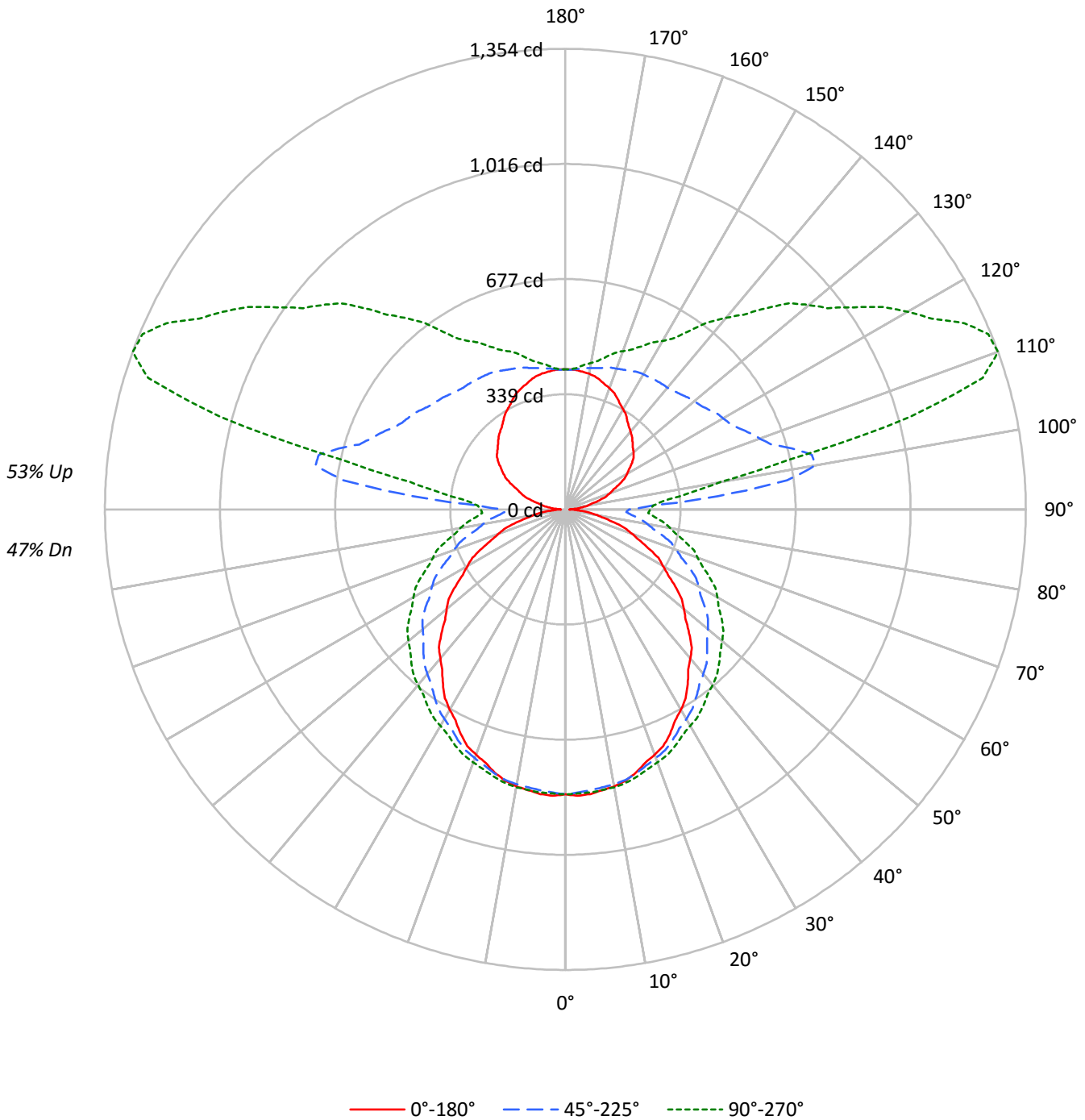
Lumens per Lamp: N/A
Luminaire Lumens: 6060.4 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 66.8
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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	96	91	86	82	88	83	80	76	69	67	64	57	55	53	45	43	42	37
2	87	78	72	66	79	72	66	61	60	56	52	49	46	43	39	36	34	30
3	79	68	61	54	72	63	56	51	52	47	43	43	39	36	34	31	29	24
4	72	60	52	46	65	55	48	42	46	41	36	38	34	30	30	27	24	21
5	66	53	45	39	60	49	42	36	41	35	31	34	29	26	27	24	21	18
6	60	48	39	33	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	28	23	20	22	19	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	20	17	14	12
9	48	35	28	23	44	33	26	21	28	22	18	23	19	16	19	15	13	11
10	45	32	25	20	41	30	23	19	26	20	16	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13525	13525	13525
5°	13591	13020	12971
10°	13506	12635	12493
15°	13320	12228	11990
20°	13085	11791	11506
25°	12852	11370	11066
30°	12525	10939	10626
35°	12192	10521	10314
40°	11845	10165	10004
45°	11515	9846	9739
50°	11159	9559	9477
55°	10787	9249	9211
60°	10329	8927	8928
65°	9856	8551	8595
70°	9323	8147	8233
75°	8642	7750	7901
80°	7567	7345	7563
85°	6539	6995	7303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.3
10°-20°	227.6	3.8
20°-30°	344.9	5.7
30°-40°	420.1	6.9
40°-50°	452.0	7.5
50°-60°	438.9	7.2
60°-70°	383.2	6.3
70°-80°	295.0	4.9
80°-90°	201.7	3.3
90°-100°	300.8	5.0
100°-110°	657.4	10.8
110°-120°	658.4	10.9
120°-130°	524.6	8.7
130°-140°	407.2	6.7
140°-150°	298.7	4.9
150°-160°	208.1	3.4
160°-170°	122.5	2.0
170°-180°	39.9	0.7
0°-30°	651.9	10.8
0°-40°	1072.0	17.7
0°-60°	1962.9	32.4
0°-90°	2842.9	46.9
90°-120°	1616.7	26.7
90°-150°	2847.1	47.0
90°-180°	3217.0	53.1
0°-180°	6060.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	840	836	829	836	835	80
15°	801	804	804	814	813	226
25°	728	737	748	762	766	335
35°	628	648	671	697	706	392
45°	515	548	590	626	640	397
55°	395	439	501	544	561	353
65°	270	330	401	449	466	268
75°	149	218	295	345	363	158
85°	44	119	197	246	265	47
90°	13	94	187	233	250	10
95°	37	136	450	301	290	37
105°	102	188	690	1192	1051	109
115°	175	235	563	1120	1295	173
125°	240	285	512	892	1036	213
135°	280	334	479	727	837	216
145°	318	365	463	582	643	200
155°	361	390	450	509	529	166
165°	394	406	431	457	464	111
175°	410	411	414	420	418	39
180°	411	411	411	411	411	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	842.6	841.9	841.2	840.6	840.0	838.8	837.3	835.8	834.3	832.8	833.9
5°	840.1	839.3	838.5	837.7	836.9	835.7	834.1	832.4	830.8	829.2	830.8
7.5°	832.6	832.0	831.5	831.0	830.4	829.6	828.3	827.0	825.9	824.6	826.5
10°	826.8	826.2	825.7	825.1	824.6	823.9	823.2	822.3	821.5	820.7	822.8
12.5°	817.1	817.1	817.3	817.4	817.5	817.2	816.7	816.0	815.5	814.8	817.1
15°	801.3	801.8	802.3	802.9	803.4	803.7	803.7	803.7	803.7	803.7	806.1
17.5°	780.9	782.0	783.2	784.3	785.4	786.4	787.3	788.1	789.0	789.9	792.4
20°	767.3	768.7	770.0	771.3	772.7	773.9	775.0	776.0	777.1	778.2	781.2
22.5°	752.7	754.2	755.8	757.4	759.0	760.5	762.0	763.5	765.0	766.5	769.5
25°	728.4	730.3	732.2	734.1	736.0	738.2	740.5	743.0	745.4	747.8	751.1
27.5°	699.3	702.3	705.4	708.5	711.6	714.5	717.4	720.3	723.1	726.0	730.1
30°	679.9	683.3	686.9	690.4	693.9	697.4	700.9	704.4	707.9	711.5	715.7
32.5°	658.5	662.4	666.4	670.3	674.2	678.3	682.5	686.6	690.8	694.9	699.9
35°	627.6	632.2	636.8	641.4	646.0	650.9	656.0	661.1	666.2	671.4	677.3
37.5°	594.1	599.4	604.8	610.0	615.3	621.2	627.9	634.5	641.2	647.8	654.4
40°	571.8	577.7	583.7	589.6	595.6	602.1	609.4	616.7	624.0	631.3	638.3
42.5°	550.5	556.3	562.3	568.2	574.2	581.3	589.7	598.1	606.4	614.8	622.4
45°	514.8	522.0	529.3	536.6	543.9	552.2	561.7	571.2	580.6	590.0	598.4
47.5°	479.6	487.5	495.4	503.4	511.3	520.8	531.9	542.9	554.0	565.0	573.8
50°	455.3	463.7	472.0	480.4	488.7	499.0	511.1	523.2	535.4	547.6	556.7
52.5°	432.0	440.8	449.6	458.4	467.1	477.9	490.7	503.5	516.3	529.1	538.4
55°	394.6	404.3	414.0	423.7	433.4	445.3	459.3	473.3	487.4	501.4	511.1
57.5°	357.7	368.6	379.5	390.5	401.5	414.1	428.4	442.7	457.0	471.3	481.7
60°	331.4	343.0	354.7	366.2	377.9	391.3	406.7	422.1	437.4	452.8	463.1
62.5°	308.2	320.1	332.2	344.2	356.2	369.9	385.3	400.7	416.1	431.5	442.4
65°	269.5	282.7	296.0	309.2	322.4	337.0	352.9	368.8	384.7	400.6	411.7
67.5°	234.1	247.9	261.7	275.5	289.3	304.4	320.7	337.0	353.2	369.6	380.7
70°	208.8	222.8	236.9	250.9	264.9	280.3	297.1	313.8	330.5	347.2	358.8
72.5°	185.5	199.9	214.4	228.9	243.4	259.0	276.0	292.9	309.9	326.9	338.2
75°	149.3	164.5	179.5	194.6	209.8	225.9	243.2	260.5	277.7	295.0	306.6
77.5°	114.4	130.2	146.0	161.8	177.6	194.2	211.8	229.3	246.8	264.4	276.0
80°	91.0	107.5	124.0	140.5	156.9	173.9	191.4	209.0	226.5	244.0	255.3
82.5°	71.6	87.9	104.1	120.3	136.6	153.6	171.3	189.1	206.8	224.6	235.9
85°	43.7	60.4	77.2	93.9	110.6	127.6	144.9	162.2	179.4	196.7	208.0
87.5°	23.9	40.5	57.2	73.6	90.0	107.2	125.2	143.6	161.8	179.2	190.0
90°	12.9	31.0	49.7	67.0	84.2	103.1	124.3	147.0	169.1	187.1	197.2
92.5°	20.8	39.7	59.9	78.0	97.9	121.0	155.4	197.2	236.2	254.3	248.9
95°	37.4	53.2	73.8	93.6	118.9	152.3	204.9	289.9	397.8	449.6	421.0
97.5°	53.6	69.1	88.8	110.8	136.7	171.5	232.7	344.1	512.1	658.2	694.2
100°	69.4	81.8	98.9	121.4	147.3	182.0	238.9	350.5	536.4	746.0	869.8
102.5°	82.9	93.8	110.0	131.8	157.4	191.4	244.9	345.2	518.0	742.4	931.1
105°	102.5	113.5	126.9	146.6	171.7	204.9	256.0	340.4	484.9	690.2	910.0
107.5°	125.1	133.9	145.4	162.6	186.2	218.2	267.8	342.5	463.8	635.4	830.3
110°	139.3	147.8	158.0	173.6	195.7	227.8	275.8	346.0	455.7	608.1	780.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	153.2	160.9	170.8	185.0	205.5	237.6	283.7	350.0	450.2	587.3	743.2
115°	174.8	181.7	189.5	201.9	220.7	249.6	295.7	356.1	445.0	563.0	696.0
117.5°	196.1	201.2	207.9	218.2	235.3	264.0	306.7	363.1	441.6	545.7	662.3
120°	210.0	214.2	220.1	228.2	245.2	273.2	314.8	368.4	440.0	535.4	643.3
122.5°	223.2	226.2	231.4	239.6	255.9	283.9	323.0	372.6	439.3	527.0	626.5
125°	239.6	242.0	246.8	256.2	272.0	298.5	335.6	379.8	437.4	512.5	601.2
127.5°	253.5	256.4	262.8	273.0	287.9	314.0	348.6	387.5	437.2	501.1	577.7
130°	261.7	264.7	272.3	283.0	298.7	323.4	356.8	392.5	437.7	494.0	562.1
132.5°	269.3	272.8	281.1	292.6	308.7	333.0	363.7	397.5	438.2	487.5	548.5
135°	279.5	282.7	292.2	304.0	322.2	345.7	373.7	404.1	438.4	479.0	529.7
137.5°	290.3	294.0	303.4	316.0	334.0	355.1	381.3	408.3	438.2	471.8	514.6
140°	298.5	301.3	310.6	323.0	340.1	360.8	385.1	410.1	437.5	467.3	505.6
142.5°	306.7	309.0	317.6	329.9	346.4	365.7	388.8	412.8	437.9	465.4	498.4
145°	317.8	321.0	328.9	340.8	356.6	374.0	395.3	417.5	439.6	463.3	490.2
147.5°	331.1	333.5	341.0	352.0	365.1	380.6	400.7	420.2	440.2	460.5	482.8
150°	340.0	342.3	348.6	358.9	370.8	385.0	403.2	421.4	439.6	458.6	477.5
152.5°	348.8	349.9	356.2	365.3	376.5	389.4	405.8	422.0	438.3	455.4	473.1
155°	361.3	362.1	366.9	375.6	384.2	396.1	409.6	422.9	436.4	449.9	464.9
157.5°	371.8	372.6	376.4	383.9	390.9	400.8	412.3	422.9	432.8	444.2	457.2
160°	378.7	379.5	382.6	389.0	395.3	404.0	413.5	422.9	430.9	440.4	451.5
162.5°	385.6	385.2	388.3	393.4	399.1	405.9	414.2	422.3	429.0	437.2	446.4
165°	393.7	392.9	394.5	399.3	403.2	408.0	415.1	420.6	425.3	430.9	438.0
167.5°	400.4	399.4	400.8	403.9	406.7	409.7	414.9	419.5	421.7	425.3	429.8
170°	404.8	403.2	404.0	406.4	408.0	410.4	414.3	418.3	419.9	422.2	425.3
172.5°	407.3	406.4	405.9	408.3	409.2	411.0	413.7	416.4	417.3	418.4	421.0
175°	410.4	409.6	408.8	410.4	410.4	411.1	412.7	414.3	413.5	414.3	415.1
177.5°	411.8	410.5	409.9	411.1	411.1	411.1	411.8	413.0	411.8	411.1	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	835.0	836.1	837.2	837.5	837.0	836.6	836.1	835.8
5°	832.4	834.1	835.7	836.3	836.1	835.8	835.5	835.3
7.5°	828.5	830.4	832.3	833.2	832.9	832.7	832.3	832.1
10°	825.0	827.2	829.3	830.3	830.0	829.7	829.5	829.2
12.5°	819.2	821.3	823.5	824.4	824.2	823.9	823.6	823.4
15°	808.6	811.0	813.4	814.5	814.2	814.0	813.7	813.4
17.5°	795.0	797.5	800.0	801.3	801.3	801.3	801.3	801.3
20°	784.1	787.1	790.0	791.5	791.5	791.5	791.5	791.5
22.5°	772.5	775.5	778.4	780.1	780.5	781.0	781.4	781.9
25°	754.3	757.6	760.8	762.8	763.7	764.5	765.2	766.0
27.5°	734.2	738.3	742.4	744.7	745.4	745.9	746.6	747.1
30°	720.1	724.4	728.7	731.3	732.1	732.8	733.7	734.5
32.5°	704.9	709.8	714.8	718.0	719.5	720.9	722.4	723.8
35°	683.3	689.2	695.1	699.0	700.9	702.8	704.7	706.5
37.5°	661.0	667.6	674.1	678.4	680.4	682.5	684.4	686.4
40°	645.3	652.4	659.3	664.1	666.5	668.9	671.4	673.8
42.5°	630.1	637.8	645.5	650.5	652.9	655.4	657.7	660.2
45°	606.7	615.1	623.4	629.0	631.7	634.4	637.1	639.8
47.5°	582.5	591.2	600.0	605.9	608.8	611.8	614.7	617.7
50°	565.9	575.0	584.2	590.3	593.3	596.2	599.2	602.1
52.5°	547.9	557.2	566.6	572.9	576.1	579.3	582.5	585.7
55°	520.9	530.5	540.3	546.8	550.3	553.9	557.4	560.9
57.5°	492.3	502.7	513.2	520.1	523.7	527.3	530.8	534.4
60°	473.3	483.6	493.8	500.9	504.6	508.4	512.2	515.9
62.5°	453.3	464.1	475.1	482.3	485.8	489.4	493.0	496.5
65°	422.8	433.8	444.9	452.2	455.7	459.1	462.7	466.2
67.5°	391.9	403.1	414.2	421.7	425.3	429.0	432.7	436.3
70°	370.4	382.0	393.6	401.0	404.3	407.5	410.7	414.0
72.5°	349.6	361.0	372.3	380.0	383.9	387.8	391.7	395.5
75°	318.2	329.8	341.4	349.0	352.4	356.0	359.5	363.0
77.5°	287.5	299.0	310.6	318.3	322.0	325.8	329.6	333.4
80°	266.6	278.1	289.4	296.9	300.7	304.4	308.2	312.0
82.5°	247.2	258.6	269.9	277.3	280.9	284.5	288.0	291.6
85°	219.4	230.7	242.0	249.5	253.3	257.1	260.9	264.7
87.5°	200.9	211.6	222.9	230.4	233.8	237.3	240.7	244.2
90°	207.2	216.3	228.7	236.5	239.8	243.0	246.2	249.5
92.5°	241.6	242.4	246.3	248.3	250.9	251.6	255.5	257.5
95°	367.3	329.3	306.3	295.7	288.7	285.6	286.5	290.4
97.5°	632.6	554.6	479.0	428.5	394.0	377.6	369.3	365.8
100°	863.2	775.2	676.8	587.6	525.0	493.9	474.0	462.7
102.5°	1012.2	999.8	930.3	835.4	767.1	712.0	686.3	670.0
105°	1083.9	1182.6	1202.4	1182.5	1136.5	1090.4	1059.4	1051.3
107.5°	1013.8	1157.4	1248.6	1292.9	1302.0	1302.3	1298.5	1286.7
110°	955.8	1106.0	1215.8	1286.4	1323.4	1341.4	1351.5	1353.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	902.2	1046.6	1163.5	1243.6	1293.8	1321.9	1338.3	1345.6
115°	834.6	964.4	1076.1	1163.1	1222.2	1261.5	1285.0	1295.1
117.5°	781.1	896.0	997.9	1079.6	1139.6	1180.8	1205.2	1213.9
120°	752.9	858.5	949.8	1027.1	1085.4	1125.5	1151.4	1162.3
122.5°	729.5	826.7	913.4	983.3	1035.5	1074.6	1097.6	1106.7
125°	694.7	783.4	860.2	924.4	972.6	1005.1	1027.4	1036.1
127.5°	660.2	740.6	812.9	872.2	914.6	945.1	964.5	971.9
130°	638.2	712.6	781.6	838.0	878.9	908.0	926.0	934.5
132.5°	616.7	686.0	749.6	802.8	843.0	872.1	888.8	896.7
135°	586.8	644.7	702.5	750.7	786.9	815.1	831.5	836.8
137.5°	561.4	610.1	656.5	698.5	731.3	755.6	769.8	776.4
140°	545.5	587.8	628.4	666.2	693.2	715.3	728.8	735.1
142.5°	533.0	568.7	603.5	635.0	660.4	680.5	692.5	694.8
145°	516.3	544.1	570.2	594.6	614.9	629.7	639.0	642.7
147.5°	503.9	524.7	544.0	561.2	577.5	588.9	594.9	597.0
150°	496.5	513.9	530.5	544.7	556.6	566.1	570.8	571.6
152.5°	489.6	505.6	519.8	532.1	541.4	549.6	553.1	553.3
155°	479.9	492.6	504.4	513.1	521.8	527.4	530.5	528.9
157.5°	468.7	479.3	489.3	496.1	502.2	506.8	508.2	508.2
160°	461.7	470.4	479.1	484.7	490.2	494.2	495.0	495.0
162.5°	454.8	462.2	469.6	473.9	479.4	482.1	482.9	482.3
165°	444.3	449.9	455.4	458.6	461.7	464.9	464.9	464.1
167.5°	434.4	438.6	442.4	445.3	446.7	448.5	448.3	447.3
170°	429.3	431.7	434.8	436.4	437.2	439.6	438.8	437.2
172.5°	423.6	425.3	427.9	428.8	429.6	430.7	429.9	429.0
175°	417.5	418.3	419.1	419.9	419.9	420.6	419.9	418.3
177.5°	413.0	413.0	413.7	413.7	413.7	413.7	413.0	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1

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