

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: P331656-935

Luminaire Tested: **S122RDIP-S485D530U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331656-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIP-S485D530U935-4F0-1E-UDD-F4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3240.5 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

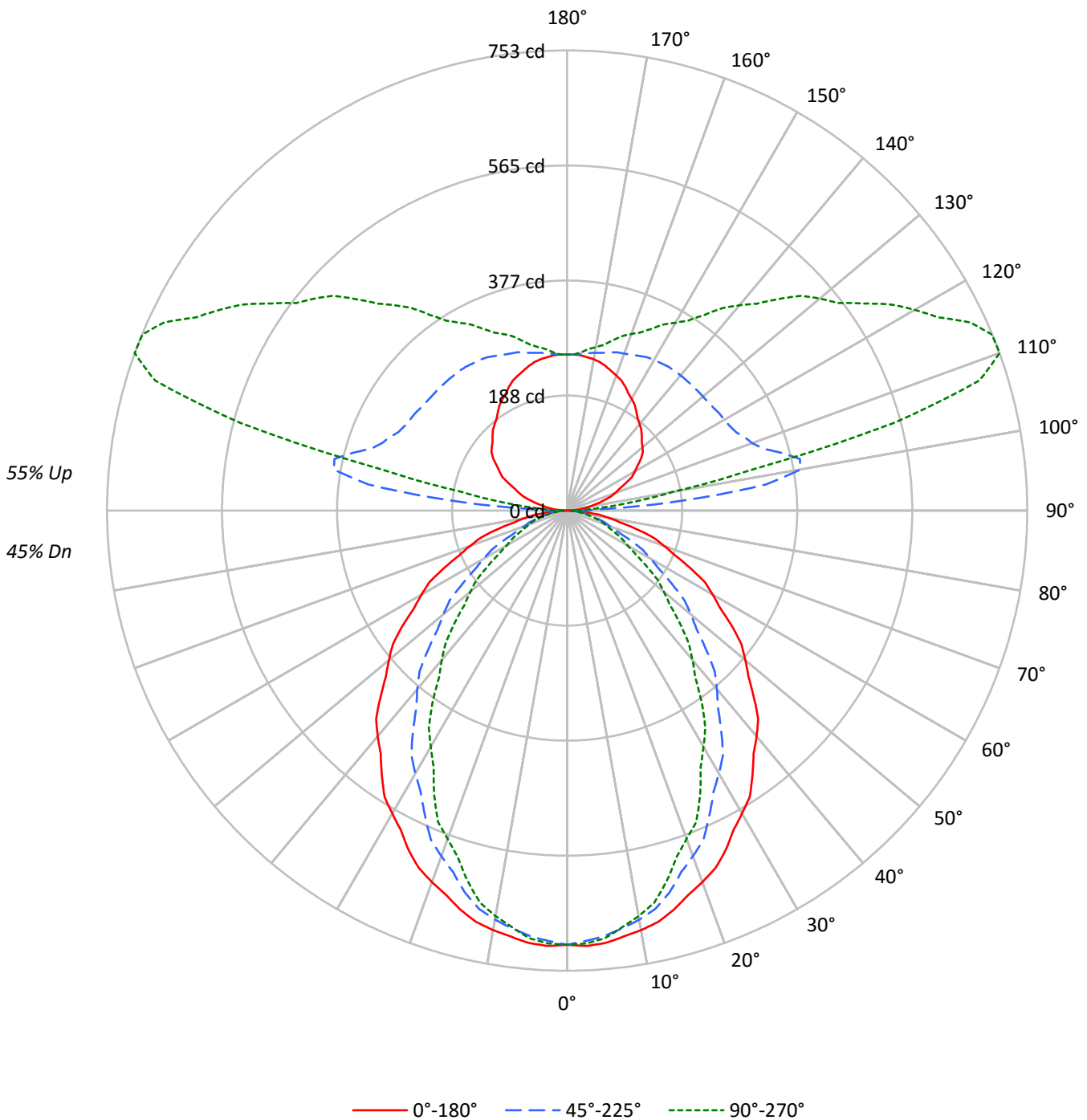
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44
2	89	82	76	71	81	75	70	66	63	59	56	52	49	47	41	40	38
3	81	72	65	60	74	67	60	56	56	51	48	46	43	40	37	35	33
4	75	64	57	51	68	59	53	47	50	45	41	41	38	35	33	31	29
5	69	57	49	44	63	53	46	41	45	40	36	37	33	30	30	27	25
6	63	52	44	38	58	48	41	36	41	35	31	34	30	27	28	25	22
7	59	47	39	34	54	43	36	32	37	32	28	31	27	24	25	22	20
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18
9	51	39	32	27	47	36	30	25	31	26	22	26	22	19	22	19	17
10	47	36	29	24	44	33	27	23	29	24	20	24	20	18	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11472	11472	11472
5°	11515	11329	11391
10°	11429	11144	11049
15°	11296	10813	10502
20°	11115	10340	9821
25°	10929	9805	9164
30°	10670	9257	8321
35°	10419	8657	7579
40°	10163	8037	6721
45°	9866	7341	5948
50°	9560	6636	5184
55°	9250	5883	4453
60°	8887	5089	3694
65°	8478	4271	3366
70°	7983	3522	3097
75°	7380	3206	2888
80°	6518	2864	2631
85°	5113	2260	2260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	2.1
10°-20°	182.6	5.6
20°-30°	256.4	7.9
30°-40°	279.6	8.6
40°-50°	257.1	7.9
50°-60°	201.9	6.2
60°-70°	131.7	4.1
70°-80°	67.9	2.1
80°-90°	19.9	0.6
90°-100°	102.1	3.2
100°-110°	346.4	10.7
110°-120°	368.0	11.4
120°-130°	303.0	9.3
130°-140°	243.3	7.5
140°-150°	183.9	5.7
150°-160°	129.2	4.0
160°-170°	76.1	2.3
170°-180°	24.8	0.8
0°-30°	505.6	15.6
0°-40°	785.2	24.2
0°-60°	1244.3	38.4
0°-90°	1463.7	45.2
90°-120°	816.6	25.2
90°-150°	1546.7	47.7
90°-180°	1777.0	54.8
0°-180°	3240.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	710	707	699	704	703	67
15°	676	668	647	635	628	190
25°	614	592	550	525	514	282
35°	529	494	439	400	384	331
45°	432	388	322	278	260	334
55°	329	277	209	172	158	293
65°	222	169	112	91	88	220
75°	118	75	51	47	46	125
85°	28	15	12	12	12	33
90°	0	7	17	16	16	2
95°	17	42	192	73	56	18
105°	60	90	364	650	553	64
115°	106	133	304	628	728	105
125°	147	174	293	509	591	131
135°	173	206	289	428	490	133
145°	197	227	288	357	391	124
155°	224	242	279	316	328	103
165°	244	252	268	284	288	69
175°	255	255	257	260	260	24
180°	255	255	255	255	255	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	710.5	710.5	710.5	710.5	710.5	710.5	710.5	710.5	710.5	710.5	710.5
2.5°	713.1	712.6	712.0	711.4	710.8	709.9	708.7	707.4	706.1	704.9	706.0
5°	710.5	709.8	709.1	708.4	707.7	706.4	704.6	702.7	700.9	699.0	700.3
7.5°	703.2	702.3	701.5	700.5	699.6	698.1	695.9	693.8	691.6	689.5	689.8
10°	697.1	696.0	695.0	694.1	693.0	691.1	688.3	685.4	682.5	679.7	679.2
12.5°	689.3	688.1	686.8	685.6	684.4	682.0	678.3	674.7	671.0	667.4	666.6
15°	675.8	674.2	672.7	671.1	669.5	666.3	661.4	656.6	651.8	646.9	644.2
17.5°	659.3	656.9	654.4	652.0	649.6	645.3	639.1	632.8	626.6	620.4	617.2
20°	646.9	644.0	641.2	638.3	635.4	630.4	623.3	616.1	609.0	601.8	598.3
22.5°	633.5	630.3	627.1	623.9	620.7	615.1	607.0	598.9	590.9	582.8	578.2
25°	613.5	608.9	604.3	599.7	595.1	588.1	578.7	569.3	559.8	550.4	544.6
27.5°	589.3	584.3	579.3	574.4	569.4	561.5	551.0	540.3	529.7	519.0	512.2
30°	572.3	566.9	561.5	556.0	550.6	542.2	530.7	519.3	507.8	496.5	489.1
32.5°	555.9	549.5	543.1	536.8	530.5	521.4	509.8	498.1	486.5	474.8	466.5
35°	528.6	521.2	514.0	506.7	499.4	489.5	476.9	464.3	451.8	439.2	430.2
37.5°	501.3	493.3	485.3	477.3	469.3	458.6	445.2	431.8	418.4	405.0	395.0
40°	482.2	473.7	465.1	456.6	448.0	436.8	422.9	409.1	395.2	381.3	371.2
42.5°	462.7	453.7	444.6	435.7	426.6	414.9	400.6	386.2	372.0	357.7	347.2
45°	432.1	422.6	412.9	403.4	393.8	381.5	366.5	351.5	336.5	321.5	311.3
47.5°	402.3	392.1	382.0	371.9	361.7	348.9	333.4	317.9	302.4	286.9	276.8
50°	380.6	370.5	360.4	350.3	340.1	327.2	311.4	295.8	280.0	264.2	254.4
52.5°	359.6	349.0	338.4	327.8	317.2	304.2	288.8	273.5	258.0	242.7	233.2
55°	328.6	317.5	306.3	295.2	284.0	270.7	255.3	239.9	224.4	209.0	200.4
57.5°	296.8	285.4	274.0	262.5	251.1	238.0	223.2	208.3	193.5	178.7	170.7
60°	275.2	263.8	252.4	240.9	229.5	216.5	201.7	187.0	172.3	157.6	150.2
62.5°	254.1	242.7	231.3	219.8	208.4	195.7	181.7	167.6	153.6	139.6	132.6
65°	221.9	210.3	198.7	187.1	175.6	163.3	150.5	137.6	124.8	111.8	107.0
67.5°	190.7	179.3	167.7	156.3	144.7	133.2	121.7	110.1	98.5	87.0	84.7
70°	169.1	158.0	146.8	135.7	124.5	114.0	104.2	94.3	84.5	74.6	73.2
72.5°	148.5	137.8	127.2	116.5	105.8	96.5	88.6	80.7	72.8	64.8	63.6
75°	118.3	108.3	98.3	88.3	78.3	70.9	66.0	61.1	56.3	51.4	50.5
77.5°	88.6	79.8	71.0	62.3	53.6	48.0	45.6	43.3	40.9	38.6	38.0
80°	70.1	62.8	55.5	48.2	40.9	36.6	35.1	33.8	32.3	30.8	30.3
82.5°	53.1	47.4	41.8	36.1	30.4	27.0	26.1	25.1	24.1	23.2	22.8
85°	27.6	24.6	21.6	18.7	15.7	13.9	13.5	13.1	12.7	12.2	12.2
87.5°	8.4	7.7	7.1	6.5	5.8	5.6	6.1	6.8	7.3	7.5	7.2
90°	0.5	2.0	4.0	4.9	5.9	7.4	9.8	13.3	16.2	16.7	16.2
92.5°	6.0	8.6	12.1	14.4	17.7	22.3	33.4	49.0	62.9	63.8	53.9
95°	17.2	19.1	24.0	28.5	36.3	48.1	70.7	113.4	170.4	192.5	168.4
97.5°	28.0	30.7	35.8	42.5	51.6	64.9	93.3	152.8	247.5	328.6	344.7
100°	37.8	39.3	43.7	51.6	61.4	75.2	101.2	161.1	267.1	387.9	458.6
102.5°	46.8	48.0	52.3	60.2	70.4	84.1	108.2	161.4	259.7	389.9	501.0
105°	59.9	61.9	65.3	72.7	83.4	97.2	120.3	164.0	245.0	363.9	494.5
107.5°	74.0	75.6	79.0	85.8	96.4	110.3	132.7	170.7	237.7	336.0	451.3
110°	83.4	85.4	88.4	94.8	105.0	119.3	140.9	176.2	236.2	322.6	424.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	92.1	94.1	97.4	103.4	113.3	127.9	148.8	182.2	236.6	313.9	405.4
115°	105.6	108.1	111.0	116.8	126.7	139.9	161.1	191.0	238.7	304.4	382.0
117.5°	119.5	121.5	124.4	129.7	139.1	152.8	172.4	200.4	242.2	299.8	367.3
120°	128.1	130.1	133.0	137.5	147.3	161.1	180.2	206.7	244.5	297.0	359.5
122.5°	136.4	138.0	140.9	145.8	155.6	169.7	187.7	212.2	247.3	295.5	352.8
125°	147.3	148.8	151.7	157.6	167.5	181.2	198.9	220.9	251.4	292.7	343.2
127.5°	155.9	157.9	162.0	168.5	178.0	192.1	209.3	229.1	255.6	291.0	334.4
130°	161.1	163.0	167.9	174.8	184.6	198.4	215.6	234.2	258.7	290.2	328.5
132.5°	165.7	168.2	173.4	180.7	190.9	204.7	221.0	239.4	261.9	289.8	323.7
135°	172.8	174.8	180.7	188.0	199.3	213.1	228.9	246.0	265.6	289.2	317.2
137.5°	179.5	181.8	187.8	195.6	206.8	219.6	235.1	251.1	269.0	289.1	312.5
140°	184.6	186.6	192.5	200.4	211.1	223.9	238.7	253.8	270.5	288.7	309.9
142.5°	189.8	191.3	196.8	204.7	215.1	227.0	241.4	256.2	271.7	288.7	307.1
145°	197.4	199.3	204.2	211.6	221.4	232.2	245.5	259.2	273.0	287.7	303.4
147.5°	205.6	207.1	211.8	218.6	226.8	236.3	248.8	261.0	273.4	285.9	299.7
150°	211.1	212.6	216.5	222.9	230.3	239.1	250.4	261.7	273.0	284.8	296.6
152.5°	216.6	217.3	221.3	226.9	233.8	241.9	252.0	262.1	272.2	282.8	293.9
155°	224.4	224.9	227.8	233.2	238.7	246.0	254.3	262.7	271.0	279.4	288.7
157.5°	230.8	231.4	233.8	238.4	242.8	248.9	256.0	262.7	268.8	275.9	283.9
160°	235.2	235.7	237.6	241.6	245.5	250.9	256.8	262.7	267.6	273.5	280.3
162.5°	239.5	239.2	241.2	244.4	247.9	252.1	257.2	262.3	266.4	271.6	277.2
165°	244.5	244.0	245.0	248.0	250.4	253.4	257.8	261.2	264.2	267.6	272.0
167.5°	248.7	248.1	248.9	250.8	252.6	254.4	257.7	260.5	261.9	264.2	266.9
170°	251.4	250.4	250.9	252.4	253.4	254.9	257.3	259.8	260.7	262.2	264.2
172.5°	253.0	252.4	252.1	253.6	254.2	255.2	256.9	258.6	259.2	259.8	261.4
175°	254.9	254.3	253.8	254.9	254.9	255.3	256.3	257.3	256.8	257.3	257.8
177.5°	255.7	254.9	254.5	255.3	255.3	255.3	255.7	256.5	255.7	255.3	255.7
180°	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	710.5	710.5	710.5	710.5	710.5	710.5	710.5	710.5
2.5°	707.1	708.3	709.5	709.9	709.7	709.5	709.2	709.0
5°	701.5	702.8	704.1	704.6	704.1	703.7	703.3	702.8
7.5°	690.2	690.5	691.0	690.8	690.0	689.2	688.5	687.8
10°	678.8	678.4	678.0	677.3	676.5	675.6	674.8	673.9
12.5°	665.8	665.0	664.3	663.1	661.7	660.3	658.8	657.5
15°	641.4	638.8	636.0	634.0	632.5	631.1	629.6	628.3
17.5°	613.9	610.7	607.4	604.6	602.2	599.7	597.3	594.8
20°	594.7	591.2	587.5	584.2	581.1	577.9	574.8	571.6
22.5°	573.6	569.0	564.5	560.9	558.6	556.3	554.0	551.6
25°	538.7	532.9	527.0	523.0	520.8	518.7	516.6	514.4
27.5°	505.4	498.5	491.7	486.6	483.2	479.8	476.4	473.0
30°	481.8	474.6	467.3	461.7	457.8	454.0	450.1	446.3
32.5°	458.1	449.9	441.5	435.6	432.0	428.3	424.6	421.0
35°	421.2	412.2	403.2	397.1	394.0	390.8	387.7	384.5
37.5°	385.1	375.2	365.3	358.5	355.0	351.4	347.8	344.1
40°	361.0	350.9	340.7	333.8	330.1	326.4	322.6	318.9
42.5°	336.7	326.1	315.7	308.7	305.1	301.4	297.8	294.2
45°	301.2	291.1	280.9	274.1	270.7	267.3	263.8	260.5
47.5°	266.7	256.7	246.6	240.0	236.9	233.8	230.6	227.5
50°	244.5	234.7	224.8	218.4	215.4	212.4	209.4	206.4
52.5°	223.6	214.1	204.6	198.5	195.7	193.0	190.1	187.4
55°	191.8	183.2	174.7	169.0	166.3	163.6	160.9	158.2
57.5°	162.9	155.1	147.2	142.2	139.8	137.6	135.3	132.9
60°	142.9	135.7	128.4	123.6	121.3	119.0	116.8	114.4
62.5°	125.6	118.7	111.8	107.6	106.2	104.9	103.5	102.1
65°	102.2	97.3	92.5	89.8	89.4	88.9	88.5	88.1
67.5°	82.5	80.2	78.0	76.7	76.2	75.8	75.3	74.8
70°	71.7	70.3	68.9	67.8	67.3	66.7	66.1	65.6
72.5°	62.4	61.2	60.0	59.2	58.9	58.5	58.2	57.9
75°	49.4	48.5	47.4	46.8	46.8	46.6	46.4	46.3
77.5°	37.5	36.9	36.3	35.9	35.6	35.5	35.2	35.0
80°	29.7	29.2	28.6	28.3	28.3	28.3	28.3	28.3
82.5°	22.5	22.1	21.8	21.6	21.6	21.6	21.6	21.6
85°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
87.5°	7.1	6.7	6.8	6.8	6.8	6.8	6.8	6.8
90°	15.7	14.7	15.7	16.2	16.2	16.2	16.2	16.2
92.5°	42.8	36.8	32.6	29.5	29.2	27.6	28.0	27.2
95°	128.6	98.7	78.1	67.2	60.9	57.0	55.4	56.0
97.5°	300.2	245.6	192.5	157.0	133.5	121.5	114.3	110.2
100°	448.3	387.4	320.1	260.7	220.0	198.9	184.6	175.8
102.5°	545.4	531.6	482.4	419.4	375.1	339.1	321.3	309.4
105°	596.6	652.0	658.5	642.2	611.8	581.3	560.3	553.4
107.5°	559.6	643.3	694.3	718.1	721.9	720.2	716.0	706.9
110°	527.9	615.7	678.6	718.8	739.9	749.3	753.7	753.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	498.8	583.2	650.3	696.5	725.8	741.4	749.8	752.4
115°	463.0	538.6	603.0	653.6	688.4	711.0	723.8	728.1
117.5°	436.1	502.5	560.9	608.3	643.9	667.7	681.1	684.8
120°	422.8	483.6	535.7	580.4	614.8	637.8	652.0	656.9
122.5°	412.2	468.0	517.2	557.6	588.4	611.1	623.8	627.9
125°	396.7	447.3	490.5	527.4	555.9	574.5	586.8	590.7
127.5°	381.5	427.3	468.0	502.0	526.8	544.3	554.9	558.1
130°	371.7	414.0	452.7	485.1	509.2	525.9	535.7	539.6
132.5°	362.3	401.4	437.0	467.4	491.1	507.8	516.9	520.4
135°	349.1	381.5	414.0	441.4	462.5	478.7	487.6	489.6
137.5°	338.6	365.8	391.4	415.4	434.6	448.6	456.3	459.3
140°	331.9	355.5	378.1	399.7	415.4	428.2	435.5	438.5
142.5°	326.4	346.5	365.9	384.0	398.9	410.5	417.1	417.7
145°	318.7	334.8	350.1	364.4	376.1	384.4	389.3	390.8
147.5°	312.7	325.5	337.3	347.8	357.5	364.1	367.5	368.3
150°	308.3	319.2	329.5	338.3	345.7	351.5	354.5	355.0
152.5°	304.0	314.1	322.8	330.5	336.2	341.4	343.5	343.6
155°	298.1	305.9	313.2	318.7	324.1	327.5	329.5	328.5
157.5°	291.1	297.6	303.8	308.1	311.9	314.8	315.6	315.6
160°	286.7	292.1	297.6	301.0	304.4	306.9	307.4	307.4
162.5°	282.4	287.1	291.7	294.3	297.7	299.5	299.9	299.5
165°	276.0	279.4	282.8	284.8	286.7	288.7	288.7	288.3
167.5°	269.8	272.4	274.7	276.6	277.4	278.5	278.4	277.8
170°	266.7	268.1	270.1	271.0	271.6	273.0	272.5	271.6
172.5°	263.1	264.2	265.7	266.3	266.8	267.5	267.0	266.4
175°	259.2	259.8	260.3	260.7	260.7	261.2	260.7	259.8
177.5°	256.5	256.5	256.9	256.9	256.9	256.9	256.5	255.7
180°	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3

(END OF REPORT)