

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: P332594-935

Luminaire Tested: **S124DIP-S795D590U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332594-935
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-S795D590U935-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4607.5 lumens
Efficiency: N/A
Efficacy: 114.3 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

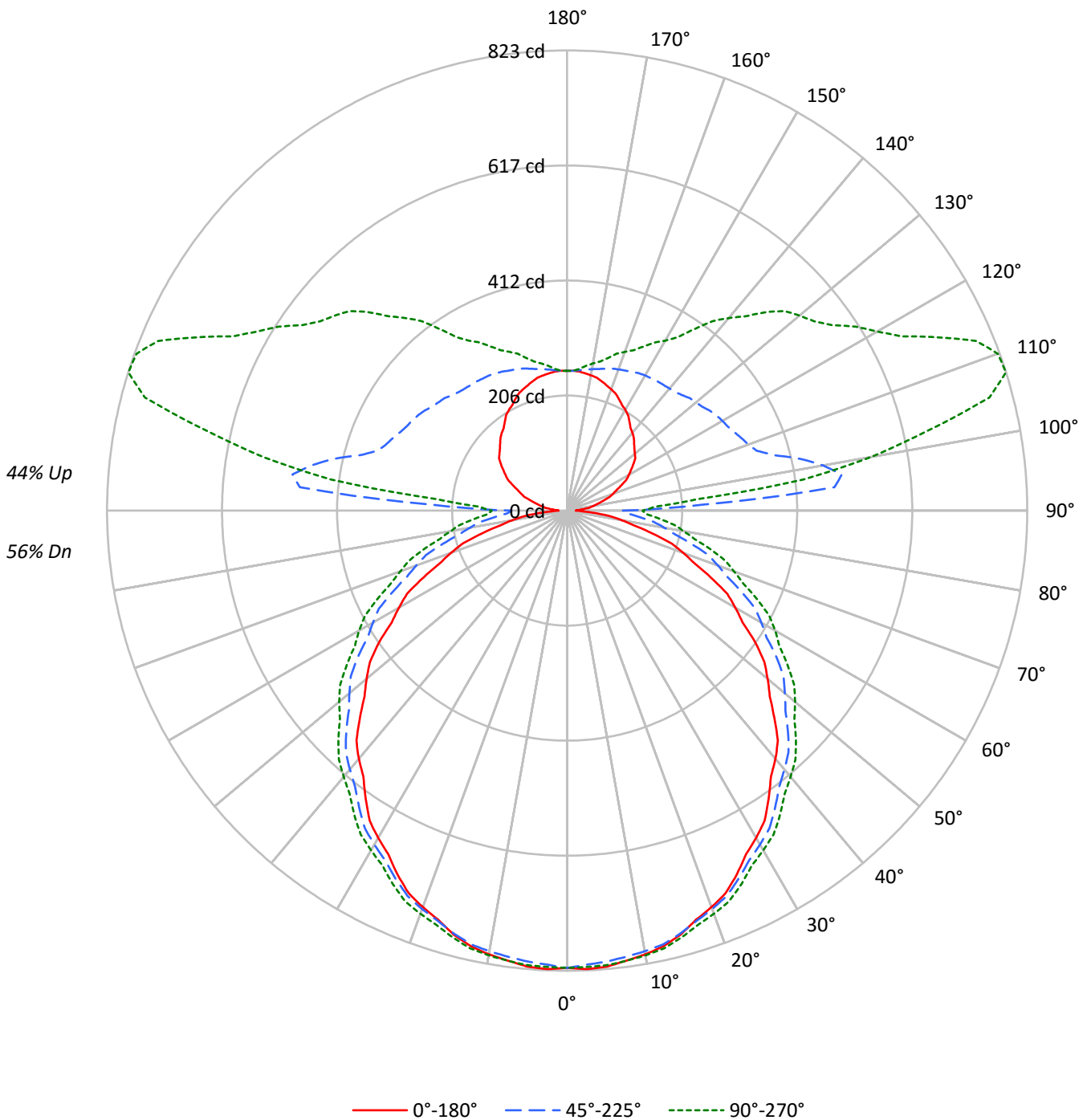
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	98	93	89	85	91	87	83	79	74	71	69	63	61	59	53	51	50	45
2	89	81	74	68	82	75	69	64	64	60	56	55	51	48	46	43	41	37
3	81	71	63	56	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	36	32	29	26
5	67	55	47	40	62	52	44	38	45	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	20	17
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	14
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.7
10°-20°	221.9	4.8
20°-30°	335.5	7.3
30°-40°	405.9	8.8
40°-50°	429.2	9.3
50°-60°	403.9	8.8
60°-70°	335.1	7.3
70°-80°	235.4	5.1
80°-90°	134.5	2.9
90°-100°	259.6	5.6
100°-110°	434.3	9.4
110°-120°	375.9	8.2
120°-130°	305.3	6.6
130°-140°	245.7	5.3
140°-150°	182.3	4.0
150°-160°	126.8	2.8
160°-170°	74.6	1.6
170°-180°	24.3	0.5
0°-30°	634.9	13.8
0°-40°	1040.8	22.6
0°-60°	1873.9	40.7
0°-90°	2578.8	56.0
90°-120°	1069.8	23.2
90°-150°	1803.0	39.1
90°-180°	2029.0	44.0
0°-180°	4607.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	15	55	100	126	135	11
95°	28	94	480	302	232	28
105°	66	111	383	776	782	71
115°	107	142	330	614	733	106
125°	145	172	312	512	578	129
135°	169	202	292	439	502	131
145°	194	221	282	357	396	122
155°	220	237	274	310	324	101
165°	239	247	263	278	282	68
175°	250	250	252	255	254	24
180°	250	250	250	250	250	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.2	35.7	44.3	52.7	61.1	69.7	79.2	88.2	97.2	106.3	112.2
90°	15.2	24.3	33.9	42.5	51.1	59.6	71.3	80.1	89.8	99.5	105.0
92.5°	19.5	29.4	41.3	54.7	69.1	87.4	121.1	168.0	213.9	242.0	221.8
95°	28.2	36.3	48.0	61.0	79.6	107.7	158.8	247.6	373.4	480.0	496.8
97.5°	39.9	45.6	55.7	67.3	83.3	107.5	148.7	223.5	348.4	495.6	596.4
100°	47.4	52.7	61.4	72.6	87.2	109.6	146.5	209.9	318.1	464.5	595.7
102.5°	55.3	60.7	68.4	78.5	92.1	113.2	147.2	203.8	296.9	427.4	562.4
105°	65.7	71.3	77.7	87.7	100.7	120.7	151.8	200.1	276.4	382.6	503.2
107.5°	79.0	83.4	89.2	98.8	110.6	129.8	158.6	202.9	268.7	355.3	454.5
110°	87.4	91.2	96.5	105.3	116.9	135.2	163.9	205.4	266.6	344.9	429.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	95.3	98.8	104.2	112.2	123.6	141.5	169.1	208.4	265.6	337.8	413.6
115°	106.7	109.9	115.3	122.0	133.2	150.6	176.8	212.8	264.9	330.4	396.7
117.5°	119.4	121.9	126.1	132.6	142.4	159.7	184.5	217.7	264.7	324.4	385.9
120°	127.3	129.0	133.0	139.1	148.0	165.0	189.6	221.0	264.8	320.7	379.3
122.5°	135.3	136.3	139.9	145.0	154.3	170.5	194.8	224.3	264.9	316.7	372.5
125°	144.6	146.4	149.1	154.3	163.4	179.7	202.4	230.1	266.1	311.5	362.5
127.5°	153.6	155.0	158.3	164.3	173.7	189.5	210.5	235.1	266.0	304.9	349.8
130°	158.0	159.7	163.4	170.6	179.7	195.5	215.4	237.9	266.1	300.8	341.8
132.5°	163.1	164.5	169.4	176.1	186.0	200.7	220.0	241.3	266.7	297.6	334.8
135°	169.4	171.3	176.2	184.5	194.8	208.4	226.0	245.0	266.7	291.6	323.4
137.5°	176.5	178.1	183.3	191.1	201.6	214.0	229.9	247.0	265.6	287.3	313.7
140°	181.6	182.9	188.0	196.2	206.3	218.1	233.1	249.0	265.9	284.7	308.5
142.5°	186.3	187.8	192.8	200.7	210.6	221.9	236.1	250.6	266.3	283.3	304.4
145°	194.0	195.2	199.9	206.6	215.7	226.4	239.2	252.4	266.7	281.9	298.9
147.5°	202.7	202.9	207.1	214.0	221.5	231.2	243.1	254.7	267.2	280.2	294.2
150°	208.2	208.4	212.2	217.9	225.1	234.3	245.1	255.9	267.2	279.0	291.3
152.5°	212.6	212.6	216.5	222.0	228.5	237.0	246.7	256.7	266.4	277.0	288.1
155°	219.6	220.1	223.0	227.9	233.3	240.6	249.0	257.4	265.2	274.1	283.4
157.5°	226.5	226.5	229.3	233.1	237.8	243.6	250.7	257.4	264.0	271.0	278.6
160°	230.8	230.8	232.8	236.3	240.1	245.6	251.5	257.4	262.8	268.6	275.1
162.5°	234.8	234.4	235.9	239.0	242.5	246.8	252.3	257.4	261.6	266.3	271.9
165°	239.2	239.2	240.1	242.6	245.1	248.1	252.4	256.4	259.3	262.8	266.7
167.5°	243.6	243.1	243.6	245.5	246.8	249.1	252.4	255.2	257.0	259.2	262.0
170°	245.6	245.1	245.6	247.0	248.1	249.5	251.9	254.4	255.4	256.8	258.8
172.5°	247.5	247.0	247.1	248.2	248.8	249.9	251.6	253.7	253.8	254.5	256.1
175°	249.5	249.0	249.0	249.5	250.0	250.0	251.0	252.4	251.9	251.9	253.0
177.5°	250.4	250.0	249.6	250.0	250.0	250.0	250.4	251.2	250.4	250.4	250.8
180°	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	118.1	124.2	130.2	134.0	135.9	137.8	139.5	141.3
90°	111.3	117.7	124.1	127.9	130.0	132.1	133.2	134.8
92.5°	194.2	176.1	166.9	160.8	156.7	155.7	155.6	157.2
95°	454.6	384.0	323.6	279.7	257.4	244.1	237.0	232.5
97.5°	622.4	599.4	556.7	509.0	475.4	447.6	434.6	426.2
100°	673.0	688.3	669.7	636.8	595.5	567.0	553.6	551.1
102.5°	666.2	720.2	732.5	720.9	696.2	676.1	662.2	660.6
105°	620.7	710.8	764.5	788.0	790.6	788.3	783.1	781.7
107.5°	559.1	654.6	728.1	775.2	800.9	813.6	819.9	822.7
110°	521.8	611.4	687.3	744.5	781.0	803.2	813.7	819.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	493.0	572.7	644.5	701.6	742.8	769.4	783.4	792.2
115°	462.6	527.5	589.4	639.6	679.8	710.7	727.8	733.1
117.5°	444.4	498.7	548.1	591.0	625.8	652.1	669.7	674.3
120°	435.0	484.7	528.1	565.8	595.4	618.6	633.0	640.1
122.5°	426.5	474.8	514.5	547.9	573.0	593.0	605.2	612.1
125°	413.5	459.6	497.4	526.9	547.9	563.3	573.9	578.0
127.5°	397.8	441.9	479.3	507.5	528.6	542.6	551.9	556.2
130°	386.2	428.8	465.8	494.3	515.7	529.2	538.2	542.4
132.5°	374.8	414.7	450.8	479.2	500.2	515.2	523.9	528.1
135°	357.6	392.8	426.0	452.8	473.6	488.6	497.7	501.9
137.5°	342.5	372.5	400.7	424.9	444.3	458.8	466.3	470.9
140°	333.7	359.5	384.2	406.7	424.9	436.7	444.6	449.5
142.5°	326.1	348.8	370.1	389.5	405.6	416.5	423.4	427.1
145°	315.8	333.7	349.7	364.5	377.5	386.7	392.4	395.7
147.5°	307.3	320.7	332.7	343.9	353.6	361.4	365.8	367.3
150°	303.1	314.4	324.2	333.0	340.9	347.2	350.2	350.7
152.5°	298.7	308.4	317.5	324.8	331.4	336.7	338.4	338.9
155°	292.2	300.1	307.5	313.3	318.3	322.2	323.6	323.6
157.5°	285.2	291.9	298.0	302.7	306.5	309.4	310.3	310.3
160°	280.9	286.4	291.7	295.7	298.6	301.6	302.0	302.0
162.5°	276.6	281.2	285.4	289.0	291.2	294.1	294.6	294.2
165°	270.6	273.5	277.0	279.5	281.5	283.4	282.9	282.4
167.5°	264.8	267.1	269.8	271.3	272.3	273.5	273.5	273.1
170°	261.3	262.8	264.8	266.2	267.2	267.7	267.2	267.2
172.5°	258.1	259.2	260.5	261.5	262.1	262.6	262.1	261.3
175°	253.9	254.4	255.4	255.4	255.4	256.4	255.4	254.4
177.5°	251.2	251.6	251.6	251.9	251.6	251.9	251.2	250.4
180°	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0

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