

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: P331977-927

Luminaire Tested: **S123DIP-S775D805U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331977-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U927-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4745.7 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

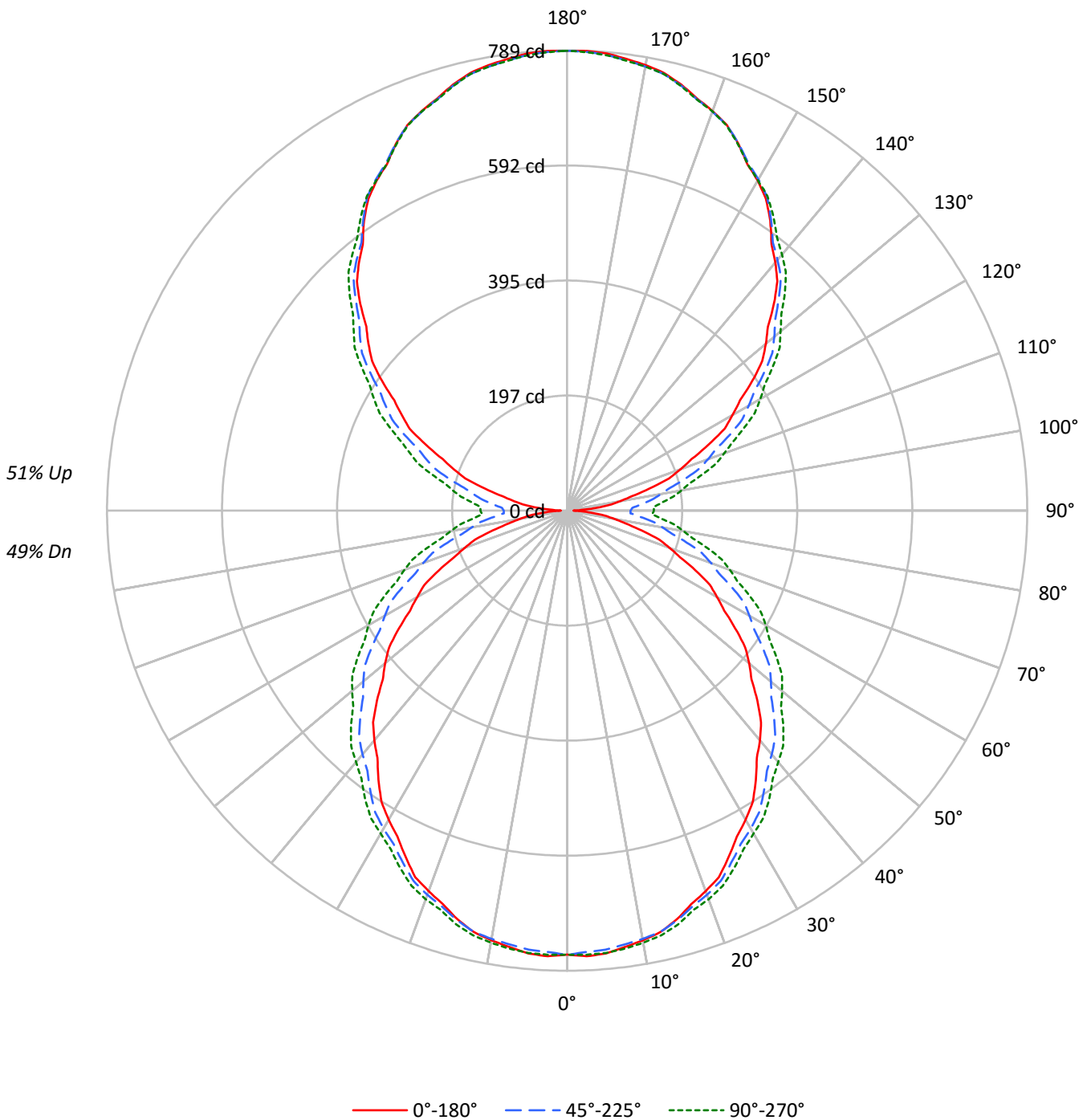
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	97	92	88	84	89	85	81	78	71	68	66	59	57	55	47	46	45	39
2	88	80	73	67	80	73	68	63	62	58	54	51	48	45	41	39	37	32
3	80	70	62	56	73	64	57	52	54	49	45	45	41	38	36	33	31	27
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	26	23
5	67	55	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15
8	52	40	32	27	48	37	30	25	32	26	22	27	22	19	22	18	16	13
9	49	36	29	24	45	34	27	22	29	23	20	24	20	17	20	17	14	12
10	46	33	26	21	42	31	24	20	27	21	18	23	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8196	8196	8196
5°	8222	7990	7994
10°	8148	7806	7766
15°	8043	7597	7518
20°	7893	7358	7245
25°	7708	7084	6957
30°	7517	6836	6666
35°	7305	6575	6434
40°	7102	6337	6184
45°	6877	6109	5986
50°	6655	5883	5766
55°	6409	5652	5569
60°	6171	5417	5366
65°	5924	5168	5126
70°	5555	4887	4879
75°	5090	4566	4628
80°	4551	4249	4341
85°	4050	4032	4175



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	1.5
10°-20°	205.8	4.3
20°-30°	307.8	6.5
30°-40°	367.5	7.7
40°-50°	384.5	8.1
50°-60°	360.9	7.6
60°-70°	301.4	6.4
70°-80°	215.6	4.5
80°-90°	130.9	2.8
90°-100°	132.1	2.8
100°-110°	213.0	4.5
110°-120°	301.1	6.3
120°-130°	366.6	7.7
130°-140°	396.7	8.4
140°-150°	382.2	8.1
150°-160°	319.9	6.7
160°-170°	212.9	4.5
170°-180°	74.6	1.6
0°-30°	585.7	12.3
0°-40°	953.3	20.1
0°-60°	1698.6	35.8
0°-90°	2346.6	49.4
90°-120°	646.2	13.6
90°-150°	1791.6	37.8
90°-180°	2399.0	50.6
0°-180°	4745.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	762	760	756	762	761	72
15°	726	728	728	735	735	204
25°	655	663	666	676	677	302
35°	564	577	588	600	604	353
45°	461	481	502	517	524	356
55°	352	379	409	430	438	315
65°	243	276	312	336	345	240
75°	132	171	212	239	250	141
85°	41	82	126	153	163	43
90°	11	58	109	138	149	10
95°	46	83	128	155	164	48
105°	146	168	208	231	240	156
115°	267	280	308	328	334	265
125°	388	391	412	427	431	346
135°	502	505	513	525	528	386
145°	607	608	609	615	616	379
155°	694	694	695	697	693	319
165°	756	754	754	758	754	213
175°	787	784	784	787	784	75
180°	788	788	788	788	788	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	764.8	764.3	763.9	763.4	763.0	762.2	761.0	759.9	758.7	757.5	758.7
5°	762.3	761.9	761.5	761.2	760.8	760.1	759.0	757.9	756.8	755.7	757.2
7.5°	754.8	754.9	754.9	755.0	755.1	754.6	753.5	752.5	751.4	750.4	752.2
10°	748.2	748.5	748.9	749.3	749.6	749.4	748.5	747.6	746.6	745.7	747.6
12.5°	740.2	740.8	741.2	741.8	742.3	742.3	741.6	741.0	740.4	739.7	741.4
15°	725.8	726.4	726.9	727.5	728.0	728.2	728.0	727.9	727.6	727.5	729.3
17.5°	707.6	708.7	709.8	710.8	711.9	712.5	712.4	712.3	712.3	712.2	713.8
20°	694.3	695.4	696.5	697.6	698.7	699.4	699.8	700.2	700.5	700.9	702.6
22.5°	680.3	681.4	682.5	683.7	684.8	685.6	686.1	686.6	687.1	687.6	689.8
25°	655.3	657.1	658.9	660.8	662.7	663.8	664.4	665.0	665.5	666.1	668.4
27.5°	630.1	632.2	634.3	636.4	638.5	640.1	641.3	642.5	643.6	644.8	646.9
30°	612.1	614.6	617.0	619.3	621.7	623.7	625.1	626.6	628.1	629.5	631.8
32.5°	592.2	594.9	597.6	600.3	603.0	605.3	607.2	609.2	611.1	613.0	615.4
35°	564.0	567.0	570.0	572.9	575.8	578.5	580.9	583.3	585.7	588.1	590.9
37.5°	534.2	537.5	540.8	544.2	547.5	550.6	553.6	556.5	559.4	562.4	565.5
40°	514.3	517.6	520.9	524.3	527.5	531.1	534.7	538.4	542.1	545.8	548.9
42.5°	492.3	496.5	500.5	504.5	508.6	512.5	516.3	520.2	524.0	527.9	531.3
45°	461.2	465.6	470.0	474.4	478.9	483.4	488.0	492.6	497.3	501.8	505.3
47.5°	428.5	433.6	438.6	443.5	448.5	453.7	459.0	464.2	469.5	474.8	478.7
50°	407.3	412.4	417.6	422.8	427.9	433.3	439.1	444.8	450.5	456.2	460.4
52.5°	384.7	390.1	395.6	401.1	406.5	412.4	418.7	425.0	431.3	437.6	442.0
55°	351.7	357.7	363.8	369.9	376.0	382.4	389.0	395.7	402.3	408.9	413.9
57.5°	319.5	325.8	332.2	338.5	344.9	351.6	358.9	366.2	373.4	380.7	385.7
60°	297.0	303.6	310.2	316.9	323.5	330.6	338.2	345.7	353.2	360.8	366.0
62.5°	275.7	282.5	289.3	296.0	302.9	310.2	318.2	326.2	334.2	342.2	347.4
65°	243.0	250.3	257.4	264.6	271.8	279.4	287.6	295.6	303.8	311.9	317.4
67.5°	209.8	217.5	225.1	232.7	240.3	248.3	256.6	264.8	273.1	281.4	287.4
70°	186.6	194.6	202.5	210.4	218.3	226.7	235.6	244.4	253.3	262.1	268.0
72.5°	165.4	173.3	181.3	189.2	197.1	205.7	214.8	223.9	233.1	242.2	248.3
75°	131.9	140.5	149.2	157.9	166.5	175.5	184.7	193.9	203.1	212.4	218.4
77.5°	102.7	111.5	120.2	128.9	137.6	146.6	156.0	165.2	174.5	183.8	190.2
80°	82.1	91.2	100.2	109.2	118.3	127.5	137.1	146.7	156.3	165.9	172.1
82.5°	64.2	73.4	82.5	91.7	100.9	110.4	120.1	129.8	139.6	149.3	155.6
85°	40.6	49.8	59.1	68.3	77.5	87.0	96.8	106.5	116.3	126.1	132.4
87.5°	22.2	31.6	41.1	50.5	60.0	69.6	79.4	89.1	98.9	108.7	115.0
90°	11.4	21.8	32.2	42.6	53.0	63.8	75.0	86.2	97.4	108.6	115.4
92.5°	25.1	34.2	43.3	52.4	61.5	71.1	81.4	91.7	102.0	112.2	118.7
95°	45.6	53.8	61.9	70.1	78.3	87.5	97.5	107.7	117.8	127.9	134.2
97.5°	73.0	80.2	87.5	94.7	101.9	110.2	119.6	129.0	138.5	147.9	154.0
100°	91.7	98.4	105.1	111.9	118.6	126.5	135.7	144.9	154.1	163.2	169.0
102.5°	113.4	119.1	124.9	130.7	136.6	144.1	153.3	162.6	171.8	181.0	186.6
105°	146.0	150.7	155.4	160.1	164.8	171.7	180.9	190.0	199.2	208.3	213.6
107.5°	183.2	187.1	191.0	195.0	198.8	204.9	212.9	220.9	228.9	236.9	242.2
110°	206.3	209.8	213.5	217.1	220.6	226.2	233.9	241.5	249.2	256.8	262.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	231.1	233.9	236.9	239.7	242.6	247.6	254.8	261.9	269.0	276.2	281.5
115°	267.4	270.0	272.6	275.3	277.9	282.3	288.8	295.1	301.4	307.8	312.4
117.5°	304.6	306.3	307.9	309.5	311.2	315.0	320.8	326.7	332.6	338.4	342.8
120°	327.3	329.0	330.7	332.5	334.2	337.8	343.2	348.6	354.0	359.4	363.5
122.5°	351.5	352.6	353.7	354.7	355.8	359.1	364.6	369.9	375.4	380.8	384.6
125°	387.7	388.2	388.6	389.0	389.4	392.1	397.2	402.3	407.3	412.4	415.7
127.5°	421.9	422.6	423.3	424.0	424.7	427.1	431.3	435.4	439.5	443.6	446.5
130°	444.7	445.6	446.6	447.4	448.4	450.5	453.8	457.0	460.3	463.6	466.5
132.5°	466.8	467.9	469.0	470.0	471.1	472.9	475.6	478.2	480.9	483.5	486.2
135°	501.5	502.2	502.8	503.4	504.1	505.3	507.2	509.1	511.0	512.9	515.6
137.5°	533.5	534.1	534.6	535.1	535.7	536.7	538.2	539.7	541.2	542.7	545.0
140°	555.2	555.9	556.5	557.2	557.9	558.6	559.3	560.0	560.7	561.3	564.0
142.5°	575.4	576.0	576.6	577.1	577.7	578.1	578.5	578.8	579.2	579.5	581.9
145°	607.2	607.3	607.4	607.4	607.5	607.8	608.2	608.6	609.0	609.4	610.8
147.5°	634.1	634.6	635.1	635.6	636.1	636.5	636.9	637.3	637.7	638.1	638.5
150°	653.4	653.7	653.9	654.3	654.5	654.8	655.1	655.4	655.6	655.9	655.9
152.5°	669.3	669.6	670.0	670.4	670.8	671.1	671.3	671.5	671.6	671.8	672.0
155°	694.3	694.3	694.3	694.3	694.3	694.3	694.5	694.7	694.8	694.9	695.5
157.5°	715.6	715.4	715.3	715.1	714.9	714.9	715.0	715.2	715.3	715.3	716.0
160°	729.0	728.7	728.4	728.2	727.9	727.8	727.8	727.8	727.8	727.8	728.4
162.5°	740.8	740.5	740.1	739.7	739.3	739.2	739.3	739.4	739.5	739.7	740.3
165°	756.2	755.8	755.4	755.0	754.6	754.4	754.4	754.4	754.4	754.4	755.2
167.5°	768.5	767.9	767.4	766.8	766.3	766.1	766.2	766.3	766.4	766.5	767.4
170°	775.5	774.9	774.4	773.8	773.2	772.9	772.9	772.9	772.9	772.9	774.0
172.5°	780.9	780.4	779.8	779.3	778.7	778.4	778.4	778.4	778.4	778.4	779.3
175°	786.6	786.0	785.5	785.0	784.4	784.1	784.1	784.1	784.1	784.1	785.0
177.5°	788.9	788.5	788.1	787.6	787.2	787.0	787.0	787.0	787.0	787.0	787.6
180°	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	759.9	761.0	762.2	762.7	762.6	762.4	762.2	762.2
5°	758.6	760.1	761.5	762.2	762.0	761.8	761.7	761.4
7.5°	754.0	755.9	757.7	758.5	758.3	758.1	757.9	757.6
10°	749.4	751.2	753.0	753.8	753.4	753.0	752.7	752.3
12.5°	743.1	744.8	746.5	747.2	746.8	746.5	746.1	745.7
15°	731.1	733.0	734.8	735.6	735.5	735.3	735.1	734.9
17.5°	715.5	717.2	718.8	719.5	719.3	719.0	718.7	718.5
20°	704.3	705.9	707.6	708.4	708.7	708.8	709.0	709.2
22.5°	691.8	694.0	696.0	697.0	697.0	696.8	696.7	696.6
25°	670.9	673.3	675.7	676.8	676.8	676.8	676.8	676.8
27.5°	649.0	651.0	653.1	654.2	654.3	654.5	654.7	654.8
30°	634.0	636.2	638.4	639.5	639.5	639.5	639.5	639.5
32.5°	617.7	620.0	622.4	623.8	624.2	624.7	625.1	625.6
35°	593.7	596.4	599.1	600.9	601.7	602.4	603.1	603.9
37.5°	568.6	571.8	574.9	576.8	577.3	578.0	578.5	579.2
40°	552.1	555.2	558.3	560.2	561.0	561.7	562.4	563.2
42.5°	534.7	538.1	541.6	543.8	544.9	545.9	546.9	548.0
45°	508.8	512.3	515.9	518.3	519.8	521.3	522.8	524.3
47.5°	482.7	486.6	490.6	493.1	494.2	495.4	496.5	497.6
50°	464.7	468.9	473.2	475.9	477.2	478.5	479.8	481.1
52.5°	446.4	450.8	455.2	458.2	459.8	461.4	463.0	464.5
55°	418.9	423.9	428.8	432.1	433.6	435.0	436.5	438.0
57.5°	390.8	395.8	400.8	404.2	405.9	407.7	409.3	411.1
60°	371.1	376.3	381.4	385.1	387.1	389.1	391.2	393.2
62.5°	352.6	357.7	362.9	366.4	368.3	370.2	372.1	373.9
65°	323.0	328.4	334.0	337.7	339.5	341.4	343.3	345.1
67.5°	293.4	299.5	305.5	309.3	310.9	312.4	314.0	315.5
70°	273.9	279.8	285.7	289.5	291.4	293.3	295.1	297.0
72.5°	254.3	260.3	266.4	270.4	272.2	274.0	275.8	277.7
75°	224.5	230.6	236.7	240.8	243.0	245.3	247.5	249.7
77.5°	196.6	203.0	209.5	213.5	215.2	216.9	218.6	220.3
80°	178.4	184.7	191.0	195.0	196.9	198.7	200.6	202.4
82.5°	161.8	168.1	174.4	178.4	180.3	182.1	183.9	185.8
85°	138.6	144.9	151.1	155.2	157.0	158.9	160.7	162.6
87.5°	121.4	127.8	134.2	138.3	140.2	142.1	144.0	145.9
90°	122.2	129.0	135.9	140.3	142.4	144.6	146.7	148.8
92.5°	125.3	131.9	138.5	142.5	144.0	145.5	147.1	148.6
95°	140.5	146.7	153.0	157.1	158.9	160.7	162.6	164.5
97.5°	160.1	166.3	172.4	176.3	178.1	179.9	181.7	183.5
100°	174.8	180.5	186.2	190.2	192.3	194.4	196.5	198.7
102.5°	192.3	197.9	203.5	207.2	209.0	210.7	212.5	214.4
105°	218.7	223.9	229.0	232.6	234.5	236.5	238.4	240.3
107.5°	247.6	253.0	258.4	261.8	263.3	264.7	266.2	267.7
110°	267.5	272.9	278.2	281.5	282.7	283.9	285.1	286.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	286.8	292.1	297.4	300.8	302.4	304.0	305.5	307.1
115°	317.0	321.5	326.1	329.0	330.3	331.7	333.0	334.4
117.5°	347.1	351.5	355.8	358.5	359.7	360.7	361.7	362.7
120°	367.6	371.7	375.8	378.3	379.4	380.4	381.4	382.4
122.5°	388.3	392.1	395.8	398.1	399.0	399.9	400.8	401.7
125°	419.1	422.4	425.7	427.7	428.5	429.2	429.9	430.7
127.5°	449.3	452.3	455.1	456.9	457.5	458.1	458.8	459.3
130°	469.4	472.5	475.4	476.9	477.1	477.2	477.4	477.5
132.5°	488.9	491.6	494.3	495.9	496.5	496.9	497.4	498.0
135°	518.4	521.2	523.9	525.6	526.3	527.0	527.6	528.2
137.5°	547.4	549.7	552.1	553.4	553.8	554.2	554.6	555.0
140°	566.6	569.3	571.9	573.1	573.1	573.1	573.1	573.0
142.5°	584.2	586.5	588.8	590.1	590.3	590.5	590.7	590.8
145°	612.1	613.5	614.8	615.5	615.8	615.9	616.2	616.3
147.5°	639.0	639.4	639.8	640.0	639.8	639.7	639.5	639.3
150°	655.9	655.9	655.9	655.7	655.2	654.7	654.3	653.9
152.5°	672.2	672.4	672.6	672.4	671.8	671.1	670.5	669.9
155°	696.0	696.6	697.1	696.9	695.9	695.0	694.0	693.1
157.5°	716.5	717.1	717.6	717.6	716.8	716.1	715.3	714.5
160°	729.1	729.8	730.5	730.6	730.0	729.4	728.9	728.3
162.5°	741.0	741.7	742.4	742.3	741.4	740.5	739.7	738.8
165°	756.1	756.9	757.7	757.6	756.7	755.7	754.7	753.8
167.5°	768.3	769.1	769.9	769.9	769.1	768.3	767.4	766.5
170°	774.9	775.9	776.8	776.8	775.9	774.9	774.0	772.9
172.5°	780.1	781.0	781.8	781.8	780.8	779.8	778.9	777.9
175°	785.8	786.6	787.4	787.3	786.4	785.4	784.4	783.5
177.5°	788.3	788.9	789.6	789.6	788.8	788.0	787.3	786.5
180°	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5

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