

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: P332567-930

Luminaire Tested: **S124DIP-S575D1035U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332567-930
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-S575D1035U930-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4946.6 lumens
Efficiency: N/A
Efficacy: 111.2 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

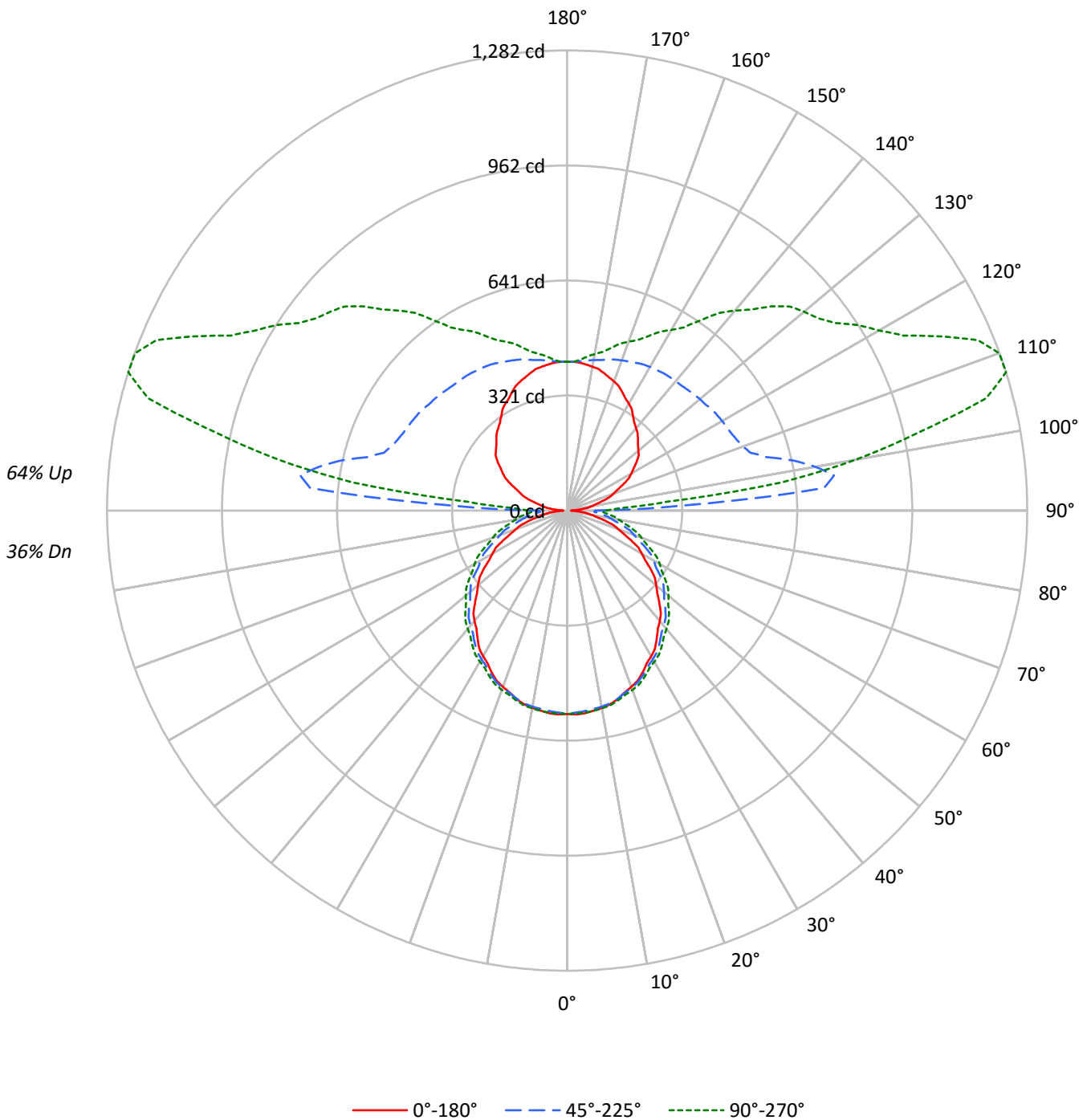
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	94	89	85	82	85	81	77	74	65	63	60	51	49	47	37	36	35	29
2	85	78	71	66	77	70	65	60	57	53	49	44	41	39	32	31	29	24
3	77	68	60	55	70	62	55	50	50	45	41	39	35	33	28	26	24	20
4	71	60	52	46	64	54	47	42	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	30	27	24	23	20	18	14
6	60	47	39	34	54	43	36	31	35	30	26	27	24	21	20	18	16	12
7	55	43	35	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12	10
9	47	35	28	23	43	32	25	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

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	1.1
10°-20°	153.7	3.1
20°-30°	232.4	4.7
30°-40°	281.2	5.7
40°-50°	297.3	6.0
50°-60°	279.8	5.7
60°-70°	232.1	4.7
70°-80°	163.1	3.3
80°-90°	94.5	1.9
90°-100°	354.0	7.2
100°-110°	663.3	13.4
110°-120°	585.0	11.8
120°-130°	484.6	9.8
130°-140°	397.9	8.0
140°-150°	300.2	6.1
150°-160°	210.1	4.2
160°-170°	123.6	2.5
170°-180°	40.2	0.8
0°-30°	439.8	8.9
0°-40°	721.0	14.6
0°-60°	1298.1	26.2
0°-90°	1787.8	36.1
90°-120°	1602.3	32.4
90°-150°	2784.9	56.3
90°-180°	3159.0	63.9
0°-180°	4946.6	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	42	78	97	103	8
95°	35	114	718	400	277	37
105°	101	157	576	1207	1208	108
115°	172	221	506	958	1148	170
125°	236	280	492	808	911	210
135°	279	332	475	707	804	216
145°	320	366	467	587	647	201
155°	364	393	454	514	536	168
165°	396	409	436	461	468	112
175°	413	414	418	423	422	39
180°	414	414	414	414	414	



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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°	18.9	25.0	31.2	37.2	43.1	49.1	56.2	62.4	68.9	75.4	79.3
90°	10.9	18.3	26.3	32.8	39.2	45.1	56.0	62.0	69.8	77.5	80.7
92.5°	18.9	28.2	40.9	55.9	72.9	95.4	142.8	212.1	279.6	318.0	278.8
95°	35.1	42.2	55.0	70.2	94.4	133.8	210.4	349.7	550.0	718.5	741.1
97.5°	55.7	59.7	70.7	84.5	105.3	138.8	199.0	315.0	514.0	749.9	911.8
100°	68.8	72.5	81.9	95.3	114.5	145.0	198.6	296.0	467.6	702.6	914.8
102.5°	81.9	86.3	94.7	107.0	125.0	154.0	202.9	289.2	435.9	644.7	863.3
105°	100.9	106.2	113.1	125.6	143.2	170.8	215.1	287.8	407.0	575.8	770.6
107.5°	123.3	127.2	133.6	146.3	162.7	189.6	230.3	296.8	399.0	535.7	695.2
110°	137.7	141.4	147.4	159.1	175.8	201.2	241.9	303.9	398.3	521.2	657.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	151.6	154.9	161.4	172.3	188.7	213.9	253.1	311.5	399.9	512.8	634.3
115°	171.5	175.2	182.1	191.6	208.3	233.2	270.2	323.6	403.8	506.0	611.6
117.5°	192.8	195.8	201.7	211.4	226.7	251.9	287.1	336.1	408.2	501.3	599.2
120°	206.7	208.7	214.8	224.2	238.5	263.5	298.6	345.0	411.7	498.8	592.0
122.5°	219.6	221.4	227.1	235.5	250.8	274.9	309.7	353.3	415.2	495.6	584.2
125°	236.1	239.2	244.0	252.8	268.2	292.6	325.5	366.4	421.2	491.5	572.3
127.5°	251.1	253.6	259.3	269.5	285.4	309.7	340.7	377.7	425.2	485.8	556.8
130°	259.1	262.2	268.6	280.6	296.0	320.7	350.6	384.6	428.4	482.7	547.1
132.5°	267.6	270.0	278.3	289.8	306.4	329.5	359.0	391.9	431.3	480.0	538.4
135°	278.8	282.1	290.2	304.0	321.1	342.8	370.6	401.0	435.3	475.3	524.8
137.5°	290.7	293.7	302.5	315.5	333.1	353.4	379.0	406.8	436.9	472.2	513.2
140°	299.1	301.5	310.3	324.0	341.0	360.4	385.0	411.2	439.0	470.1	507.0
142.5°	307.8	310.2	318.5	331.6	348.1	366.9	390.5	414.6	440.8	469.0	501.7
145°	320.5	322.8	330.8	342.0	357.3	375.2	396.4	418.3	442.0	467.2	494.1
147.5°	335.0	335.7	342.7	354.2	367.0	383.0	402.9	422.1	442.8	464.2	487.3
150°	344.1	344.8	351.1	360.8	372.8	388.2	406.2	424.0	442.8	462.3	482.7
152.5°	352.0	352.2	358.7	367.8	378.6	392.8	408.8	425.3	441.5	459.0	477.4
155°	363.8	364.6	369.5	377.6	386.6	398.8	412.6	426.5	439.5	454.2	469.6
157.5°	375.4	375.4	379.9	386.3	394.1	403.7	415.4	426.5	437.4	449.1	461.6
160°	382.5	382.5	385.8	391.5	398.0	407.0	416.7	426.5	435.5	445.2	455.8
162.5°	389.1	388.4	391.0	396.1	401.9	409.0	418.0	426.5	433.5	441.3	450.6
165°	396.4	396.4	398.0	402.1	406.2	411.0	418.3	424.9	429.7	435.5	442.0
167.5°	403.7	402.9	403.7	406.8	409.1	412.8	418.2	422.9	425.8	429.6	434.1
170°	407.0	406.2	407.0	409.4	411.0	413.4	417.5	421.6	423.2	425.7	428.9
172.5°	410.2	409.4	409.5	411.3	412.3	414.1	416.9	420.3	420.6	421.8	424.4
175°	413.4	412.6	412.6	413.4	414.3	414.3	415.9	418.3	417.5	417.5	419.1
177.5°	414.9	414.3	413.6	414.3	414.3	414.3	414.9	416.2	414.9	414.9	415.6
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3



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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°	83.6	87.8	92.0	94.7	96.1	97.5	98.7	99.9
90°	85.6	90.5	95.5	98.1	100.0	101.9	102.2	103.4
92.5°	227.6	192.0	171.4	157.7	149.2	145.9	144.3	145.4
95°	665.9	543.6	438.3	361.9	323.3	299.3	285.9	276.6
97.5°	949.7	906.5	830.6	748.1	690.9	643.1	619.9	604.2
100°	1037.4	1057.5	1021.4	963.6	893.7	845.1	821.7	816.1
102.5°	1030.1	1114.5	1129.8	1107.1	1064.8	1029.9	1005.3	1001.1
105°	960.5	1104.8	1189.0	1224.7	1227.4	1222.1	1211.8	1208.0
107.5°	863.8	1017.2	1134.1	1208.9	1250.2	1269.7	1278.9	1282.1
110°	805.3	949.3	1070.6	1162.3	1221.2	1256.5	1272.4	1280.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	761.5	889.2	1003.8	1095.4	1162.2	1204.7	1226.3	1239.3
115°	716.5	819.7	918.0	998.2	1063.5	1113.3	1140.4	1147.9
117.5°	692.1	778.0	855.7	924.0	980.0	1022.1	1049.6	1055.8
120°	680.3	758.8	826.7	886.5	934.0	970.9	993.2	1003.3
122.5°	669.9	745.8	807.9	860.4	900.7	932.3	951.2	961.2
125°	653.1	725.8	784.6	831.1	864.5	889.0	905.3	911.0
127.5°	632.8	702.1	760.7	804.9	838.6	860.5	874.6	880.4
130°	617.2	684.0	741.9	786.7	820.9	842.1	856.0	861.7
132.5°	601.2	664.1	720.6	765.3	798.8	822.6	835.8	841.6
135°	578.4	633.5	685.4	727.7	761.1	784.7	798.6	804.3
137.5°	557.9	604.8	648.7	686.8	718.0	741.1	752.6	759.1
140°	546.2	586.3	624.8	660.2	689.4	708.0	720.1	727.3
142.5°	535.6	571.0	604.0	634.6	660.5	677.7	688.4	693.5
145°	521.0	549.5	574.8	598.3	619.1	633.6	642.3	646.9
147.5°	508.9	531.0	550.7	568.8	584.2	596.6	603.2	605.2
150°	502.2	520.9	537.2	551.9	564.8	575.4	580.3	581.1
152.5°	495.0	511.1	526.1	538.2	549.3	557.8	560.8	561.6
155°	484.3	497.3	509.5	519.3	527.4	533.9	536.4	536.4
157.5°	472.7	483.6	493.9	501.7	507.8	512.7	514.2	514.2
160°	465.5	474.5	483.5	490.0	494.9	499.8	500.6	500.6
162.5°	458.4	466.0	473.0	478.9	482.5	487.4	488.2	487.5
165°	448.5	453.4	459.0	463.1	466.4	469.6	468.8	468.0
167.5°	438.9	442.6	447.2	449.6	451.3	453.4	453.2	452.6
170°	433.0	435.5	438.7	441.2	442.8	443.6	442.8	442.8
172.5°	427.8	429.6	431.5	433.3	434.3	435.1	434.3	433.0
175°	420.8	421.6	423.2	423.2	423.2	424.9	423.2	421.6
177.5°	416.2	416.9	416.9	417.5	416.9	417.5	416.2	414.9
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3

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