

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: P332576-927

Luminaire Tested: **S124DIP-S575D1205U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332576-927
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-S575D1205U927-4F0-1E-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: 5286.7 lumens
Efficiency: N/A
Efficacy: 107.0 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

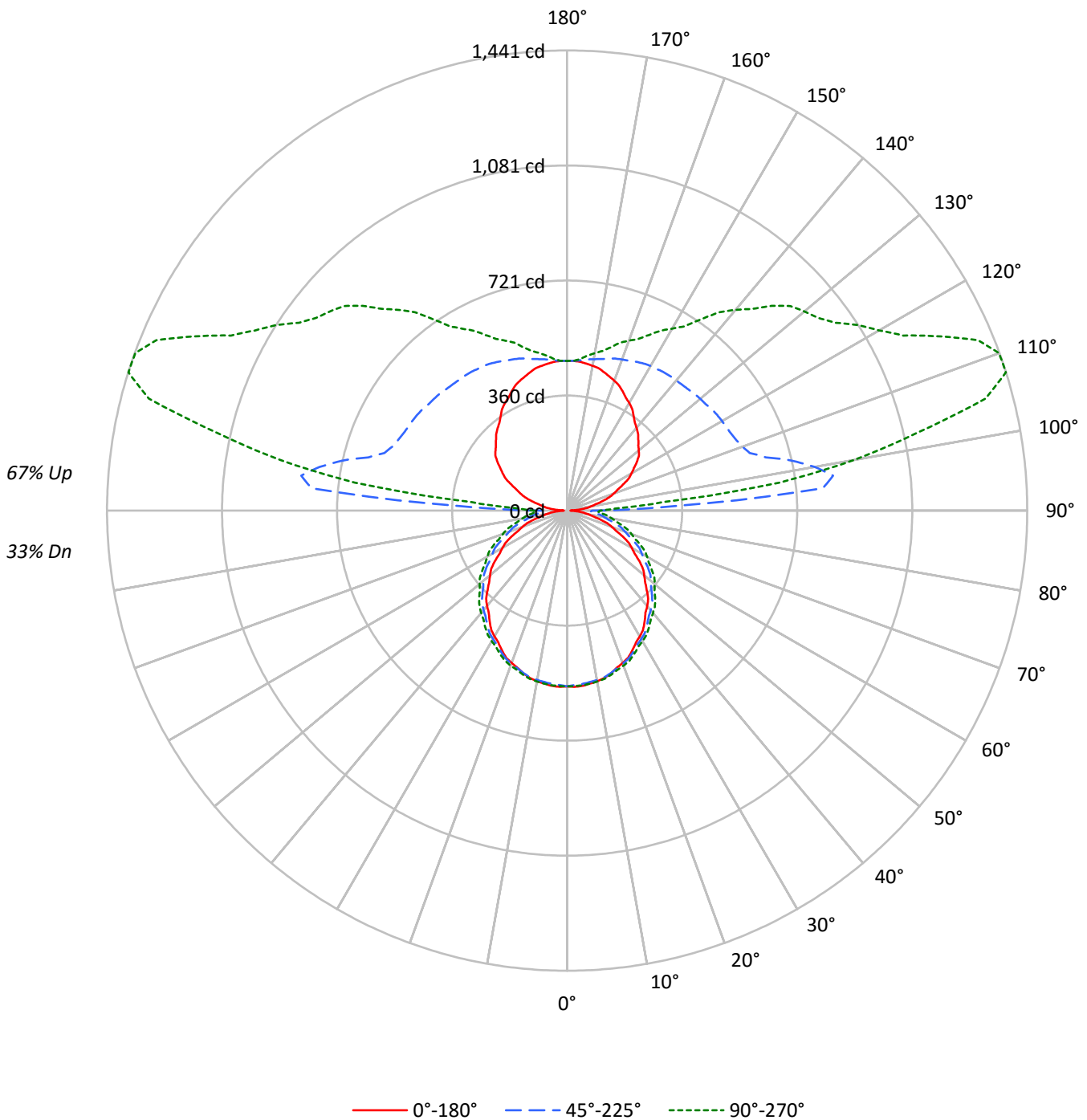
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.0
10°-20°	149.4	2.8
20°-30°	225.8	4.3
30°-40°	273.2	5.2
40°-50°	288.9	5.5
50°-60°	271.9	5.1
60°-70°	225.6	4.3
70°-80°	158.4	3.0
80°-90°	92.2	1.7
90°-100°	391.6	7.4
100°-110°	743.7	14.1
110°-120°	657.3	12.4
120°-130°	545.6	10.3
130°-140°	448.9	8.5
140°-150°	339.3	6.4
150°-160°	237.6	4.5
160°-170°	139.8	2.6
170°-180°	45.5	0.9
0°-30°	427.3	8.1
0°-40°	700.6	13.3
0°-60°	1261.3	23.9
0°-90°	1737.4	32.9
90°-120°	1792.6	33.9
90°-150°	3126.5	59.1
90°-180°	3549.0	67.1
0°-180°	5286.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	11	42	78	97	103	8
95°	38	124	804	441	300	40
105°	113	174	644	1356	1356	121
115°	193	248	567	1077	1290	192
125°	267	317	553	909	1025	237
135°	315	375	537	797	906	244
145°	362	414	528	663	731	227
155°	412	444	514	582	607	190
165°	448	462	492	522	529	127
175°	468	469	472	479	477	44
180°	469	469	469	469	469	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.5	24.4	30.5	36.3	42.1	47.8	55.0	61.0	67.3	73.7	77.5
90°	10.8	18.1	26.4	32.7	39.1	44.8	56.2	62.1	69.9	77.6	80.6
92.5°	19.9	29.5	43.2	59.3	77.7	102.3	154.9	232.3	307.7	350.1	305.1
95°	38.4	45.7	59.4	75.9	102.5	146.2	232.0	388.5	614.1	803.8	828.7
97.5°	61.8	65.7	77.5	92.4	115.3	152.4	219.6	349.8	574.1	840.0	1022.5
100°	76.8	80.3	90.3	104.9	126.0	159.9	219.5	328.9	522.0	787.0	1026.3
102.5°	91.5	96.1	104.9	118.4	138.2	170.4	224.7	321.5	486.6	721.9	968.5
105°	113.3	118.7	126.1	139.9	159.1	189.8	239.0	320.5	454.5	644.5	864.3
107.5°	138.6	142.6	149.5	163.5	181.6	211.4	256.7	331.1	446.0	599.8	779.7
110°	155.0	158.8	165.2	178.2	196.7	224.9	270.2	339.5	445.5	583.8	737.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	170.7	174.2	181.3	193.3	211.5	239.6	283.1	348.5	447.7	574.6	711.5
115°	193.3	197.3	205.0	215.4	234.2	261.8	303.0	362.7	452.7	567.4	686.5
117.5°	217.5	220.8	227.3	238.1	255.2	283.4	322.5	377.4	458.3	562.8	673.0
120°	233.2	235.4	242.3	252.9	268.9	296.9	335.8	387.7	462.6	560.4	665.3
122.5°	248.0	249.9	256.4	265.9	283.0	310.0	348.7	397.4	466.9	557.2	657.0
125°	266.6	270.2	275.6	285.6	302.9	330.3	366.9	412.6	474.1	553.0	644.0
127.5°	283.7	286.5	292.9	304.4	322.5	349.7	384.4	425.9	479.1	547.2	627.1
130°	292.7	296.3	303.5	317.2	334.5	362.3	395.8	433.8	483.0	544.1	616.5
132.5°	302.3	305.1	314.6	327.5	346.3	372.3	405.4	442.3	486.6	541.4	607.0
135°	315.1	318.8	328.0	343.6	363.0	387.4	418.7	452.8	491.5	536.7	592.2
137.5°	328.6	331.9	341.9	356.7	376.6	399.7	428.4	459.9	493.8	533.7	579.6
140°	338.1	340.8	350.8	366.3	385.5	407.6	435.3	464.9	496.3	531.5	572.8
142.5°	347.9	350.7	360.0	374.9	393.5	414.8	441.6	468.7	498.5	530.4	567.2
145°	362.3	365.0	374.1	386.8	404.2	424.4	448.3	473.2	499.9	528.4	558.6
147.5°	378.7	379.5	387.5	400.6	415.0	433.2	455.7	477.4	500.7	525.1	551.1
150°	389.0	389.8	397.1	408.0	421.7	439.1	459.3	479.6	500.7	522.8	545.9
152.5°	398.2	398.3	405.7	415.9	428.3	444.3	462.3	481.1	499.3	519.2	540.0
155°	411.5	412.4	417.9	427.1	437.3	451.1	466.7	482.4	497.1	513.7	531.2
157.5°	424.5	424.5	429.7	436.9	445.7	456.6	469.8	482.4	494.7	507.9	522.1
160°	432.6	432.6	436.3	442.8	450.1	460.3	471.3	482.4	492.5	503.5	515.5
162.5°	440.0	439.3	442.2	447.9	454.6	462.5	472.8	482.4	490.3	499.1	509.6
165°	448.3	448.3	450.1	454.7	459.3	464.9	473.2	480.5	486.0	492.5	499.9
167.5°	456.6	455.7	456.6	460.1	462.6	466.9	472.9	478.3	481.6	485.8	491.0
170°	460.3	459.3	460.3	463.0	464.9	467.6	472.2	476.8	478.6	481.4	485.1
172.5°	463.9	463.0	463.2	465.2	466.4	468.3	471.5	475.4	475.7	477.0	480.0
175°	467.6	466.7	466.7	467.6	468.6	468.6	470.4	473.2	472.2	472.2	474.0
177.5°	469.3	468.6	467.8	468.6	468.6	468.6	469.3	470.7	469.3	469.3	470.0
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	81.7	85.8	90.0	92.5	94.0	95.3	96.3	97.6
90°	85.6	90.5	95.3	97.8	99.9	101.9	102.0	103.1
92.5°	246.6	205.7	181.8	165.8	156.1	152.2	150.2	151.2
95°	743.1	604.1	484.5	397.7	353.8	326.5	311.2	300.4
97.5°	1064.8	1015.3	928.9	835.2	770.2	716.1	689.6	671.6
100°	1164.4	1186.5	1145.1	1079.3	1000.2	945.0	918.3	912.0
102.5°	1156.6	1251.5	1268.1	1242.1	1194.0	1154.4	1126.4	1121.6
105°	1078.5	1241.2	1335.8	1375.8	1378.7	1372.4	1360.7	1356.2
107.5°	969.7	1142.6	1274.3	1358.6	1405.1	1427.0	1437.3	1440.6
110°	904.0	1066.4	1203.0	1306.4	1372.9	1412.5	1430.2	1439.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	854.8	998.8	1127.9	1231.2	1306.5	1354.4	1378.7	1393.2
115°	804.5	920.8	1031.5	1121.9	1195.6	1251.7	1282.1	1290.5
117.5°	777.7	874.3	961.8	1038.7	1101.8	1149.3	1180.3	1187.0
120°	764.7	853.0	929.5	996.7	1050.3	1091.9	1116.9	1128.1
122.5°	753.4	838.8	908.6	967.7	1013.0	1048.6	1069.8	1081.0
125°	734.9	816.7	882.8	935.2	972.8	1000.4	1018.7	1025.0
127.5°	712.6	790.7	856.5	906.3	944.2	968.8	984.5	990.9
130°	695.4	770.6	835.6	886.1	924.6	948.5	964.0	970.3
132.5°	677.7	748.4	811.8	862.2	900.1	926.9	941.7	948.0
135°	652.4	714.5	772.9	820.4	858.0	884.6	900.2	906.5
137.5°	629.9	682.5	731.8	774.8	809.9	836.0	848.8	856.1
140°	617.0	661.9	705.2	745.0	778.0	798.9	812.5	820.5
142.5°	605.2	644.8	682.0	716.5	745.7	765.0	777.0	782.8
145°	588.9	621.1	649.5	676.0	699.5	715.7	725.5	730.6
147.5°	575.5	600.5	622.7	643.3	660.6	674.5	681.9	684.0
150°	568.0	589.1	607.5	624.1	638.8	650.8	656.3	657.3
152.5°	559.8	578.1	595.0	608.6	621.2	630.9	634.2	635.2
155°	547.7	562.4	576.2	587.3	596.5	603.9	606.7	606.7
157.5°	534.6	547.0	558.6	567.4	574.4	580.0	581.6	581.6
160°	526.6	536.6	546.8	554.1	559.7	565.2	566.1	566.1
162.5°	518.4	527.1	535.0	541.6	545.7	551.2	552.2	551.4
165°	507.2	512.7	519.2	523.8	527.4	531.2	530.2	529.3
167.5°	496.4	500.6	505.7	508.5	510.3	512.7	512.5	511.8
170°	489.7	492.5	496.1	498.9	500.7	501.7	500.7	500.7
172.5°	483.8	485.8	488.1	490.0	491.2	492.1	491.2	489.7
175°	475.9	476.8	478.6	478.6	478.6	480.5	478.6	476.8
177.5°	470.7	471.5	471.5	472.2	471.5	472.2	470.7	469.3
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6

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