

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: P332576-935

Luminaire Tested: **S124DIP-S575D1205U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332576-935
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-S575D1205U935-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 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: 5746.0 lumens
Efficiency: N/A
Efficacy: 116.3 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

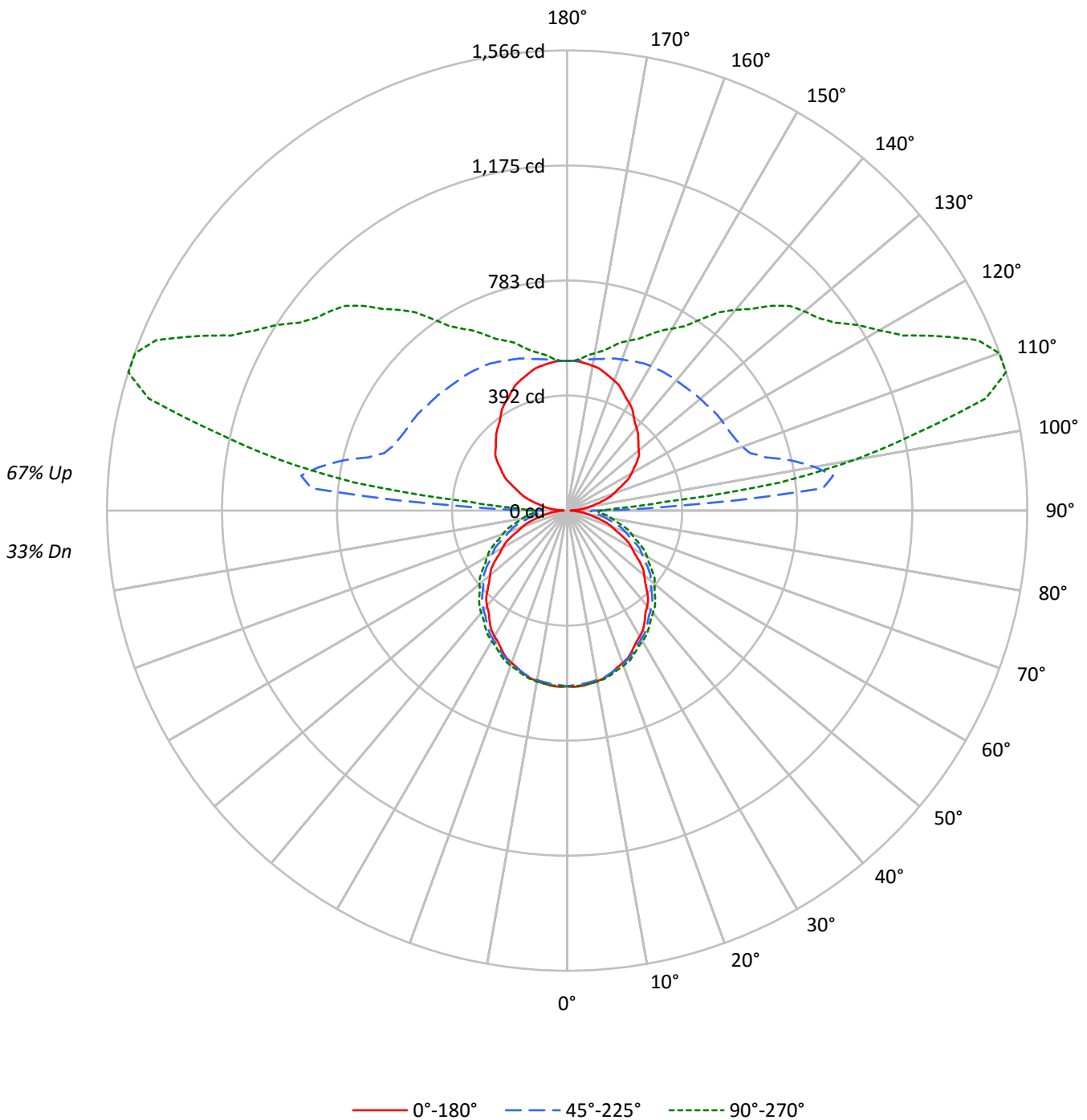
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		56	56	56		40	40	40	33
1	93	89	85	81	84	80	77	73	64	61	59		48	47	45		35	34	33	26
2	85	77	71	66	76	70	64	60	55	52	48		42	40	37		30	28	27	21
3	77	67	60	54	69	61	55	49	48	44	40		37	34	31		26	24	23	18
4	70	59	52	46	63	54	47	42	43	38	34		33	29	27		23	21	19	15
5	64	53	45	39	58	48	41	35	38	33	29		29	26	23		21	19	17	13
6	59	47	39	33	53	43	36	31	34	29	25		26	23	20		19	16	15	11
7	55	42	34	29	49	38	32	27	31	26	22		24	20	17		17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19		22	18	15		16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17		20	16	14		15	12	10	8
10	44	32	25	20	39	29	23	18	23	19	15		18	15	12		13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.0
10°-20°	162.3	2.8
20°-30°	245.5	4.3
30°-40°	297.0	5.2
40°-50°	314.0	5.5
50°-60°	295.5	5.1
60°-70°	245.2	4.3
70°-80°	172.2	3.0
80°-90°	100.2	1.7
90°-100°	425.6	7.4
100°-110°	808.3	14.1
110°-120°	714.4	12.4
120°-130°	593.0	10.3
130°-140°	487.9	8.5
140°-150°	368.8	6.4
150°-160°	258.3	4.5
160°-170°	151.9	2.6
170°-180°	49.4	0.9
0°-30°	464.5	8.1
0°-40°	761.4	13.3
0°-60°	1370.9	23.9
0°-90°	1888.4	32.9
90°-120°	1948.3	33.9
90°-150°	3398.1	59.1
90°-180°	3858.0	67.1
0°-180°	5746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	12	46	84	105	112	9
95°	42	135	874	479	326	44
105°	123	190	700	1474	1474	132
115°	210	270	617	1170	1403	209
125°	290	344	601	988	1114	258
135°	342	408	583	866	985	265
145°	394	450	574	720	794	247
155°	447	483	558	632	659	206
165°	487	502	535	567	575	138
175°	508	509	513	520	518	48
180°	509	509	509	509	509	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.1	26.5	33.1	39.4	45.7	52.0	59.8	66.3	73.2	80.1	84.2
90°	11.7	19.7	28.7	35.6	42.5	48.7	61.1	67.5	75.9	84.4	87.6
92.5°	21.6	32.1	46.9	64.5	84.5	111.2	168.3	252.4	334.4	380.5	331.7
95°	41.8	49.7	64.6	82.5	111.4	158.9	252.1	422.2	667.4	873.7	900.7
97.5°	67.2	71.4	84.2	100.4	125.3	165.7	238.7	380.2	624.0	912.9	1111.4
100°	83.4	87.3	98.2	114.0	136.9	173.7	238.6	357.5	567.4	855.3	1115.4
102.5°	99.4	104.4	114.0	128.6	150.2	185.2	244.3	349.4	528.8	784.6	1052.7
105°	123.1	129.1	137.1	152.1	173.0	206.3	259.8	348.4	494.0	700.5	939.4
107.5°	150.6	155.0	162.5	177.7	197.3	229.8	279.1	359.9	484.7	651.9	847.4
110°	168.4	172.5	179.6	193.7	213.8	244.4	293.7	368.9	484.2	634.5	801.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	185.5	189.3	197.0	210.1	229.9	260.4	307.7	378.8	486.6	624.6	773.4
115°	210.1	214.5	222.8	234.1	254.5	284.6	329.3	394.2	492.0	616.7	746.1
117.5°	236.4	240.0	247.0	258.8	277.4	308.1	350.5	410.2	498.1	611.7	731.5
120°	253.5	255.9	263.4	274.8	292.3	322.7	365.0	421.4	502.7	609.1	723.1
122.5°	269.5	271.6	278.6	289.0	307.6	336.9	379.0	432.0	507.5	605.6	714.0
125°	289.8	293.7	299.5	310.4	329.2	359.0	398.8	448.5	515.3	601.1	699.9
127.5°	308.3	311.3	318.4	330.9	350.5	380.0	417.8	462.9	520.7	594.8	681.6
130°	318.1	322.0	329.8	344.7	363.6	393.7	430.2	471.5	525.0	591.3	670.0
132.5°	328.6	331.7	341.9	355.9	376.4	404.7	440.6	480.7	528.8	588.4	659.8
135°	342.5	346.5	356.5	373.5	394.5	421.0	455.1	492.1	534.3	583.3	643.7
137.5°	357.1	360.8	371.6	387.7	409.3	434.4	465.6	499.8	536.7	580.1	630.0
140°	367.5	370.4	381.3	398.1	419.0	443.0	473.1	505.3	539.4	577.6	622.6
142.5°	378.2	381.2	391.3	407.5	427.7	450.8	480.0	509.5	541.8	576.5	616.5
145°	393.8	396.7	406.6	420.4	439.3	461.2	487.2	514.3	543.3	574.3	607.2
147.5°	411.6	412.5	421.2	435.4	451.1	470.8	495.2	518.8	544.2	570.7	599.0
150°	422.8	423.7	431.6	443.4	458.3	477.3	499.2	521.2	544.2	568.3	593.3
152.5°	432.7	432.9	440.9	452.0	465.5	482.8	502.5	522.9	542.7	564.3	586.9
155°	447.2	448.2	454.2	464.3	475.3	490.3	507.2	524.3	540.3	558.3	577.3
157.5°	461.4	461.4	467.0	474.8	484.4	496.3	510.7	524.3	537.7	552.1	567.5
160°	470.2	470.2	474.2	481.2	489.2	500.2	512.2	524.3	535.3	547.3	560.3
162.5°	478.2	477.4	480.6	486.8	494.0	502.7	513.8	524.3	532.9	542.4	553.9
165°	487.2	487.2	489.2	494.2	499.2	505.2	514.3	522.3	528.2	535.3	543.3
167.5°	496.3	495.2	496.3	500.1	502.8	507.5	514.0	519.9	523.5	528.1	533.6
170°	500.2	499.2	500.2	503.3	505.2	508.2	513.2	518.2	520.2	523.2	527.3
172.5°	504.2	503.3	503.4	505.7	506.9	509.0	512.5	516.7	517.0	518.4	521.7
175°	508.2	507.2	507.2	508.2	509.3	509.3	511.3	514.3	513.2	513.2	515.2
177.5°	510.1	509.3	508.4	509.3	509.3	509.3	510.1	511.6	510.1	510.1	510.8
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	88.8	93.2	97.8	100.6	102.1	103.6	104.7	106.1
90°	93.0	98.3	103.6	106.3	108.6	110.7	110.9	112.1
92.5°	268.0	223.6	197.6	180.2	169.6	165.4	163.2	164.4
95°	807.7	656.6	526.6	432.2	384.5	354.9	338.2	326.5
97.5°	1157.3	1103.5	1009.6	907.8	837.2	778.3	749.5	730.0
100°	1265.6	1289.6	1244.6	1173.0	1087.1	1027.1	998.1	991.2
102.5°	1257.1	1360.2	1378.3	1350.0	1297.7	1254.6	1224.3	1219.0
105°	1172.2	1349.0	1451.8	1495.3	1498.5	1491.6	1478.9	1474.0
107.5°	1054.0	1241.9	1385.0	1476.6	1527.2	1551.0	1562.1	1565.7
110°	982.5	1159.0	1307.5	1419.9	1492.1	1535.2	1554.4	1564.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	929.1	1085.5	1225.9	1338.2	1420.0	1472.1	1498.5	1514.2
115°	874.4	1000.7	1121.1	1219.3	1299.4	1360.5	1393.5	1402.6
117.5°	845.2	950.2	1045.3	1128.9	1197.6	1249.1	1282.8	1290.1
120°	831.1	927.1	1010.2	1083.3	1141.5	1186.7	1213.9	1226.2
122.5°	818.8	911.6	987.5	1051.7	1101.0	1139.7	1162.8	1174.9
125°	798.7	887.7	959.5	1016.4	1057.3	1087.3	1107.2	1114.0
127.5°	774.5	859.4	930.9	985.0	1026.2	1053.0	1070.1	1077.0
130°	755.8	837.5	908.2	963.0	1005.0	1030.9	1047.8	1054.6
132.5°	736.6	813.4	882.4	937.1	978.3	1007.4	1023.5	1030.4
135°	709.1	776.5	840.0	891.7	932.5	961.5	978.4	985.2
137.5°	684.6	741.8	795.4	842.1	880.3	908.6	922.6	930.5
140°	670.5	719.5	766.5	809.8	845.6	868.3	883.0	891.8
142.5°	657.8	700.9	741.2	778.8	810.5	831.5	844.5	850.8
145°	640.1	675.0	705.9	734.7	760.3	777.9	788.5	794.1
147.5°	625.5	652.6	676.8	699.1	718.0	733.1	741.1	743.5
150°	617.3	640.3	660.3	678.3	694.3	707.3	713.3	714.4
152.5°	608.5	628.3	646.7	661.5	675.1	685.7	689.3	690.3
155°	595.3	611.3	626.3	638.3	648.3	656.3	659.4	659.4
157.5°	581.1	594.5	607.1	616.7	624.3	630.3	632.1	632.1
160°	572.3	583.2	594.3	602.3	608.3	614.3	615.3	615.3
162.5°	563.4	572.9	581.5	588.7	593.1	599.1	600.1	599.3
165°	551.3	557.2	564.3	569.3	573.3	577.3	576.3	575.3
167.5°	539.5	544.1	549.7	552.7	554.7	557.2	557.1	556.3
170°	532.3	535.3	539.2	542.3	544.2	545.3	544.2	544.2
172.5°	525.8	528.1	530.5	532.6	533.8	534.9	533.8	532.3
175°	517.3	518.2	520.2	520.2	520.2	522.3	520.2	518.2
177.5°	511.6	512.5	512.5	513.2	512.5	513.2	511.6	510.1
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3

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