

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: P331344-930

Luminaire Tested: **SA2XXDIP-C675D530U930-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331344-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D530U930-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3875.6 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

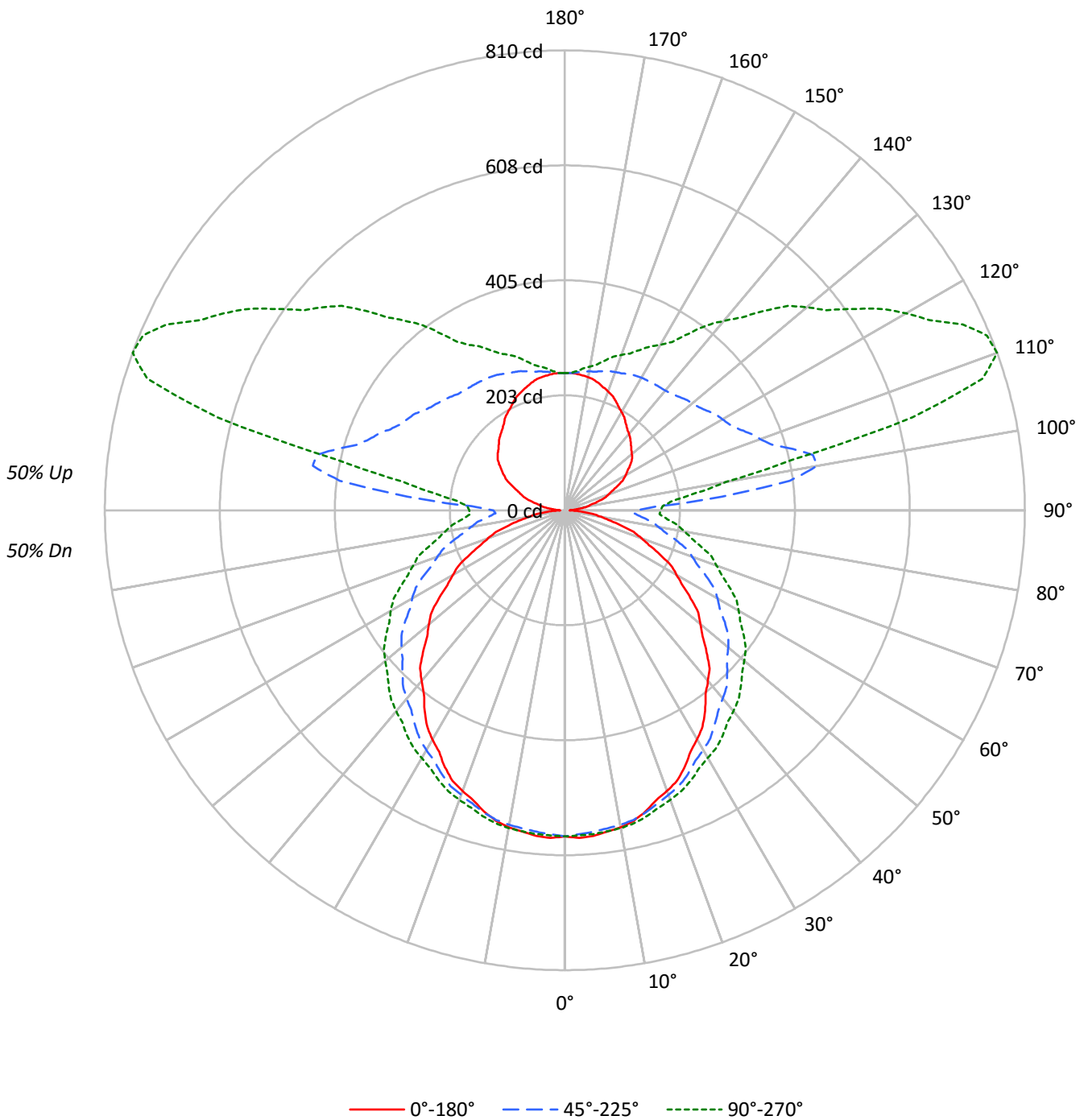
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50		
1	96	91	87	83	89	84	80	77	71	68	65	59	57	55	47	46	45	39		
2	87	79	72	66	80	73	67	62	61	57	53	51	47	44	41	38	36	32		
3	79	69	61	55	72	64	57	51	54	48	44	44	40	37	36	33	30	26		
4	72	61	52	46	66	56	49	43	47	41	37	39	35	31	32	28	26	22		
5	66	54	45	39	60	50	42	36	42	36	32	35	30	27	28	25	22	19		
6	61	48	40	34	56	45	37	31	38	32	27	31	27	23	26	22	19	16		
7	56	43	35	29	51	40	33	27	34	28	24	29	24	20	23	20	17	14		
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	18	15	13		
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11		
10	45	33	25	20	42	30	24	19	26	21	17	22	18	15	18	15	12	10		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9273	9273	9273
5°	9317	8925	8891
10°	9259	8661	8564
15°	9131	8383	8221
20°	8970	8083	7889
25°	8811	7795	7587
30°	8587	7498	7284
35°	8359	7211	7072
40°	8120	6969	6858
45°	7894	6750	6677
50°	7650	6553	6497
55°	7394	6340	6314
60°	7081	6122	6123
65°	6755	5864	5892
70°	6394	5587	5644
75°	5927	5315	5415
80°	5197	5036	5185
85°	4489	4797	5004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.4
10°-20°	156.0	4.0
20°-30°	236.5	6.1
30°-40°	288.0	7.4
40°-50°	309.9	8.0
50°-60°	300.9	7.8
60°-70°	262.7	6.8
70°-80°	202.3	5.2
80°-90°	137.9	3.6
90°-100°	190.2	4.9
100°-110°	396.4	10.2
110°-120°	393.6	10.2
120°-130°	312.1	8.1
130°-140°	240.9	6.2
140°-150°	175.9	4.5
150°-160°	122.4	3.2
160°-170°	72.0	1.9
170°-180°	23.4	0.6
0°-30°	446.9	11.5
0°-40°	734.9	19.0
0°-60°	1345.7	34.7
0°-90°	1948.6	50.3
90°-120°	980.2	25.3
90°-150°	1709.1	44.1
90°-180°	1927.0	49.7
0°-180°	3875.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	576	573	568	573	573	55
15°	549	551	551	558	558	155
25°	499	505	513	522	525	229
35°	430	445	460	478	484	269
45°	353	376	404	429	439	272
55°	270	301	344	373	384	242
65°	185	226	275	308	320	183
75°	102	149	202	237	249	108
85°	30	82	135	168	181	32
90°	9	63	126	157	168	6
95°	23	86	278	195	190	23
105°	61	115	416	715	634	65
115°	103	140	338	669	774	102
125°	141	168	305	532	618	126
135°	164	197	283	431	497	127
145°	187	215	272	343	379	117
155°	212	229	265	299	311	98
165°	232	238	253	269	273	65
175°	241	242	244	247	246	23
180°	242	242	242	242	242	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	577.6	577.2	576.7	576.3	575.8	575.1	574.1	573.0	572.0	571.0	571.7
5°	575.9	575.4	574.9	574.3	573.7	572.9	571.8	570.7	569.6	568.4	569.6
7.5°	570.8	570.4	570.1	569.6	569.3	568.7	567.9	567.0	566.1	565.3	566.6
10°	566.8	566.4	566.1	565.7	565.3	564.8	564.3	563.8	563.2	562.6	564.1
12.5°	560.1	560.2	560.3	560.4	560.4	560.3	559.9	559.5	559.1	558.6	560.1
15°	549.3	549.7	550.1	550.4	550.8	551.0	551.0	551.0	551.0	551.0	552.6
17.5°	535.3	536.1	536.9	537.7	538.4	539.2	539.7	540.3	540.9	541.5	543.2
20°	526.0	526.9	527.8	528.8	529.7	530.5	531.2	532.1	532.8	533.5	535.6
22.5°	516.0	517.1	518.2	519.3	520.3	521.4	522.4	523.4	524.5	525.5	527.6
25°	499.4	500.7	502.0	503.3	504.6	506.1	507.7	509.4	511.0	512.7	514.9
27.5°	479.4	481.5	483.6	485.8	487.9	489.9	491.9	493.8	495.8	497.7	500.5
30°	466.1	468.5	470.9	473.3	475.7	478.1	480.5	482.9	485.3	487.7	490.6
32.5°	451.4	454.1	456.8	459.5	462.3	465.0	467.9	470.7	473.5	476.4	479.8
35°	430.3	433.4	436.6	439.7	442.9	446.2	449.7	453.2	456.7	460.2	464.3
37.5°	407.3	411.0	414.6	418.2	421.8	425.9	430.5	435.0	439.5	444.1	448.7
40°	392.0	396.1	400.1	404.2	408.3	412.8	417.8	422.8	427.8	432.8	437.6
42.5°	377.4	381.4	385.5	389.6	393.6	398.5	404.3	410.0	415.7	421.5	426.7
45°	352.9	357.9	362.9	367.9	372.8	378.6	385.1	391.6	398.0	404.5	410.3
47.5°	328.7	334.2	339.7	345.0	350.5	357.0	364.6	372.2	379.8	387.3	393.4
50°	312.1	317.9	323.6	329.3	335.0	342.1	350.4	358.7	367.0	375.4	381.6
52.5°	296.1	302.1	308.2	314.2	320.2	327.7	336.4	345.2	353.9	362.7	369.2
55°	270.5	277.1	283.8	290.5	297.1	305.2	314.9	324.5	334.1	343.7	350.4
57.5°	245.2	252.7	260.2	267.7	275.2	283.9	293.7	303.5	313.3	323.1	330.3
60°	227.2	235.1	243.1	251.1	259.0	268.3	278.8	289.3	299.9	310.5	317.5
62.5°	211.2	219.5	227.7	235.9	244.3	253.6	264.2	274.7	285.3	295.8	303.3
65°	184.7	193.8	202.9	212.0	221.0	231.0	241.9	252.8	263.7	274.7	282.3
67.5°	160.5	169.9	179.4	188.9	198.4	208.6	219.8	231.0	242.1	253.3	261.0
70°	143.2	152.8	162.4	172.0	181.6	192.2	203.7	215.1	226.6	238.1	246.0
72.5°	127.2	137.1	147.0	156.9	166.8	177.6	189.2	200.8	212.5	224.0	231.9
75°	102.4	112.8	123.1	133.5	143.8	154.9	166.7	178.6	190.4	202.3	210.2
77.5°	78.4	89.3	100.1	110.9	121.7	133.2	145.2	157.3	169.3	181.2	189.2
80°	62.5	73.7	85.0	96.3	107.5	119.2	131.3	143.2	155.2	167.3	175.0
82.5°	49.1	60.3	71.3	82.5	93.7	105.3	117.5	129.6	141.8	154.0	161.8
85°	30.0	41.4	52.9	64.3	75.8	87.5	99.3	111.1	123.0	134.9	142.6
87.5°	16.4	27.7	39.1	50.3	61.6	73.2	85.5	98.0	110.4	122.4	129.8
90°	8.8	20.9	33.5	45.2	56.8	69.5	83.6	98.7	113.4	125.6	132.6
92.5°	13.3	25.8	39.1	51.2	64.3	79.4	101.3	127.5	152.1	164.3	162.2
95°	22.9	33.5	46.8	59.7	75.8	96.9	129.4	180.9	246.0	278.0	262.2
97.5°	32.4	42.6	55.2	69.3	85.6	107.4	145.0	212.0	312.3	399.7	421.8
100°	41.7	49.9	60.9	75.2	91.3	112.9	148.0	215.0	325.8	450.5	524.3
102.5°	49.5	56.8	67.3	80.9	96.9	118.1	150.8	211.3	314.4	447.8	559.7
105°	60.9	68.1	76.7	89.0	104.7	125.1	156.6	207.7	294.0	416.1	546.3
107.5°	74.1	79.9	87.3	98.1	112.5	132.3	162.7	208.1	280.7	382.9	498.4
110°	82.3	88.0	94.4	104.2	117.6	137.5	167.0	209.5	275.3	366.2	468.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	90.6	95.6	101.8	110.6	123.1	142.8	171.1	211.3	271.5	353.4	445.9
115°	103.3	107.6	112.5	120.1	131.4	149.1	177.5	214.2	267.6	338.2	417.2
117.5°	115.7	118.9	122.9	129.2	139.5	157.0	183.2	217.5	264.7	327.0	396.4
120°	123.8	126.5	130.0	134.9	145.0	162.0	187.6	220.0	263.3	320.4	384.7
122.5°	131.7	133.5	136.6	141.4	151.0	168.0	192.0	222.2	262.3	315.0	374.1
125°	141.1	142.5	145.4	150.9	160.2	176.2	198.9	225.7	260.4	305.4	358.3
127.5°	149.4	151.0	154.7	160.7	169.4	185.1	206.2	229.7	259.6	297.8	343.6
130°	154.2	155.9	160.3	166.6	175.8	190.6	210.8	232.4	259.4	293.1	333.8
132.5°	158.7	160.7	165.5	172.2	181.7	196.2	214.7	235.0	259.3	288.7	325.2
135°	164.5	166.3	171.9	178.9	189.6	203.6	220.3	238.4	258.9	283.0	313.4
137.5°	170.8	173.0	178.6	186.0	196.5	209.0	224.5	240.5	258.2	278.1	303.7
140°	175.6	177.3	182.7	190.0	200.0	212.2	226.5	241.3	257.5	275.1	298.0
142.5°	180.5	181.8	186.8	194.0	203.7	215.0	228.7	242.8	257.6	273.7	293.5
145°	186.9	188.7	193.4	200.4	209.7	219.9	232.4	245.5	258.5	272.5	288.5
147.5°	194.7	196.1	200.6	207.0	214.7	223.8	235.6	247.1	258.9	270.8	284.0
150°	199.9	201.3	205.0	211.1	218.1	226.4	237.1	247.9	258.5	269.7	280.9
152.5°	205.1	205.8	209.5	214.8	221.4	229.0	238.6	248.2	257.8	267.8	278.3
155°	212.5	213.0	215.7	220.9	226.0	232.9	240.8	248.7	256.7	264.6	273.4
157.5°	218.6	219.1	221.4	225.8	229.9	235.7	242.4	248.7	254.5	261.2	268.8
160°	222.7	223.1	225.0	228.8	232.4	237.6	243.2	248.7	253.4	259.0	265.5
162.5°	226.8	226.5	228.4	231.4	234.7	238.7	243.5	248.3	252.3	257.1	262.5
165°	231.5	231.1	232.0	234.8	237.1	239.9	244.1	247.4	250.1	253.4	257.6
167.5°	235.5	234.9	235.7	237.5	239.2	240.9	244.0	246.7	248.0	250.1	252.7
170°	238.1	237.1	237.6	239.0	239.9	241.3	243.6	246.0	246.9	248.3	250.1
172.5°	239.5	239.0	238.7	240.1	240.7	241.7	243.3	244.8	245.4	246.1	247.5
175°	241.3	240.8	240.4	241.3	241.3	241.7	242.7	243.6	243.2	243.6	244.1
177.5°	242.1	241.4	241.0	241.7	241.7	241.7	242.1	242.9	242.1	241.7	242.1
180°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	572.4	573.2	573.9	574.1	573.8	573.6	573.2	573.0
5°	570.7	571.8	572.9	573.4	573.2	573.0	572.8	572.6
7.5°	567.9	569.3	570.6	571.2	571.0	570.8	570.6	570.5
10°	565.6	567.0	568.6	569.2	569.0	568.8	568.7	568.4
12.5°	561.6	563.0	564.6	565.2	565.0	564.8	564.7	564.4
15°	554.3	556.0	557.7	558.4	558.2	558.0	557.8	557.7
17.5°	544.9	546.7	548.5	549.3	549.3	549.3	549.3	549.3
20°	537.6	539.6	541.6	542.7	542.7	542.7	542.7	542.7
22.5°	529.6	531.7	533.6	534.8	535.1	535.4	535.7	536.0
25°	517.1	519.3	521.5	522.9	523.5	524.1	524.6	525.2
27.5°	503.4	506.1	509.0	510.5	510.9	511.4	511.8	512.2
30°	493.7	496.6	499.5	501.3	501.9	502.5	503.0	503.5
32.5°	483.2	486.7	490.0	492.2	493.3	494.2	495.2	496.2
35°	468.4	472.5	476.5	479.2	480.5	481.8	483.1	484.4
37.5°	453.1	457.6	462.2	465.1	466.5	467.8	469.2	470.6
40°	442.4	447.2	452.0	455.3	456.9	458.6	460.2	461.9
42.5°	431.9	437.2	442.5	446.0	447.6	449.3	450.9	452.6
45°	416.0	421.7	427.5	431.2	433.1	435.0	436.8	438.6
47.5°	399.3	405.4	411.3	415.3	417.4	419.4	421.4	423.5
50°	387.9	394.2	400.6	404.7	406.8	408.8	410.7	412.8
52.5°	375.6	382.0	388.5	392.8	394.9	397.1	399.3	401.5
55°	357.0	363.7	370.4	374.9	377.3	379.7	382.1	384.5
57.5°	337.5	344.6	351.8	356.6	359.1	361.5	363.9	366.4
60°	324.5	331.5	338.6	343.4	345.9	348.5	351.1	353.8
62.5°	310.7	318.2	325.7	330.7	333.0	335.5	337.9	340.4
65°	289.8	297.4	305.0	310.0	312.4	314.8	317.2	319.6
67.5°	268.6	276.3	284.0	289.1	291.6	294.1	296.6	299.1
70°	254.0	261.9	269.9	274.9	277.1	279.4	281.6	283.8
72.5°	239.7	247.4	255.3	260.5	263.2	265.9	268.5	271.2
75°	218.2	226.1	234.1	239.2	241.7	244.0	246.5	248.8
77.5°	197.1	205.0	213.0	218.2	220.8	223.4	225.9	228.5
80°	182.8	190.6	198.4	203.6	206.1	208.7	211.3	213.9
82.5°	169.5	177.2	185.1	190.1	192.6	195.0	197.5	199.9
85°	150.3	158.2	165.9	171.0	173.7	176.3	178.9	181.4
87.5°	137.2	144.6	152.4	157.4	159.8	162.2	164.5	166.9
90°	139.6	146.0	154.3	159.6	161.8	164.0	166.2	168.5
92.5°	158.9	160.4	163.7	165.6	167.5	168.2	170.8	172.3
95°	231.6	210.3	197.8	192.2	188.3	186.8	187.7	190.4
97.5°	386.5	341.7	298.2	269.1	249.1	239.9	235.2	233.5
100°	521.4	470.6	413.8	361.9	325.4	307.4	296.0	289.6
102.5°	608.4	602.0	562.1	506.9	467.0	434.9	420.1	410.7
105°	649.5	708.5	721.0	709.9	683.1	656.3	638.4	633.9
107.5°	607.2	692.5	747.1	773.7	779.3	779.8	777.9	771.2
110°	572.4	661.5	727.0	769.1	791.2	802.0	808.2	809.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	540.2	626.1	695.5	743.2	773.1	789.9	799.8	804.4
115°	499.5	576.7	643.1	694.8	729.9	753.3	767.4	773.6
117.5°	467.0	535.4	596.1	644.7	680.2	704.7	719.3	724.7
120°	449.8	512.7	567.1	613.0	647.6	671.5	687.0	693.7
122.5°	435.5	493.3	545.0	586.6	617.6	640.8	654.5	660.1
125°	414.0	466.8	512.7	551.0	579.6	598.9	612.2	617.6
127.5°	392.7	440.7	483.9	519.1	544.3	562.5	574.1	578.7
130°	379.2	423.5	464.7	498.4	522.7	540.0	550.7	556.0
132.5°	365.9	407.2	445.3	477.0	500.9	518.2	528.2	533.0
135°	347.5	382.0	416.6	445.4	466.8	483.6	493.5	496.8
137.5°	331.7	360.9	388.6	413.6	433.1	447.6	456.2	460.2
140°	321.9	347.2	371.5	394.0	410.0	423.2	431.3	435.2
142.5°	314.1	335.5	356.3	375.0	390.1	402.1	409.3	410.8
145°	303.9	320.4	336.0	350.4	362.6	371.4	376.9	379.3
147.5°	296.4	308.6	320.0	330.2	339.8	346.6	350.2	351.5
150°	292.0	302.2	312.0	320.3	327.3	332.9	335.7	336.1
152.5°	287.9	297.4	305.7	312.9	318.4	323.3	325.3	325.4
155°	282.3	289.7	296.6	301.7	306.9	310.1	312.0	311.0
157.5°	275.7	281.8	287.7	291.7	295.3	298.1	298.9	298.9
160°	271.5	276.6	281.8	285.0	288.3	290.6	291.1	291.1
162.5°	267.4	271.8	276.2	278.7	281.9	283.6	284.0	283.6
165°	261.3	264.6	267.8	269.7	271.5	273.4	273.4	273.0
167.5°	255.4	258.0	260.2	261.9	262.7	263.7	263.7	263.1
170°	252.5	253.9	255.8	256.7	257.1	258.5	258.0	257.1
172.5°	249.2	250.1	251.6	252.2	252.7	253.3	252.8	252.3
175°	245.5	246.0	246.5	246.9	246.9	247.4	246.9	246.0
177.5°	242.9	242.9	243.3	243.3	243.3	243.3	242.9	242.1
180°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7

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