

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: P333041-927

Luminaire Tested: **S124RDIW-S575D770U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333041-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S575D770U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4294.3 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

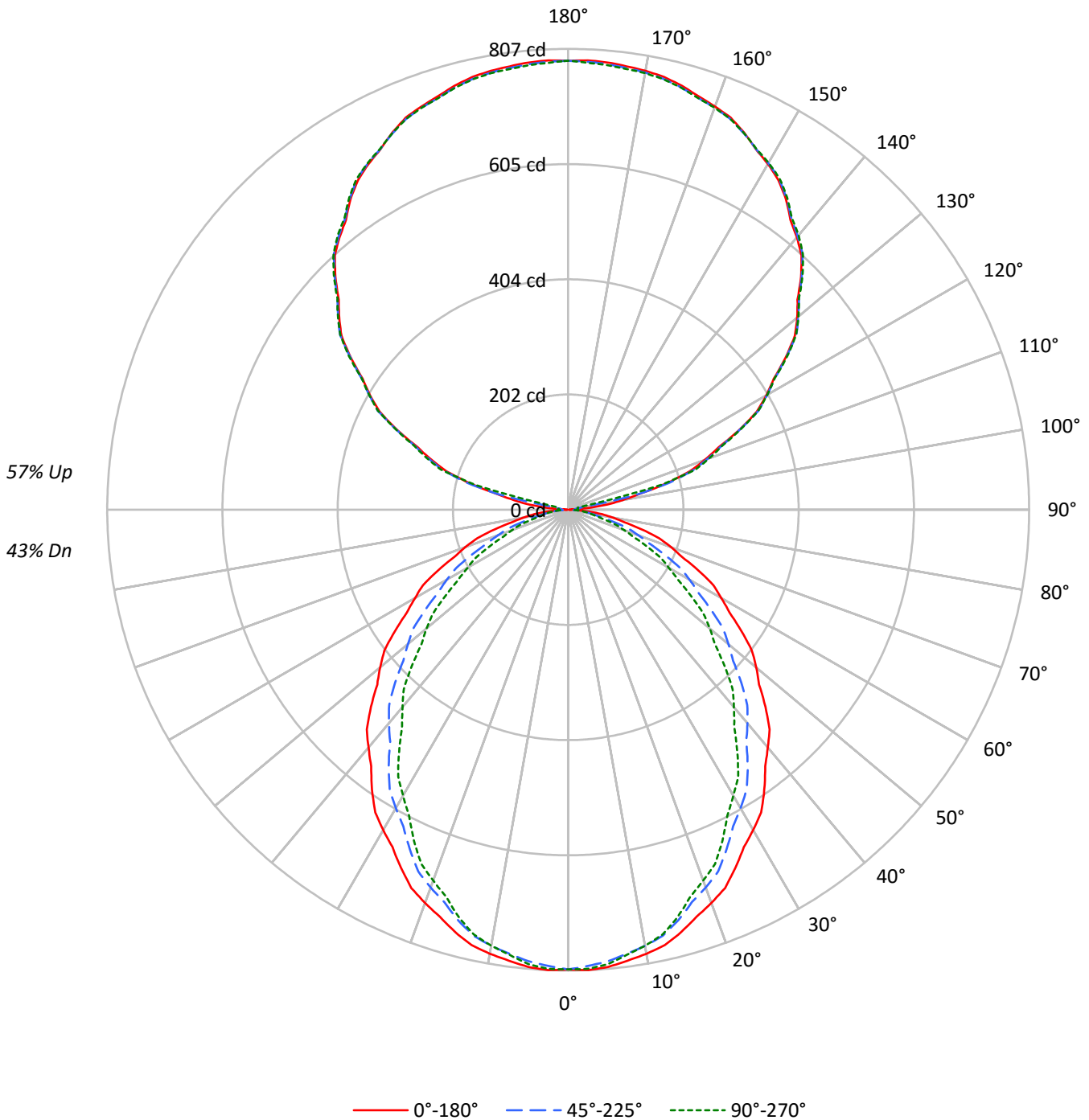
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43
1	97	92	89	85	88	85	81	79	70	68	66	57	55	54	45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	39	38	36	31
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	35	33	31	27
4	74	63	55	50	67	58	51	46	49	44	40	40	36	33	32	29	27	23
5	68	56	48	43	62	52	45	40	44	38	34	36	32	29	29	26	24	20
6	62	51	43	37	57	47	40	35	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	29	49	38	32	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13
10	47	35	28	23	43	32	26	22	27	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.8
10°-20°	210.9	4.9
20°-30°	304.5	7.1
30°-40°	345.2	8.0
40°-50°	333.3	7.8
50°-60°	277.2	6.5
60°-70°	191.4	4.5
70°-80°	97.0	2.3
80°-90°	27.2	0.6
90°-100°	26.9	0.6
100°-110°	171.5	4.0
110°-120°	328.0	7.6
120°-130°	416.3	9.7
130°-140°	445.5	10.4
140°-150°	416.6	9.7
150°-160°	335.9	7.8
160°-170°	216.7	5.0
170°-180°	74.7	1.7
0°-30°	591.0	13.8
0°-40°	936.2	21.8
0°-60°	1546.7	36.0
0°-90°	1862.3	43.4
90°-120°	526.3	12.3
90°-150°	1804.7	42.0
90°-180°	2432.0	56.6
0°-180°	4294.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	37
90°	2	8	13	16	18	3
95°	32	14	13	16	17	42
105°	177	180	184	187	168	185
115°	330	332	332	333	333	325
125°	464	467	466	467	468	415
135°	576	576	578	579	580	444
145°	664	666	666	667	668	415
155°	729	729	727	729	728	336
165°	769	766	766	770	765	217
175°	786	783	783	788	782	75
180°	786	786	786	786	786	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.7	11.1	10.5	9.9	9.3	9.1	9.2	9.3	9.4	9.5	9.5
90°	1.7	3.2	4.7	6.1	7.5	8.8	9.8	10.9	11.9	12.9	13.7
92.5°	7.4	7.5	7.6	7.6	7.7	8.3	9.3	10.4	11.4	12.4	13.2
95°	32.3	27.9	23.4	19.0	14.6	12.4	12.5	12.7	12.8	12.9	13.7
97.5°	68.7	71.5	74.2	77.0	79.8	73.8	59.3	44.7	30.1	15.5	15.6
100°	96.4	98.8	101.2	103.5	105.8	98.0	80.0	61.9	43.9	25.9	23.7
102.5°	127.5	129.2	130.9	132.7	134.4	134.0	131.7	129.4	127.0	124.7	100.7
105°	177.0	177.8	178.6	179.4	180.1	180.9	181.5	182.1	182.8	183.5	184.7
107.5°	223.0	223.4	223.8	224.2	224.6	225.2	226.1	227.0	227.8	228.7	229.3
110°	254.1	254.4	254.8	255.2	255.6	256.2	257.0	257.8	258.6	259.3	259.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	284.2	284.9	285.6	286.2	286.9	287.5	287.9	288.2	288.6	289.0	288.9
115°	330.5	330.9	331.3	331.6	332.0	332.2	332.0	331.9	331.8	331.6	331.9
117.5°	372.2	372.7	373.3	373.8	374.3	374.7	375.0	375.3	375.6	375.9	375.8
120°	400.4	401.0	401.5	402.0	402.5	402.7	402.6	402.5	402.3	402.2	402.5
122.5°	426.8	427.1	427.4	427.7	428.0	428.3	428.5	428.6	428.8	429.0	429.2
125°	464.5	465.1	465.6	466.1	466.6	466.8	466.5	466.3	466.0	465.7	466.1
127.5°	500.3	500.4	500.6	500.7	500.8	501.2	501.8	502.4	503.0	503.6	503.5
130°	523.3	523.5	523.6	523.7	523.9	524.1	524.5	524.9	525.3	525.7	525.9
132.5°	544.5	544.8	545.0	545.2	545.4	545.8	546.3	546.8	547.3	547.8	548.0
135°	576.2	576.2	576.0	575.8	575.8	575.9	576.5	576.9	577.5	578.1	578.3
137.5°	604.4	604.4	604.5	604.5	604.6	604.9	605.5	606.0	606.7	607.2	607.4
140°	622.7	623.0	623.2	623.5	623.8	624.0	624.3	624.6	624.8	625.1	625.4
142.5°	639.2	639.7	640.2	640.6	641.0	641.4	641.5	641.7	641.8	642.0	642.3
145°	664.5	664.9	665.3	665.7	666.1	666.2	666.2	666.2	666.2	666.2	666.4
147.5°	684.6	685.3	686.0	686.7	687.5	687.8	687.7	687.5	687.4	687.3	687.4
150°	699.2	699.7	700.2	700.8	701.2	701.5	701.3	701.2	701.1	700.9	700.9
152.5°	711.4	711.8	712.3	712.6	713.0	713.1	712.9	712.7	712.5	712.3	712.4
155°	728.6	728.7	728.8	729.0	729.1	729.0	728.6	728.2	727.8	727.4	727.9
157.5°	743.1	743.0	742.9	742.8	742.8	742.4	742.0	741.6	741.1	740.7	741.3
160°	751.5	751.1	750.8	750.4	750.0	749.6	749.6	749.4	749.2	749.2	750.0
162.5°	759.0	758.5	758.0	757.6	757.0	756.7	756.6	756.5	756.3	756.2	757.0
165°	768.6	767.9	767.2	766.6	766.0	765.6	765.6	765.6	765.6	765.6	766.7
167.5°	776.1	775.4	774.8	774.0	773.3	773.0	772.9	772.9	772.8	772.7	773.8
170°	780.3	779.5	778.7	777.9	777.2	776.8	777.0	777.1	777.2	777.4	778.4
172.5°	783.2	782.4	781.6	780.8	780.0	779.7	779.8	779.9	780.1	780.2	781.3
175°	786.2	785.4	784.7	783.9	783.1	782.8	782.8	783.0	783.2	783.2	784.4
177.5°	787.6	786.9	786.2	785.4	784.7	784.4	784.7	784.8	785.1	785.2	786.1
180°	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	9.6	9.7	9.7	9.8	10.0	10.1	10.3	10.5
90°	14.5	15.3	16.1	16.6	16.9	17.1	17.3	17.7
92.5°	14.0	14.8	15.6	16.0	16.1	16.2	16.2	16.2
95°	14.5	15.3	16.1	16.6	16.6	16.8	17.0	17.0
97.5°	15.7	15.8	15.8	15.9	16.1	16.2	16.3	16.5
100°	21.5	19.2	17.0	15.9	16.1	16.2	16.3	16.5
102.5°	76.8	52.8	28.8	16.8	16.9	16.9	16.9	17.0
105°	185.8	187.0	188.1	186.4	181.7	177.0	172.3	167.6
107.5°	229.9	230.4	231.1	231.6	232.1	232.6	233.1	233.5
110°	259.8	260.1	260.4	260.7	261.1	261.5	261.9	262.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	288.8	288.8	288.8	289.0	289.5	289.9	290.5	291.0
115°	332.2	332.4	332.7	332.8	332.8	332.8	332.8	332.8
117.5°	375.7	375.7	375.7	375.6	375.6	375.5	375.4	375.4
120°	402.7	403.0	403.2	403.2	403.0	402.7	402.5	402.2
122.5°	429.4	429.5	429.7	429.6	429.4	429.0	428.8	428.6
125°	466.5	466.9	467.3	467.5	467.7	467.8	467.9	468.1
127.5°	503.4	503.4	503.3	503.2	503.1	503.0	502.9	502.8
130°	525.9	526.1	526.2	526.2	526.2	526.2	526.2	526.2
132.5°	548.0	548.2	548.3	548.3	548.3	548.1	548.0	548.0
135°	578.5	578.8	579.1	579.3	579.6	579.9	580.1	580.4
137.5°	607.8	608.1	608.3	608.5	608.4	608.3	608.2	608.2
140°	625.8	626.2	626.6	626.9	627.0	627.2	627.3	627.4
142.5°	642.6	642.9	643.2	643.3	643.3	643.3	643.4	643.4
145°	666.5	666.6	666.8	666.9	667.2	667.5	667.7	668.0
147.5°	687.5	687.6	687.7	687.9	687.9	688.1	688.2	688.3
150°	700.9	700.9	700.9	701.0	701.2	701.2	701.4	701.5
152.5°	712.6	712.8	713.0	713.1	713.0	713.0	712.9	712.8
155°	728.4	729.0	729.4	729.5	729.1	728.7	728.3	728.0
157.5°	742.0	742.8	743.4	743.4	742.8	742.0	741.3	740.7
160°	750.8	751.5	752.3	752.3	751.5	750.8	750.0	749.2
162.5°	757.8	758.5	759.3	759.3	758.4	757.5	756.6	755.7
165°	767.7	768.7	769.8	769.8	768.6	767.4	766.2	765.0
167.5°	775.0	776.1	777.3	777.2	775.9	774.6	773.2	772.0
170°	779.4	780.5	781.6	781.4	780.1	778.8	777.5	776.2
172.5°	782.3	783.3	784.3	784.2	782.8	781.4	780.0	778.6
175°	785.6	786.8	788.0	787.7	786.2	784.7	783.1	781.5
177.5°	787.0	787.7	788.6	788.4	787.1	785.8	784.7	783.4
180°	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2

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