

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: P334996

Luminaire Tested: **S125IP-S590U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125IP-S590U940-4F0-1E-UDD-4
Description: DEFINE 5 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 590 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

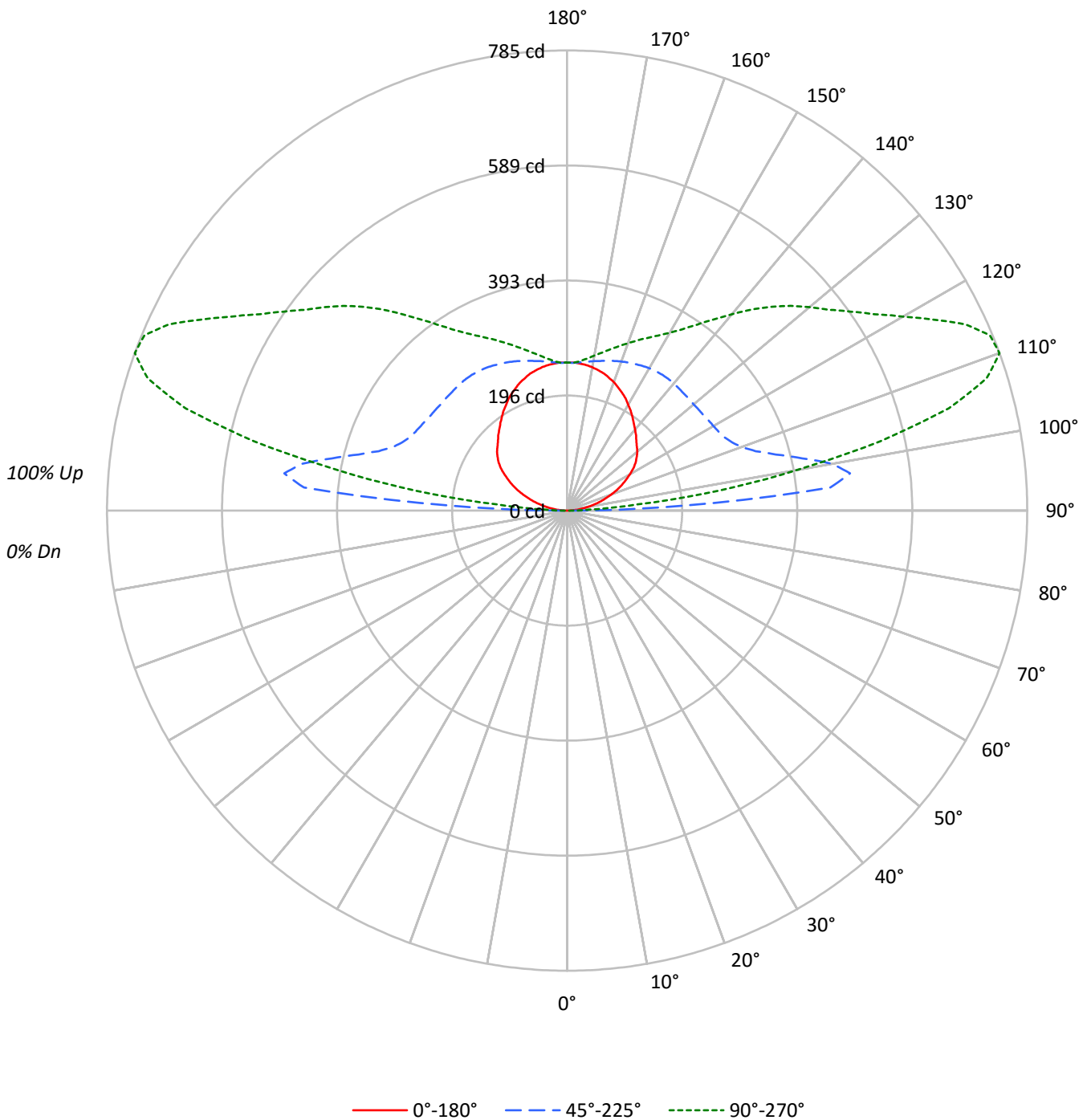
Lumens per Lamp: N/A
Luminaire Lumens: 1896.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Indirect

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



TEST NUMBER: P334996
CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

Luminous Intensity Polar Plot





TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

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



TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

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°	1.0	0.1
90°-100°	183.5	9.7
100°-110°	395.7	20.9
110°-120°	369.0	19.5
120°-130°	298.8	15.8
130°-140°	239.9	12.7
140°-150°	181.0	9.5
150°-160°	127.4	6.7
160°-170°	75.1	4.0
170°-180°	24.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.0	0.1
90°-120°	948.2	50.0
90°-150°	1668.0	88.0
90°-180°	1895.0	99.9
0°-180°	1896.0	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	5	8	11	12	1
95°	17	50	451	204	120	17
105°	58	80	369	726	674	61
115°	103	124	296	638	751	101
125°	142	167	284	508	592	127
135°	167	201	282	426	491	129
145°	194	223	283	352	388	122
155°	222	239	276	312	325	102
165°	242	249	264	281	285	68
175°	252	252	254	257	256	24
180°	252	252	252	252	252	



TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

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	1.0	2.0	3.1	4.1	5.1	5.6	6.6	7.1	8.1	8.6
92.5°	7.6	9.2	14.2	21.9	32.6	50.9	85.5	143.4	206.5	203.0	163.8
95°	16.8	17.3	21.4	27.0	38.1	61.0	115.5	227.4	367.8	450.7	441.0
97.5°	25.9	26.5	29.5	35.1	45.3	62.1	99.7	185.7	337.2	486.8	550.9
100°	35.6	36.6	38.7	44.3	53.9	69.2	98.7	164.8	293.0	459.3	586.5
102.5°	46.3	46.8	48.3	54.4	63.1	77.8	103.3	156.2	259.4	411.0	565.1
105°	57.5	57.5	60.0	65.1	73.2	87.5	109.9	155.1	240.1	368.8	514.8
107.5°	68.2	69.2	71.7	75.8	84.4	97.2	119.0	158.7	229.9	337.2	466.9
110°	79.9	80.9	82.9	87.5	95.1	108.3	129.2	164.3	225.8	316.4	427.3



TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	91.6	92.6	94.1	98.7	106.3	119.0	138.9	171.4	225.8	304.2	397.8
115°	102.7	103.8	105.3	109.9	117.5	130.2	149.0	178.5	227.4	296.0	377.9
117.5°	112.9	114.4	116.0	120.6	129.2	141.4	159.2	186.7	229.9	291.5	364.7
120°	123.1	124.6	126.7	131.2	139.9	152.6	170.4	194.8	234.0	288.4	354.0
122.5°	133.8	134.8	136.3	140.9	150.6	163.3	181.1	204.0	237.5	285.9	344.9
125°	142.4	143.4	146.0	150.6	160.2	173.5	190.2	212.1	241.6	283.8	336.7
127.5°	149.5	151.1	154.1	159.7	169.9	183.1	199.4	219.7	246.2	282.8	329.1
130°	156.2	157.7	161.8	168.4	179.0	192.3	208.0	227.4	250.3	281.8	321.5
132.5°	161.2	163.3	168.4	176.0	187.2	200.4	216.2	234.0	254.8	281.8	315.4
135°	166.8	168.9	175.0	183.1	193.8	207.5	223.3	240.1	258.9	281.8	310.8
137.5°	174.0	175.5	181.1	189.2	199.9	214.1	228.4	244.7	263.0	282.3	306.2
140°	180.1	181.6	187.7	195.8	205.5	219.2	234.0	249.2	265.5	282.8	303.2
142.5°	187.2	188.2	193.8	201.9	211.1	223.8	237.5	251.8	267.0	283.3	300.6
145°	194.3	195.3	200.4	207.5	216.7	228.4	241.6	254.3	268.1	282.8	298.1
147.5°	201.9	202.4	207.0	213.6	221.8	232.5	244.2	255.9	268.6	281.8	295.5
150°	208.5	209.6	213.1	219.7	226.9	235.5	246.7	257.4	268.6	280.3	292.5
152.5°	215.7	216.2	219.2	224.8	231.4	239.1	249.2	258.4	268.1	278.2	288.9
155°	221.8	221.8	224.8	229.9	235.0	242.1	250.8	258.9	267.0	275.7	284.8
157.5°	227.4	227.4	229.9	234.5	239.1	244.7	252.3	259.4	266.0	273.1	281.3
160°	233.0	232.5	234.5	238.1	242.1	246.7	253.3	259.4	264.5	270.6	276.7
162.5°	237.5	237.0	239.1	242.1	245.2	248.7	254.3	258.9	263.0	267.6	272.6
165°	242.1	241.1	242.6	245.2	247.2	250.3	254.3	258.4	261.4	264.5	268.6
167.5°	245.2	244.7	245.7	247.2	248.7	250.8	254.3	257.4	258.9	261.4	264.5
170°	248.2	247.7	248.2	249.2	250.3	251.8	254.3	256.4	257.4	258.9	260.9
172.5°	250.3	249.2	249.8	250.8	251.3	251.8	253.8	255.3	255.3	255.9	257.4
175°	251.8	250.8	251.3	251.8	251.8	251.8	253.3	254.3	253.8	253.8	254.3
177.5°	252.8	251.8	251.8	252.3	251.8	251.8	252.8	253.3	252.3	252.3	252.8
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3



TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-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°	9.2	9.7	10.2	11.2	11.2	11.2	11.7	11.7
92.5°	110.4	79.4	59.0	49.3	41.2	39.7	38.7	37.6
95°	365.7	288.4	225.8	183.1	147.0	131.7	127.7	119.5
97.5°	524.4	462.9	399.8	338.8	308.2	281.8	268.1	262.0
100°	625.6	600.7	548.3	495.4	460.3	423.7	404.9	396.8
102.5°	659.7	685.2	666.8	635.3	597.2	573.8	552.9	547.3
105°	636.8	706.5	728.9	723.3	707.0	690.2	680.1	674.0
107.5°	590.0	682.1	736.0	758.4	763.0	760.4	755.4	750.3
110°	537.1	633.8	705.5	748.7	771.6	781.3	784.9	784.9



TEST NUMBER: P334996

CATALOG NUMBER: S125IP-S590U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	495.4	586.0	658.7	711.6	747.7	766.0	776.2	780.8
115°	461.9	540.7	610.4	665.8	705.5	729.9	744.2	750.8
117.5°	438.5	508.1	569.2	621.6	661.8	687.2	701.4	705.5
120°	420.2	481.2	537.1	581.9	619.5	644.0	657.7	661.8
122.5°	406.4	461.9	510.2	551.4	583.9	605.8	619.5	623.1
125°	393.2	445.1	489.3	526.0	554.4	575.3	586.5	591.6
127.5°	379.5	428.8	470.5	505.1	531.0	549.9	560.5	562.6
130°	366.7	411.5	451.2	484.2	509.7	526.5	536.6	539.7
132.5°	354.0	395.2	430.3	461.9	487.3	504.1	513.2	516.8
135°	343.3	378.4	411.0	440.0	462.4	479.2	488.3	491.4
137.5°	333.7	363.2	391.2	416.6	436.9	452.7	461.4	464.9
140°	326.0	350.0	373.4	394.7	413.5	426.8	434.4	436.9
142.5°	319.4	338.8	358.1	375.9	391.2	401.8	409.0	411.0
145°	313.8	329.6	345.4	359.1	371.3	380.0	385.6	387.6
147.5°	308.2	321.5	334.2	344.9	355.0	362.2	365.7	366.7
150°	303.7	314.9	324.5	333.7	341.3	347.4	349.4	350.0
152.5°	298.6	308.2	316.9	323.5	329.6	334.2	336.2	336.7
155°	293.5	301.6	308.8	314.3	319.4	323.0	324.5	325.0
157.5°	288.4	295.5	301.1	305.7	309.8	312.8	314.3	314.3
160°	283.3	288.4	293.5	297.1	300.6	303.2	304.2	303.7
162.5°	277.7	282.3	286.4	289.4	292.0	294.0	294.0	294.0
165°	272.6	276.2	279.3	281.8	283.8	284.8	284.8	284.8
167.5°	267.6	270.1	272.6	274.7	275.7	276.7	276.2	276.2
170°	263.5	265.0	266.5	267.6	268.6	269.1	269.1	268.6
172.5°	258.9	260.4	261.4	262.0	262.0	263.0	262.0	261.4
175°	255.9	255.9	256.9	256.9	256.9	257.4	256.4	255.9
177.5°	253.3	253.8	253.8	253.8	253.3	253.8	252.3	252.3
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3

(END OF REPORT)