

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: P332022-927

Luminaire Tested: **S123DIP-S1000D805U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332022-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U927-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5512.9 lumens
Efficiency: N/A
Efficacy: 101.3 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

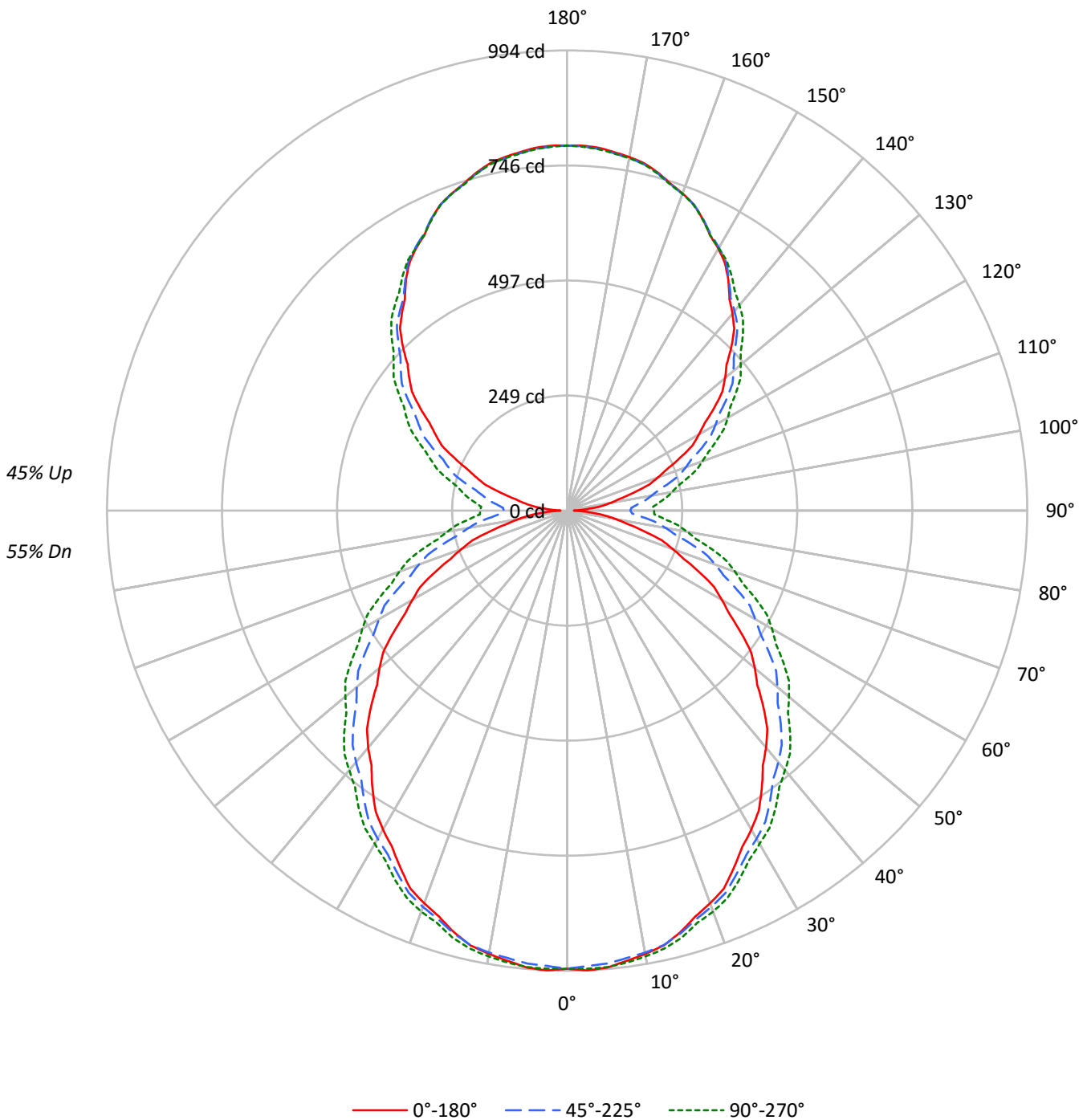
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	91	86	83	79	74	71	68	63	60	59	52	51	49	44
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	81	70	63	56	74	65	59	53	56	51	46	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10654	10654	10654
5°	10687	10385	10392
10°	10592	10146	10095
15°	10455	9874	9773
20°	10260	9565	9418
25°	10019	9208	9043
30°	9772	8886	8665
35°	9496	8547	8362
40°	9231	8238	8039
45°	8938	7941	7779
50°	8650	7648	7494
55°	8332	7348	7238
60°	8020	7044	6974
65°	7702	6718	6661
70°	7222	6352	6341
75°	6614	5933	6016
80°	5915	5522	5642
85°	5267	5241	5428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	1.7
10°-20°	267.5	4.9
20°-30°	400.0	7.3
30°-40°	477.7	8.7
40°-50°	499.9	9.1
50°-60°	469.1	8.5
60°-70°	391.8	7.1
70°-80°	280.3	5.1
80°-90°	169.5	3.1
90°-100°	156.2	2.8
100°-110°	230.8	4.2
110°-120°	312.9	5.7
120°-130°	373.3	6.8
130°-140°	399.8	7.3
140°-150°	382.8	6.9
150°-160°	319.9	5.8
160°-170°	212.9	3.9
170°-180°	74.6	1.4
0°-30°	761.3	13.8
0°-40°	1239.1	22.5
0°-60°	2208.0	40.1
0°-90°	3049.5	55.3
90°-120°	700.0	12.7
90°-150°	1855.9	33.7
90°-180°	2463.0	44.7
0°-180°	5512.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	991	988	982	990	990	94
15°	943	946	946	956	955	266
25°	852	862	866	879	880	392
35°	733	750	764	780	785	458
45°	599	625	652	672	681	462
55°	457	493	532	560	569	409
65°	316	358	405	436	448	312
75°	171	222	276	310	325	183
85°	53	107	164	199	211	55
90°	15	74	137	174	188	12
95°	48	95	153	187	199	50
105°	148	176	227	256	268	158
115°	269	285	321	346	356	266
125°	388	392	420	440	446	347
135°	502	505	516	532	537	387
145°	607	608	609	617	619	379
155°	694	694	695	697	693	319
165°	756	754	754	758	754	213
175°	787	784	784	787	784	75
180°	788	788	788	788	788	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	994.1	993.6	992.9	992.4	991.8	990.7	989.2	987.7	986.1	984.6	986.1
5°	990.9	990.4	989.9	989.4	989.0	988.0	986.6	985.1	983.7	982.2	984.1
7.5°	981.1	981.3	981.4	981.4	981.5	980.9	979.5	978.1	976.7	975.3	977.7
10°	972.6	973.0	973.5	974.0	974.5	974.1	972.9	971.7	970.5	969.3	971.7
12.5°	962.2	962.8	963.5	964.2	964.9	964.8	964.0	963.1	962.3	961.6	963.8
15°	943.4	944.1	944.8	945.5	946.3	946.5	946.3	946.0	945.8	945.5	948.0
17.5°	919.7	921.1	922.6	924.0	925.4	926.1	926.1	925.9	925.8	925.7	927.9
20°	902.5	903.9	905.3	906.7	908.2	909.2	909.7	910.1	910.6	911.1	913.2
22.5°	884.3	885.7	887.2	888.7	890.1	891.1	891.8	892.5	893.2	893.8	896.5
25°	851.8	854.1	856.6	859.0	861.3	862.9	863.6	864.4	865.1	865.8	868.9
27.5°	819.0	821.7	824.4	827.2	829.9	832.0	833.6	835.1	836.6	838.2	840.9
30°	795.7	798.8	801.9	805.0	808.2	810.6	812.6	814.5	816.4	818.3	821.3
32.5°	769.8	773.3	776.8	780.3	783.8	786.8	789.3	791.8	794.3	796.8	799.9
35°	733.2	737.0	740.8	744.7	748.5	751.9	755.1	758.2	761.3	764.5	768.0
37.5°	694.3	698.7	703.0	707.3	711.6	715.7	719.5	723.3	727.1	731.0	735.1
40°	668.4	672.8	677.1	681.4	685.7	690.3	695.1	699.9	704.6	709.5	713.5
42.5°	640.0	645.3	650.5	655.8	661.1	666.2	671.2	676.2	681.2	686.2	690.6
45°	599.4	605.2	611.0	616.7	622.5	628.4	634.3	640.3	646.3	652.3	656.9
47.5°	557.0	563.5	570.1	576.6	583.0	589.8	596.6	603.5	610.3	617.2	622.3
50°	529.4	536.1	542.8	549.5	556.2	563.3	570.7	578.1	585.6	593.0	598.5
52.5°	500.0	507.2	514.3	521.3	528.5	536.1	544.3	552.5	560.6	568.9	574.6
55°	457.2	465.1	472.9	480.9	488.8	497.0	505.6	514.3	522.9	531.6	538.1
57.5°	415.3	423.6	431.8	440.1	448.3	457.2	466.6	476.0	485.4	494.9	501.4
60°	386.0	394.6	403.2	411.9	420.5	429.7	439.5	449.4	459.2	469.1	475.7
62.5°	358.4	367.2	376.0	384.8	393.6	403.3	413.7	424.1	434.4	444.9	451.5
65°	315.9	325.3	334.6	344.0	353.3	363.2	373.8	384.3	394.8	405.4	412.6
67.5°	272.7	282.7	292.6	302.5	312.4	322.8	333.5	344.3	355.0	365.8	373.6
70°	242.6	252.9	263.2	273.5	283.8	294.7	306.2	317.7	329.2	340.7	348.4
72.5°	215.0	225.3	235.6	245.9	256.2	267.3	279.2	291.0	302.9	314.8	322.7
75°	171.4	182.7	193.9	205.3	216.5	228.1	240.1	252.1	264.0	276.0	283.9
77.5°	133.5	144.8	156.2	167.5	178.9	190.6	202.7	214.8	226.9	238.9	247.2
80°	106.7	118.5	130.2	142.0	153.7	165.8	178.2	190.8	203.2	215.6	223.8
82.5°	83.4	95.4	107.3	119.2	131.2	143.5	156.1	168.7	181.4	194.1	202.2
85°	52.8	64.8	76.8	88.8	100.8	113.1	125.8	138.5	151.1	163.9	172.1
87.5°	28.8	41.0	53.2	65.4	77.6	90.0	102.6	115.2	127.8	140.3	148.6
90°	14.7	27.7	40.9	53.9	67.1	80.6	94.7	108.7	122.7	136.7	145.4
92.5°	28.1	39.7	51.2	62.7	74.2	86.5	99.6	112.6	125.6	138.7	147.1
95°	48.4	58.7	69.0	79.3	89.6	101.2	114.1	126.9	139.7	152.6	160.6
97.5°	75.5	84.6	93.8	102.9	112.1	122.6	134.7	146.7	158.7	170.7	178.5
100°	94.0	102.4	110.9	119.4	127.9	138.0	149.7	161.4	173.2	184.8	192.2
102.5°	115.3	122.8	130.2	137.5	145.0	154.6	166.3	178.0	189.7	201.5	208.7
105°	148.0	154.0	160.0	166.0	172.1	180.9	192.4	204.0	215.5	227.0	233.8
107.5°	184.8	189.9	195.0	200.0	205.0	212.7	223.0	233.2	243.5	253.8	260.6
110°	207.8	212.4	216.9	221.5	226.1	233.4	243.2	253.0	262.9	272.7	279.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	232.5	236.2	240.0	243.7	247.4	253.9	263.1	272.4	281.6	290.9	297.6
115°	268.6	271.9	275.2	278.5	281.8	287.6	296.0	304.3	312.7	321.0	326.9
117.5°	305.8	307.8	309.9	312.0	314.0	318.9	326.6	334.4	342.1	349.8	355.5
120°	328.2	330.3	332.3	334.3	336.4	341.0	348.2	355.4	362.6	369.8	375.2
122.5°	352.5	353.7	355.0	356.2	357.4	361.6	368.8	376.0	383.1	390.3	395.2
125°	388.5	388.9	389.3	389.8	390.1	393.6	400.4	407.0	413.7	420.3	424.8
127.5°	422.6	423.3	424.0	424.6	425.2	428.3	433.7	439.2	444.7	450.0	454.1
130°	445.4	446.3	447.2	448.1	448.9	451.5	455.9	460.3	464.7	469.1	473.0
132.5°	467.4	468.4	469.5	470.6	471.6	473.9	477.4	480.9	484.5	488.0	491.7
135°	502.0	502.6	503.1	503.7	504.3	505.9	508.3	510.9	513.3	515.9	519.6
137.5°	534.0	534.5	535.0	535.4	536.0	537.1	539.0	540.8	542.6	544.5	547.7
140°	555.4	556.1	556.7	557.5	558.2	559.0	559.8	560.6	561.5	562.4	565.8
142.5°	575.8	576.2	576.7	577.2	577.7	578.1	578.5	578.9	579.3	579.7	582.8
145°	607.4	607.4	607.5	607.5	607.6	607.8	608.2	608.6	609.0	609.4	611.2
147.5°	634.1	634.6	635.1	635.6	636.1	636.5	636.9	637.3	637.7	638.1	638.7
150°	653.4	653.7	653.9	654.3	654.5	654.8	655.1	655.4	655.6	655.9	655.9
152.5°	669.3	669.6	670.0	670.4	670.8	671.1	671.3	671.5	671.6	671.8	672.0
155°	694.3	694.3	694.3	694.3	694.3	694.3	694.5	694.7	694.8	694.9	695.5
157.5°	715.6	715.4	715.3	715.1	714.9	714.9	715.0	715.2	715.3	715.3	716.0
160°	729.0	728.7	728.4	728.2	727.9	727.8	727.8	727.8	727.8	727.8	728.4
162.5°	740.8	740.5	740.1	739.7	739.3	739.2	739.3	739.4	739.5	739.7	740.3
165°	756.2	755.8	755.4	755.0	754.6	754.4	754.4	754.4	754.4	754.4	755.2
167.5°	768.5	767.9	767.4	766.8	766.3	766.1	766.2	766.3	766.4	766.5	767.4
170°	775.5	774.9	774.4	773.8	773.2	772.9	772.9	772.9	772.9	772.9	774.0
172.5°	780.9	780.4	779.8	779.3	778.7	778.4	778.4	778.4	778.4	778.4	779.3
175°	786.6	786.0	785.5	785.0	784.4	784.1	784.1	784.1	784.1	784.1	785.0
177.5°	788.9	788.5	788.1	787.6	787.2	787.0	787.0	787.0	787.0	787.0	787.6
180°	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	987.7	989.2	990.7	991.4	991.2	991.0	990.9	990.6
5°	986.0	988.0	989.9	990.7	990.5	990.2	990.0	989.8
7.5°	980.1	982.5	984.9	986.0	985.7	985.4	985.1	984.8
10°	974.1	976.4	978.9	979.9	979.4	978.9	978.4	977.9
12.5°	965.9	968.1	970.3	971.2	970.7	970.3	969.8	969.3
15°	950.4	952.8	955.1	956.2	956.0	955.8	955.5	955.3
17.5°	930.0	932.2	934.4	935.3	934.9	934.6	934.3	933.9
20°	915.4	917.5	919.7	920.9	921.1	921.4	921.6	921.9
22.5°	899.3	902.0	904.8	906.0	905.9	905.8	905.6	905.5
25°	872.0	875.1	878.2	879.8	879.8	879.8	879.8	879.8
27.5°	843.5	846.2	848.9	850.3	850.6	850.7	851.0	851.1
30°	824.1	827.0	829.8	831.3	831.3	831.3	831.3	831.3
32.5°	803.0	806.0	809.1	810.9	811.4	812.0	812.6	813.2
35°	771.6	775.2	778.8	781.1	782.0	783.0	783.9	784.9
37.5°	739.2	743.2	747.3	749.7	750.5	751.2	752.0	752.8
40°	717.6	721.7	725.7	728.3	729.2	730.2	731.1	732.1
42.5°	695.1	699.5	704.0	706.9	708.2	709.6	710.9	712.3
45°	661.4	666.0	670.5	673.8	675.7	677.6	679.5	681.4
47.5°	627.4	632.6	637.6	641.0	642.5	644.0	645.4	646.9
50°	604.0	609.5	615.1	618.6	620.4	622.0	623.7	625.3
52.5°	580.3	586.0	591.7	595.6	597.6	599.7	601.7	603.8
55°	544.5	551.0	557.5	561.6	563.6	565.5	567.4	569.3
57.5°	507.9	514.4	520.9	525.4	527.6	529.8	532.1	534.3
60°	482.4	489.2	495.8	500.5	503.2	505.8	508.4	511.0
62.5°	458.3	465.0	471.7	476.3	478.7	481.2	483.6	486.1
65°	419.8	427.0	434.1	438.9	441.3	443.7	446.2	448.5
67.5°	381.4	389.3	397.1	402.1	404.1	406.2	408.1	410.1
70°	356.0	363.7	371.4	376.4	378.8	381.2	383.6	386.0
72.5°	330.6	338.4	346.3	351.4	353.8	356.2	358.6	361.0
75°	291.8	299.8	307.6	313.1	315.9	318.8	321.6	324.6
77.5°	255.6	264.0	272.3	277.6	279.7	281.9	284.2	286.4
80°	232.0	240.1	248.2	253.5	255.9	258.3	260.7	263.1
82.5°	210.4	218.5	226.6	232.0	234.3	236.7	239.1	241.5
85°	180.1	188.3	196.5	201.8	204.1	206.5	208.9	211.4
87.5°	156.9	165.1	173.3	178.7	181.2	183.6	186.1	188.5
90°	154.1	162.8	171.5	177.2	179.8	182.5	185.2	187.8
92.5°	155.5	163.9	172.3	177.5	179.6	181.6	183.6	185.7
95°	168.5	176.5	184.5	189.6	192.1	194.5	196.9	199.2
97.5°	186.2	194.0	201.8	206.8	209.2	211.5	213.9	216.2
100°	199.6	206.9	214.3	219.3	222.0	224.7	227.4	230.0
102.5°	215.8	223.0	230.1	234.9	237.3	239.6	241.9	244.3
105°	240.4	247.2	253.9	258.4	260.9	263.3	265.7	268.2
107.5°	267.5	274.4	281.2	285.7	287.6	289.5	291.4	293.4
110°	286.4	293.1	299.9	304.1	305.8	307.4	309.0	310.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	304.3	311.0	317.7	322.0	324.1	326.1	328.2	330.3
115°	332.8	338.7	344.5	348.4	350.1	352.0	353.7	355.5
117.5°	361.2	366.9	372.6	376.1	377.6	379.1	380.6	382.1
120°	380.6	386.0	391.3	394.7	396.1	397.5	398.9	400.3
122.5°	400.2	405.2	410.1	413.3	414.5	415.8	417.2	418.4
125°	429.4	433.8	438.3	441.1	442.2	443.4	444.5	445.6
127.5°	458.0	462.0	466.0	468.4	469.4	470.4	471.4	472.5
130°	477.1	481.0	485.1	487.3	487.7	488.2	488.7	489.2
132.5°	495.4	499.2	502.8	505.1	506.0	506.9	507.8	508.7
135°	523.4	527.1	530.9	533.2	534.2	535.1	536.0	536.9
137.5°	550.9	554.1	557.3	559.3	559.9	560.6	561.3	562.0
140°	569.3	572.7	576.2	578.1	578.3	578.5	578.8	579.0
142.5°	585.9	588.9	592.0	593.7	594.2	594.7	595.2	595.6
145°	613.0	614.8	616.6	617.7	618.1	618.5	618.9	619.3
147.5°	639.2	639.8	640.4	640.6	640.7	640.7	640.8	640.8
150°	655.9	655.9	655.9	655.8	655.4	655.1	654.7	654.3
152.5°	672.2	672.4	672.6	672.4	671.8	671.2	670.6	669.9
155°	696.0	696.6	697.1	696.9	695.9	695.0	694.0	693.1
157.5°	716.5	717.1	717.6	717.6	716.8	716.1	715.3	714.5
160°	729.1	729.8	730.5	730.6	730.0	729.4	728.9	728.3
162.5°	741.0	741.7	742.4	742.3	741.4	740.5	739.7	738.8
165°	756.1	756.9	757.7	757.6	756.7	755.7	754.7	753.8
167.5°	768.3	769.1	769.9	769.9	769.1	768.3	767.4	766.5
170°	774.9	775.9	776.8	776.8	775.9	774.9	774.0	772.9
172.5°	780.1	781.0	781.8	781.8	780.8	779.8	778.9	777.9
175°	785.8	786.6	787.4	787.3	786.4	785.4	784.4	783.5
177.5°	788.3	788.9	789.6	789.6	788.8	788.0	787.3	786.5
180°	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5

(END OF REPORT)