

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: P331976-940

Luminaire Tested: **S123DIP-S775D805U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331976-940
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-S775D805U940-4F0-1E-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: 5744.4 lumens
Efficiency: N/A
Efficacy: 125.2 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

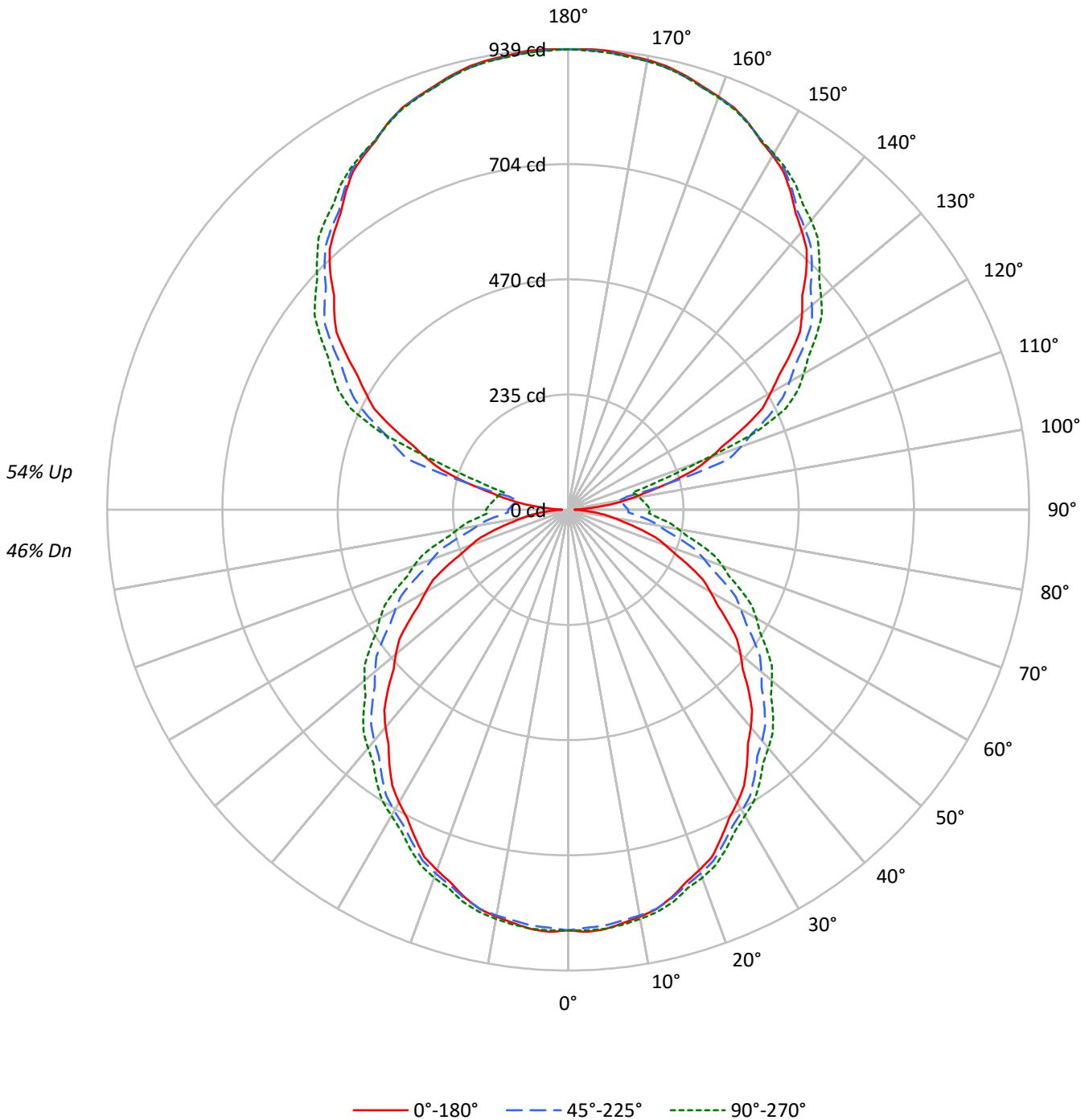
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	9226	9226	9226
5°	9255	8994	8999
10°	9172	8787	8743
15°	9054	8552	8462
20°	8884	8283	8155
25°	8676	7974	7832
30°	8462	7695	7504
35°	8223	7401	7242
40°	7995	7134	6961
45°	7742	6877	6737
50°	7490	6622	6490
55°	7215	6363	6268
60°	6946	6099	6041
65°	6670	5818	5769
70°	6254	5502	5492
75°	5730	5140	5210
80°	5128	4782	4885
85°	4559	4540	4699



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	1.4
10°-20°	231.6	4.0
20°-30°	346.4	6.0
30°-40°	413.7	7.2
40°-50°	432.9	7.5
50°-60°	406.2	7.1
60°-70°	339.3	5.9
70°-80°	242.7	4.2
80°-90°	147.4	2.6
90°-100°	124.9	2.2
100°-110°	229.3	4.0
110°-120°	435.1	7.6
120°-130°	522.8	9.1
130°-140°	542.8	9.4
140°-150°	499.3	8.7
150°-160°	400.8	7.0
160°-170°	258.7	4.5
170°-180°	89.2	1.6
0°-30°	659.3	11.5
0°-40°	1073.0	18.7
0°-60°	1912.1	33.3
0°-90°	2641.4	46.0
90°-120°	789.4	13.7
90°-150°	2354.3	41.0
90°-180°	3103.0	54.0
0°-180°	5744.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	858	856	851	858	857	81
15°	817	820	819	828	827	230
25°	738	747	750	761	762	340
35°	635	650	662	675	680	397
45°	519	542	565	582	590	400
55°	396	427	460	484	493	354
65°	274	310	351	378	388	270
75°	148	192	239	269	281	159
85°	46	93	142	172	183	48
90°	13	66	122	155	168	10
95°	53	63	114	146	157	61
105°	215	242	223	131	135	228
115°	394	411	450	478	489	389
125°	552	559	588	608	616	493
135°	686	690	702	720	724	528
145°	790	794	795	804	808	494
155°	869	868	869	872	868	400
165°	917	915	914	919	915	259
175°	938	935	936	940	935	89
180°	938	938	938	938	938	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1
2.5°	860.9	860.3	859.9	859.3	858.9	857.9	856.7	855.3	854.0	852.7	854.0
5°	858.1	857.6	857.2	856.8	856.4	855.6	854.3	853.1	851.9	850.6	852.3
7.5°	849.6	849.7	849.8	849.9	850.0	849.4	848.2	847.0	845.8	844.6	846.7
10°	842.2	842.6	843.0	843.5	843.8	843.6	842.5	841.5	840.4	839.4	841.5
12.5°	833.2	833.8	834.4	835.0	835.5	835.5	834.8	834.1	833.4	832.7	834.6
15°	817.0	817.6	818.2	818.9	819.5	819.7	819.5	819.3	819.0	818.9	820.9
17.5°	796.5	797.7	799.0	800.1	801.4	802.0	801.9	801.8	801.7	801.6	803.5
20°	781.5	782.7	784.0	785.2	786.5	787.3	787.7	788.2	788.5	789.0	790.9
22.5°	765.8	767.0	768.3	769.5	770.8	771.7	772.3	772.8	773.5	774.0	776.4
25°	737.6	739.7	741.7	743.9	745.9	747.3	747.9	748.5	749.1	749.8	752.4
27.5°	709.3	711.6	714.0	716.3	718.7	720.5	721.8	723.2	724.5	725.9	728.2
30°	689.0	691.8	694.5	697.1	699.8	702.0	703.6	705.3	707.0	708.6	711.1
32.5°	666.6	669.7	672.7	675.7	678.8	681.4	683.5	685.7	687.9	690.0	692.7
35°	634.9	638.2	641.6	644.9	648.2	651.2	653.9	656.6	659.3	662.0	665.1
37.5°	601.3	605.0	608.8	612.5	616.3	619.7	623.1	626.4	629.7	633.0	636.6
40°	578.9	582.6	586.4	590.1	593.8	597.8	601.9	606.1	610.2	614.4	617.9
42.5°	554.2	558.8	563.4	567.9	572.5	576.9	581.2	585.6	589.9	594.2	598.1
45°	519.2	524.1	529.1	534.0	539.0	544.1	549.3	554.5	559.7	564.9	568.8
47.5°	482.3	488.0	493.7	499.3	504.9	510.7	516.7	522.5	528.5	534.4	538.9
50°	458.4	464.2	470.0	475.9	481.7	487.8	494.3	500.7	507.1	513.5	518.3
52.5°	433.0	439.2	445.3	451.5	457.6	464.2	471.4	478.4	485.5	492.6	497.6
55°	395.9	402.7	409.6	416.4	423.3	430.4	437.9	445.4	452.8	460.3	465.9
57.5°	359.6	366.8	373.9	381.0	388.3	395.8	404.0	412.2	420.4	428.6	434.2
60°	334.3	341.7	349.2	356.7	364.2	372.1	380.7	389.1	397.6	406.2	412.0
62.5°	310.3	318.0	325.7	333.2	340.9	349.2	358.2	367.2	376.2	385.2	391.0
65°	273.6	281.7	289.7	297.8	305.9	314.5	323.7	332.8	342.0	351.1	357.3
67.5°	236.2	244.8	253.4	262.0	270.5	279.6	288.8	298.1	307.4	316.7	323.5
70°	210.1	219.0	227.9	236.8	245.8	255.2	265.2	275.1	285.1	295.1	301.7
72.5°	186.2	195.1	204.0	212.9	221.9	231.5	241.7	252.1	262.3	272.6	279.5
75°	148.5	158.2	168.0	177.7	187.4	197.5	207.9	218.3	228.6	239.1	245.8
77.5°	115.6	125.5	135.3	145.1	154.9	165.1	175.6	186.0	196.4	206.9	214.1
80°	92.5	102.6	112.8	123.0	133.1	143.6	154.4	165.1	175.9	186.7	193.8
82.5°	72.2	82.6	92.9	103.3	113.6	124.2	135.2	146.2	157.1	168.1	175.1
85°	45.7	56.1	66.5	76.9	87.2	97.9	109.0	119.9	130.9	142.0	149.0
87.5°	25.0	35.6	46.3	56.9	67.5	78.4	89.3	100.3	111.3	122.3	129.5
90°	12.8	24.5	36.3	48.0	59.7	71.9	84.4	97.0	109.7	122.3	129.9
92.5°	24.3	33.1	41.8	50.6	59.3	69.6	81.6	93.5	105.4	117.3	125.3
95°	52.8	54.6	56.3	58.1	59.7	66.5	78.5	90.3	102.2	114.0	121.5
97.5°	94.6	99.1	103.5	108.0	112.4	114.0	112.5	111.0	109.6	108.2	115.6
100°	126.2	136.0	145.7	155.4	165.1	162.7	148.1	133.5	118.9	104.2	111.5
102.5°	162.3	170.5	178.7	186.9	195.1	190.7	173.7	156.7	139.6	122.6	124.7
105°	215.3	221.9	228.5	235.2	241.9	242.8	237.7	232.7	227.7	222.7	201.1
107.5°	270.2	275.7	281.3	287.0	292.6	300.7	311.3	322.0	332.7	343.3	328.8
110°	306.7	311.7	316.7	321.7	326.6	334.1	344.1	354.2	364.2	374.2	374.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	342.4	346.6	350.8	355.0	359.2	366.1	375.8	385.5	395.1	404.8	410.1
115°	394.4	397.8	401.2	404.7	408.0	414.2	423.0	431.9	440.8	449.6	456.2
117.5°	445.3	448.0	450.7	453.4	456.1	461.3	469.0	476.7	484.5	492.2	498.4
120°	476.4	478.8	481.3	483.7	486.2	491.0	498.3	505.6	512.9	520.2	526.3
122.5°	508.7	510.4	512.1	513.8	515.5	519.9	527.0	534.0	541.2	548.3	553.8
125°	552.1	553.4	554.6	555.9	557.1	561.1	567.7	574.4	580.9	587.5	592.3
127.5°	595.1	596.1	597.2	598.2	599.2	602.6	608.3	614.0	619.7	625.4	630.1
130°	621.9	622.9	623.9	624.9	626.0	628.9	633.6	638.5	643.2	648.0	652.6
132.5°	646.8	648.0	649.2	650.3	651.6	654.1	657.9	661.6	665.5	669.3	673.7
135°	685.7	686.4	687.2	688.0	688.7	690.5	693.4	696.2	699.2	702.0	706.2
137.5°	719.1	720.1	721.0	722.1	723.1	724.4	726.0	727.6	729.2	730.9	734.9
140°	740.6	741.5	742.4	743.4	744.3	745.3	746.5	747.5	748.6	749.7	753.4
142.5°	761.3	762.0	762.8	763.5	764.3	765.0	765.5	766.2	766.7	767.3	770.6
145°	790.1	790.9	791.8	792.7	793.6	794.2	794.5	794.8	795.1	795.4	797.4
147.5°	816.4	817.1	817.8	818.5	819.2	819.7	820.0	820.3	820.6	820.9	821.7
150°	833.0	833.6	834.0	834.5	834.9	835.4	835.6	836.0	836.2	836.6	836.9
152.5°	848.1	848.4	848.6	848.8	849.0	849.2	849.4	849.5	849.8	850.0	850.5
155°	869.3	869.1	868.7	868.4	868.1	868.0	868.2	868.3	868.4	868.6	869.4
157.5°	885.7	885.7	885.7	885.6	885.6	885.6	885.4	885.3	885.1	884.9	885.9
160°	895.8	895.6	895.5	895.4	895.2	895.0	894.9	894.7	894.6	894.4	895.4
162.5°	905.3	904.9	904.5	904.1	903.7	903.4	903.2	903.1	902.9	902.8	903.8
165°	916.8	916.2	915.8	915.3	914.9	914.5	914.4	914.3	914.1	913.9	915.2
167.5°	925.7	925.1	924.4	923.8	923.2	922.8	922.8	922.8	922.8	922.8	924.1
170°	930.7	930.1	929.4	928.8	928.2	927.9	927.9	927.9	927.9	927.9	929.2
172.5°	934.0	933.3	932.6	931.7	931.0	930.8	930.9	930.9	931.1	931.2	932.5
175°	938.3	937.5	936.8	936.0	935.2	935.0	935.0	935.2	935.4	935.6	936.7
177.5°	939.4	938.9	938.3	937.6	937.0	936.7	936.8	937.0	937.1	937.2	938.3
180°	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	857.1	857.1	857.1	857.1	857.1	857.1	857.1	857.1
2.5°	855.3	856.7	857.9	858.5	858.4	858.2	858.0	857.9
5°	853.9	855.6	857.2	857.9	857.7	857.6	857.4	857.1
7.5°	848.7	850.9	852.9	853.8	853.5	853.4	853.1	852.8
10°	843.6	845.6	847.7	848.6	848.1	847.7	847.3	846.9
12.5°	836.5	838.4	840.3	841.1	840.6	840.3	839.8	839.4
15°	823.0	825.1	827.2	828.0	827.9	827.7	827.4	827.2
17.5°	805.4	807.3	809.1	809.9	809.7	809.3	809.0	808.8
20°	792.7	794.6	796.5	797.5	797.7	797.9	798.1	798.3
22.5°	778.7	781.1	783.5	784.6	784.5	784.3	784.3	784.1
25°	755.2	757.9	760.5	761.9	761.9	761.9	761.9	761.9
27.5°	730.5	732.8	735.1	736.4	736.6	736.7	736.9	737.1
30°	713.6	716.1	718.6	719.9	719.9	719.9	719.9	719.9
32.5°	695.3	697.9	700.6	702.2	702.7	703.2	703.6	704.2
35°	668.2	671.4	674.4	676.5	677.3	678.1	678.9	679.8
37.5°	640.1	643.6	647.1	649.3	649.9	650.6	651.2	651.9
40°	621.4	624.9	628.5	630.6	631.5	632.3	633.1	634.0
42.5°	601.9	605.7	609.7	612.2	613.3	614.5	615.6	616.8
45°	572.7	576.7	580.7	583.4	585.1	586.7	588.4	590.1
47.5°	543.3	547.8	552.2	555.1	556.3	557.7	558.9	560.2
50°	523.1	527.8	532.6	535.7	537.2	538.6	540.1	541.5
52.5°	502.5	507.5	512.4	515.8	517.5	519.3	521.1	522.9
55°	471.5	477.2	482.7	486.3	488.0	489.6	491.3	493.0
57.5°	439.9	445.5	451.1	455.0	456.9	458.9	460.7	462.7
60°	417.8	423.6	429.4	433.5	435.7	438.0	440.3	442.6
62.5°	396.9	402.7	408.5	412.4	414.6	416.7	418.8	420.9
65°	363.6	369.7	375.9	380.1	382.2	384.2	386.4	388.4
67.5°	330.3	337.2	343.9	348.2	349.9	351.7	353.5	355.2
70°	308.4	315.0	321.6	325.9	328.1	330.1	332.2	334.3
72.5°	286.2	293.0	299.9	304.3	306.4	308.4	310.5	312.6
75°	252.7	259.6	266.4	271.1	273.6	276.1	278.6	281.1
77.5°	221.3	228.5	235.8	240.3	242.3	244.2	246.1	248.0
80°	200.8	207.9	215.0	219.5	221.6	223.6	225.8	227.8
82.5°	182.2	189.2	196.3	200.8	203.0	205.0	207.1	209.1
85°	156.0	163.1	170.1	174.7	176.7	178.9	180.9	183.0
87.5°	136.7	143.8	151.1	155.7	157.8	160.0	162.1	164.3
90°	137.6	145.3	152.9	157.9	160.3	162.7	165.1	167.5
92.5°	133.1	141.0	148.9	153.9	156.0	158.1	160.2	162.3
95°	129.1	136.6	144.1	148.9	151.0	153.0	155.2	157.2
97.5°	123.0	130.5	137.9	142.7	144.9	147.1	149.4	151.6
100°	118.8	126.0	133.2	138.0	140.3	142.5	144.7	147.0
102.5°	126.6	128.7	130.6	132.9	135.2	137.6	139.9	142.2
105°	179.5	157.8	136.3	126.5	128.7	130.9	133.0	135.3
107.5°	314.2	299.7	285.2	268.4	249.6	230.8	211.9	193.1
110°	374.7	375.1	375.3	365.2	344.7	324.2	303.7	283.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	415.4	420.8	426.1	427.3	424.5	421.6	418.7	415.9
115°	462.7	469.2	475.7	480.2	482.4	484.7	487.0	489.3
117.5°	504.5	510.7	516.9	520.8	522.6	524.3	526.1	527.8
120°	532.3	538.2	544.3	548.0	549.5	550.9	552.4	553.8
122.5°	559.3	564.7	570.2	573.7	575.3	576.8	578.5	580.1
125°	596.9	601.5	606.3	609.5	611.3	613.0	614.7	616.5
127.5°	634.7	639.3	643.9	646.8	647.8	649.0	650.1	651.1
130°	657.1	661.6	666.2	669.0	669.9	670.8	671.7	672.7
132.5°	678.1	682.5	686.9	689.6	690.5	691.5	692.5	693.5
135°	710.4	714.7	718.9	721.2	721.8	722.4	723.0	723.5
137.5°	739.0	743.0	747.0	749.4	750.1	750.8	751.5	752.2
140°	757.2	760.9	764.6	766.8	767.6	768.3	769.0	769.7
142.5°	773.8	777.1	780.4	782.4	782.9	783.5	784.2	784.8
145°	799.3	801.4	803.3	804.7	805.6	806.4	807.2	808.1
147.5°	822.6	823.4	824.2	824.6	824.7	824.7	824.7	824.7
150°	837.1	837.5	837.8	837.9	837.9	837.9	837.8	837.8
152.5°	851.0	851.6	852.2	852.1	851.5	850.9	850.2	849.6
155°	870.2	870.9	871.7	871.6	870.8	869.8	868.9	867.9
157.5°	886.8	887.7	888.7	888.5	887.3	886.1	884.9	883.7
160°	896.3	897.2	898.1	898.0	897.0	895.9	894.8	893.8
162.5°	904.9	906.0	907.0	907.0	906.1	905.1	904.2	903.2
165°	916.4	917.7	918.9	919.0	917.9	916.8	915.7	914.6
167.5°	925.3	926.6	927.8	927.8	926.6	925.3	924.1	922.8
170°	930.3	931.6	932.8	932.8	931.6	930.3	929.2	927.9
172.5°	933.7	935.0	936.2	936.1	934.8	933.4	932.0	930.7
175°	937.7	938.8	939.9	939.8	938.6	937.4	936.1	934.9
177.5°	939.2	940.2	941.2	941.1	939.9	938.6	937.4	936.1
180°	938.3	938.3	938.3	938.3	938.3	938.3	938.3	938.3

(END OF REPORT)