

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: P331922-927

Luminaire Tested: **S123DIP-S560D585U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331922-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S560D585U927-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 560 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3728.3 lumens
Efficiency: N/A
Efficacy: 113.7 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

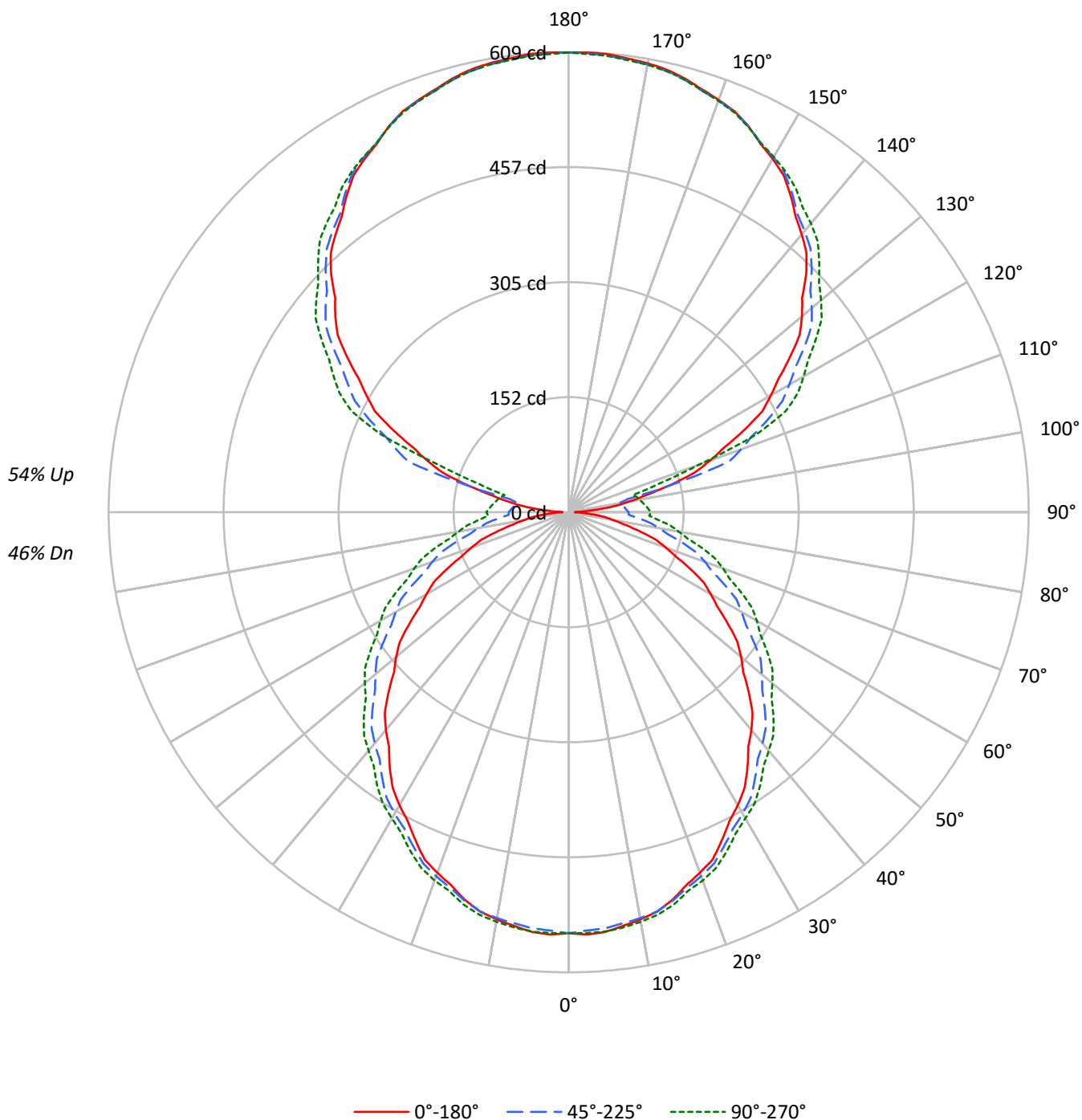
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



TEST NUMBER: P331922-927

CATALOG NUMBER: S123DIP-S560D585U927-4F0-1E-UDD-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	106	106	106	106	97	97	97	97	81	81	81		66	66	66		52
1	96	91	87	83	88	84	80	77	70	67	65		57	55	53		45
2	87	79	73	67	79	73	67	62	60	56	53		49	46	44		39
3	79	69	62	55	72	64	57	51	53	48	44		43	40	36		34
4	72	61	53	47	66	56	49	43	47	41	37		38	34	31		30
5	66	54	46	40	60	50	43	37	42	36	32		34	30	27		27
6	61	48	40	34	55	45	37	32	38	32	28		31	27	23		25
7	56	44	36	30	51	40	33	28	34	28	24		28	24	20		22
8	52	40	32	26	48	37	30	25	31	25	21		26	21	18		21
9	48	36	28	23	44	33	27	22	28	23	19		24	19	16		19
10	45	33	26	21	41	31	24	20	26	21	17		22	18	15		18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5997	5997	5997
5°	6015	5845	5849
10°	5961	5711	5682
15°	5884	5558	5501
20°	5774	5383	5300
25°	5639	5182	5090
30°	5500	5002	4877
35°	5344	4810	4707
40°	5195	4636	4524
45°	5031	4469	4378
50°	4868	4304	4219
55°	4689	4134	4074
60°	4513	3964	3925
65°	4335	3780	3750
70°	4066	3576	3568
75°	3724	3338	3386
80°	3326	3109	3176
85°	2963	2948	3053

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	1.4
10°-20°	150.5	4.0
20°-30°	225.2	6.0
30°-40°	268.9	7.2
40°-50°	281.3	7.5
50°-60°	264.0	7.1
60°-70°	220.5	5.9
70°-80°	157.8	4.2
80°-90°	95.8	2.6
90°-100°	81.1	2.2
100°-110°	148.8	4.0
110°-120°	282.1	7.6
120°-130°	338.9	9.1
130°-140°	351.8	9.4
140°-150°	323.6	8.7
150°-160°	259.8	7.0
160°-170°	167.7	4.5
170°-180°	57.8	1.5
0°-30°	428.5	11.5
0°-40°	697.4	18.7
0°-60°	1242.7	33.3
0°-90°	1716.7	46.0
90°-120°	512.0	13.7
90°-150°	1526.3	40.9
90°-180°	2012.0	54.0
0°-180°	3728.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	558	556	553	557	557	53
15°	531	533	532	538	538	149
25°	479	485	487	495	495	221
35°	413	422	430	439	442	258
45°	337	352	367	378	384	260
55°	257	277	299	315	320	230
65°	178	202	228	246	252	176
75°	96	125	155	175	183	103
85°	30	60	92	112	119	31
90°	8	43	79	101	109	7
95°	34	41	74	95	102	39
105°	140	157	144	85	88	148
115°	256	266	292	310	317	252
125°	358	362	381	394	400	320
135°	444	447	455	467	469	342
145°	512	515	516	521	524	320
155°	563	563	563	565	562	259
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	559.5	559.2	558.9	558.5	558.2	557.6	556.7	555.9	555.0	554.1	555.0
5°	557.7	557.4	557.1	556.9	556.6	556.0	555.2	554.4	553.7	552.8	553.9
7.5°	552.2	552.2	552.3	552.4	552.5	552.1	551.3	550.5	549.7	548.9	550.2
10°	547.4	547.6	547.9	548.2	548.4	548.3	547.6	546.9	546.2	545.6	546.9
12.5°	541.5	541.9	542.3	542.6	543.0	543.0	542.6	542.1	541.6	541.1	542.4
15°	531.0	531.4	531.8	532.2	532.6	532.7	532.6	532.4	532.3	532.2	533.5
17.5°	517.6	518.4	519.3	520.1	520.9	521.3	521.2	521.1	521.1	521.0	522.2
20°	507.9	508.7	509.5	510.3	511.1	511.7	512.0	512.2	512.5	512.8	514.0
22.5°	497.7	498.5	499.3	500.2	501.0	501.5	501.9	502.3	502.7	503.0	504.6
25°	479.4	480.8	482.1	483.5	484.8	485.7	486.1	486.5	486.9	487.3	489.0
27.5°	461.0	462.5	464.1	465.6	467.1	468.3	469.1	470.0	470.9	471.7	473.2
30°	447.8	449.6	451.3	453.1	454.9	456.3	457.3	458.4	459.5	460.6	462.2
32.5°	433.2	435.2	437.2	439.2	441.2	442.8	444.3	445.6	447.0	448.5	450.2
35°	412.6	414.8	416.9	419.1	421.3	423.3	425.0	426.7	428.5	430.2	432.3
37.5°	390.8	393.2	395.6	398.1	400.5	402.8	405.0	407.1	409.2	411.5	413.8
40°	376.2	378.7	381.1	383.5	386.0	388.5	391.2	393.9	396.6	399.3	401.6
42.5°	360.2	363.2	366.1	369.1	372.1	374.9	377.8	380.6	383.4	386.2	388.7
45°	337.4	340.6	343.9	347.1	350.3	353.6	357.0	360.4	363.8	367.1	369.7
47.5°	313.5	317.2	320.8	324.5	328.1	331.9	335.8	339.6	343.5	347.4	350.2
50°	297.9	301.7	305.5	309.3	313.1	317.0	321.2	325.4	329.5	333.7	336.8
52.5°	281.5	285.4	289.5	293.4	297.4	301.7	306.3	310.9	315.5	320.2	323.4
55°	257.3	261.7	266.2	270.6	275.1	279.7	284.6	289.5	294.3	299.1	302.8
57.5°	233.8	238.4	243.0	247.6	252.3	257.3	262.6	267.9	273.2	278.5	282.2
60°	217.2	222.1	227.0	231.8	236.6	241.9	247.4	252.9	258.4	264.0	267.8
62.5°	201.7	206.7	211.7	216.6	221.6	227.0	232.8	238.7	244.5	250.4	254.1
65°	177.8	183.1	188.3	193.6	198.8	204.5	210.4	216.3	222.2	228.1	232.2
67.5°	153.5	159.1	164.7	170.2	175.9	181.6	187.7	193.8	199.8	205.8	210.2
70°	136.6	142.4	148.1	153.9	159.7	165.9	172.3	178.8	185.3	191.8	196.1
72.5°	121.0	126.8	132.6	138.4	144.2	150.4	157.1	163.8	170.5	177.2	181.6
75°	96.5	102.8	109.2	115.5	121.8	128.4	135.1	141.9	148.6	155.3	159.8
77.5°	75.1	81.5	87.9	94.3	100.7	107.3	114.1	120.9	127.7	134.5	139.2
80°	60.0	66.7	73.3	79.9	86.5	93.3	100.3	107.3	114.4	121.4	126.0
82.5°	47.0	53.7	60.4	67.1	73.8	80.7	87.9	95.0	102.1	109.2	113.8
85°	29.7	36.4	43.3	50.0	56.7	63.6	70.8	78.0	85.1	92.2	96.8
87.5°	16.2	23.1	30.1	37.0	43.9	50.9	58.1	65.2	72.3	79.5	84.1
90°	8.3	15.9	23.5	31.2	38.8	46.7	54.9	63.1	71.2	79.4	84.4
92.5°	15.8	21.5	27.2	32.9	38.5	45.2	53.0	60.8	68.5	76.3	81.4
95°	34.2	35.4	36.5	37.6	38.8	43.3	50.9	58.6	66.4	74.1	79.0
97.5°	61.3	64.2	67.2	70.0	73.0	73.9	73.0	72.1	71.1	70.3	75.1
100°	81.8	88.2	94.4	100.8	107.1	105.5	96.1	86.6	77.2	67.7	72.4
102.5°	105.2	110.5	115.8	121.2	126.5	123.7	112.6	101.6	90.6	79.6	81.0
105°	139.5	143.9	148.2	152.5	156.9	157.4	154.2	150.9	147.7	144.5	130.5
107.5°	175.1	178.7	182.4	186.0	189.6	194.9	201.8	208.7	215.7	222.6	213.2
110°	198.8	202.1	205.3	208.5	211.8	216.6	223.1	229.6	236.1	242.6	242.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	222.0	224.7	227.4	230.1	232.8	237.3	243.6	249.9	256.2	262.4	265.9
115°	255.6	257.9	260.1	262.3	264.5	268.5	274.3	280.0	285.7	291.5	295.7
117.5°	288.7	290.4	292.2	293.9	295.6	299.0	304.0	309.0	314.0	319.1	323.1
120°	308.8	310.4	311.9	313.5	315.1	318.2	323.0	327.7	332.5	337.2	341.1
122.5°	329.7	330.8	331.9	333.0	334.1	337.0	341.6	346.2	350.8	355.5	359.0
125°	357.8	358.7	359.5	360.3	361.1	363.6	368.0	372.2	376.6	380.9	383.9
127.5°	385.7	386.3	387.1	387.7	388.3	390.5	394.3	398.0	401.7	405.4	408.4
130°	403.1	403.7	404.4	405.0	405.7	407.6	410.7	413.8	416.9	420.0	422.9
132.5°	419.2	419.9	420.7	421.5	422.3	423.9	426.4	428.9	431.3	433.8	436.7
135°	444.5	444.9	445.4	445.8	446.3	447.5	449.4	451.3	453.1	455.0	457.8
137.5°	466.0	466.7	467.3	468.0	468.7	469.5	470.6	471.6	472.7	473.7	476.3
140°	480.0	480.6	481.2	481.8	482.4	483.1	483.8	484.5	485.2	485.8	488.3
142.5°	493.4	493.8	494.3	494.9	495.4	495.7	496.1	496.5	496.9	497.3	499.5
145°	512.1	512.6	513.2	513.8	514.4	514.8	514.9	515.2	515.3	515.6	516.8
147.5°	529.1	529.6	530.0	530.4	530.9	531.2	531.5	531.6	531.9	532.1	532.6
150°	540.0	540.3	540.5	540.8	541.1	541.4	541.6	541.8	542.0	542.2	542.4
152.5°	549.7	549.9	549.9	550.1	550.2	550.4	550.5	550.6	550.7	550.9	551.2
155°	563.4	563.2	563.0	562.8	562.6	562.6	562.7	562.8	562.8	563.0	563.5
157.5°	574.1	574.1	574.0	574.0	574.0	573.9	573.9	573.8	573.6	573.5	574.2
160°	580.6	580.5	580.4	580.3	580.2	580.1	580.0	579.9	579.8	579.7	580.3
162.5°	586.8	586.5	586.2	586.0	585.7	585.5	585.4	585.3	585.2	585.1	585.8
165°	594.1	593.8	593.6	593.3	592.9	592.7	592.6	592.6	592.5	592.3	593.2
167.5°	599.9	599.5	599.1	598.7	598.3	598.1	598.1	598.1	598.1	598.1	599.0
170°	603.2	602.8	602.4	602.0	601.6	601.3	601.3	601.3	601.3	601.3	602.2
172.5°	605.4	604.9	604.4	603.9	603.4	603.2	603.3	603.4	603.5	603.6	604.4
175°	608.2	607.7	607.1	606.7	606.2	605.9	606.0	606.2	606.3	606.3	607.0
177.5°	608.9	608.5	608.1	607.7	607.3	607.1	607.2	607.3	607.4	607.4	608.1
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	555.9	556.7	557.6	558.0	557.9	557.8	557.7	557.5
5°	555.0	556.0	557.1	557.6	557.5	557.3	557.2	557.1
7.5°	551.6	552.9	554.4	554.9	554.8	554.6	554.4	554.3
10°	548.3	549.6	551.0	551.4	551.2	551.0	550.6	550.4
12.5°	543.7	544.9	546.1	546.6	546.4	546.1	545.8	545.6
15°	534.9	536.2	537.6	538.2	538.1	537.9	537.8	537.7
17.5°	523.5	524.7	525.9	526.4	526.2	526.0	525.9	525.6
20°	515.2	516.4	517.6	518.3	518.4	518.6	518.7	518.8
22.5°	506.1	507.7	509.2	509.9	509.8	509.8	509.7	509.6
25°	490.8	492.6	494.3	495.2	495.2	495.2	495.2	495.2
27.5°	474.8	476.3	477.8	478.6	478.7	478.8	479.0	479.0
30°	463.8	465.4	467.1	467.9	467.9	467.9	467.9	467.9
32.5°	451.9	453.6	455.3	456.4	456.7	457.0	457.3	457.6
35°	434.3	436.3	438.3	439.6	440.1	440.7	441.2	441.8
37.5°	416.0	418.3	420.6	422.0	422.4	422.8	423.3	423.7
40°	403.9	406.2	408.4	409.9	410.4	411.0	411.5	412.0
42.5°	391.2	393.7	396.2	397.8	398.6	399.3	400.1	400.8
45°	372.2	374.8	377.4	379.2	380.2	381.4	382.5	383.5
47.5°	353.2	356.0	358.9	360.8	361.6	362.4	363.3	364.1
50°	339.9	343.1	346.2	348.2	349.1	350.1	351.0	352.0
52.5°	326.6	329.8	333.0	335.2	336.4	337.5	338.7	339.8
55°	306.4	310.1	313.7	316.1	317.2	318.2	319.3	320.4
57.5°	285.9	289.5	293.2	295.6	296.9	298.2	299.4	300.7
60°	271.6	275.3	279.1	281.7	283.2	284.6	286.1	287.6
62.5°	257.9	261.7	265.5	268.1	269.4	270.8	272.2	273.5
65°	236.2	240.3	244.4	247.1	248.4	249.8	251.1	252.5
67.5°	214.7	219.1	223.6	226.3	227.4	228.5	229.7	230.8
70°	200.4	204.7	209.1	211.8	213.2	214.5	215.9	217.2
72.5°	186.0	190.4	194.9	197.8	199.2	200.5	201.8	203.2
75°	164.2	168.7	173.2	176.2	177.8	179.4	181.0	182.7
77.5°	143.9	148.5	153.2	156.2	157.5	158.7	159.9	161.2
80°	130.6	135.1	139.7	142.7	144.0	145.4	146.7	148.1
82.5°	118.4	122.9	127.5	130.6	131.9	133.2	134.6	135.9
85°	101.4	106.0	110.6	113.5	114.9	116.2	117.6	118.9
87.5°	88.8	93.5	98.2	101.2	102.6	103.9	105.4	106.7
90°	89.4	94.3	99.3	102.7	104.2	105.8	107.3	108.8
92.5°	86.5	91.6	96.7	100.0	101.3	102.7	104.1	105.4
95°	83.8	88.7	93.6	96.7	98.1	99.4	100.8	102.1
97.5°	79.9	84.7	89.5	92.7	94.1	95.5	97.0	98.5
100°	77.2	81.8	86.6	89.7	91.1	92.5	94.0	95.5
102.5°	82.2	83.6	84.8	86.3	87.8	89.4	90.9	92.4
105°	116.5	102.5	88.5	82.1	83.6	85.0	86.4	87.9
107.5°	203.8	194.4	185.0	174.1	161.9	149.7	137.5	125.3
110°	243.0	243.2	243.4	236.9	223.6	210.2	197.0	183.7

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	269.4	272.8	276.3	277.1	275.3	273.4	271.6	269.7
115°	300.0	304.2	308.5	311.3	312.8	314.3	315.8	317.3
117.5°	327.1	331.1	335.1	337.7	338.8	339.9	341.1	342.2
120°	345.1	349.0	352.8	355.3	356.2	357.2	358.1	359.1
122.5°	362.5	366.1	369.6	371.9	373.0	374.0	375.0	376.0
125°	387.0	390.0	393.0	395.1	396.2	397.4	398.5	399.7
127.5°	411.4	414.4	417.4	419.2	419.9	420.6	421.4	422.2
130°	426.0	428.9	431.8	433.6	434.3	434.8	435.5	436.1
132.5°	439.6	442.4	445.3	447.0	447.7	448.3	448.9	449.6
135°	460.5	463.2	466.0	467.5	467.9	468.3	468.7	469.0
137.5°	479.0	481.6	484.2	485.7	486.2	486.6	487.1	487.6
140°	490.8	493.1	495.6	497.0	497.5	498.0	498.4	498.9
142.5°	501.5	503.7	505.8	507.1	507.5	507.9	508.3	508.7
145°	518.1	519.4	520.6	521.6	522.1	522.6	523.2	523.7
147.5°	533.1	533.6	534.2	534.4	534.5	534.5	534.5	534.6
150°	542.6	542.8	543.0	543.0	543.0	543.0	543.0	543.0
152.5°	551.6	551.9	552.3	552.3	551.9	551.4	551.0	550.6
155°	564.0	564.5	565.0	564.9	564.4	563.7	563.2	562.5
157.5°	574.7	575.4	576.0	575.8	575.0	574.3	573.5	572.7
160°	580.9	581.5	582.1	582.0	581.4	580.7	580.0	579.2
162.5°	586.5	587.2	587.9	587.9	587.2	586.6	586.0	585.4
165°	594.0	594.8	595.6	595.6	594.9	594.2	593.5	592.8
167.5°	599.8	600.6	601.3	601.3	600.6	599.8	599.0	598.1
170°	603.0	603.8	604.6	604.6	603.8	603.0	602.2	601.3
172.5°	605.1	605.9	606.7	606.7	605.9	605.0	604.0	603.2
175°	607.8	608.5	609.2	609.1	608.3	607.5	606.7	605.9
177.5°	608.7	609.3	610.0	609.9	609.1	608.3	607.5	606.7
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2

(END OF REPORT)