

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: P334632

Luminaire Tested: **S123IP-S805U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334632
TEST 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: S123IP-S805U927-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 805 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

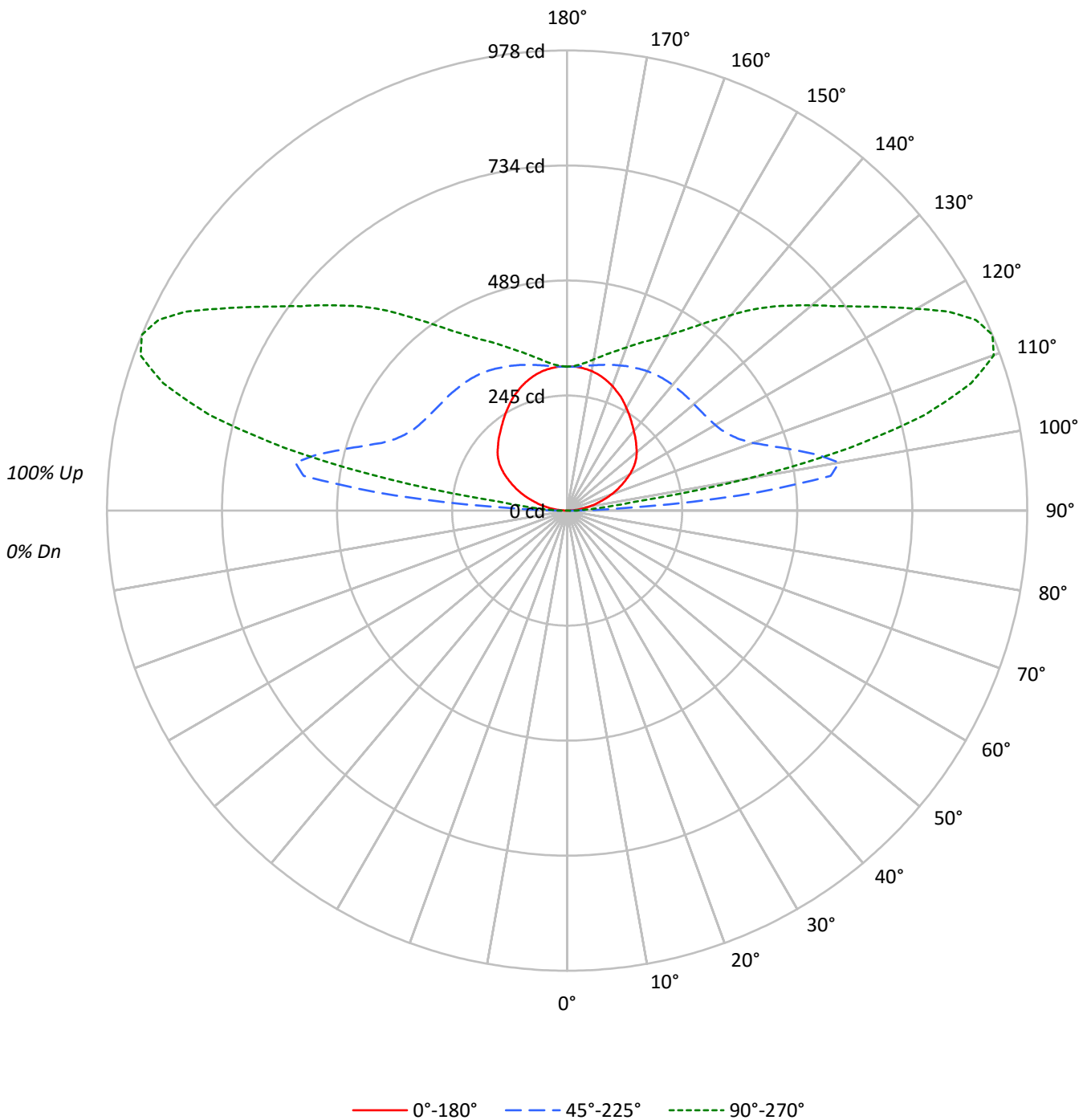
Lumens per Lamp: N/A
Luminaire Lumens: 2303.1 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 26.4
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°	166.0	7.2
100°-110°	486.1	21.1
110°-120°	474.7	20.6
120°-130°	378.0	16.4
130°-140°	298.3	12.9
140°-150°	222.5	9.7
150°-160°	155.1	6.7
160°-170°	91.1	4.0
170°-180°	29.6	1.3
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°	1126.8	48.9
90°-150°	2025.5	87.9
90°-180°	2301.0	99.9
0°-180°	2303.1	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°	1	7	16	17	18	2
95°	21	68	367	107	72	22
105°	72	106	498	871	788	76
115°	127	158	381	835	958	126
125°	176	208	356	644	756	157
135°	207	247	350	530	612	160
145°	236	270	346	435	479	148
155°	268	289	335	381	397	123
165°	293	301	321	340	346	83
175°	305	306	308	312	312	29
180°	306	306	306	306	306	



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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°	1.2	2.5	3.7	5.6	6.8	8.1	9.9	11.8	13.6	15.5	14.9
92.5°	9.3	13.6	19.8	25.4	31.6	42.7	62.6	95.4	127.6	115.2	86.1
95°	21.1	22.9	29.7	40.3	56.4	80.5	133.2	225.4	327.0	367.3	297.9
97.5°	33.4	34.1	39.6	48.9	65.0	91.7	143.7	250.8	421.8	564.8	584.0
100°	45.8	46.5	50.8	59.5	74.3	98.5	141.8	233.5	396.4	586.5	708.5
102.5°	58.8	60.1	63.8	71.8	84.9	106.5	144.3	218.6	359.2	546.3	714.7
105°	71.8	73.7	77.4	84.9	96.6	115.8	149.3	213.1	330.1	498.0	675.7
107.5°	85.5	87.3	91.0	98.5	109.6	127.6	157.3	211.8	309.1	455.2	620.0
110°	100.3	102.2	105.3	112.1	122.6	140.0	167.8	214.9	297.9	419.9	567.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	114.0	115.8	118.9	125.7	136.3	153.0	178.4	221.1	291.7	396.4	522.7
115°	127.0	129.4	133.2	139.4	149.9	166.6	190.1	227.9	291.1	380.9	488.0
117.5°	140.0	143.1	146.2	151.7	163.5	179.0	202.5	236.6	291.7	370.4	465.1
120°	153.6	155.5	158.6	164.7	176.5	192.0	214.3	246.5	294.2	363.6	447.8
122.5°	165.4	167.2	170.3	177.1	188.3	205.0	226.7	255.8	298.5	359.2	433.5
125°	176.5	177.8	181.5	188.3	200.0	216.8	238.4	265.7	302.9	355.5	421.8
127.5°	185.2	187.0	191.4	198.2	211.2	227.9	249.0	273.7	307.8	353.6	410.6
130°	193.2	195.1	200.7	208.1	221.1	237.8	258.3	281.8	312.8	351.8	402.0
132.5°	199.4	201.9	208.1	217.4	230.4	246.5	266.3	289.2	316.5	351.2	393.9
135°	206.9	209.3	216.2	225.4	238.4	255.2	274.4	295.4	320.2	350.5	387.1
137.5°	213.7	216.2	223.0	232.9	245.9	261.4	279.9	300.4	322.7	349.3	380.9
140°	220.5	223.6	229.8	239.7	252.1	267.6	285.5	304.1	325.2	348.7	375.3
142.5°	227.9	230.4	237.2	245.9	258.3	272.5	289.9	307.8	327.0	347.5	370.4
145°	236.0	237.8	243.4	252.7	263.2	277.5	293.6	310.3	327.6	346.2	366.0
147.5°	244.0	245.3	250.8	258.9	269.4	281.8	296.7	312.1	327.6	344.4	361.7
150°	252.1	252.7	257.6	265.7	274.4	285.5	299.8	312.8	327.6	341.9	357.4
152.5°	260.1	260.1	265.1	271.9	279.3	289.9	301.6	314.0	325.8	338.8	352.4
155°	268.2	268.2	271.9	278.1	284.9	293.6	304.1	314.0	324.5	335.1	347.5
157.5°	274.4	275.0	278.1	283.7	289.9	296.7	305.3	314.6	322.7	332.0	341.9
160°	281.8	281.8	284.3	289.2	293.6	299.8	307.2	314.6	321.4	328.3	336.3
162.5°	287.4	287.4	289.2	292.9	296.7	301.6	307.8	314.0	319.0	324.5	330.7
165°	292.9	292.3	293.6	296.7	299.1	303.5	308.4	312.8	316.5	320.8	325.8
167.5°	297.3	296.7	297.3	299.8	301.6	304.7	308.4	312.1	314.0	317.1	320.8
170°	301.0	299.8	300.4	302.2	303.5	304.7	307.8	310.3	311.5	313.4	316.5
172.5°	303.5	302.9	302.9	304.1	304.7	305.3	307.8	309.7	309.7	310.3	312.1
175°	305.3	304.7	304.1	305.3	305.3	306.0	307.2	308.4	307.8	307.8	309.1
177.5°	306.6	306.0	305.3	306.0	306.0	306.0	306.6	307.8	306.6	306.0	306.6
180°	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0



TEST NUMBER: P334632

CATALOG NUMBER: S123IP-S805U927-4F0-1E-UDD-4

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°	15.5	16.1	16.7	18.0	17.3	18.0	18.6	18.0
92.5°	61.3	47.7	41.5	37.2	35.9	33.4	34.1	32.8
95°	223.0	151.1	118.3	96.0	84.2	78.7	74.3	71.8
97.5°	512.2	386.5	304.7	234.1	192.6	169.1	154.2	147.4
100°	730.2	680.0	607.6	519.6	457.1	411.9	387.7	388.3
102.5°	802.7	813.2	778.5	730.8	685.6	652.2	633.0	615.0
105°	805.1	867.1	878.8	862.7	834.3	810.7	790.9	787.8
107.5°	768.0	865.2	913.5	930.3	926.5	915.4	907.3	900.5
110°	709.8	823.7	901.8	945.1	962.5	967.4	966.2	964.9



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CATALOG NUMBER: S123IP-S805U927-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	652.2	769.2	859.0	917.9	953.2	971.1	977.3	977.9
115°	602.6	710.4	801.4	868.9	915.4	942.6	955.0	958.1
117.5°	564.2	659.6	743.2	813.2	861.5	891.9	910.4	914.8
120°	535.1	618.7	693.0	755.6	804.5	839.2	854.1	857.8
122.5°	512.2	585.9	653.4	710.4	752.5	782.9	799.6	804.5
125°	492.4	559.9	619.3	668.9	708.5	735.8	751.3	755.6
127.5°	474.4	535.7	590.2	636.1	672.0	695.5	709.8	713.5
130°	457.7	513.4	563.6	605.7	638.5	660.8	673.8	678.8
132.5°	442.2	492.4	538.2	577.8	608.2	630.5	641.6	644.7
135°	428.6	472.6	512.8	548.1	578.5	597.0	608.2	612.5
137.5°	415.6	452.7	488.7	520.2	546.3	565.5	574.8	578.5
140°	404.4	436.0	465.7	492.4	515.9	533.3	543.2	542.5
142.5°	393.9	419.9	444.7	467.0	486.2	501.0	509.7	509.1
145°	385.9	406.3	426.1	444.1	459.6	472.6	477.5	478.8
147.5°	379.0	395.8	412.5	425.5	437.9	447.2	452.1	452.7
150°	371.6	385.9	398.9	410.6	419.9	426.7	430.4	430.4
152.5°	364.8	376.6	387.7	397.0	403.8	410.0	411.9	411.9
155°	358.0	367.9	377.2	384.6	390.2	395.1	396.4	397.0
157.5°	350.5	359.2	366.7	372.8	377.8	381.5	382.8	382.8
160°	344.4	351.2	357.4	361.7	366.0	369.7	369.7	369.1
162.5°	336.9	342.5	348.1	351.8	354.3	357.4	357.4	356.7
165°	330.7	334.4	338.8	341.9	344.4	346.8	346.2	346.2
167.5°	325.2	328.3	330.7	333.2	334.4	336.3	335.7	335.7
170°	319.6	321.4	323.9	325.2	325.8	327.0	326.4	326.4
172.5°	314.6	315.9	317.7	318.3	318.3	319.6	318.3	317.7
175°	310.3	310.9	312.1	312.1	312.1	312.8	312.1	311.5
177.5°	307.2	307.8	308.4	308.4	307.8	308.4	307.2	307.2
180°	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0

(END OF REPORT)