

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: P332567-927

Luminaire Tested: **S124DIP-S575D1035U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332567-927
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-S575D1035U927-4F0-1E-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: 4806.3 lumens
Efficiency: N/A
Efficacy: 108.0 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

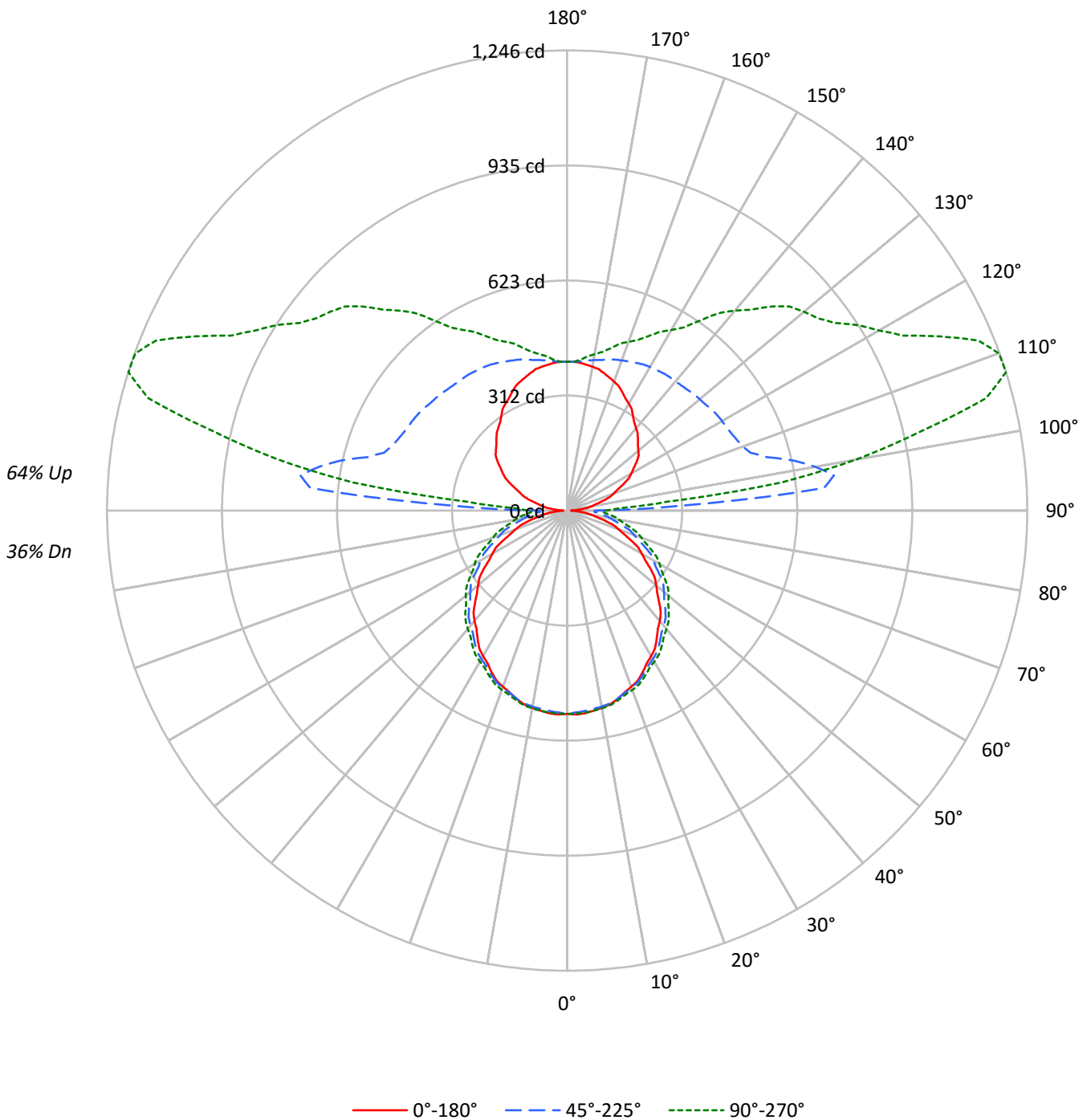
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.1
10°-20°	149.4	3.1
20°-30°	225.8	4.7
30°-40°	273.2	5.7
40°-50°	288.9	6.0
50°-60°	271.9	5.7
60°-70°	225.6	4.7
70°-80°	158.4	3.3
80°-90°	91.8	1.9
90°-100°	343.9	7.2
100°-110°	644.5	13.4
110°-120°	568.4	11.8
120°-130°	470.8	9.8
130°-140°	386.6	8.0
140°-150°	291.7	6.1
150°-160°	204.1	4.2
160°-170°	120.1	2.5
170°-180°	39.1	0.8
0°-30°	427.3	8.9
0°-40°	700.6	14.6
0°-60°	1261.3	26.2
0°-90°	1737.1	36.1
90°-120°	1556.8	32.4
90°-150°	2706.0	56.3
90°-180°	3069.0	63.9
0°-180°	4806.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	11	41	75	94	100	8
95°	34	111	698	389	269	36
105°	98	153	559	1173	1174	105
115°	167	214	492	931	1115	165
125°	229	272	478	785	885	204
135°	271	323	462	686	782	210
145°	311	356	454	570	629	195
155°	354	382	441	500	521	163
165°	385	397	423	448	455	109
175°	402	402	406	411	410	38
180°	402	402	402	402	402	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.4	24.3	30.3	36.1	41.9	47.7	54.6	60.6	66.9	73.3	77.1
90°	10.6	17.7	25.6	31.8	38.1	43.8	54.4	60.3	67.8	75.3	78.4
92.5°	18.4	27.4	39.8	54.3	70.8	92.7	138.8	206.0	271.7	309.0	270.8
95°	34.1	41.0	53.5	68.2	91.7	130.0	204.5	339.8	534.4	698.2	720.1
97.5°	54.1	58.0	68.7	82.1	102.3	134.8	193.4	306.0	499.5	728.6	886.0
100°	66.9	70.4	79.5	92.6	111.2	140.9	193.0	287.6	454.3	682.7	888.8
102.5°	79.5	83.9	92.0	103.9	121.4	149.6	197.2	281.0	423.5	626.5	838.8
105°	98.1	103.2	109.9	122.1	139.1	166.0	209.0	279.6	395.5	559.4	748.8
107.5°	119.8	123.6	129.8	142.2	158.0	184.2	223.8	288.4	387.7	520.5	675.5
110°	133.8	137.4	143.2	154.6	170.8	195.5	235.0	295.2	387.0	506.4	638.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	147.3	150.5	156.9	167.4	183.3	207.8	245.9	302.7	388.6	498.3	616.3
115°	166.6	170.2	177.0	186.2	202.4	226.6	262.5	314.4	392.4	491.6	594.3
117.5°	187.4	190.3	196.0	205.4	220.2	244.8	278.9	326.6	396.6	487.1	582.2
120°	200.8	202.8	208.7	217.9	231.7	256.0	290.1	335.2	400.1	484.7	575.2
122.5°	213.4	215.1	220.7	228.9	243.7	267.1	300.9	343.3	403.5	481.6	567.7
125°	229.4	232.4	237.1	245.7	260.5	284.3	316.2	356.0	409.2	477.5	556.0
127.5°	244.0	246.4	252.0	261.8	277.3	300.9	331.1	367.0	413.1	472.1	541.0
130°	251.8	254.8	260.9	272.7	287.6	311.6	340.6	373.7	416.2	469.0	531.6
132.5°	260.0	262.4	270.5	281.5	297.7	320.2	348.8	380.8	419.1	466.4	523.2
135°	270.9	274.1	282.0	295.4	312.0	333.1	360.1	389.6	422.9	461.8	509.9
137.5°	282.5	285.3	293.9	306.6	323.7	343.4	368.3	395.3	424.5	458.8	498.7
140°	290.7	292.9	301.5	314.8	331.3	350.2	374.1	399.6	426.6	456.8	492.6
142.5°	299.0	301.4	309.4	322.2	338.2	356.5	379.5	402.8	428.3	455.7	487.5
145°	311.4	313.6	321.4	332.3	347.2	364.6	385.2	406.5	429.4	453.9	480.1
147.5°	325.5	326.1	333.0	344.2	356.6	372.2	391.5	410.1	430.2	451.1	473.5
150°	334.4	335.0	341.2	350.5	362.3	377.2	394.7	412.0	430.2	449.2	469.0
152.5°	342.1	342.2	348.5	357.4	367.9	381.7	397.2	413.3	429.0	446.0	463.9
155°	353.5	354.3	359.0	366.9	375.7	387.5	400.9	414.4	427.1	441.3	456.3
157.5°	364.7	364.7	369.2	375.3	382.9	392.3	403.6	414.4	425.0	436.4	448.5
160°	371.7	371.7	374.9	380.4	386.7	395.5	404.9	414.4	423.1	432.6	442.9
162.5°	378.0	377.4	379.9	384.8	390.5	397.4	406.2	414.4	421.2	428.8	437.8
165°	385.2	385.2	386.7	390.7	394.7	399.3	406.5	412.8	417.6	423.1	429.4
167.5°	392.3	391.5	392.3	395.3	397.5	401.1	406.3	410.9	413.8	417.4	421.8
170°	395.5	394.7	395.5	397.8	399.3	401.7	405.7	409.6	411.2	413.6	416.8
172.5°	398.5	397.8	397.9	399.7	400.6	402.3	405.0	408.4	408.7	409.8	412.3
175°	401.7	400.9	400.9	401.7	402.5	402.5	404.1	406.5	405.7	405.7	407.3
177.5°	403.1	402.5	401.9	402.5	402.5	402.5	403.1	404.4	403.1	403.1	403.8
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	81.2	85.3	89.4	92.1	93.4	94.7	95.9	97.0
90°	83.2	87.9	92.8	95.3	97.1	99.0	99.3	100.4
92.5°	221.1	186.6	166.5	153.2	145.0	141.8	140.2	141.2
95°	647.1	528.1	425.9	351.6	314.1	290.8	277.8	268.8
97.5°	922.8	880.8	807.1	726.9	671.3	624.9	602.3	587.1
100°	1008.0	1027.5	992.4	936.3	868.4	821.2	798.4	793.0
102.5°	1000.9	1082.9	1097.7	1075.7	1034.6	1000.7	976.8	972.7
105°	933.3	1073.5	1155.2	1189.9	1192.6	1187.4	1177.4	1173.8
107.5°	839.3	988.3	1101.9	1174.6	1214.7	1233.7	1242.6	1245.7
110°	782.4	922.4	1040.2	1129.3	1186.6	1220.9	1236.3	1244.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	739.9	864.0	975.3	1064.4	1129.3	1170.5	1191.5	1204.2
115°	696.2	796.5	892.0	969.9	1033.3	1081.7	1108.0	1115.3
117.5°	672.5	755.9	831.5	897.8	952.2	993.2	1019.9	1025.9
120°	661.0	737.3	803.3	861.3	907.5	943.4	965.0	974.9
122.5°	650.9	724.7	785.0	836.0	875.1	905.9	924.2	933.9
125°	634.6	705.2	762.4	807.6	840.0	863.8	879.6	885.2
127.5°	614.8	682.2	739.1	782.1	814.8	836.1	849.8	855.5
130°	599.7	664.6	720.9	764.4	797.6	818.2	831.7	837.3
132.5°	584.2	645.2	700.1	743.6	776.2	799.3	812.1	817.8
135°	562.0	615.5	666.0	707.0	739.5	762.5	775.9	781.5
137.5°	542.1	587.6	630.3	667.3	697.6	720.1	731.3	737.6
140°	530.7	569.7	607.0	641.5	669.9	687.9	699.7	706.7
142.5°	520.4	554.8	586.8	616.6	641.7	658.5	668.8	673.8
145°	506.2	533.9	558.5	581.3	601.6	615.6	624.1	628.6
147.5°	494.5	515.9	535.0	552.7	567.7	579.7	586.1	588.0
150°	488.0	506.1	522.0	536.2	548.8	559.1	563.9	564.7
152.5°	481.0	496.6	511.2	522.9	533.7	542.0	544.9	545.7
155°	470.6	483.2	495.0	504.5	512.5	518.8	521.2	521.2
157.5°	459.3	469.9	479.9	487.5	493.5	498.2	499.6	499.6
160°	452.3	461.1	469.8	476.1	480.9	485.6	486.4	486.4
162.5°	445.4	452.8	459.6	465.3	468.8	473.6	474.4	473.7
165°	435.8	440.5	446.0	450.0	453.1	456.3	455.5	454.7
167.5°	426.4	430.1	434.5	436.9	438.5	440.5	440.4	439.7
170°	420.7	423.1	426.3	428.6	430.2	431.0	430.2	430.2
172.5°	415.7	417.4	419.3	421.0	422.0	422.8	422.0	420.7
175°	408.8	409.6	411.2	411.2	411.2	412.8	411.2	409.6
177.5°	404.4	405.0	405.0	405.7	405.0	405.7	404.4	403.1
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5

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