

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: P332621-930

Luminaire Tested: **S124DIP-S795D1205U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332621-930
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-S795D1205U930-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6149.7 lumens
Efficiency: N/A
Efficacy: 108.1 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: Semi-Indirect

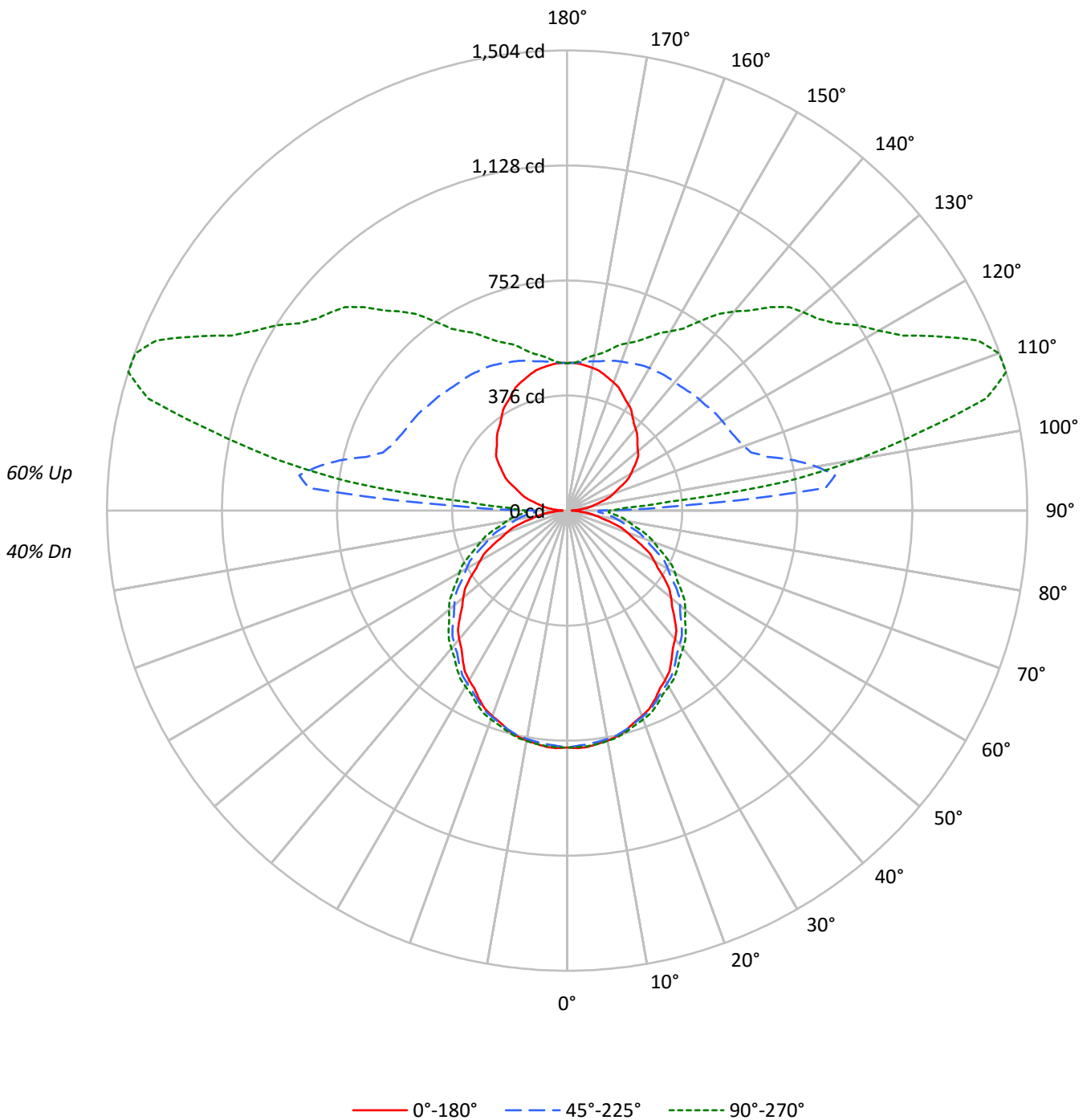
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	90	86	82	86	82	78	75	67	64	62	53	51	49	40	39	38
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	24	22
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	21	19
6	60	48	40	34	54	44	37	31	36	30	26	29	25	22	22	19	17
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11

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	1.2
10°-20°	210.1	3.4
20°-30°	317.7	5.2
30°-40°	384.4	6.3
40°-50°	406.4	6.6
50°-60°	382.5	6.2
60°-70°	317.3	5.2
70°-80°	222.9	3.6
80°-90°	128.7	2.1
90°-100°	423.1	6.9
100°-110°	780.3	12.7
110°-120°	686.5	11.2
120°-130°	567.1	9.2
130°-140°	464.4	7.6
140°-150°	349.7	5.7
150°-160°	244.6	4.0
160°-170°	143.8	2.3
170°-180°	46.8	0.8
0°-30°	601.2	9.8
0°-40°	985.6	16.0
0°-60°	1774.4	28.9
0°-90°	2443.3	39.7
90°-120°	1889.8	30.7
90°-150°	3271.2	53.2
90°-180°	3706.0	60.3
0°-180°	6149.7	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	56	103	129	138	11
95°	43	139	848	480	338	44
105°	119	187	679	1416	1419	127
115°	200	259	595	1124	1346	199
125°	275	327	576	946	1067	245
135°	325	387	554	826	940	251
145°	373	426	544	683	754	234
155°	424	457	529	599	624	195
165°	461	476	507	537	545	130
175°	481	482	486	493	491	46
180°	482	482	482	482	482	



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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	34.1	42.6	50.5	58.6	66.8	76.4	84.8	93.6	102.5	107.9
90°	14.8	24.5	35.0	43.6	52.3	60.3	74.3	82.5	92.7	102.9	107.5
92.5°	24.0	35.9	51.7	70.2	91.0	118.3	174.7	256.5	336.4	382.2	337.5
95°	42.6	51.8	67.6	86.3	115.4	162.2	252.6	415.9	650.2	847.6	874.6
97.5°	66.3	71.8	85.4	102.2	127.3	167.2	238.6	374.6	607.6	883.3	1072.5
100°	81.5	86.6	98.2	114.5	137.6	174.1	237.6	352.1	552.9	827.6	1075.3
102.5°	96.7	102.6	112.8	127.9	149.5	184.2	242.1	343.6	515.5	759.7	1014.9
105°	118.6	125.3	134.0	149.1	170.1	203.0	255.6	341.4	481.2	678.7	906.2
107.5°	144.6	149.7	157.6	172.8	192.3	224.4	272.8	351.1	471.2	631.2	817.7
110°	161.3	165.9	173.4	187.4	207.2	237.5	285.9	359.0	469.9	614.1	772.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	177.3	181.6	189.5	202.5	221.9	251.9	298.6	367.5	471.3	603.8	745.8
115°	200.4	205.0	213.3	224.5	244.3	273.8	317.8	380.8	475.2	595.0	718.6
117.5°	225.2	228.9	235.8	247.3	265.1	295.1	336.8	394.8	479.6	588.8	703.3
120°	241.2	243.7	250.9	261.9	278.5	308.2	349.8	404.6	483.1	585.4	694.4
122.5°	256.3	258.4	265.1	274.8	292.6	321.1	362.3	413.8	486.8	581.1	684.9
125°	275.3	279.0	284.5	294.6	312.5	341.4	380.3	428.7	493.2	575.7	670.3
127.5°	292.8	295.6	302.3	314.1	332.6	361.1	397.7	441.4	497.3	568.3	651.4
130°	302.0	305.6	313.0	326.9	344.8	373.7	409.0	449.1	500.4	564.1	639.6
132.5°	311.9	314.6	324.3	337.6	356.9	384.0	418.7	457.3	503.6	560.6	629.1
135°	324.8	328.6	338.0	354.2	374.1	399.3	431.9	467.4	507.6	554.4	612.5
137.5°	338.6	342.0	352.3	367.4	387.8	411.6	441.4	473.9	509.1	550.2	598.3
140°	348.5	351.1	361.3	377.2	397.0	419.7	448.3	478.8	511.2	547.4	590.7
142.5°	358.4	361.2	370.8	386.1	405.2	427.1	454.7	482.6	513.1	546.0	584.4
145°	373.2	375.9	385.1	398.2	416.0	436.8	461.4	487.0	514.5	543.8	575.3
147.5°	390.0	390.8	398.9	412.4	427.1	445.8	469.0	491.3	515.4	540.4	567.3
150°	400.6	401.5	408.8	420.0	434.0	451.9	472.7	493.6	515.4	538.1	561.8
152.5°	409.9	409.9	417.5	428.1	440.8	457.2	475.8	495.1	513.9	534.3	555.7
155°	423.5	424.4	430.1	439.6	450.0	464.2	480.3	496.4	511.6	528.6	546.7
157.5°	436.9	436.9	442.2	449.6	458.7	469.9	483.6	496.4	509.2	522.8	537.4
160°	445.2	445.2	449.1	455.7	463.3	473.7	485.0	496.4	506.9	518.2	530.5
162.5°	452.8	452.1	455.1	461.0	467.8	476.0	486.6	496.4	504.6	513.6	524.5
165°	461.4	461.4	463.3	468.0	472.7	478.4	487.0	494.6	500.2	506.9	514.5
167.5°	469.9	469.0	469.9	473.5	476.1	480.5	486.7	492.3	495.7	500.0	505.3
170°	473.7	472.7	473.7	476.5	478.4	481.3	486.0	490.7	492.6	495.5	499.3
172.5°	477.4	476.5	476.7	478.8	480.0	482.0	485.3	489.3	489.6	490.9	494.0
175°	481.3	480.3	480.3	481.3	482.2	482.2	484.1	487.0	486.0	486.0	487.9
177.5°	483.0	482.2	481.4	482.2	482.2	482.2	483.0	484.5	483.0	483.0	483.7
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2



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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°	113.7	119.4	125.1	128.8	130.7	132.6	134.1	135.8
90°	114.1	120.6	127.2	130.7	133.2	135.7	136.3	137.9
92.5°	278.6	238.0	214.8	199.3	189.7	186.1	184.5	186.1
95°	787.8	646.2	524.5	436.0	391.3	363.7	348.4	337.9
97.5°	1117.4	1067.8	980.2	884.7	818.3	763.0	736.2	718.1
100°	1218.9	1243.0	1201.8	1135.0	1053.9	997.4	970.4	964.2
102.5°	1209.7	1308.8	1327.3	1301.4	1252.3	1211.9	1183.5	1178.9
105°	1128.0	1296.7	1395.2	1437.3	1440.7	1434.7	1422.9	1418.8
107.5°	1014.6	1193.8	1330.6	1418.2	1466.4	1489.4	1500.2	1504.1
110°	946.0	1114.4	1256.1	1363.3	1432.2	1473.5	1492.1	1502.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	894.5	1043.7	1177.8	1284.9	1362.8	1412.4	1437.9	1453.3
115°	841.2	962.1	1077.1	1170.9	1247.0	1305.2	1336.9	1345.8
117.5°	812.1	912.6	1003.7	1083.6	1149.0	1198.2	1230.5	1238.0
120°	797.7	889.7	969.3	1039.3	1094.8	1138.0	1164.2	1176.2
122.5°	785.1	874.1	946.9	1008.4	1055.5	1092.5	1114.8	1126.5
125°	764.9	850.0	919.0	973.5	1012.6	1041.2	1060.4	1067.2
127.5°	740.4	821.7	890.3	942.2	981.5	1007.3	1023.8	1030.8
130°	721.7	800.1	867.9	920.5	960.4	985.3	1001.6	1008.4
132.5°	702.7	776.3	842.5	895.0	934.3	962.1	977.6	984.5
135°	675.2	739.9	800.8	850.3	889.3	917.0	933.4	940.1
137.5°	650.9	705.7	757.2	801.9	838.4	865.4	878.9	886.7
140°	636.7	683.8	729.0	770.5	804.5	826.4	840.6	849.1
142.5°	624.1	665.5	704.3	740.3	770.5	790.6	803.2	809.3
145°	606.7	640.1	669.7	697.2	721.6	738.5	748.8	754.2
147.5°	592.4	618.2	641.1	662.3	680.3	694.8	702.6	704.9
150°	584.6	606.3	625.3	642.3	657.5	669.8	675.5	676.5
152.5°	576.2	594.9	612.4	626.4	639.3	649.3	652.7	653.7
155°	563.7	578.9	593.0	604.5	613.9	621.5	624.4	624.4
157.5°	550.2	563.0	574.9	584.0	591.2	596.9	598.6	598.6
160°	541.9	552.3	562.7	570.3	576.0	581.7	582.6	582.6
162.5°	533.5	542.5	550.7	557.4	561.6	567.3	568.3	567.4
165°	522.0	527.7	534.3	539.1	542.8	546.7	545.7	544.8
167.5°	510.9	515.2	520.5	523.3	525.2	527.7	527.5	526.8
170°	504.0	506.9	510.6	513.5	515.4	516.3	515.4	515.4
172.5°	497.9	500.0	502.3	504.3	505.5	506.5	505.5	504.0
175°	489.8	490.7	492.6	492.6	492.6	494.6	492.6	490.7
177.5°	484.5	485.3	485.3	486.0	485.3	486.0	484.5	483.0
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2

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