

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: P331307-940

Luminaire Tested: **S122DIP-S485D725U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331307-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S485D725U940-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4065.9 lumens  
Efficiency: N/A  
Efficacy: 105.9 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: Semi-Indirect

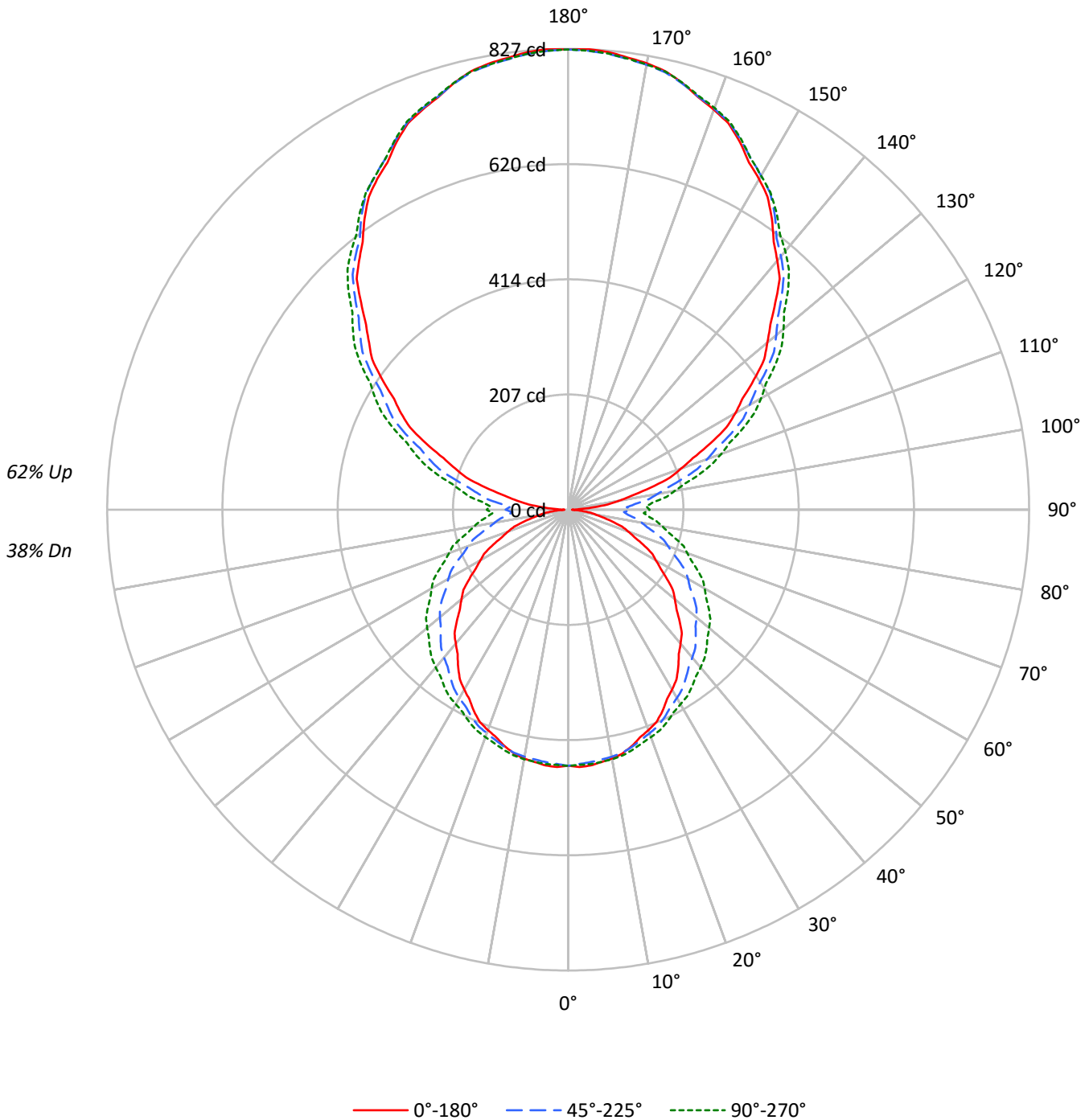
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	45	45	45	38
1	94	89	85	81	85	81	77	74	66	63	61	51	50	48	38	37	36	30
2	85	77	71	65	77	70	65	60	57	53	49	44	42	39	33	31	29	24
3	77	67	60	54	70	61	55	49	50	45	41	39	35	33	29	27	25	20
4	71	59	51	45	64	54	47	41	44	39	34	34	31	28	26	23	21	17
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	28	24	20	21	18	16	12
7	55	42	34	29	49	39	32	26	32	26	22	25	21	18	19	16	14	11
8	51	38	30	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7419	7419	7419
5°	7455	7143	7115
10°	7408	6931	6854
15°	7306	6708	6577
20°	7177	6468	6312
25°	7050	6237	6072
30°	6870	5999	5829
35°	6689	5771	5659
40°	6498	5576	5488
45°	6317	5402	5343
50°	6123	5242	5199
55°	5916	5073	5052
60°	5666	4897	4897
65°	5405	4692	4714
70°	5117	4470	4516
75°	4741	4251	4334
80°	4149	4028	4148
85°	3591	3837	4006



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.5	1.1
10°-20°	124.9	3.1
20°-30°	189.2	4.7
30°-40°	230.5	5.7
40°-50°	247.9	6.1
50°-60°	240.8	5.9
60°-70°	210.2	5.2
70°-80°	161.8	4.0
80°-90°	111.9	2.8
90°-100°	127.2	3.1
100°-110°	217.2	5.3
110°-120°	313.9	7.7
120°-130°	385.5	9.5
130°-140°	418.5	10.3
140°-150°	403.6	9.9
150°-160°	337.3	8.3
160°-170°	223.7	5.5
170°-180°	78.2	1.9
0°-30°	357.6	8.8
0°-40°	588.1	14.5
0°-60°	1076.8	26.5
0°-90°	1560.7	38.4
90°-120°	658.3	16.2
90°-150°	1866.0	45.9
90°-180°	2505.0	61.6
0°-180°	4065.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	461	459	455	459	458	44
15°	440	441	441	446	446	124
25°	400	404	410	418	420	184
35°	344	356	368	382	388	215
45°	282	301	324	344	351	218
55°	216	241	275	298	308	193
65°	148	181	220	246	256	147
75°	82	119	162	189	199	87
85°	24	65	108	135	145	26
90°	7	55	112	137	146	6
95°	42	80	121	145	153	46
105°	153	175	211	234	243	162
115°	281	294	322	340	346	278
125°	407	414	432	448	454	364
135°	526	533	541	554	558	406
145°	637	642	646	651	651	398
155°	728	730	732	736	734	335
165°	792	792	792	796	793	223
175°	825	822	821	825	822	78
180°	826	826	826	826	826	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	462.2	461.8	461.5	461.1	460.7	460.1	459.3	458.5	457.7	456.8	457.4
5°	460.8	460.4	459.9	459.5	459.1	458.4	457.5	456.6	455.8	454.9	455.8
7.5°	456.7	456.4	456.1	455.8	455.6	455.0	454.3	453.7	453.0	452.3	453.3
10°	453.5	453.3	452.9	452.6	452.4	452.0	451.6	451.1	450.7	450.2	451.4
12.5°	448.2	448.3	448.4	448.4	448.4	448.3	448.0	447.6	447.3	447.0	448.2
15°	439.5	439.8	440.1	440.4	440.7	440.9	440.9	440.9	440.9	440.9	442.2
17.5°	428.4	429.0	429.6	430.3	430.9	431.4	431.9	432.3	432.8	433.3	434.6
20°	420.9	421.6	422.4	423.1	423.8	424.5	425.1	425.7	426.3	426.9	428.5
22.5°	412.9	413.8	414.6	415.4	416.3	417.1	418.0	418.8	419.6	420.5	422.1
25°	399.6	400.6	401.6	402.7	403.7	404.9	406.3	407.6	408.9	410.2	412.0
27.5°	383.6	385.3	387.0	388.7	390.3	392.0	393.5	395.1	396.6	398.2	400.5
30°	372.9	374.9	376.7	378.7	380.7	382.5	384.5	386.4	388.3	390.2	392.6
32.5°	361.2	363.4	365.5	367.7	369.9	372.1	374.3	376.7	378.9	381.2	383.9
35°	344.3	346.8	349.4	351.9	354.4	357.0	359.8	362.7	365.4	368.3	371.5
37.5°	325.9	328.9	331.7	334.7	337.5	340.8	344.5	348.0	351.7	355.3	359.0
40°	313.7	316.9	320.2	323.4	326.7	330.3	334.3	338.3	342.3	346.3	350.2
42.5°	301.9	305.2	308.4	311.7	315.0	318.9	323.5	328.1	332.7	337.2	341.4
45°	282.4	286.3	290.3	294.4	298.4	302.9	308.1	313.3	318.5	323.7	328.2
47.5°	263.1	267.4	271.8	276.1	280.4	285.7	291.8	297.8	303.9	310.0	314.8
50°	249.8	254.3	259.0	263.5	268.0	273.7	280.4	287.0	293.7	300.3	305.4
52.5°	236.9	241.7	246.6	251.5	256.3	262.2	269.2	276.2	283.2	290.3	295.3
55°	216.4	221.8	227.1	232.4	237.7	244.2	252.0	259.7	267.3	275.0	280.4
57.5°	196.2	202.2	208.2	214.2	220.3	227.1	235.0	242.8	250.7	258.5	264.3
60°	181.8	188.2	194.6	200.9	207.2	214.6	223.1	231.5	240.0	248.4	254.0
62.5°	169.0	175.6	182.3	188.9	195.5	203.0	211.3	219.8	228.3	236.7	242.6
65°	147.8	155.1	162.4	169.6	176.8	184.9	193.6	202.3	211.1	219.8	225.9
67.5°	128.4	136.0	143.6	151.1	158.7	166.9	175.9	184.9	193.8	202.7	208.8
70°	114.6	122.3	129.9	137.6	145.3	153.7	162.9	172.1	181.3	190.5	196.8
72.5°	101.7	109.7	117.6	125.6	133.5	142.1	151.4	160.7	170.0	179.2	185.6
75°	81.9	90.2	98.4	106.7	115.0	123.9	133.4	142.9	152.4	161.8	168.2
77.5°	62.8	71.4	80.1	88.7	97.5	106.6	116.2	125.8	135.5	145.1	151.4
80°	49.9	58.9	68.0	77.0	86.1	95.4	105.0	114.6	124.2	133.8	140.1
82.5°	39.3	48.2	57.1	66.0	74.9	84.3	94.0	103.7	113.4	123.2	129.4
85°	24.0	33.2	42.4	51.5	60.6	70.0	79.5	88.9	98.4	107.9	114.1
87.5°	13.2	22.4	31.6	40.8	49.9	59.7	69.8	79.9	90.1	100.2	106.2
90°	7.3	17.8	28.3	38.7	49.1	60.8	73.7	86.6	99.4	112.3	117.9
92.5°	18.5	27.9	37.3	46.6	55.9	65.6	75.5	85.4	95.3	105.3	111.1
95°	41.6	50.1	58.6	67.1	75.6	84.4	93.6	102.8	112.0	121.2	126.8
97.5°	70.9	78.4	86.0	93.5	101.0	109.4	118.5	127.6	136.7	145.9	151.3
100°	93.2	99.9	106.6	113.3	120.0	127.8	136.5	145.3	154.0	162.7	168.3
102.5°	116.1	122.1	128.0	134.0	140.0	147.4	156.0	164.6	173.3	181.9	187.4
105°	153.2	157.9	162.7	167.5	172.2	178.6	186.6	194.6	202.6	210.6	216.1
107.5°	191.3	195.4	199.5	203.6	207.7	213.5	220.8	228.2	235.6	242.9	248.0
110°	215.3	219.1	223.0	226.9	230.8	236.4	243.6	250.8	258.2	265.4	270.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	242.0	245.4	248.9	252.3	255.7	260.7	267.5	274.3	281.1	287.8	292.2
115°	281.4	284.0	286.6	289.1	291.7	296.1	302.5	308.9	315.2	321.6	325.8
117.5°	320.1	322.4	324.8	327.0	329.3	333.1	338.4	343.7	349.0	354.3	358.3
120°	346.3	348.1	350.0	351.8	353.7	356.9	361.6	366.2	371.0	375.6	379.8
122.5°	370.3	372.0	373.7	375.5	377.2	380.4	385.1	389.8	394.5	399.2	402.9
125°	407.0	408.4	409.7	411.2	412.6	415.4	419.6	423.9	428.2	432.5	436.0
127.5°	443.4	445.0	446.6	448.3	449.9	452.3	455.6	458.8	462.1	465.3	468.4
130°	466.2	468.1	469.9	471.8	473.7	476.0	478.8	481.6	484.4	487.2	490.4
132.5°	491.9	493.4	494.9	496.3	497.8	499.8	502.3	504.7	507.2	509.7	512.4
135°	525.5	527.2	528.9	530.7	532.4	534.0	535.8	537.6	539.4	541.3	544.2
137.5°	561.6	562.9	564.4	565.7	567.0	568.3	569.4	570.4	571.4	572.5	575.1
140°	583.4	584.6	585.9	587.1	588.4	589.5	590.6	591.7	592.7	593.8	596.1
142.5°	605.6	606.9	608.1	609.4	610.6	611.5	612.2	612.7	613.3	613.9	615.9
145°	637.0	638.1	639.3	640.3	641.4	642.4	643.4	644.3	645.2	646.1	647.2
147.5°	665.7	666.9	668.2	669.5	670.8	671.8	672.4	673.1	673.7	674.3	674.8
150°	685.2	686.1	687.0	688.0	688.8	689.6	690.3	690.9	691.5	692.1	692.6
152.5°	702.4	703.4	704.3	705.3	706.1	706.9	707.8	708.5	709.2	710.0	710.5
155°	728.3	728.8	729.3	729.8	730.2	730.7	731.1	731.6	732.1	732.5	733.3
157.5°	750.6	750.8	751.2	751.4	751.8	752.1	752.3	752.6	752.9	753.1	754.2
160°	763.9	764.2	764.6	764.8	765.2	765.4	765.5	765.7	765.9	766.0	767.0
162.5°	776.1	776.2	776.3	776.3	776.4	776.5	776.7	776.9	777.0	777.1	778.2
165°	792.5	792.4	792.2	792.0	791.8	791.8	791.8	791.8	791.8	791.8	792.9
167.5°	806.1	805.7	805.2	804.8	804.3	804.1	804.1	804.0	804.0	803.9	805.0
170°	813.4	813.0	812.4	812.0	811.5	811.2	811.1	810.9	810.7	810.6	811.7
172.5°	818.4	818.0	817.5	817.0	816.5	816.3	816.1	815.9	815.8	815.6	816.7
175°	824.6	824.1	823.6	823.1	822.7	822.3	822.0	821.7	821.4	821.1	822.2
177.5°	827.1	826.7	826.3	825.9	825.5	825.3	825.0	824.7	824.5	824.3	825.0
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	458.1	458.6	459.2	459.4	459.1	459.0	458.7	458.4
5°	456.6	457.5	458.4	458.8	458.6	458.5	458.3	458.2
7.5°	454.4	455.5	456.6	457.0	456.9	456.7	456.6	456.5
10°	452.5	453.7	455.0	455.5	455.3	455.1	455.0	454.9
12.5°	449.3	450.6	451.7	452.3	452.1	451.9	451.8	451.7
15°	443.5	444.9	446.2	446.7	446.7	446.5	446.3	446.2
17.5°	436.0	437.5	438.8	439.5	439.5	439.5	439.5	439.5
20°	430.2	431.8	433.4	434.2	434.2	434.2	434.2	434.2
22.5°	423.7	425.3	427.0	427.9	428.2	428.4	428.6	428.9
25°	413.8	415.5	417.3	418.5	418.9	419.4	419.8	420.3
27.5°	402.8	405.0	407.2	408.5	408.8	409.2	409.5	409.8
30°	395.0	397.3	399.8	401.1	401.5	402.0	402.4	402.9
32.5°	386.6	389.3	392.1	393.9	394.7	395.5	396.3	397.1
35°	374.8	378.1	381.3	383.4	384.5	385.5	386.6	387.6
37.5°	362.6	366.2	369.8	372.1	373.3	374.3	375.4	376.6
40°	354.0	357.8	361.7	364.3	365.6	366.9	368.3	369.6
42.5°	345.6	349.8	354.0	356.9	358.1	359.4	360.8	362.1
45°	332.9	337.4	342.0	345.0	346.5	348.0	349.5	351.0
47.5°	319.5	324.3	329.1	332.3	333.9	335.6	337.2	338.9
50°	310.4	315.4	320.5	323.8	325.5	327.1	328.7	330.3
52.5°	300.5	305.7	310.9	314.2	316.0	317.8	319.5	321.3
55°	285.7	291.1	296.3	300.0	301.9	303.8	305.8	307.6
57.5°	270.0	275.7	281.5	285.3	287.3	289.3	291.2	293.2
60°	259.7	265.3	270.9	274.7	276.8	278.9	281.0	283.0
62.5°	248.6	254.6	260.6	264.6	266.5	268.5	270.5	272.4
65°	231.9	238.0	244.1	248.1	249.9	251.9	253.8	255.7
67.5°	215.0	221.1	227.2	231.3	233.3	235.3	237.4	239.3
70°	203.2	209.6	215.9	220.0	221.8	223.6	225.3	227.1
72.5°	191.8	198.0	204.3	208.5	210.5	212.7	214.8	217.0
75°	174.6	180.9	187.3	191.5	193.3	195.3	197.2	199.1
77.5°	157.7	164.1	170.4	174.6	176.6	178.7	180.8	182.9
80°	146.3	152.5	158.7	162.8	165.0	167.0	169.1	171.1
82.5°	135.6	141.9	148.0	152.1	154.1	156.0	158.0	160.0
85°	120.3	126.5	132.8	136.9	138.9	141.1	143.1	145.2
87.5°	112.2	118.2	124.1	128.1	130.0	132.0	133.8	135.8
90°	123.5	129.1	134.7	138.5	140.4	142.4	144.3	146.2
92.5°	117.0	122.9	128.8	132.6	134.4	136.2	137.9	139.8
95°	132.4	138.0	143.7	147.2	148.7	150.2	151.6	153.1
97.5°	156.8	162.3	167.7	171.4	173.1	174.8	176.5	178.3
100°	173.7	179.2	184.7	188.2	189.7	191.1	192.6	194.0
102.5°	192.9	198.3	203.8	207.3	208.7	210.3	211.7	213.2
105°	221.6	227.1	232.6	236.1	237.7	239.4	241.0	242.6
107.5°	253.2	258.2	263.3	266.4	267.2	268.1	269.0	270.0
110°	274.8	279.6	284.4	287.3	288.5	289.6	290.8	291.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	296.6	301.0	305.3	308.2	309.4	310.7	312.0	313.3
115°	330.1	334.4	338.7	341.4	342.6	343.8	344.9	346.1
117.5°	362.3	366.3	370.3	372.8	373.9	375.0	375.9	377.0
120°	383.9	388.1	392.2	394.8	396.0	397.2	398.3	399.5
122.5°	406.5	410.2	413.8	416.2	417.2	418.2	419.3	420.4
125°	439.5	443.1	446.6	449.0	450.1	451.3	452.5	453.7
127.5°	471.5	474.7	477.8	479.7	480.5	481.3	482.1	483.0
130°	493.7	497.0	500.2	502.1	502.7	503.2	503.8	504.4
132.5°	515.1	517.9	520.7	522.4	523.1	523.8	524.5	525.1
135°	547.2	550.1	553.0	554.9	555.6	556.3	557.1	557.8
137.5°	577.7	580.3	582.9	584.3	584.8	585.1	585.6	585.9
140°	598.5	600.9	603.2	604.6	604.8	605.1	605.4	605.6
142.5°	618.0	619.9	622.0	623.0	623.2	623.4	623.5	623.7
145°	648.2	649.3	650.3	650.9	650.9	651.1	651.2	651.4
147.5°	675.2	675.6	676.1	676.2	676.0	675.7	675.6	675.3
150°	693.0	693.5	694.0	694.0	693.5	693.0	692.6	692.1
152.5°	711.1	711.8	712.3	712.3	711.8	711.1	710.5	710.0
155°	734.1	734.9	735.7	735.8	735.3	734.9	734.4	734.0
157.5°	755.3	756.3	757.4	757.5	756.8	756.1	755.3	754.6
160°	767.9	768.8	769.7	769.9	769.3	768.7	768.0	767.4
162.5°	779.3	780.3	781.4	781.5	780.8	780.1	779.3	778.6
165°	794.0	795.0	796.1	796.3	795.5	794.7	794.0	793.2
167.5°	806.1	807.2	808.2	808.4	807.6	806.8	806.0	805.2
170°	812.8	813.9	814.9	815.0	814.1	813.2	812.3	811.3
172.5°	817.8	818.9	819.9	820.0	819.1	818.1	817.3	816.4
175°	823.2	824.3	825.4	825.5	824.6	823.6	822.7	821.8
177.5°	825.7	826.5	827.2	827.2	826.5	825.7	825.0	824.3
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9

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