

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: P334440

Luminaire Tested: **S122IP-S330U830-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334440  
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-S330U830-4F0-1E-UDD-4  
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 330 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

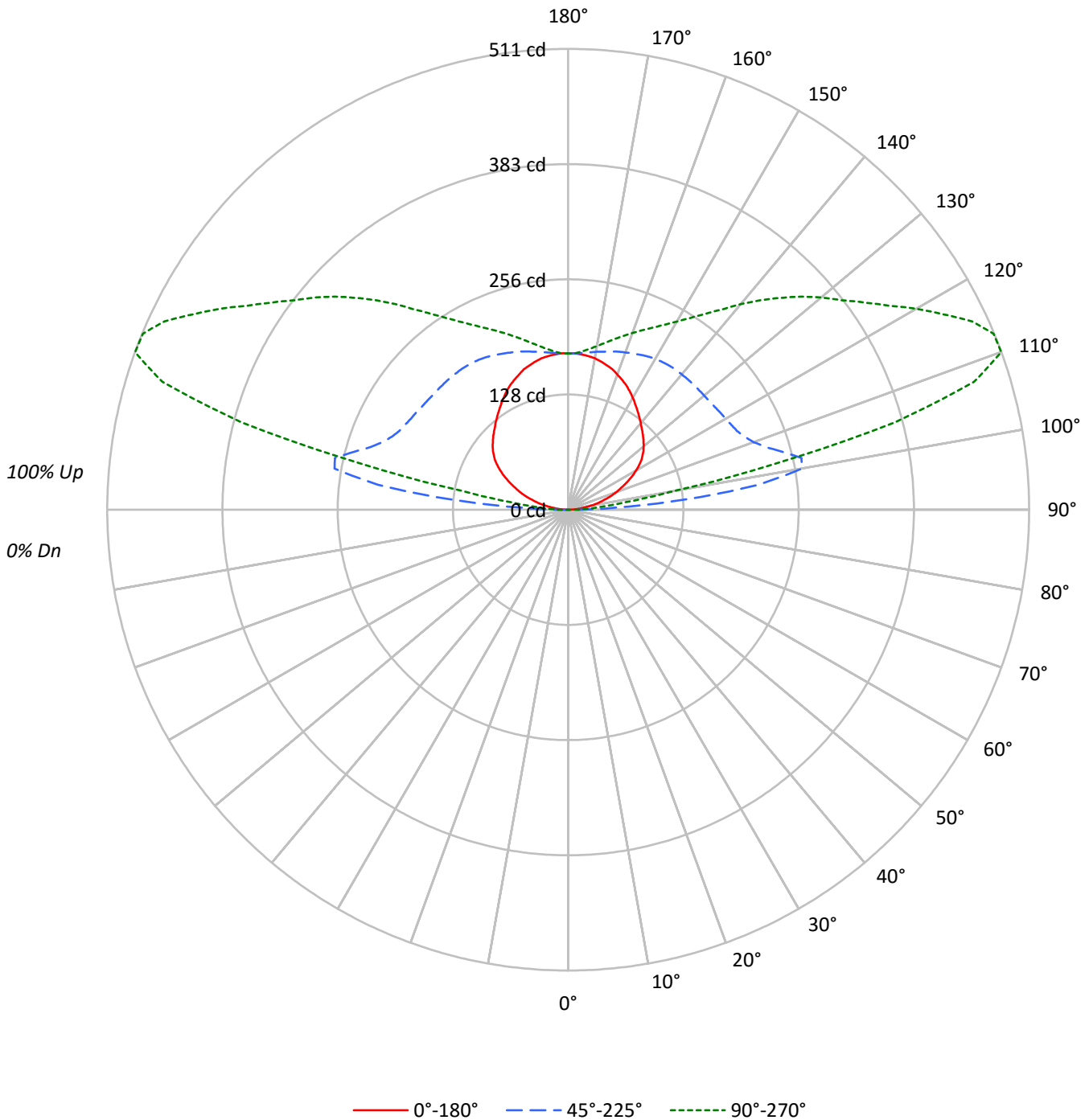
Lumens per Lamp: N/A  
Luminaire Lumens: 1207.1 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 11.4  
Input Voltage (V): 120  
Input Current (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°	1.1	0.1
90°-100°	67.5	5.6
100°-110°	237.7	19.7
110°-120°	249.7	20.7
120°-130°	205.4	17.0
130°-140°	165.0	13.7
140°-150°	124.6	10.3
150°-160°	87.6	7.3
160°-170°	51.6	4.3
170°-180°	16.8	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.1	0.1
90°-120°	554.9	46.0
90°-150°	1050.0	87.0
90°-180°	1206.0	99.9
0°-180°	1207.1	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°	0	4	11	11	11	1
95°	12	29	130	49	38	12
105°	41	61	247	441	375	43
115°	72	90	206	426	494	71
125°	100	118	198	345	401	89
135°	117	140	196	290	332	91
145°	134	154	195	242	265	84
155°	152	164	190	214	223	70
165°	166	171	182	192	196	47
175°	173	173	174	177	176	16
180°	173	173	173	173	173	



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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°	0.3	1.3	2.7	3.3	4.0	5.0	6.7	9.0	11.0	11.3	11.0
92.5°	5.0	7.0	9.7	11.3	14.0	17.7	26.6	39.3	50.6	51.3	43.0
95°	11.7	13.0	16.3	19.3	24.6	32.6	48.0	76.9	115.6	130.5	114.2
97.5°	17.3	19.3	23.0	27.3	33.3	42.3	61.9	102.2	164.5	212.8	214.5
100°	25.6	26.6	29.6	35.0	41.6	51.0	68.6	109.2	181.2	263.1	311.0
102.5°	33.3	34.0	37.0	42.3	49.3	58.6	74.6	109.6	174.8	264.8	347.0
105°	40.6	42.0	44.3	49.3	56.6	65.9	81.6	111.2	166.2	246.8	335.4
107.5°	48.6	49.6	52.0	56.6	63.9	73.3	88.6	114.9	161.5	230.1	310.7
110°	56.6	57.9	59.9	64.3	71.3	80.9	95.6	119.6	160.2	218.8	287.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	63.9	65.3	67.6	71.6	78.3	88.3	102.2	124.6	160.5	211.5	271.7
115°	71.6	73.3	75.3	79.3	85.9	94.9	109.2	129.5	161.9	206.5	259.1
117.5°	79.6	80.9	82.9	86.6	92.9	102.2	115.6	134.9	163.8	203.8	250.4
120°	86.9	88.3	90.3	93.2	99.9	109.2	122.2	140.2	165.8	201.5	243.8
122.5°	93.9	94.9	96.9	100.2	106.9	116.6	128.5	144.9	168.2	200.1	238.1
125°	99.9	100.9	102.9	106.9	113.6	122.9	134.9	149.9	170.5	198.5	232.8
127.5°	104.9	106.2	108.9	113.2	119.6	129.2	140.9	154.5	172.8	197.5	227.8
130°	109.2	110.6	113.9	118.6	125.2	134.5	146.2	158.9	175.5	196.8	222.8
132.5°	113.2	114.9	118.6	123.6	130.5	139.9	150.9	163.2	178.2	196.5	218.8
135°	117.2	118.6	122.6	127.5	135.2	144.5	155.2	166.8	180.2	196.2	215.1
137.5°	120.9	122.6	126.5	131.9	139.5	148.2	158.9	169.8	182.2	196.2	212.5
140°	125.2	126.5	130.5	135.9	143.2	151.9	161.9	172.2	183.5	195.8	210.1
142.5°	129.5	130.5	134.2	139.5	146.5	154.5	164.2	174.2	184.5	195.8	207.8
145°	133.9	135.2	138.5	143.5	150.2	157.5	166.5	175.8	185.2	195.2	205.8
147.5°	138.5	139.5	142.9	147.5	153.2	159.9	168.5	176.8	185.5	194.2	203.8
150°	143.2	144.2	146.9	151.2	156.2	162.2	169.8	177.5	185.2	193.2	201.1
152.5°	147.9	148.2	150.9	154.5	159.2	164.5	171.2	177.8	184.5	191.5	198.8
155°	152.2	152.5	154.5	158.2	161.9	166.8	172.5	178.2	183.8	189.5	195.8
157.5°	155.9	156.2	157.9	161.2	164.2	168.5	173.5	178.2	182.5	187.5	193.2
160°	159.5	159.9	161.2	163.8	166.5	170.2	174.2	178.2	181.5	185.5	190.2
162.5°	163.2	162.8	164.2	166.2	168.5	171.2	174.5	177.8	180.5	183.8	187.5
165°	165.8	165.5	166.2	168.2	169.8	171.8	174.8	177.2	179.2	181.5	184.5
167.5°	168.2	167.8	168.5	169.8	171.2	172.5	174.8	176.8	177.8	179.5	181.5
170°	170.5	169.8	170.2	171.2	171.8	172.8	174.5	176.2	176.8	177.8	179.2
172.5°	171.8	171.5	171.2	172.2	172.5	173.2	174.2	175.2	175.5	175.8	176.8
175°	172.8	172.5	172.2	172.8	172.8	173.2	173.8	174.5	174.2	174.5	174.8
177.5°	173.5	172.8	172.5	173.2	173.2	173.2	173.5	174.2	173.5	173.2	173.5
180°	173.2	173.2	173.2	173.2	173.2	173.2	173.2	173.2	173.2	173.2	173.2



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**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°	10.7	10.0	10.7	11.0	11.0	11.0	11.0	11.0
92.5°	33.6	28.6	25.0	22.3	22.0	20.6	21.0	20.3
95°	87.3	66.9	53.0	45.6	41.3	38.6	37.6	38.0
97.5°	178.5	142.5	108.9	88.9	75.9	69.3	65.6	63.6
100°	304.1	262.8	217.1	176.8	149.2	134.9	125.2	119.2
102.5°	386.3	385.0	354.7	311.4	280.7	253.8	241.1	232.5
105°	404.6	442.3	446.6	435.6	415.0	394.3	380.0	375.3
107.5°	385.0	440.9	473.6	486.9	486.6	483.6	479.2	471.6
110°	358.0	417.6	460.2	487.6	501.9	508.2	511.2	510.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	333.4	390.0	436.3	468.6	489.9	501.5	507.9	510.2
115°	314.0	365.3	409.0	443.3	466.9	482.2	490.9	493.9
117.5°	298.1	344.0	384.6	417.3	441.6	457.9	466.9	469.2
120°	286.7	328.0	363.3	393.6	416.9	432.6	442.3	445.6
122.5°	277.7	314.7	347.7	374.3	394.6	410.0	418.3	420.9
125°	269.1	303.4	332.7	357.7	377.0	389.6	398.0	400.6
127.5°	260.4	292.1	320.0	343.3	360.3	372.3	379.6	381.6
130°	252.1	280.7	307.1	329.0	345.3	356.7	363.3	366.0
132.5°	244.1	270.1	293.7	314.0	330.0	341.4	347.3	349.7
135°	236.8	258.8	280.7	299.4	313.7	324.7	330.7	332.0
137.5°	230.8	249.8	267.8	284.4	298.1	307.7	313.0	315.0
140°	225.1	241.1	256.4	271.1	281.7	290.4	295.4	297.4
142.5°	220.5	233.5	246.1	257.8	267.8	275.4	279.7	279.7
145°	216.1	227.1	237.4	247.1	255.1	260.8	264.1	265.1
147.5°	212.8	221.8	230.1	237.4	244.4	249.1	251.4	252.1
150°	209.1	216.5	223.5	229.5	234.5	238.4	240.4	240.8
152.5°	205.5	212.1	217.8	222.8	226.5	229.8	231.1	231.1
155°	202.1	207.5	212.5	216.1	219.8	222.1	223.5	222.8
157.5°	198.2	202.8	207.1	210.1	212.8	214.8	215.5	215.5
160°	194.5	198.2	201.8	204.1	206.5	208.1	208.5	208.5
162.5°	190.8	193.8	196.8	198.5	200.8	201.8	202.1	201.8
165°	187.2	189.5	191.8	193.2	194.5	195.8	195.8	195.5
167.5°	183.5	185.5	187.2	188.5	189.2	189.8	189.8	189.5
170°	180.8	181.8	183.2	183.8	184.2	185.2	184.8	184.2
172.5°	177.8	178.5	179.5	179.8	180.2	180.5	180.2	179.8
175°	175.8	176.2	176.5	176.8	176.8	177.2	176.8	176.2
177.5°	174.2	174.2	174.5	174.5	174.5	174.5	174.2	173.5
180°	173.2	173.2	173.2	173.2	173.2	173.2	173.2	173.2

(END OF REPORT)