

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: P331787-930

Luminaire Tested: **S122RDIW-S485D435U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331787-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIW-S485D435U930-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 435 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2796.3 lumens
Efficiency: N/A
Efficacy: 92.6 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

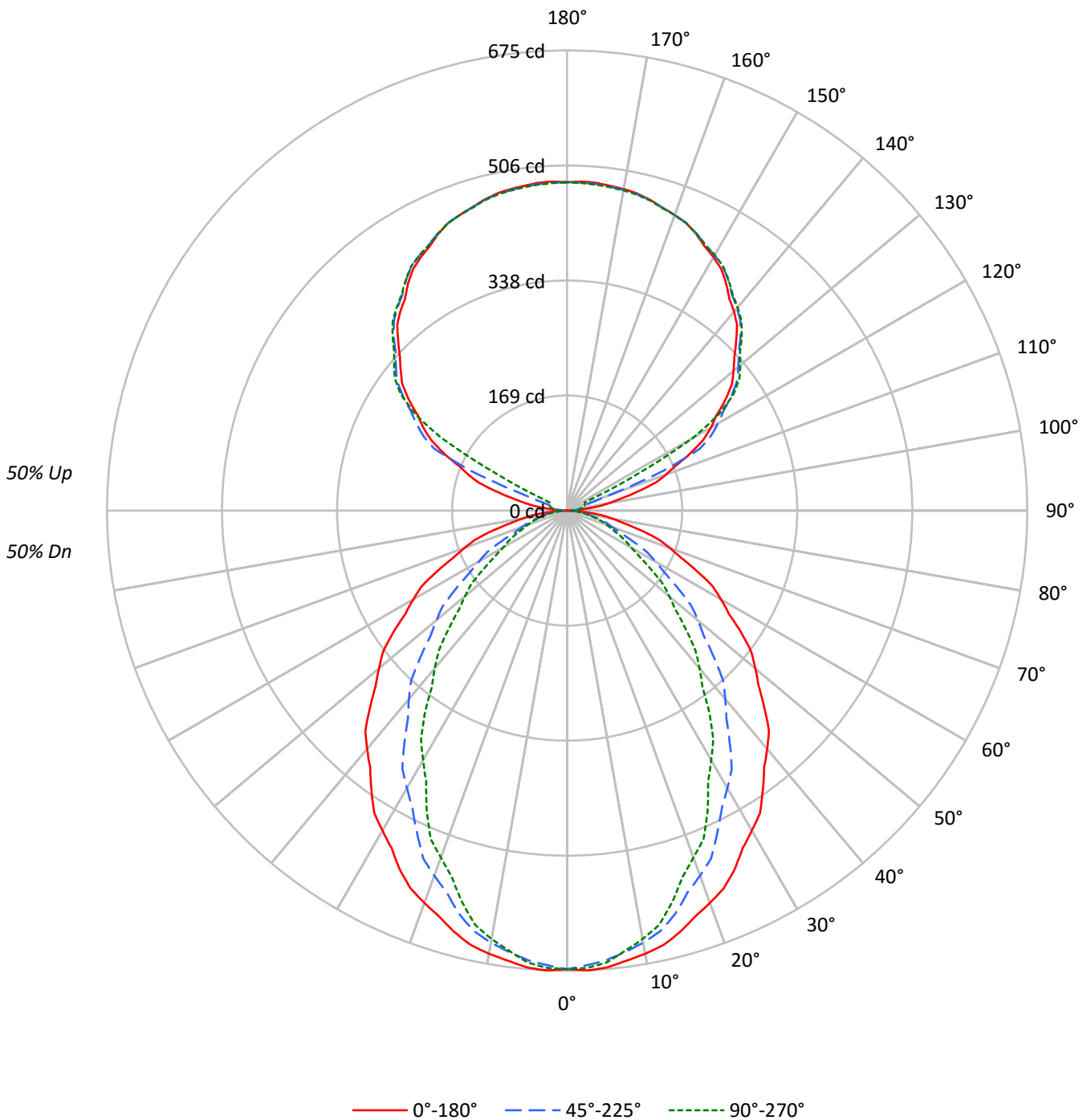
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	94	90	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	83	77	72	83	76	71	67	65	61	58	54	52	49	45	43	41	36
3	82	73	66	60	76	68	62	57	58	53	49	48	45	42	40	38	36	31
4	75	65	57	51	69	60	54	48	52	47	42	44	40	37	36	33	31	27
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	33	30	27	24
6	64	52	44	39	59	49	42	37	42	37	32	36	32	28	30	27	24	21
7	59	47	40	34	55	44	37	32	38	33	29	33	28	25	27	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	39	32	27	48	37	30	26	32	27	23	28	23	20	23	20	18	16
10	48	36	29	25	44	34	28	23	30	25	21	26	22	19	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10863	10863	10863
5°	10904	10728	10786
10°	10822	10552	10462
15°	10696	10238	9944
20°	10524	9792	9301
25°	10349	9285	8678
30°	10103	8764	7879
35°	9865	8198	7177
40°	9624	7611	6365
45°	9344	6951	5631
50°	9053	6285	4908
55°	8757	5571	4217
60°	8415	4818	3500
65°	8027	4046	3186
70°	7558	3333	2932
75°	6987	3038	2739
80°	6174	2715	2492
85°	4854	2149	2149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	2.3
10°-20°	172.9	6.2
20°-30°	242.8	8.7
30°-40°	264.8	9.5
40°-50°	243.5	8.7
50°-60°	191.2	6.8
60°-70°	124.7	4.5
70°-80°	64.3	2.3
80°-90°	17.9	0.6
90°-100°	16.1	0.6
100°-110°	58.9	2.1
110°-120°	157.5	5.6
120°-130°	259.9	9.3
130°-140°	276.4	9.9
140°-150°	256.9	9.2
150°-160°	206.6	7.4
160°-170°	133.1	4.8
170°-180°	45.8	1.6
0°-30°	478.7	17.1
0°-40°	743.5	26.6
0°-60°	1178.2	42.1
0°-90°	1385.0	49.5
90°-120°	232.4	8.3
90°-150°	1025.8	36.7
90°-180°	1411.0	50.5
0°-180°	2796.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	673	670	662	667	666	64
15°	640	632	612	601	595	180
25°	581	560	521	497	487	267
35°	500	468	416	379	364	313
45°	409	367	304	263	247	316
55°	311	263	198	163	150	278
65°	210	160	106	86	83	208
75°	112	71	49	45	44	119
85°	26	14	12	12	12	31
90°	0	4	7	9	9	2
95°	23	12	14	15	15	28
105°	106	110	21	25	26	113
115°	200	206	215	61	28	197
125°	283	288	294	297	298	252
135°	351	356	359	362	362	271
145°	407	407	412	414	413	254
155°	448	445	449	451	448	206
165°	472	470	471	473	471	133
175°	483	480	481	483	480	46
180°	482	482	482	482	482	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8
2.5°	675.2	674.7	674.2	673.6	673.1	672.2	671.1	669.8	668.6	667.5	668.5
5°	672.8	672.1	671.5	670.8	670.1	668.9	667.2	665.4	663.7	661.9	663.1
7.5°	665.9	665.0	664.2	663.3	662.5	661.0	659.0	657.0	654.9	652.9	653.2
10°	660.1	659.1	658.1	657.2	656.2	654.4	651.8	649.0	646.3	643.6	643.2
12.5°	652.7	651.6	650.4	649.2	648.1	645.8	642.3	638.9	635.4	631.9	631.2
15°	639.9	638.5	637.0	635.4	634.0	631.0	626.3	621.7	617.2	612.5	610.0
17.5°	624.3	622.0	619.7	617.4	615.1	611.1	605.2	599.2	593.4	587.4	584.4
20°	612.5	609.8	607.2	604.5	601.7	597.0	590.2	583.4	576.7	569.9	566.6
22.5°	599.9	596.9	593.8	590.8	587.7	582.4	574.8	567.1	559.5	551.9	547.6
25°	580.9	576.6	572.3	567.9	563.5	556.9	548.0	539.1	530.1	521.2	515.7
27.5°	558.0	553.3	548.5	543.9	539.2	531.7	521.7	511.6	501.6	491.5	485.0
30°	541.9	536.8	531.7	526.5	521.4	513.4	502.6	491.7	480.9	470.1	463.2
32.5°	526.4	520.3	514.3	508.3	502.3	493.7	482.7	471.7	460.6	449.6	441.7
35°	500.5	493.6	486.7	479.8	472.9	463.5	451.6	439.7	427.8	415.9	407.3
37.5°	474.7	467.1	459.5	451.9	444.4	434.2	421.6	408.9	396.2	383.5	374.1
40°	456.6	448.6	440.4	432.4	424.2	413.6	400.5	387.3	374.2	361.1	351.5
42.5°	438.1	429.6	421.0	412.5	404.0	392.9	379.4	365.7	352.2	338.7	328.7
45°	409.2	400.1	391.0	382.0	372.9	361.3	347.1	332.9	318.6	304.4	294.8
47.5°	380.9	371.3	361.7	352.1	342.5	330.4	315.7	301.0	286.3	271.7	262.1
50°	360.4	350.8	341.3	331.7	322.0	309.8	294.9	280.1	265.1	250.2	240.9
52.5°	340.5	330.4	320.4	310.4	300.4	288.0	273.5	258.9	244.3	229.8	220.8
55°	311.1	300.6	290.0	279.5	269.0	256.3	241.7	227.1	212.5	197.9	189.8
57.5°	281.0	270.3	259.4	248.6	237.7	225.3	211.3	197.2	183.2	169.2	161.7
60°	260.6	249.8	239.0	228.1	217.3	205.0	191.0	177.1	163.1	149.2	142.3
62.5°	240.6	229.8	219.0	208.1	197.3	185.3	172.0	158.7	145.4	132.2	125.6
65°	210.1	199.1	188.2	177.2	166.2	154.7	142.5	130.3	118.1	105.9	101.3
67.5°	180.6	169.7	158.8	148.0	137.1	126.1	115.2	104.3	93.3	82.3	80.2
70°	160.1	149.6	139.0	128.5	117.9	107.9	98.7	89.3	80.0	70.6	69.3
72.5°	140.6	130.5	120.4	110.3	100.2	91.4	83.9	76.4	68.9	61.4	60.3
75°	112.0	102.6	93.1	83.6	74.1	67.1	62.5	57.9	53.3	48.7	47.8
77.5°	83.9	75.6	67.3	58.9	50.7	45.4	43.2	41.0	38.7	36.5	36.0
80°	66.4	59.4	52.6	45.7	38.7	34.7	33.3	32.0	30.6	29.2	28.7
82.5°	50.3	44.9	39.5	34.2	28.8	25.6	24.7	23.7	22.8	21.9	21.6
85°	26.2	23.3	20.5	17.7	14.8	13.2	12.8	12.4	12.0	11.6	11.6
87.5°	7.8	7.2	6.4	5.8	5.1	4.8	4.9	5.1	5.1	5.3	5.3
90°	0.3	1.2	2.0	2.9	3.8	4.5	5.1	5.7	6.4	6.9	7.3
92.5°	7.0	6.9	6.8	6.8	6.8	6.8	7.2	7.5	7.7	8.1	8.3
95°	22.7	20.1	17.5	15.0	12.4	11.4	12.0	12.5	13.0	13.6	13.9
97.5°	44.9	37.7	30.6	23.3	16.1	13.2	14.4	15.7	17.0	18.2	18.5
100°	61.7	51.0	40.4	29.8	19.2	14.6	15.9	17.2	18.5	19.9	20.5
102.5°	80.1	77.9	75.6	73.4	71.1	64.5	53.5	42.5	31.5	20.4	21.2
105°	105.9	108.3	110.6	112.9	115.2	105.8	84.7	63.5	42.4	21.3	22.1
107.5°	135.4	137.3	139.2	141.0	142.9	131.2	105.8	80.5	55.1	29.8	28.9
110°	154.3	156.0	157.6	159.2	160.9	150.5	128.1	105.7	83.3	61.0	53.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.2	173.7	175.1	176.5	178.0	175.9	170.4	164.9	159.3	153.8	125.6
115°	200.4	201.7	203.0	204.3	205.6	207.2	209.2	211.2	213.0	215.0	179.1
117.5°	225.5	227.0	228.4	229.9	231.4	232.8	234.2	235.5	236.8	238.1	229.5
120°	243.9	245.1	246.2	247.4	248.6	249.9	251.3	252.7	254.0	255.4	256.3
122.5°	259.5	260.7	262.0	263.2	264.4	265.8	267.3	268.8	270.4	271.9	272.5
125°	283.3	284.3	285.4	286.3	287.3	288.5	290.1	291.6	293.0	294.5	295.0
127.5°	304.8	306.0	307.0	308.2	309.3	310.4	311.5	312.6	313.7	314.8	315.6
130°	318.5	319.8	321.0	322.2	323.4	324.5	325.4	326.2	327.1	327.9	328.7
132.5°	332.5	333.5	334.5	335.6	336.6	337.6	338.4	339.3	340.1	341.0	341.8
135°	350.6	351.8	353.0	354.2	355.6	356.4	357.2	357.9	358.6	359.3	360.0
137.5°	368.9	369.7	370.6	371.5	372.3	373.2	374.0	374.8	375.5	376.3	377.1
140°	380.9	381.5	382.1	382.7	383.4	384.1	385.0	385.8	386.6	387.5	388.2
142.5°	390.9	391.5	392.0	392.6	393.1	394.0	394.8	395.8	396.8	397.8	398.4
145°	406.7	406.6	406.5	406.4	406.3	407.0	408.3	409.6	410.9	412.2	412.8
147.5°	420.4	420.1	419.8	419.6	419.2	419.7	421.0	422.3	423.6	424.9	425.3
150°	429.3	428.8	428.2	427.7	427.1	427.5	428.8	430.0	431.2	432.4	432.9
152.5°	436.8	436.3	435.6	435.0	434.4	434.7	435.9	437.1	438.2	439.4	439.9
155°	447.8	447.1	446.4	445.7	445.0	445.2	446.1	446.9	447.9	448.8	449.3
157.5°	456.3	455.8	455.2	454.6	454.0	454.0	454.7	455.3	456.0	456.6	457.1
160°	461.4	460.9	460.5	460.0	459.5	459.5	460.0	460.5	460.9	461.4	461.9
162.5°	465.9	465.4	464.9	464.5	464.0	464.0	464.3	464.7	465.1	465.5	466.1
165°	471.8	471.4	470.9	470.4	469.9	469.9	470.1	470.3	470.6	470.8	471.3
167.5°	476.3	475.8	475.4	474.9	474.4	474.3	474.5	474.7	475.0	475.2	475.7
170°	478.8	478.3	477.8	477.4	477.0	476.8	477.0	477.1	477.3	477.4	477.9
172.5°	480.5	480.0	479.6	479.1	478.6	478.5	478.6	478.7	478.9	479.1	479.6
175°	482.7	482.1	481.5	481.0	480.5	480.3	480.5	480.6	480.7	480.9	481.4
177.5°	483.0	482.6	482.1	481.7	481.3	481.0	481.1	481.2	481.3	481.3	481.8
180°	481.6	481.6	481.6	481.6	481.6	481.6	481.6	481.6	481.6	481.6	481.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8
2.5°	669.6	670.7	671.8	672.2	672.1	671.8	671.6	671.4
5°	664.3	665.5	666.8	667.2	666.8	666.3	665.9	665.5
7.5°	653.5	653.9	654.3	654.1	653.4	652.6	652.0	651.3
10°	642.8	642.4	642.0	641.4	640.6	639.8	639.0	638.1
12.5°	630.5	629.7	629.0	627.9	626.6	625.3	623.9	622.6
15°	607.4	604.9	602.3	600.3	598.9	597.6	596.2	594.9
17.5°	581.3	578.3	575.2	572.5	570.2	567.9	565.6	563.2
20°	563.1	559.8	556.4	553.2	550.2	547.2	544.3	541.3
22.5°	543.2	538.8	534.5	531.2	529.0	526.8	524.6	522.3
25°	510.1	504.6	499.0	495.2	493.2	491.1	489.2	487.1
27.5°	478.6	472.1	465.6	460.8	457.5	454.4	451.1	447.9
30°	456.2	449.4	442.5	437.2	433.5	429.9	426.2	422.6
32.5°	433.8	426.0	418.1	412.5	409.0	405.6	402.1	398.7
35°	398.8	390.3	381.8	376.0	373.1	370.1	367.1	364.1
37.5°	364.7	355.3	345.9	339.5	336.1	332.7	329.3	325.9
40°	341.9	332.2	322.6	316.1	312.6	309.1	305.5	302.0
42.5°	318.8	308.8	299.0	292.3	288.9	285.4	282.0	278.6
45°	285.2	275.7	266.0	259.6	256.3	253.1	249.8	246.6
47.5°	252.6	243.0	233.5	227.2	224.3	221.4	218.3	215.4
50°	231.5	222.3	212.9	206.8	204.0	201.1	198.3	195.4
52.5°	211.7	202.8	193.7	187.9	185.3	182.7	180.0	177.4
55°	181.6	173.5	165.4	160.0	157.5	154.9	152.4	149.8
57.5°	154.3	146.8	139.4	134.6	132.4	130.3	128.1	125.9
60°	135.3	128.5	121.6	117.1	114.9	112.7	110.6	108.4
62.5°	119.0	112.4	105.8	101.9	100.6	99.3	98.0	96.7
65°	96.8	92.1	87.6	85.0	84.6	84.2	83.8	83.4
67.5°	78.1	76.0	73.9	72.6	72.2	71.7	71.3	70.8
70°	67.9	66.6	65.2	64.2	63.8	63.2	62.6	62.1
72.5°	59.1	58.0	56.8	56.1	55.8	55.4	55.1	54.8
75°	46.8	45.9	44.9	44.4	44.3	44.1	43.9	43.9
77.5°	35.5	34.9	34.4	34.0	33.8	33.6	33.3	33.1
80°	28.1	27.6	27.1	26.8	26.8	26.8	26.8	26.8
82.5°	21.3	21.0	20.6	20.5	20.5	20.5	20.5	20.5
85°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
87.5°	5.2	5.2	5.1	5.1	5.2	5.2	5.3	5.3
90°	7.7	8.2	8.5	8.8	9.0	9.1	9.3	9.4
92.5°	8.5	8.7	8.9	9.0	9.1	9.2	9.3	9.4
95°	14.3	14.8	15.2	15.3	15.2	15.2	15.1	15.0
97.5°	18.8	19.2	19.4	19.6	19.7	19.8	19.9	20.0
100°	21.1	21.7	22.3	22.7	22.9	23.1	23.2	23.3
102.5°	22.0	22.8	23.6	24.1	24.4	24.6	24.8	25.0
105°	23.0	23.8	24.7	25.3	25.5	25.8	26.2	26.5
107.5°	28.0	27.1	26.3	26.0	26.3	26.7	26.9	27.2
110°	45.5	37.7	30.0	26.3	26.6	26.9	27.2	27.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	97.3	69.1	40.8	26.8	27.1	27.3	27.6	27.8
115°	143.3	107.5	71.6	50.9	45.3	39.7	34.2	28.5
117.5°	220.8	212.1	203.4	190.0	171.6	153.3	135.0	116.7
120°	257.3	258.2	259.2	254.4	243.9	233.5	223.0	212.5
122.5°	273.0	273.5	274.1	273.4	271.3	269.3	267.3	265.2
125°	295.5	296.1	296.6	297.0	297.3	297.5	297.7	297.9
127.5°	316.4	317.2	318.0	318.4	318.5	318.5	318.5	318.5
130°	329.6	330.4	331.3	331.7	331.7	331.6	331.5	331.4
132.5°	342.5	343.2	343.9	344.2	344.1	344.1	344.1	344.0
135°	360.9	361.6	362.4	362.6	362.6	362.4	362.2	362.1
137.5°	377.9	378.6	379.4	379.6	379.4	379.1	378.9	378.5
140°	388.9	389.6	390.3	390.4	390.0	389.6	389.3	388.9
142.5°	399.1	399.7	400.4	400.5	400.1	399.7	399.3	398.9
145°	413.4	413.8	414.4	414.5	414.1	413.7	413.4	412.9
147.5°	425.7	426.2	426.6	426.6	426.2	425.9	425.6	425.3
150°	433.4	433.8	434.3	434.4	434.0	433.6	433.2	432.8
152.5°	440.3	440.8	441.3	441.2	440.8	440.3	439.7	439.2
155°	449.8	450.2	450.7	450.6	450.0	449.4	448.7	448.2
157.5°	457.7	458.2	458.8	458.7	458.1	457.5	456.9	456.3
160°	462.3	462.8	463.3	463.2	462.7	462.1	461.5	461.1
162.5°	466.6	467.2	467.7	467.6	466.9	466.3	465.6	465.0
165°	471.9	472.4	473.0	473.0	472.4	471.9	471.3	470.8
167.5°	476.3	476.8	477.4	477.3	476.5	475.9	475.2	474.5
170°	478.5	479.1	479.6	479.5	478.8	478.1	477.4	476.7
172.5°	480.1	480.7	481.3	481.2	480.5	479.8	479.1	478.4
175°	482.0	482.5	483.1	483.0	482.2	481.4	480.6	479.9
177.5°	482.2	482.6	483.1	483.0	482.4	481.8	481.3	480.8
180°	481.6	481.6	481.6	481.6	481.6	481.6	481.6	481.6

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