

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: P332621-940

Luminaire Tested: **S124DIP-S795D1205U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332621-940
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-S795D1205U940-4F0-1E-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: 6726.0 lumens
Efficiency: N/A
Efficacy: 118.2 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

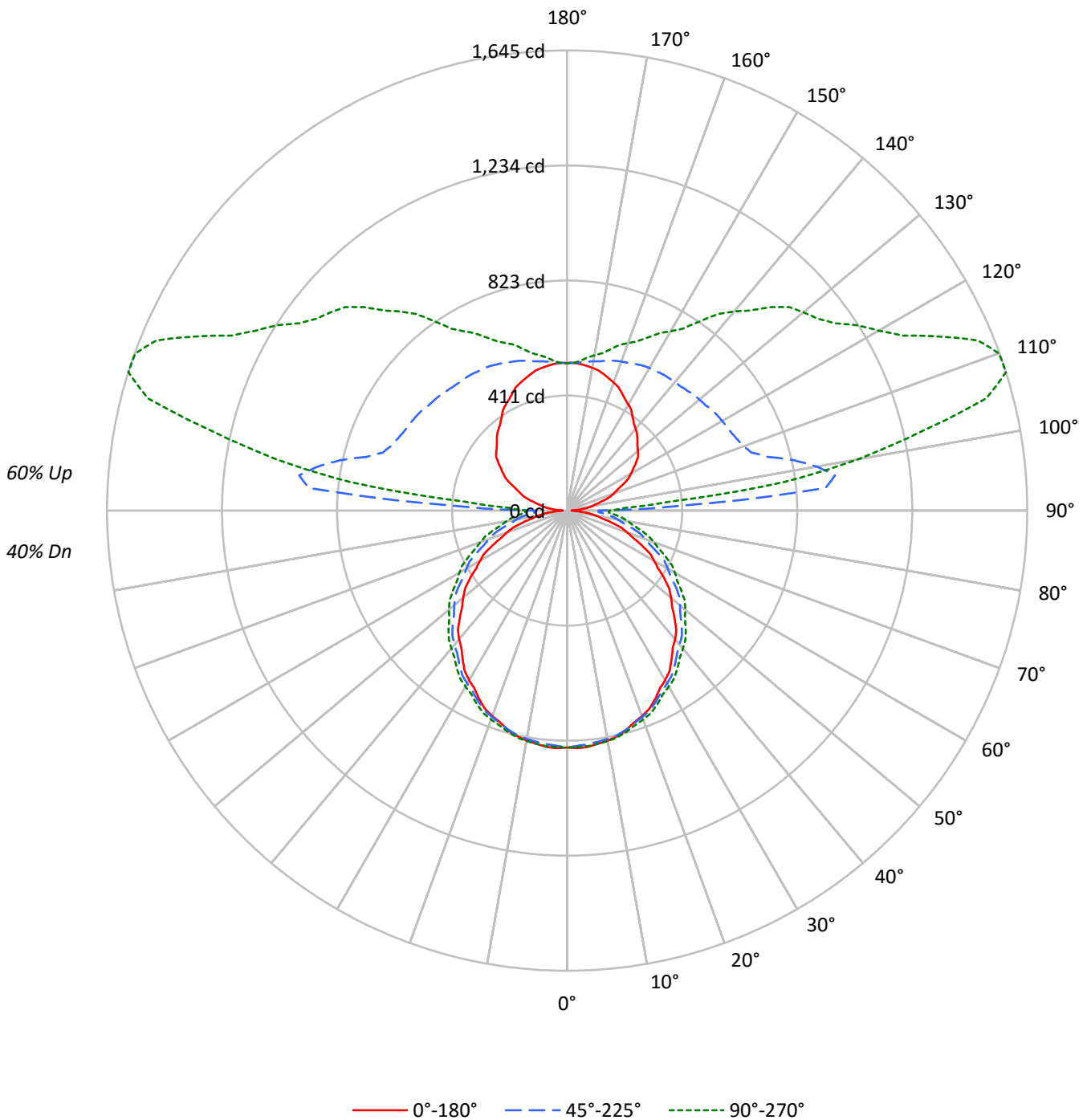
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	78	75	67	64	62	53	51	49	40	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	22
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	24	22	18
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	31	36	30	26	29	25	22	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6838	6838	6838
5°	6859	6683	6702
10°	6817	6573	6568
15°	6756	6446	6411
20°	6664	6307	6259
25°	6560	6151	6092
30°	6448	5995	5919
35°	6321	5835	5768
40°	6219	5684	5610
45°	6067	5543	5475
50°	5939	5383	5333
55°	5808	5231	5164
60°	5601	5036	5013
65°	5376	4829	4824
70°	5101	4592	4605
75°	4723	4331	4407
80°	4295	4081	4213
85°	3763	3857	4101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	1.2
10°-20°	229.8	3.4
20°-30°	347.5	5.2
30°-40°	420.4	6.3
40°-50°	444.5	6.6
50°-60°	418.3	6.2
60°-70°	347.1	5.2
70°-80°	243.8	3.6
80°-90°	140.7	2.1
90°-100°	462.8	6.9
100°-110°	853.4	12.7
110°-120°	750.8	11.2
120°-130°	620.3	9.2
130°-140°	508.0	7.6
140°-150°	382.5	5.7
150°-160°	267.5	4.0
160°-170°	157.3	2.3
170°-180°	51.2	0.8
0°-30°	657.5	9.8
0°-40°	1077.9	16.0
0°-60°	1940.7	28.9
0°-90°	2672.3	39.7
90°-120°	2067.0	30.7
90°-150°	3577.7	53.2
90°-180°	4054.0	60.3
0°-180°	6726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	848	845	838	846	845	80
15°	813	814	811	819	818	229
25°	744	749	752	762	764	342
35°	651	662	672	684	688	407
45°	542	561	578	594	599	419
55°	425	445	473	492	498	378
65°	294	324	357	379	388	291
75°	163	198	238	264	273	174
85°	50	90	133	160	171	53
90°	16	62	112	141	151	12
95°	46	152	927	525	370	48
105°	130	204	742	1549	1552	139
115°	219	283	651	1229	1472	218
125°	301	358	630	1035	1167	268
135°	355	423	606	903	1028	275
145°	408	466	595	748	825	256
155°	463	500	578	655	683	214
165°	505	520	554	587	596	142
175°	526	527	532	539	537	50
180°	527	527	527	527	527	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	849.5	849.0	848.6	848.0	847.1	845.7	844.4	843.0	841.7	842.8
5°	847.9	847.3	846.7	846.1	845.4	844.4	842.8	841.4	839.9	838.5	840.2
7.5°	840.7	840.3	840.0	839.6	839.2	838.4	837.2	836.0	834.7	833.6	835.4
10°	834.6	834.5	834.3	834.0	833.8	833.2	832.1	831.1	830.0	828.9	830.9
12.5°	826.3	826.3	826.3	826.2	826.2	825.8	825.1	824.3	823.6	822.9	824.7
15°	812.9	813.1	813.2	813.5	813.7	813.5	812.9	812.3	811.5	810.9	812.9
17.5°	794.4	795.0	795.7	796.4	797.0	797.2	797.1	797.0	796.8	796.7	798.7
20°	781.6	782.2	782.8	783.5	784.1	784.5	784.7	784.9	785.2	785.3	787.5
22.5°	767.1	767.9	768.7	769.5	770.3	771.0	771.3	771.7	772.0	772.5	774.5
25°	743.6	744.8	746.2	747.4	748.7	749.7	750.3	750.9	751.5	752.2	754.5
27.5°	717.5	719.3	721.1	723.0	724.9	726.3	727.3	728.2	729.2	730.1	732.3
30°	700.0	701.7	703.4	705.1	706.8	708.3	709.8	711.2	712.7	714.2	716.5
32.5°	681.0	683.1	685.1	687.1	689.1	690.9	692.6	694.2	695.9	697.5	700.2
35°	650.7	653.2	655.8	658.3	660.8	663.1	665.2	667.4	669.4	671.5	674.5
37.5°	620.1	623.0	626.0	628.8	631.8	634.5	637.1	639.7	642.4	645.0	648.0
40°	600.4	603.2	605.8	608.6	611.4	614.2	617.2	620.1	623.0	626.0	629.2
42.5°	577.7	580.7	583.8	586.8	590.0	593.2	596.6	600.1	603.6	607.0	610.6
45°	542.5	546.5	550.5	554.6	558.6	562.6	566.6	570.6	574.5	578.5	582.2
47.5°	509.0	513.1	517.2	521.4	525.5	529.9	534.5	539.1	543.8	548.4	552.1
50°	484.6	489.3	493.9	498.6	503.2	507.8	512.5	517.1	521.7	526.4	530.7
52.5°	460.4	465.0	469.7	474.3	478.9	483.9	489.2	494.5	499.9	505.2	509.3
55°	424.9	429.4	433.8	438.2	442.6	448.0	454.3	460.7	467.0	473.3	477.5
57.5°	385.3	390.7	396.3	401.7	407.2	413.0	419.4	425.6	431.9	438.2	443.2
60°	359.4	365.0	370.4	375.9	381.4	387.6	394.6	401.5	408.5	415.4	420.3
62.5°	334.4	340.5	346.4	352.4	358.4	364.9	371.8	378.8	385.8	392.7	397.5
65°	294.0	300.8	307.6	314.2	321.0	328.0	335.1	342.3	349.5	356.6	361.9
67.5°	255.1	262.3	269.5	276.6	283.8	291.2	298.9	306.6	314.2	321.9	327.3
70°	228.5	235.8	242.9	250.1	257.3	264.8	272.9	280.9	288.8	296.9	302.6
72.5°	202.8	210.1	217.5	224.8	232.1	240.0	248.6	257.1	265.6	274.1	279.6
75°	163.2	170.9	178.7	186.5	194.3	202.7	211.5	220.3	229.3	238.1	244.0
77.5°	126.2	134.4	142.7	151.0	159.2	168.0	177.3	186.5	195.8	205.1	211.1
80°	103.3	111.8	120.2	128.7	137.1	146.0	155.2	164.5	173.8	183.1	189.4
82.5°	80.6	89.3	98.2	106.9	115.7	124.8	134.0	143.3	152.6	161.8	168.3
85°	50.3	59.1	67.9	76.9	85.7	94.9	104.3	113.8	123.3	132.8	139.1
87.5°	28.3	37.3	46.5	55.3	64.1	73.0	83.6	92.7	102.4	112.1	118.0
90°	16.2	26.8	38.3	47.7	57.2	65.9	81.2	90.2	101.4	112.5	117.6
92.5°	26.2	39.2	56.5	76.8	99.5	129.4	191.1	280.5	367.9	418.0	369.1
95°	46.5	56.6	73.9	94.3	126.2	177.5	276.3	454.9	711.1	927.0	956.5
97.5°	72.5	78.6	93.5	111.8	139.2	182.9	260.9	409.7	664.5	966.1	1173.0
100°	89.2	94.7	107.4	125.3	150.5	190.5	259.8	385.1	604.8	905.2	1176.1
102.5°	105.8	112.3	123.4	139.9	163.5	201.4	264.8	375.9	563.8	830.9	1110.0
105°	129.7	137.1	146.5	163.1	186.0	222.0	279.6	373.4	526.3	742.3	991.1
107.5°	158.2	163.7	172.4	189.0	210.4	245.4	298.4	384.1	515.4	690.4	894.3
110°	176.5	181.5	189.7	205.0	226.6	259.8	312.7	392.6	514.0	671.6	845.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	193.9	198.7	207.2	221.5	242.7	275.5	326.5	402.0	515.5	660.4	815.7
115°	219.2	224.2	233.3	245.6	267.2	299.4	347.6	416.5	519.7	650.8	786.0
117.5°	246.3	250.3	257.9	270.5	290.0	322.7	368.4	431.9	524.6	644.0	769.2
120°	263.8	266.5	274.4	286.4	304.6	337.1	382.5	442.6	528.4	640.2	759.5
122.5°	280.4	282.6	290.0	300.6	320.0	351.2	396.3	452.6	532.4	635.6	749.0
125°	301.1	305.1	311.1	322.3	341.8	373.4	415.9	468.9	539.4	629.6	733.1
127.5°	320.2	323.3	330.6	343.5	363.7	394.9	435.0	482.8	543.9	621.6	712.5
130°	330.3	334.2	342.3	357.6	377.1	408.8	447.4	491.2	547.3	617.0	699.5
132.5°	341.1	344.1	354.7	369.3	390.4	420.0	457.9	500.2	550.8	613.1	688.0
135°	355.3	359.4	369.7	387.4	409.1	436.8	472.4	511.2	555.2	606.4	669.9
137.5°	370.3	374.1	385.3	401.8	424.2	450.1	482.8	518.4	556.8	601.8	654.4
140°	381.1	384.1	395.2	412.6	434.2	459.1	490.4	523.7	559.1	598.7	646.0
142.5°	392.0	395.0	405.6	422.3	443.2	467.2	497.3	527.8	561.2	597.2	639.2
145°	408.1	411.1	421.2	435.5	455.0	477.7	504.6	532.6	562.7	594.8	629.2
147.5°	426.6	427.4	436.3	451.0	467.2	487.6	512.9	537.3	563.7	591.0	620.5
150°	438.2	439.1	447.1	459.3	474.7	494.3	517.0	539.8	563.7	588.5	614.5
152.5°	448.3	448.4	456.6	468.2	482.1	500.1	520.4	541.5	562.0	584.4	607.8
155°	463.2	464.2	470.4	480.8	492.2	507.7	525.3	543.0	559.5	578.2	597.9
157.5°	477.9	477.9	483.7	491.8	501.7	514.0	528.9	543.0	556.9	571.8	587.7
160°	487.0	487.0	491.2	498.4	506.7	518.1	530.5	543.0	554.4	566.8	580.2
162.5°	495.3	494.5	497.8	504.2	511.7	520.6	532.2	543.0	551.9	561.8	573.6
165°	504.6	504.6	506.7	511.8	517.0	523.3	532.6	540.9	547.1	554.4	562.7
167.5°	514.0	512.9	514.0	517.9	520.8	525.6	532.4	538.4	542.2	546.9	552.7
170°	518.1	517.0	518.1	521.2	523.3	526.4	531.5	536.7	538.8	541.9	546.1
172.5°	522.2	521.2	521.4	523.7	525.0	527.2	530.7	535.1	535.5	536.9	540.3
175°	526.4	525.3	525.3	526.4	527.4	527.4	529.5	532.6	531.5	531.5	533.6
177.5°	528.2	527.4	526.6	527.4	527.4	527.4	528.2	529.9	528.2	528.2	529.1
180°	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	844.0	845.3	846.4	846.9	846.8	846.6	846.4	846.2
5°	841.9	843.6	845.2	846.0	845.7	845.5	845.3	845.1
7.5°	837.3	839.2	841.2	842.0	841.8	841.5	841.3	841.2
10°	832.8	834.6	836.6	837.4	837.2	837.0	836.8	836.6
12.5°	826.3	828.1	829.8	830.6	830.6	830.5	830.5	830.5
15°	814.8	816.6	818.5	819.4	819.2	818.9	818.8	818.5
17.5°	800.6	802.5	804.5	805.4	805.2	805.0	804.9	804.7
20°	789.5	791.7	793.8	794.9	794.9	794.9	794.9	794.9
22.5°	776.7	778.7	780.9	782.1	782.5	782.7	783.1	783.5
25°	756.8	759.1	761.4	762.7	762.9	763.1	763.3	763.6
27.5°	734.4	736.6	738.8	739.9	740.2	740.5	740.7	740.9
30°	718.8	721.1	723.4	724.9	725.3	725.7	726.1	726.6
32.5°	702.8	705.5	708.1	709.7	710.1	710.5	711.0	711.4
35°	677.4	680.4	683.3	685.1	685.7	686.3	687.1	687.7
37.5°	650.9	654.0	656.9	658.8	659.4	660.1	660.8	661.5
40°	632.3	635.5	638.6	640.6	641.5	642.3	643.2	644.0
42.5°	614.0	617.5	621.0	623.1	623.8	624.5	625.2	625.8
45°	585.8	589.3	592.9	595.2	596.3	597.4	598.4	599.4
47.5°	555.8	559.5	563.3	565.7	567.0	568.3	569.5	570.8
50°	534.8	539.0	543.2	546.0	547.2	548.6	549.8	551.1
52.5°	513.6	517.8	522.0	524.8	526.0	527.3	528.5	529.9
55°	481.7	486.0	490.2	492.9	494.2	495.4	496.7	497.9
57.5°	448.3	453.3	458.3	461.4	462.5	463.7	464.9	466.1
60°	425.2	430.0	434.8	438.1	439.8	441.5	443.2	444.9
62.5°	402.3	407.2	412.1	415.4	417.1	418.7	420.4	422.0
65°	367.2	372.5	377.7	381.2	382.9	384.6	386.2	387.9
67.5°	332.6	338.0	343.3	346.8	348.5	350.1	351.8	353.4
70°	308.3	314.0	319.7	323.2	324.7	326.2	327.6	329.1
72.5°	285.2	290.7	296.2	299.8	301.4	303.1	304.7	306.4
75°	249.9	255.7	261.7	265.6	267.5	269.4	271.3	273.1
77.5°	217.0	223.0	229.0	233.0	235.1	237.0	239.1	241.1
80°	195.7	202.1	208.4	212.3	214.0	215.7	217.4	219.1
82.5°	174.8	181.3	187.8	192.0	193.8	195.6	197.5	199.4
85°	145.4	151.8	158.1	162.3	164.4	166.5	168.6	170.8
87.5°	124.3	130.6	136.9	140.9	142.9	145.0	146.7	148.6
90°	124.8	131.9	139.1	142.9	145.7	148.4	149.1	150.8
92.5°	304.7	260.3	235.0	218.0	207.5	203.6	201.8	203.5
95°	861.7	706.8	573.6	476.9	428.0	397.8	381.0	369.5
97.5°	1222.1	1167.9	1072.1	967.6	895.0	834.5	805.2	785.4
100°	1333.1	1359.5	1314.4	1241.4	1152.6	1090.9	1061.3	1054.5
102.5°	1323.1	1431.5	1451.7	1423.3	1369.7	1325.5	1294.4	1289.4
105°	1233.7	1418.2	1526.0	1572.0	1575.7	1569.1	1556.3	1551.8
107.5°	1109.6	1305.7	1455.4	1551.1	1603.8	1629.0	1640.8	1645.0
110°	1034.7	1218.8	1373.9	1491.1	1566.4	1611.6	1631.9	1642.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	978.3	1141.5	1288.2	1405.3	1490.5	1544.8	1572.6	1589.5
115°	920.1	1052.2	1178.0	1280.6	1363.9	1427.5	1462.2	1471.9
117.5°	888.2	998.1	1097.8	1185.2	1256.7	1310.5	1345.9	1354.0
120°	872.4	973.0	1060.2	1136.7	1197.4	1244.6	1273.3	1286.4
122.5°	858.7	956.0	1035.6	1103.0	1154.4	1194.9	1219.2	1232.1
125°	836.6	929.7	1005.1	1064.8	1107.5	1138.8	1159.8	1167.2
127.5°	809.8	898.7	973.7	1030.5	1073.5	1101.7	1119.7	1127.4
130°	789.3	875.0	949.2	1006.7	1050.4	1077.6	1095.5	1103.0
132.5°	768.6	849.1	921.5	978.8	1021.8	1052.3	1069.3	1076.7
135°	738.5	809.2	875.8	930.0	972.7	1002.9	1020.8	1028.2
137.5°	711.9	771.9	828.2	877.1	916.9	946.6	961.3	969.8
140°	696.4	747.9	797.3	842.7	879.9	903.8	919.4	928.7
142.5°	682.6	727.9	770.3	809.7	842.7	864.7	878.4	885.1
145°	663.6	700.1	732.5	762.5	789.3	807.7	818.9	824.9
147.5°	647.9	676.1	701.2	724.3	744.0	759.9	768.5	771.0
150°	639.4	663.2	683.9	702.5	719.1	732.5	738.8	739.9
152.5°	630.2	650.7	669.8	685.1	699.2	710.2	713.9	715.0
155°	616.5	633.1	648.6	661.1	671.5	679.8	682.9	682.9
157.5°	601.8	615.7	628.7	638.7	646.6	652.8	654.7	654.7
160°	592.7	604.0	615.5	623.8	630.0	636.2	637.2	637.2
162.5°	583.5	593.3	602.3	609.7	614.2	620.5	621.5	620.6
165°	571.0	577.1	584.4	589.6	593.7	597.9	596.8	595.8
167.5°	558.7	563.5	569.3	572.4	574.4	577.1	576.9	576.1
170°	551.3	554.4	558.5	561.6	563.7	564.7	563.7	563.7
172.5°	544.6	546.9	549.4	551.6	552.9	553.9	552.9	551.3
175°	535.7	536.7	538.8	538.8	538.8	540.9	538.8	536.7
177.5°	529.9	530.7	530.7	531.5	530.7	531.5	529.9	528.2
180°	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4

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