

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: P331978-935

Luminaire Tested: **S123DIP-S775D805U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331978-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U935-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5285.5 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

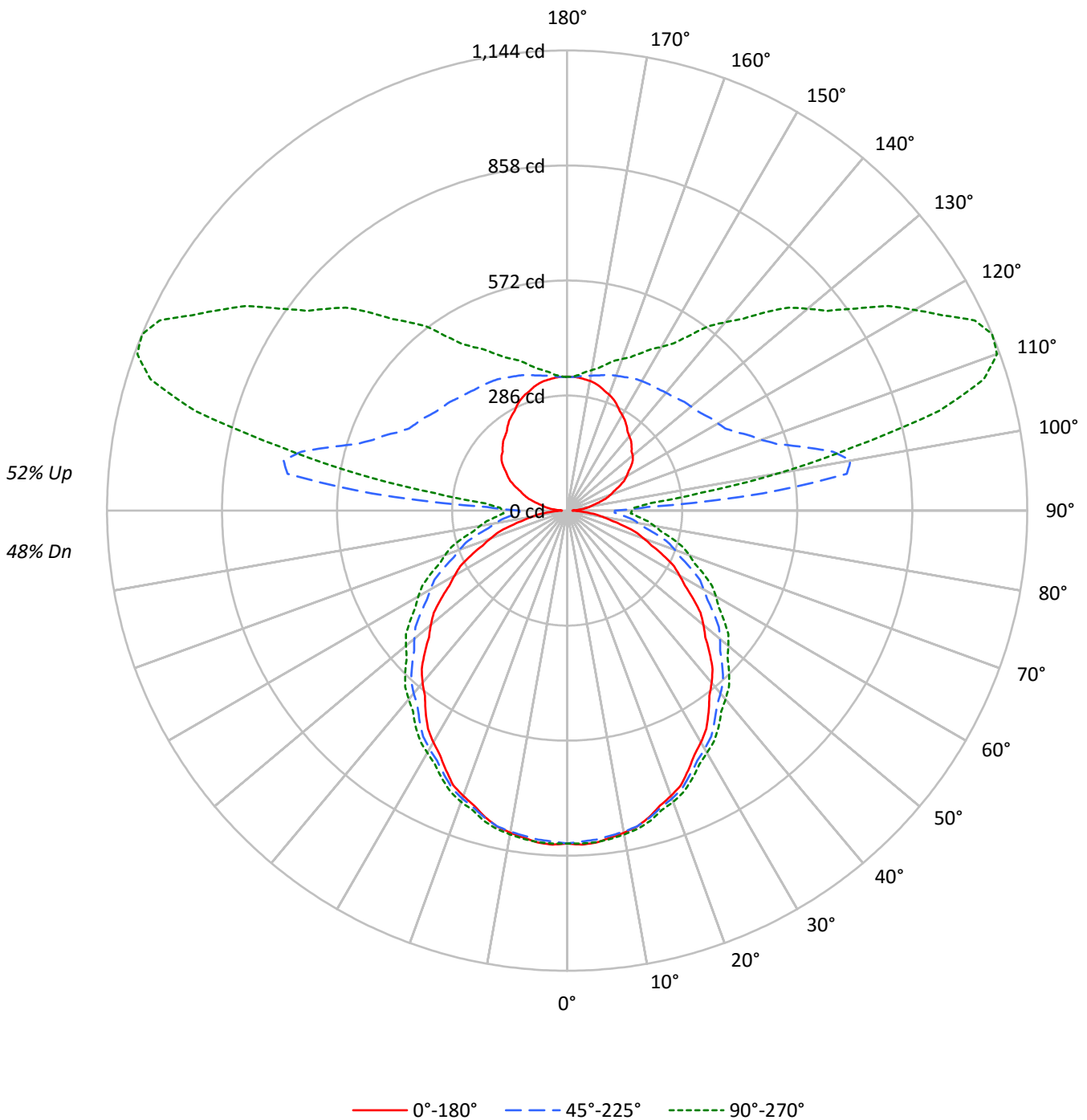
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82		68	68	68		55	55	55	48
1	96	92	87	83	88	84	81	77	71	68	65		58	56	54		47	45	44	39
2	87	79	73	67	80	73	67	63	61	57	53		50	47	45		40	38	36	31
3	79	69	62	56	73	64	57	52	54	49	44		44	40	37		35	33	30	26
4	72	61	53	47	66	57	49	44	48	42	38		39	35	32		32	28	26	22
5	66	54	46	40	61	50	43	37	42	37	32		35	31	27		28	25	22	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	34	29	25		29	24	21		23	20	17	15
8	52	40	32	26	48	37	30	25	31	26	22		26	22	19		21	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°	8908	8908	8908
5°	8936	8684	8689
10°	8856	8484	8441
15°	8741	8257	8171
20°	8579	7997	7875
25°	8377	7698	7561
30°	8171	7430	7245
35°	7939	7146	6992
40°	7720	6888	6722
45°	7475	6640	6505
50°	7232	6394	6267
55°	6967	6143	6052
60°	6707	5889	5832
65°	6441	5617	5571
70°	6040	5312	5303
75°	5534	4961	5030
80°	4951	4618	4718
85°	4409	4384	4537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	1.5
10°-20°	223.7	4.2
20°-30°	334.5	6.3
30°-40°	399.5	7.6
40°-50°	418.0	7.9
50°-60°	392.2	7.4
60°-70°	327.6	6.2
70°-80°	234.4	4.4
80°-90°	142.3	2.7
90°-100°	272.7	5.2
100°-110°	588.5	11.1
110°-120°	558.5	10.6
120°-130°	435.8	8.2
130°-140°	335.2	6.3
140°-150°	244.3	4.6
150°-160°	168.7	3.2
160°-170°	99.1	1.9
170°-180°	32.2	0.6
0°-30°	636.6	12.0
0°-40°	1036.1	19.6
0°-60°	1846.2	34.9
0°-90°	2550.5	48.3
90°-120°	1419.7	26.9
90°-150°	2435.0	46.1
90°-180°	2735.0	51.7
0°-180°	5285.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	826	821	828	828	79
15°	789	791	791	799	799	222
25°	712	721	724	735	736	328
35°	613	627	639	652	656	383
45°	501	523	545	562	570	386
55°	382	412	444	468	476	342
65°	264	300	339	365	375	261
75°	143	186	231	260	271	153
85°	44	89	137	166	177	46
90°	13	64	119	150	161	10
95°	33	120	488	233	204	32
105°	85	145	609	1038	957	90
115°	142	188	462	976	1118	141
125°	195	231	415	747	875	173
135°	227	270	392	603	697	175
145°	257	294	376	480	531	161
155°	291	314	364	414	431	134
165°	318	327	349	370	376	90
175°	332	332	335	339	339	32
180°	332	332	332	332	332	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	831.2	830.7	830.3	829.7	829.3	828.4	827.2	825.9	824.6	823.3	824.6
5°	828.5	828.1	827.7	827.3	826.9	826.1	824.9	823.7	822.5	821.3	822.9
7.5°	820.4	820.4	820.5	820.6	820.7	820.2	819.0	817.9	816.7	815.5	817.5
10°	813.2	813.6	814.0	814.4	814.8	814.5	813.5	812.5	811.5	810.5	812.5
12.5°	804.5	805.1	805.6	806.2	806.8	806.8	806.1	805.4	804.7	804.0	805.8
15°	788.8	789.5	790.1	790.7	791.3	791.4	791.3	791.1	790.8	790.7	792.6
17.5°	769.0	770.3	771.5	772.6	773.8	774.4	774.3	774.2	774.1	774.0	775.8
20°	754.6	755.8	757.0	758.2	759.4	760.2	760.6	761.0	761.4	761.8	763.6
22.5°	739.4	740.6	741.8	743.0	744.2	745.1	745.7	746.2	746.8	747.3	749.7
25°	712.2	714.2	716.2	718.2	720.2	721.5	722.1	722.7	723.3	723.9	726.5
27.5°	684.8	687.1	689.4	691.6	694.0	695.7	697.0	698.3	699.6	700.9	703.1
30°	665.3	668.0	670.5	673.1	675.7	677.9	679.4	681.1	682.7	684.2	686.6
32.5°	643.7	646.6	649.5	652.5	655.4	657.9	660.0	662.1	664.2	666.2	668.8
35°	613.0	616.2	619.5	622.7	625.9	628.8	631.4	634.0	636.6	639.2	642.2
37.5°	580.6	584.2	587.8	591.4	595.0	598.4	601.7	604.9	608.0	611.2	614.7
40°	559.0	562.6	566.2	569.8	573.3	577.2	581.2	585.2	589.2	593.2	596.6
42.5°	535.1	539.6	544.0	548.4	552.8	557.1	561.2	565.4	569.6	573.8	577.5
45°	501.3	506.1	510.8	515.7	520.5	525.4	530.4	535.4	540.4	545.4	549.2
47.5°	465.7	471.2	476.6	482.1	487.5	493.1	498.9	504.5	510.3	516.0	520.3
50°	442.6	448.2	453.8	459.5	465.1	471.0	477.3	483.5	489.7	495.8	500.4
52.5°	418.1	424.0	430.0	435.9	441.9	448.2	455.1	461.9	468.8	475.6	480.4
55°	382.3	388.8	395.5	402.1	408.7	415.6	422.8	430.1	437.2	444.4	449.9
57.5°	347.2	354.1	361.0	367.9	374.9	382.2	390.1	398.0	405.9	413.8	419.2
60°	322.8	329.9	337.2	344.4	351.6	359.3	367.6	375.7	383.9	392.2	397.8
62.5°	299.6	307.0	314.4	321.8	329.2	337.2	345.9	354.6	363.3	372.0	377.5
65°	264.2	272.0	279.7	287.6	295.4	303.7	312.5	321.3	330.2	339.0	345.0
67.5°	228.1	236.3	244.7	253.0	261.2	269.9	278.9	287.8	296.8	305.8	312.4
70°	202.9	211.5	220.1	228.7	237.3	246.4	256.1	265.6	275.3	284.9	291.3
72.5°	179.8	188.4	197.0	205.6	214.2	223.5	233.4	243.4	253.3	263.2	269.8
75°	143.4	152.7	162.2	171.6	181.0	190.7	200.7	210.8	220.8	230.8	237.4
77.5°	111.6	121.1	130.6	140.1	149.6	159.4	169.5	179.6	189.7	199.8	206.7
80°	89.3	99.1	108.9	118.7	128.5	138.6	149.0	159.5	169.9	180.3	187.1
82.5°	69.7	79.7	89.7	99.7	109.7	119.9	130.5	141.1	151.7	162.3	169.1
85°	44.2	54.2	64.2	74.2	84.2	94.5	105.2	115.8	126.4	137.1	143.9
87.5°	24.3	34.5	44.8	55.1	65.3	75.8	86.4	96.9	107.6	118.2	124.9
90°	13.1	24.2	35.4	47.3	58.4	69.7	82.0	94.2	106.5	118.7	124.8
92.5°	19.4	32.2	46.8	60.9	75.3	94.8	122.4	161.4	199.9	199.7	180.8
95°	32.8	42.6	57.9	77.1	102.5	137.5	204.5	314.6	434.9	488.4	419.2
97.5°	47.9	55.6	68.4	85.5	109.8	146.4	210.4	332.9	526.2	701.4	750.5
100°	57.9	65.0	76.1	92.0	114.5	148.6	204.9	313.7	500.1	715.9	854.3
102.5°	68.5	75.5	85.4	100.1	120.4	151.9	203.3	296.9	463.6	676.6	855.2
105°	85.3	92.1	101.0	113.8	131.5	159.0	204.0	282.0	417.8	608.8	807.6
107.5°	102.3	108.4	116.3	128.4	144.5	170.0	210.1	275.9	386.6	548.4	729.2
110°	114.4	120.1	127.1	138.1	153.1	177.8	216.1	275.3	373.5	514.1	680.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	126.3	131.3	137.6	148.0	162.4	186.1	221.9	277.0	364.1	489.3	636.4
115°	142.5	147.6	154.0	163.2	177.0	200.0	232.8	281.1	357.0	461.8	583.1
117.5°	159.5	164.0	168.8	176.5	190.8	211.7	243.8	287.2	352.3	442.6	548.0
120°	170.6	173.6	178.0	185.6	199.5	220.1	251.0	292.6	351.0	433.0	529.2
122.5°	180.8	183.3	187.2	195.0	207.8	229.1	259.1	297.6	351.5	425.6	513.0
125°	194.6	195.9	199.9	207.3	220.2	241.3	270.6	306.0	352.2	415.3	491.5
127.5°	205.7	207.6	212.3	219.6	233.6	254.1	281.6	313.1	354.3	407.4	471.8
130°	212.8	214.6	220.4	228.3	242.2	262.3	288.5	318.1	355.8	402.2	460.5
132.5°	217.4	219.9	226.4	236.1	250.2	269.4	294.3	322.5	356.2	398.0	449.8
135°	226.6	229.1	236.3	246.2	260.2	279.3	302.4	327.5	356.6	391.8	435.1
137.5°	235.3	238.0	245.1	255.7	269.6	287.0	308.2	331.3	356.5	386.0	422.4
140°	240.6	243.9	250.6	261.4	274.8	292.0	312.1	332.9	356.4	382.6	414.6
142.5°	247.0	249.7	256.8	266.3	279.7	295.3	314.4	334.2	355.6	378.7	407.0
145°	257.4	259.2	265.0	274.9	286.2	301.6	319.1	337.3	356.1	376.3	399.4
147.5°	267.0	268.2	274.1	282.8	293.9	307.1	323.1	339.4	356.1	373.8	392.6
150°	274.0	274.7	280.0	288.8	298.2	310.3	325.8	339.9	356.1	371.6	388.4
152.5°	280.9	281.1	286.5	294.2	302.5	314.1	327.4	341.0	354.5	368.9	384.1
155°	291.4	291.4	295.5	302.2	309.6	319.1	330.5	341.3	352.8	364.2	377.6
157.5°	299.8	300.3	303.6	309.5	315.8	323.1	332.3	342.0	350.4	360.0	370.4
160°	306.3	306.3	309.0	314.4	319.1	325.8	333.9	342.0	349.4	356.8	365.5
162.5°	311.2	311.2	313.3	317.6	321.8	327.4	334.4	341.4	347.2	353.5	360.7
165°	318.4	317.7	319.1	322.4	325.1	329.8	335.2	339.9	344.0	348.7	354.0
167.5°	323.9	323.1	323.8	326.3	328.2	331.2	335.1	338.9	340.8	343.9	347.8
170°	327.2	325.8	326.5	328.5	329.8	331.2	334.6	337.3	338.6	340.6	344.0
172.5°	329.3	328.5	328.6	330.1	330.9	331.7	334.6	336.7	337.0	337.9	340.2
175°	331.8	331.2	330.5	331.8	331.8	332.5	333.9	335.2	334.6	334.6	335.9
177.5°	333.0	332.5	332.0	332.5	332.5	332.5	333.0	334.2	333.0	332.5	333.0
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	827.6	827.6	827.6	827.6	827.6	827.6	827.6	827.6
2.5°	825.9	827.2	828.4	829.0	828.8	828.6	828.5	828.4
5°	824.5	826.1	827.7	828.4	828.2	828.0	827.9	827.6
7.5°	819.5	821.6	823.5	824.4	824.1	824.0	823.7	823.5
10°	814.5	816.5	818.5	819.3	818.9	818.5	818.1	817.7
12.5°	807.7	809.5	811.3	812.1	811.7	811.3	810.9	810.5
15°	794.6	796.7	798.7	799.5	799.4	799.2	798.9	798.7
17.5°	777.7	779.5	781.3	782.0	781.8	781.4	781.2	780.9
20°	765.4	767.2	769.0	770.0	770.3	770.4	770.6	770.9
22.5°	751.9	754.2	756.5	757.6	757.5	757.3	757.2	757.1
25°	729.2	731.8	734.3	735.6	735.6	735.6	735.6	735.6
27.5°	705.3	707.6	709.8	711.0	711.2	711.4	711.5	711.7
30°	689.1	691.5	693.9	695.1	695.1	695.1	695.1	695.1
32.5°	671.3	673.9	676.5	678.0	678.5	679.0	679.4	679.9
35°	645.2	648.2	651.2	653.2	653.9	654.7	655.5	656.3
37.5°	618.0	621.5	624.8	626.9	627.5	628.2	628.8	629.5
40°	600.0	603.4	606.8	608.9	609.8	610.5	611.3	612.2
42.5°	581.2	584.9	588.7	591.1	592.2	593.3	594.4	595.6
45°	553.0	556.8	560.7	563.4	565.0	566.5	568.2	569.8
47.5°	524.6	528.9	533.2	536.0	537.2	538.5	539.7	540.9
50°	505.1	509.6	514.3	517.3	518.7	520.0	521.5	522.9
52.5°	485.2	490.0	494.7	498.0	499.7	501.4	503.2	504.9
55°	455.3	460.7	466.1	469.6	471.2	472.8	474.4	476.0
57.5°	424.7	430.2	435.6	439.3	441.2	443.1	444.9	446.8
60°	403.4	409.0	414.6	418.5	420.7	422.9	425.2	427.3
62.5°	383.2	388.8	394.4	398.2	400.3	402.3	404.4	406.4
65°	351.0	357.0	363.0	367.0	369.0	371.0	373.1	375.1
67.5°	318.9	325.5	332.1	336.2	337.9	339.6	341.3	342.9
70°	297.7	304.1	310.6	314.7	316.8	318.7	320.7	322.8
72.5°	276.4	282.9	289.6	293.9	295.8	297.8	299.8	301.9
75°	244.0	250.6	257.3	261.7	264.2	266.6	269.0	271.4
77.5°	213.7	220.7	227.6	232.0	233.9	235.7	237.6	239.4
80°	193.9	200.7	207.6	212.0	214.0	215.9	218.0	220.0
82.5°	175.9	182.7	189.5	193.9	196.0	197.9	199.9	201.9
85°	150.7	157.5	164.3	168.7	170.7	172.7	174.7	176.7
87.5°	131.8	138.8	145.8	150.4	152.3	154.5	156.5	158.4
90°	132.3	139.8	147.3	153.1	154.4	157.0	159.7	161.1
92.5°	166.1	161.0	162.4	163.2	163.8	163.6	166.2	166.8
95°	344.0	272.2	242.6	222.6	211.7	207.7	205.0	204.3
97.5°	698.8	584.5	503.7	427.1	379.4	351.2	335.0	331.2
100°	883.7	835.0	762.1	670.4	604.3	557.2	533.0	535.6
102.5°	942.0	946.0	905.7	848.9	798.1	761.1	741.1	727.7
105°	953.9	1026.8	1045.3	1031.5	1002.3	978.5	958.8	957.2
107.5°	894.1	1008.7	1073.2	1100.6	1102.9	1096.1	1090.6	1086.2
110°	839.6	968.6	1058.6	1109.1	1129.6	1136.6	1136.9	1137.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	784.8	916.4	1016.5	1080.5	1116.7	1135.1	1142.0	1144.1
115°	712.4	834.3	938.1	1014.6	1066.7	1097.9	1113.0	1118.0
117.5°	657.9	763.8	857.4	935.0	989.2	1024.8	1045.7	1051.8
120°	628.7	724.2	809.5	880.5	935.1	974.2	991.8	997.2
122.5°	604.9	691.6	770.9	836.9	885.5	920.9	940.0	946.6
125°	572.4	650.0	718.8	775.5	819.9	851.0	869.2	875.3
127.5°	543.4	612.8	675.0	726.7	766.5	793.1	809.7	815.4
130°	524.9	589.3	647.6	695.9	732.8	758.2	773.5	780.2
132.5°	507.5	566.9	621.3	667.4	702.3	727.9	741.8	746.9
135°	483.9	535.3	582.6	623.3	657.3	678.5	691.6	697.3
137.5°	462.1	504.5	545.3	580.7	609.3	630.9	642.0	646.2
140°	449.2	486.6	521.9	552.8	579.4	599.2	611.0	611.3
142.5°	436.5	468.6	499.4	526.4	549.1	566.9	577.6	577.9
145°	422.6	446.4	469.5	490.3	507.9	522.8	529.0	531.2
147.5°	411.3	429.5	447.3	461.8	475.3	485.5	491.4	492.7
150°	403.9	419.4	433.5	446.5	457.0	464.8	469.2	469.7
152.5°	398.0	411.3	423.8	434.5	442.6	449.4	451.9	452.0
155°	389.1	399.8	409.9	418.0	424.0	429.5	430.8	431.4
157.5°	379.6	388.7	396.5	402.8	408.0	412.1	413.2	413.0
160°	374.3	381.7	388.4	393.1	397.9	401.8	401.8	401.2
162.5°	367.8	374.1	380.3	384.5	387.6	391.1	391.1	390.5
165°	359.5	363.5	368.2	371.6	374.3	376.9	376.3	376.3
167.5°	352.1	355.2	358.0	360.4	361.6	363.5	362.8	362.8
170°	347.3	349.4	352.1	353.4	354.0	355.4	354.7	354.7
172.5°	343.0	344.5	346.6	347.5	347.6	349.0	347.8	347.2
175°	337.3	337.9	339.2	339.2	339.2	339.9	339.2	338.6
177.5°	333.6	334.2	334.7	334.7	334.2	334.7	333.6	333.6
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5

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