

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: P331362-935

Luminaire Tested: **SA2XXDIP-C675D925U935-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331362-935
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-C675D925U935-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

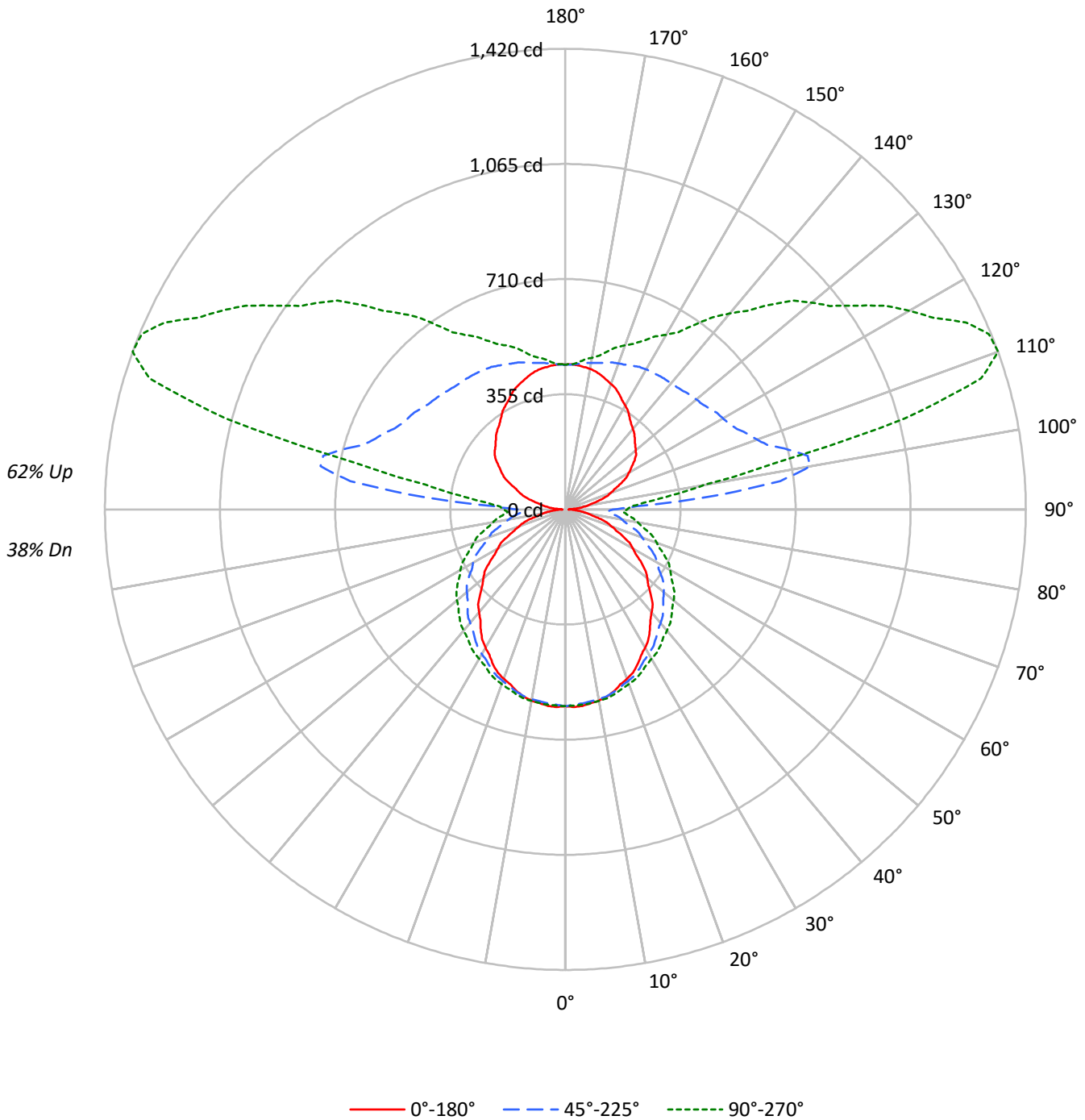
Lumens per Lamp: N/A
Luminaire Lumens: 5427.2 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 52
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	94	89	85	81	85	81	77	74	65	63	60	51	49	48	38	37	36	30
2	85	77	71	65	77	70	64	60	57	53	49	44	41	39	33	31	29	24
3	77	67	60	54	70	61	55	49	50	45	41	39	35	32	29	26	24	20
4	70	59	51	45	63	54	47	41	44	38	34	34	30	27	25	23	21	17
5	64	53	44	38	58	48	41	35	39	33	29	31	27	23	23	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	27	23	20	20	18	15	12
7	55	42	34	29	49	39	31	26	31	26	22	25	21	18	19	16	14	11
8	51	38	30	25	46	35	28	23	29	23	19	23	19	16	17	14	12	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	15	19	15	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9792	9792	9792
5°	9839	9426	9390
10°	9778	9148	9044
15°	9643	8853	8681
20°	9473	8536	8331
25°	9305	8231	8014
30°	9067	7919	7694
35°	8828	7615	7468
40°	8576	7358	7243
45°	8334	7127	7051
50°	8078	6920	6861
55°	7810	6696	6668
60°	7480	6465	6465
65°	7135	6192	6222
70°	6751	5899	5960
75°	6257	5612	5720
80°	5488	5319	5476
85°	4743	5064	5286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.1
10°-20°	164.8	3.0
20°-30°	249.7	4.6
30°-40°	304.2	5.6
40°-50°	327.2	6.0
50°-60°	317.8	5.9
60°-70°	277.5	5.1
70°-80°	213.6	3.9
80°-90°	147.4	2.7
90°-100°	277.4	5.1
100°-110°	678.4	12.5
110°-120°	691.7	12.7
120°-130°	556.8	10.3
130°-140°	436.9	8.1
140°-150°	323.7	6.0
150°-160°	226.1	4.2
160°-170°	133.1	2.5
170°-180°	43.3	0.8
0°-30°	472.0	8.7
0°-40°	776.1	14.3
0°-60°	1421.1	26.2
0°-90°	2059.6	37.9
90°-120°	1647.6	30.4
90°-150°	2965.0	54.6
90°-180°	3368.0	62.1
0°-180°	5427.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	608	605	600	605	605	58
15°	580	582	582	589	589	163
25°	527	534	541	552	555	242
35°	454	469	486	505	512	284
45°	373	397	427	453	463	288
55°	286	318	363	394	406	255
65°	195	239	290	325	338	194
75°	108	158	214	250	263	114
85°	32	86	142	178	192	34
90°	10	72	145	178	190	8
95°	37	123	438	260	243	37
105°	109	189	712	1243	1084	116
115°	188	248	586	1178	1363	186
125°	260	308	542	943	1095	231
135°	303	362	516	776	892	235
145°	345	397	504	630	694	217
155°	393	424	489	553	575	181
165°	428	441	468	497	504	121
175°	446	446	450	456	455	42
180°	447	447	447	447	447	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	610.0	609.5	609.1	608.6	608.1	607.3	606.2	605.1	604.1	603.0	603.7
5°	608.2	607.6	607.1	606.5	605.9	605.0	603.8	602.7	601.5	600.3	601.5
7.5°	602.8	602.4	602.0	601.6	601.2	600.5	599.7	598.7	597.9	597.0	598.4
10°	598.6	598.1	597.8	597.4	597.0	596.5	595.9	595.4	594.8	594.2	595.7
12.5°	591.5	591.6	591.7	591.8	591.9	591.7	591.2	590.8	590.4	590.0	591.5
15°	580.1	580.5	580.9	581.3	581.7	581.9	581.9	581.9	581.9	581.9	583.6
17.5°	565.3	566.2	567.0	567.8	568.6	569.4	570.0	570.6	571.2	571.9	573.7
20°	555.5	556.5	557.4	558.4	559.4	560.3	561.0	561.9	562.7	563.4	565.6
22.5°	544.9	546.0	547.3	548.4	549.5	550.6	551.7	552.8	553.9	555.0	557.2
25°	527.4	528.7	530.1	531.5	532.9	534.4	536.1	538.0	539.7	541.4	543.8
27.5°	506.3	508.5	510.7	513.0	515.2	517.4	519.4	521.5	523.6	525.6	528.6
30°	492.2	494.7	497.3	499.8	502.4	504.9	507.5	510.0	512.6	515.1	518.1
32.5°	476.7	479.6	482.4	485.3	488.2	491.1	494.1	497.1	500.1	503.1	506.7
35°	454.4	457.7	461.1	464.3	467.7	471.2	474.9	478.6	482.3	486.0	490.3
37.5°	430.2	434.0	437.8	441.6	445.5	449.8	454.6	459.4	464.2	469.0	473.8
40°	414.0	418.3	422.6	426.9	431.2	435.9	441.3	446.5	451.8	457.0	462.1
42.5°	398.6	402.8	407.1	411.4	415.7	420.9	427.0	433.0	439.0	445.1	450.6
45°	372.6	378.0	383.2	388.5	393.7	399.8	406.7	413.5	420.3	427.1	433.3
47.5°	347.2	352.9	358.7	364.4	370.1	377.0	385.0	393.0	401.1	409.1	415.4
50°	329.6	335.7	341.7	347.8	353.8	361.3	370.1	378.8	387.6	396.4	403.0
52.5°	312.7	319.1	325.5	331.8	338.2	346.0	355.2	364.5	373.8	383.1	389.9
55°	285.7	292.7	299.7	306.8	313.7	322.4	332.5	342.7	352.8	363.0	370.1
57.5°	258.9	266.9	274.8	282.8	290.7	299.8	310.1	320.5	330.9	341.2	348.8
60°	240.0	248.3	256.8	265.2	273.5	283.4	294.5	305.6	316.7	327.9	335.3
62.5°	223.1	231.8	240.5	249.2	258.0	267.9	279.0	290.1	301.3	312.4	320.3
65°	195.1	204.7	214.3	223.9	233.4	243.9	255.5	267.0	278.5	290.1	298.1
67.5°	169.4	179.4	189.5	199.5	209.5	220.3	232.1	243.9	255.7	267.5	275.6
70°	151.2	161.4	171.5	181.7	191.8	202.9	215.1	227.1	239.3	251.4	259.8
72.5°	134.3	144.7	155.2	165.7	176.2	187.5	199.8	212.1	224.4	236.6	244.9
75°	108.1	119.1	130.0	140.9	151.9	163.6	176.1	188.6	201.0	213.6	222.0
77.5°	82.8	94.3	105.7	117.1	128.5	140.7	153.3	166.1	178.7	191.4	199.8
80°	66.0	77.8	89.7	101.7	113.6	125.9	138.6	151.3	163.9	176.7	184.9
82.5°	51.8	63.6	75.3	87.1	98.9	111.2	124.1	136.9	149.7	162.6	170.8
85°	31.7	43.7	55.9	67.9	80.1	92.4	104.9	117.4	129.9	142.4	150.6
87.5°	17.4	29.5	41.8	53.9	65.9	78.4	91.8	105.5	119.1	131.7	139.5
90°	9.6	23.6	38.3	51.4	64.4	78.9	95.7	114.3	131.9	145.3	152.2
92.5°	18.6	33.8	50.5	64.8	81.2	100.6	132.0	171.4	207.8	221.4	211.7
95°	37.1	49.8	67.5	84.4	107.4	138.4	189.7	276.1	387.5	437.9	403.2
97.5°	55.1	67.9	85.2	105.0	129.1	162.1	223.0	338.5	515.4	668.6	704.0
100°	72.3	82.1	97.1	118.0	142.5	175.6	232.1	347.8	544.4	766.7	897.7
102.5°	87.4	95.9	110.3	130.6	155.1	187.8	240.5	344.2	526.8	765.3	966.9
105°	109.3	118.3	130.0	148.5	173.1	205.1	255.6	342.2	494.2	712.3	947.7
107.5°	133.8	141.1	151.4	167.8	191.1	222.5	271.4	347.8	474.8	656.3	864.8
110°	149.6	157.0	166.0	181.1	203.0	234.7	282.1	353.5	468.0	628.7	812.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	164.7	171.4	180.6	194.3	215.0	246.8	292.3	359.8	464.2	608.6	774.9
115°	188.3	194.7	202.0	214.5	233.8	262.5	308.2	369.5	461.6	585.5	727.1
117.5°	211.8	216.6	223.2	233.7	251.6	280.4	322.8	380.0	461.2	570.2	694.1
120°	226.9	231.1	237.0	245.6	263.6	291.9	333.2	387.4	461.4	561.2	675.8
122.5°	241.3	244.4	249.9	258.6	276.1	304.7	343.5	393.8	462.5	554.2	659.7
125°	259.6	262.1	267.3	277.6	294.8	321.9	359.1	404.1	463.6	542.0	635.8
127.5°	274.7	277.9	284.9	296.1	312.4	339.6	374.7	414.4	465.9	532.8	613.5
130°	283.6	286.9	295.2	307.1	324.1	350.1	384.3	421.0	468.1	527.2	598.9
132.5°	291.9	295.8	304.9	317.4	335.1	360.6	392.4	427.6	470.3	522.3	586.3
135°	303.3	306.8	317.1	330.0	349.7	374.8	404.2	436.3	472.6	515.8	568.9
137.5°	315.0	319.1	329.4	343.1	362.7	385.4	413.5	442.3	474.4	510.5	555.2
140°	324.0	327.2	337.3	350.9	369.6	392.0	418.2	445.2	474.8	507.0	547.1
142.5°	332.9	335.4	344.9	358.4	376.4	397.4	422.6	448.6	475.8	505.6	540.3
145°	345.4	348.9	357.5	370.4	387.5	406.5	429.6	453.7	477.8	503.5	532.2
147.5°	359.9	362.5	370.7	382.5	396.8	413.7	435.5	456.7	478.5	500.5	524.7
150°	369.5	372.0	378.9	390.1	403.0	418.4	438.2	458.0	477.8	498.4	519.0
152.5°	379.1	380.3	387.2	397.0	409.2	423.3	441.0	458.7	476.4	495.0	514.2
155°	392.7	393.6	398.7	408.2	417.6	430.5	445.1	459.7	474.3	489.0	505.2
157.5°	404.1	404.9	409.1	417.2	424.8	435.7	448.1	459.7	470.4	482.8	496.9
160°	411.6	412.5	415.9	422.8	429.6	439.1	449.4	459.7	468.3	478.6	490.7
162.5°	419.1	418.6	422.1	427.6	433.8	441.2	450.1	459.0	466.2	475.2	485.2
165°	427.9	427.1	428.8	433.9	438.2	443.4	451.2	457.2	462.3	468.3	476.0
167.5°	435.1	434.1	435.7	438.9	442.0	445.3	451.0	456.0	458.3	462.3	467.1
170°	440.0	438.2	439.1	441.7	443.4	446.0	450.3	454.6	456.3	458.8	462.3
172.5°	442.7	441.7	441.2	443.8	444.8	446.7	449.6	452.5	453.6	454.8	457.5
175°	446.0	445.1	444.3	446.0	446.0	446.9	448.6	450.3	449.4	450.3	451.2
177.5°	447.5	446.2	445.5	446.9	446.9	446.9	447.5	448.9	447.5	446.9	447.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	604.5	605.3	606.1	606.3	606.0	605.7	605.4	605.1
5°	602.7	603.8	605.0	605.5	605.3	605.1	604.9	604.7
7.5°	599.8	601.2	602.6	603.2	603.0	602.8	602.6	602.4
10°	597.3	598.8	600.5	601.1	600.9	600.7	600.5	600.3
12.5°	593.1	594.6	596.2	596.8	596.7	596.5	596.3	596.1
15°	585.4	587.1	588.9	589.7	589.5	589.3	589.1	588.9
17.5°	575.5	577.4	579.2	580.1	580.1	580.1	580.1	580.1
20°	567.7	569.9	572.0	573.1	573.1	573.1	573.1	573.1
22.5°	559.3	561.5	563.5	564.8	565.1	565.4	565.8	566.0
25°	546.1	548.5	550.8	552.2	552.8	553.5	554.1	554.7
27.5°	531.6	534.5	537.5	539.2	539.6	540.0	540.4	540.9
30°	521.3	524.4	527.5	529.4	530.0	530.6	531.2	531.8
32.5°	510.3	513.9	517.5	519.8	520.9	521.9	523.0	524.0
35°	494.6	498.9	503.3	506.1	507.5	508.9	510.1	511.5
37.5°	478.5	483.3	488.1	491.2	492.7	494.0	495.5	497.0
40°	467.2	472.3	477.3	480.8	482.5	484.3	486.0	487.8
42.5°	456.2	461.8	467.3	471.0	472.7	474.5	476.2	477.9
45°	439.3	445.3	451.4	455.4	457.4	459.3	461.2	463.2
47.5°	421.7	428.1	434.4	438.6	440.7	442.9	445.1	447.2
50°	409.7	416.3	423.0	427.4	429.6	431.7	433.8	435.9
52.5°	396.7	403.5	410.3	414.8	417.1	419.4	421.7	424.0
55°	377.0	384.1	391.2	395.9	398.5	401.0	403.6	406.0
57.5°	356.4	363.9	371.5	376.6	379.2	381.8	384.4	386.9
60°	342.7	350.1	357.6	362.7	365.3	368.1	370.8	373.6
62.5°	328.1	336.0	344.0	349.2	351.7	354.3	356.9	359.5
65°	306.1	314.1	322.1	327.4	329.9	332.4	335.0	337.5
67.5°	283.7	291.8	299.9	305.3	307.9	310.6	313.2	315.9
70°	268.2	276.6	285.0	290.3	292.7	295.1	297.4	299.7
72.5°	253.1	261.3	269.6	275.1	277.9	280.8	283.5	286.4
75°	230.4	238.8	247.2	252.6	255.2	257.7	260.3	262.8
77.5°	208.2	216.5	224.9	230.4	233.2	235.9	238.6	241.3
80°	193.0	201.3	209.5	215.0	217.7	220.4	223.2	225.9
82.5°	179.0	187.2	195.4	200.8	203.4	206.0	208.5	211.1
85°	158.8	167.0	175.2	180.6	183.4	186.1	188.9	191.6
87.5°	147.3	154.9	163.2	168.7	171.2	173.7	176.2	178.7
90°	159.1	165.2	174.8	180.7	183.0	185.4	187.7	190.1
92.5°	199.9	196.9	197.3	197.1	198.7	198.3	201.3	202.3
95°	341.0	296.1	267.4	253.4	244.5	240.0	239.8	243.0
97.5°	633.4	545.0	459.3	402.0	363.3	344.4	334.2	329.2
100°	886.9	787.6	677.1	577.8	508.6	473.8	451.0	437.7
102.5°	1051.5	1034.5	955.5	849.9	774.6	713.6	684.7	665.8
105°	1133.3	1237.3	1255.3	1231.4	1180.3	1129.1	1094.3	1084.4
107.5°	1060.9	1213.8	1309.7	1355.6	1364.5	1363.7	1358.5	1344.6
110°	1000.4	1160.5	1276.7	1351.3	1390.5	1408.9	1418.8	1420.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	944.6	1098.5	1222.3	1307.3	1360.8	1390.3	1407.0	1413.8
115°	874.8	1013.0	1131.4	1223.9	1287.1	1328.8	1353.2	1363.1
117.5°	820.4	942.3	1050.2	1137.0	1201.3	1245.0	1270.6	1279.1
120°	792.1	904.1	1000.7	1082.7	1145.0	1187.5	1214.6	1225.4
122.5°	769.0	871.9	963.5	1037.8	1093.6	1135.1	1159.1	1168.1
125°	734.8	828.5	909.4	977.4	1029.0	1063.4	1086.7	1095.3
127.5°	700.9	785.8	862.0	924.8	970.0	1002.3	1022.5	1029.8
130°	679.2	757.8	830.3	890.2	933.8	964.7	983.4	991.9
132.5°	658.1	731.1	798.1	854.4	897.3	928.1	945.5	953.2
135°	628.9	689.7	750.4	801.4	839.9	869.9	886.9	891.9
137.5°	604.3	655.4	704.0	748.4	783.4	809.1	824.1	830.5
140°	588.9	633.3	675.9	715.9	744.5	768.1	782.1	788.4
142.5°	576.6	614.2	650.7	684.1	711.2	732.5	745.0	747.1
145°	560.0	589.5	617.3	643.3	665.0	680.5	690.1	693.7
147.5°	547.5	570.0	591.0	609.5	627.0	639.1	645.4	647.5
150°	539.7	558.5	576.6	592.0	604.9	615.3	620.4	621.3
152.5°	532.1	549.6	564.9	578.3	588.4	597.4	601.2	601.3
155°	521.6	535.4	548.2	557.7	567.1	573.2	576.6	574.9
157.5°	509.4	520.9	531.8	539.2	545.8	550.8	552.3	552.3
160°	501.8	511.3	520.7	526.8	532.8	537.1	538.0	538.0
162.5°	494.3	502.3	510.4	515.1	521.1	524.0	524.9	524.2
165°	482.9	489.0	495.0	498.4	501.8	505.2	505.2	504.4
167.5°	472.1	476.7	480.9	484.0	485.5	487.4	487.2	486.2
170°	466.6	469.2	472.6	474.3	475.2	477.8	476.9	475.2
172.5°	460.4	462.3	465.0	466.1	466.9	468.1	467.3	466.2
175°	453.7	454.6	455.5	456.3	456.3	457.2	456.3	454.6
177.5°	448.9	448.9	449.6	449.6	449.6	449.6	448.9	447.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

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