

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: P331365-930

Luminaire Tested: **SA2XXDIP-C675D925U930-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331365-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D925U930-4F0-1E-UDD-F4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

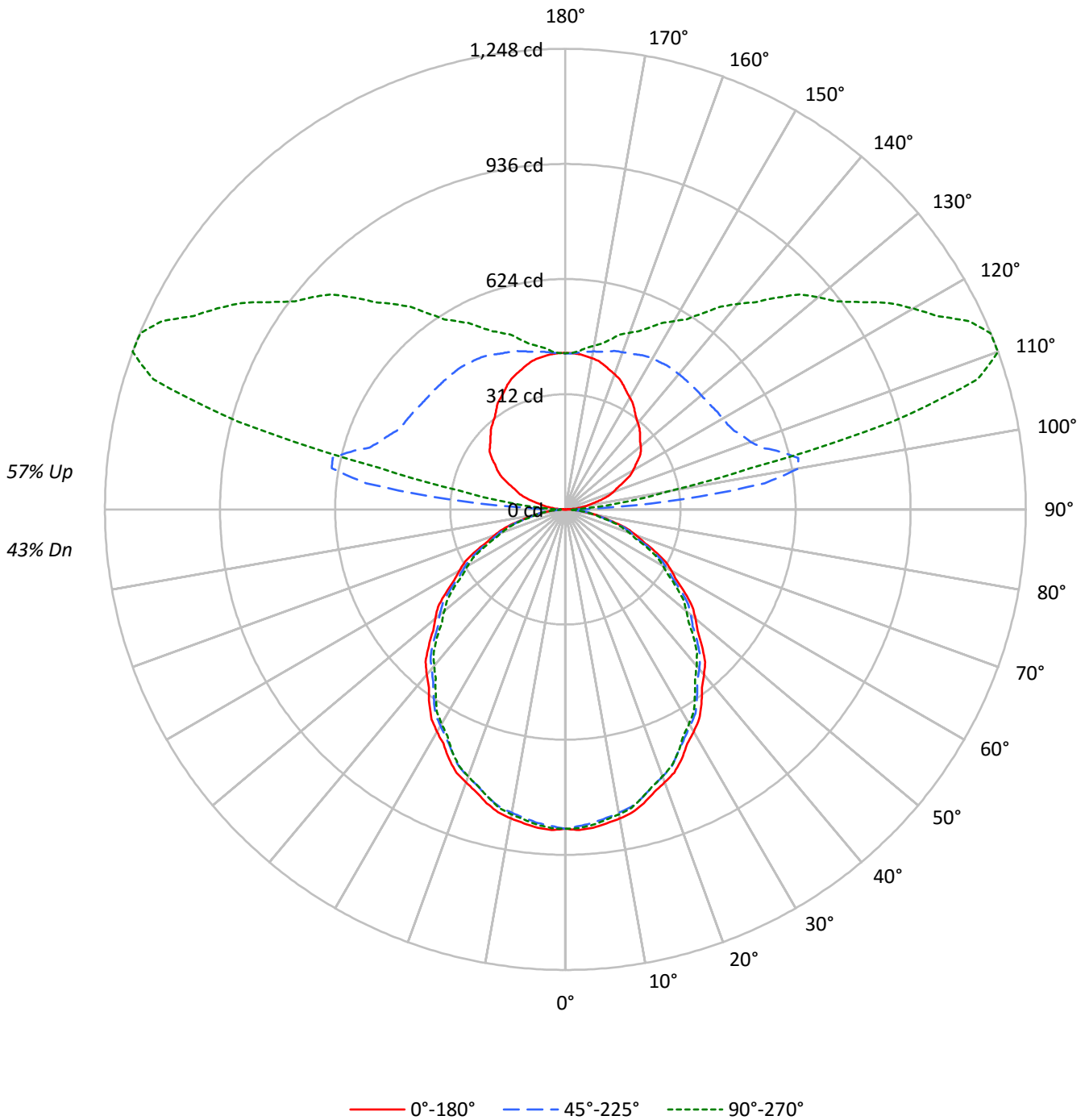
Lumens per Lamp: N/A
Luminaire Lumens: 5150.3 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	69	67	65	56	55	53	44	43	42	36
2	88	80	74	69	80	73	68	64	61	57	54	49	47	44	38	37	35	30
3	80	70	63	57	73	65	58	53	54	49	45	44	40	37	34	32	30	26
4	73	62	55	49	66	57	50	45	48	43	39	39	35	32	30	28	26	22
5	67	55	47	42	61	51	44	39	43	37	33	35	31	28	27	25	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25	29	24	21	23	20	18	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13976	13976	13976
5°	14029	13827	13908
10°	13946	13686	13754
15°	13772	13508	13494
20°	13527	13242	13228
25°	13286	12916	12916
30°	12972	12616	12506
35°	12682	12254	12073
40°	12313	11894	11666
45°	11953	11536	11250
50°	11560	11163	10766
55°	11153	10731	10331
60°	10698	10214	9836
65°	10208	9700	9253
70°	9588	9073	8644
75°	8721	8359	8153
80°	7736	7504	7122
85°	6336	6002	5391



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.4	1.6
10°-20°	229.0	4.4
20°-30°	336.6	6.5
30°-40°	391.0	7.6
40°-50°	390.6	7.6
50°-60°	340.6	6.6
60°-70°	251.9	4.9
70°-80°	142.7	2.8
80°-90°	42.2	0.8
90°-100°	169.2	3.3
100°-110°	574.1	11.1
110°-120°	609.9	11.8
120°-130°	502.1	9.7
130°-140°	403.2	7.8
140°-150°	304.7	5.9
150°-160°	214.1	4.2
160°-170°	126.0	2.4
170°-180°	41.0	0.8
0°-30°	647.0	12.6
0°-40°	1038.1	20.2
0°-60°	1769.3	34.4
0°-90°	2206.0	42.8
90°-120°	1353.2	26.3
90°-150°	2563.1	49.8
90°-180°	2944.0	57.2
0°-180°	5150.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	866	862	853	859	858	82
15°	824	819	808	811	807	232
25°	746	739	725	726	725	343
35°	643	635	622	617	612	402
45°	524	517	505	496	493	404
55°	396	391	381	372	367	354
65°	267	262	254	247	242	264
75°	140	138	134	129	131	149
85°	34	33	32	30	29	39
90°	1	11	28	26	27	3
95°	28	70	319	120	93	30
105°	99	150	603	1078	917	106
115°	175	221	504	1041	1207	173
125°	244	289	485	843	979	217
135°	286	342	479	709	811	221
145°	327	376	477	592	648	205
155°	372	402	463	524	544	171
165°	405	417	443	470	478	114
175°	422	423	426	432	430	40
180°	423	423	423	423	423	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6
2.5°	869.6	868.9	868.1	867.4	866.7	865.4	863.8	862.2	860.5	858.9	860.4
5°	865.6	864.9	864.1	863.4	862.7	861.3	859.2	857.2	855.2	853.1	854.6
7.5°	857.9	856.8	855.7	854.5	853.4	851.7	849.7	847.6	845.5	843.4	844.9
10°	850.6	849.3	848.0	846.7	845.5	843.7	841.5	839.3	837.0	834.8	836.3
12.5°	840.7	839.5	838.3	837.1	836.0	834.4	832.1	829.9	827.7	825.5	826.6
15°	823.9	822.9	821.7	820.7	819.5	817.7	815.4	812.9	810.6	808.1	808.9
17.5°	802.7	801.5	800.5	799.3	798.3	796.5	794.0	791.6	789.1	786.7	787.6
20°	787.3	786.3	785.1	784.0	782.9	781.1	778.4	775.9	773.3	770.7	771.3
22.5°	772.0	770.5	768.9	767.4	765.8	763.9	761.4	759.0	756.5	754.1	754.2
25°	745.8	744.3	742.8	741.3	739.8	737.5	734.3	731.2	728.1	725.0	725.3
27.5°	715.8	714.4	713.1	711.8	710.5	708.6	706.0	703.6	701.1	698.6	698.1
30°	695.8	694.3	692.8	691.4	689.9	687.8	685.0	682.2	679.5	676.7	676.1
32.5°	674.5	673.3	672.1	670.9	669.8	667.7	664.8	661.9	658.9	656.0	655.0
35°	643.4	641.6	639.7	637.8	635.9	633.6	630.6	627.6	624.7	621.7	620.6
37.5°	608.2	606.6	605.0	603.3	601.8	599.4	596.5	593.5	590.6	587.6	586.2
40°	584.2	582.8	581.3	579.8	578.4	576.2	573.2	570.2	567.3	564.3	562.6
42.5°	561.0	559.5	558.0	556.5	555.1	552.9	549.8	546.9	544.0	541.0	539.2
45°	523.5	522.2	520.9	519.7	518.4	516.3	513.6	510.8	508.0	505.2	503.2
47.5°	486.2	485.0	483.8	482.6	481.4	479.3	476.4	473.5	470.7	467.7	465.6
50°	460.2	459.3	458.4	457.5	456.6	454.8	452.2	449.6	447.0	444.4	441.9
52.5°	435.0	433.7	432.5	431.3	430.1	428.3	425.8	423.4	420.9	418.5	416.4
55°	396.2	395.1	394.0	392.8	391.8	390.0	387.8	385.6	383.4	381.2	379.0
57.5°	357.2	356.4	355.5	354.6	353.7	352.0	349.6	347.2	344.7	342.3	340.1
60°	331.3	330.5	329.8	329.1	328.3	326.6	324.1	321.5	318.9	316.3	314.2
62.5°	306.0	304.8	303.6	302.4	301.3	299.6	297.7	295.6	293.7	291.6	289.8
65°	267.2	266.0	265.0	263.8	262.7	261.2	259.4	257.6	255.7	253.9	252.2
67.5°	227.7	226.8	225.9	225.0	224.1	222.9	221.2	219.6	217.9	216.2	214.9
70°	203.1	202.4	201.6	200.9	200.2	198.9	197.2	195.6	194.0	192.2	190.9
72.5°	177.8	177.0	176.3	175.5	174.8	173.9	172.8	171.8	170.7	169.6	168.4
75°	139.8	139.4	139.1	138.7	138.4	137.7	136.8	135.8	134.9	134.0	132.9
77.5°	105.9	105.3	104.6	104.0	103.4	102.9	102.5	102.1	101.7	101.3	100.9
80°	83.2	83.1	82.8	82.7	82.5	82.2	81.9	81.4	81.1	80.7	80.1
82.5°	62.0	61.9	61.9	61.8	61.8	61.6	61.4	61.2	61.0	60.7	60.1
85°	34.2	33.9	33.8	33.6	33.3	33.2	33.0	32.9	32.6	32.4	31.9
87.5°	12.1	12.3	12.7	12.7	12.7	13.0	13.5	14.3	15.0	14.8	14.3
90°	0.8	3.3	6.5	8.2	9.8	12.2	16.3	21.9	26.8	27.6	26.8
92.5°	9.9	14.3	20.2	23.7	29.3	36.9	55.4	81.2	104.3	105.7	89.4
95°	28.5	31.7	39.9	47.2	60.3	79.7	117.2	187.9	282.3	318.9	279.1
97.5°	46.4	50.8	59.4	70.4	85.4	107.5	154.6	253.2	410.1	544.5	571.2
100°	62.6	65.1	72.4	85.4	101.7	124.5	167.6	266.9	442.6	642.8	760.0
102.5°	77.6	79.4	86.7	99.8	116.7	139.5	179.4	267.6	430.3	646.0	830.3
105°	99.3	102.6	108.2	120.4	138.4	161.1	199.3	271.7	406.0	602.9	819.4
107.5°	122.7	125.3	130.9	142.1	159.8	182.8	219.9	283.0	394.0	556.8	748.0
110°	138.4	141.6	146.4	157.0	174.1	197.7	233.5	292.1	391.4	534.6	703.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	152.6	155.9	161.4	171.4	187.8	212.1	246.5	301.9	392.0	520.2	671.8
115°	175.0	179.0	183.9	193.6	209.9	231.9	266.9	316.5	395.4	504.5	633.1
117.5°	198.0	201.3	206.2	214.8	230.4	253.2	285.6	332.2	401.3	496.8	608.6
120°	212.4	215.6	220.5	227.8	244.1	266.9	298.6	342.6	405.2	492.3	595.7
122.5°	226.1	228.6	233.5	241.5	257.8	281.2	311.0	351.6	409.8	489.7	584.6
125°	244.1	246.5	251.4	261.2	277.4	300.3	329.5	366.2	416.6	484.9	568.8
127.5°	258.4	261.7	268.5	279.2	294.9	318.3	346.8	379.7	423.6	482.2	554.2
130°	266.9	270.1	278.3	289.7	306.0	328.7	357.2	388.2	428.8	480.9	544.4
132.5°	274.7	278.6	287.4	299.5	316.3	339.2	366.3	396.6	434.0	480.2	536.5
135°	286.4	289.7	299.5	311.6	330.4	353.1	379.2	407.6	440.2	479.2	525.6
137.5°	297.5	301.4	311.1	324.2	342.8	363.9	389.6	416.1	445.7	479.1	518.0
140°	306.0	309.2	318.9	332.0	349.9	371.0	395.4	420.7	448.3	478.4	513.5
142.5°	314.4	317.0	326.1	339.2	356.4	376.3	400.0	424.6	450.3	478.4	508.9
145°	327.1	330.4	338.5	350.7	367.0	384.9	406.8	429.7	452.4	476.8	502.9
147.5°	340.8	343.2	351.0	362.2	375.8	391.8	412.4	432.4	453.1	473.9	496.7
150°	349.9	352.3	358.8	369.4	381.6	396.2	415.0	433.7	452.4	472.0	491.5
152.5°	359.0	360.1	366.6	375.9	387.5	400.8	417.6	434.3	451.1	468.7	486.9
155°	371.9	372.7	377.6	386.5	395.4	407.6	421.5	435.3	449.1	463.0	478.4
157.5°	382.6	383.4	387.3	395.1	402.3	412.5	424.3	435.3	445.4	457.1	470.5
160°	389.8	390.6	393.8	400.3	406.8	415.8	425.6	435.3	443.4	453.2	464.6
162.5°	396.9	396.4	399.7	404.9	410.7	417.8	426.2	434.6	441.5	450.0	459.4
165°	405.2	404.4	406.0	410.9	415.0	419.9	427.2	432.9	437.7	443.4	450.8
167.5°	412.1	411.1	412.5	415.6	418.6	421.7	427.1	431.8	434.0	437.7	442.3
170°	416.6	415.0	415.8	418.2	419.9	422.3	426.4	430.5	432.1	434.5	437.7
172.5°	419.2	418.2	417.8	420.2	421.2	423.0	425.7	428.5	429.5	430.6	433.3
175°	422.3	421.5	420.7	422.3	422.3	423.1	424.8	426.4	425.6	426.4	427.2
177.5°	423.8	422.5	421.8	423.1	423.1	423.1	423.8	425.1	423.8	423.1	423.8
180°	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	865.6	865.6	865.6	865.6	865.6	865.6	865.6	865.6
2.5°	861.9	863.4	864.9	865.4	865.1	864.9	864.5	864.3
5°	856.1	857.5	859.0	859.6	859.2	858.8	858.5	858.1
7.5°	846.4	847.9	849.4	849.9	849.5	849.1	848.7	848.3
10°	837.7	839.3	840.7	841.1	840.7	840.1	839.5	838.9
12.5°	827.5	828.6	829.6	829.9	829.5	829.2	828.8	828.3
15°	809.7	810.4	811.1	811.1	810.1	809.2	808.3	807.3
17.5°	788.4	789.2	790.1	790.1	789.2	788.3	787.4	786.5
20°	771.8	772.4	772.9	772.8	772.1	771.4	770.6	769.9
22.5°	754.3	754.4	754.5	754.3	753.9	753.4	753.0	752.6
25°	725.7	726.0	726.4	726.4	726.0	725.7	725.3	725.0
27.5°	697.5	697.0	696.4	695.7	694.8	693.9	693.0	692.1
30°	675.6	675.0	674.4	673.8	673.0	672.3	671.6	670.8
32.5°	654.0	653.1	652.0	651.2	650.4	649.7	648.9	648.2
35°	619.5	618.4	617.3	616.3	615.4	614.4	613.5	612.5
37.5°	584.9	583.5	582.1	581.0	580.1	579.2	578.4	577.5
40°	561.0	559.3	557.7	556.4	555.7	555.0	554.2	553.5
42.5°	537.4	535.6	533.8	532.3	531.2	530.3	529.2	528.2
45°	501.2	499.1	497.1	495.7	495.0	494.2	493.5	492.7
47.5°	463.5	461.3	459.2	457.5	456.5	455.4	454.4	453.3
50°	439.3	436.7	434.1	432.4	431.4	430.5	429.6	428.6
52.5°	414.2	412.1	409.9	408.2	407.0	405.8	404.6	403.3
55°	376.7	374.5	372.3	370.7	369.8	368.9	367.9	367.0
57.5°	337.9	335.7	333.5	332.1	331.3	330.7	330.0	329.2
60°	312.2	310.1	308.1	306.9	306.3	305.7	305.2	304.6
62.5°	287.9	286.0	284.1	282.8	282.1	281.4	280.7	280.0
65°	250.5	248.8	247.2	245.9	245.0	244.0	243.1	242.2
67.5°	213.6	212.4	211.1	210.0	209.3	208.6	207.8	207.1
70°	189.6	188.4	187.1	186.1	185.3	184.6	183.8	183.1
72.5°	167.1	165.8	164.4	163.5	162.9	162.3	161.8	161.1
75°	131.8	130.7	129.6	129.2	129.6	130.0	130.3	130.7
77.5°	100.3	99.7	99.1	98.7	98.1	97.6	97.1	96.5
80°	79.7	79.1	78.5	78.0	77.7	77.3	77.0	76.6
82.5°	59.4	58.6	58.0	57.6	57.5	57.4	57.3	57.2
85°	31.4	30.8	30.2	29.8	29.7	29.5	29.4	29.1
87.5°	13.6	12.9	12.7	12.6	12.5	12.3	12.1	12.1
90°	26.0	24.4	26.0	26.8	26.8	26.8	26.8	26.8
92.5°	70.9	60.9	54.1	49.0	48.3	45.7	46.4	45.1
95°	213.2	163.5	129.4	111.5	100.9	94.4	92.0	92.8
97.5°	497.5	407.0	318.9	260.2	221.4	201.3	189.4	182.6
100°	742.9	642.0	530.5	432.1	364.5	329.5	306.0	291.3
102.5°	903.7	880.9	799.4	695.0	621.7	561.9	532.5	512.7
105°	988.6	1080.6	1091.2	1064.3	1013.8	963.4	928.4	917.0
107.5°	927.5	1065.9	1150.6	1189.9	1196.3	1193.5	1186.5	1171.4
110°	874.7	1020.3	1124.5	1191.2	1226.2	1241.7	1249.0	1248.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	826.6	966.4	1077.7	1154.1	1202.8	1228.7	1242.5	1246.9
115°	767.3	892.6	999.2	1083.0	1140.8	1178.2	1199.4	1206.7
117.5°	722.7	832.7	929.4	1008.0	1066.9	1106.4	1128.8	1134.9
120°	700.6	801.5	887.7	961.8	1018.7	1057.0	1080.6	1088.8
122.5°	683.0	775.4	857.1	924.1	975.1	1012.7	1033.7	1040.6
125°	657.5	741.3	812.9	873.9	921.1	952.0	972.3	978.8
127.5°	632.3	708.1	775.6	831.9	873.1	902.0	919.7	924.9
130°	616.0	685.9	750.2	804.0	843.8	871.5	887.7	894.2
132.5°	600.3	665.1	724.1	774.6	813.8	841.6	856.5	862.3
135°	578.5	632.3	685.9	731.5	766.5	793.4	808.0	811.2
137.5°	561.1	606.0	648.7	688.4	720.3	743.4	756.3	761.2
140°	550.1	589.1	626.6	662.3	688.4	709.6	721.8	726.6
142.5°	541.0	574.1	606.3	636.3	661.0	680.3	691.1	692.1
145°	528.1	555.0	580.2	603.7	623.3	637.2	645.2	647.7
147.5°	518.1	539.3	559.0	576.3	592.4	603.4	608.9	610.4
150°	511.0	528.9	546.0	560.6	572.8	582.6	587.5	588.3
152.5°	503.9	520.4	534.9	547.6	557.2	565.7	569.2	569.4
155°	493.9	507.0	519.1	528.1	537.0	542.7	546.0	544.4
157.5°	482.3	493.3	503.5	510.5	516.8	521.5	523.0	523.0
160°	475.2	484.1	493.1	498.8	504.5	508.6	509.4	509.4
162.5°	468.1	475.6	483.3	487.7	493.4	496.2	497.0	496.4
165°	457.3	463.0	468.7	472.0	475.2	478.4	478.4	477.6
167.5°	447.0	451.4	455.3	458.3	459.7	461.5	461.4	460.4
170°	441.8	444.3	447.5	449.1	450.0	452.4	451.6	450.0
172.5°	435.9	437.7	440.3	441.3	442.1	443.3	442.5	441.5
175°	429.7	430.5	431.3	432.1	432.1	432.9	432.1	430.5
177.5°	425.1	425.1	425.7	425.7	425.7	425.7	425.1	423.8
180°	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1

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