

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: P332585-930

Luminaire Tested: **SA4XXDIP-C795D365U930-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332585-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D365U930-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

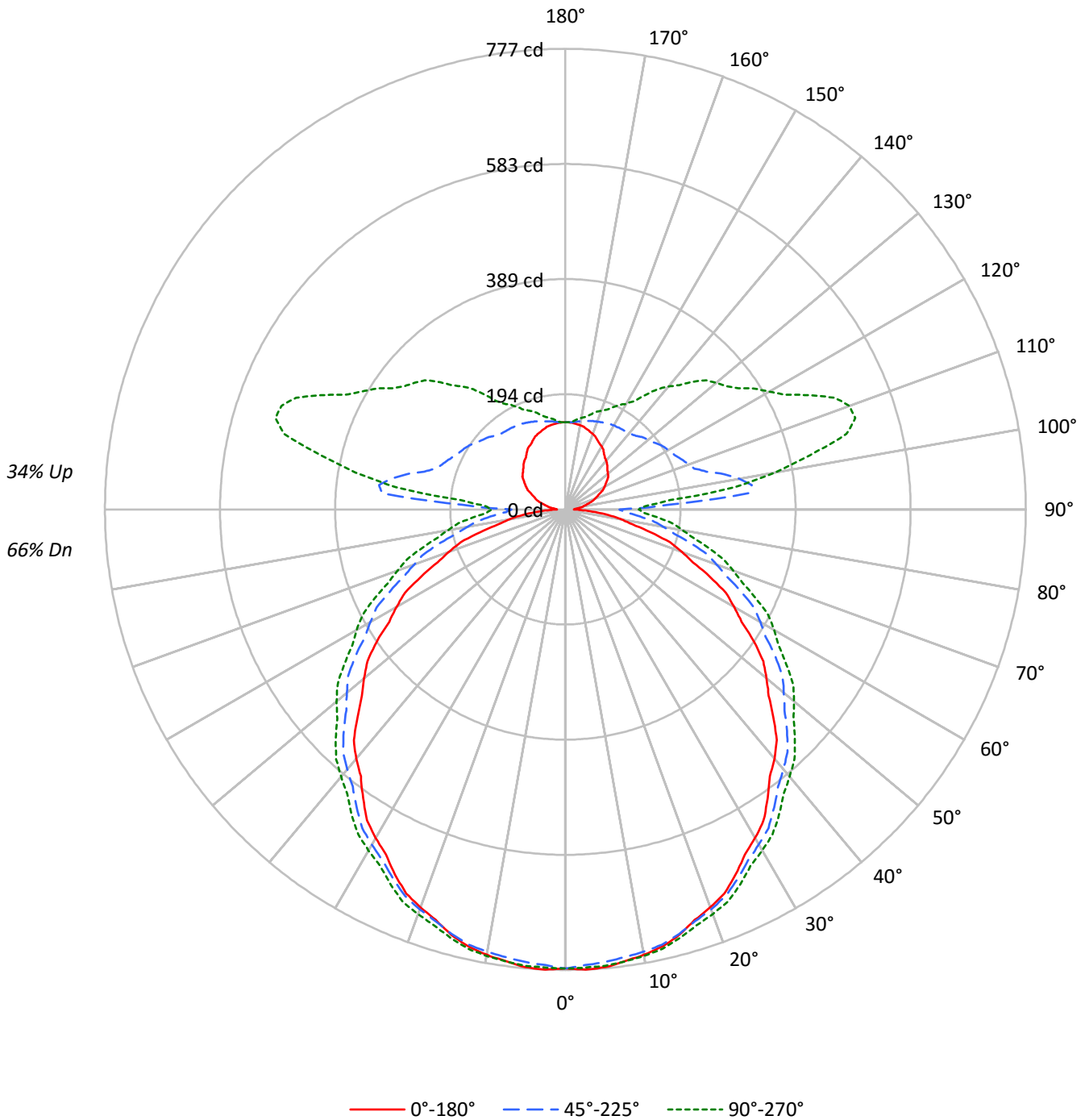
Lumens per Lamp: N/A
Luminaire Lumens: 3707.4 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66				
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	60	59	57	53				
2	91	82	75	70	85	77	71	66	68	64	59	60	56	53	52	50	47	43				
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	42	39	36				
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30				
5	69	56	48	41	64	53	45	39	47	41	36	42	36	32	37	32	29	26				
6	63	50	42	36	59	48	40	34	43	36	31	38	32	28	33	29	25	23				
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	22	20				
8	54	41	33	27	51	39	32	26	35	29	24	31	26	22	28	23	20	18				
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16				
10	47	35	27	22	44	33	26	21	30	24	20	27	22	18	24	19	16	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	2.0
10°-20°	210.1	5.7
20°-30°	317.7	8.6
30°-40°	384.4	10.4
40°-50°	406.4	11.0
50°-60°	382.5	10.3
60°-70°	317.3	8.6
70°-80°	222.9	6.0
80°-90°	126.8	3.4
90°-100°	180.8	4.9
100°-110°	275.9	7.4
110°-120°	234.7	6.3
120°-130°	187.1	5.0
130°-140°	147.6	4.0
140°-150°	107.6	2.9
150°-160°	74.4	2.0
160°-170°	43.7	1.2
170°-180°	14.2	0.4
0°-30°	601.2	16.2
0°-40°	985.6	26.6
0°-60°	1774.4	47.9
0°-90°	2441.5	65.9
90°-120°	691.3	18.6
90°-150°	1133.6	30.6
90°-180°	1266.0	34.1
0°-180°	3707.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	14	51	91	116	124	10
95°	21	70	310	214	177	20
105°	42	75	246	485	491	45
115°	65	89	209	383	455	64
125°	86	102	192	316	357	77
135°	100	119	174	266	305	78
145°	114	130	165	211	236	72
155°	129	139	161	182	190	59
165°	140	145	154	163	166	40
175°	146	147	148	150	149	14
180°	147	147	147	147	147	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	25.8	33.7	41.7	49.7	57.6	65.7	74.5	83.0	91.5	100.0	105.6
90°	14.2	22.4	31.0	39.1	47.0	55.0	65.1	73.3	82.2	91.1	96.4
92.5°	16.5	24.9	34.6	45.0	56.2	69.8	92.7	123.4	153.4	173.1	163.2
95°	20.8	28.0	37.3	47.4	60.7	79.9	112.8	168.0	244.8	310.3	322.1
97.5°	27.3	32.8	40.7	49.7	61.1	77.9	105.0	151.8	228.1	317.4	378.5
100°	31.5	36.4	43.5	51.9	62.5	77.9	102.4	142.5	208.8	297.6	376.6
102.5°	36.0	40.9	47.1	54.7	64.3	79.0	101.7	137.7	195.1	274.5	355.6
105°	41.5	46.2	51.5	58.9	67.9	81.7	102.7	133.7	181.2	246.3	318.8
107.5°	49.3	53.0	57.6	64.5	72.6	85.8	105.3	133.7	175.0	228.3	288.3
110°	53.9	57.2	61.3	67.5	75.3	87.9	107.3	134.2	172.7	221.2	272.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.3	61.2	65.3	70.9	78.5	90.7	109.3	134.8	170.9	215.6	261.8
115°	64.6	67.2	70.9	75.5	82.8	94.5	112.2	135.6	168.6	209.3	249.9
117.5°	72.0	73.9	76.6	80.9	87.1	98.5	115.2	136.9	166.6	203.8	241.4
120°	76.4	77.5	80.1	83.9	89.4	100.5	117.1	137.6	165.4	200.4	236.2
122.5°	81.0	81.7	83.8	86.8	92.4	102.9	119.1	138.4	164.3	196.7	230.9
125°	86.2	87.2	88.6	91.6	96.9	107.3	122.5	140.6	163.5	192.0	223.3
127.5°	91.3	92.0	94.0	97.4	102.9	112.8	126.5	142.4	161.9	186.1	213.9
130°	93.7	94.7	96.7	100.9	106.2	115.9	128.8	143.2	160.9	182.5	207.8
132.5°	96.6	97.3	100.2	104.1	109.8	118.9	131.1	144.6	160.4	179.4	202.6
135°	100.0	101.2	104.0	108.9	115.0	123.1	134.0	145.7	158.9	174.1	193.9
137.5°	104.2	105.1	108.1	112.6	118.6	126.0	135.6	145.9	157.0	170.0	186.6
140°	107.2	107.9	110.9	115.5	121.4	128.3	137.1	146.6	156.5	167.7	182.6
142.5°	109.7	110.6	113.5	118.1	123.8	130.4	138.8	147.2	156.4	166.3	179.5
145°	114.1	114.8	117.5	121.3	126.6	132.8	140.3	148.1	156.5	165.4	175.8
147.5°	119.3	119.4	121.6	125.6	130.0	135.6	142.6	149.4	156.8	164.4	172.7
150°	122.5	122.5	124.7	127.9	132.1	137.5	143.8	150.1	156.8	163.6	170.9
152.5°	124.7	124.8	127.0	130.2	134.0	139.1	144.7	150.6	156.3	162.5	169.0
155°	128.8	129.1	130.9	133.7	136.9	141.2	146.1	151.0	155.6	160.8	166.2
157.5°	132.9	132.9	134.5	136.7	139.5	142.9	147.1	151.0	154.8	159.0	163.5
160°	135.4	135.4	136.6	138.6	140.9	144.1	147.6	151.0	154.2	157.6	161.3
162.5°	137.7	137.5	138.4	140.2	142.3	144.8	148.0	151.0	153.4	156.2	159.6
165°	140.3	140.3	140.9	142.4	143.8	145.5	148.1	150.4	152.1	154.2	156.5
167.5°	142.9	142.6	142.9	144.0	144.8	146.2	148.1	149.7	150.7	152.1	153.7
170°	144.1	143.8	144.1	145.0	145.5	146.3	147.8	149.3	149.9	150.7	151.9
172.5°	145.2	145.0	145.0	145.6	145.9	146.6	147.6	148.8	149.0	149.3	150.3
175°	146.3	146.1	146.1	146.3	146.7	146.7	147.2	148.1	147.8	147.8	148.4
177.5°	146.9	146.7	146.4	146.7	146.7	146.7	146.9	147.3	146.9	146.9	147.2
180°	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	111.3	116.9	122.5	126.2	127.9	129.7	131.3	133.1
90°	102.2	108.1	114.0	117.6	119.4	121.2	122.5	124.0
92.5°	149.1	140.6	137.3	135.0	133.2	133.1	133.7	135.3
95°	299.4	259.9	226.5	202.0	189.6	182.5	179.0	177.0
97.5°	395.7	384.1	360.9	334.2	315.2	299.5	292.5	288.2
100°	423.8	434.8	425.9	407.8	384.1	367.9	360.6	359.6
102.5°	418.4	452.1	461.2	455.6	441.7	430.5	422.9	422.6
105°	389.6	444.3	477.6	492.6	494.7	494.0	491.5	491.3
107.5°	351.5	409.4	454.2	483.0	498.6	506.5	510.9	513.0
110°	328.3	382.5	428.8	463.5	485.5	499.1	505.8	510.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	310.0	358.3	402.1	436.8	461.5	477.7	486.5	492.2
115°	290.2	329.8	367.8	398.2	422.3	441.0	451.5	455.2
117.5°	277.3	310.6	341.2	367.4	388.4	404.5	415.3	418.7
120°	270.4	300.9	327.9	351.1	369.0	383.2	392.2	397.0
122.5°	264.1	293.8	318.6	339.2	354.5	366.7	374.4	379.0
125°	254.6	283.1	306.6	324.9	337.5	347.1	353.7	356.6
127.5°	243.3	270.4	293.8	311.2	324.1	332.8	338.8	341.8
130°	235.2	261.5	284.5	302.1	315.0	323.4	329.2	332.1
132.5°	227.3	252.0	274.4	292.0	304.7	314.0	319.5	322.4
135°	215.1	236.9	257.6	274.1	286.8	296.0	301.7	304.7
137.5°	204.6	223.1	240.8	255.8	267.5	276.4	281.1	284.2
140°	198.4	214.4	229.9	243.7	254.8	262.0	267.1	270.4
142.5°	193.1	207.2	220.5	232.6	242.3	249.0	253.4	255.8
145°	186.1	197.1	206.9	216.0	223.9	229.6	233.3	235.5
147.5°	180.4	188.3	195.4	202.1	208.1	212.9	215.6	216.8
150°	177.8	184.4	190.2	195.3	200.0	203.7	205.5	205.7
152.5°	175.3	181.0	186.3	190.5	194.4	197.5	198.5	198.9
155°	171.5	176.0	180.3	183.8	186.7	189.0	189.9	189.9
157.5°	167.4	171.2	174.9	177.7	179.8	181.6	182.1	182.1
160°	164.9	168.0	171.1	173.5	175.2	176.9	177.2	177.2
162.5°	162.3	165.0	167.5	169.6	170.8	172.5	172.8	172.6
165°	158.7	160.5	162.5	164.0	165.1	166.2	166.0	165.7
167.5°	155.4	156.7	158.3	159.1	159.7	160.5	160.5	160.2
170°	153.3	154.2	155.3	156.2	156.8	157.0	156.8	156.8
172.5°	151.5	152.1	152.8	153.4	153.8	154.0	153.8	153.3
175°	149.0	149.3	149.9	149.9	149.9	150.4	149.9	149.3
177.5°	147.3	147.6	147.6	147.8	147.6	147.8	147.3	146.9
180°	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7

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