

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: P332576-940

Luminaire Tested: **S124DIP-S575D1205U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332576-940
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-S575D1205U940-4F0-1E-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: 5951.0 lumens
Efficiency: N/A
Efficacy: 120.5 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

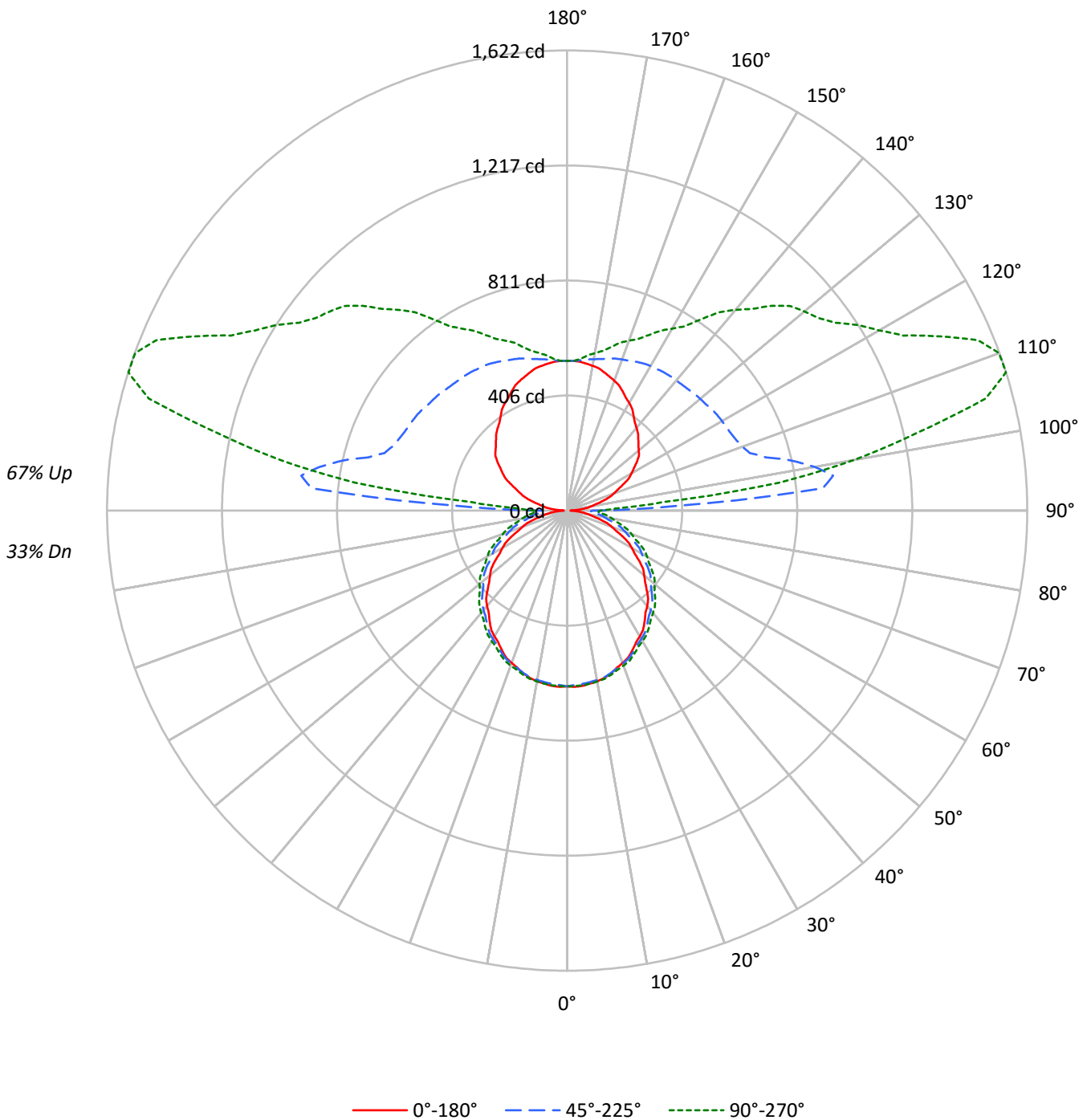
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5002	5002	5002
5°	5018	4889	4903
10°	4987	4809	4805
15°	4943	4717	4690
20°	4875	4614	4579
25°	4799	4500	4456
30°	4717	4386	4330
35°	4624	4269	4220
40°	4550	4158	4105
45°	4439	4056	4005
50°	4344	3938	3901
55°	4249	3827	3778
60°	4098	3685	3667
65°	3933	3533	3529
70°	3733	3359	3369
75°	3453	3169	3224
80°	3143	2984	3082
85°	2746	2820	2999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.0
10°-20°	168.1	2.8
20°-30°	254.2	4.3
30°-40°	307.6	5.2
40°-50°	325.2	5.5
50°-60°	306.0	5.1
60°-70°	253.9	4.3
70°-80°	178.3	3.0
80°-90°	103.7	1.7
90°-100°	440.8	7.4
100°-110°	837.2	14.1
110°-120°	739.9	12.4
120°-130°	614.1	10.3
130°-140°	505.3	8.5
140°-150°	382.0	6.4
150°-160°	267.5	4.5
160°-170°	157.3	2.6
170°-180°	51.2	0.9
0°-30°	481.0	8.1
0°-40°	788.6	13.3
0°-60°	1419.8	23.9
0°-90°	1955.8	32.9
90°-120°	2017.8	33.9
90°-150°	3519.3	59.1
90°-180°	3995.0	67.1
0°-180°	5951.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	613	619	618	59
15°	595	595	593	599	599	167
25°	544	548	550	558	559	250
35°	476	484	491	501	503	298
45°	397	410	423	435	438	307
55°	311	326	346	360	364	277
65°	215	237	261	278	284	213
75°	119	145	174	193	200	127
85°	37	66	97	117	125	39
90°	12	47	87	109	116	9
95°	43	140	905	496	338	45
105°	128	196	726	1526	1527	136
115°	218	279	639	1212	1453	216
125°	300	356	622	1023	1154	267
135°	355	422	604	897	1020	274
145°	408	466	595	746	822	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°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	621.9	621.5	621.2	620.7	620.4	619.7	618.8	617.8	616.7	615.7	616.6
5°	620.4	619.9	619.4	618.9	618.5	617.7	616.6	615.5	614.5	613.4	614.7
7.5°	615.1	614.7	614.5	614.2	613.9	613.4	612.5	611.6	610.6	609.8	611.2
10°	610.6	610.5	610.3	610.2	610.0	609.6	608.8	608.0	607.3	606.5	607.9
12.5°	604.5	604.5	604.5	604.4	604.4	604.1	603.6	603.1	602.5	602.0	603.2
15°	594.7	594.9	594.9	595.1	595.3	595.1	594.7	594.2	593.7	593.3	594.7
17.5°	581.2	581.7	582.1	582.6	583.1	583.3	583.2	583.1	583.0	582.9	584.2
20°	571.8	572.2	572.7	573.2	573.6	573.9	574.1	574.3	574.4	574.5	576.0
22.5°	561.2	561.8	562.4	562.9	563.6	564.0	564.3	564.5	564.8	565.1	566.7
25°	544.0	544.9	545.9	546.8	547.7	548.4	548.8	549.3	549.8	550.3	552.0
27.5°	524.9	526.2	527.5	529.0	530.3	531.3	532.0	532.7	533.4	534.1	535.7
30°	512.1	513.4	514.5	515.8	517.0	518.2	519.2	520.3	521.4	522.5	524.2
32.5°	498.2	499.7	501.1	502.7	504.2	505.5	506.7	507.9	509.1	510.3	512.2
35°	476.0	477.9	479.7	481.5	483.4	485.1	486.6	488.2	489.7	491.2	493.5
37.5°	453.7	455.8	457.9	460.0	462.2	464.2	466.1	468.1	469.9	471.8	474.0
40°	439.3	441.2	443.3	445.2	447.3	449.3	451.5	453.6	455.8	458.0	460.3
42.5°	422.6	424.8	427.0	429.4	431.6	434.0	436.5	439.0	441.6	444.1	446.7
45°	396.9	399.8	402.8	405.7	408.6	411.5	414.5	417.4	420.4	423.3	425.9
47.5°	372.4	375.3	378.4	381.4	384.4	387.6	391.0	394.4	397.8	401.2	403.9
50°	354.5	357.9	361.3	364.8	368.2	371.6	375.0	378.4	381.7	385.1	388.2
52.5°	336.8	340.2	343.6	347.0	350.4	354.0	357.9	361.8	365.7	369.5	372.6
55°	310.9	314.1	317.4	320.6	323.8	327.7	332.3	337.0	341.6	346.3	349.4
57.5°	281.9	285.9	289.9	293.9	297.9	302.2	306.7	311.4	316.0	320.6	324.2
60°	263.0	267.0	271.0	275.0	279.0	283.6	288.6	293.7	298.8	303.9	307.5
62.5°	244.7	249.1	253.4	257.8	262.2	266.9	272.0	277.1	282.2	287.3	290.8
65°	215.1	220.1	225.0	229.9	234.9	240.0	245.1	250.4	255.7	260.9	264.7
67.5°	186.6	191.9	197.2	202.4	207.6	213.0	218.6	224.3	229.9	235.5	239.4
70°	167.2	172.5	177.7	183.0	188.2	193.8	199.6	205.5	211.3	217.2	221.3
72.5°	148.4	153.7	159.1	164.4	169.8	175.6	181.8	188.1	194.3	200.5	204.6
75°	119.3	125.0	130.7	136.4	142.1	148.3	154.7	161.2	167.7	174.2	178.5
77.5°	92.3	98.4	104.4	110.4	116.5	122.9	129.7	136.4	143.2	150.0	154.4
80°	75.6	81.8	88.0	94.2	100.3	106.7	113.6	120.4	127.2	133.9	138.6
82.5°	58.9	65.4	71.8	78.2	84.6	91.2	98.0	104.8	111.6	118.4	123.1
85°	36.7	43.2	49.8	56.2	62.7	69.4	76.3	83.3	90.2	97.1	101.7
87.5°	20.8	27.5	34.3	40.8	47.3	53.9	61.9	68.7	75.8	82.9	87.2
90°	12.1	20.4	29.7	36.8	44.1	50.5	63.3	69.9	78.6	87.4	90.8
92.5°	22.4	33.3	48.6	66.8	87.5	115.1	174.3	261.4	346.3	394.0	343.5
95°	43.2	51.5	66.9	85.4	115.4	164.6	261.1	437.3	691.3	904.8	932.8
97.5°	69.6	73.9	87.2	104.0	129.7	171.6	247.2	393.8	646.2	945.5	1151.0
100°	86.4	90.4	101.7	118.1	141.8	179.9	247.1	370.2	587.6	885.8	1155.2
102.5°	103.0	108.2	118.1	133.2	155.6	191.8	253.0	361.9	547.7	812.6	1090.2
105°	127.5	133.7	142.0	157.5	179.1	213.7	269.0	360.8	511.6	725.5	972.9
107.5°	156.0	160.5	168.3	184.0	204.4	238.0	289.0	372.7	502.0	675.1	877.6
110°	174.4	178.7	186.0	200.6	221.4	253.2	304.2	382.1	501.5	657.1	829.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.2	196.1	204.0	217.6	238.1	269.7	318.7	392.3	503.9	646.8	800.9
115°	217.6	222.1	230.8	242.5	263.6	294.7	341.1	408.2	509.5	638.7	772.8
117.5°	244.9	248.5	255.8	268.0	287.3	319.1	363.0	424.8	515.9	633.6	757.6
120°	262.5	265.0	272.8	284.6	302.7	334.2	378.0	436.4	520.7	630.8	748.9
122.5°	279.1	281.2	288.6	299.3	318.6	348.9	392.5	447.4	525.6	627.2	739.5
125°	300.1	304.2	310.2	321.5	341.0	371.8	413.0	464.5	533.7	622.5	724.9
127.5°	319.3	322.4	329.8	342.7	363.0	393.6	432.7	479.4	539.3	616.0	705.9
130°	329.5	333.5	341.6	357.0	376.6	407.8	445.5	488.3	543.7	612.4	693.9
132.5°	340.3	343.5	354.1	368.6	389.9	419.1	456.3	497.8	547.7	609.4	683.3
135°	354.7	358.8	369.3	386.8	408.6	436.0	471.4	509.7	553.3	604.1	666.6
137.5°	369.9	373.6	384.9	401.5	423.9	449.9	482.2	517.6	555.8	600.7	652.5
140°	380.6	383.6	394.8	412.3	433.9	458.8	490.0	523.3	558.7	598.2	644.8
142.5°	391.6	394.8	405.3	422.0	442.9	466.9	497.1	527.6	561.2	597.1	638.5
145°	407.9	410.9	421.1	435.4	455.0	477.7	504.6	532.6	562.7	594.8	628.8
147.5°	426.3	427.2	436.2	450.9	467.2	487.6	512.9	537.3	563.7	591.0	620.4
150°	437.9	438.8	447.0	459.2	474.7	494.3	517.0	539.8	563.7	588.5	614.5
152.5°	448.2	448.4	456.6	468.1	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°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	617.5	618.3	619.2	619.6	619.5	619.3	619.2	619.1
5°	615.9	617.1	618.3	618.8	618.8	618.6	618.4	618.2
7.5°	612.6	613.9	615.4	616.0	615.8	615.6	615.5	615.4
10°	609.2	610.6	612.0	612.6	612.5	612.3	612.2	612.0
12.5°	604.6	605.8	607.1	607.7	607.7	607.6	607.6	607.6
15°	596.0	597.4	598.8	599.4	599.3	599.1	599.0	598.8
17.5°	585.7	587.1	588.5	589.2	589.1	589.0	588.8	588.7
20°	577.7	579.2	580.7	581.5	581.5	581.5	581.5	581.5
22.5°	568.2	569.7	571.2	572.2	572.4	572.7	572.9	573.2
25°	553.7	555.4	557.1	557.9	558.1	558.3	558.4	558.6
27.5°	537.3	538.9	540.5	541.4	541.5	541.7	541.9	542.1
30°	525.9	527.6	529.3	530.3	530.6	530.9	531.2	531.5
32.5°	514.2	516.1	518.1	519.2	519.5	519.8	520.1	520.4
35°	495.6	497.8	499.9	501.2	501.7	502.1	502.6	503.1
37.5°	476.3	478.4	480.6	482.0	482.4	483.0	483.4	483.9
40°	462.6	464.9	467.3	468.7	469.3	469.9	470.6	471.2
42.5°	449.2	451.7	454.3	455.8	456.4	456.8	457.4	457.8
45°	428.6	431.1	433.7	435.4	436.2	437.0	437.7	438.5
47.5°	406.6	409.4	412.1	413.8	414.8	415.7	416.7	417.6
50°	391.3	394.4	397.4	399.5	400.4	401.3	402.3	403.1
52.5°	375.8	378.8	381.9	383.9	384.9	385.8	386.6	387.6
55°	352.4	355.5	358.6	360.6	361.5	362.5	363.4	364.3
57.5°	327.9	331.6	335.3	337.5	338.4	339.2	340.1	341.0
60°	311.0	314.6	318.1	320.5	321.7	323.0	324.2	325.5
62.5°	294.4	297.9	301.5	303.8	305.1	306.3	307.6	308.8
65°	268.6	272.5	276.3	278.8	280.1	281.3	282.6	283.8
67.5°	243.3	247.3	251.2	253.7	254.9	256.1	257.3	258.5
70°	225.5	229.7	233.8	236.5	237.6	238.6	239.7	240.8
72.5°	208.6	212.7	216.7	219.3	220.5	221.7	222.9	224.1
75°	182.8	187.1	191.5	194.3	195.6	197.1	198.5	199.8
77.5°	158.8	163.2	167.6	170.5	171.9	173.4	174.9	176.4
80°	143.2	147.8	152.4	155.3	156.6	157.8	159.1	160.3
82.5°	127.9	132.6	137.4	140.4	141.8	143.1	144.5	145.9
85°	106.4	111.0	115.7	118.8	120.3	121.8	123.3	124.9
87.5°	91.9	96.6	101.3	104.2	105.8	107.3	108.4	109.9
90°	96.3	101.8	107.3	110.1	112.4	114.7	114.9	116.1
92.5°	277.6	231.6	204.6	186.6	175.7	171.3	169.1	170.2
95°	836.5	680.0	545.4	447.6	398.2	367.6	350.3	338.1
97.5°	1198.5	1142.9	1045.6	940.1	867.0	806.0	776.2	756.0
100°	1310.7	1335.6	1289.0	1214.9	1125.9	1063.7	1033.7	1026.5
102.5°	1301.9	1408.7	1427.5	1398.1	1344.0	1299.4	1267.9	1262.5
105°	1214.0	1397.1	1503.6	1548.6	1551.9	1544.8	1531.6	1526.6
107.5°	1091.5	1286.2	1434.4	1529.3	1581.6	1606.3	1617.8	1621.6
110°	1017.5	1200.3	1354.2	1470.5	1545.3	1590.0	1609.9	1620.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	962.2	1124.3	1269.6	1385.9	1470.7	1524.6	1551.9	1568.3
115°	905.6	1036.4	1161.1	1262.8	1345.8	1409.0	1443.2	1452.6
117.5°	875.4	984.1	1082.6	1169.2	1240.3	1293.7	1328.6	1336.1
120°	860.8	960.2	1046.2	1122.0	1182.2	1229.0	1257.2	1269.9
122.5°	848.0	944.1	1022.7	1089.2	1140.3	1180.4	1204.3	1216.8
125°	827.2	919.4	993.7	1052.7	1095.0	1126.1	1146.7	1153.8
127.5°	802.1	890.0	964.1	1020.1	1062.8	1090.6	1108.2	1115.4
130°	782.7	867.4	940.6	997.4	1040.8	1067.6	1085.1	1092.3
132.5°	762.9	842.4	913.8	970.5	1013.2	1043.3	1060.0	1067.1
135°	734.4	804.2	870.0	923.5	965.8	995.8	1013.3	1020.4
137.5°	709.0	768.3	823.8	872.2	911.7	941.0	955.5	963.7
140°	694.5	745.1	793.8	838.7	875.7	899.3	914.5	923.6
142.5°	681.3	725.9	767.7	806.6	839.4	861.1	874.6	881.1
145°	662.9	699.1	731.1	760.9	787.4	805.7	816.6	822.4
147.5°	647.8	675.9	701.0	724.1	743.6	759.2	767.6	770.0
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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