

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: P331807-927

Luminaire Tested: **S122RDIW-S675D435U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331807-927
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-S675D435U927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 675 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: 3210.4 lumens
Efficiency: N/A
Efficacy: 85.2 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

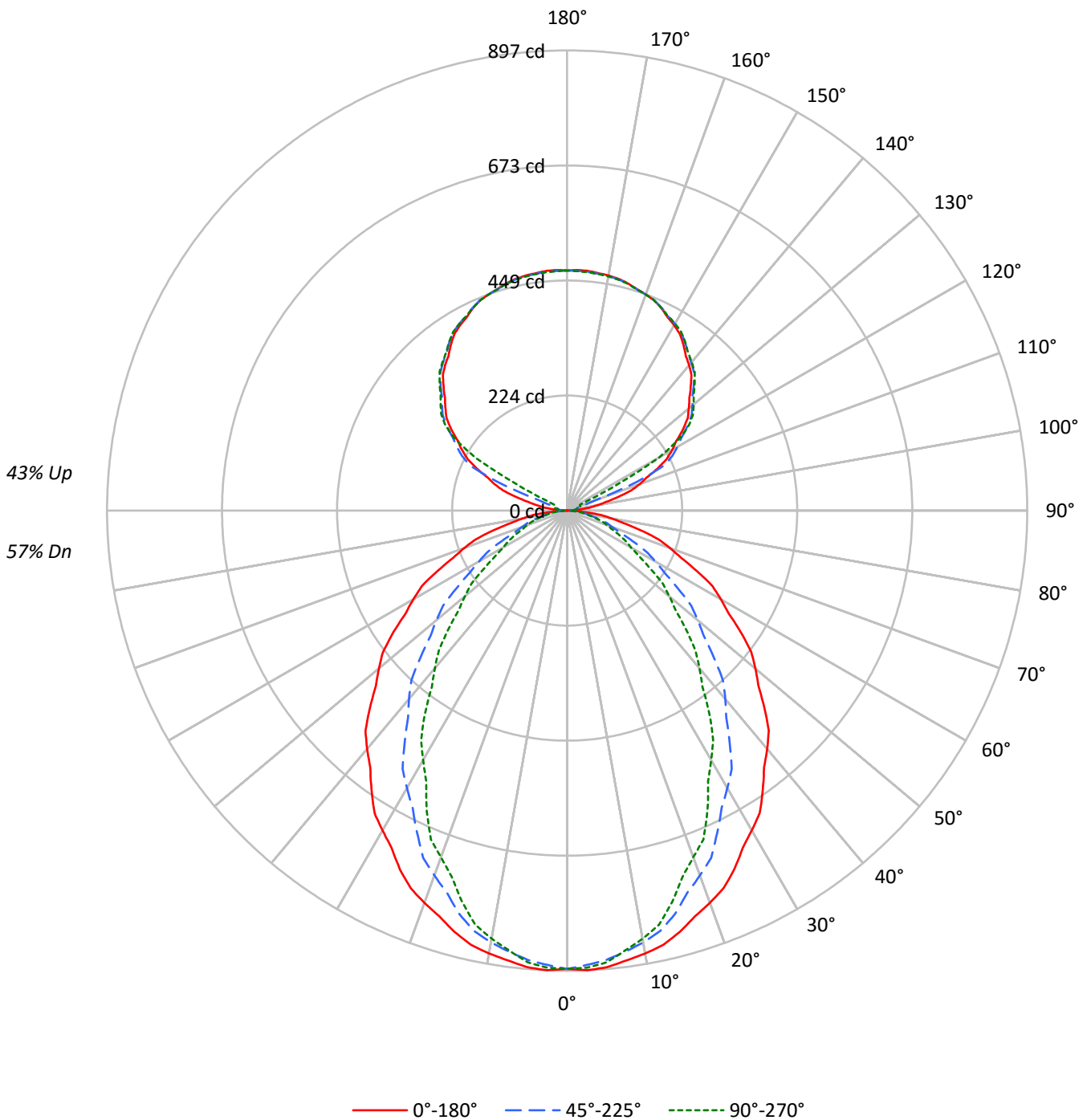
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	100	96	92	89	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	84	78	73	85	79	74	69	69	65	61	59	56	54	50	48	46	42
3	84	75	67	62	78	70	64	59	61	56	52	53	49	46	45	42	40	36
4	77	66	59	53	72	62	55	50	55	49	45	47	43	40	41	38	35	32
5	71	60	52	46	66	56	49	44	49	44	39	43	38	35	37	34	31	28
6	66	54	46	40	61	50	43	38	45	39	35	39	34	31	34	30	28	25
7	61	49	41	35	57	46	39	34	41	35	31	36	31	28	31	27	25	22
8	57	44	37	31	53	42	35	30	37	32	27	33	28	25	29	25	22	20
9	53	41	33	28	49	38	32	27	34	29	25	30	26	23	26	23	20	18
10	49	37	30	26	46	35	29	25	32	26	23	28	24	21	25	21	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14428	14428	14428
5°	14483	14248	14326
10°	14372	14014	13895
15°	14206	13600	13207
20°	13979	13005	12352
25°	13744	12332	11526
30°	13420	11639	10465
35°	13102	10886	9532
40°	12783	10108	8454
45°	12408	9232	7478
50°	12024	8349	6521
55°	11634	7398	5599
60°	11176	6397	4647
65°	10659	5375	4233
70°	10041	4428	3895
75°	9283	4036	3631
80°	8201	3608	3310
85°	6447	2853	2853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	2.6
10°-20°	229.7	7.2
20°-30°	322.5	10.0
30°-40°	351.7	11.0
40°-50°	323.4	10.1
50°-60°	254.0	7.9
60°-70°	165.6	5.2
70°-80°	85.4	2.7
80°-90°	23.3	0.7
90°-100°	15.6	0.5
100°-110°	57.2	1.8
110°-120°	153.0	4.8
120°-130°	252.6	7.9
130°-140°	268.6	8.4
140°-150°	249.7	7.8
150°-160°	200.7	6.3
160°-170°	129.3	4.0
170°-180°	44.5	1.4
0°-30°	635.8	19.8
0°-40°	987.5	30.8
0°-60°	1564.8	48.7
0°-90°	1839.1	57.3
90°-120°	225.9	7.0
90°-150°	996.7	31.0
90°-180°	1371.0	42.7
0°-180°	3210.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	894	889	879	886	884	85
15°	850	840	814	799	790	239
25°	772	744	692	660	647	355
35°	665	622	552	503	484	416
45°	543	488	404	349	328	419
55°	413	349	263	216	199	369
65°	279	213	141	115	111	277
75°	149	94	65	59	58	158
85°	35	19	15	15	15	41
90°	0	4	7	8	9	2
95°	22	12	13	15	15	27
105°	103	107	21	24	26	110
115°	195	201	209	60	28	192
125°	275	280	286	288	290	245
135°	341	346	349	352	352	263
145°	395	395	400	403	401	247
155°	435	432	436	438	436	200
165°	458	457	457	460	457	129
175°	469	467	467	469	466	45
180°	468	468	468	468	468	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	896.8	896.1	895.4	894.7	894.0	892.8	891.2	889.6	888.1	886.5	888.0
5°	893.6	892.7	891.8	890.9	890.0	888.4	886.1	883.8	881.4	879.1	880.7
7.5°	884.4	883.3	882.2	881.1	880.0	878.0	875.3	872.6	869.8	867.1	867.5
10°	876.6	875.4	874.1	872.8	871.6	869.2	865.5	862.0	858.4	854.8	854.3
12.5°	866.9	865.4	863.8	862.3	860.7	857.7	853.1	848.5	843.8	839.2	838.3
15°	849.9	848.0	846.0	844.0	842.0	838.0	831.9	825.8	819.7	813.6	810.2
17.5°	829.1	826.1	823.1	820.0	817.0	811.6	803.7	795.9	788.1	780.2	776.2
20°	813.6	809.9	806.4	802.8	799.2	792.9	783.9	774.9	766.0	756.9	752.4
22.5°	796.7	792.7	788.7	784.7	780.6	773.6	763.4	753.3	743.1	733.0	727.2
25°	771.5	765.7	760.0	754.2	748.5	739.7	727.9	716.0	704.1	692.2	684.8
27.5°	741.1	734.8	728.6	722.3	716.1	706.2	692.9	679.5	666.1	652.8	644.2
30°	719.8	712.9	706.1	699.3	692.4	681.8	667.4	653.1	638.7	624.3	615.1
32.5°	699.0	691.0	683.1	675.1	667.1	655.8	641.1	626.5	611.8	597.1	586.7
35°	664.7	655.6	646.4	637.2	628.1	615.6	599.8	584.0	568.2	552.3	541.0
37.5°	630.5	620.4	610.3	600.2	590.2	576.7	559.9	543.0	526.2	509.3	496.9
40°	606.5	595.7	584.9	574.2	563.4	549.3	531.9	514.4	497.0	479.6	466.8
42.5°	581.9	570.6	559.2	547.9	536.5	521.8	503.8	485.8	467.8	449.8	436.6
45°	543.4	531.4	519.4	507.3	495.3	479.8	461.0	442.1	423.2	404.3	391.6
47.5°	505.9	493.1	480.4	467.6	454.9	438.8	419.3	399.8	380.3	360.8	348.2
50°	478.7	466.0	453.2	440.5	427.7	411.5	391.7	371.9	352.1	332.4	320.0
52.5°	452.3	438.9	425.6	412.3	398.9	382.5	363.2	343.9	324.6	305.2	293.3
55°	413.3	399.3	385.2	371.2	357.2	340.5	321.1	301.7	282.3	262.8	252.1
57.5°	373.3	358.9	344.5	330.2	315.8	299.3	280.6	262.0	243.3	224.7	214.8
60°	346.1	331.8	317.3	303.0	288.6	272.2	253.7	235.1	216.7	198.1	188.9
62.5°	319.6	305.2	290.8	276.5	262.1	246.1	228.5	210.8	193.1	175.5	166.8
65°	279.0	264.4	249.9	235.4	220.8	205.4	189.3	173.1	156.9	140.7	134.6
67.5°	239.9	225.4	211.0	196.5	182.0	167.5	153.0	138.5	123.9	109.3	106.5
70°	212.7	198.7	184.7	170.6	156.6	143.4	131.0	118.6	106.2	93.8	92.0
72.5°	186.8	173.3	159.9	146.5	133.0	121.4	111.4	101.4	91.5	81.5	80.0
75°	148.8	136.3	123.7	111.1	98.5	89.1	83.0	76.9	70.8	64.7	63.5
77.5°	111.5	100.4	89.4	78.3	67.3	60.3	57.4	54.4	51.5	48.6	47.8
80°	88.2	79.0	69.8	60.7	51.5	46.0	44.2	42.4	40.6	38.8	38.1
82.5°	66.8	59.7	52.5	45.3	38.2	34.0	32.8	31.5	30.3	29.2	28.7
85°	34.8	31.0	27.3	23.4	19.6	17.5	17.0	16.5	15.9	15.4	15.4
87.5°	10.5	9.4	8.5	7.4	6.5	6.0	6.2	6.3	6.4	6.5	6.5
90°	0.3	1.2	2.0	2.9	3.6	4.4	5.0	5.5	6.2	6.7	7.1
92.5°	6.8	6.7	6.7	6.6	6.6	6.7	7.0	7.3	7.5	7.8	8.1
95°	22.0	19.5	17.0	14.6	12.0	11.1	11.6	12.1	12.7	13.2	13.5
97.5°	43.6	36.7	29.7	22.7	15.7	12.8	14.0	15.2	16.5	17.7	18.0
100°	60.0	49.6	39.3	29.0	18.7	14.2	15.4	16.7	18.0	19.3	19.9
102.5°	77.8	75.7	73.4	71.3	69.1	62.7	52.0	41.3	30.6	19.8	20.6
105°	102.9	105.2	107.4	109.7	111.9	102.8	82.3	61.7	41.2	20.7	21.5
107.5°	131.6	133.4	135.2	137.0	138.9	127.5	102.8	78.2	53.6	28.9	28.0
110°	150.0	151.5	153.1	154.7	156.3	146.2	124.5	102.7	81.0	59.3	51.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.3	168.7	170.2	171.5	172.9	171.0	165.6	160.2	154.8	149.5	122.0
115°	194.7	196.0	197.3	198.5	199.8	201.4	203.3	205.2	207.0	208.9	174.0
117.5°	219.1	220.5	222.0	223.4	224.8	226.2	227.5	228.8	230.1	231.4	223.0
120°	237.0	238.1	239.2	240.4	241.5	242.8	244.2	245.5	246.8	248.2	249.1
122.5°	252.2	253.3	254.5	255.7	256.9	258.3	259.8	261.2	262.7	264.2	264.7
125°	275.3	276.2	277.3	278.2	279.2	280.4	281.9	283.3	284.7	286.1	286.6
127.5°	296.2	297.3	298.3	299.4	300.6	301.6	302.7	303.7	304.8	305.9	306.7
130°	309.5	310.7	311.9	313.1	314.3	315.3	316.2	317.0	317.8	318.6	319.4
132.5°	323.1	324.0	325.0	326.1	327.1	328.0	328.8	329.7	330.5	331.4	332.1
135°	340.6	341.8	343.0	344.2	345.5	346.3	347.1	347.8	348.4	349.1	349.8
137.5°	358.5	359.3	360.1	361.0	361.8	362.6	363.4	364.2	364.9	365.7	366.4
140°	370.1	370.7	371.3	371.9	372.5	373.2	374.1	374.9	375.7	376.5	377.2
142.5°	379.9	380.4	380.9	381.4	382.0	382.8	383.7	384.6	385.6	386.5	387.1
145°	395.1	395.1	395.0	394.9	394.8	395.5	396.7	398.0	399.3	400.5	401.1
147.5°	408.4	408.2	407.9	407.7	407.3	407.8	409.1	410.4	411.6	412.9	413.3
150°	417.2	416.6	416.1	415.6	415.0	415.3	416.6	417.8	419.0	420.2	420.6
152.5°	424.5	423.9	423.3	422.7	422.1	422.4	423.5	424.7	425.8	427.0	427.4
155°	435.1	434.4	433.7	433.1	432.4	432.5	433.4	434.3	435.2	436.1	436.6
157.5°	443.4	442.8	442.3	441.7	441.2	441.2	441.8	442.4	443.1	443.7	444.2
160°	448.3	447.8	447.4	446.9	446.5	446.5	446.9	447.4	447.8	448.3	448.8
162.5°	452.7	452.2	451.7	451.3	450.8	450.8	451.1	451.5	451.9	452.3	452.9
165°	458.4	458.0	457.6	457.1	456.6	456.5	456.8	457.0	457.2	457.4	458.0
167.5°	462.8	462.3	461.9	461.4	461.0	460.9	461.1	461.3	461.5	461.7	462.2
170°	465.2	464.8	464.3	463.9	463.4	463.3	463.4	463.6	463.7	463.9	464.4
172.5°	466.8	466.4	466.0	465.5	465.0	464.9	465.0	465.2	465.3	465.5	466.0
175°	469.0	468.4	467.9	467.4	466.8	466.7	466.8	467.0	467.1	467.2	467.8
177.5°	469.3	468.9	468.4	468.0	467.6	467.4	467.5	467.5	467.6	467.6	468.1
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	889.4	890.8	892.2	892.8	892.6	892.2	892.0	891.7
5°	882.3	883.9	885.5	886.1	885.5	884.9	884.5	883.9
7.5°	868.0	868.5	868.9	868.7	867.8	866.9	865.9	865.0
10°	853.7	853.2	852.6	851.8	850.7	849.7	848.6	847.5
12.5°	837.3	836.4	835.4	834.0	832.2	830.4	828.6	826.8
15°	806.8	803.3	799.9	797.3	795.5	793.7	791.9	790.1
17.5°	772.1	768.0	764.0	760.4	757.3	754.2	751.1	748.1
20°	748.0	743.5	738.9	734.7	730.8	726.8	722.9	718.9
22.5°	721.4	715.7	709.9	705.5	702.5	699.6	696.6	693.7
25°	677.5	670.1	662.7	657.7	655.1	652.4	649.7	647.0
27.5°	635.6	627.0	618.5	612.0	607.7	603.4	599.1	594.8
30°	606.0	596.8	587.6	580.7	575.8	570.9	566.1	561.3
32.5°	576.2	565.8	555.3	547.8	543.2	538.7	534.1	529.6
35°	529.7	518.4	507.1	499.4	495.4	491.5	487.6	483.6
37.5°	484.3	471.9	459.5	450.9	446.4	441.9	437.4	432.8
40°	454.0	441.2	428.5	419.8	415.1	410.4	405.8	401.1
42.5°	423.4	410.2	397.0	388.2	383.7	379.1	374.6	370.0
45°	378.8	366.1	353.3	344.8	340.5	336.1	331.8	327.5
47.5°	335.5	322.8	310.1	301.8	297.9	294.0	290.0	286.1
50°	307.6	295.2	282.8	274.6	270.9	267.1	263.4	259.6
52.5°	281.3	269.3	257.3	249.6	246.1	242.6	239.2	235.7
55°	241.3	230.4	219.7	212.6	209.2	205.7	202.3	198.9
57.5°	204.9	195.0	185.1	178.7	175.9	173.0	170.1	167.2
60°	179.8	170.6	161.4	155.4	152.6	149.7	146.8	143.9
62.5°	158.0	149.2	140.5	135.3	133.6	131.9	130.2	128.4
65°	128.5	122.4	116.3	113.0	112.4	111.9	111.3	110.8
67.5°	103.7	100.9	98.2	96.4	95.9	95.3	94.7	94.1
70°	90.2	88.4	86.6	85.4	84.6	83.9	83.2	82.5
72.5°	78.5	77.0	75.5	74.5	74.1	73.7	73.2	72.8
75°	62.2	60.9	59.7	58.9	58.8	58.6	58.4	58.2
77.5°	47.1	46.3	45.6	45.2	44.8	44.6	44.3	44.0
80°	37.4	36.7	36.0	35.6	35.6	35.6	35.6	35.6
82.5°	28.3	27.8	27.4	27.2	27.2	27.2	27.2	27.2
85°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
87.5°	6.4	6.3	6.3	6.3	6.3	6.3	6.3	6.3
90°	7.5	7.9	8.2	8.6	8.7	8.9	9.0	9.1
92.5°	8.2	8.5	8.6	8.8	8.9	9.0	9.0	9.1
95°	13.9	14.3	14.7	14.9	14.8	14.7	14.7	14.6
97.5°	18.3	18.6	18.9	19.1	19.2	19.3	19.3	19.4
100°	20.5	21.1	21.7	22.1	22.3	22.4	22.5	22.7
102.5°	21.4	22.2	23.0	23.4	23.7	23.9	24.1	24.3
105°	22.3	23.1	24.0	24.6	24.8	25.1	25.4	25.7
107.5°	27.3	26.4	25.5	25.3	25.6	25.9	26.1	26.5
110°	44.2	36.7	29.2	25.5	25.8	26.1	26.5	26.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	94.6	67.1	39.7	26.1	26.3	26.5	26.8	27.0
115°	139.3	104.4	69.6	49.4	44.0	38.6	33.2	27.7
117.5°	214.5	206.1	197.6	184.6	166.8	148.9	131.2	113.4
120°	250.0	250.9	251.8	247.2	237.0	226.9	216.7	206.5
122.5°	265.2	265.8	266.3	265.6	263.6	261.7	259.7	257.7
125°	287.2	287.7	288.2	288.6	288.8	289.1	289.3	289.5
127.5°	307.4	308.2	309.0	309.3	309.4	309.4	309.5	309.5
130°	320.3	321.1	321.9	322.3	322.3	322.2	322.1	322.0
132.5°	332.8	333.4	334.1	334.5	334.4	334.3	334.3	334.2
135°	350.6	351.3	352.1	352.4	352.3	352.1	352.0	351.8
137.5°	367.2	367.9	368.6	368.8	368.6	368.4	368.1	367.8
140°	377.9	378.6	379.2	379.4	379.0	378.6	378.3	377.9
142.5°	387.8	388.4	389.0	389.1	388.7	388.4	388.0	387.6
145°	401.6	402.1	402.7	402.7	402.3	402.0	401.6	401.2
147.5°	413.7	414.1	414.5	414.5	414.2	413.8	413.5	413.2
150°	421.1	421.5	422.0	422.1	421.7	421.3	420.9	420.6
152.5°	427.9	428.3	428.8	428.7	428.3	427.8	427.2	426.7
155°	437.0	437.4	437.9	437.8	437.2	436.7	436.0	435.5
157.5°	444.7	445.2	445.8	445.7	445.1	444.5	443.9	443.4
160°	449.2	449.6	450.1	450.0	449.6	449.0	448.5	448.0
162.5°	453.4	453.9	454.4	454.3	453.7	453.0	452.4	451.8
165°	458.5	459.0	459.5	459.5	459.0	458.5	458.0	457.4
167.5°	462.8	463.3	463.8	463.7	463.0	462.4	461.7	461.1
170°	464.9	465.5	466.0	465.9	465.2	464.5	463.9	463.2
172.5°	466.5	467.1	467.6	467.5	466.8	466.2	465.5	464.9
175°	468.3	468.8	469.4	469.3	468.5	467.8	467.0	466.3
177.5°	468.5	468.9	469.4	469.3	468.7	468.2	467.6	467.1
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9

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