

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: P332612-930

Luminaire Tested: **SA4XXDIP-C795D1035U930-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332612-930  
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-C795D1035U930-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

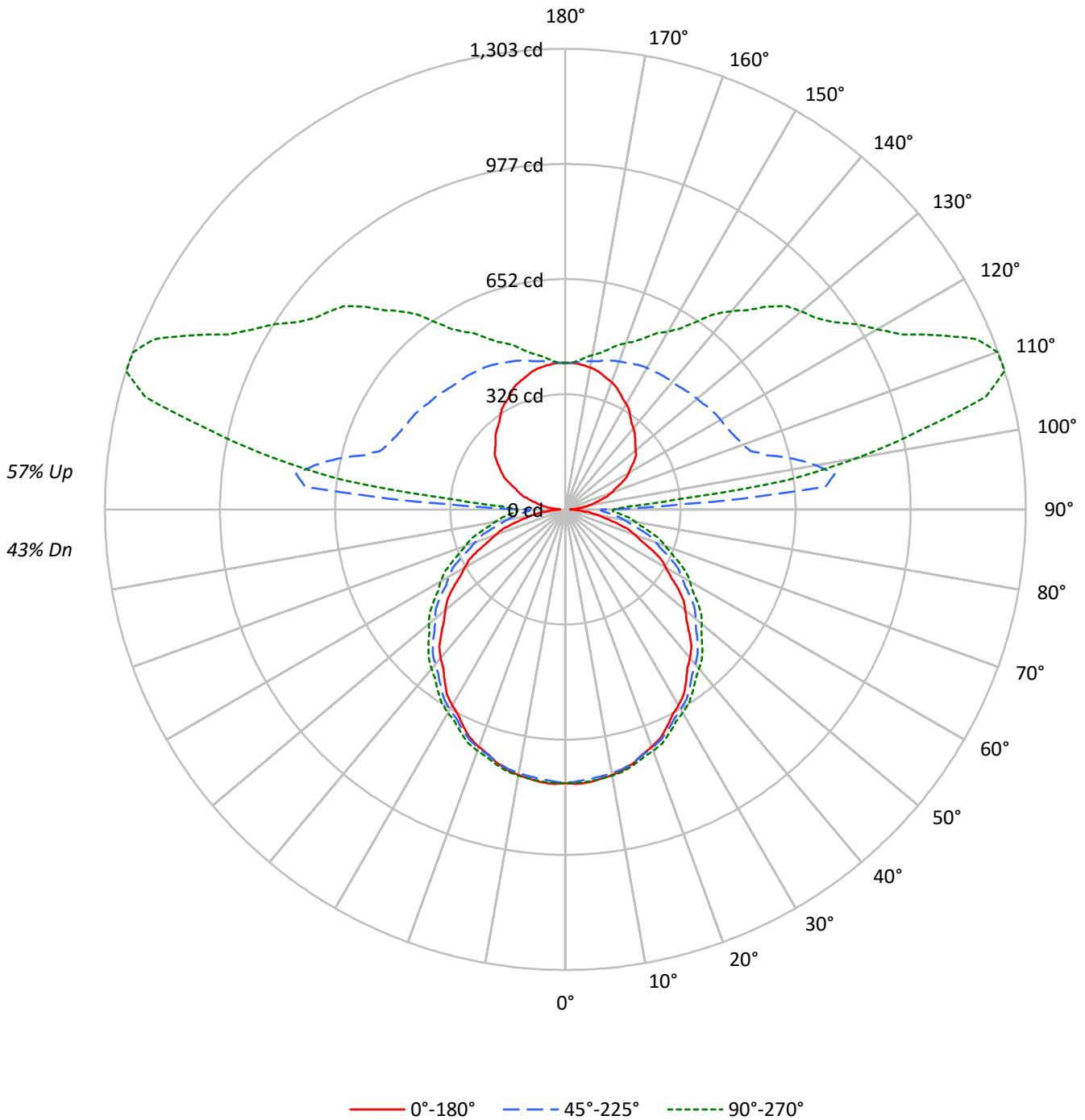
Lumens per Lamp: N/A  
Luminaire Lumens: 5655.2 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

Input Watts (W): 52  
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40	35
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9

**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	1.3
10°-20°	210.1	3.7
20°-30°	317.7	5.6
30°-40°	384.4	6.8
40°-50°	406.4	7.2
50°-60°	382.5	6.8
60°-70°	317.3	5.6
70°-80°	222.9	3.9
80°-90°	128.3	2.3
90°-100°	374.1	6.6
100°-110°	678.2	12.0
110°-120°	595.0	10.5
120°-130°	490.2	8.7
130°-140°	400.3	7.1
140°-150°	300.7	5.3
150°-160°	210.1	3.7
160°-170°	123.6	2.2
170°-180°	40.2	0.7
0°-30°	601.2	10.6
0°-40°	985.6	17.4
0°-60°	1774.4	31.4
0°-90°	2442.9	43.2
90°-120°	1647.2	29.1
90°-150°	2838.4	50.2
90°-180°	3212.0	56.8
0°-180°	5655.2	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°	15	55	100	126	135	11
95°	38	125	739	426	305	39
105°	103	164	591	1228	1231	110
115°	173	225	517	974	1166	172
125°	237	281	498	819	923	211
135°	279	332	477	712	812	216
145°	321	366	467	588	649	201
155°	364	393	454	514	536	168
165°	396	409	436	461	468	112
175°	413	414	418	423	422	39
180°	414	414	414	414	414	



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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	34.0	42.4	50.4	58.5	66.6	76.0	84.5	93.2	102.0	107.4
90°	14.7	24.1	34.2	42.7	51.2	59.2	72.4	80.7	90.6	100.5	105.3
92.5°	22.4	33.6	48.2	65.1	83.9	108.4	158.1	229.5	299.4	339.9	302.1
95°	38.2	47.0	61.5	78.4	104.3	145.6	224.3	365.7	568.1	738.8	762.7
97.5°	58.5	63.9	76.4	91.6	113.8	149.1	211.5	329.5	530.8	768.7	932.1
100°	71.4	76.4	87.2	101.9	122.4	154.7	210.2	309.7	483.2	720.3	933.8
102.5°	84.4	90.1	99.5	113.1	132.2	162.9	213.7	302.0	450.6	661.5	881.4
105°	103.1	109.3	117.2	130.9	149.4	178.5	224.7	299.4	420.4	591.2	787.3
107.5°	125.3	130.1	137.4	150.9	168.1	196.3	238.9	307.1	411.2	549.7	710.5
110°	139.6	143.9	150.7	163.1	180.5	207.2	249.8	313.5	409.8	534.5	671.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	153.3	157.3	164.4	175.9	192.9	219.3	260.2	320.4	410.5	525.2	647.8
115°	172.8	177.1	184.5	194.4	211.6	237.5	276.2	331.2	413.0	516.9	623.7
117.5°	194.2	197.5	203.6	213.6	229.1	255.3	292.0	342.7	416.3	510.9	609.8
120°	207.8	210.0	216.3	225.8	240.3	266.1	302.6	350.6	418.8	507.4	601.6
122.5°	220.9	222.6	228.4	236.8	252.1	276.9	313.1	358.1	421.5	503.3	593.0
125°	237.1	240.1	244.8	253.6	268.9	293.9	328.1	370.3	426.4	498.0	579.8
127.5°	252.0	254.5	260.1	270.2	286.1	310.8	342.8	380.9	429.3	491.0	562.8
130°	259.8	262.9	269.2	281.2	296.4	321.6	352.3	387.1	431.7	486.9	552.2
132.5°	268.2	270.7	278.9	290.3	306.9	330.4	360.4	394.0	434.1	483.5	542.7
135°	279.3	282.5	290.7	304.5	321.6	343.4	371.6	402.3	437.0	477.4	527.7
137.5°	291.1	294.1	302.8	315.8	333.4	353.8	379.5	407.5	437.8	473.3	515.0
140°	299.6	301.9	310.6	324.2	341.2	360.7	385.3	411.6	439.4	470.6	508.1
142.5°	308.0	310.5	318.7	331.8	348.3	367.0	390.7	414.7	441.0	469.2	502.5
145°	320.7	323.0	330.9	342.1	357.4	375.2	396.4	418.3	442.0	467.2	494.4
147.5°	335.3	335.8	342.8	354.3	367.0	383.0	402.9	422.1	442.8	464.2	487.4
150°	344.4	345.0	351.3	360.9	372.8	388.2	406.2	424.0	442.8	462.3	482.7
152.5°	352.1	352.2	358.7	367.8	378.6	392.8	408.8	425.3	441.5	459.0	477.4
155°	363.8	364.6	369.5	377.6	386.6	398.8	412.6	426.5	439.5	454.2	469.6
157.5°	375.4	375.4	379.9	386.3	394.1	403.7	415.4	426.5	437.4	449.1	461.6
160°	382.5	382.5	385.8	391.5	398.0	407.0	416.7	426.5	435.5	445.2	455.8
162.5°	389.1	388.4	391.0	396.1	401.9	409.0	418.0	426.5	433.5	441.3	450.6
165°	396.4	396.4	398.0	402.1	406.2	411.0	418.3	424.9	429.7	435.5	442.0
167.5°	403.7	402.9	403.7	406.8	409.1	412.8	418.2	422.9	425.8	429.6	434.1
170°	407.0	406.2	407.0	409.4	411.0	413.4	417.5	421.6	423.2	425.7	428.9
172.5°	410.2	409.4	409.5	411.3	412.3	414.1	416.9	420.3	420.6	421.8	424.4
175°	413.4	412.6	412.6	413.4	414.3	414.3	415.9	418.3	417.5	417.5	419.1
177.5°	414.9	414.3	413.6	414.3	414.3	414.3	414.9	416.2	414.9	414.9	415.6
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3



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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°	113.2	118.9	124.7	128.3	130.1	132.0	133.5	135.3
90°	111.7	118.1	124.5	128.1	130.4	132.7	133.5	135.0
92.5°	252.4	218.3	199.2	186.4	178.3	175.5	174.2	175.8
95°	689.0	568.0	464.1	388.7	350.5	327.0	314.1	305.2
97.5°	971.3	929.4	854.8	773.2	716.5	669.1	646.4	631.1
100°	1057.9	1079.4	1044.7	987.7	918.3	870.0	846.9	841.8
102.5°	1049.5	1135.4	1151.9	1130.2	1088.2	1053.8	1029.6	1025.8
105°	978.4	1124.1	1209.5	1246.0	1249.2	1244.2	1234.4	1231.0
107.5°	880.4	1035.0	1153.2	1228.9	1270.5	1290.4	1299.9	1303.4
110°	820.9	966.2	1088.7	1181.1	1240.5	1276.2	1292.4	1301.3





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	776.2	905.0	1020.8	1113.2	1180.3	1223.2	1245.3	1258.7
115°	729.7	834.1	933.5	1014.4	1080.1	1130.2	1157.6	1165.6
117.5°	703.8	790.7	869.6	938.6	995.0	1037.5	1065.5	1072.0
120°	691.0	770.5	839.4	899.9	947.9	985.2	1008.0	1018.4
122.5°	679.6	756.6	819.7	872.9	913.5	945.6	964.8	975.2
125°	661.6	735.2	795.1	842.2	876.0	900.7	917.3	923.4
127.5°	639.7	710.1	769.6	814.4	848.5	870.7	885.1	891.3
130°	623.2	691.0	749.8	795.2	829.8	851.3	865.4	871.5
132.5°	606.5	670.2	727.5	772.9	806.8	830.9	844.4	850.4
135°	582.1	638.1	690.8	733.6	767.4	791.2	805.4	811.5
137.5°	560.4	608.1	652.7	691.4	722.8	746.2	757.9	764.8
140°	548.0	588.7	627.9	663.8	693.2	712.2	724.5	732.0
142.5°	536.9	572.7	606.4	637.5	663.6	680.9	691.9	697.2
145°	521.6	550.4	576.0	599.7	620.9	635.4	644.4	649.2
147.5°	509.0	531.2	550.8	569.1	584.7	597.2	604.1	606.1
150°	502.2	520.9	537.2	551.9	564.8	575.4	580.3	581.1
152.5°	495.0	511.1	526.1	538.2	549.3	557.8	560.8	561.6
155°	484.3	497.3	509.5	519.3	527.4	533.9	536.4	536.4
157.5°	472.7	483.6	493.9	501.7	507.8	512.7	514.2	514.2
160°	465.5	474.5	483.5	490.0	494.9	499.8	500.6	500.6
162.5°	458.4	466.0	473.0	478.9	482.5	487.4	488.2	487.5
165°	448.5	453.4	459.0	463.1	466.4	469.6	468.8	468.0
167.5°	438.9	442.6	447.2	449.6	451.3	453.4	453.2	452.6
170°	433.0	435.5	438.7	441.2	442.8	443.6	442.8	442.8
172.5°	427.8	429.6	431.5	433.3	434.3	435.1	434.3	433.0
175°	420.8	421.6	423.2	423.2	423.2	424.9	423.2	421.6
177.5°	416.2	416.9	416.9	417.5	416.9	417.5	416.2	414.9
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3

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