

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: P334455

Luminaire Tested: **S122IP-S330U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334455
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-S330U927-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 330 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

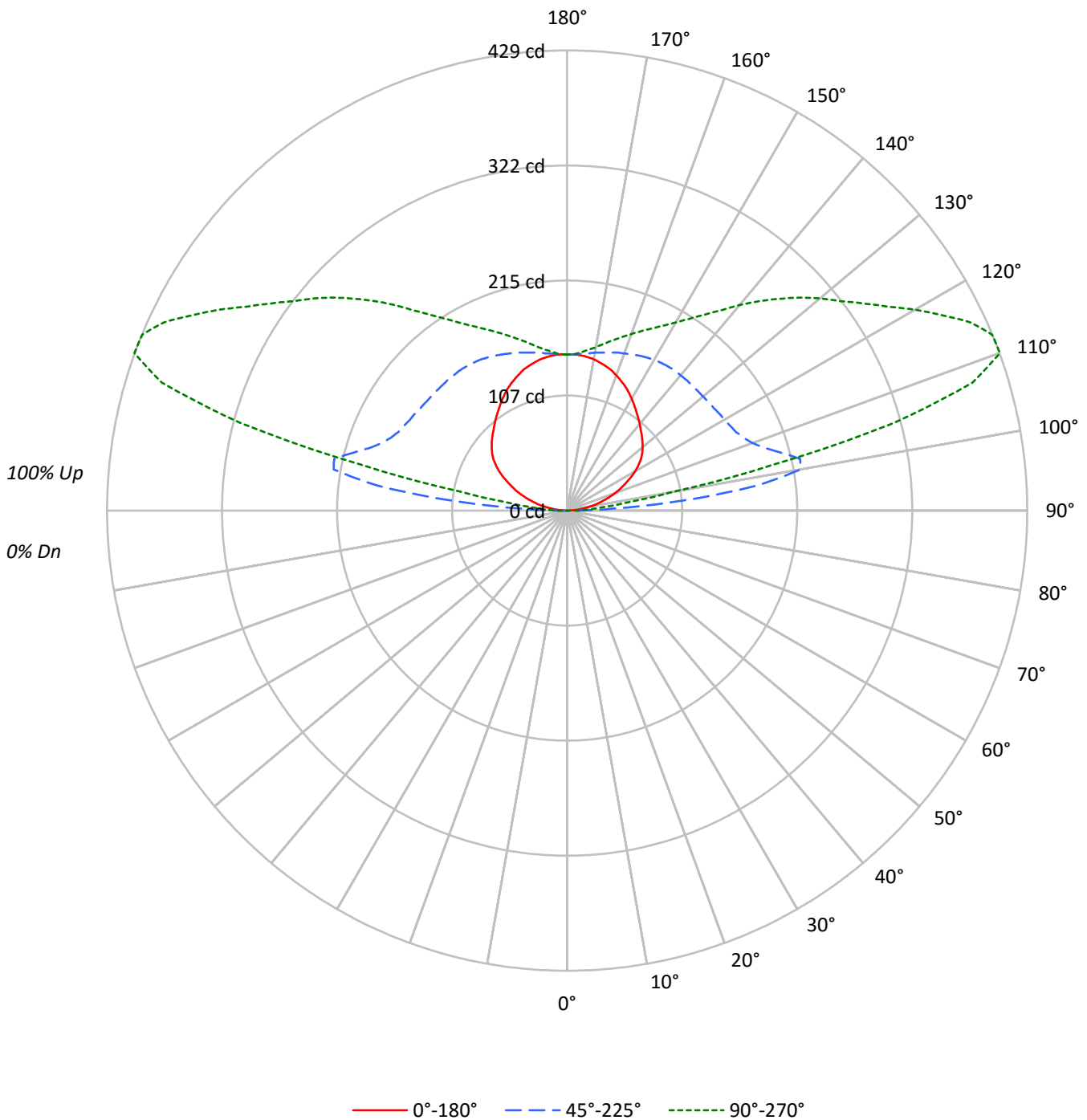
Lumens per Lamp: N/A
Luminaire Lumens: 1014.5 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 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: P334455
CATALOG NUMBER: S122IP-S330U927-4F0-1E-UDD-4

Luminous Intensity Polar Plot





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CATALOG NUMBER: S122IP-S330U927-4F0-1E-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: P334455

CATALOG NUMBER: S122IP-S330U927-4F0-1E-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°	0.9	0.1
90°-100°	56.7	5.6
100°-110°	199.8	19.7
110°-120°	209.8	20.7
120°-130°	172.6	17.0
130°-140°	138.7	13.7
140°-150°	104.8	10.3
150°-160°	73.6	7.3
160°-170°	43.4	4.3
170°-180°	14.1	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.9	0.1
90°-120°	466.4	46.0
90°-150°	882.5	87.0
90°-180°	1014.0	99.9
0°-180°	1014.5	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	9	9	1
95°	10	24	110	41	32	10
105°	34	52	207	371	315	36
115°	60	76	174	358	415	60
125°	84	99	167	290	337	75
135°	98	118	165	244	279	76
145°	112	129	164	204	223	71
155°	128	138	159	180	187	59
165°	139	144	152	162	164	39
175°	145	145	147	148	148	14
180°	146	146	146	146	146	



TEST NUMBER: P334455

CATALOG NUMBER: S122IP-S330U927-4F0-1E-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	1.1	2.2	2.8	3.4	4.2	5.6	7.6	9.2	9.5	9.2
92.5°	4.2	5.9	8.1	9.5	11.8	14.8	22.4	33.0	42.5	43.1	36.1
95°	9.8	10.9	13.7	16.2	20.7	27.4	40.3	64.7	97.1	109.7	96.0
97.5°	14.6	16.2	19.3	23.0	28.0	35.5	52.1	85.9	138.3	178.9	180.3
100°	21.6	22.4	24.9	29.4	35.0	42.8	57.7	91.8	152.3	221.1	261.4
102.5°	28.0	28.5	31.1	35.5	41.4	49.3	62.7	92.1	146.9	222.5	291.7
105°	34.1	35.3	37.2	41.4	47.6	55.4	68.6	93.5	139.7	207.4	281.9
107.5°	40.9	41.7	43.7	47.6	53.7	61.6	74.5	96.6	135.8	193.4	261.1
110°	47.6	48.7	50.4	54.0	59.9	68.0	80.3	100.5	134.6	183.9	241.8



TEST NUMBER: P334455

CATALOG NUMBER: S122IP-S330U927-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	53.7	54.9	56.8	60.2	65.8	74.2	85.9	104.7	134.9	177.7	228.4
115°	60.2	61.6	63.3	66.6	72.2	79.8	91.8	108.9	136.0	173.5	217.8
117.5°	66.9	68.0	69.7	72.8	78.1	85.9	97.1	113.4	137.7	171.3	210.5
120°	73.1	74.2	75.9	78.4	84.0	91.8	102.7	117.8	139.4	169.3	204.9
122.5°	78.9	79.8	81.5	84.2	89.8	98.0	108.0	121.8	141.3	168.2	200.1
125°	84.0	84.8	86.5	89.8	95.4	103.3	113.4	126.0	143.3	166.8	195.6
127.5°	88.2	89.3	91.5	95.2	100.5	108.6	118.4	129.9	145.3	166.0	191.5
130°	91.8	92.9	95.7	99.6	105.2	113.1	122.9	133.5	147.5	165.4	187.3
132.5°	95.2	96.6	99.6	103.8	109.7	117.6	126.8	137.2	149.7	165.1	183.9
135°	98.5	99.6	103.0	107.2	113.6	121.5	130.4	140.2	151.4	164.9	180.8
137.5°	101.6	103.0	106.4	110.8	117.3	124.6	133.5	142.7	153.1	164.9	178.6
140°	105.2	106.4	109.7	114.2	120.4	127.6	136.0	144.7	154.2	164.6	176.6
142.5°	108.9	109.7	112.8	117.3	123.2	129.9	138.0	146.4	155.1	164.6	174.7
145°	112.5	113.6	116.4	120.6	126.2	132.4	139.9	147.8	155.6	164.0	173.0
147.5°	116.4	117.3	120.1	124.0	128.8	134.4	141.6	148.6	155.9	163.2	171.3
150°	120.4	121.2	123.4	127.1	131.3	136.3	142.7	149.2	155.6	162.3	169.1
152.5°	124.3	124.6	126.8	129.9	133.8	138.3	143.9	149.5	155.1	160.9	167.1
155°	127.9	128.2	129.9	133.0	136.0	140.2	145.0	149.7	154.5	159.3	164.6
157.5°	131.0	131.3	132.7	135.5	138.0	141.6	145.8	149.7	153.4	157.6	162.3
160°	134.1	134.4	135.5	137.7	139.9	143.0	146.4	149.7	152.5	155.9	159.8
162.5°	137.2	136.9	138.0	139.7	141.6	143.9	146.7	149.5	151.7	154.5	157.6
165°	139.4	139.1	139.7	141.3	142.7	144.4	146.9	148.9	150.6	152.5	155.1
167.5°	141.3	141.1	141.6	142.7	143.9	145.0	146.9	148.6	149.5	150.9	152.5
170°	143.3	142.7	143.0	143.9	144.4	145.3	146.7	148.1	148.6	149.5	150.6
172.5°	144.4	144.1	143.9	144.7	145.0	145.5	146.4	147.2	147.5	147.8	148.6
175°	145.3	145.0	144.7	145.3	145.3	145.5	146.1	146.7	146.4	146.7	146.9
177.5°	145.8	145.3	145.0	145.5	145.5	145.5	145.8	146.4	145.8	145.5	145.8
180°	145.5	145.5	145.5	145.5	145.5	145.5	145.5	145.5	145.5	145.5	145.5



TEST NUMBER: P334455

CATALOG NUMBER: S122IP-S330U927-4F0-1E-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°	9.0	8.4	9.0	9.2	9.2	9.2	9.2	9.2
92.5°	28.3	24.1	21.0	18.8	18.5	17.4	17.6	17.1
95°	73.3	56.3	44.5	38.3	34.7	32.5	31.6	31.9
97.5°	150.0	119.8	91.5	74.7	63.8	58.2	55.1	53.5
100°	255.5	220.8	182.5	148.6	125.4	113.4	105.2	100.2
102.5°	324.7	323.6	298.1	261.7	236.0	213.3	202.6	195.4
105°	340.1	371.7	375.3	366.1	348.8	331.4	319.4	315.4
107.5°	323.6	370.6	398.0	409.2	408.9	406.4	402.8	396.3
110°	300.9	351.0	386.8	409.8	421.8	427.1	429.6	429.4



TEST NUMBER: P334455

CATALOG NUMBER: S122IP-S330U927-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	280.2	327.8	366.7	393.8	411.7	421.5	426.8	428.8
115°	263.9	307.0	343.7	372.5	392.4	405.3	412.6	415.1
117.5°	250.5	289.1	323.3	350.7	371.1	384.9	392.4	394.4
120°	241.0	275.7	305.4	330.8	350.4	363.6	371.7	374.5
122.5°	233.4	264.5	292.2	314.6	331.7	344.6	351.6	353.8
125°	226.2	255.0	279.6	300.6	316.8	327.5	334.5	336.7
127.5°	218.9	245.5	269.0	288.6	302.9	312.9	319.1	320.8
130°	211.9	236.0	258.1	276.5	290.3	299.8	305.4	307.6
132.5°	205.2	227.0	246.9	263.9	277.4	286.9	291.9	293.9
135°	199.0	217.5	236.0	251.6	263.7	272.9	277.9	279.1
137.5°	194.0	209.9	225.0	239.0	250.5	258.6	263.1	264.8
140°	189.2	202.6	215.5	227.8	236.8	244.1	248.3	250.0
142.5°	185.3	196.2	206.8	216.6	225.0	231.5	235.1	235.1
145°	181.7	190.9	199.6	207.7	214.4	219.2	222.0	222.8
147.5°	178.9	186.4	193.4	199.6	205.4	209.4	211.3	211.9
150°	175.8	181.9	187.8	192.9	197.0	200.4	202.1	202.4
152.5°	172.7	178.3	183.1	187.3	190.3	193.1	194.3	194.3
155°	169.9	174.4	178.6	181.7	184.7	186.7	187.8	187.3
157.5°	166.5	170.5	174.1	176.6	178.9	180.5	181.1	181.1
160°	163.5	166.5	169.6	171.6	173.5	174.9	175.2	175.2
162.5°	160.4	162.9	165.4	166.8	168.8	169.6	169.9	169.6
165°	157.3	159.3	161.2	162.3	163.5	164.6	164.6	164.3
167.5°	154.2	155.9	157.3	158.4	159.0	159.5	159.5	159.3
170°	152.0	152.8	153.9	154.5	154.8	155.6	155.3	154.8
172.5°	149.5	150.0	150.9	151.1	151.4	151.7	151.4	151.1
175°	147.8	148.1	148.3	148.6	148.6	148.9	148.6	148.1
177.5°	146.4	146.4	146.7	146.7	146.7	146.7	146.4	145.8
180°	145.5	145.5	145.5	145.5	145.5	145.5	145.5	145.5

(END OF REPORT)