

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: P333041-940

Luminaire Tested: **S124RDIW-S575D770U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333041-940
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-S575D770U940-4F0-1E-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: 4833.8 lumens
Efficiency: N/A
Efficacy: 128.6 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

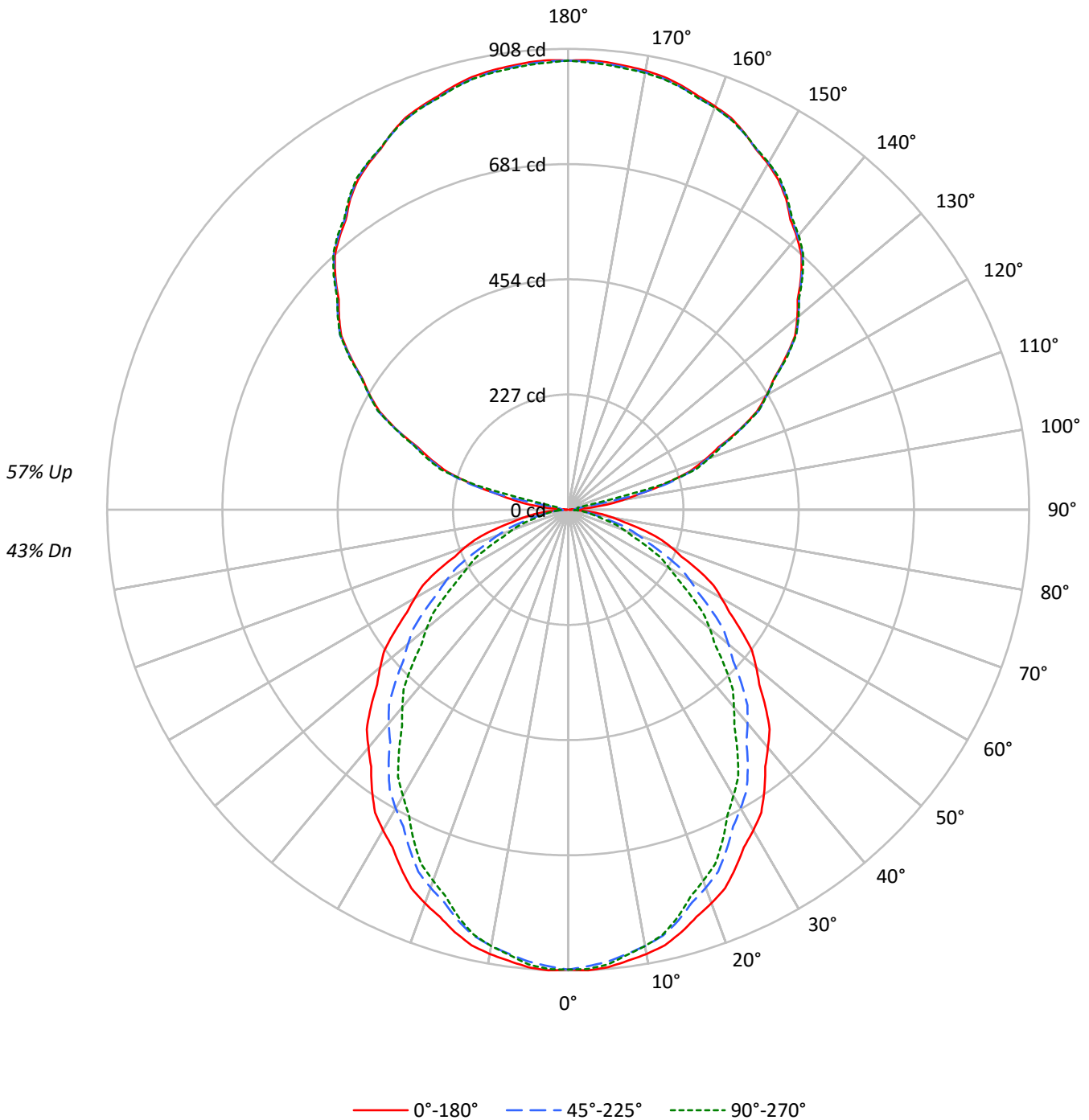
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7316	7316	7316
5°	7332	7243	7288
10°	7287	7156	7156
15°	7203	7005	6954
20°	7088	6808	6682
25°	6942	6576	6409
30°	6797	6332	6068
35°	6640	6080	5724
40°	6450	5792	5352
45°	6275	5505	4975
50°	6075	5176	4575
55°	5859	4835	4141
60°	5624	4459	3697
65°	5408	3989	3261
70°	5094	3472	2769
75°	4697	2879	2249
80°	4096	2194	2064
85°	3473	1991	1871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	1.8
10°-20°	237.4	4.9
20°-30°	342.8	7.1
30°-40°	388.6	8.0
40°-50°	375.2	7.8
50°-60°	312.0	6.5
60°-70°	215.4	4.5
70°-80°	109.2	2.3
80°-90°	30.6	0.6
90°-100°	30.3	0.6
100°-110°	193.0	4.0
110°-120°	369.2	7.6
120°-130°	468.7	9.7
130°-140°	501.4	10.4
140°-150°	468.9	9.7
150°-160°	378.1	7.8
160°-170°	243.9	5.0
170°-180°	84.1	1.7
0°-30°	665.3	13.8
0°-40°	1053.9	21.8
0°-60°	1741.1	36.0
0°-90°	2096.3	43.4
90°-120°	592.4	12.3
90°-150°	2031.4	42.0
90°-180°	2737.0	56.6
0°-180°	4833.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	905	902	894	900	899	86
15°	862	855	838	837	832	243
25°	779	766	738	727	720	359
35°	674	651	617	594	581	421
45°	550	523	482	449	436	424
55°	416	388	344	309	294	372
65°	283	252	209	180	171	279
75°	151	125	92	77	72	159
85°	38	24	22	20	20	42
90°	2	9	14	18	20	4
95°	36	15	14	18	19	47
105°	199	203	206	211	189	208
115°	372	374	373	375	375	366
125°	523	525	524	526	527	467
135°	649	648	651	652	653	500
145°	748	750	750	751	752	467
155°	820	821	819	821	820	378
165°	865	862	862	866	861	244
175°	885	881	882	887	880	84
180°	885	885	885	885	885	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2
2.5°	908.5	907.9	907.5	907.0	906.5	905.5	904.2	902.9	901.4	900.1	901.4
5°	904.8	904.2	903.6	902.9	902.4	901.2	899.3	897.4	895.5	893.8	895.3
7.5°	896.6	896.0	895.4	894.7	894.0	892.5	890.1	887.7	885.3	882.9	883.9
10°	888.9	888.1	887.3	886.5	885.8	884.0	881.3	878.4	875.7	872.9	873.5
12.5°	878.9	878.0	877.1	876.2	875.3	873.3	870.0	866.7	863.4	860.1	860.5
15°	861.8	860.4	859.1	857.6	856.2	853.6	849.8	846.0	842.0	838.2	837.9
17.5°	841.2	839.1	837.1	835.1	833.1	829.8	825.2	820.6	815.9	811.3	810.5
20°	825.0	823.0	821.0	819.0	817.0	813.4	808.2	802.9	797.6	792.5	791.2
22.5°	807.3	805.0	802.8	800.5	798.3	794.3	788.7	783.1	777.5	771.9	770.0
25°	779.3	776.5	773.6	770.9	768.1	763.6	757.2	750.9	744.6	738.3	735.7
27.5°	749.8	746.4	742.9	739.4	735.8	730.8	724.0	717.3	710.5	703.7	700.5
30°	729.2	725.4	721.6	717.7	713.9	708.3	701.1	693.8	686.5	679.3	675.5
32.5°	707.7	703.3	698.9	694.6	690.3	684.3	676.8	669.3	661.8	654.3	649.9
35°	673.8	668.9	663.9	659.0	654.1	647.7	640.0	632.3	624.6	616.9	611.6
37.5°	637.6	632.5	627.4	622.3	617.2	610.4	601.8	593.3	584.8	576.2	570.3
40°	612.0	606.9	601.8	596.7	591.7	584.7	576.0	567.1	558.4	549.6	543.1
42.5°	587.5	582.3	576.9	571.6	566.2	559.0	549.8	540.6	531.5	522.4	515.8
45°	549.6	543.9	538.1	532.4	526.7	519.2	510.0	500.8	491.5	482.2	474.7
47.5°	510.3	504.4	498.5	492.6	486.7	478.9	469.3	459.8	450.1	440.5	432.7
50°	483.7	477.6	471.6	465.6	459.6	451.7	441.8	431.9	422.0	412.1	404.5
52.5°	456.5	450.6	444.7	438.8	432.8	424.9	414.7	404.7	394.5	384.4	376.6
55°	416.3	410.2	404.0	397.8	391.6	383.5	373.5	363.6	353.5	343.5	335.5
57.5°	376.7	370.2	363.8	357.4	351.0	342.9	333.0	323.1	313.3	303.4	295.2
60°	348.3	342.1	336.0	329.8	323.7	315.7	305.8	295.9	286.1	276.2	268.1
62.5°	322.8	316.4	310.0	303.5	297.1	288.9	278.7	268.7	258.5	248.4	241.0
65°	283.1	276.5	269.8	263.2	256.5	248.3	238.4	228.6	218.7	208.8	202.2
67.5°	241.9	235.5	229.2	222.8	216.5	208.7	199.6	190.4	181.3	172.1	166.4
70°	215.8	209.3	202.9	196.4	189.9	182.3	173.4	164.7	155.9	147.1	142.0
72.5°	188.1	182.2	176.3	170.5	164.6	157.6	149.3	141.0	132.6	124.3	120.0
75°	150.6	144.9	139.2	133.5	127.8	121.3	114.0	106.7	99.5	92.3	88.7
77.5°	112.5	107.7	102.9	98.0	93.2	87.8	81.9	76.2	70.3	64.4	62.3
80°	88.1	83.6	79.2	74.7	70.3	65.7	61.1	56.4	51.8	47.2	46.7
82.5°	67.1	63.0	58.9	54.8	50.6	47.3	44.6	41.9	39.3	36.6	36.3
85°	37.5	34.4	31.3	28.2	25.1	23.4	22.9	22.5	21.9	21.5	21.2
87.5°	13.2	12.5	11.9	11.1	10.5	10.3	10.3	10.4	10.6	10.7	10.7
90°	2.0	3.6	5.3	6.9	8.5	9.9	11.1	12.2	13.4	14.5	15.4
92.5°	8.4	8.5	8.6	8.6	8.6	9.4	10.5	11.7	12.8	14.0	14.9
95°	36.4	31.4	26.4	21.4	16.4	14.0	14.1	14.3	14.4	14.5	15.4
97.5°	77.3	80.4	83.6	86.7	89.8	83.1	66.7	50.3	33.9	17.5	17.6
100°	108.5	111.2	113.9	116.5	119.1	110.3	90.1	69.7	49.4	29.2	26.7
102.5°	143.5	145.4	147.4	149.4	151.2	150.9	148.3	145.6	142.9	140.4	113.3
105°	199.2	200.1	201.0	201.9	202.8	203.6	204.3	205.0	205.8	206.5	207.9
107.5°	251.0	251.5	251.9	252.4	252.8	253.5	254.5	255.5	256.5	257.4	258.2
110°	286.0	286.4	286.9	287.3	287.7	288.4	289.3	290.2	291.1	291.9	292.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	319.9	320.7	321.5	322.2	323.0	323.6	324.0	324.4	324.9	325.3	325.2
115°	372.0	372.5	372.9	373.3	373.7	373.9	373.7	373.6	373.4	373.3	373.6
117.5°	419.0	419.5	420.2	420.7	421.3	421.8	422.1	422.4	422.8	423.1	423.0
120°	450.8	451.4	451.9	452.5	453.1	453.3	453.2	453.1	452.9	452.7	453.1
122.5°	480.5	480.7	481.1	481.4	481.8	482.1	482.3	482.5	482.7	483.0	483.1
125°	522.9	523.5	524.1	524.7	525.2	525.4	525.1	524.9	524.5	524.2	524.7
127.5°	563.1	563.3	563.5	563.6	563.7	564.2	564.8	565.5	566.1	566.9	566.8
130°	589.1	589.2	589.4	589.5	589.7	590.0	590.4	590.8	591.3	591.7	591.9
132.5°	613.0	613.2	613.5	613.7	613.9	614.4	614.9	615.5	616.1	616.6	616.8
135°	648.6	648.5	648.4	648.2	648.1	648.3	648.9	649.4	650.1	650.7	650.9
137.5°	680.3	680.4	680.5	680.5	680.6	680.9	681.5	682.2	682.9	683.5	683.8
140°	701.0	701.2	701.5	701.9	702.1	702.4	702.8	703.0	703.3	703.6	704.0
142.5°	719.5	720.1	720.6	721.0	721.6	721.9	722.1	722.3	722.5	722.6	723.0
145°	748.0	748.4	748.9	749.3	749.8	749.9	749.9	749.9	749.9	749.9	750.1
147.5°	770.6	771.4	772.2	773.0	773.9	774.2	774.1	773.9	773.7	773.6	773.7
150°	787.0	787.6	788.2	788.8	789.3	789.6	789.4	789.3	789.2	789.0	789.0
152.5°	800.8	801.2	801.7	802.2	802.6	802.7	802.5	802.3	802.0	801.7	801.9
155°	820.1	820.3	820.4	820.6	820.7	820.6	820.1	819.7	819.2	818.8	819.4
157.5°	836.4	836.3	836.2	836.2	836.1	835.7	835.3	834.7	834.2	833.7	834.5
160°	845.9	845.4	845.1	844.6	844.2	843.8	843.7	843.6	843.4	843.3	844.2
162.5°	854.3	853.8	853.3	852.7	852.1	851.8	851.7	851.5	851.3	851.2	852.1
165°	865.1	864.3	863.6	862.9	862.2	861.8	861.8	861.8	861.8	861.8	863.0
167.5°	873.6	872.8	872.1	871.3	870.5	870.1	870.0	870.0	869.9	869.8	871.0
170°	878.3	877.4	876.6	875.7	874.9	874.4	874.6	874.8	874.9	875.0	876.2
172.5°	881.5	880.7	879.8	878.9	878.0	877.6	877.8	877.9	878.1	878.2	879.4
175°	884.9	884.0	883.2	882.3	881.5	881.1	881.2	881.4	881.5	881.6	883.0
177.5°	886.5	885.7	884.9	884.0	883.2	883.0	883.2	883.4	883.7	883.9	884.8
180°	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	906.2	906.2	906.2	906.2	906.2	906.2	906.2	906.2
2.5°	902.9	904.2	905.5	906.2	906.1	905.9	905.8	905.7
5°	896.8	898.4	899.9	900.5	900.2	899.9	899.6	899.3
7.5°	884.8	885.8	886.9	887.1	886.6	886.1	885.6	885.1
10°	874.1	874.8	875.4	875.4	874.8	874.1	873.5	872.9
12.5°	860.9	861.2	861.7	861.4	860.5	859.7	858.8	857.9
15°	837.6	837.3	837.0	836.3	835.2	834.1	833.0	832.0
17.5°	809.6	808.7	807.8	806.6	804.9	803.3	801.6	800.0
20°	790.0	788.7	787.5	785.9	783.9	781.9	779.9	777.8
22.5°	768.2	766.3	764.5	762.8	761.1	759.5	757.9	756.2
25°	733.1	730.4	727.8	725.8	724.2	722.6	721.1	719.5
27.5°	697.2	694.0	690.8	688.0	685.8	683.6	681.4	679.2
30°	671.6	667.7	663.9	660.8	658.3	655.8	653.4	650.9
32.5°	645.4	641.0	636.4	633.0	630.7	628.4	626.0	623.7
35°	606.4	601.1	595.9	591.9	589.2	586.3	583.5	580.8
37.5°	564.5	558.7	552.8	548.5	545.6	542.9	540.1	537.3
40°	536.6	530.1	523.6	519.1	516.2	513.4	510.7	507.9
42.5°	509.2	502.6	496.0	491.2	488.3	485.4	482.5	479.7
45°	467.2	459.6	452.0	446.8	444.1	441.3	438.5	435.8
47.5°	424.8	417.0	409.1	403.7	400.6	397.6	394.6	391.5
50°	396.7	389.1	381.3	376.0	373.1	370.1	367.2	364.3
52.5°	368.7	360.9	353.1	347.7	344.6	341.5	338.5	335.5
55°	327.4	319.4	311.4	305.9	303.0	300.1	297.1	294.2
57.5°	287.0	278.9	270.8	265.6	263.4	261.2	259.0	256.7
60°	260.1	252.1	244.1	238.9	236.4	233.9	231.5	229.0
62.5°	233.6	226.2	218.8	214.1	212.1	210.2	208.2	206.3
65°	195.6	189.0	182.4	178.1	176.3	174.4	172.5	170.7
67.5°	160.7	155.0	149.3	145.4	143.4	141.3	139.3	137.2
70°	137.0	131.9	126.7	123.4	121.9	120.4	118.8	117.3
72.5°	115.7	111.3	106.9	104.1	102.6	101.2	99.8	98.4
75°	85.2	81.7	78.1	75.9	74.9	74.0	73.1	72.1
77.5°	60.3	58.2	56.1	54.9	54.7	54.4	54.1	53.9
80°	46.3	45.8	45.3	45.0	44.9	44.7	44.6	44.4
82.5°	35.9	35.6	35.3	35.0	34.9	34.7	34.6	34.4
85°	20.9	20.6	20.2	20.2	20.2	20.2	20.2	20.2
87.5°	10.8	10.9	10.9	11.1	11.2	11.4	11.6	11.8
90°	16.3	17.2	18.1	18.6	19.0	19.3	19.5	19.9
92.5°	15.8	16.7	17.6	18.0	18.1	18.2	18.2	18.3
95°	16.3	17.2	18.1	18.6	18.7	18.9	19.1	19.2
97.5°	17.7	17.7	17.8	17.9	18.1	18.3	18.4	18.5
100°	24.2	21.6	19.1	17.9	18.1	18.3	18.4	18.5
102.5°	86.4	59.4	32.5	18.9	19.0	19.0	19.0	19.1
105°	209.2	210.4	211.8	209.8	204.6	199.2	193.9	188.7
107.5°	258.8	259.4	260.1	260.6	261.3	261.8	262.3	262.9
110°	292.5	292.7	293.1	293.5	293.9	294.4	294.8	295.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	325.1	325.1	325.0	325.3	325.8	326.4	327.0	327.5
115°	373.9	374.2	374.5	374.6	374.6	374.6	374.6	374.6
117.5°	422.9	422.9	422.8	422.8	422.8	422.7	422.6	422.6
120°	453.3	453.6	453.9	453.9	453.6	453.3	453.1	452.7
122.5°	483.3	483.5	483.7	483.6	483.3	483.0	482.7	482.4
125°	525.1	525.6	526.0	526.3	526.5	526.6	526.7	526.9
127.5°	566.7	566.6	566.5	566.4	566.3	566.1	566.1	566.0
130°	592.0	592.2	592.4	592.4	592.4	592.4	592.4	592.4
132.5°	616.9	617.1	617.2	617.2	617.2	617.0	616.9	616.8
135°	651.2	651.6	651.8	652.1	652.4	652.7	653.0	653.3
137.5°	684.1	684.5	684.7	684.9	684.8	684.7	684.7	684.6
140°	704.5	704.9	705.3	705.7	705.8	706.0	706.1	706.2
142.5°	723.4	723.6	724.0	724.2	724.2	724.2	724.2	724.2
145°	750.2	750.4	750.6	750.7	751.0	751.4	751.6	751.9
147.5°	773.8	774.0	774.1	774.3	774.4	774.5	774.7	774.8
150°	789.0	789.0	789.0	789.1	789.3	789.3	789.5	789.6
152.5°	802.2	802.4	802.6	802.7	802.6	802.5	802.5	802.4
155°	819.9	820.6	821.1	821.2	820.7	820.3	819.8	819.5
157.5°	835.3	836.1	836.8	836.8	836.1	835.3	834.5	833.7
160°	845.1	845.9	846.8	846.8	845.9	845.1	844.2	843.3
162.5°	853.0	853.8	854.7	854.7	853.7	852.7	851.7	850.7
165°	864.2	865.3	866.5	866.5	865.1	863.8	862.5	861.1
167.5°	872.4	873.6	874.9	874.9	873.3	871.9	870.4	869.0
170°	877.4	878.6	879.8	879.6	878.2	876.6	875.2	873.7
172.5°	880.6	881.7	882.9	882.7	881.1	879.6	878.0	876.4
175°	884.3	885.6	887.0	886.7	884.9	883.2	881.5	879.7
177.5°	885.8	886.7	887.7	887.4	886.0	884.6	883.2	881.8
180°	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9

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