

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: P334800

Luminaire Tested: **S124IP-S365U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S365U840-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

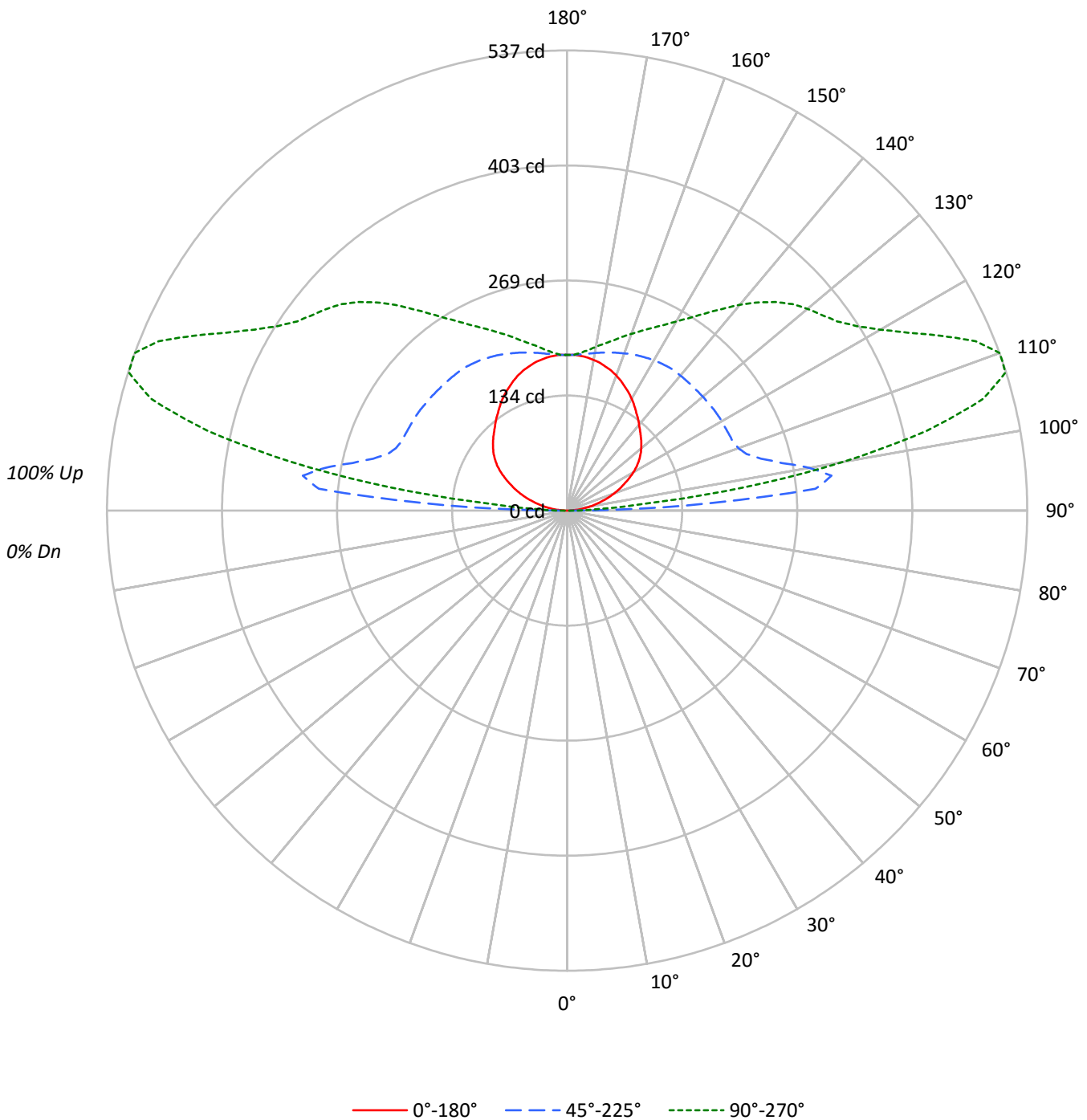
Lumens per Lamp: N/A
Luminaire Lumens: 1323.8 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 11.4
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



TEST NUMBER: P334800
CATALOG NUMBER: S124IP-S365U840-4F0-1E-UDD-4

Luminous Intensity Polar Plot





TEST NUMBER: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-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: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-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°	0.7	0.1
90°-100°	131.7	9.9
100°-110°	274.9	20.8
110°-120°	244.3	18.5
120°-130°	205.7	15.5
130°-140°	171.6	13.0
140°-150°	131.0	9.9
150°-160°	92.1	7.0
160°-170°	54.2	4.1
170°-180°	17.6	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.7	0.1
90°-120°	650.9	49.2
90°-150°	1159.2	87.6
90°-180°	1323.0	99.9
0°-180°	1323.8	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	3	6	7	8	1
95°	12	37	291	144	87	13
105°	42	60	234	504	502	45
115°	74	92	209	401	482	73
125°	102	122	208	341	385	91
135°	122	145	206	303	344	94
145°	140	161	205	256	281	88
155°	160	172	199	226	235	74
165°	174	179	191	202	205	49
175°	181	182	183	186	185	17
180°	182	182	182	182	182	



TEST NUMBER: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-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°	0.4	1.1	2.1	2.5	2.9	2.9	5.0	5.0	5.7	6.4	6.1
92.5°	5.0	7.1	11.1	16.4	22.8	32.1	54.3	88.9	122.4	139.9	116.4
95°	11.8	12.8	16.4	21.1	29.6	44.6	75.7	134.2	219.5	290.9	299.1
97.5°	19.6	19.6	22.8	27.1	34.6	47.5	72.1	122.4	210.2	311.2	375.1
100°	27.1	27.1	29.6	33.9	40.7	52.1	73.2	113.5	186.3	287.0	378.3
102.5°	34.3	35.0	37.1	41.0	47.5	58.2	76.7	111.0	170.2	256.6	351.6
105°	41.8	42.8	44.6	48.9	55.3	65.7	82.8	112.4	162.4	234.1	318.0
107.5°	50.0	50.7	52.5	57.1	63.2	73.5	89.2	116.7	160.3	219.5	290.5
110°	58.2	58.9	60.7	65.0	71.4	81.0	96.7	121.7	161.0	212.7	270.9



TEST NUMBER: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	66.0	66.7	68.9	72.8	79.2	88.9	103.9	127.1	163.1	209.5	259.8
115°	73.5	74.6	77.1	80.7	87.4	97.1	111.4	132.8	166.0	208.8	253.8
117.5°	81.4	82.4	84.6	88.5	94.9	104.9	118.5	138.5	168.8	208.4	250.6
120°	89.2	89.9	92.4	96.4	102.4	112.4	126.0	144.6	172.0	208.4	248.1
122.5°	96.4	97.1	99.6	103.1	109.9	119.6	133.1	150.3	175.2	208.1	245.2
125°	102.4	103.9	106.0	109.9	116.7	126.7	139.6	156.0	178.5	207.7	242.0
127.5°	108.1	109.2	111.7	116.0	123.1	133.1	145.6	161.0	181.0	207.0	237.7
130°	112.8	114.2	117.1	122.4	129.2	139.6	151.7	165.6	183.8	206.7	233.8
132.5°	117.4	118.5	122.4	127.4	134.9	144.6	156.7	170.2	186.3	206.3	230.2
135°	121.7	123.1	126.7	132.8	140.3	149.5	161.3	174.2	188.8	205.9	226.6
137.5°	126.0	127.4	131.3	137.1	144.9	153.8	164.9	177.0	190.2	205.9	223.4
140°	130.6	131.7	135.6	141.7	149.2	157.8	168.5	179.9	192.0	205.6	220.9
142.5°	135.6	136.7	140.3	146.0	153.1	161.3	171.7	182.0	193.4	205.6	218.8
145°	140.3	141.3	144.9	149.9	156.7	164.5	173.8	183.5	193.8	204.9	216.3
147.5°	145.6	146.0	149.2	154.5	160.3	167.4	176.3	184.9	194.2	203.8	214.1
150°	150.6	151.0	153.8	158.1	163.5	170.2	178.1	186.0	194.2	202.7	211.6
152.5°	155.3	155.3	158.1	162.0	166.7	172.7	179.5	186.7	193.4	200.9	208.8
155°	159.5	159.9	162.0	165.6	169.5	174.9	181.0	187.0	192.7	199.2	205.9
157.5°	163.8	163.8	166.0	168.8	172.4	176.7	182.0	187.0	192.0	197.4	203.1
160°	167.7	167.7	169.2	171.7	174.5	178.5	182.7	187.0	190.9	195.2	199.9
162.5°	171.3	171.0	172.0	174.2	176.7	179.5	183.5	187.0	189.9	193.1	197.0
165°	173.8	173.8	174.5	176.3	178.1	180.2	183.5	186.3	188.5	190.9	193.8
167.5°	176.7	176.3	176.7	178.1	179.2	181.0	183.5	185.6	187.0	188.8	190.9
170°	178.5	178.1	178.5	179.5	180.2	181.3	183.1	184.9	185.6	186.7	188.1
172.5°	180.2	179.9	179.9	180.6	181.0	181.7	182.7	184.2	184.2	184.5	185.6
175°	181.3	181.0	181.0	181.3	181.7	181.7	182.4	183.5	183.1	183.1	183.8
177.5°	182.0	181.7	181.3	181.7	181.7	181.7	182.0	182.7	182.0	182.0	182.4
180°	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7



TEST NUMBER: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-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°	6.4	6.8	7.1	7.1	7.5	7.9	7.5	7.5
92.5°	86.0	64.2	50.7	41.8	36.4	33.9	32.5	32.5
95°	264.5	209.2	161.3	126.7	109.2	98.2	91.7	87.1
97.5°	380.8	353.3	314.1	274.1	249.8	228.4	217.7	209.2
100°	430.4	437.6	420.1	393.7	362.6	340.9	330.1	327.3
102.5°	427.9	470.4	481.1	474.0	457.9	443.6	432.2	430.1
105°	399.7	461.5	496.8	511.5	512.2	509.3	504.3	502.2
107.5°	365.1	431.9	481.1	511.1	526.8	533.2	536.1	536.4
110°	334.4	396.2	447.9	487.2	512.5	527.5	533.9	537.2



TEST NUMBER: P334800

CATALOG NUMBER: S124IP-S365U840-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	311.9	364.8	412.9	452.2	481.8	500.8	510.4	516.1
115°	298.4	342.3	384.0	418.3	446.5	467.9	479.3	482.2
117.5°	290.5	327.6	361.6	391.5	416.5	435.1	447.2	449.0
120°	285.5	318.7	347.3	372.6	393.0	408.7	417.9	421.9
122.5°	281.2	313.0	338.4	359.8	376.2	389.0	396.5	400.5
125°	276.3	306.9	331.6	351.2	365.5	375.8	382.6	384.8
127.5°	270.5	300.2	324.8	343.4	357.6	366.9	372.6	374.8
130°	263.4	291.6	315.9	334.8	349.4	358.3	364.1	366.2
132.5°	255.9	282.0	305.5	324.4	338.7	349.1	354.4	356.6
135°	249.1	272.3	294.1	311.9	326.2	336.2	341.9	344.1
137.5°	242.7	263.0	282.0	298.4	311.9	322.3	326.9	329.4
140°	237.3	254.1	270.2	285.2	297.7	305.5	310.5	313.4
142.5°	232.4	246.6	259.8	272.3	283.0	290.2	294.5	296.2
145°	227.7	239.8	250.6	260.5	269.5	275.5	279.1	280.9
147.5°	223.8	233.8	242.7	250.9	257.7	263.0	265.9	266.6
150°	220.2	228.4	235.6	242.0	247.7	252.3	254.5	254.8
152.5°	216.3	223.1	229.5	234.5	239.1	242.7	243.8	244.1
155°	212.4	218.1	223.4	227.7	231.3	234.1	235.2	235.2
157.5°	208.1	213.1	217.7	221.3	224.1	226.3	227.0	227.0
160°	204.2	208.1	212.0	214.9	217.0	219.1	219.5	219.5
162.5°	200.2	203.4	206.3	208.8	210.2	212.4	212.7	212.4
165°	196.7	198.8	201.3	203.1	204.5	205.9	205.6	205.2
167.5°	193.1	194.9	197.0	198.1	198.8	199.9	199.9	199.5
170°	189.9	190.9	192.4	193.4	194.2	194.5	194.2	194.2
172.5°	187.0	187.7	188.5	189.2	189.5	189.9	189.5	188.8
175°	184.5	184.9	185.6	185.6	185.6	186.3	185.6	184.9
177.5°	182.7	183.1	183.1	183.5	183.1	183.5	182.7	182.0
180°	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7

(END OF REPORT)