

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: P332603-840

Luminaire Tested: **S124DIP-S795D810U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332603-840
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-S795D810U840-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6195.3 lumens
Efficiency: N/A
Efficacy: 135.0 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: General Diffuse

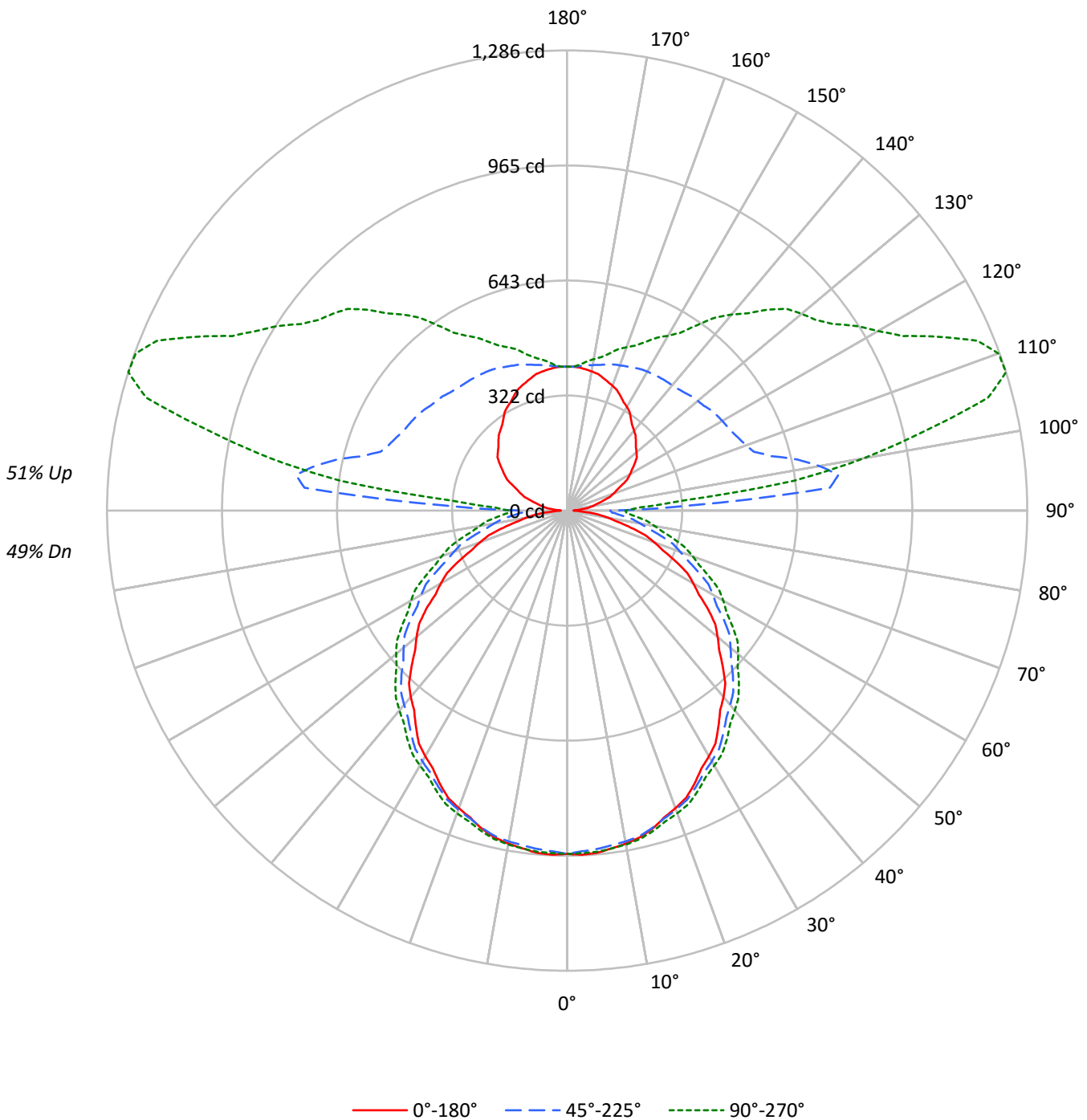
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	92	88	84	89	85	81	78	71	68	66	59	57	55	47	46	45	39
2	87	80	73	68	80	73	68	63	62	57	54	51	48	45	41	39	37	32
3	80	70	62	56	73	64	57	52	54	49	45	45	41	38	36	33	31	27
4	73	61	53	47	66	57	49	44	48	42	38	39	35	32	32	29	26	22
5	66	54	46	40	61	50	43	37	43	37	32	35	31	27	29	25	23	19
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	22	20	17
7	56	44	36	30	52	41	33	28	35	29	25	29	24	21	23	20	17	15
8	52	40	32	26	48	37	30	25	31	26	22	26	22	19	22	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	16	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.5
10°-20°	260.3	4.2
20°-30°	393.5	6.4
30°-40°	476.1	7.7
40°-50°	503.4	8.1
50°-60°	473.7	7.6
60°-70°	393.1	6.3
70°-80°	276.1	4.5
80°-90°	158.3	2.6
90°-100°	383.0	6.2
100°-110°	672.8	10.9
110°-120°	587.2	9.5
120°-130°	481.2	7.8
130°-140°	390.8	6.3
140°-150°	292.2	4.7
150°-160°	203.8	3.3
160°-170°	119.9	1.9
170°-180°	39.0	0.6
0°-30°	744.6	12.0
0°-40°	1220.8	19.7
0°-60°	2197.9	35.5
0°-90°	3025.3	48.8
90°-120°	1643.0	26.5
90°-150°	2807.2	45.3
90°-180°	3170.0	51.2
0°-180°	6195.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	18	67	121	152	163	13
95°	40	132	737	440	325	40
105°	102	166	589	1212	1217	109
115°	169	222	512	961	1148	168
125°	231	274	490	805	908	206
135°	272	323	465	697	794	210
145°	311	355	453	572	632	196
155°	353	381	441	499	520	163
165°	385	396	422	447	454	109
175°	401	402	405	411	409	38
180°	402	402	402	402	402	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	31.9	42.0	52.2	62.1	72.0	82.1	93.5	104.0	114.7	125.5	132.3
90°	18.0	29.1	41.0	51.4	61.7	71.6	86.6	96.8	108.8	120.6	126.7
92.5°	25.3	38.1	54.0	72.3	92.4	118.3	168.6	240.1	310.1	351.6	316.5
95°	40.0	50.3	66.0	84.2	111.0	153.0	231.5	370.8	569.3	737.0	761.6
97.5°	59.4	66.2	79.8	96.0	119.1	155.1	217.7	334.3	531.6	764.6	924.3
100°	71.8	78.1	89.8	105.4	126.6	159.7	215.6	314.2	484.5	716.5	925.1
102.5°	84.4	91.2	101.5	115.8	135.6	166.9	218.1	305.8	452.0	658.5	873.2
105°	102.1	109.2	118.0	132.2	151.2	180.9	227.6	301.9	421.3	588.9	780.4
107.5°	123.6	129.2	137.0	151.0	168.5	197.2	240.3	308.4	411.2	547.2	704.6
110°	137.3	142.2	149.6	162.3	179.9	207.0	250.1	313.8	409.0	531.9	666.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.4	154.9	162.4	174.2	191.4	218.2	259.6	319.7	408.9	521.9	642.0
115°	169.2	173.6	181.3	191.4	208.5	234.7	274.0	328.9	410.0	512.4	617.1
117.5°	189.8	193.3	199.4	209.4	224.8	251.1	288.2	338.9	411.8	505.2	602.2
120°	202.8	205.1	211.4	220.8	234.9	260.7	297.7	345.7	413.4	500.9	593.3
122.5°	215.4	217.1	222.8	231.0	245.8	270.6	307.2	352.2	415.2	495.9	584.0
125°	231.0	233.9	238.3	246.8	261.6	286.5	320.9	363.2	418.9	489.7	570.0
127.5°	245.4	247.7	253.2	262.9	278.2	302.7	334.8	372.6	420.6	481.5	552.1
130°	252.8	255.7	261.8	273.4	288.1	312.9	343.5	378.1	422.2	476.6	540.9
132.5°	260.9	263.3	271.2	282.2	298.2	321.2	351.1	384.4	423.9	472.4	530.9
135°	271.5	274.6	282.5	295.9	312.5	333.9	361.5	391.6	425.8	465.2	514.9
137.5°	283.0	285.7	294.2	306.7	323.7	343.6	368.7	396.1	425.6	460.2	501.4
140°	291.1	293.3	301.7	314.9	331.2	350.2	374.2	399.6	426.8	457.0	494.0
142.5°	299.1	301.4	309.4	322.2	338.1	356.4	379.2	402.5	427.9	455.2	488.2
145°	311.4	313.6	321.2	332.0	346.8	364.1	384.6	405.9	428.8	453.2	480.0
147.5°	325.5	326.0	332.8	343.9	356.1	371.6	390.9	409.5	429.6	450.4	472.8
150°	334.3	334.9	340.9	350.1	361.7	376.7	394.0	411.4	429.6	448.5	468.3
152.5°	341.6	341.7	348.0	356.8	367.4	381.1	396.6	412.6	428.3	445.4	463.2
155°	352.9	353.8	358.5	366.4	375.1	386.9	400.3	413.7	426.4	440.6	455.7
157.5°	364.2	364.2	368.6	374.8	382.3	391.6	403.0	413.7	424.3	435.8	447.9
160°	371.1	371.1	374.3	379.8	386.2	394.9	404.2	413.7	422.4	431.9	442.2
162.5°	377.5	376.8	379.3	384.3	389.9	396.7	405.6	413.7	420.6	428.2	437.2
165°	384.6	384.6	386.2	390.1	394.0	398.8	405.9	412.2	417.0	422.4	428.8
167.5°	391.6	390.9	391.6	394.7	396.9	400.5	405.8	410.3	413.1	416.8	421.2
170°	394.9	394.0	394.9	397.2	398.8	401.1	405.1	409.0	410.6	412.9	416.2
172.5°	398.0	397.2	397.4	399.1	400.0	401.7	404.5	407.8	408.1	409.2	411.7
175°	401.1	400.3	400.3	401.1	401.9	401.9	403.5	405.9	405.1	405.1	406.7
177.5°	402.5	401.9	401.3	401.9	401.9	401.9	402.5	403.8	402.5	402.5	403.1
180°	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	139.4	146.4	153.5	158.0	160.3	162.6	164.5	166.6
90°	134.4	142.1	149.9	154.2	156.9	159.7	160.8	162.7
92.5°	269.7	238.1	221.0	209.5	202.1	199.8	198.9	200.9
95°	691.5	575.5	476.2	403.8	367.3	345.0	333.0	324.8
97.5°	963.8	924.5	853.6	775.3	720.6	675.2	653.6	639.1
100°	1046.8	1069.0	1036.8	982.4	915.4	868.9	846.9	842.2
102.5°	1037.7	1122.3	1139.7	1119.5	1079.2	1046.2	1023.1	1019.9
105°	967.2	1109.8	1194.0	1230.2	1233.8	1229.3	1220.2	1217.4
107.5°	870.6	1022.0	1137.9	1212.1	1252.8	1272.5	1282.2	1286.0
110°	812.1	954.2	1074.2	1164.8	1222.7	1257.8	1273.9	1282.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	767.6	893.7	1007.2	1097.7	1163.3	1205.3	1227.1	1240.5
115°	721.1	823.5	921.1	1000.4	1064.5	1113.5	1140.4	1148.4
117.5°	694.5	779.9	857.5	925.2	980.4	1022.1	1049.6	1056.3
120°	681.0	759.2	827.2	886.6	933.5	970.2	992.6	1003.2
122.5°	669.1	744.8	807.1	859.4	899.2	930.6	949.7	960.1
125°	650.4	722.8	781.8	828.2	861.2	885.6	902.0	908.2
127.5°	627.6	696.8	755.5	799.6	832.9	855.0	869.2	875.6
130°	610.7	677.3	735.4	780.0	813.9	835.1	849.1	855.3
132.5°	593.6	656.3	712.9	757.4	790.6	814.4	827.8	833.9
135°	568.5	623.6	675.6	717.7	750.7	774.3	788.3	794.5
137.5°	546.2	593.2	637.2	675.3	706.0	729.0	740.6	747.5
140°	533.5	573.7	612.3	647.6	676.5	695.0	707.3	714.8
142.5°	522.1	557.5	590.8	621.4	646.8	664.0	674.7	680.1
145°	506.6	534.9	560.1	583.4	604.1	618.4	627.3	632.2
147.5°	493.9	515.4	534.5	552.4	567.7	580.0	586.7	589.0
150°	487.2	505.3	521.2	535.3	548.1	558.3	563.0	563.8
152.5°	480.3	495.8	510.4	522.1	532.8	541.2	544.0	544.8
155°	469.8	482.5	494.3	503.8	511.7	518.0	520.4	520.4
157.5°	458.6	469.2	479.2	486.8	492.7	497.5	498.9	498.9
160°	451.7	460.4	469.1	475.3	480.1	484.8	485.6	485.6
162.5°	444.7	452.1	459.0	464.6	468.1	472.8	473.6	473.0
165°	435.0	439.8	445.4	449.3	452.4	455.7	454.8	454.0
167.5°	425.8	429.4	433.8	436.2	437.8	439.8	439.7	439.0
170°	420.1	422.4	425.7	428.0	429.6	430.3	429.6	429.6
172.5°	415.1	416.8	418.7	420.4	421.3	422.1	421.3	420.1
175°	408.3	409.0	410.6	410.6	410.6	412.2	410.6	409.0
177.5°	403.8	404.5	404.5	405.1	404.5	405.1	403.8	402.5
180°	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9

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