

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: P334471

Luminaire Tested: **S122IP-S530U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122IP-S530U940-4F0-1E-UDD-4  
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 530 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

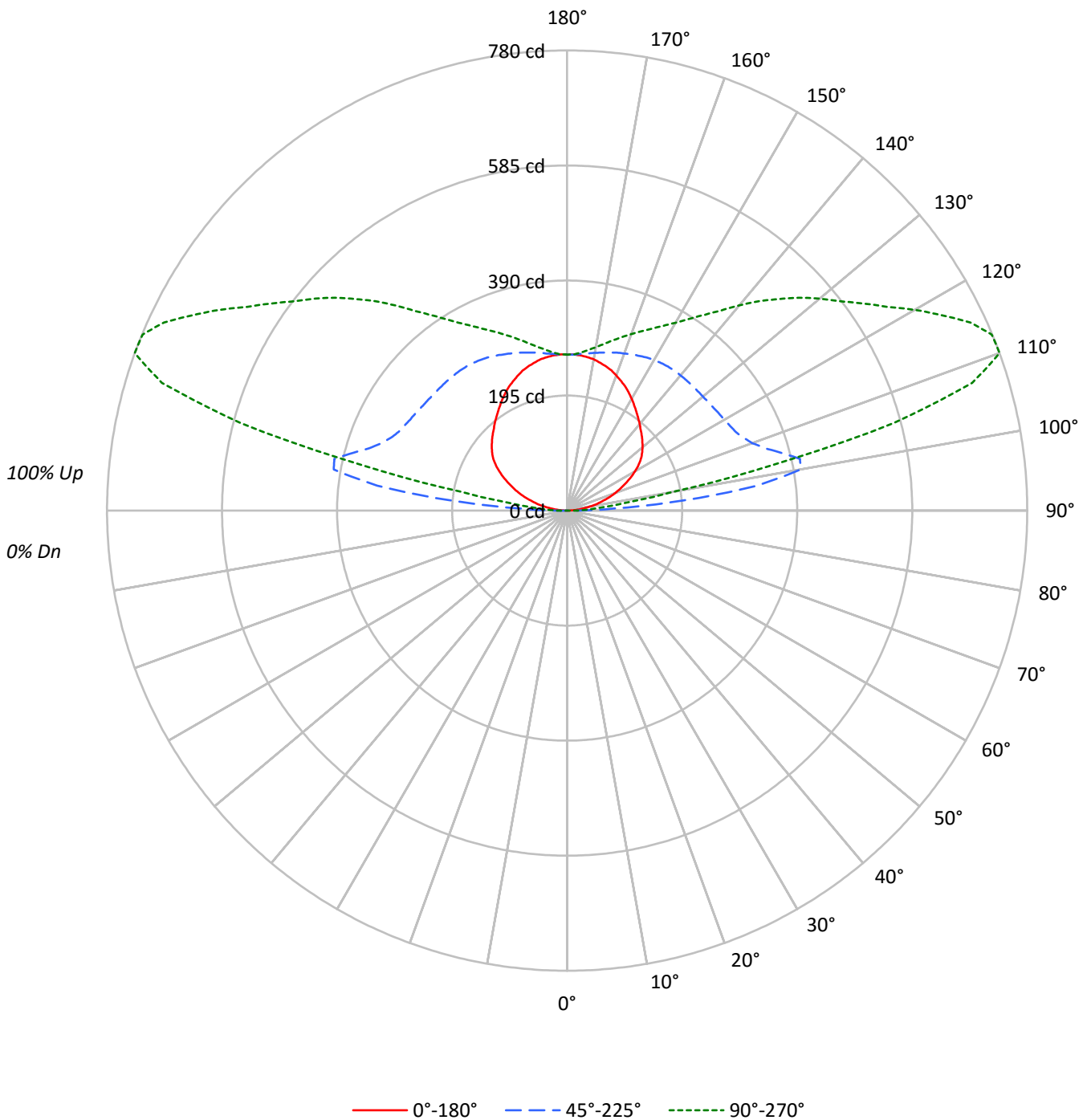
Lumens per Lamp: N/A  
Luminaire Lumens: 1843.3 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 18.8  
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





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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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	1.7	0.1
90°-100°	103.1	5.6
100°-110°	363.0	19.7
110°-120°	381.3	20.7
120°-130°	313.7	17.0
130°-140°	252.0	13.7
140°-150°	190.3	10.3
150°-160°	133.8	7.3
160°-170°	78.8	4.3
170°-180°	25.6	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.7	0.1
90°-120°	847.4	46.0
90°-150°	1603.4	87.0
90°-180°	1842.0	99.9
0°-180°	1843.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	7	17	17	17	1
95°	18	44	199	75	58	18
105°	62	94	377	674	573	66
115°	109	138	315	651	754	108
125°	153	180	303	527	612	136
135°	179	214	300	443	507	138
145°	204	235	298	370	405	128
155°	232	251	289	327	340	107
165°	253	261	277	294	298	71
175°	264	264	266	270	269	25
180°	264	264	264	264	264	



TEST NUMBER: P334471

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.5	2.0	4.1	5.1	6.1	7.6	10.2	13.7	16.8	17.3	16.8
92.5°	7.6	10.7	14.7	17.3	21.4	27.0	40.7	60.0	77.3	78.3	65.6
95°	17.8	19.8	24.9	29.5	37.6	49.8	73.2	117.5	176.5	199.3	174.4
97.5°	26.4	29.5	35.1	41.7	50.9	64.6	94.6	156.1	251.2	325.0	327.5
100°	39.2	40.7	45.3	53.4	63.6	77.8	104.8	166.8	276.6	401.7	475.0
102.5°	50.9	51.9	56.4	64.6	75.3	89.5	113.9	167.3	267.0	404.3	529.9
105°	62.0	64.1	67.6	75.3	86.5	100.7	124.6	169.8	253.8	376.8	512.1
107.5°	74.2	75.8	79.3	86.5	97.6	111.9	135.3	175.4	246.6	351.4	474.5
110°	86.5	88.5	91.5	98.1	108.8	123.6	145.9	182.6	244.6	334.1	439.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	97.6	99.7	103.2	109.3	119.5	134.8	156.1	190.2	245.1	322.9	415.0
115°	109.3	111.9	114.9	121.0	131.2	144.9	166.8	197.8	247.1	315.3	395.6
117.5°	121.5	123.6	126.6	132.2	141.9	156.1	176.5	206.0	250.2	311.2	382.4
120°	132.7	134.8	137.8	142.4	152.6	166.8	186.6	214.1	253.2	307.7	372.2
122.5°	143.4	144.9	148.0	153.1	163.2	178.0	196.3	221.2	256.8	305.6	363.6
125°	152.6	154.1	157.1	163.2	173.4	187.6	206.0	228.8	260.4	303.1	355.5
127.5°	160.2	162.2	166.3	172.9	182.6	197.3	215.1	236.0	263.9	301.6	347.8
130°	166.8	168.8	173.9	181.0	191.2	205.4	223.2	242.6	268.0	300.5	340.2
132.5°	172.9	175.4	181.0	188.7	199.3	213.6	230.4	249.2	272.1	300.0	334.1
135°	179.0	181.0	187.1	194.8	206.5	220.7	237.0	254.8	275.1	299.5	328.5
137.5°	184.6	187.1	193.2	201.4	213.1	226.3	242.6	259.4	278.2	299.5	324.4
140°	191.2	193.2	199.3	207.5	218.7	231.9	247.1	262.9	280.2	299.0	320.9
142.5°	197.8	199.3	204.9	213.1	223.8	236.0	250.7	266.0	281.7	299.0	317.3
145°	204.4	206.5	211.5	219.2	229.3	240.5	254.3	268.5	282.7	298.0	314.3
147.5°	211.5	213.1	218.2	225.3	233.9	244.1	257.3	270.0	283.3	296.5	311.2
150°	218.7	220.2	224.3	230.9	238.5	247.7	259.4	271.0	282.7	294.9	307.2
152.5°	225.8	226.3	230.4	236.0	243.1	251.2	261.4	271.6	281.7	292.4	303.6
155°	232.4	232.9	236.0	241.6	247.1	254.8	263.4	272.1	280.7	289.4	299.0
157.5°	238.0	238.5	241.0	246.1	250.7	257.3	264.9	272.1	278.7	286.3	294.9
160°	243.6	244.1	246.1	250.2	254.3	259.9	266.0	272.1	277.1	283.3	290.4
162.5°	249.2	248.7	250.7	253.8	257.3	261.4	266.5	271.6	275.6	280.7	286.3
165°	253.2	252.7	253.8	256.8	259.4	262.4	267.0	270.5	273.6	277.1	281.7
167.5°	256.8	256.3	257.3	259.4	261.4	263.4	267.0	270.0	271.6	274.1	277.1
170°	260.4	259.4	259.9	261.4	262.4	263.9	266.5	269.0	270.0	271.6	273.6
172.5°	262.4	261.9	261.4	262.9	263.4	264.4	266.0	267.5	268.0	268.5	270.0
175°	263.9	263.4	262.9	263.9	263.9	264.4	265.5	266.5	266.0	266.5	267.0
177.5°	264.9	263.9	263.4	264.4	264.4	264.4	264.9	266.0	264.9	264.4	264.9
180°	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	16.3	15.3	16.3	16.8	16.8	16.8	16.8	16.8
92.5°	51.4	43.7	38.1	34.1	33.6	31.5	32.0	31.0
95°	133.2	102.2	80.9	69.7	63.1	59.0	57.5	58.0
97.5°	272.6	217.7	166.3	135.8	115.9	105.8	100.2	97.1
100°	464.3	401.2	331.6	270.0	227.8	206.0	191.2	182.1
102.5°	589.9	587.9	541.6	475.5	428.7	387.5	368.2	355.0
105°	617.9	675.3	681.9	665.2	633.6	602.1	580.2	573.1
107.5°	587.9	673.3	723.1	743.5	743.0	738.4	731.8	720.1
110°	546.7	637.7	702.8	744.5	766.4	776.0	780.6	780.1





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	509.0	595.5	666.2	715.5	748.1	765.8	775.5	779.1
115°	479.5	557.9	624.5	676.9	713.0	736.4	749.6	754.2
117.5°	455.1	525.3	587.4	637.2	674.3	699.2	713.0	716.5
120°	437.8	500.9	554.8	601.1	636.7	660.6	675.3	680.4
122.5°	424.1	480.6	530.9	571.6	602.6	626.0	638.7	642.8
125°	410.9	463.3	508.0	546.2	575.7	595.0	607.7	611.8
127.5°	397.7	446.0	488.7	524.3	550.2	568.5	579.7	582.8
130°	385.0	428.7	468.9	502.4	527.3	544.6	554.8	558.9
132.5°	372.8	412.4	448.5	479.5	504.0	521.2	530.4	534.0
135°	361.6	395.1	428.7	457.2	479.0	495.8	505.0	507.0
137.5°	352.4	381.4	408.9	434.3	455.1	469.9	478.0	481.1
140°	343.8	368.2	391.6	413.9	430.2	443.4	451.1	454.1
142.5°	336.6	356.5	375.8	393.6	408.9	420.6	427.2	427.2
145°	330.0	346.8	362.6	377.3	389.5	398.2	403.3	404.8
147.5°	325.0	338.7	351.4	362.6	373.3	380.4	383.9	385.0
150°	319.4	330.5	341.2	350.4	358.0	364.1	367.2	367.7
152.5°	313.8	323.9	332.6	340.2	345.8	350.9	352.9	352.9
155°	308.7	316.8	324.4	330.0	335.6	339.2	341.2	340.2
157.5°	302.6	309.7	316.3	320.9	325.0	328.0	329.0	329.0
160°	297.0	302.6	308.2	311.7	315.3	317.8	318.3	318.3
162.5°	291.4	296.0	300.5	303.1	306.6	308.2	308.7	308.2
165°	285.8	289.4	292.9	294.9	297.0	299.0	299.0	298.5
167.5°	280.2	283.3	285.8	287.8	288.8	289.9	289.9	289.4
170°	276.1	277.7	279.7	280.7	281.2	282.7	282.2	281.2
172.5°	271.6	272.6	274.1	274.6	275.1	275.6	275.1	274.6
175°	268.5	269.0	269.5	270.0	270.0	270.5	270.0	269.0
177.5°	266.0	266.0	266.5	266.5	266.5	266.5	266.0	264.9
180°	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4

(END OF REPORT)