

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: P334622

Luminaire Tested: **S123IP-S805U835-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334622  
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-S805U835-4F0-1E-UDD-4  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 805 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

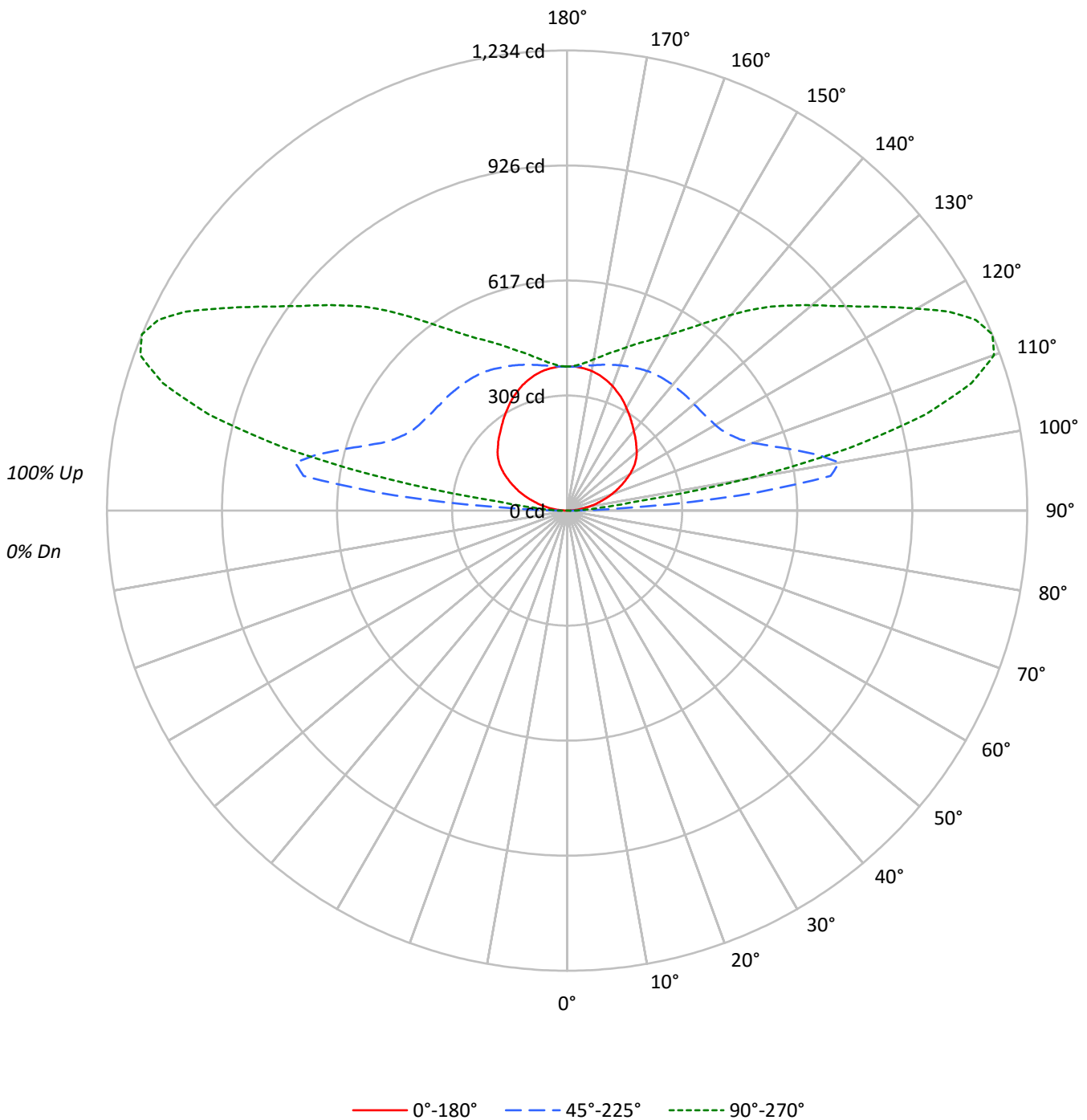
Lumens per Lamp: N/A  
Luminaire Lumens: 2907.3 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

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°	2.1	0.1
90°-100°	209.6	7.2
100°-110°	613.6	21.1
110°-120°	599.2	20.6
120°-130°	477.2	16.4
130°-140°	376.5	12.9
140°-150°	280.9	9.7
150°-160°	195.8	6.7
160°-170°	115.0	4.0
170°-180°	37.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.1	0.1
90°-120°	1422.4	48.9
90°-150°	2556.9	87.9
90°-180°	2905.0	99.9
0°-180°	2907.3	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°	2	9	20	22	23	2
95°	27	86	464	135	91	28
105°	91	134	629	1099	994	96
115°	160	200	481	1054	1210	159
125°	223	263	449	813	954	198
135°	261	312	442	670	773	202
145°	298	341	437	549	604	187
155°	338	365	423	481	501	156
165°	370	380	405	430	437	104
175°	385	386	389	394	393	37
180°	386	386	386	386	386	



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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°	1.6	3.1	4.7	7.0	8.6	10.2	12.5	14.9	17.2	19.5	18.8
92.5°	11.7	17.2	25.0	32.1	39.9	53.9	79.0	120.4	161.1	145.4	108.7
95°	26.6	28.9	37.5	50.8	71.1	101.6	168.1	284.6	412.8	463.6	376.1
97.5°	42.2	43.0	50.0	61.8	82.1	115.7	181.4	316.6	532.4	713.0	737.3
100°	57.9	58.6	64.1	75.1	93.8	124.3	179.0	294.7	500.4	740.4	894.4
102.5°	74.3	75.8	80.5	90.7	107.1	134.5	182.2	276.0	453.5	689.6	902.2
105°	90.7	93.0	97.7	107.1	122.0	146.2	188.4	268.9	416.7	628.6	853.0
107.5°	107.9	110.2	114.9	124.3	138.4	161.1	198.6	267.4	390.1	574.6	782.6
110°	126.7	129.0	132.9	141.5	154.8	176.7	211.9	271.3	376.1	530.1	716.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	143.9	146.2	150.1	158.7	172.0	193.1	225.2	279.1	368.2	500.4	659.9
115°	160.3	163.4	168.1	175.9	189.2	210.3	240.0	287.7	367.5	480.8	616.1
117.5°	176.7	180.6	184.5	191.5	206.4	225.9	255.7	298.7	368.2	467.5	587.1
120°	193.9	196.2	200.1	208.0	222.8	242.4	270.5	311.2	371.4	458.9	565.3
122.5°	208.7	211.1	215.0	223.6	237.7	258.8	286.1	322.9	376.8	453.5	547.3
125°	222.8	224.4	229.1	237.7	252.5	273.6	301.0	335.4	382.3	448.8	532.4
127.5°	233.8	236.1	241.6	250.2	266.6	287.7	314.3	345.6	388.6	446.4	518.3
130°	243.9	246.3	253.3	262.7	279.1	300.2	326.0	355.7	394.8	444.1	507.4
132.5°	251.7	254.9	262.7	274.4	290.8	311.2	336.2	365.1	399.5	443.3	497.2
135°	261.1	264.3	272.9	284.6	301.0	322.1	346.3	372.9	404.2	442.5	488.6
137.5°	269.7	272.9	281.5	294.0	310.4	329.9	353.4	379.2	407.3	440.9	480.8
140°	278.3	282.2	290.1	302.6	318.2	337.7	360.4	383.9	410.5	440.2	473.8
142.5°	287.7	290.8	299.4	310.4	326.0	344.0	365.9	388.6	412.8	438.6	467.5
145°	297.9	300.2	307.3	319.0	332.3	350.3	370.6	391.7	413.6	437.0	462.1
147.5°	308.0	309.6	316.6	326.8	340.1	355.7	374.5	394.0	413.6	434.7	456.6
150°	318.2	319.0	325.2	335.4	346.3	360.4	378.4	394.8	413.6	431.6	451.1
152.5°	328.4	328.4	334.6	343.2	352.6	365.9	380.7	396.4	411.2	427.7	444.9
155°	338.5	338.5	343.2	351.0	359.6	370.6	383.9	396.4	409.7	423.0	438.6
157.5°	346.3	347.1	351.0	358.1	365.9	374.5	385.4	397.2	407.3	419.1	431.6
160°	355.7	355.7	358.9	365.1	370.6	378.4	387.8	397.2	405.8	414.4	424.5
162.5°	362.8	362.8	365.1	369.8	374.5	380.7	388.6	396.4	402.6	409.7	417.5
165°	369.8	369.0	370.6	374.5	377.6	383.1	389.3	394.8	399.5	405.0	411.2
167.5°	375.3	374.5	375.3	378.4	380.7	384.7	389.3	394.0	396.4	400.3	405.0
170°	380.0	378.4	379.2	381.5	383.1	384.7	388.6	391.7	393.3	395.6	399.5
172.5°	383.1	382.3	382.3	383.9	384.7	385.4	388.6	390.9	390.9	391.7	394.0
175°	385.4	384.7	383.9	385.4	385.4	386.2	387.8	389.3	388.6	388.6	390.1
177.5°	387.0	386.2	385.4	386.2	386.2	386.2	387.0	388.6	387.0	386.2	387.0
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2



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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°	19.5	20.3	21.1	22.7	21.9	22.7	23.5	22.7
92.5°	77.4	60.2	52.4	46.9	45.3	42.2	43.0	41.4
95°	281.5	190.8	149.3	121.2	106.3	99.3	93.8	90.7
97.5°	646.6	487.9	384.7	295.5	243.1	213.4	194.7	186.1
100°	921.8	858.4	767.0	655.9	577.0	519.9	489.4	490.2
102.5°	1013.2	1026.5	982.7	922.5	865.5	823.3	799.0	776.3
105°	1016.4	1094.5	1109.4	1089.1	1053.1	1023.4	998.4	994.5
107.5°	969.5	1092.2	1153.2	1174.3	1169.6	1155.5	1145.4	1136.8
110°	896.0	1039.8	1138.3	1193.1	1214.9	1221.2	1219.6	1218.1





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	823.3	971.0	1084.4	1158.7	1203.2	1225.9	1233.7	1234.5
115°	760.7	896.7	1011.7	1096.9	1155.5	1189.9	1205.6	1209.5
117.5°	712.2	832.6	938.2	1026.5	1087.5	1125.8	1149.3	1154.7
120°	675.5	781.0	874.9	953.8	1015.6	1059.4	1078.1	1082.8
122.5°	646.6	739.6	824.8	896.7	949.9	988.2	1009.3	1015.6
125°	621.5	706.8	781.8	844.4	894.4	928.8	948.3	953.8
127.5°	598.9	676.3	745.1	802.9	848.3	878.0	896.0	900.7
130°	577.8	648.1	711.5	764.6	806.1	834.2	850.6	856.9
132.5°	558.2	621.5	679.4	729.4	767.7	795.9	810.0	813.9
135°	541.0	596.5	647.3	691.9	730.2	753.7	767.7	773.2
137.5°	524.6	571.5	616.9	656.7	689.6	713.8	725.5	730.2
140°	510.5	550.4	587.9	621.5	651.3	673.1	685.7	684.9
142.5°	497.2	530.1	561.3	589.5	613.7	632.5	643.4	642.7
145°	487.1	512.9	537.9	560.6	580.1	596.5	602.8	604.3
147.5°	478.5	499.6	520.7	537.1	552.7	564.5	570.7	571.5
150°	469.1	487.1	503.5	518.3	530.1	538.7	543.4	543.4
152.5°	460.5	475.3	489.4	501.1	509.7	517.6	519.9	519.9
155°	451.9	464.4	476.1	485.5	492.5	498.8	500.4	501.1
157.5°	442.5	453.5	462.8	470.7	476.9	481.6	483.2	483.2
160°	434.7	443.3	451.1	456.6	462.1	466.7	466.7	466.0
162.5°	425.3	432.3	439.4	444.1	447.2	451.1	451.1	450.3
165°	417.5	422.2	427.7	431.6	434.7	437.8	437.0	437.0
167.5°	410.5	414.4	417.5	420.6	422.2	424.5	423.7	423.7
170°	403.4	405.8	408.9	410.5	411.2	412.8	412.0	412.0
172.5°	397.2	398.7	401.1	401.9	401.9	403.4	401.9	401.1
175°	391.7	392.5	394.0	394.0	394.0	394.8	394.0	393.3
177.5°	387.8	388.6	389.3	389.3	388.6	389.3	387.8	387.8
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2

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