

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: P334647

Luminaire Tested: **S123IP-S805U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334647  
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-S805U940-4F0-1E-UDD-4  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 805 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

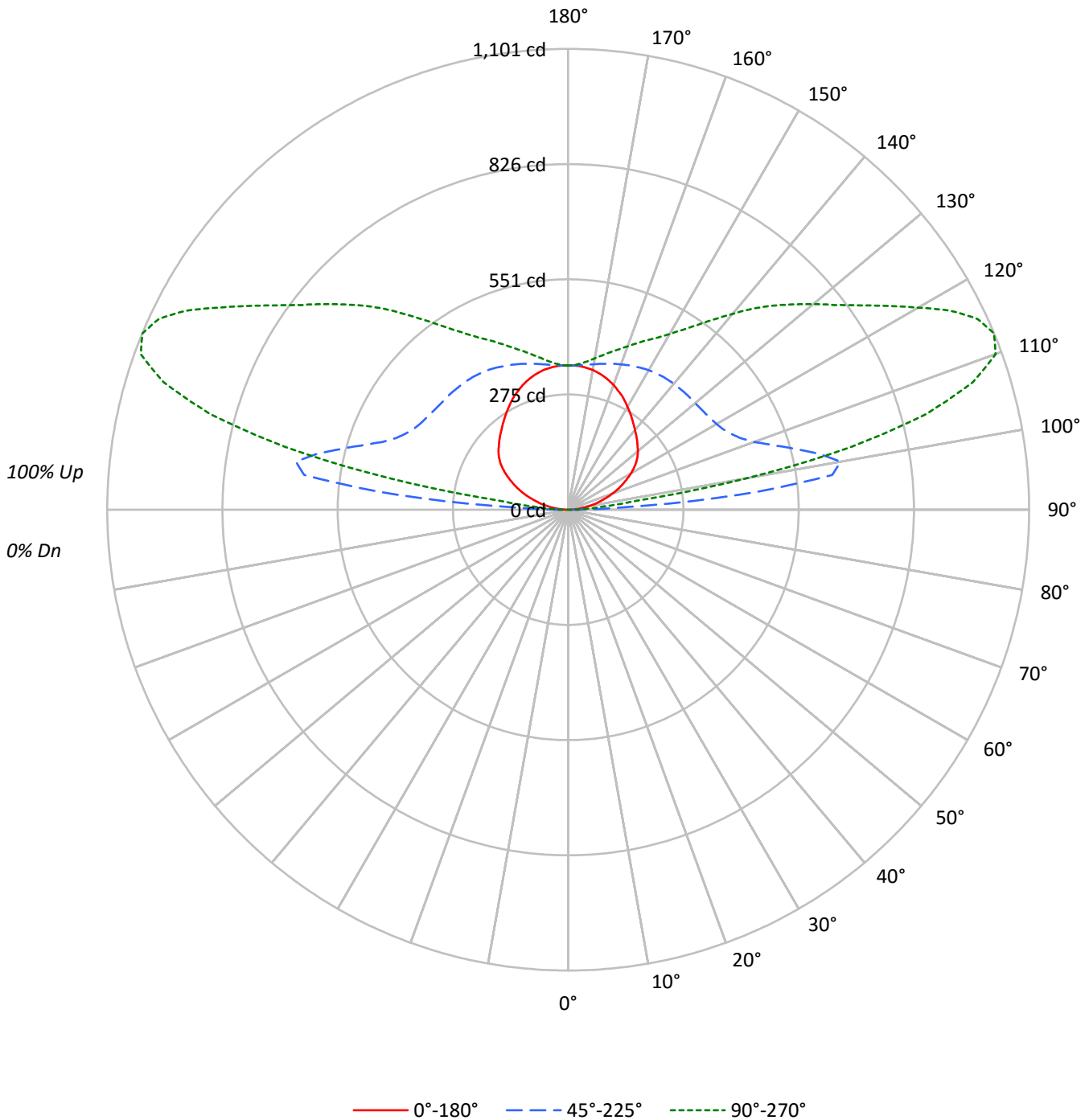
Lumens per Lamp: N/A  
Luminaire Lumens: 2592.5 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

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°	1.9	0.1
90°-100°	186.9	7.2
100°-110°	547.1	21.1
110°-120°	534.3	20.6
120°-130°	425.5	16.4
130°-140°	335.7	12.9
140°-150°	250.4	9.7
150°-160°	174.6	6.7
160°-170°	102.6	4.0
170°-180°	33.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.9	0.1
90°-120°	1268.3	48.9
90°-150°	2280.0	87.9
90°-180°	2591.0	99.9
0°-180°	2592.5	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°	1	8	17	20	20	2
95°	24	77	413	121	81	25
105°	81	120	560	980	887	86
115°	143	178	429	940	1078	141
125°	199	235	400	725	850	176
135°	233	278	395	597	690	180
145°	266	304	390	490	539	166
155°	302	326	377	429	447	139
165°	330	339	361	383	390	93
175°	344	344	346	351	351	33
180°	344	344	344	344	344	



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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°	1.4	2.8	4.2	6.3	7.7	9.1	11.2	13.2	15.3	17.4	16.7
92.5°	10.5	15.3	22.3	28.6	35.6	48.1	70.4	107.4	143.6	129.7	96.9
95°	23.7	25.8	33.5	45.3	63.4	90.6	149.9	253.8	368.1	413.4	335.3
97.5°	37.6	38.3	44.6	55.1	73.2	103.2	161.7	282.3	474.8	635.8	657.4
100°	51.6	52.3	57.2	66.9	83.7	110.8	159.6	262.8	446.2	660.2	797.5
102.5°	66.2	67.6	71.8	80.9	95.5	119.9	162.4	246.1	404.4	614.9	804.5
105°	80.9	83.0	87.1	95.5	108.8	130.4	168.0	239.8	371.6	560.5	760.6
107.5°	96.2	98.3	102.5	110.8	123.4	143.6	177.1	238.4	347.9	512.4	697.9
110°	112.9	115.0	118.5	126.2	138.0	157.6	188.9	241.9	335.3	472.7	639.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	128.3	130.4	133.9	141.5	153.4	172.2	200.8	248.9	328.4	446.2	588.4
115°	142.9	145.7	149.9	156.9	168.7	187.5	214.0	256.6	327.7	428.8	549.4
117.5°	157.6	161.0	164.5	170.8	184.0	201.5	228.0	266.3	328.4	416.9	523.6
120°	172.9	175.0	178.5	185.4	198.7	216.1	241.2	277.5	331.1	409.2	504.0
122.5°	186.1	188.2	191.7	199.4	211.9	230.8	255.2	287.9	336.0	404.4	488.0
125°	198.7	200.1	204.3	211.9	225.2	244.0	268.4	299.1	340.9	400.2	474.8
127.5°	208.5	210.5	215.4	223.1	237.7	256.6	280.3	308.1	346.5	398.1	462.2
130°	217.5	219.6	225.9	234.2	248.9	267.7	290.7	317.2	352.1	396.0	452.5
132.5°	224.5	227.3	234.2	244.7	259.3	277.5	299.8	325.6	356.2	395.3	443.4
135°	232.9	235.6	243.3	253.8	268.4	287.2	308.8	332.5	360.4	394.6	435.7
137.5°	240.5	243.3	251.0	262.1	276.8	294.2	315.1	338.1	363.2	393.2	428.8
140°	248.2	251.7	258.6	269.8	283.7	301.2	321.4	342.3	366.0	392.5	422.5
142.5°	256.6	259.3	267.0	276.8	290.7	306.7	326.3	346.5	368.1	391.1	416.9
145°	265.6	267.7	274.0	284.4	296.3	312.3	330.5	349.3	368.8	389.7	412.0
147.5°	274.7	276.1	282.3	291.4	303.3	317.2	333.9	351.4	368.8	387.6	407.1
150°	283.7	284.4	290.0	299.1	308.8	321.4	337.4	352.1	368.8	384.8	402.3
152.5°	292.8	292.8	298.4	306.1	314.4	326.3	339.5	353.5	366.7	381.3	396.7
155°	301.9	301.9	306.1	313.0	320.7	330.5	342.3	353.5	365.3	377.2	391.1
157.5°	308.8	309.5	313.0	319.3	326.3	333.9	343.7	354.2	363.2	373.7	384.8
160°	317.2	317.2	320.0	325.6	330.5	337.4	345.8	354.2	361.8	369.5	378.6
162.5°	323.5	323.5	325.6	329.8	333.9	339.5	346.5	353.5	359.0	365.3	372.3
165°	329.8	329.1	330.5	333.9	336.7	341.6	347.2	352.1	356.2	361.1	366.7
167.5°	334.6	333.9	334.6	337.4	339.5	343.0	347.2	351.4	353.5	356.9	361.1
170°	338.8	337.4	338.1	340.2	341.6	343.0	346.5	349.3	350.7	352.8	356.2
172.5°	341.6	340.9	340.9	342.3	343.0	343.7	346.5	348.6	348.6	349.3	351.4
175°	343.7	343.0	342.3	343.7	343.7	344.4	345.8	347.2	346.5	346.5	347.9
177.5°	345.1	344.4	343.7	344.4	344.4	344.4	345.1	346.5	345.1	344.4	345.1
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



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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°	17.4	18.1	18.8	20.2	19.5	20.2	20.9	20.2
92.5°	69.0	53.7	46.7	41.8	40.4	37.6	38.3	36.9
95°	251.0	170.1	133.2	108.1	94.8	88.5	83.7	80.9
97.5°	576.5	435.0	343.0	263.5	216.8	190.3	173.6	165.9
100°	821.9	765.5	683.9	584.9	514.5	463.6	436.4	437.1
102.5°	903.5	915.4	876.3	822.6	771.8	734.1	712.5	692.3
105°	906.3	976.0	989.3	971.1	939.1	912.6	890.3	886.8
107.5°	864.5	973.9	1028.3	1047.1	1042.9	1030.4	1021.3	1013.7
110°	798.9	927.2	1015.1	1063.9	1083.4	1089.0	1087.6	1086.2





TEST NUMBER: P334647

CATALOG NUMBER: S123IP-S805U940-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	734.1	865.9	967.0	1033.2	1072.9	1093.1	1100.1	1100.8
115°	678.3	799.6	902.1	978.1	1030.4	1061.1	1075.0	1078.5
117.5°	635.1	742.5	836.6	915.4	969.7	1003.9	1024.8	1029.7
120°	602.3	696.5	780.1	850.5	905.6	944.6	961.4	965.6
122.5°	576.5	659.5	735.5	799.6	847.0	881.2	900.0	905.6
125°	554.2	630.2	697.2	752.9	797.5	828.2	845.7	850.5
127.5°	534.0	603.0	664.4	716.0	756.4	782.9	798.9	803.1
130°	515.2	577.9	634.4	681.8	718.8	743.9	758.5	764.1
132.5°	497.8	554.2	605.8	650.4	684.6	709.7	722.3	725.7
135°	482.4	531.9	577.2	617.0	651.1	672.1	684.6	689.5
137.5°	467.8	509.6	550.1	585.6	614.9	636.5	647.0	651.1
140°	455.2	490.8	524.3	554.2	580.7	600.3	611.4	610.7
142.5°	443.4	472.7	500.6	525.7	547.3	564.0	573.8	573.1
145°	434.3	457.3	479.6	499.9	517.3	531.9	537.5	538.9
147.5°	426.7	445.5	464.3	478.9	492.9	503.3	508.9	509.6
150°	418.3	434.3	449.0	462.2	472.7	480.3	484.5	484.5
152.5°	410.6	423.9	436.4	446.9	454.5	461.5	463.6	463.6
155°	403.0	414.1	424.6	432.9	439.2	444.8	446.2	446.9
157.5°	394.6	404.4	412.7	419.7	425.3	429.4	430.8	430.8
160°	387.6	395.3	402.3	407.1	412.0	416.2	416.2	415.5
162.5°	379.3	385.5	391.8	396.0	398.8	402.3	402.3	401.6
165°	372.3	376.5	381.3	384.8	387.6	390.4	389.7	389.7
167.5°	366.0	369.5	372.3	375.1	376.5	378.6	377.9	377.9
170°	359.7	361.8	364.6	366.0	366.7	368.1	367.4	367.4
172.5°	354.2	355.6	357.6	358.3	358.3	359.7	358.3	357.6
175°	349.3	350.0	351.4	351.4	351.4	352.1	351.4	350.7
177.5°	345.8	346.5	347.2	347.2	346.5	347.2	345.8	345.8
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4

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