

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: P332612-935

Luminaire Tested: **S124DIP-S795D1035U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332612-935
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-S795D1035U935-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5972.2 lumens
Efficiency: N/A
Efficacy: 114.9 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: General Diffuse

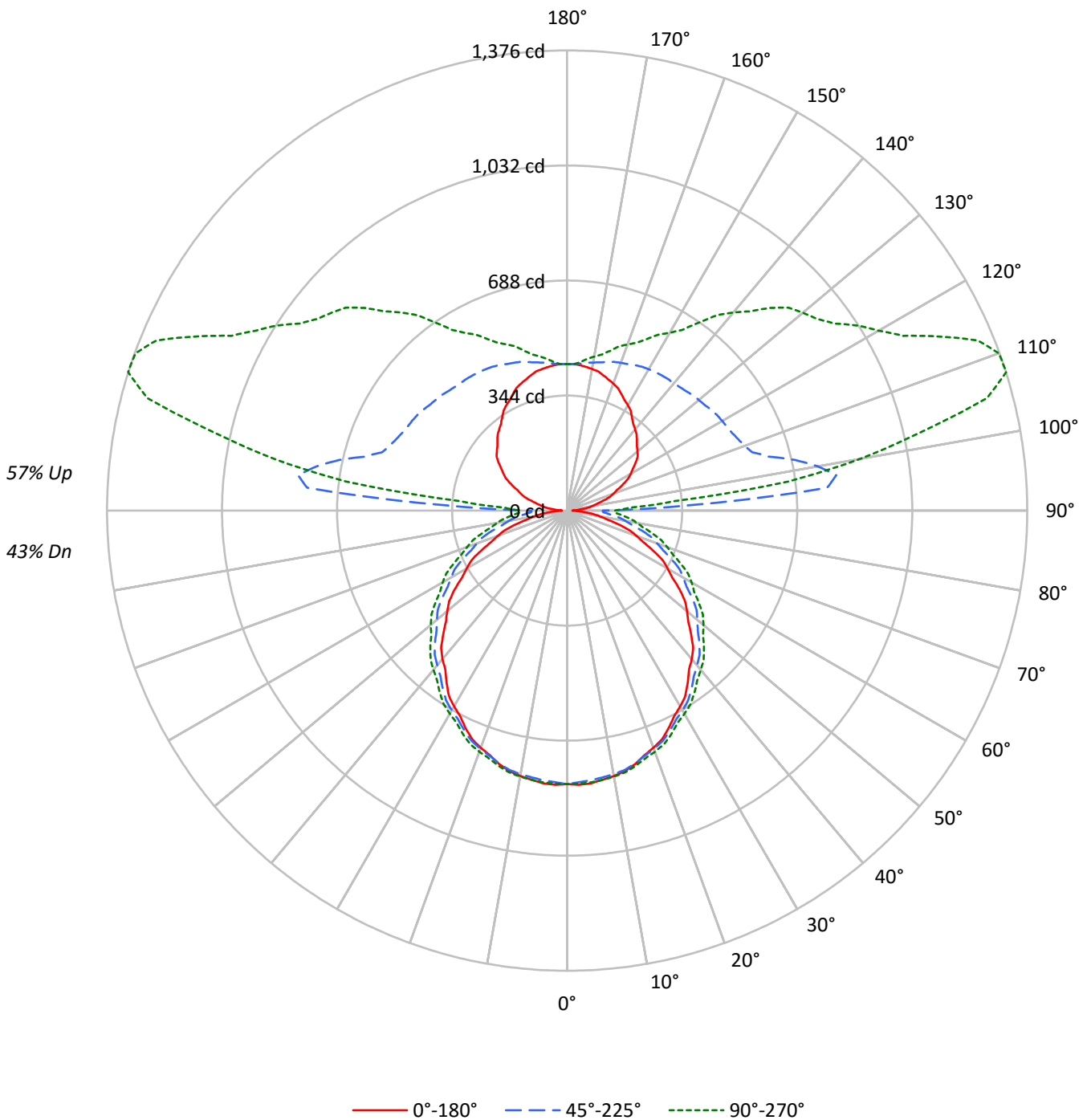
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40	35
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.3
10°-20°	221.9	3.7
20°-30°	335.5	5.6
30°-40°	405.9	6.8
40°-50°	429.2	7.2
50°-60°	403.9	6.8
60°-70°	335.1	5.6
70°-80°	235.4	3.9
80°-90°	135.5	2.3
90°-100°	395.0	6.6
100°-110°	716.2	12.0
110°-120°	628.3	10.5
120°-130°	517.7	8.7
130°-140°	422.7	7.1
140°-150°	317.6	5.3
150°-160°	221.9	3.7
160°-170°	130.5	2.2
170°-180°	42.5	0.7
0°-30°	634.9	10.6
0°-40°	1040.8	17.4
0°-60°	1873.9	31.4
0°-90°	2579.9	43.2
90°-120°	1739.5	29.1
90°-150°	2997.5	50.2
90°-180°	3392.0	56.8
0°-180°	5972.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	16	58	106	133	143	11
95°	40	132	780	450	322	41
105°	109	173	624	1297	1300	116
115°	182	237	546	1029	1231	181
125°	250	297	526	864	975	223
135°	295	351	504	752	857	228
145°	339	387	493	621	686	213
155°	384	415	480	543	566	177
165°	419	432	460	487	494	118
175°	437	438	441	447	445	41
180°	438	438	438	438	438	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.3	35.9	44.8	53.2	61.7	70.3	80.2	89.2	98.4	107.7	113.4
90°	15.5	25.4	36.1	45.1	54.1	62.5	76.5	85.2	95.7	106.2	111.2
92.5°	23.7	35.5	50.9	68.7	88.6	114.5	166.9	242.4	316.2	359.0	319.1
95°	40.3	49.6	64.9	82.7	110.1	153.8	236.9	386.2	599.9	780.2	805.5
97.5°	61.7	67.5	80.7	96.8	120.2	157.5	223.3	348.0	560.5	811.8	984.3
100°	75.4	80.7	92.0	107.6	129.2	163.3	222.0	327.1	510.3	760.7	986.2
102.5°	89.1	95.1	105.1	119.4	139.7	172.0	225.7	318.9	475.9	698.5	930.8
105°	108.8	115.5	123.8	138.2	157.7	188.5	237.3	316.2	444.0	624.3	831.4
107.5°	132.3	137.4	145.1	159.4	177.5	207.3	252.3	324.3	434.3	580.5	750.4
110°	147.4	152.0	159.1	172.3	190.6	218.9	263.8	331.1	432.7	564.5	709.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	161.9	166.1	173.6	185.7	203.7	231.6	274.8	338.4	433.5	554.7	684.2
115°	182.5	187.0	194.8	205.3	223.4	250.8	291.7	349.7	436.2	545.9	658.7
117.5°	205.1	208.5	215.0	225.6	241.9	269.6	308.3	361.9	439.6	539.5	643.9
120°	219.5	221.8	228.4	238.5	253.7	281.0	319.6	370.2	442.3	535.9	635.3
122.5°	233.2	235.1	241.2	250.1	266.2	292.4	330.6	378.2	445.1	531.5	626.2
125°	250.4	253.6	258.6	267.8	284.0	310.4	346.5	391.1	450.3	525.9	612.3
127.5°	266.1	268.7	274.7	285.3	302.1	328.2	362.1	402.3	453.4	518.5	594.3
130°	274.4	277.6	284.3	297.0	313.1	339.6	372.0	408.8	455.9	514.2	583.2
132.5°	283.3	285.9	294.5	306.6	324.1	348.9	380.6	416.1	458.4	510.6	573.2
135°	295.0	298.3	306.9	321.6	339.7	362.7	392.4	424.8	461.5	504.2	557.3
137.5°	307.5	310.6	319.8	333.6	352.1	373.6	400.8	430.3	462.4	499.8	543.9
140°	316.4	318.8	328.0	342.4	360.3	380.9	406.9	434.6	464.1	497.0	536.6
142.5°	325.3	327.9	336.6	350.4	367.8	387.6	412.6	437.9	465.7	495.5	530.6
145°	338.7	341.1	349.5	361.3	377.5	396.2	418.6	441.8	466.7	493.4	522.1
147.5°	354.0	354.6	362.1	374.2	387.6	404.5	425.5	445.7	467.6	490.3	514.7
150°	363.7	364.3	371.0	381.1	393.7	410.0	429.0	447.8	467.6	488.2	509.7
152.5°	371.9	372.0	378.8	388.4	399.8	414.8	431.7	449.2	466.2	484.7	504.2
155°	384.2	385.0	390.2	398.8	408.3	421.2	435.8	450.4	464.2	479.7	495.9
157.5°	396.4	396.4	401.2	407.9	416.2	426.4	438.7	450.4	461.9	474.3	487.5
160°	404.0	404.0	407.4	413.5	420.3	429.8	440.1	450.4	459.9	470.2	481.4
162.5°	410.9	410.2	412.9	418.3	424.5	431.9	441.4	450.4	457.8	466.1	475.9
165°	418.6	418.6	420.3	424.6	429.0	434.0	441.8	448.7	453.8	459.9	466.7
167.5°	426.4	425.5	426.4	429.6	432.0	435.9	441.6	446.6	449.7	453.7	458.5
170°	429.8	429.0	429.8	432.4	434.0	436.6	440.9	445.2	446.9	449.5	453.0
172.5°	433.2	432.4	432.5	434.4	435.4	437.3	440.2	443.8	444.2	445.4	448.2
175°	436.6	435.8	435.8	436.6	437.5	437.5	439.2	441.8	440.9	440.9	442.6
177.5°	438.2	437.5	436.8	437.5	437.5	437.5	438.2	439.5	438.2	438.2	438.9
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	119.5	125.5	131.6	135.5	137.4	139.4	141.0	142.8
90°	118.0	124.7	131.5	135.3	137.8	140.2	140.9	142.6
92.5°	266.6	230.5	210.3	196.8	188.3	185.3	184.0	185.6
95°	727.6	599.9	490.2	410.4	370.1	345.3	331.7	322.4
97.5°	1025.7	981.5	902.8	816.6	756.6	706.6	682.6	666.5
100°	1117.2	1139.9	1103.3	1043.1	969.7	918.8	894.4	889.0
102.5°	1108.4	1199.0	1216.5	1193.5	1149.2	1112.8	1087.3	1083.3
105°	1033.3	1187.1	1277.3	1315.9	1319.2	1314.0	1303.6	1300.0
107.5°	929.7	1093.0	1217.8	1297.8	1341.7	1362.7	1372.8	1376.5
110°	866.9	1020.4	1149.7	1247.3	1310.0	1347.7	1364.9	1374.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	819.7	955.7	1078.0	1175.6	1246.5	1291.8	1315.1	1329.2
115°	770.6	880.8	985.8	1071.3	1140.7	1193.6	1222.5	1230.9
117.5°	743.3	835.0	918.3	991.2	1050.8	1095.7	1125.2	1132.1
120°	729.7	813.6	886.5	950.4	1001.0	1040.4	1064.5	1075.5
122.5°	717.7	799.0	865.6	921.9	964.8	998.6	1018.9	1029.8
125°	698.7	776.4	839.6	889.4	925.1	951.2	968.7	975.2
127.5°	675.5	749.9	812.7	860.1	896.0	919.5	934.7	941.2
130°	658.1	729.7	791.9	839.8	876.3	899.0	914.0	920.3
132.5°	640.5	707.7	768.3	816.2	852.0	877.4	891.7	898.1
135°	614.8	673.8	729.5	774.7	810.4	835.6	850.6	857.0
137.5°	591.9	642.1	689.3	730.1	763.3	788.1	800.4	807.6
140°	578.7	621.7	663.1	701.0	732.1	752.1	765.1	773.0
142.5°	567.0	604.9	640.4	673.2	700.8	719.1	730.6	736.3
145°	550.9	581.3	608.3	633.4	655.7	671.1	680.5	685.6
147.5°	537.5	560.9	581.7	601.0	617.5	630.7	637.9	640.1
150°	530.4	550.1	567.3	582.8	596.5	607.7	612.9	613.7
152.5°	522.8	539.8	555.6	568.3	580.1	589.1	592.2	593.1
155°	511.4	525.2	538.0	548.4	557.0	563.9	566.5	566.5
157.5°	499.2	510.7	521.6	529.9	536.3	541.5	543.0	543.0
160°	491.6	501.1	510.6	517.5	522.6	527.8	528.7	528.7
162.5°	484.1	492.1	499.6	505.8	509.5	514.7	515.6	514.9
165°	473.6	478.8	484.7	489.0	492.5	495.9	495.1	494.2
167.5°	463.5	467.4	472.3	474.8	476.6	478.8	478.6	477.9
170°	457.3	459.9	463.3	465.9	467.6	468.5	467.6	467.6
172.5°	451.8	453.7	455.7	457.6	458.7	459.5	458.7	457.3
175°	444.4	445.2	446.9	446.9	446.9	448.7	446.9	445.2
177.5°	439.5	440.2	440.2	440.9	440.2	440.9	439.5	438.2
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5

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