

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: P331316-930

Luminaire Tested: **S122DIP-S485D925U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331316-930  
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-S485D925U930-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4302.6 lumens  
Efficiency: N/A  
Efficacy: 96.7 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

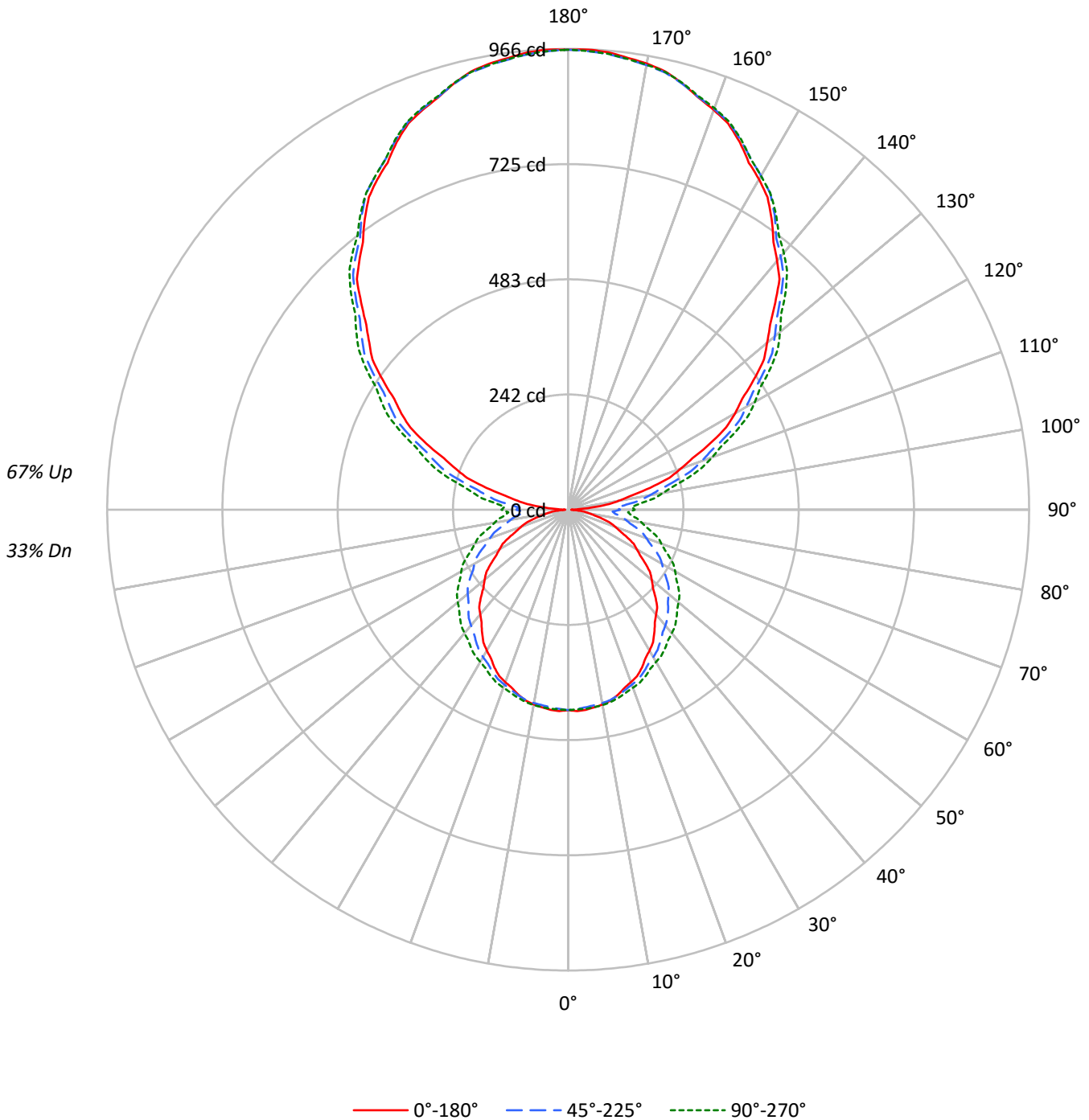
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	93	88	84	80	84	80	76	73	63	61	58	48	47	45	34	33	32	26
2	84	77	70	65	75	69	64	59	55	51	48	42	39	37	30	28	26	21
3	77	67	59	53	69	60	54	49	48	43	39	37	33	31	26	24	22	17
4	70	59	51	45	62	53	46	41	42	37	33	32	29	26	23	21	19	14
5	64	52	44	38	57	47	40	35	38	32	28	29	25	22	21	18	16	12
6	59	47	39	33	53	42	35	30	34	28	25	26	22	19	19	16	14	11
7	54	42	34	28	48	38	31	26	30	25	21	23	20	17	17	14	12	9
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8
9	47	34	27	22	42	31	25	20	25	20	17	20	16	13	14	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	14	12	13	11	9	7

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

	0°	45°	90°
0°	6783	6783	6783
5°	6816	6530	6505
10°	6774	6337	6266
15°	6681	6133	6014
20°	6562	5913	5771
25°	6445	5701	5552
30°	6282	5486	5330
35°	6116	5276	5174
40°	5941	5099	5017
45°	5775	4940	4885
50°	5598	4794	4753
55°	5410	4638	4620
60°	5180	4477	4479
65°	4944	4290	4310
70°	4679	4085	4131
75°	4335	3888	3964
80°	3800	3685	3794
85°	3277	3510	3661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	0.9
10°-20°	114.2	2.7
20°-30°	173.0	4.0
30°-40°	210.7	4.9
40°-50°	226.7	5.3
50°-60°	220.1	5.1
60°-70°	192.2	4.5
70°-80°	148.0	3.4
80°-90°	103.2	2.4
90°-100°	129.5	3.0
100°-110°	239.7	5.6
110°-120°	357.3	8.3
120°-130°	444.9	10.3
130°-140°	486.4	11.3
140°-150°	470.7	10.9
150°-160°	393.7	9.2
160°-170°	261.1	6.1
170°-180°	91.3	2.1
0°-30°	327.0	7.6
0°-40°	537.7	12.5
0°-60°	984.5	22.9
0°-90°	1427.9	33.2
90°-120°	726.6	16.9
90°-150°	2128.7	49.5
90°-180°	2875.0	66.8
0°-180°	4302.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	421	419	416	419	419	40
15°	402	403	403	408	408	113
25°	365	370	375	382	384	168
35°	315	325	337	350	354	197
45°	258	275	296	314	321	199
55°	198	220	251	273	281	177
65°	135	165	201	225	234	134
75°	75	109	148	173	182	79
85°	22	60	99	123	133	24
90°	7	53	109	131	140	6
95°	47	84	122	144	151	52
105°	178	199	231	253	261	188
115°	328	340	365	382	387	324
125°	475	483	499	513	518	424
135°	613	622	630	641	644	474
145°	744	749	754	758	758	465
155°	850	853	855	859	857	391
165°	925	924	924	929	926	261
175°	962	960	958	964	959	91
180°	964	964	964	964	964	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	422.6	422.2	421.9	421.6	421.3	420.7	420.0	419.2	418.5	417.7	418.2
5°	421.3	420.9	420.5	420.1	419.7	419.1	418.3	417.5	416.7	415.9	416.7
7.5°	417.6	417.3	417.0	416.8	416.5	416.0	415.4	414.8	414.2	413.5	414.5
10°	414.7	414.4	414.1	413.8	413.6	413.3	412.9	412.5	412.1	411.6	412.7
12.5°	409.8	409.9	409.9	409.9	410.0	409.9	409.6	409.3	409.0	408.7	409.8
15°	401.9	402.1	402.4	402.7	402.9	403.1	403.1	403.1	403.1	403.1	404.3
17.5°	391.7	392.2	392.8	393.4	394.0	394.4	394.8	395.3	395.7	396.2	397.4
20°	384.8	385.5	386.2	386.9	387.5	388.2	388.7	389.2	389.8	390.3	391.8
22.5°	377.5	378.3	379.1	379.8	380.7	381.4	382.2	382.9	383.7	384.5	386.0
25°	365.3	366.3	367.2	368.2	369.1	370.2	371.5	372.7	373.9	375.0	376.7
27.5°	350.7	352.3	353.8	355.4	356.9	358.4	359.8	361.3	362.6	364.1	366.2
30°	341.0	342.8	344.5	346.3	348.1	349.8	351.6	353.3	355.1	356.8	359.0
32.5°	330.3	332.2	334.2	336.2	338.2	340.2	342.3	344.4	346.4	348.5	351.0
35°	314.8	317.1	319.4	321.7	324.0	326.4	329.0	331.6	334.1	336.7	339.7
37.5°	298.0	300.7	303.3	306.0	308.6	311.6	315.0	318.2	321.6	324.9	328.2
40°	286.8	289.8	292.8	295.7	298.7	302.0	305.7	309.3	313.0	316.7	320.2
42.5°	276.1	279.1	282.0	285.0	288.0	291.6	295.8	299.9	304.2	308.3	312.2
45°	258.2	261.8	265.5	269.1	272.8	277.0	281.7	286.4	291.2	296.0	300.1
47.5°	240.5	244.5	248.5	252.4	256.4	261.2	266.8	272.3	277.9	283.4	287.8
50°	228.4	232.5	236.8	240.9	245.1	250.2	256.3	262.4	268.6	274.6	279.2
52.5°	216.6	221.0	225.4	229.9	234.3	239.7	246.1	252.5	258.9	265.4	270.0
55°	197.9	202.8	207.7	212.5	217.4	223.3	230.4	237.4	244.4	251.4	256.3
57.5°	179.4	184.9	190.4	195.8	201.4	207.7	214.8	222.0	229.2	236.4	241.7
60°	166.2	172.0	177.9	183.7	189.5	196.2	204.0	211.7	219.4	227.1	232.3
62.5°	154.5	160.5	166.6	172.7	178.7	185.6	193.2	201.0	208.7	216.4	221.8
65°	135.2	141.8	148.5	155.1	161.7	169.0	177.0	185.0	193.0	201.0	206.5
67.5°	117.4	124.3	131.3	138.2	145.1	152.6	160.9	169.0	177.2	185.3	190.9
70°	104.8	111.8	118.8	125.8	132.9	140.6	149.0	157.4	165.8	174.1	179.9
72.5°	93.0	100.3	107.5	114.8	122.1	130.0	138.4	146.9	155.4	163.9	169.7
75°	74.9	82.5	90.0	97.6	105.2	113.3	122.0	130.6	139.3	148.0	153.8
77.5°	57.4	65.3	73.2	81.1	89.1	97.4	106.2	115.0	123.8	132.6	138.4
80°	45.7	53.9	62.2	70.4	78.7	87.2	96.0	104.8	113.6	122.4	128.1
82.5°	36.0	44.1	52.2	60.3	68.5	77.0	85.9	94.8	103.7	112.7	118.3
85°	21.9	30.3	38.7	47.1	55.4	64.0	72.6	81.3	90.0	98.7	104.4
87.5°	12.1	20.6	29.1	37.6	46.1	55.0	64.5	73.9	83.4	92.9	98.3
90°	6.9	17.0	26.9	36.9	47.0	58.3	70.9	83.6	96.2	108.8	113.9
92.5°	20.1	28.9	37.9	46.8	55.7	64.7	74.0	83.3	92.6	101.8	107.2
95°	47.2	55.4	63.5	71.7	79.8	88.1	96.7	105.2	113.7	122.1	127.3
97.5°	81.5	88.8	96.0	103.3	110.6	118.4	126.9	135.3	143.8	152.3	157.4
100°	107.6	114.1	120.5	126.9	133.4	140.7	148.8	156.9	165.0	173.2	178.1
102.5°	134.4	140.1	145.9	151.6	157.4	164.3	172.3	180.3	188.4	196.5	201.5
105°	178.0	182.5	186.9	191.4	195.8	201.8	209.2	216.5	224.0	231.4	236.4
107.5°	222.4	226.4	230.3	234.2	238.1	243.5	250.2	257.0	263.7	270.4	275.2
110°	250.6	254.4	258.2	262.0	265.8	271.0	277.6	284.2	290.8	297.5	301.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	281.8	285.2	288.5	291.9	295.3	300.0	306.2	312.3	318.5	324.7	328.6
115°	327.9	330.4	333.0	335.6	338.2	342.3	348.1	353.8	359.5	365.3	369.1
117.5°	373.2	375.6	378.0	380.4	382.9	386.4	391.0	395.6	400.2	404.8	408.4
120°	403.7	405.8	407.7	409.7	411.7	414.7	418.7	422.7	426.6	430.6	434.3
122.5°	431.8	433.7	435.6	437.6	439.5	442.5	446.6	450.7	454.8	458.9	462.1
125°	474.7	476.4	478.0	479.6	481.3	484.0	487.8	491.5	495.3	499.1	502.2
127.5°	517.2	519.2	521.1	523.0	524.9	527.3	530.2	533.0	535.8	538.7	541.4
130°	543.9	546.1	548.4	550.6	552.8	555.1	557.6	560.1	562.6	565.0	567.9
132.5°	573.9	575.6	577.4	579.2	581.0	583.0	585.2	587.5	589.8	592.1	594.4
135°	613.3	615.2	617.3	619.2	621.3	623.1	624.8	626.5	628.2	629.9	632.6
137.5°	655.4	657.0	658.6	660.2	661.8	663.2	664.2	665.3	666.3	667.4	669.8
140°	680.8	682.3	683.8	685.3	686.8	688.1	689.3	690.5	691.6	692.8	695.0
142.5°	706.9	708.3	709.8	711.3	712.8	713.9	714.5	715.3	715.9	716.6	718.4
145°	743.6	744.9	746.2	747.5	748.7	749.9	751.0	752.0	753.2	754.2	755.2
147.5°	777.0	778.5	780.1	781.5	783.1	784.2	785.0	785.6	786.4	787.1	787.6
150°	799.8	800.9	801.9	803.1	804.1	805.0	805.8	806.5	807.2	808.0	808.5
152.5°	819.9	821.1	822.1	823.2	824.3	825.3	826.1	827.0	827.9	828.8	829.5
155°	850.3	850.8	851.3	851.9	852.4	853.0	853.5	854.0	854.6	855.1	856.1
157.5°	876.1	876.4	876.9	877.2	877.6	877.9	878.2	878.6	878.9	879.2	880.4
160°	891.8	892.1	892.4	892.8	893.2	893.5	893.6	893.8	894.0	894.1	895.3
162.5°	906.0	906.1	906.2	906.3	906.4	906.4	906.7	906.9	907.0	907.2	908.4
165°	925.1	925.0	924.7	924.5	924.4	924.3	924.3	924.3	924.3	924.3	925.5
167.5°	941.0	940.5	940.0	939.4	938.9	938.6	938.6	938.5	938.5	938.4	939.7
170°	949.5	948.9	948.4	947.9	947.3	947.0	946.8	946.6	946.4	946.2	947.5
172.5°	955.4	954.8	954.3	953.7	953.2	952.8	952.7	952.4	952.3	952.1	953.4
175°	962.5	962.0	961.4	960.9	960.3	959.9	959.5	959.2	958.8	958.5	959.7
177.5°	965.5	965.0	964.6	964.2	963.7	963.4	963.0	962.8	962.5	962.2	963.0
180°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	418.8	419.3	419.9	420.0	419.8	419.6	419.4	419.1
5°	417.5	418.3	419.1	419.5	419.3	419.2	419.1	418.9
7.5°	415.5	416.5	417.4	417.8	417.8	417.6	417.4	417.4
10°	413.8	414.8	416.0	416.5	416.3	416.1	416.0	415.9
12.5°	410.8	412.0	413.0	413.5	413.4	413.2	413.1	412.9
15°	405.5	406.8	408.0	408.5	408.4	408.2	408.1	408.0
17.5°	398.7	400.0	401.2	401.9	401.9	401.9	401.9	401.9
20°	393.3	394.8	396.2	397.0	397.0	397.0	397.0	397.0
22.5°	387.4	388.9	390.4	391.3	391.5	391.7	391.9	392.2
25°	378.3	379.9	381.6	382.6	383.0	383.4	383.8	384.3
27.5°	368.3	370.3	372.3	373.5	373.8	374.1	374.4	374.7
30°	361.2	363.3	365.5	366.7	367.1	367.5	367.9	368.4
32.5°	353.5	356.0	358.5	360.1	360.9	361.6	362.3	363.1
35°	342.7	345.7	348.6	350.6	351.6	352.5	353.4	354.4
37.5°	331.5	334.8	338.1	340.2	341.3	342.3	343.2	344.3
40°	323.7	327.2	330.7	333.0	334.3	335.5	336.7	337.9
42.5°	316.0	319.8	323.7	326.3	327.4	328.6	329.9	331.1
45°	304.4	308.5	312.7	315.4	316.8	318.2	319.5	320.9
47.5°	292.1	296.5	300.9	303.9	305.3	306.8	308.3	309.8
50°	283.8	288.4	293.0	296.0	297.6	299.1	300.5	302.0
52.5°	274.8	279.5	284.2	287.3	288.9	290.6	292.1	293.8
55°	261.2	266.1	270.9	274.3	276.1	277.8	279.6	281.3
57.5°	246.9	252.1	257.4	260.9	262.7	264.5	266.3	268.1
60°	237.4	242.6	247.7	251.2	253.1	255.0	256.9	258.8
62.5°	227.3	232.8	238.2	241.9	243.7	245.5	247.3	249.1
65°	212.1	217.6	223.1	226.8	228.5	230.3	232.0	233.8
67.5°	196.6	202.1	207.7	211.5	213.3	215.2	217.0	218.8
70°	185.8	191.6	197.4	201.1	202.8	204.4	206.0	207.7
72.5°	175.4	181.1	186.8	190.6	192.5	194.4	196.4	198.4
75°	159.6	165.4	171.2	175.0	176.8	178.6	180.3	182.1
77.5°	144.2	150.0	155.8	159.6	161.5	163.4	165.3	167.2
80°	133.8	139.4	145.1	148.9	150.8	152.7	154.6	156.5
82.5°	124.0	129.7	135.3	139.1	140.9	142.7	144.5	146.3
85°	110.0	115.7	121.4	125.1	127.0	129.0	130.9	132.7
87.5°	103.8	109.3	114.7	118.3	120.1	121.8	123.6	125.4
90°	119.0	124.0	129.1	132.5	134.3	136.1	137.9	139.7
92.5°	112.6	118.0	123.4	126.9	128.6	130.2	131.8	133.5
95°	132.4	137.5	142.7	145.9	147.2	148.4	149.7	150.9
97.5°	162.3	167.4	172.4	175.6	177.2	178.8	180.3	181.9
100°	183.2	188.2	193.2	196.3	197.6	198.9	200.2	201.6
102.5°	206.5	211.6	216.6	219.8	221.1	222.4	223.7	225.0
105°	241.6	246.6	251.8	255.0	256.6	258.0	259.5	261.0
107.5°	279.8	284.5	289.3	291.9	292.5	293.2	293.9	294.6
110°	306.1	310.5	314.8	317.5	318.4	319.4	320.2	321.2





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	332.5	336.4	340.2	342.8	343.8	345.0	346.0	347.1
115°	373.0	376.9	380.7	383.2	384.1	385.1	386.0	386.9
117.5°	412.0	415.6	419.1	421.3	422.2	423.0	423.9	424.7
120°	438.1	441.9	445.7	448.1	449.0	450.0	450.9	451.8
122.5°	465.4	468.6	471.9	473.9	474.8	475.6	476.5	477.4
125°	505.3	508.4	511.6	513.6	514.7	515.7	516.7	517.8
127.5°	544.0	546.8	549.5	551.1	551.8	552.4	553.0	553.6
130°	570.8	573.7	576.6	578.2	578.5	578.9	579.3	579.7
132.5°	596.7	599.1	601.4	602.8	603.3	603.9	604.4	604.9
135°	635.3	637.9	640.6	642.2	642.7	643.3	643.8	644.3
137.5°	672.1	674.4	676.8	678.1	678.2	678.5	678.7	678.8
140°	697.2	699.3	701.5	702.6	702.7	702.8	702.9	703.0
142.5°	720.3	722.2	724.1	725.0	725.0	725.0	725.0	724.9
145°	756.2	757.2	758.2	758.7	758.6	758.6	758.6	758.5
147.5°	788.1	788.6	789.1	789.2	788.8	788.5	788.1	787.7
150°	809.0	809.6	810.1	810.1	809.6	809.0	808.5	808.0
152.5°	830.1	830.8	831.5	831.5	830.8	830.1	829.5	828.8
155°	857.0	857.9	858.8	858.9	858.3	857.9	857.3	856.7
157.5°	881.7	882.9	884.1	884.3	883.5	882.6	881.7	880.8
160°	896.3	897.4	898.5	898.7	898.0	897.2	896.5	895.8
162.5°	909.6	910.9	912.1	912.3	911.4	910.5	909.7	908.8
165°	926.8	928.1	929.4	929.5	928.6	927.7	926.8	925.9
167.5°	940.9	942.2	943.5	943.6	942.7	941.8	940.9	939.9
170°	948.8	950.1	951.3	951.4	950.3	949.3	948.1	947.1
172.5°	954.6	955.9	957.2	957.2	956.2	955.1	954.0	952.9
175°	961.0	962.2	963.5	963.6	962.5	961.4	960.3	959.3
177.5°	963.9	964.8	965.6	965.6	964.8	963.9	963.0	962.2
180°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2

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