

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: P332558-927

Luminaire Tested: **S124DIP-S575D810U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332558-927
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-S575D810U927-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4171.3 lumens
Efficiency: N/A
Efficacy: 108.6 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: General Diffuse

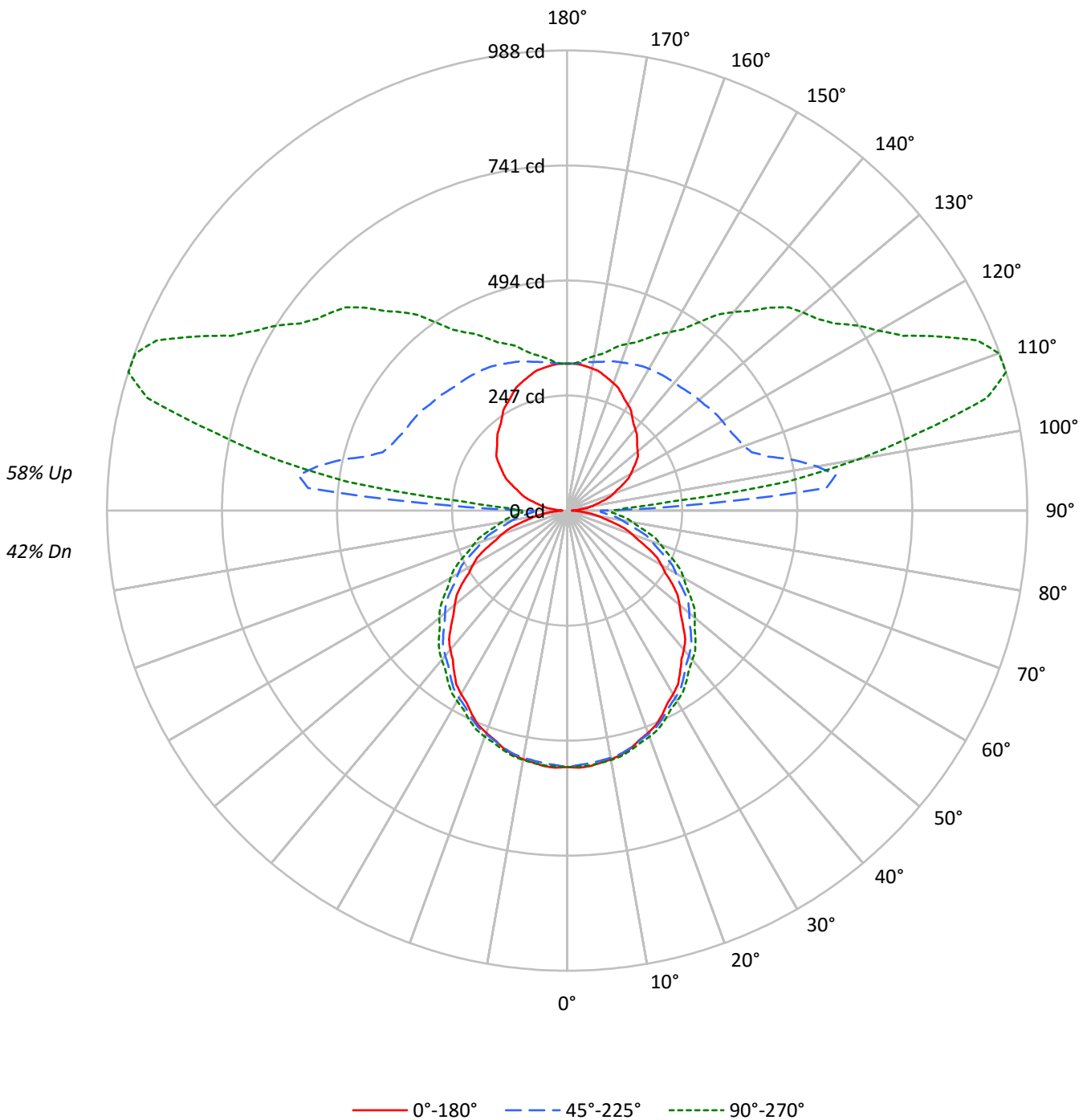
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332558-927

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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	50	30	10	50	30	10	0		
RCR																										
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	42					42			
1	95	90	86	83	86	82	79	76	68	65	63	54	52	51	41	40	39	33					33			
2	86	78	72	67	78	72	66	61	59	55	51	47	44	42	36	34	32	27					27			
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	29	27	23					23			
4	72	60	52	46	65	55	48	43	46	40	36	36	33	29	28	25	23	19					19			
5	66	54	45	39	59	49	42	36	41	35	31	33	29	25	25	22	20	16					16			
6	60	48	40	34	55	44	37	31	36	31	27	29	25	22	23	20	17	14					14			
7	56	43	35	30	50	40	33	27	33	27	23	27	22	19	21	18	15	13					13			
8	52	39	31	26	47	36	29	24	30	24	21	24	20	17	19	16	14	11					11			
9	48	36	28	23	44	33	26	21	27	22	18	22	18	15	17	14	12	10					10			
10	45	33	25	21	41	30	24	19	25	20	16	21	17	14	16	13	11	9					9			

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	1.2
10°-20°	149.4	3.6
20°-30°	225.8	5.4
30°-40°	273.2	6.6
40°-50°	288.9	6.9
50°-60°	271.9	6.5
60°-70°	225.6	5.4
70°-80°	158.4	3.8
80°-90°	91.3	2.2
90°-100°	280.9	6.7
100°-110°	513.3	12.3
110°-120°	450.9	10.8
120°-130°	372.0	8.9
130°-140°	304.2	7.3
140°-150°	228.8	5.5
150°-160°	159.9	3.8
160°-170°	94.0	2.3
170°-180°	30.6	0.7
0°-30°	427.3	10.2
0°-40°	700.6	16.8
0°-60°	1261.3	30.2
0°-90°	1736.6	41.6
90°-120°	1245.2	29.9
90°-150°	2150.2	51.5
90°-180°	2435.0	58.4
0°-180°	4171.3	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°	10	40	72	91	97	8
95°	28	93	558	320	227	29
105°	78	123	447	930	933	84
115°	131	170	391	738	884	130
125°	180	214	378	621	700	161
135°	212	253	363	541	616	164
145°	244	279	356	447	494	153
155°	277	299	346	392	408	128
165°	302	311	331	351	356	85
175°	315	315	318	322	321	30
180°	315	315	315	315	315	



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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	24.2	30.2	35.9	41.6	47.4	54.1	60.1	66.4	72.6	76.4
90°	10.5	17.2	24.6	30.7	36.8	42.5	52.0	57.9	65.0	72.2	75.5
92.5°	16.4	24.6	35.3	47.8	61.8	80.1	117.5	171.4	224.1	254.5	225.6
95°	28.4	34.9	45.6	58.1	77.5	108.6	168.1	275.3	429.0	558.5	576.4
97.5°	44.0	47.8	57.0	68.4	85.0	111.5	158.6	248.0	400.8	581.5	705.5
100°	53.9	57.4	65.4	76.3	91.7	115.9	157.8	233.1	364.9	544.9	707.1
102.5°	63.8	67.9	74.9	84.9	99.3	122.3	160.7	227.4	340.2	500.3	667.4
105°	78.0	82.6	88.5	98.6	112.5	134.4	169.2	225.7	317.4	447.0	596.0
107.5°	95.0	98.5	103.9	114.0	126.9	148.1	180.2	231.8	310.7	415.7	537.9
110°	105.9	109.1	114.1	123.4	136.5	156.5	188.6	236.8	309.7	404.3	508.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	116.3	119.2	124.5	133.2	146.0	165.9	196.7	242.2	310.5	397.4	490.5
115°	131.3	134.4	140.0	147.4	160.4	179.9	209.1	250.6	312.6	391.3	472.4
117.5°	147.5	150.0	154.6	162.2	173.9	193.7	221.3	259.5	315.3	387.0	462.1
120°	158.0	159.6	164.3	171.6	182.5	202.0	229.6	265.7	317.4	384.5	456.1
122.5°	167.9	169.1	173.6	180.0	191.6	210.3	237.7	271.6	319.6	381.6	449.6
125°	180.2	182.6	186.2	192.8	204.5	223.5	249.2	281.1	323.5	377.8	439.8
127.5°	191.6	193.5	197.8	205.5	217.6	236.3	260.5	289.3	326.0	372.7	427.2
130°	197.6	199.9	204.8	213.9	225.5	244.5	267.8	294.1	327.9	369.7	419.3
132.5°	204.1	205.9	212.1	220.9	233.5	251.3	274.1	299.4	329.9	367.3	412.3
135°	212.5	214.9	221.1	231.6	244.7	261.3	282.7	305.9	332.2	363.0	401.1
137.5°	221.5	223.7	230.4	240.3	253.7	269.2	288.8	310.0	333.0	360.0	391.6
140°	227.9	229.7	236.3	246.8	259.6	274.5	293.2	313.1	334.4	358.0	386.4
142.5°	234.4	236.2	242.5	252.5	265.0	279.3	297.3	315.6	335.6	357.0	382.2
145°	244.1	245.7	251.8	260.4	272.0	285.6	301.7	318.4	336.4	355.5	376.2
147.5°	255.1	255.6	260.9	269.7	279.3	291.5	306.7	321.2	337.0	353.3	370.9
150°	262.0	262.5	267.3	274.6	283.8	295.5	309.1	322.7	337.0	351.8	367.3
152.5°	268.0	268.1	273.0	279.9	288.2	299.0	311.1	323.7	336.0	349.4	363.4
155°	276.9	277.5	281.2	287.4	294.2	303.5	314.0	324.6	334.5	345.6	357.4
157.5°	285.7	285.7	289.1	294.0	299.9	307.2	316.2	324.6	332.9	341.8	351.3
160°	291.1	291.1	293.6	297.9	302.9	309.7	317.1	324.6	331.4	338.8	346.9
162.5°	296.1	295.6	297.5	301.4	305.9	311.2	318.1	324.6	329.9	335.9	342.9
165°	301.7	301.7	302.9	306.0	309.1	312.8	318.4	323.4	327.1	331.4	336.4
167.5°	307.2	306.7	307.2	309.6	311.3	314.2	318.3	321.9	324.1	326.9	330.4
170°	309.7	309.1	309.7	311.6	312.8	314.7	317.7	320.8	322.1	323.9	326.5
172.5°	312.2	311.6	311.7	313.1	313.8	315.1	317.3	319.9	320.1	321.0	323.0
175°	314.7	314.0	314.0	314.7	315.3	315.3	316.6	318.4	317.7	317.7	319.0
177.5°	315.8	315.3	314.8	315.3	315.3	315.3	315.8	316.8	315.8	315.8	316.2
180°	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3



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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°	80.6	84.7	88.8	91.3	92.7	94.0	95.1	96.3
90°	80.1	84.7	89.3	91.8	93.6	95.3	95.8	96.8
92.5°	187.4	161.2	146.4	136.5	130.2	128.0	127.0	128.1
95°	520.0	427.7	348.4	290.8	261.7	243.7	233.8	227.0
97.5°	735.1	703.1	646.0	583.8	540.5	504.4	487.0	475.2
100°	801.3	817.4	790.7	747.2	694.3	657.4	639.8	635.8
102.5°	795.1	860.2	872.5	855.8	823.8	797.5	779.0	776.1
105°	741.3	851.9	916.6	944.3	946.6	942.8	935.2	932.6
107.5°	666.9	784.3	874.0	931.4	963.1	978.2	985.4	987.9
110°	621.9	732.1	825.1	895.4	940.5	967.6	979.9	986.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	588.0	685.7	773.6	843.8	894.8	927.4	944.1	954.3
115°	552.9	632.1	707.5	769.0	818.9	857.0	877.8	883.7
117.5°	533.5	599.4	659.2	711.6	754.4	786.7	807.9	812.9
120°	523.8	584.2	636.4	682.4	718.7	747.1	764.3	772.2
122.5°	515.4	573.8	621.6	662.0	692.8	717.2	731.7	739.5
125°	501.9	557.8	603.1	638.9	664.5	683.3	695.9	700.4
127.5°	485.5	538.9	584.0	618.1	643.9	660.8	671.6	676.3
130°	473.2	524.6	569.2	603.6	629.9	646.2	656.9	661.4
132.5°	460.6	508.9	552.4	586.8	612.5	630.8	641.0	645.5
135°	442.3	484.7	524.7	557.2	582.8	600.9	611.7	616.2
137.5°	426.0	462.2	496.0	525.3	549.1	567.0	575.8	581.0
140°	416.7	447.6	477.3	504.5	526.9	541.2	550.6	556.2
142.5°	408.4	435.5	461.1	484.7	504.4	517.6	525.9	530.0
145°	396.8	418.7	438.2	456.1	472.2	483.2	490.0	493.7
147.5°	387.4	404.2	419.1	433.1	444.9	454.4	459.5	461.1
150°	382.1	396.4	408.8	419.9	429.9	437.9	441.6	442.3
152.5°	376.8	389.0	400.4	409.6	418.0	424.5	426.7	427.4
155°	368.5	378.5	387.8	395.2	401.4	406.3	408.2	408.2
157.5°	359.7	368.0	375.9	381.8	386.5	390.2	391.3	391.3
160°	354.3	361.2	368.0	372.9	376.6	380.3	381.0	381.0
162.5°	348.9	354.7	360.0	364.5	367.2	370.9	371.5	371.1
165°	341.3	345.0	349.4	352.4	354.9	357.4	356.8	356.2
167.5°	334.0	336.8	340.3	342.1	343.4	345.0	344.9	344.4
170°	329.5	331.4	333.9	335.7	337.0	337.5	337.0	337.0
172.5°	325.6	326.9	328.4	329.8	330.5	331.1	330.5	329.5
175°	320.3	320.8	322.1	322.1	322.1	323.4	322.1	320.8
177.5°	316.8	317.3	317.3	317.7	317.3	317.7	316.8	315.8
180°	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3

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