

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: P334623

Luminaire Tested: **S123IP-S1025U835-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334623  
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-S1025U835-4F0-1E-UDD-4  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 1025 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3711.9 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

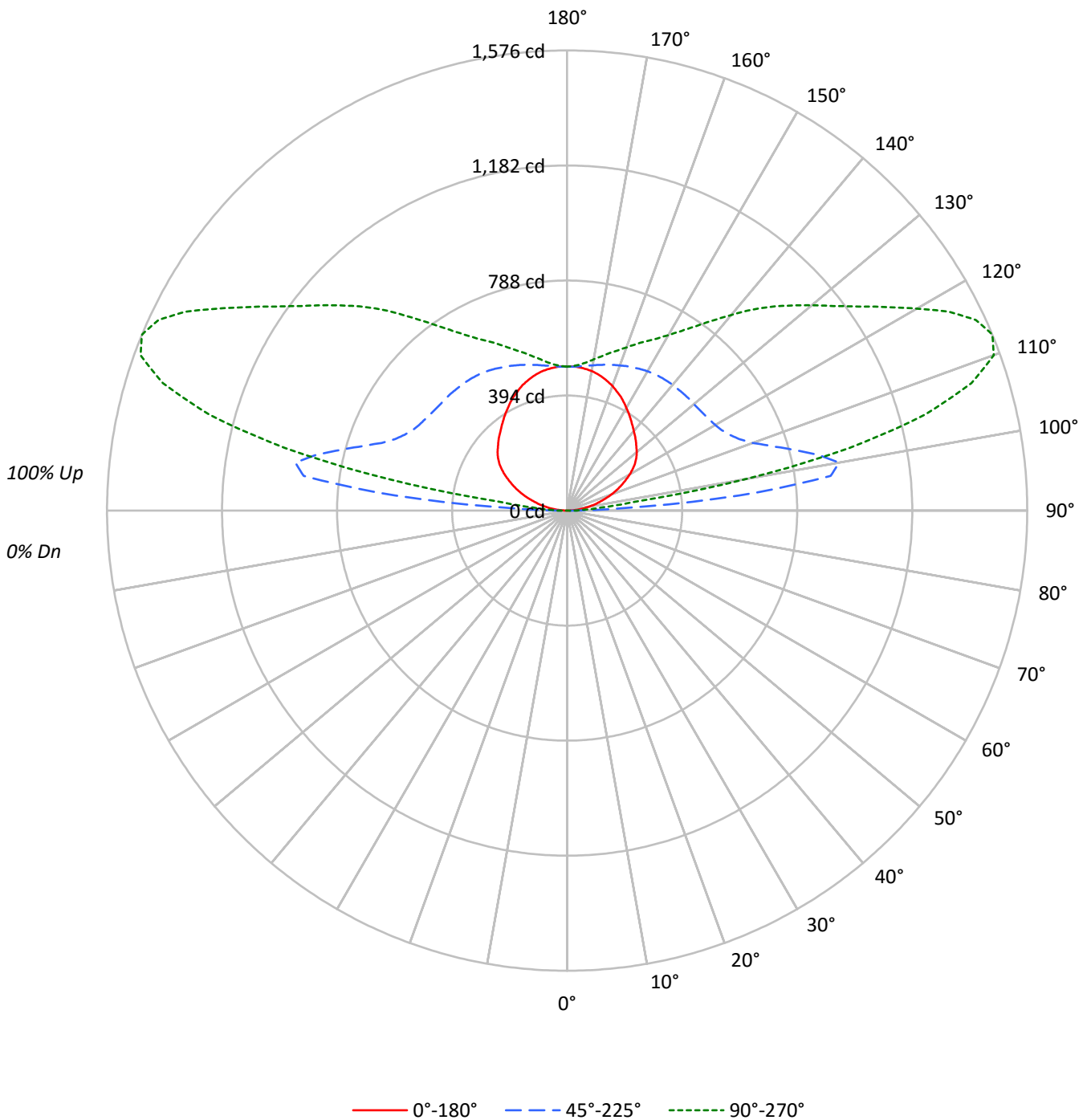
Input Watts (W): 35.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2.7	0.1
90°-100°	267.6	7.2
100°-110°	783.4	21.1
110°-120°	765.0	20.6
120°-130°	609.2	16.4
130°-140°	480.7	12.9
140°-150°	358.6	9.7
150°-160°	250.0	6.7
160°-170°	146.9	4.0
170°-180°	47.8	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.7	0.1
90°-120°	1816.0	48.9
90°-150°	3264.5	87.9
90°-180°	3709.0	99.9
0°-180°	3711.9	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	12	25	28	29	3
95°	34	110	592	173	116	36
105°	116	171	802	1403	1270	123
115°	205	255	614	1346	1544	203
125°	284	336	573	1038	1218	253
135°	333	398	565	855	987	258
145°	380	436	558	701	772	238
155°	432	466	540	614	640	199
165°	472	486	517	548	558	133
175°	492	493	496	503	502	47
180°	493	493	493	493	493	



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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°	2.0	4.0	6.0	9.0	11.0	13.0	16.0	19.0	22.0	25.0	24.0
92.5°	15.0	22.0	31.9	40.9	50.9	68.9	100.8	153.7	205.6	185.7	138.7
95°	33.9	36.9	47.9	64.9	90.8	129.8	214.6	363.3	527.0	591.9	480.1
97.5°	53.9	54.9	63.9	78.9	104.8	147.7	231.6	404.3	679.8	910.3	941.3
100°	73.9	74.9	81.9	95.8	119.8	158.7	228.6	376.3	638.8	945.3	1141.9
102.5°	94.8	96.8	102.8	115.8	136.8	171.7	232.6	352.4	578.9	880.4	1151.9
105°	115.8	118.8	124.8	136.8	155.7	186.7	240.6	343.4	532.0	802.5	1089.0
107.5°	137.7	140.7	146.7	158.7	176.7	205.6	253.5	341.4	498.1	733.7	999.2
110°	161.7	164.7	169.7	180.7	197.6	225.6	270.5	346.4	480.1	676.8	915.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	183.7	186.7	191.7	202.6	219.6	246.6	287.5	356.3	470.1	638.8	842.5
115°	204.6	208.6	214.6	224.6	241.6	268.5	306.4	367.3	469.1	613.9	786.6
117.5°	225.6	230.6	235.6	244.6	263.5	288.5	326.4	381.3	470.1	596.9	749.6
120°	247.5	250.5	255.5	265.5	284.5	309.4	345.4	397.3	474.1	585.9	721.7
122.5°	266.5	269.5	274.5	285.5	303.4	330.4	365.3	412.2	481.1	578.9	698.7
125°	284.5	286.5	292.5	303.4	322.4	349.4	384.3	428.2	488.1	573.0	679.8
127.5°	298.5	301.5	308.4	319.4	340.4	367.3	401.3	441.2	496.1	570.0	661.8
130°	311.4	314.4	323.4	335.4	356.3	383.3	416.2	454.2	504.1	567.0	647.8
132.5°	321.4	325.4	335.4	350.4	371.3	397.3	429.2	466.1	510.1	566.0	634.8
135°	333.4	337.4	348.4	363.3	384.3	411.2	442.2	476.1	516.1	565.0	623.9
137.5°	344.4	348.4	359.3	375.3	396.3	421.2	451.2	484.1	520.1	563.0	613.9
140°	355.4	360.3	370.3	386.3	406.3	431.2	460.2	490.1	524.0	562.0	604.9
142.5°	367.3	371.3	382.3	396.3	416.2	439.2	467.1	496.1	527.0	560.0	596.9
145°	380.3	383.3	392.3	407.3	424.2	447.2	473.1	500.1	528.0	558.0	589.9
147.5°	393.3	395.3	404.3	417.2	434.2	454.2	478.1	503.1	528.0	555.0	582.9
150°	406.3	407.3	415.2	428.2	442.2	460.2	483.1	504.1	528.0	551.0	575.9
152.5°	419.2	419.2	427.2	438.2	450.2	467.1	486.1	506.1	525.0	546.0	568.0
155°	432.2	432.2	438.2	448.2	459.2	473.1	490.1	506.1	523.0	540.0	560.0
157.5°	442.2	443.2	448.2	457.2	467.1	478.1	492.1	507.1	520.1	535.0	551.0
160°	454.2	454.2	458.2	466.1	473.1	483.1	495.1	507.1	518.1	529.0	542.0
162.5°	463.2	463.2	466.1	472.1	478.1	486.1	496.1	506.1	514.1	523.0	533.0
165°	472.1	471.1	473.1	478.1	482.1	489.1	497.1	504.1	510.1	517.1	525.0
167.5°	479.1	478.1	479.1	483.1	486.1	491.1	497.1	503.1	506.1	511.1	517.1
170°	485.1	483.1	484.1	487.1	489.1	491.1	496.1	500.1	502.1	505.1	510.1
172.5°	489.1	488.1	488.1	490.1	491.1	492.1	496.1	499.1	499.1	500.1	503.1
175°	492.1	491.1	490.1	492.1	492.1	493.1	495.1	497.1	496.1	496.1	498.1
177.5°	494.1	493.1	492.1	493.1	493.1	493.1	494.1	496.1	494.1	493.1	494.1
180°	493.1	493.1	493.1	493.1	493.1	493.1	493.1	493.1	493.1	493.1	493.1



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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°	25.0	26.0	27.0	28.9	27.9	28.9	29.9	28.9
92.5°	98.8	76.9	66.9	59.9	57.9	53.9	54.9	52.9
95°	359.3	243.6	190.7	154.7	135.8	126.8	119.8	115.8
97.5°	825.5	622.9	491.1	377.3	310.4	272.5	248.5	237.6
100°	1176.9	1096.0	979.2	837.5	736.7	663.8	624.9	625.9
102.5°	1293.6	1310.6	1254.7	1177.9	1105.0	1051.1	1020.1	991.2
105°	1297.6	1397.5	1416.4	1390.5	1344.5	1306.6	1274.7	1269.7
107.5°	1237.7	1394.5	1472.3	1499.3	1493.3	1475.3	1462.3	1451.4
110°	1143.9	1327.6	1453.3	1523.2	1551.2	1559.2	1557.2	1555.2





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1051.1	1239.7	1384.5	1479.3	1536.2	1565.1	1575.1	1576.1
115°	971.2	1144.9	1291.6	1400.4	1475.3	1519.2	1539.2	1544.2
117.5°	909.3	1063.1	1197.8	1310.6	1388.5	1437.4	1467.3	1474.3
120°	862.4	997.2	1117.0	1217.8	1296.6	1352.5	1376.5	1382.5
122.5°	825.5	944.3	1053.1	1144.9	1212.8	1261.7	1288.6	1296.6
125°	793.6	902.4	998.2	1078.0	1141.9	1185.8	1210.8	1217.8
127.5°	764.6	863.4	951.3	1025.1	1083.0	1121.0	1143.9	1149.9
130°	737.7	827.5	908.3	976.2	1029.1	1065.1	1086.0	1094.0
132.5°	712.7	793.6	867.4	931.3	980.2	1016.1	1034.1	1039.1
135°	690.7	761.6	826.5	883.4	932.3	962.2	980.2	987.2
137.5°	669.8	729.7	787.6	838.5	880.4	911.3	926.3	932.3
140°	651.8	702.7	750.6	793.6	831.5	859.4	875.4	874.4
142.5°	634.8	676.8	716.7	752.6	783.6	807.5	821.5	820.5
145°	621.9	654.8	686.7	715.7	740.6	761.6	769.6	771.6
147.5°	610.9	637.8	664.8	685.7	705.7	720.7	728.7	729.7
150°	598.9	621.9	642.8	661.8	676.8	687.7	693.7	693.7
152.5°	587.9	606.9	624.9	639.8	650.8	660.8	663.8	663.8
155°	576.9	592.9	607.9	619.9	628.9	636.8	638.8	639.8
157.5°	565.0	578.9	590.9	600.9	608.9	614.9	616.9	616.9
160°	555.0	566.0	575.9	582.9	589.9	595.9	595.9	594.9
162.5°	543.0	552.0	561.0	567.0	571.0	575.9	575.9	575.0
165°	533.0	539.0	546.0	551.0	555.0	559.0	558.0	558.0
167.5°	524.0	529.0	533.0	537.0	539.0	542.0	541.0	541.0
170°	515.1	518.1	522.0	524.0	525.0	527.0	526.0	526.0
172.5°	507.1	509.1	512.1	513.1	513.1	515.1	513.1	512.1
175°	500.1	501.1	503.1	503.1	503.1	504.1	503.1	502.1
177.5°	495.1	496.1	497.1	497.1	496.1	497.1	495.1	495.1
180°	493.1	493.1	493.1	493.1	493.1	493.1	493.1	493.1

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