

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: P331976-930

Luminaire Tested: **S123DIP-S775D805U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331976-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U930-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5252.2 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

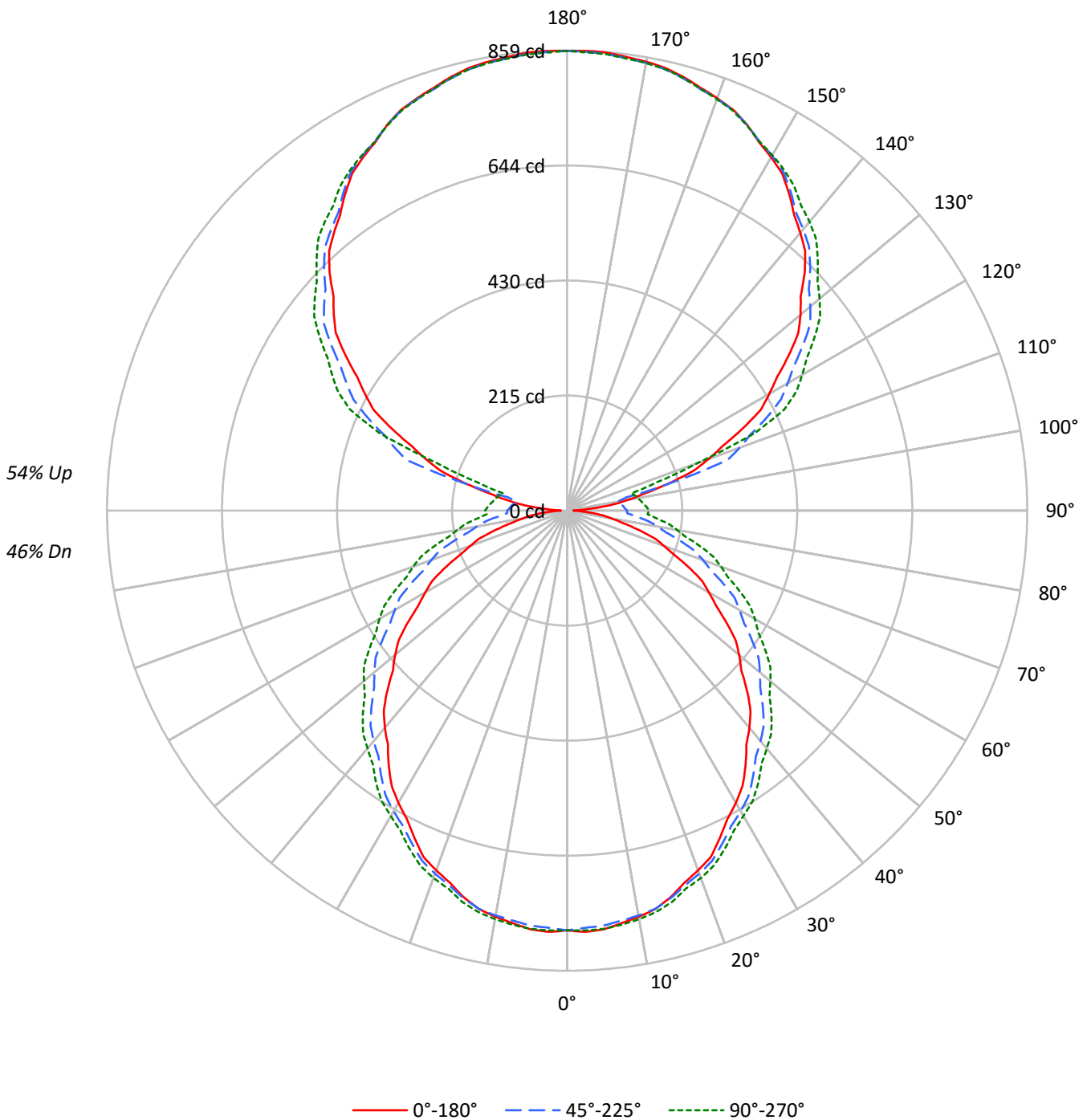
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331976-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D

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	81	81	81	66	66	66	52	52	52	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	67	79	73	67	62	60	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	51	53	48	44	43	40	36	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	48	40	34	55	45	37	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8436	8436	8436
5°	8462	8223	8228
10°	8386	8033	7993
15°	8278	7819	7738
20°	8123	7573	7456
25°	7933	7290	7160
30°	7737	7036	6861
35°	7518	6767	6621
40°	7310	6522	6365
45°	7079	6288	6161
50°	6848	6055	5934
55°	6597	5818	5731
60°	6352	5577	5522
65°	6098	5319	5274
70°	5718	5030	5022
75°	5236	4699	4763
80°	4684	4372	4467
85°	4170	4150	4296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	1.4
10°-20°	211.8	4.0
20°-30°	316.7	6.0
30°-40°	378.3	7.2
40°-50°	395.8	7.5
50°-60°	371.4	7.1
60°-70°	310.2	5.9
70°-80°	221.9	4.2
80°-90°	134.7	2.6
90°-100°	114.2	2.2
100°-110°	209.7	4.0
110°-120°	397.8	7.6
120°-130°	478.0	9.1
130°-140°	496.3	9.4
140°-150°	456.6	8.7
150°-160°	366.5	7.0
160°-170°	236.5	4.5
170°-180°	81.5	1.6
0°-30°	602.8	11.5
0°-40°	981.1	18.7
0°-60°	1748.2	33.3
0°-90°	2415.1	46.0
90°-120°	721.8	13.7
90°-150°	2152.6	41.0
90°-180°	2837.0	54.0
0°-180°	5252.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	785	783	778	784	784	74
15°	747	749	749	757	756	210
25°	674	683	686	696	697	311
35°	580	594	605	618	622	363
45°	475	495	516	532	540	366
55°	362	390	421	443	451	324
65°	250	284	321	346	355	247
75°	136	176	219	246	257	145
85°	42	85	130	158	167	44
90°	12	60	112	142	153	9
95°	48	58	104	134	144	55
105°	197	222	204	120	124	208
115°	361	376	411	437	447	356
125°	505	511	537	556	564	451
135°	627	630	642	658	662	483
145°	722	726	727	735	739	452
155°	795	794	794	797	794	366
165°	838	836	836	840	836	237
175°	858	855	855	859	855	82
180°	858	858	858	858	858	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	787.1	786.6	786.2	785.7	785.3	784.4	783.3	782.0	780.8	779.6	780.8
5°	784.6	784.2	783.7	783.4	783.0	782.3	781.1	780.0	778.9	777.7	779.3
7.5°	776.8	776.9	777.0	777.1	777.1	776.7	775.5	774.5	773.3	772.3	774.1
10°	770.1	770.4	770.8	771.2	771.5	771.3	770.3	769.4	768.4	767.4	769.4
12.5°	761.8	762.4	762.9	763.4	763.9	763.9	763.3	762.6	762.0	761.3	763.0
15°	747.0	747.5	748.1	748.7	749.3	749.4	749.3	749.1	748.9	748.7	750.6
17.5°	728.2	729.4	730.5	731.6	732.7	733.3	733.2	733.1	733.0	733.0	734.7
20°	714.5	715.7	716.8	718.0	719.1	719.8	720.2	720.6	721.0	721.4	723.1
22.5°	700.2	701.3	702.5	703.6	704.7	705.6	706.1	706.6	707.2	707.7	709.9
25°	674.4	676.3	678.2	680.1	682.0	683.2	683.8	684.4	684.9	685.5	687.9
27.5°	648.5	650.6	652.8	654.9	657.1	658.8	660.0	661.2	662.4	663.7	665.8
30°	630.0	632.5	635.0	637.4	639.8	641.9	643.4	644.9	646.5	647.9	650.2
32.5°	609.5	612.3	615.1	617.8	620.6	623.0	624.9	627.0	628.9	630.9	633.3
35°	580.5	583.5	586.6	589.6	592.6	595.4	597.9	600.3	602.8	605.3	608.1
37.5°	549.8	553.2	556.6	560.0	563.5	566.6	569.7	572.7	575.8	578.8	582.0
40°	529.3	532.7	536.1	539.6	542.9	546.6	550.3	554.2	557.9	561.7	564.9
42.5°	506.7	510.9	515.1	519.3	523.4	527.5	531.4	535.4	539.3	543.3	546.8
45°	474.7	479.2	483.7	488.3	492.8	497.5	502.2	507.0	511.8	516.5	520.1
47.5°	441.0	446.2	451.3	456.5	461.6	466.9	472.4	477.8	483.2	488.6	492.7
50°	419.1	424.4	429.7	435.1	440.4	446.0	451.9	457.8	463.7	469.5	473.9
52.5°	395.9	401.5	407.2	412.8	418.4	424.4	431.0	437.4	443.9	450.4	454.9
55°	362.0	368.2	374.5	380.7	387.0	393.5	400.4	407.2	414.0	420.9	426.0
57.5°	328.8	335.3	341.9	348.4	355.0	361.9	369.4	376.9	384.3	391.8	397.0
60°	305.7	312.4	319.3	326.1	333.0	340.2	348.1	355.8	363.5	371.4	376.7
62.5°	283.7	290.7	297.7	304.7	311.7	319.3	327.5	335.7	344.0	352.2	357.5
65°	250.1	257.6	264.9	272.3	279.7	287.6	296.0	304.3	312.7	321.0	326.7
67.5°	216.0	223.8	231.7	239.5	247.4	255.6	264.1	272.6	281.0	289.6	295.8
70°	192.1	200.2	208.4	216.5	224.7	233.3	242.5	251.5	260.7	269.8	275.8
72.5°	170.2	178.4	186.5	194.7	202.8	211.7	221.0	230.5	239.9	249.2	255.5
75°	135.7	144.6	153.6	162.5	171.4	180.6	190.0	199.6	209.0	218.6	224.8
77.5°	105.7	114.7	123.7	132.6	141.6	150.9	160.5	170.1	179.6	189.1	195.8
80°	84.5	93.8	103.1	112.4	121.7	131.3	141.1	151.0	160.9	170.7	177.2
82.5°	66.0	75.5	85.0	94.4	103.9	113.6	123.6	133.6	143.7	153.7	160.1
85°	41.8	51.3	60.8	70.3	79.7	89.5	99.6	109.7	119.7	129.8	136.2
87.5°	22.8	32.5	42.3	52.0	61.7	71.7	81.7	91.7	101.7	111.9	118.4
90°	11.7	22.4	33.2	43.9	54.5	65.7	77.2	88.7	100.3	111.8	118.8
92.5°	22.3	30.2	38.2	46.2	54.2	63.7	74.6	85.5	96.4	107.3	114.5
95°	48.3	49.9	51.4	53.1	54.6	60.8	71.7	82.6	93.4	104.3	111.1
97.5°	86.5	90.6	94.7	98.7	102.8	104.2	102.9	101.5	100.2	98.9	105.7
100°	115.4	124.3	133.2	142.1	151.0	148.8	135.4	122.1	108.7	95.3	101.9
102.5°	148.4	155.9	163.4	170.9	178.4	174.4	158.8	143.2	127.7	112.1	114.0
105°	196.8	202.8	209.0	215.1	221.2	222.0	217.4	212.8	208.2	203.6	183.8
107.5°	247.0	252.1	257.2	262.4	267.5	274.9	284.6	294.4	304.2	313.9	300.6
110°	280.5	285.0	289.6	294.2	298.6	305.5	314.6	323.8	333.0	342.1	342.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	313.1	316.9	320.7	324.6	328.4	334.8	343.6	352.5	361.3	370.1	375.0
115°	360.6	363.7	366.8	370.0	373.1	378.7	386.8	394.9	403.0	411.1	417.1
117.5°	407.2	409.6	412.1	414.6	417.0	421.8	428.8	435.9	443.0	450.0	455.7
120°	435.5	437.8	440.0	442.2	444.5	448.9	455.6	462.3	469.0	475.6	481.2
122.5°	465.1	466.7	468.2	469.8	471.3	475.3	481.8	488.3	494.8	501.3	506.3
125°	504.8	506.0	507.1	508.3	509.4	513.0	519.0	525.1	531.2	537.2	541.5
127.5°	544.1	545.0	546.0	546.9	547.9	551.0	556.2	561.4	566.6	571.9	576.1
130°	568.6	569.5	570.5	571.4	572.3	575.0	579.4	583.8	588.1	592.5	596.6
132.5°	591.3	592.5	593.5	594.6	595.7	598.0	601.5	605.0	608.5	612.0	616.0
135°	627.0	627.6	628.4	629.0	629.7	631.3	634.0	636.6	639.3	641.9	645.7
137.5°	657.5	658.4	659.3	660.2	661.1	662.3	663.8	665.3	666.8	668.3	672.0
140°	677.1	678.0	678.8	679.7	680.5	681.4	682.5	683.5	684.4	685.4	688.8
142.5°	696.0	696.7	697.4	698.1	698.8	699.4	699.9	700.5	701.0	701.6	704.6
145°	722.4	723.2	724.0	724.8	725.6	726.1	726.4	726.7	727.0	727.2	729.0
147.5°	746.4	747.1	747.7	748.4	749.0	749.5	749.7	750.0	750.3	750.6	751.3
150°	761.7	762.1	762.5	763.0	763.4	763.8	764.0	764.3	764.6	764.9	765.2
152.5°	775.4	775.7	775.8	776.1	776.2	776.4	776.6	776.7	777.0	777.1	777.6
155°	794.8	794.6	794.3	794.0	793.7	793.6	793.8	793.9	794.0	794.2	794.9
157.5°	809.8	809.8	809.8	809.8	809.8	809.7	809.5	809.4	809.3	809.1	810.0
160°	819.0	818.9	818.8	818.6	818.5	818.3	818.2	818.1	817.9	817.7	818.6
162.5°	827.7	827.4	827.0	826.6	826.2	826.0	825.8	825.7	825.6	825.4	826.4
165°	838.2	837.7	837.3	836.9	836.5	836.2	836.1	835.9	835.8	835.6	836.7
167.5°	846.4	845.8	845.2	844.7	844.1	843.8	843.8	843.8	843.8	843.8	844.9
170°	850.9	850.4	849.8	849.2	848.6	848.4	848.4	848.4	848.4	848.4	849.5
172.5°	853.9	853.3	852.6	851.9	851.3	851.0	851.1	851.2	851.3	851.4	852.6
175°	857.9	857.2	856.6	855.8	855.1	854.8	854.9	855.1	855.2	855.4	856.4
177.5°	858.9	858.4	857.9	857.3	856.7	856.5	856.6	856.7	856.8	856.9	857.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	782.0	783.3	784.4	785.0	784.8	784.6	784.5	784.4
5°	780.7	782.3	783.7	784.4	784.2	784.1	783.9	783.7
7.5°	776.0	778.0	779.8	780.6	780.4	780.2	780.0	779.8
10°	771.3	773.1	775.0	775.8	775.4	775.0	774.7	774.3
12.5°	764.8	766.5	768.3	769.0	768.6	768.3	767.8	767.4
15°	752.4	754.4	756.3	757.1	756.9	756.8	756.5	756.4
17.5°	736.4	738.1	739.8	740.5	740.3	740.0	739.7	739.5
20°	724.8	726.5	728.2	729.1	729.4	729.5	729.7	729.9
22.5°	712.0	714.2	716.3	717.4	717.3	717.1	717.1	716.9
25°	690.5	692.9	695.4	696.6	696.6	696.6	696.6	696.6
27.5°	667.9	670.0	672.1	673.3	673.4	673.6	673.8	673.9
30°	652.5	654.8	657.0	658.2	658.2	658.2	658.2	658.2
32.5°	635.7	638.1	640.6	642.0	642.5	642.9	643.4	643.8
35°	611.0	613.8	616.6	618.5	619.2	620.0	620.7	621.5
37.5°	585.2	588.5	591.7	593.6	594.2	594.8	595.4	596.1
40°	568.2	571.4	574.6	576.6	577.4	578.1	578.9	579.7
42.5°	550.3	553.8	557.4	559.7	560.8	561.8	562.9	563.9
45°	523.7	527.3	530.9	533.5	535.0	536.5	538.0	539.6
47.5°	496.8	500.8	504.9	507.5	508.7	509.9	511.0	512.2
50°	478.3	482.6	487.0	489.8	491.1	492.4	493.8	495.1
52.5°	459.4	464.0	468.5	471.6	473.2	474.8	476.5	478.1
55°	431.1	436.3	441.3	444.7	446.2	447.7	449.2	450.8
57.5°	402.2	407.3	412.5	416.0	417.8	419.6	421.3	423.1
60°	382.0	387.3	392.6	396.3	398.4	400.5	402.6	404.6
62.5°	362.9	368.2	373.5	377.1	379.0	381.0	382.9	384.8
65°	332.4	338.0	343.7	347.6	349.4	351.3	353.3	355.1
67.5°	302.0	308.3	314.5	318.4	319.9	321.6	323.2	324.7
70°	281.9	288.0	294.1	298.0	299.9	301.8	303.7	305.7
72.5°	261.7	267.9	274.2	278.3	280.1	282.0	283.9	285.8
75°	231.1	237.3	243.6	247.9	250.1	252.4	254.7	257.0
77.5°	202.4	209.0	215.6	219.7	221.5	223.2	225.0	226.7
80°	183.6	190.0	196.6	200.7	202.6	204.5	206.4	208.3
82.5°	166.6	173.0	179.4	183.6	185.6	187.4	189.3	191.2
85°	142.7	149.1	155.6	159.7	161.6	163.5	165.4	167.3
87.5°	125.0	131.5	138.1	142.4	144.3	146.3	148.2	150.2
90°	125.8	132.8	139.8	144.4	146.6	148.8	151.0	153.1
92.5°	121.7	128.9	136.2	140.7	142.6	144.6	146.4	148.4
95°	118.1	124.9	131.8	136.2	138.0	139.9	141.9	143.7
97.5°	112.4	119.3	126.0	130.4	132.5	134.5	136.6	138.6
100°	108.6	115.2	121.8	126.2	128.2	130.3	132.3	134.4
102.5°	115.8	117.6	119.4	121.5	123.6	125.8	127.9	130.0
105°	164.1	144.3	124.6	115.7	117.6	119.7	121.6	123.7
107.5°	287.3	274.0	260.7	245.4	228.2	211.0	193.7	176.5
110°	342.6	342.9	343.2	333.9	315.2	296.4	277.7	258.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	379.8	384.7	389.6	390.7	388.1	385.5	382.9	380.3
115°	423.1	429.0	435.0	439.0	441.1	443.2	445.2	447.4
117.5°	461.3	466.9	472.6	476.2	477.8	479.4	481.0	482.6
120°	486.7	492.1	497.7	501.1	502.4	503.7	505.1	506.4
122.5°	511.4	516.3	521.3	524.6	526.0	527.4	528.9	530.4
125°	545.8	550.0	554.3	557.3	558.9	560.4	562.1	563.7
127.5°	580.3	584.5	588.7	591.3	592.3	593.4	594.4	595.3
130°	600.8	605.0	609.1	611.6	612.5	613.3	614.2	615.1
132.5°	620.0	624.0	628.0	630.5	631.4	632.3	633.2	634.1
135°	649.5	653.5	657.3	659.4	660.0	660.5	661.0	661.5
137.5°	675.6	679.3	683.0	685.2	685.8	686.5	687.1	687.8
140°	692.3	695.7	699.0	701.1	701.8	702.5	703.1	703.8
142.5°	707.5	710.5	713.5	715.3	715.8	716.4	717.0	717.5
145°	730.8	732.7	734.5	735.7	736.5	737.3	738.0	738.8
147.5°	752.1	752.8	753.6	753.9	754.0	754.0	754.1	754.1
150°	765.4	765.7	766.0	766.1	766.1	766.1	766.0	766.0
152.5°	778.1	778.6	779.2	779.1	778.5	778.0	777.4	776.8
155°	795.7	796.3	797.0	797.0	796.1	795.2	794.4	793.5
157.5°	810.8	811.6	812.5	812.4	811.3	810.2	809.1	808.0
160°	819.5	820.4	821.2	821.1	820.1	819.1	818.2	817.2
162.5°	827.4	828.3	829.2	829.3	828.4	827.5	826.7	825.8
165°	837.9	839.0	840.2	840.2	839.3	838.2	837.2	836.3
167.5°	846.0	847.2	848.3	848.3	847.2	846.0	844.9	843.8
170°	850.6	851.7	852.9	852.9	851.7	850.6	849.5	848.4
172.5°	853.7	854.8	856.0	855.9	854.7	853.5	852.2	850.9
175°	857.4	858.3	859.3	859.2	858.2	857.0	855.9	854.8
177.5°	858.8	859.7	860.5	860.5	859.3	858.2	857.0	855.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9

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