

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: P334642

Luminaire Tested: **S123IP-S805U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334642  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123IP-S805U935-4F0-1E-UDD-4  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 805 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

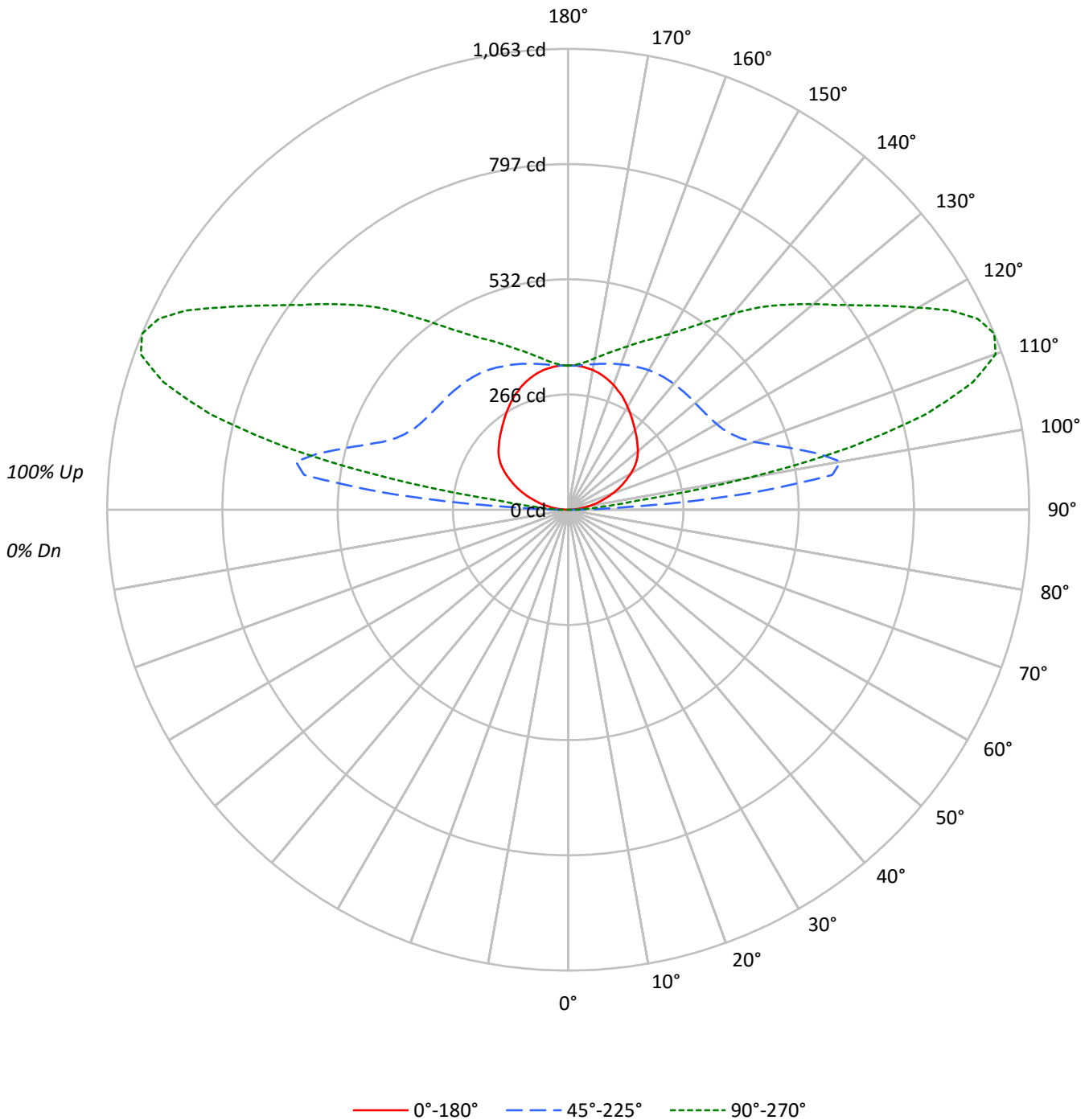
Lumens per Lamp: N/A  
Luminaire Lumens: 2503.2 lumens  
Efficiency: N/A  
Efficacy: 94.8 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 26.4  
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°	1.8	0.1
90°-100°	180.4	7.2
100°-110°	528.3	21.1
110°-120°	515.9	20.6
120°-130°	410.9	16.4
130°-140°	324.2	12.9
140°-150°	241.8	9.7
150°-160°	168.6	6.7
160°-170°	99.0	4.0
170°-180°	32.2	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.8	0.1
90°-120°	1224.6	48.9
90°-150°	2201.5	87.9
90°-180°	2501.0	99.9
0°-180°	2503.2	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	8	17	19	20	2
95°	23	74	399	116	78	24
105°	78	115	541	946	856	83
115°	138	172	414	908	1041	137
125°	192	226	386	700	821	170
135°	225	268	381	577	666	174
145°	256	294	376	473	520	161
155°	292	314	364	414	432	134
165°	318	327	349	370	376	90
175°	332	332	335	339	339	32
180°	332	332	332	332	332	



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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°	1.3	2.7	4.0	6.1	7.4	8.8	10.8	12.8	14.8	16.8	16.2
92.5°	10.1	14.8	21.5	27.6	34.3	46.4	68.0	103.7	138.7	125.2	93.6
95°	22.9	24.9	32.3	43.8	61.3	87.5	144.7	245.0	355.4	399.2	323.8
97.5°	36.3	37.0	43.1	53.2	70.7	99.6	156.2	272.6	458.4	613.9	634.8
100°	49.8	50.5	55.2	64.6	80.8	107.0	154.2	253.8	430.8	637.5	770.1
102.5°	63.9	65.3	69.3	78.1	92.2	115.8	156.8	237.6	390.4	593.7	776.8
105°	78.1	80.1	84.1	92.2	105.0	125.9	162.2	231.6	358.8	541.2	734.4
107.5°	92.9	94.9	99.0	107.0	119.1	138.7	171.0	230.2	335.9	494.8	673.8
110°	109.0	111.1	114.4	121.8	133.3	152.1	182.4	233.6	323.8	456.4	617.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	123.9	125.9	129.2	136.6	148.1	166.3	193.9	240.3	317.1	430.8	568.1
115°	138.0	140.7	144.7	151.5	162.9	181.1	206.7	247.7	316.4	414.0	530.4
117.5°	152.1	155.5	158.9	164.9	177.7	194.5	220.1	257.1	317.1	402.5	505.5
120°	166.9	169.0	172.3	179.1	191.8	208.7	232.9	267.9	319.7	395.1	486.7
122.5°	179.7	181.7	185.1	192.5	204.6	222.8	246.4	278.0	324.5	390.4	471.2
125°	191.8	193.2	197.2	204.6	217.4	235.6	259.2	288.8	329.2	386.4	458.4
127.5°	201.3	203.3	208.0	215.4	229.5	247.7	270.6	297.5	334.6	384.4	446.3
130°	210.0	212.0	218.1	226.2	240.3	258.5	280.7	306.3	339.9	382.3	436.9
132.5°	216.8	219.4	226.2	236.3	250.4	267.9	289.5	314.4	344.0	381.7	428.1
135°	224.8	227.5	234.9	245.0	259.2	277.3	298.2	321.1	348.0	381.0	420.7
137.5°	232.2	234.9	242.3	253.1	267.2	284.1	304.3	326.5	350.7	379.7	414.0
140°	239.6	243.0	249.7	260.5	274.0	290.8	310.3	330.5	353.4	379.0	407.9
142.5°	247.7	250.4	257.8	267.2	280.7	296.2	315.0	334.6	355.4	377.6	402.5
145°	256.5	258.5	264.5	274.6	286.1	301.6	319.1	337.2	356.1	376.3	397.8
147.5°	265.2	266.6	272.6	281.4	292.8	306.3	322.4	339.3	356.1	374.3	393.1
150°	274.0	274.6	280.0	288.8	298.2	310.3	325.8	339.9	356.1	371.6	388.4
152.5°	282.7	282.7	288.1	295.5	303.6	315.0	327.8	341.3	354.1	368.2	383.0
155°	291.5	291.5	295.5	302.2	309.6	319.1	330.5	341.3	352.7	364.2	377.6
157.5°	298.2	298.9	302.2	308.3	315.0	322.4	331.9	342.0	350.7	360.8	371.6
160°	306.3	306.3	309.0	314.4	319.1	325.8	333.9	342.0	349.4	356.8	365.5
162.5°	312.3	312.3	314.4	318.4	322.4	327.8	334.6	341.3	346.7	352.7	359.5
165°	318.4	317.7	319.1	322.4	325.1	329.8	335.2	339.9	344.0	348.7	354.1
167.5°	323.1	322.4	323.1	325.8	327.8	331.2	335.2	339.3	341.3	344.7	348.7
170°	327.1	325.8	326.5	328.5	329.8	331.2	334.6	337.2	338.6	340.6	344.0
172.5°	329.8	329.2	329.2	330.5	331.2	331.9	334.6	336.6	336.6	337.2	339.3
175°	331.9	331.2	330.5	331.9	331.9	332.5	333.9	335.2	334.6	334.6	335.9
177.5°	333.2	332.5	331.9	332.5	332.5	332.5	333.2	334.6	333.2	332.5	333.2
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5



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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°	16.8	17.5	18.2	19.5	18.8	19.5	20.2	19.5
92.5°	66.6	51.8	45.1	40.4	39.0	36.3	37.0	35.7
95°	242.3	164.2	128.6	104.3	91.5	85.5	80.8	78.1
97.5°	556.7	420.0	331.2	254.4	209.3	183.8	167.6	160.2
100°	793.6	739.1	660.4	564.8	496.8	447.6	421.4	422.1
102.5°	872.4	883.8	846.1	794.3	745.2	708.8	688.0	668.4
105°	875.1	942.4	955.2	937.7	906.7	881.1	859.6	856.2
107.5°	834.7	940.4	992.9	1011.1	1007.0	994.9	986.2	978.8
110°	771.4	895.3	980.1	1027.2	1046.1	1051.5	1050.1	1048.8





TEST NUMBER: P334642

CATALOG NUMBER: S123IP-S805U935-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	708.8	836.0	933.7	997.6	1036.0	1055.5	1062.2	1062.9
115°	655.0	772.1	871.1	944.4	994.9	1024.5	1038.0	1041.4
117.5°	613.2	716.9	807.8	883.8	936.3	969.3	989.5	994.2
120°	581.6	672.5	753.3	821.2	874.4	912.1	928.3	932.3
122.5°	556.7	636.8	710.2	772.1	817.9	850.9	869.0	874.4
125°	535.2	608.5	673.1	727.0	770.1	799.7	816.5	821.2
127.5°	515.6	582.3	641.5	691.3	730.4	755.9	771.4	775.5
130°	497.5	558.0	612.6	658.3	694.0	718.2	732.4	737.8
132.5°	480.6	535.2	585.0	628.0	661.0	685.3	697.4	700.7
135°	465.8	513.6	557.4	595.7	628.7	648.9	661.0	665.7
137.5°	451.7	492.1	531.1	565.4	593.7	614.6	624.7	628.7
140°	439.6	473.9	506.2	535.2	560.7	579.6	590.3	589.7
142.5°	428.1	456.4	483.3	507.6	528.4	544.6	554.0	553.3
145°	419.4	441.6	463.1	482.6	499.5	513.6	519.0	520.3
147.5°	412.0	430.1	448.3	462.5	475.9	486.0	491.4	492.1
150°	403.9	419.4	433.5	446.3	456.4	463.8	467.8	467.8
152.5°	396.5	409.3	421.4	431.5	438.9	445.6	447.6	447.6
155°	389.1	399.8	409.9	418.0	424.1	429.5	430.8	431.5
157.5°	381.0	390.4	398.5	405.2	410.6	414.7	416.0	416.0
160°	374.3	381.7	388.4	393.1	397.8	401.9	401.9	401.2
162.5°	366.2	372.3	378.3	382.3	385.0	388.4	388.4	387.7
165°	359.5	363.5	368.2	371.6	374.3	377.0	376.3	376.3
167.5°	353.4	356.8	359.5	362.2	363.5	365.5	364.8	364.8
170°	347.3	349.4	352.1	353.4	354.1	355.4	354.7	354.7
172.5°	342.0	343.3	345.3	346.0	346.0	347.3	346.0	345.3
175°	337.2	337.9	339.3	339.3	339.3	339.9	339.3	338.6
177.5°	333.9	334.6	335.2	335.2	334.6	335.2	333.9	333.9
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5

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