

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: P334465

Luminaire Tested: **S122IP-S330U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334465
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-S330U935-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 330 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

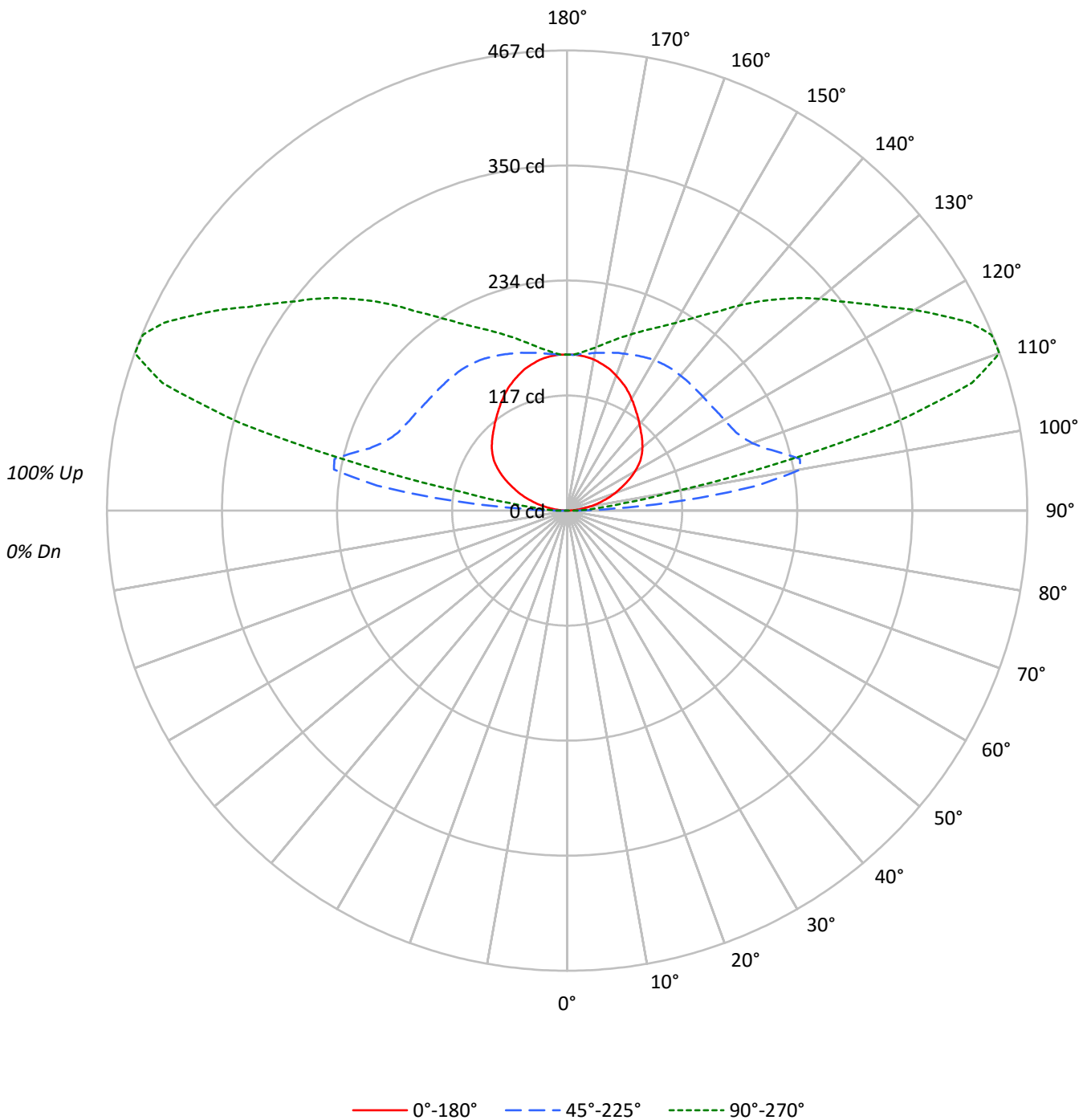
Lumens per Lamp: N/A
Luminaire Lumens: 1102.7 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 11.4
Input Voltage (V): 120
Input Current (A_{in}): 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: P334465
CATALOG NUMBER: S122IP-S330U935-4F0-1E-UDD-4

Luminous Intensity Polar Plot





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CATALOG NUMBER: S122IP-S330U935-4F0-1E-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: P334465

CATALOG NUMBER: S122IP-S330U935-4F0-1E-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°	61.7	5.6
100°-110°	217.2	19.7
110°-120°	228.1	20.7
120°-130°	187.6	17.0
130°-140°	150.7	13.7
140°-150°	113.9	10.3
150°-160°	80.0	7.3
160°-170°	47.1	4.3
170°-180°	15.3	1.4
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°	506.9	46.0
90°-150°	959.2	87.0
90°-180°	1102.0	99.9
0°-180°	1102.7	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	4	10	10	10	1
95°	11	26	119	45	35	11
105°	37	56	225	403	343	39
115°	65	83	189	389	451	65
125°	91	108	181	315	366	81
135°	107	128	179	265	303	83
145°	122	141	178	221	242	77
155°	139	150	173	196	204	64
165°	152	156	166	176	179	43
175°	158	158	159	161	161	15
180°	158	158	158	158	158	



TEST NUMBER: P334465

CATALOG NUMBER: S122IP-S330U935-4F0-1E-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°	0.3	1.2	2.4	3.0	3.7	4.6	6.1	8.2	10.0	10.3	10.0
92.5°	4.6	6.4	8.8	10.3	12.8	16.1	24.3	35.9	46.2	46.8	39.2
95°	10.6	11.9	14.9	17.6	22.5	29.8	43.8	70.3	105.6	119.3	104.3
97.5°	15.8	17.6	21.0	24.9	30.4	38.6	56.6	93.4	150.3	194.4	195.9
100°	23.4	24.3	27.1	31.9	38.0	46.5	62.7	99.8	165.5	240.3	284.1
102.5°	30.4	31.0	33.8	38.6	45.0	53.5	68.1	100.1	159.7	241.9	317.0
105°	37.1	38.3	40.5	45.0	51.7	60.2	74.5	101.6	151.8	225.4	306.3
107.5°	44.4	45.3	47.5	51.7	58.4	66.9	80.9	105.0	147.5	210.2	283.8
110°	51.7	52.9	54.8	58.7	65.1	73.9	87.3	109.2	146.3	199.9	262.8



TEST NUMBER: P334465

CATALOG NUMBER: S122IP-S330U935-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.4	59.6	61.8	65.4	71.5	80.6	93.4	113.8	146.6	193.2	248.2
115°	65.4	66.9	68.8	72.4	78.5	86.7	99.8	118.3	147.8	188.6	236.7
117.5°	72.7	73.9	75.7	79.1	84.9	93.4	105.6	123.2	149.7	186.2	228.8
120°	79.4	80.6	82.4	85.2	91.3	99.8	111.6	128.1	151.5	184.0	222.7
122.5°	85.8	86.7	88.5	91.6	97.7	106.5	117.4	132.3	153.6	182.8	217.5
125°	91.3	92.2	94.0	97.7	103.7	112.3	123.2	136.9	155.8	181.3	212.6
127.5°	95.8	97.0	99.5	103.4	109.2	118.0	128.7	141.2	157.9	180.4	208.1
130°	99.8	101.0	104.0	108.3	114.4	122.9	133.6	145.1	160.3	179.8	203.5
132.5°	103.4	105.0	108.3	112.9	119.3	127.8	137.8	149.1	162.8	179.5	199.9
135°	107.1	108.3	112.0	116.5	123.5	132.0	141.8	152.4	164.6	179.2	196.5
137.5°	110.4	112.0	115.6	120.5	127.5	135.4	145.1	155.1	166.4	179.2	194.1
140°	114.4	115.6	119.3	124.1	130.8	138.7	147.8	157.3	167.6	178.9	192.0
142.5°	118.3	119.3	122.6	127.5	133.9	141.2	150.0	159.1	168.5	178.9	189.8
145°	122.3	123.5	126.6	131.1	137.2	143.9	152.1	160.6	169.1	178.3	188.0
147.5°	126.6	127.5	130.5	134.8	139.9	146.0	153.9	161.5	169.4	177.4	186.2
150°	130.8	131.7	134.2	138.1	142.7	148.2	155.1	162.1	169.1	176.4	183.7
152.5°	135.1	135.4	137.8	141.2	145.4	150.3	156.4	162.5	168.5	174.9	181.6
155°	139.0	139.3	141.2	144.5	147.8	152.4	157.6	162.8	167.9	173.1	178.9
157.5°	142.4	142.7	144.2	147.2	150.0	153.9	158.5	162.8	166.7	171.3	176.4
160°	145.7	146.0	147.2	149.7	152.1	155.5	159.1	162.8	165.8	169.4	173.7
162.5°	149.1	148.8	150.0	151.8	153.9	156.4	159.4	162.5	164.9	167.9	171.3
165°	151.5	151.2	151.8	153.6	155.1	157.0	159.7	161.8	163.7	165.8	168.5
167.5°	153.6	153.3	153.9	155.1	156.4	157.6	159.7	161.5	162.5	164.0	165.8
170°	155.8	155.1	155.5	156.4	157.0	157.9	159.4	160.9	161.5	162.5	163.7
172.5°	157.0	156.7	156.4	157.3	157.6	158.2	159.1	160.0	160.3	160.6	161.5
175°	157.9	157.6	157.3	157.9	157.9	158.2	158.8	159.4	159.1	159.4	159.7
177.5°	158.5	157.9	157.6	158.2	158.2	158.2	158.5	159.1	158.5	158.2	158.5
180°	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2



TEST NUMBER: P334465

CATALOG NUMBER: S122IP-S330U935-4F0-1E-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°	9.7	9.1	9.7	10.0	10.0	10.0	10.0	10.0
92.5°	30.7	26.2	22.8	20.4	20.1	18.9	19.2	18.6
95°	79.7	61.1	48.4	41.7	37.7	35.3	34.4	34.7
97.5°	163.1	130.2	99.5	81.2	69.4	63.3	59.9	58.1
100°	277.7	240.0	198.3	161.5	136.3	123.2	114.4	108.9
102.5°	352.9	351.7	324.0	284.4	256.5	231.8	220.3	212.3
105°	369.6	404.0	408.0	397.9	379.1	360.2	347.1	342.9
107.5°	351.7	402.8	432.6	444.8	444.5	441.7	437.8	430.8
110°	327.0	381.5	420.4	445.4	458.5	464.2	467.0	466.7



TEST NUMBER: P334465

CATALOG NUMBER: S122IP-S330U935-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	304.5	356.2	398.5	428.0	447.5	458.1	463.9	466.1
115°	286.9	333.7	373.6	404.9	426.5	440.5	448.4	451.2
117.5°	272.3	314.3	351.4	381.2	403.4	418.3	426.5	428.6
120°	261.9	299.7	331.9	359.6	380.9	395.2	404.0	407.0
122.5°	253.7	287.5	317.6	341.9	360.5	374.5	382.1	384.5
125°	245.8	277.1	303.9	326.7	344.4	355.9	363.5	366.0
127.5°	237.9	266.8	292.4	313.6	329.2	340.1	346.8	348.6
130°	230.3	256.5	280.5	300.6	315.5	325.8	331.9	334.3
132.5°	223.0	246.7	268.3	286.9	301.5	311.8	317.3	319.4
135°	216.3	236.4	256.5	273.5	286.6	296.6	302.1	303.3
137.5°	210.8	228.2	244.6	259.8	272.3	281.1	286.0	287.8
140°	205.6	220.3	234.2	247.6	257.4	265.3	269.8	271.7
142.5°	201.4	213.3	224.8	235.5	244.6	251.6	255.5	255.5
145°	197.4	207.5	216.9	225.7	233.0	238.2	241.2	242.2
147.5°	194.4	202.6	210.2	216.9	223.3	227.6	229.7	230.3
150°	191.0	197.7	204.1	209.6	214.2	217.8	219.6	219.9
152.5°	187.7	193.8	199.0	203.5	206.9	209.9	211.1	211.1
155°	184.7	189.5	194.1	197.4	200.8	202.9	204.1	203.5
157.5°	181.0	185.3	189.2	192.0	194.4	196.2	196.8	196.8
160°	177.7	181.0	184.4	186.5	188.6	190.1	190.4	190.4
162.5°	174.3	177.1	179.8	181.3	183.4	184.4	184.7	184.4
165°	171.0	173.1	175.2	176.4	177.7	178.9	178.9	178.6
167.5°	167.6	169.4	171.0	172.2	172.8	173.4	173.4	173.1
170°	165.2	166.1	167.3	167.9	168.2	169.1	168.8	168.2
172.5°	162.5	163.1	164.0	164.3	164.6	164.9	164.6	164.3
175°	160.6	160.9	161.2	161.5	161.5	161.8	161.5	160.9
177.5°	159.1	159.1	159.4	159.4	159.4	159.4	159.1	158.5
180°	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2

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