

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: P331362

Luminaire Tested: **SA2XXDIP-C675D925U835-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331362
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D925U835-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

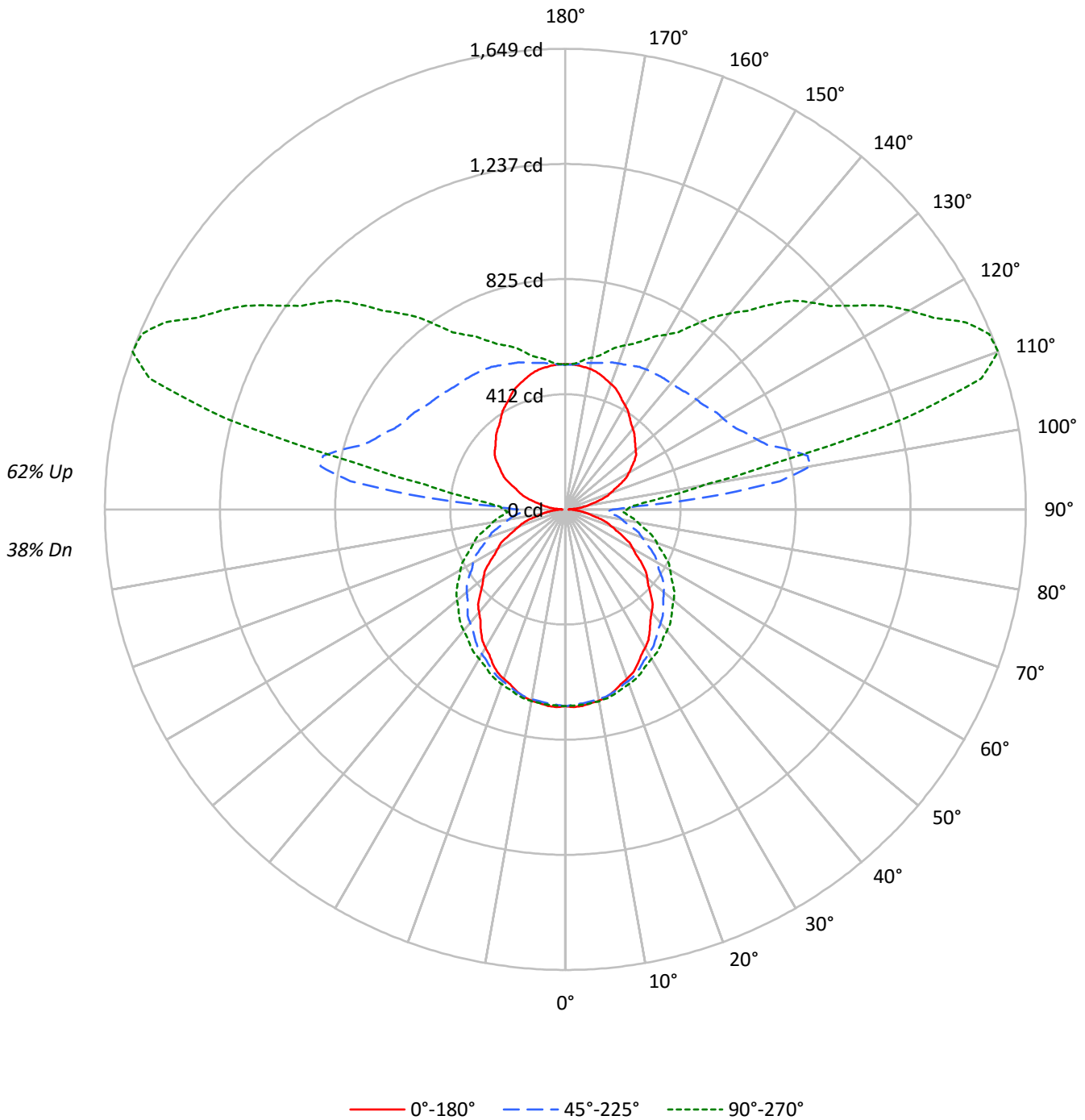
Lumens per Lamp: N/A
Luminaire Lumens: 6303.3 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11373	11373	11373
5°	11428	10947	10905
10°	11356	10624	10504
15°	11200	10282	10083
20°	11002	9915	9676
25°	10807	9560	9307
30°	10532	9197	8935
35°	10254	8846	8673
40°	9960	8547	8413
45°	9681	8279	8190
50°	9382	8037	7969
55°	9070	7777	7745
60°	8686	7508	7509
65°	8287	7191	7227
70°	7841	6852	6923
75°	7270	6518	6643
80°	6370	6177	6361
85°	5506	5882	6138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	1.1
10°-20°	191.4	3.0
20°-30°	290.0	4.6
30°-40°	353.3	5.6
40°-50°	380.0	6.0
50°-60°	369.1	5.9
60°-70°	322.3	5.1
70°-80°	248.1	3.9
80°-90°	171.2	2.7
90°-100°	322.2	5.1
100°-110°	787.9	12.5
110°-120°	803.4	12.7
120°-130°	646.7	10.3
130°-140°	507.5	8.1
140°-150°	376.0	6.0
150°-160°	262.6	4.2
160°-170°	154.6	2.5
170°-180°	50.3	0.8
0°-30°	548.2	8.7
0°-40°	901.4	14.3
0°-60°	1650.6	26.2
0°-90°	2392.1	37.9
90°-120°	1913.5	30.4
90°-150°	3443.7	54.6
90°-180°	3911.0	62.0
0°-180°	6303.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	706	703	697	703	702	67
15°	674	676	676	684	684	190
25°	612	620	629	641	644	281
35°	528	545	564	586	594	330
45°	433	461	496	527	538	334
55°	332	369	422	457	472	297
65°	227	277	337	377	392	225
75°	126	183	248	290	305	133
85°	37	100	165	207	222	40
90°	11	83	169	206	221	9
95°	43	143	509	302	282	43
105°	127	220	827	1444	1260	135
115°	219	288	680	1368	1583	216
125°	302	358	630	1096	1272	268
135°	352	421	599	901	1036	272
145°	401	461	585	732	806	252
155°	456	492	568	642	668	210
165°	497	512	544	577	586	140
175°	518	518	523	530	528	49
180°	519	519	519	519	519	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	708.5	707.9	707.4	706.8	706.3	705.4	704.1	702.8	701.6	700.3	701.2
5°	706.4	705.7	705.1	704.4	703.7	702.7	701.3	700.0	698.6	697.2	698.6
7.5°	700.1	699.6	699.2	698.7	698.3	697.5	696.5	695.4	694.4	693.4	695.0
10°	695.2	694.7	694.3	693.8	693.4	692.8	692.1	691.5	690.8	690.1	691.9
12.5°	687.0	687.1	687.2	687.3	687.4	687.2	686.7	686.2	685.7	685.2	687.0
15°	673.8	674.2	674.7	675.1	675.6	675.8	675.8	675.8	675.8	675.8	677.8
17.5°	656.6	657.6	658.5	659.5	660.4	661.3	662.0	662.7	663.4	664.2	666.3
20°	645.2	646.3	647.4	648.6	649.7	650.7	651.6	652.6	653.5	654.4	656.9
22.5°	632.9	634.2	635.6	636.9	638.2	639.5	640.8	642.0	643.3	644.6	647.1
25°	612.5	614.1	615.7	617.3	618.9	620.7	622.7	624.8	626.8	628.8	631.6
27.5°	588.0	590.6	593.2	595.8	598.4	600.9	603.3	605.7	608.1	610.5	613.9
30°	571.7	574.6	577.6	580.5	583.5	586.4	589.4	592.3	595.3	598.2	601.8
32.5°	553.7	557.0	560.3	563.6	567.0	570.4	573.9	577.3	580.8	584.3	588.5
35°	527.8	531.6	535.5	539.3	543.2	547.3	551.6	555.9	560.2	564.5	569.5
37.5°	499.6	504.1	508.5	512.9	517.4	522.4	528.0	533.6	539.1	544.7	550.3
40°	480.8	485.8	490.8	495.8	500.8	506.3	512.5	518.6	524.7	530.8	536.7
42.5°	462.9	467.8	472.8	477.8	482.8	488.8	495.9	502.9	509.9	517.0	523.4
45°	432.8	439.0	445.1	451.2	457.3	464.4	472.3	480.3	488.2	496.1	503.2
47.5°	403.2	409.9	416.6	423.2	429.9	437.9	447.2	456.5	465.8	475.1	482.5
50°	382.8	389.9	396.9	403.9	410.9	419.6	429.8	440.0	450.2	460.4	468.1
52.5°	363.2	370.6	378.0	385.4	392.8	401.9	412.6	423.4	434.1	444.9	452.8
55°	331.8	339.9	348.1	356.3	364.4	374.4	386.2	398.0	409.8	421.6	429.8
57.5°	300.7	310.0	319.2	328.4	337.6	348.2	360.2	372.2	384.3	396.3	405.1
60°	278.7	288.4	298.2	308.0	317.7	329.1	342.0	354.9	367.8	380.8	389.4
62.5°	259.1	269.2	279.3	289.4	299.6	311.1	324.0	336.9	349.9	362.8	372.0
65°	226.6	237.7	248.9	260.0	271.1	283.3	296.7	310.1	323.5	336.9	346.2
67.5°	196.8	208.4	220.1	231.7	243.3	255.9	269.6	283.3	297.0	310.7	320.1
70°	175.6	187.4	199.2	211.0	222.8	235.7	249.8	263.8	277.9	292.0	301.7
72.5°	156.0	168.1	180.3	192.5	204.6	217.8	232.1	246.3	260.6	274.8	284.4
75°	125.6	138.3	151.0	163.7	176.4	190.0	204.5	219.0	233.5	248.1	257.8
77.5°	96.2	109.5	122.8	136.0	149.3	163.4	178.1	192.9	207.6	222.3	232.1
80°	76.6	90.4	104.2	118.1	131.9	146.2	161.0	175.7	190.4	205.2	214.7
82.5°	60.2	73.9	87.5	101.2	114.9	129.1	144.1	159.0	173.9	188.9	198.4
85°	36.8	50.8	64.9	78.9	93.0	107.3	121.8	136.3	150.9	165.4	174.9
87.5°	20.2	34.3	48.6	62.6	76.5	91.1	106.6	122.5	138.3	153.0	162.0
90°	11.2	27.4	44.5	59.7	74.8	91.6	111.2	132.7	153.2	168.7	176.8
92.5°	21.6	39.2	58.6	75.3	94.3	116.8	153.3	199.1	241.4	257.1	245.9
95°	43.1	57.8	78.4	98.0	124.7	160.8	220.3	320.7	450.1	508.6	468.3
97.5°	64.0	78.9	99.0	122.0	149.9	188.3	259.0	393.1	598.6	776.5	817.6
100°	84.0	95.4	112.8	137.1	165.5	204.0	269.6	404.0	632.3	890.5	1042.6
102.5°	101.5	111.4	128.1	151.7	180.1	218.1	279.3	399.8	611.8	888.8	1123.0
105°	126.9	137.4	151.0	172.5	201.1	238.2	296.9	397.5	574.0	827.3	1100.7
107.5°	155.4	163.9	175.9	194.9	222.0	258.4	315.2	403.9	551.4	762.3	1004.4
110°	173.7	182.3	192.8	210.3	235.8	272.6	327.6	410.6	543.5	730.2	944.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	191.3	199.1	209.7	225.7	249.7	286.6	339.5	417.9	539.1	706.9	900.0
115°	218.7	226.1	234.6	249.1	271.6	304.9	358.0	429.1	536.1	680.0	844.5
117.5°	246.0	251.6	259.2	271.4	292.2	325.7	374.9	441.4	535.7	662.3	806.1
120°	263.5	268.4	275.3	285.2	306.1	339.0	387.0	450.0	535.9	651.8	784.9
122.5°	280.3	283.9	290.2	300.4	320.7	353.9	398.9	457.4	537.2	643.7	766.2
125°	301.5	304.4	310.4	322.4	342.4	373.9	417.1	469.3	538.4	629.5	738.5
127.5°	319.0	322.8	330.9	343.9	362.8	394.4	435.2	481.3	541.1	618.8	712.6
130°	329.4	333.2	342.9	356.7	376.4	406.6	446.3	489.0	543.7	612.3	695.6
132.5°	339.0	343.5	354.1	368.6	389.2	418.8	455.8	496.6	546.2	606.6	680.9
135°	352.3	356.3	368.3	383.3	406.2	435.3	469.5	506.7	548.9	599.1	660.7
137.5°	365.9	370.6	382.6	398.5	421.2	447.6	480.2	513.7	551.0	592.9	644.8
140°	376.3	380.0	391.8	407.5	429.3	455.3	485.7	517.1	551.5	588.9	635.4
142.5°	386.7	389.6	400.6	416.3	437.2	461.5	490.8	521.0	552.6	587.2	627.5
145°	401.2	405.2	415.2	430.2	450.1	472.1	499.0	527.0	554.9	584.8	618.1
147.5°	418.0	421.0	430.5	444.3	460.9	480.5	505.8	530.4	555.7	581.3	609.4
150°	429.2	432.1	440.1	453.1	468.1	486.0	509.0	531.9	554.9	578.9	602.8
152.5°	440.3	441.7	449.7	461.1	475.3	491.6	512.2	532.7	553.3	574.9	597.2
155°	456.1	457.1	463.1	474.1	485.0	500.0	517.0	533.9	550.9	567.9	586.8
157.5°	469.3	470.3	475.1	484.6	493.4	506.0	520.4	533.9	546.3	560.7	577.1
160°	478.1	479.1	483.0	491.0	499.0	510.0	522.0	533.9	543.9	555.9	569.9
162.5°	486.8	486.2	490.2	496.6	503.8	512.4	522.8	533.1	541.5	551.9	563.5
165°	497.0	496.0	498.0	504.0	509.0	515.0	524.0	531.0	536.9	543.9	552.9
167.5°	505.4	504.2	506.0	509.8	513.4	517.2	523.8	529.6	532.3	536.9	542.5
170°	511.0	509.0	510.0	513.0	515.0	518.0	523.0	528.0	530.0	532.9	536.9
172.5°	514.2	513.0	512.4	515.4	516.6	518.8	522.2	525.6	526.8	528.2	531.4
175°	518.0	517.0	516.0	518.0	518.0	519.0	521.0	523.0	522.0	523.0	524.0
177.5°	519.8	518.2	517.4	519.0	519.0	519.0	519.8	521.4	519.8	519.0	519.8
180°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	702.1	703.0	703.9	704.2	703.8	703.5	703.1	702.8
5°	700.0	701.3	702.7	703.3	703.0	702.8	702.6	702.3
7.5°	696.6	698.3	699.9	700.6	700.4	700.1	699.9	699.7
10°	693.7	695.5	697.4	698.1	697.9	697.7	697.5	697.2
12.5°	688.8	690.6	692.5	693.2	693.0	692.8	692.6	692.3
15°	679.9	681.9	684.0	684.9	684.7	684.4	684.2	684.0
17.5°	668.4	670.6	672.7	673.8	673.8	673.8	673.8	673.8
20°	659.4	661.9	664.3	665.6	665.6	665.6	665.6	665.6
22.5°	649.6	652.1	654.5	656.0	656.3	656.7	657.1	657.4
25°	634.3	637.0	639.7	641.4	642.1	642.8	643.5	644.2
27.5°	617.4	620.8	624.3	626.2	626.7	627.2	627.7	628.2
30°	605.5	609.1	612.7	614.9	615.6	616.3	616.9	617.6
32.5°	592.7	596.9	601.0	603.7	605.0	606.2	607.4	608.6
35°	574.5	579.5	584.5	587.8	589.4	591.0	592.5	594.1
37.5°	555.8	561.3	566.9	570.5	572.2	573.8	575.5	577.2
40°	542.6	548.5	554.4	558.4	560.4	562.5	564.5	566.6
42.5°	529.8	536.3	542.7	547.0	549.0	551.1	553.1	555.1
45°	510.2	517.2	524.3	528.9	531.2	533.5	535.7	538.0
47.5°	489.8	497.2	504.5	509.4	511.9	514.4	516.9	519.4
50°	475.8	483.5	491.3	496.4	498.9	501.4	503.8	506.3
52.5°	460.7	468.6	476.5	481.8	484.4	487.1	489.8	492.5
55°	437.9	446.1	454.3	459.8	462.8	465.7	468.7	471.6
57.5°	413.9	422.7	431.5	437.4	440.4	443.4	446.4	449.4
60°	398.0	406.6	415.3	421.2	424.3	427.5	430.7	433.9
62.5°	381.1	390.3	399.5	405.6	408.5	411.5	414.5	417.5
65°	355.5	364.8	374.1	380.2	383.2	386.1	389.1	392.0
67.5°	329.5	338.9	348.3	354.6	357.6	360.7	363.8	366.9
70°	311.5	321.2	331.0	337.2	339.9	342.7	345.4	348.1
72.5°	294.0	303.5	313.1	319.5	322.8	326.1	329.3	332.6
75°	267.6	277.3	287.1	293.4	296.4	299.3	302.3	305.2
77.5°	241.8	251.5	261.2	267.6	270.8	274.0	277.1	280.3
80°	224.2	233.8	243.3	249.7	252.8	256.0	259.2	262.4
82.5°	207.9	217.4	227.0	233.2	236.2	239.2	242.2	245.2
85°	184.4	194.0	203.5	209.8	213.0	216.2	219.4	222.5
87.5°	171.1	179.9	189.6	195.9	198.8	201.7	204.6	207.5
90°	184.8	191.9	203.0	209.9	212.6	215.3	218.0	220.8
92.5°	232.2	228.7	229.2	228.9	230.8	230.3	233.8	235.0
95°	396.1	343.9	310.6	294.3	284.0	278.8	278.5	282.2
97.5°	735.6	633.0	533.4	466.9	421.9	400.0	388.1	382.4
100°	1030.1	914.7	786.4	671.1	590.7	550.3	523.8	508.4
102.5°	1221.2	1201.5	1109.7	987.1	899.6	828.8	795.2	773.3
105°	1316.3	1437.0	1457.9	1430.2	1370.8	1311.4	1271.0	1259.5
107.5°	1232.2	1409.7	1521.1	1574.5	1584.8	1583.9	1577.8	1561.7
110°	1161.9	1347.8	1482.8	1569.5	1615.0	1636.4	1647.9	1649.4



TEST NUMBER: P331362

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1097.1	1275.8	1419.6	1518.3	1580.5	1614.7	1634.2	1642.1
115°	1016.0	1176.5	1314.1	1421.5	1494.9	1543.3	1571.7	1583.2
117.5°	952.8	1094.4	1219.7	1320.6	1395.2	1446.0	1475.7	1485.6
120°	920.0	1050.1	1162.2	1257.5	1329.8	1379.2	1410.7	1423.2
122.5°	893.2	1012.7	1119.1	1205.3	1270.1	1318.3	1346.2	1356.7
125°	853.4	962.3	1056.2	1135.2	1195.1	1235.1	1262.1	1272.1
127.5°	814.1	912.7	1001.2	1074.1	1126.6	1164.1	1187.6	1196.0
130°	788.9	880.1	964.4	1033.9	1084.6	1120.4	1142.2	1152.0
132.5°	764.4	849.1	926.9	992.3	1042.2	1077.9	1098.1	1107.1
135°	730.4	801.0	871.6	930.8	975.5	1010.3	1030.1	1035.9
137.5°	701.9	761.2	817.6	869.2	909.9	939.7	957.1	964.6
140°	684.0	735.5	785.0	831.5	864.7	892.1	908.4	915.7
142.5°	669.7	713.3	755.8	794.5	826.0	850.8	865.3	867.7
145°	650.4	684.7	717.0	747.2	772.3	790.4	801.5	805.7
147.5°	635.9	662.0	686.4	707.9	728.2	742.3	749.6	752.0
150°	626.8	648.7	669.7	687.6	702.6	714.6	720.6	721.6
152.5°	618.0	638.3	656.1	671.7	683.4	693.8	698.2	698.4
155°	605.8	621.8	636.7	647.7	658.7	665.7	669.7	667.7
157.5°	591.6	605.0	617.6	626.2	633.9	639.7	641.5	641.5
160°	582.8	593.8	604.8	611.8	618.8	623.8	624.8	624.8
162.5°	574.1	583.4	592.8	598.2	605.2	608.6	609.6	608.8
165°	560.9	567.9	574.9	578.9	582.8	586.8	586.8	585.8
167.5°	548.3	553.7	558.5	562.1	563.9	566.1	565.9	564.7
170°	541.9	544.9	548.9	550.9	551.9	554.9	553.9	551.9
172.5°	534.7	536.9	540.1	541.3	542.3	543.7	542.7	541.5
175°	527.0	528.0	529.0	530.0	530.0	531.0	530.0	528.0
177.5°	521.4	521.4	522.2	522.2	522.2	522.2	521.4	519.8
180°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0

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