

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: P332583-840

Luminaire Tested: **S124DIP-S795D365U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332583-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D365U840-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4747.3 lumens
Efficiency: N/A
Efficacy: 135.6 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: Semi-Direct

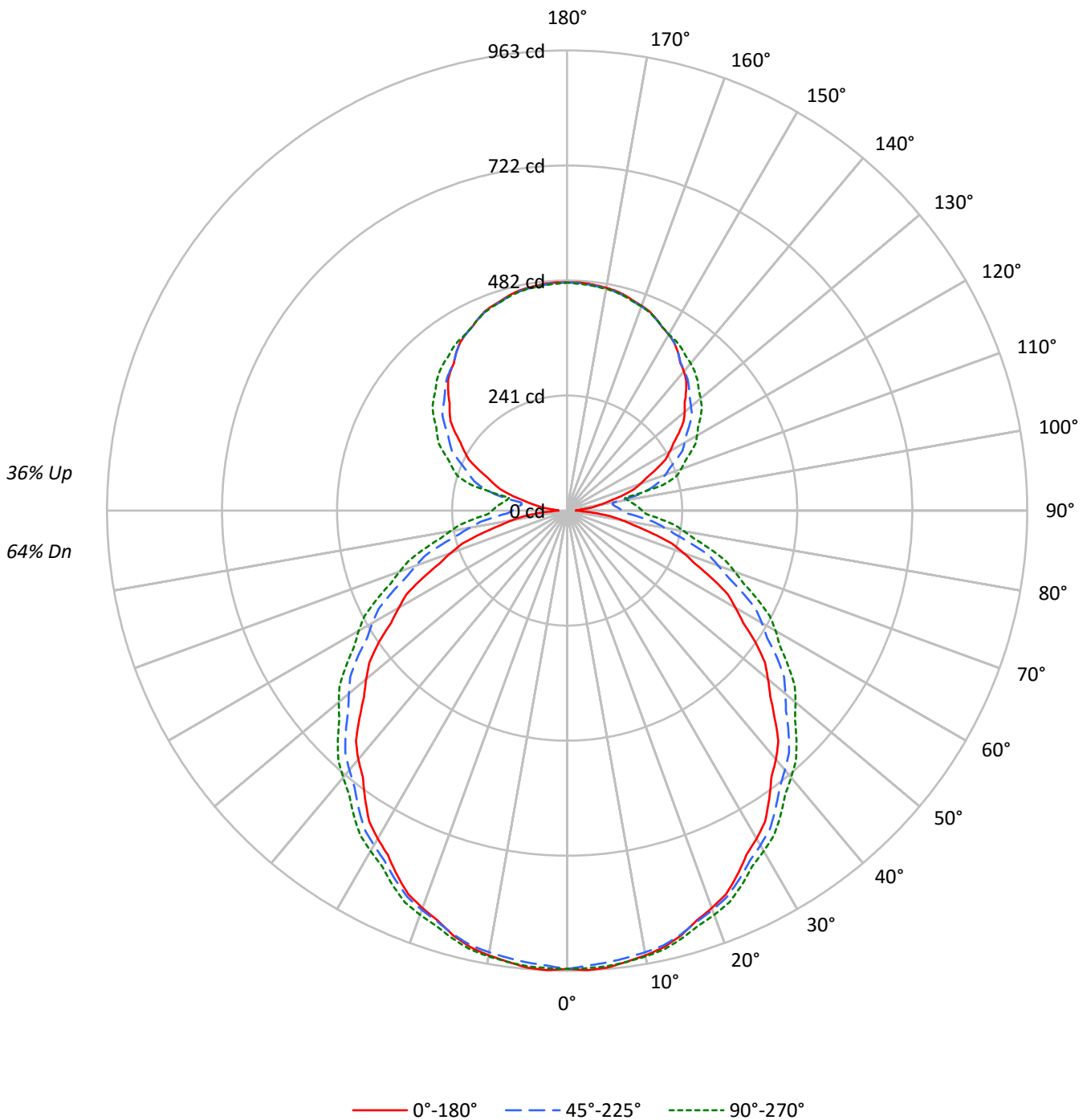
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332583-840

CATALOG NUMBER: S124DIP-S795D365U840-4F0-1E-UDD-D

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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	100	95	90	86	93	89	85	81	78	75	72	68	66	64	59	57	55	51
2	90	82	75	69	84	77	71	66	68	63	59	59	55	52	51	48	46	42
3	82	72	64	57	76	67	60	54	59	53	49	52	47	43	45	41	38	35
4	75	63	55	48	70	59	52	46	52	46	41	46	41	37	40	36	33	29
5	69	56	47	41	64	53	45	39	47	40	35	41	36	32	36	31	28	25
6	63	50	42	35	59	47	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	54	43	35	30	38	32	27	34	28	24	29	25	22	19
8	54	41	33	27	51	39	31	26	35	28	24	31	25	22	27	23	19	17
9	50	38	30	24	47	36	28	23	32	26	21	28	23	19	25	21	18	15
10	47	34	27	22	44	33	26	21	29	23	19	26	21	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.9
10°-20°	260.3	5.5
20°-30°	393.5	8.3
30°-40°	476.1	10.0
40°-50°	503.4	10.6
50°-60°	473.7	10.0
60°-70°	393.1	8.3
70°-80°	276.1	5.8
80°-90°	157.5	3.3
90°-100°	109.0	2.3
100°-110°	172.7	3.6
110°-120°	245.1	5.2
120°-130°	278.7	5.9
130°-140°	281.6	5.9
140°-150°	255.1	5.4
150°-160°	203.9	4.3
160°-170°	131.5	2.8
170°-180°	45.3	1.0
0°-30°	744.6	15.7
0°-40°	1220.8	25.7
0°-60°	2197.9	46.3
0°-90°	3024.5	63.7
90°-120°	526.8	11.1
90°-150°	1342.1	28.3
90°-180°	1723.0	36.3
0°-180°	4747.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	18	65	114	146	157	12
95°	34	58	101	131	142	36
105°	117	142	182	210	208	123
115°	207	219	252	275	284	204
125°	286	288	313	333	341	256
135°	352	352	360	378	386	271
145°	404	404	404	411	416	253
155°	442	442	442	443	442	204
165°	466	465	465	467	464	132
175°	477	475	475	478	474	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.0	41.9	51.8	61.7	71.7	81.9	92.5	103.1	113.6	124.2	131.3
90°	18.3	28.7	39.1	49.5	60.0	70.6	81.5	92.4	103.3	114.2	121.6
92.5°	20.8	29.5	38.1	46.8	55.3	65.1	76.0	86.9	97.9	108.8	115.9
95°	33.6	38.8	43.9	49.2	54.3	61.8	71.7	81.6	91.4	101.3	108.3
97.5°	54.3	62.8	71.3	79.8	88.2	92.8	93.7	94.5	95.3	96.2	102.5
100°	70.4	78.0	85.6	93.2	100.9	103.9	102.2	100.6	99.0	97.4	102.4
102.5°	89.2	95.6	102.2	108.7	115.1	122.2	130.0	137.6	145.3	153.0	144.7
105°	117.1	122.3	127.5	132.8	138.0	145.3	154.6	163.8	173.0	182.3	188.9
107.5°	144.8	149.0	153.1	157.2	161.4	167.9	176.8	185.7	194.6	203.5	209.7
110°	162.8	166.3	170.0	173.5	177.1	183.3	192.2	201.0	209.7	218.6	224.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.2	183.6	186.9	190.4	193.7	199.5	207.7	215.9	224.1	232.3	237.6
115°	207.0	209.4	211.8	214.2	216.6	221.6	229.1	236.6	244.2	251.8	257.2
117.5°	232.2	233.8	235.4	237.0	238.5	243.0	250.3	257.6	264.9	272.2	277.1
120°	248.4	249.4	250.4	251.6	252.6	256.5	263.4	270.1	277.0	283.9	288.8
122.5°	264.4	264.8	265.1	265.4	265.7	269.2	275.9	282.6	289.2	295.9	300.7
125°	286.3	286.3	286.4	286.5	286.6	289.5	295.3	301.1	306.9	312.8	317.5
127.5°	307.7	307.6	307.4	307.3	307.1	309.5	314.5	319.4	324.4	329.3	333.6
130°	320.8	320.7	320.5	320.4	320.2	322.1	326.2	330.3	334.4	338.4	342.7
132.5°	333.8	333.7	333.6	333.5	333.4	335.0	338.3	341.6	345.1	348.4	352.5
135°	351.9	351.8	351.7	351.6	351.6	352.5	354.6	356.5	358.5	360.5	364.5
137.5°	369.0	368.8	368.6	368.4	368.1	368.6	369.8	370.9	372.1	373.2	376.9
140°	380.1	380.0	379.9	379.9	379.8	379.9	380.3	380.7	381.1	381.5	384.9
142.5°	389.2	389.5	389.7	389.9	390.2	390.3	390.2	390.2	390.1	390.1	392.9
145°	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	405.9
147.5°	416.6	416.8	417.0	417.2	417.4	417.5	417.4	417.3	417.2	417.2	417.4
150°	425.5	425.5	425.6	425.7	425.8	425.8	425.7	425.6	425.5	425.5	425.5
152.5°	432.0	432.2	432.4	432.6	432.8	432.8	432.7	432.5	432.4	432.3	432.4
155°	442.2	442.3	442.3	442.4	442.5	442.4	442.2	441.9	441.7	441.5	441.8
157.5°	451.0	450.9	450.9	450.8	450.8	450.6	450.4	450.1	449.8	449.6	450.0
160°	456.2	455.9	455.7	455.4	455.1	455.0	454.9	454.8	454.7	454.6	455.1
162.5°	460.7	460.4	460.1	459.8	459.5	459.3	459.2	459.1	459.1	459.0	459.5
165°	466.5	466.1	465.6	465.2	464.8	464.6	464.6	464.6	464.6	464.6	465.3
167.5°	471.0	470.6	470.2	469.8	469.4	469.2	469.1	469.1	469.0	469.0	469.7
170°	473.6	473.1	472.6	472.2	471.7	471.5	471.6	471.7	471.7	471.8	472.4
172.5°	475.3	474.8	474.3	473.9	473.4	473.2	473.3	473.4	473.4	473.5	474.1
175°	477.2	476.7	476.3	475.7	475.2	475.0	475.1	475.2	475.3	475.3	476.2
177.5°	478.1	477.6	477.2	476.7	476.3	476.1	476.3	476.4	476.5	476.6	477.2
180°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	138.3	145.3	152.3	156.9	159.1	161.2	163.3	165.4
90°	129.0	136.4	143.8	148.6	150.6	152.7	154.7	156.8
92.5°	123.2	130.4	137.5	142.2	144.1	146.0	147.9	150.0
95°	115.1	122.1	129.0	133.6	135.8	138.0	140.3	142.5
97.5°	108.9	115.1	121.4	125.6	127.7	129.9	132.0	134.2
100°	107.6	112.6	117.8	121.2	122.9	124.6	126.4	128.2
102.5°	136.4	128.2	119.9	116.6	118.5	120.4	122.3	124.1
105°	195.6	202.3	208.9	211.9	210.9	210.0	209.0	208.0
107.5°	215.9	222.2	228.4	232.5	234.5	236.5	238.5	240.5
110°	229.9	235.6	241.3	245.1	247.2	249.4	251.6	253.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	242.9	248.1	253.4	257.1	259.3	261.6	263.8	266.0
115°	262.6	268.0	273.4	277.0	278.6	280.3	282.0	283.7
117.5°	282.1	287.0	292.0	295.3	297.2	299.0	300.9	302.9
120°	293.8	298.6	303.6	306.9	308.7	310.4	312.1	314.0
122.5°	305.6	310.4	315.3	318.5	320.1	321.6	323.3	324.8
125°	322.2	327.1	331.8	335.0	336.5	338.0	339.5	341.0
127.5°	337.8	342.0	346.3	349.2	350.7	352.3	353.9	355.4
130°	347.2	351.5	355.9	358.8	360.2	361.6	363.1	364.6
132.5°	356.8	360.9	365.2	367.9	369.3	370.6	372.0	373.3
135°	368.5	372.4	376.4	379.2	380.8	382.3	384.0	385.6
137.5°	380.6	384.3	387.9	390.3	391.4	392.6	393.7	394.9
140°	388.2	391.5	394.9	397.2	398.5	399.7	401.0	402.3
142.5°	395.9	398.8	401.7	403.6	404.7	405.7	406.7	407.7
145°	407.4	408.9	410.4	411.7	412.8	413.9	415.1	416.2
147.5°	417.7	417.9	418.2	418.7	419.6	420.4	421.2	422.1
150°	425.5	425.5	425.5	425.5	425.6	425.7	425.7	425.8
152.5°	432.5	432.6	432.8	432.8	432.7	432.7	432.7	432.6
155°	442.1	442.4	442.7	442.8	442.5	442.3	442.1	441.8
157.5°	450.4	450.8	451.2	451.2	450.8	450.4	450.0	449.6
160°	455.7	456.2	456.6	456.6	456.2	455.7	455.1	454.6
162.5°	459.9	460.4	460.9	460.8	460.3	459.8	459.2	458.7
165°	466.0	466.6	467.3	467.2	466.5	465.7	465.0	464.3
167.5°	470.4	471.1	471.7	471.7	470.9	470.1	469.3	468.6
170°	473.1	473.7	474.3	474.2	473.5	472.7	471.9	471.1
172.5°	474.8	475.4	476.1	475.9	475.1	474.2	473.4	472.5
175°	476.9	477.6	478.3	478.2	477.2	476.3	475.2	474.3
177.5°	477.7	478.2	478.7	478.5	477.8	477.0	476.3	475.4
180°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2

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