

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: P332576-930

Luminaire Tested: **S124DIP-S575D1205U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332576-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D1205U930-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5441.0 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

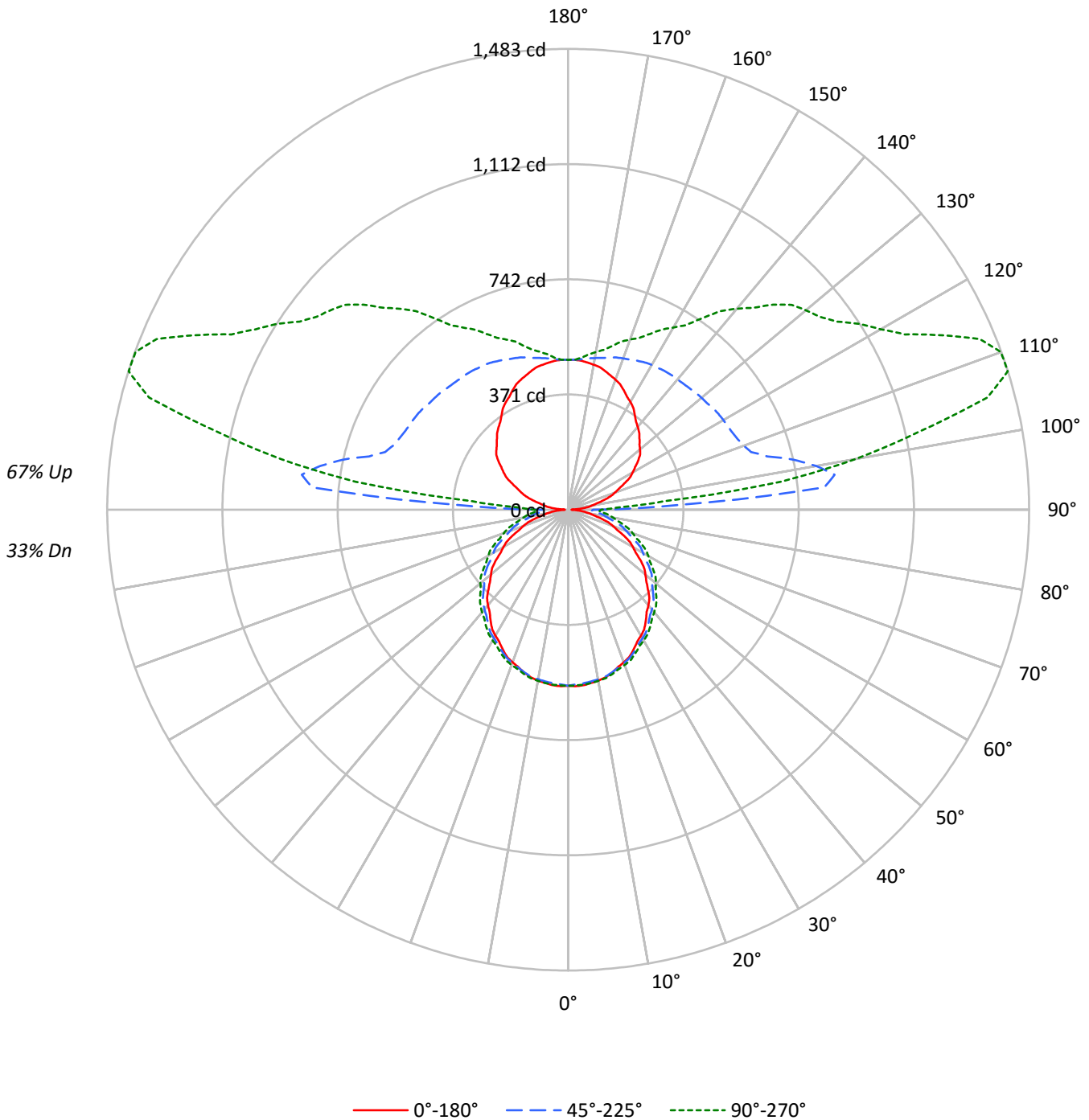
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40
1	93	89	85	81	84	80	77	73	64	61	59	48	47	45	35	34	33
2	85	77	71	66	76	70	64	60	55	52	48	42	40	37	30	28	27
3	77	67	60	54	69	61	55	49	48	44	40	37	34	31	26	24	23
4	70	59	52	46	63	54	47	42	43	38	34	33	29	27	23	21	19
5	64	53	45	39	58	48	41	35	38	33	29	29	26	23	21	19	17
6	59	47	39	33	53	43	36	31	34	29	25	26	23	20	19	16	15
7	55	42	34	29	49	38	32	27	31	26	22	24	20	17	17	15	13
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10
10	44	32	25	20	39	29	23	18	23	19	15	18	15	12	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.0
10°-20°	153.7	2.8
20°-30°	232.4	4.3
30°-40°	281.2	5.2
40°-50°	297.3	5.5
50°-60°	279.8	5.1
60°-70°	232.1	4.3
70°-80°	163.1	3.0
80°-90°	94.8	1.7
90°-100°	403.0	7.4
100°-110°	765.4	14.1
110°-120°	676.5	12.4
120°-130°	561.5	10.3
130°-140°	462.0	8.5
140°-150°	349.2	6.4
150°-160°	244.5	4.5
160°-170°	143.8	2.6
170°-180°	46.8	0.9
0°-30°	439.8	8.1
0°-40°	721.0	13.3
0°-60°	1298.1	23.9
0°-90°	1788.2	32.9
90°-120°	1844.9	33.9
90°-150°	3217.7	59.1
90°-180°	3653.0	67.1
0°-180°	5441.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	11	43	80	99	106	8
95°	40	128	827	454	309	42
105°	117	180	663	1395	1396	125
115°	199	255	584	1108	1328	198
125°	274	326	569	936	1055	244
135°	324	386	552	820	933	251
145°	373	426	544	682	752	234
155°	424	457	529	599	624	195
165°	461	476	507	537	545	130
175°	481	482	486	493	491	46
180°	482	482	482	482	482	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	19.0	25.1	31.4	37.3	43.3	49.2	56.6	62.8	69.3	75.8	79.7
90°	11.1	18.7	27.1	33.7	40.3	46.1	57.9	63.9	71.9	79.9	83.0
92.5°	20.5	30.4	44.4	61.1	80.0	105.3	159.4	239.0	316.7	360.3	314.1
95°	39.5	47.0	61.1	78.1	105.5	150.5	238.7	399.8	632.0	827.3	852.9
97.5°	63.6	67.6	79.7	95.1	118.6	156.9	226.0	360.0	590.8	864.5	1052.4
100°	79.0	82.7	92.9	107.9	129.6	164.5	225.9	338.5	537.3	809.9	1056.2
102.5°	94.2	98.9	107.9	121.8	142.3	175.4	231.3	330.8	500.8	743.0	996.8
105°	116.6	122.2	129.8	144.0	163.8	195.3	246.0	329.9	467.7	663.3	889.5
107.5°	142.6	146.8	153.8	168.3	186.9	217.6	264.2	340.8	459.0	617.3	802.4
110°	159.5	163.4	170.1	183.4	202.4	231.5	278.1	349.4	458.5	600.8	758.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	175.7	179.3	186.5	198.9	217.7	246.5	291.4	358.7	460.7	591.4	732.3
115°	198.9	203.1	211.0	221.7	241.0	269.5	311.9	373.2	465.9	584.0	706.5
117.5°	223.9	227.2	233.9	245.1	262.7	291.7	331.9	388.4	471.7	579.3	692.7
120°	240.0	242.3	249.4	260.2	276.8	305.6	345.6	399.0	476.1	576.7	684.7
122.5°	255.2	257.1	263.8	273.6	291.3	319.0	358.9	409.0	480.5	573.5	676.1
125°	274.4	278.1	283.6	293.9	311.8	340.0	377.6	424.7	488.0	569.2	662.8
127.5°	292.0	294.8	301.5	313.3	331.9	359.9	395.6	438.3	493.1	563.2	645.4
130°	301.3	304.9	312.3	326.4	344.3	372.8	407.3	446.5	497.1	559.9	634.5
132.5°	311.1	314.1	323.8	337.0	356.4	383.2	417.2	455.2	500.8	557.2	624.8
135°	324.3	328.1	337.6	353.7	373.6	398.7	431.0	466.0	505.9	552.4	609.5
137.5°	338.2	341.6	351.9	367.1	387.6	411.3	440.9	473.3	508.2	549.3	596.6
140°	348.0	350.7	361.0	377.0	396.7	419.5	448.0	478.5	510.8	547.0	589.5
142.5°	358.1	360.9	370.6	385.9	405.0	426.9	454.5	482.4	513.1	545.9	583.8
145°	372.9	375.7	385.0	398.1	416.0	436.8	461.4	487.0	514.5	543.8	574.9
147.5°	389.8	390.6	398.8	412.3	427.1	445.8	469.0	491.3	515.4	540.4	567.2
150°	400.4	401.2	408.7	419.9	434.0	451.9	472.7	493.6	515.4	538.1	561.8
152.5°	409.8	409.9	417.5	428.0	440.8	457.2	475.8	495.1	513.9	534.3	555.7
155°	423.5	424.4	430.1	439.6	450.0	464.2	480.3	496.4	511.6	528.6	546.7
157.5°	436.9	436.9	442.2	449.6	458.7	469.9	483.6	496.4	509.2	522.8	537.4
160°	445.2	445.2	449.1	455.7	463.3	473.7	485.0	496.4	506.9	518.2	530.5
162.5°	452.8	452.1	455.1	461.0	467.8	476.0	486.6	496.4	504.6	513.6	524.5
165°	461.4	461.4	463.3	468.0	472.7	478.4	487.0	494.6	500.2	506.9	514.5
167.5°	469.9	469.0	469.9	473.5	476.1	480.5	486.7	492.3	495.7	500.0	505.3
170°	473.7	472.7	473.7	476.5	478.4	481.3	486.0	490.7	492.6	495.5	499.3
172.5°	477.4	476.5	476.7	478.8	480.0	482.0	485.3	489.3	489.6	490.9	494.0
175°	481.3	480.3	480.3	481.3	482.2	482.2	484.1	487.0	486.0	486.0	487.9
177.5°	483.0	482.2	481.4	482.2	482.2	482.2	483.0	484.5	483.0	483.0	483.7
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	84.1	88.3	92.6	95.2	96.7	98.1	99.1	100.4
90°	88.1	93.1	98.1	100.7	102.8	104.8	105.0	106.2
92.5°	253.8	211.7	187.1	170.6	160.6	156.6	154.6	155.6
95°	764.8	621.7	498.6	409.3	364.1	336.1	320.2	309.2
97.5°	1095.8	1045.0	956.0	859.6	792.7	736.9	709.7	691.2
100°	1198.4	1221.2	1178.5	1110.8	1029.4	972.6	945.1	938.6
102.5°	1190.3	1288.0	1305.1	1278.3	1228.8	1188.1	1159.3	1154.3
105°	1109.9	1277.4	1374.8	1415.9	1418.9	1412.4	1400.4	1395.8
107.5°	998.0	1176.0	1311.5	1398.2	1446.1	1468.7	1479.2	1482.6
110°	930.3	1097.5	1238.1	1344.5	1412.9	1453.8	1471.9	1481.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	879.8	1027.9	1160.8	1267.1	1344.7	1393.9	1418.9	1433.9
115°	828.0	947.6	1061.6	1154.6	1230.4	1288.3	1319.6	1328.1
117.5°	800.4	899.8	989.9	1069.0	1134.0	1182.8	1214.7	1221.6
120°	787.0	877.9	956.6	1025.8	1080.9	1123.7	1149.5	1161.1
122.5°	775.3	863.2	935.1	995.9	1042.6	1079.2	1101.1	1112.6
125°	756.4	840.6	908.6	962.5	1001.2	1029.6	1048.4	1054.9
127.5°	733.4	813.8	881.5	932.7	971.8	997.1	1013.3	1019.9
130°	715.7	793.0	860.0	911.9	951.6	976.2	992.1	998.7
132.5°	697.5	770.2	835.5	887.4	926.3	953.9	969.1	975.7
135°	671.5	735.3	795.4	844.3	883.1	910.4	926.4	932.9
137.5°	648.2	702.5	753.2	797.4	833.6	860.4	873.6	881.1
140°	635.0	681.3	725.8	766.8	800.7	822.2	836.2	844.5
142.5°	622.9	663.7	701.9	737.4	767.4	787.3	799.6	805.6
145°	606.1	639.2	668.5	695.7	719.9	736.6	746.7	752.0
147.5°	592.3	618.0	640.9	662.0	679.9	694.1	701.8	704.0
150°	584.6	606.3	625.3	642.3	657.5	669.8	675.5	676.5
152.5°	576.2	594.9	612.4	626.4	639.3	649.3	652.7	653.7
155°	563.7	578.9	593.0	604.5	613.9	621.5	624.4	624.4
157.5°	550.2	563.0	574.9	584.0	591.2	596.9	598.6	598.6
160°	541.9	552.3	562.7	570.3	576.0	581.7	582.6	582.6
162.5°	533.5	542.5	550.7	557.4	561.6	567.3	568.3	567.4
165°	522.0	527.7	534.3	539.1	542.8	546.7	545.7	544.8
167.5°	510.9	515.2	520.5	523.3	525.2	527.7	527.5	526.8
170°	504.0	506.9	510.6	513.5	515.4	516.3	515.4	515.4
172.5°	497.9	500.0	502.3	504.3	505.5	506.5	505.5	504.0
175°	489.8	490.7	492.6	492.6	492.6	494.6	492.6	490.7
177.5°	484.5	485.3	485.3	486.0	485.3	486.0	484.5	483.0
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2

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