

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: P331807-930

Luminaire Tested: **S122RDIW-S675D435U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331807-930
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-S675D435U930-4F0-1E-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: 3304.0 lumens
Efficiency: N/A
Efficacy: 87.6 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

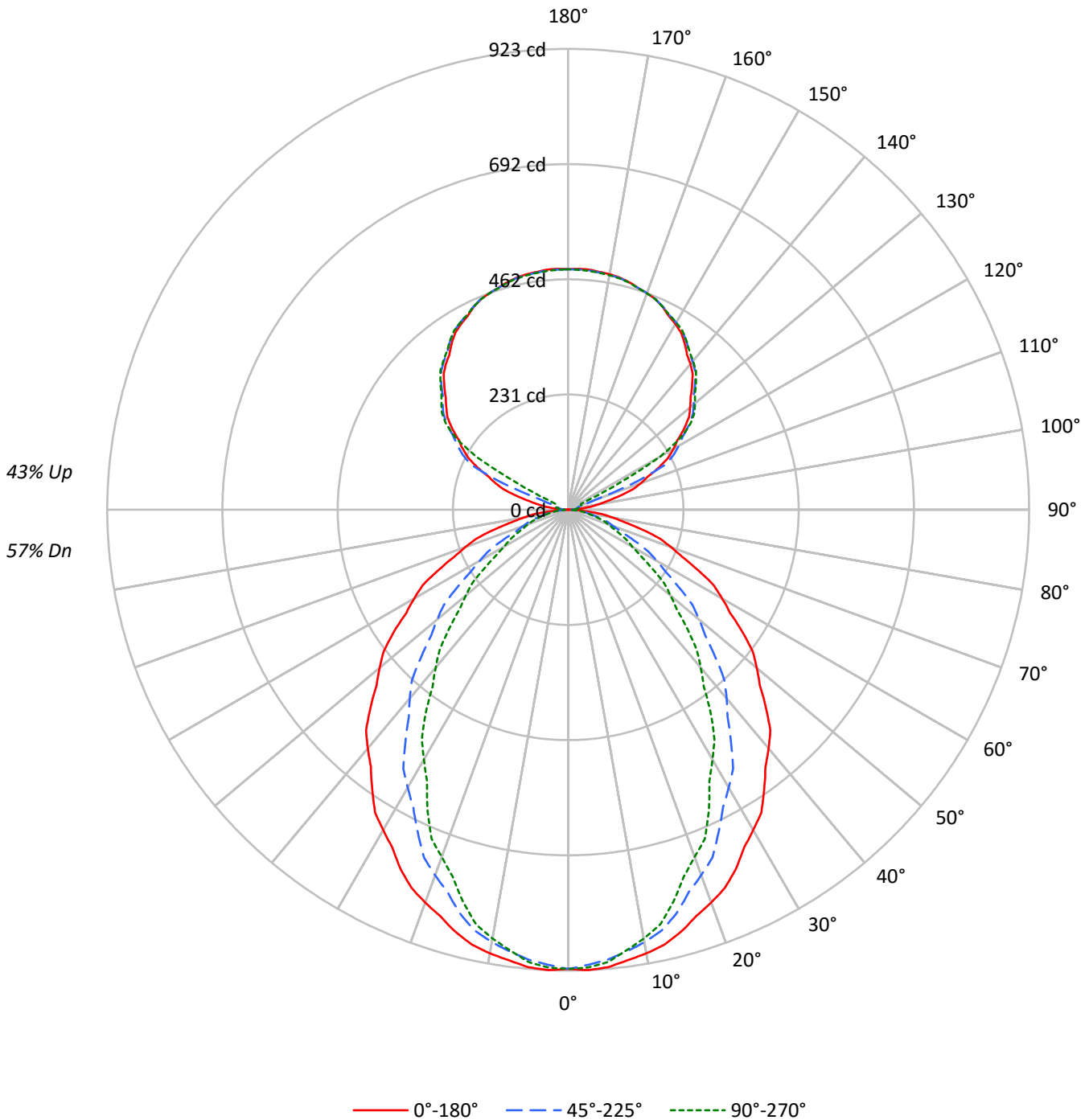
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	14849	14849	14849
5°	14906	14663	14744
10°	14791	14423	14300
15°	14621	13996	13593
20°	14387	13385	12713
25°	14145	12691	11863
30°	13811	11979	10769
35°	13484	11203	9810
40°	13156	10404	8701
45°	12771	9501	7695
50°	12376	8593	6712
55°	11972	7614	5762
60°	11502	6584	4782
65°	10968	5532	4359
70°	10334	4556	4008
75°	9551	4155	3737
80°	8433	3710	3403
85°	6632	2927	2927



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	2.6
10°-20°	236.4	7.2
20°-30°	331.9	10.0
30°-40°	361.9	11.0
40°-50°	332.8	10.1
50°-60°	261.4	7.9
60°-70°	170.4	5.2
70°-80°	87.9	2.7
80°-90°	24.0	0.7
90°-100°	16.1	0.5
100°-110°	58.9	1.8
110°-120°	157.5	4.8
120°-130°	259.9	7.9
130°-140°	276.4	8.4
140°-150°	256.9	7.8
150°-160°	206.6	6.3
160°-170°	133.1	4.0
170°-180°	45.8	1.4
0°-30°	654.4	19.8
0°-40°	1016.3	30.8
0°-60°	1610.5	48.7
0°-90°	1892.7	57.3
90°-120°	232.4	7.0
90°-150°	1025.8	31.0
90°-180°	1411.0	42.7
0°-180°	3304.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	920	915	905	912	910	87
15°	875	864	837	822	813	246
25°	794	766	712	680	666	365
35°	684	640	568	518	498	428
45°	559	502	416	359	337	432
55°	425	359	270	222	205	380
65°	287	219	145	118	114	285
75°	153	96	67	61	60	162
85°	36	19	16	16	16	42
90°	0	4	7	9	9	3
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°	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7
2.5°	923.0	922.3	921.5	920.8	920.1	918.8	917.2	915.6	914.0	912.4	913.9
5°	919.7	918.8	917.9	916.9	916.0	914.4	911.9	909.5	907.1	904.7	906.4
7.5°	910.2	909.1	907.9	906.8	905.6	903.6	900.8	898.1	895.2	892.4	892.8
10°	902.2	900.9	899.6	898.3	897.0	894.5	890.8	887.1	883.5	879.7	879.2
12.5°	892.2	890.6	889.0	887.5	885.8	882.7	878.0	873.3	868.5	863.7	862.7
15°	874.7	872.7	870.7	868.6	866.6	862.4	856.1	849.9	843.6	837.3	833.8
17.5°	853.3	850.2	847.1	843.9	840.8	835.3	827.2	819.1	811.1	803.0	798.8
20°	837.3	833.6	829.9	826.2	822.5	816.0	806.7	797.5	788.3	779.0	774.4
22.5°	819.9	815.9	811.7	807.6	803.4	796.1	785.7	775.3	764.8	754.4	748.4
25°	794.0	788.1	782.2	776.2	770.4	761.2	749.1	736.9	724.6	712.4	704.8
27.5°	762.7	756.3	749.8	743.4	736.9	726.8	713.1	699.4	685.6	671.8	663.0
30°	740.8	733.7	726.7	719.7	712.7	701.7	686.9	672.1	657.3	642.5	633.1
32.5°	719.4	711.2	703.0	694.8	686.6	674.9	659.8	644.7	629.7	614.6	603.8
35°	684.1	674.7	665.3	655.8	646.5	633.6	617.3	601.0	584.7	568.4	556.8
37.5°	648.9	638.5	628.1	617.8	607.4	593.5	576.3	558.9	541.5	524.2	511.4
40°	624.2	613.1	602.0	590.9	579.8	565.3	547.4	529.5	511.5	493.6	480.5
42.5°	598.9	587.3	575.5	563.9	552.2	537.0	518.5	500.0	481.4	462.9	449.3
45°	559.3	546.9	534.5	522.1	509.7	493.8	474.4	455.0	435.5	416.1	403.0
47.5°	520.7	507.5	494.4	481.3	468.1	451.6	431.5	411.5	391.4	371.4	358.3
50°	492.7	479.6	466.4	453.3	440.2	423.5	403.1	382.8	362.4	342.1	329.3
52.5°	465.5	451.7	438.0	424.3	410.5	393.7	373.8	353.9	334.0	314.1	301.8
55°	425.3	410.9	396.5	382.0	367.6	350.4	330.4	310.5	290.5	270.5	259.4
57.5°	384.2	369.4	354.6	339.8	325.0	308.0	288.8	269.6	250.4	231.2	221.0
60°	356.2	341.4	326.6	311.9	297.0	280.1	261.1	242.0	223.0	203.9	194.4
62.5°	328.9	314.1	299.3	284.5	269.7	253.2	235.1	217.0	198.8	180.6	171.6
65°	287.1	272.1	257.1	242.2	227.2	211.4	194.8	178.1	161.4	144.8	138.5
67.5°	246.9	232.0	217.1	202.3	187.4	172.4	157.4	142.5	127.5	112.5	109.7
70°	218.9	204.5	190.0	175.6	161.2	147.6	134.9	122.1	109.3	96.5	94.7
72.5°	192.2	178.4	164.6	150.7	136.9	124.9	114.6	104.4	94.2	83.9	82.3
75°	153.1	140.2	127.3	114.3	101.3	91.7	85.4	79.2	72.9	66.6	65.3
77.5°	114.7	103.3	92.0	80.6	69.3	62.0	59.0	56.0	53.0	50.0	49.2
80°	90.7	81.3	71.8	62.5	53.0	47.4	45.5	43.6	41.8	39.9	39.2
82.5°	68.7	61.4	54.1	46.6	39.3	35.0	33.8	32.4	31.2	30.0	29.5
85°	35.8	31.9	28.0	24.1	20.2	18.0	17.4	17.0	16.4	15.8	15.8
87.5°	10.8	9.7	8.7	7.7	6.7	6.2	6.4	6.4	6.6	6.7	6.7
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°	919.7	919.7	919.7	919.7	919.7	919.7	919.7	919.7
2.5°	915.3	916.8	918.3	918.8	918.6	918.3	918.0	917.7
5°	908.0	909.7	911.3	911.9	911.3	910.8	910.3	909.7
7.5°	893.3	893.8	894.3	894.1	893.1	892.2	891.2	890.2
10°	878.6	878.1	877.5	876.7	875.5	874.5	873.3	872.2
12.5°	861.8	860.8	859.7	858.3	856.5	854.7	852.8	850.9
15°	830.3	826.7	823.2	820.5	818.7	816.8	815.0	813.2
17.5°	794.7	790.4	786.3	782.6	779.4	776.2	773.1	769.9
20°	769.8	765.2	760.5	756.2	752.1	748.0	744.0	739.9
22.5°	742.5	736.5	730.6	726.1	723.0	720.0	717.0	714.0
25°	697.2	689.7	682.1	676.9	674.2	671.4	668.6	665.9
27.5°	654.1	645.3	636.5	629.8	625.4	621.0	616.6	612.2
30°	623.7	614.2	604.8	597.6	592.6	587.6	582.6	577.6
32.5°	593.0	582.3	571.5	563.8	559.1	554.4	549.7	545.0
35°	545.2	533.5	521.9	514.0	509.9	505.8	501.8	497.7
37.5°	498.5	485.7	472.9	464.1	459.4	454.8	450.1	445.5
40°	467.2	454.1	441.0	432.0	427.2	422.4	417.6	412.8
42.5°	435.8	422.2	408.6	399.5	394.8	390.2	385.6	380.8
45°	389.9	376.7	363.6	354.8	350.4	345.9	341.5	337.0
47.5°	345.3	332.2	319.1	310.6	306.6	302.6	298.5	294.5
50°	316.6	303.8	291.1	282.7	278.8	274.9	271.1	267.2
52.5°	289.5	277.1	264.8	256.9	253.3	249.7	246.1	242.6
55°	248.3	237.2	226.1	218.8	215.3	211.7	208.2	204.7
57.5°	210.8	200.7	190.5	183.9	181.0	178.1	175.0	172.1
60°	185.1	175.6	166.2	160.0	157.0	154.1	151.1	148.1
62.5°	162.7	153.6	144.6	139.3	137.5	135.7	134.0	132.2
65°	132.2	126.0	119.7	116.3	115.7	115.1	114.5	114.1
67.5°	106.7	103.9	101.0	99.2	98.7	98.1	97.5	96.9
70°	92.9	91.0	89.1	87.9	87.1	86.3	85.6	84.9
72.5°	80.8	79.2	77.7	76.7	76.2	75.8	75.3	74.9
75°	64.0	62.7	61.4	60.7	60.5	60.3	60.1	59.9
77.5°	48.4	47.7	47.0	46.5	46.1	45.9	45.6	45.2
80°	38.5	37.7	37.0	36.6	36.6	36.6	36.6	36.6
82.5°	29.1	28.6	28.2	28.0	28.0	28.0	28.0	28.0
85°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
87.5°	6.6	6.5	6.4	6.4	6.4	6.4	6.5	6.5
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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