

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: P334818

Luminaire Tested: **S124IP-S1035U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334818
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-S1035U935-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1035 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3188.2 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

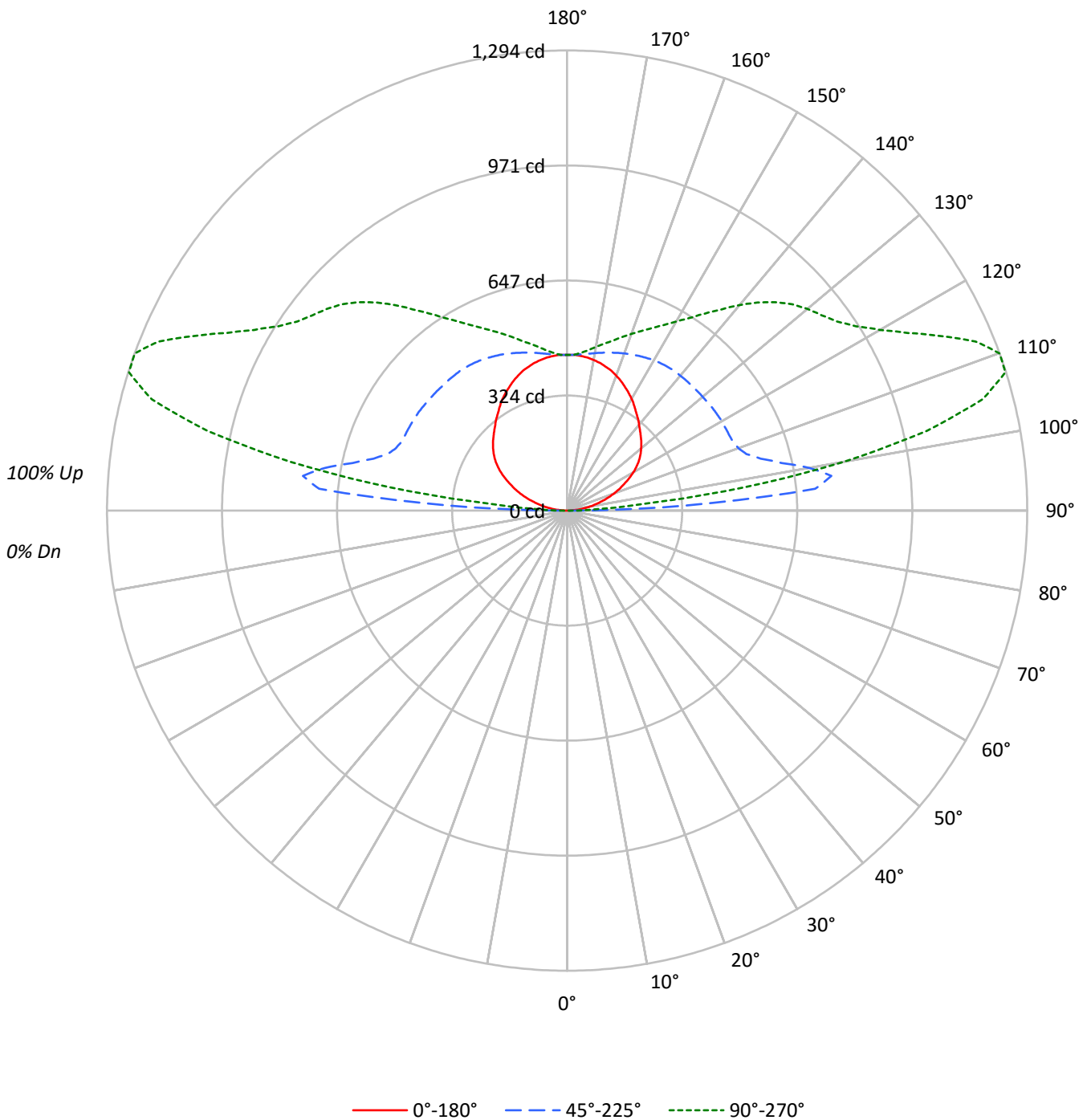
Input Watts (W): 35.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1.7	0.1
90°-100°	317.1	9.9
100°-110°	662.0	20.8
110°-120°	588.5	18.5
120°-130°	495.4	15.5
130°-140°	413.3	13.0
140°-150°	315.5	9.9
150°-160°	221.8	7.0
160°-170°	130.5	4.1
170°-180°	42.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.7	0.1
90°-120°	1567.6	49.2
90°-150°	2791.7	87.6
90°-180°	3186.0	99.9
0°-180°	3188.2	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°	1	7	16	17	18	2
95°	28	89	700	347	210	31
105°	101	146	564	1214	1209	107
115°	177	222	503	966	1161	176
125°	247	293	500	822	927	220
135°	293	349	496	730	829	227
145°	338	387	493	615	676	212
155°	384	415	480	543	566	177
165°	419	432	460	487	494	118
175°	437	438	441	447	445	41
180°	438	438	438	438	438	



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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°	0.9	2.6	5.2	6.0	6.9	6.9	12.0	12.0	13.8	15.5	14.6
92.5°	12.0	17.2	26.6	39.5	55.0	77.4	130.7	214.0	294.8	336.9	280.2
95°	28.4	30.9	39.5	50.7	71.3	107.4	182.2	323.2	528.6	700.5	720.3
97.5°	47.3	47.3	55.0	65.3	83.4	114.3	173.6	294.8	506.3	749.5	903.4
100°	65.3	65.3	71.3	81.7	98.0	125.5	176.2	273.3	448.7	691.1	911.1
102.5°	82.5	84.2	89.4	98.8	114.3	140.1	184.8	267.3	410.0	618.0	846.7
105°	100.6	103.1	107.4	117.8	133.2	158.2	199.4	270.8	391.1	563.9	765.9
107.5°	120.3	122.1	126.4	137.5	152.1	177.1	214.9	281.1	385.9	528.6	699.7
110°	140.1	141.8	146.1	156.4	171.9	195.1	232.9	293.1	387.7	512.3	652.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.0	160.7	165.9	175.3	190.8	214.0	250.1	306.0	392.8	504.6	625.7
115°	177.1	179.6	185.7	194.3	210.6	233.8	268.2	319.8	399.7	502.8	611.1
117.5°	196.0	198.6	203.7	213.2	228.6	252.7	285.4	333.5	406.6	502.0	603.4
120°	214.9	216.6	222.6	232.1	246.7	270.8	303.4	348.1	414.3	502.0	597.4
122.5°	232.1	233.8	239.8	248.4	264.7	287.9	320.6	361.9	422.0	501.1	590.5
125°	246.7	250.1	255.3	264.7	281.1	305.1	336.1	375.6	429.8	500.3	582.8
127.5°	260.4	263.0	269.0	279.4	296.5	320.6	350.7	387.7	435.8	498.5	572.5
130°	271.6	275.1	281.9	294.8	311.2	336.1	365.3	398.8	442.7	497.7	563.0
132.5°	282.8	285.4	294.8	306.9	324.9	348.1	377.3	410.0	448.7	496.8	554.4
135°	293.1	296.5	305.1	319.8	337.8	360.1	388.5	419.5	454.7	496.0	545.8
137.5°	303.4	306.9	316.3	330.1	349.0	370.5	397.1	426.3	458.1	496.0	538.1
140°	314.6	317.2	326.6	341.2	359.3	379.9	405.7	433.2	462.4	495.1	532.1
142.5°	326.6	329.2	337.8	351.6	368.7	388.5	413.4	438.4	465.9	495.1	526.9
145°	337.8	340.4	349.0	361.0	377.3	396.3	418.6	441.8	466.7	493.4	520.9
147.5°	350.7	351.6	359.3	372.2	385.9	403.1	424.6	445.2	467.6	490.8	515.7
150°	362.7	363.6	370.5	380.8	393.7	410.0	428.9	447.8	467.6	488.2	509.7
152.5°	373.9	373.9	380.8	390.2	401.4	416.0	432.4	449.5	465.9	483.9	502.8
155°	384.2	385.1	390.2	398.8	408.3	421.2	435.8	450.4	464.2	479.6	496.0
157.5°	394.5	394.5	399.7	406.6	415.2	425.5	438.4	450.4	462.4	475.3	489.1
160°	404.0	404.0	407.4	413.4	420.3	429.8	440.1	450.4	459.9	470.2	481.3
162.5°	412.6	411.7	414.3	419.5	425.5	432.4	441.8	450.4	457.3	465.0	474.5
165°	418.6	418.6	420.3	424.6	428.9	434.1	441.8	448.7	453.8	459.9	466.7
167.5°	425.5	424.6	425.5	428.9	431.5	435.8	441.8	447.0	450.4	454.7	459.9
170°	429.8	428.9	429.8	432.4	434.1	436.6	440.9	445.2	447.0	449.5	453.0
172.5°	434.1	433.2	433.2	434.9	435.8	437.5	440.1	443.5	443.5	444.4	447.0
175°	436.6	435.8	435.8	436.6	437.5	437.5	439.2	441.8	440.9	440.9	442.7
177.5°	438.4	437.5	436.6	437.5	437.5	437.5	438.4	440.1	438.4	438.4	439.2
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5



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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°	15.5	16.3	17.2	17.2	18.1	18.9	18.1	18.1
92.5°	207.2	154.7	122.1	100.6	87.7	81.7	78.2	78.2
95°	636.9	503.7	388.5	305.1	263.0	236.4	220.9	209.7
97.5°	917.1	850.9	756.4	660.1	601.7	550.1	524.3	503.7
100°	1036.6	1053.8	1011.7	948.1	873.3	820.9	795.1	788.2
102.5°	1030.6	1132.9	1158.7	1141.5	1102.8	1068.4	1040.9	1035.8
105°	962.7	1111.4	1196.5	1231.7	1233.4	1226.6	1214.5	1209.4
107.5°	879.3	1040.0	1158.7	1230.9	1268.7	1284.2	1291.0	1291.9
110°	805.4	954.1	1078.7	1173.3	1234.3	1270.4	1285.9	1293.6



TEST NUMBER: P334818

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	751.2	878.5	994.5	1089.0	1160.4	1205.9	1229.1	1242.9
115°	718.6	824.3	924.9	1007.4	1075.3	1126.9	1154.4	1161.2
117.5°	699.7	789.1	870.7	942.9	1003.1	1047.8	1077.0	1081.3
120°	687.6	767.6	836.3	897.4	946.4	984.2	1006.5	1016.0
122.5°	677.3	753.8	814.8	866.4	906.0	936.9	955.0	964.4
125°	665.3	739.2	798.5	845.8	880.2	905.1	921.4	926.6
127.5°	651.5	722.9	782.2	826.9	861.3	883.6	897.4	902.5
130°	634.3	702.2	760.7	806.3	841.5	863.0	876.7	881.9
132.5°	616.3	679.0	735.8	781.3	815.7	840.6	853.5	858.7
135°	600.0	655.8	708.3	751.2	785.6	809.7	823.4	828.6
137.5°	584.5	633.5	679.0	718.6	751.2	776.2	787.3	793.4
140°	571.6	612.0	650.7	686.8	716.9	735.8	747.8	754.7
142.5°	559.6	593.9	625.7	655.8	681.6	698.8	709.1	713.4
145°	548.4	577.6	603.4	627.5	649.0	663.6	672.2	676.5
147.5°	538.9	563.0	584.5	604.3	620.6	633.5	640.4	642.1
150°	530.3	550.1	567.3	582.8	596.5	607.7	612.9	613.7
152.5°	520.9	537.2	552.7	564.7	575.9	584.5	587.1	587.9
155°	511.4	525.2	538.1	548.4	557.0	563.9	566.4	566.4
157.5°	501.1	513.1	524.3	532.9	539.8	545.0	546.7	546.7
160°	491.7	501.1	510.6	517.4	522.6	527.8	528.6	528.6
162.5°	482.2	489.9	496.8	502.8	506.3	511.4	512.3	511.4
165°	473.6	478.8	484.8	489.1	492.5	496.0	495.1	494.2
167.5°	465.0	469.3	474.5	477.0	478.8	481.3	481.3	480.5
170°	457.3	459.9	463.3	465.9	467.6	468.5	467.6	467.6
172.5°	450.4	452.1	453.8	455.6	456.4	457.3	456.4	454.7
175°	444.4	445.2	447.0	447.0	447.0	448.7	447.0	445.2
177.5°	440.1	440.9	440.9	441.8	440.9	441.8	440.1	438.4
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5

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