

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: P331406-935

Luminaire Tested: **S122DIP-S865D925U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331406-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S865D925U935-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5858.6 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

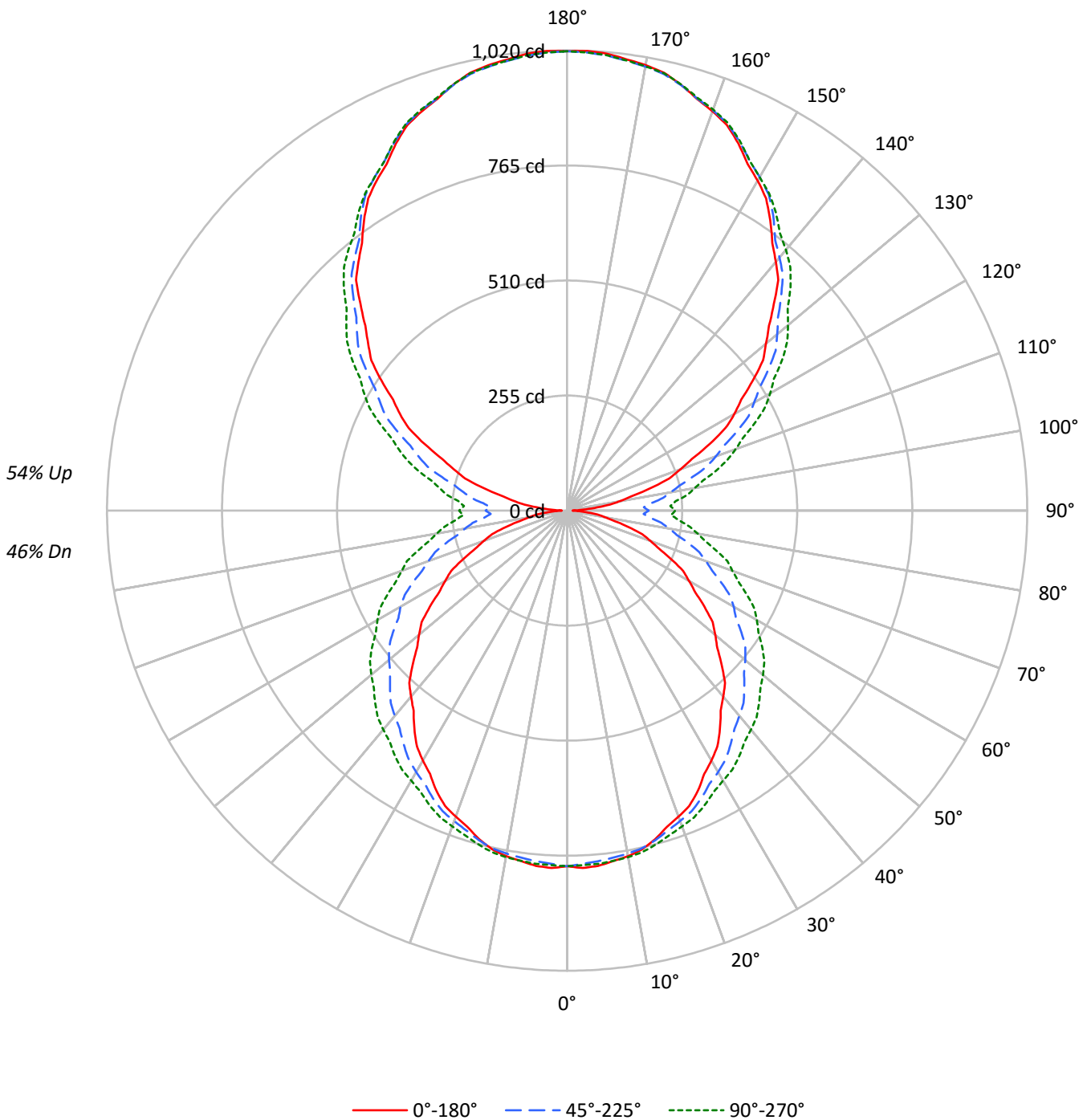
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	91	86	82	87	83	79	76	69	66	64	56	54	52	44	43	41	36
2	86	78	72	66	79	72	66	61	60	55	51	48	45	42	38	36	34	29
3	78	68	61	54	71	63	56	50	52	47	43	42	38	35	33	30	28	24
4	71	60	52	45	65	55	48	42	46	40	36	37	33	30	29	26	24	20
5	65	53	45	39	60	49	42	36	41	35	31	33	29	26	26	23	21	17
6	60	48	39	33	55	44	36	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	22	18	16	13
8	51	39	31	25	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12728	12728	12728
5°	12790	12252	12205
10°	12710	11890	11756
15°	12535	11506	11284
20°	12312	11097	10828
25°	12095	10701	10415
30°	11786	10293	10000
35°	11474	9900	9708
40°	11147	9566	9415
45°	10835	9267	9165
50°	10500	8995	8920
55°	10150	8703	8668
60°	9721	8403	8403
65°	9278	8047	8088
70°	8774	7666	7748
75°	8132	7293	7435
80°	7126	6912	7117
85°	6164	6582	6872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	1.3
10°-20°	214.2	3.7
20°-30°	324.6	5.5
30°-40°	395.4	6.7
40°-50°	425.3	7.3
50°-60°	413.1	7.1
60°-70°	360.7	6.2
70°-80°	277.7	4.7
80°-90°	190.4	3.3
90°-100°	192.9	3.3
100°-110°	294.1	5.0
110°-120°	404.4	6.9
120°-130°	485.0	8.3
130°-140°	520.0	8.9
140°-150°	498.2	8.5
150°-160°	415.8	7.1
160°-170°	275.8	4.7
170°-180°	96.4	1.6
0°-30°	613.5	10.5
0°-40°	1008.9	17.2
0°-60°	1847.2	31.5
0°-90°	2676.0	45.7
90°-120°	891.4	15.2
90°-150°	2394.7	40.9
90°-180°	3183.0	54.3
0°-180°	5858.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	791	787	780	787	786	75
15°	754	756	756	766	766	212
25°	686	694	704	717	721	315
35°	591	610	632	656	665	369
45°	484	516	555	589	602	374
55°	371	413	472	512	528	332
65°	254	310	377	422	439	252
75°	140	205	278	325	342	149
85°	41	112	185	231	249	44
90°	12	90	181	223	239	10
95°	54	117	186	228	242	58
105°	190	228	287	327	342	202
115°	348	368	416	448	459	344
125°	502	512	544	571	582	449
135°	648	658	671	693	700	501
145°	785	791	796	804	806	491
155°	898	900	903	907	905	413
165°	977	976	976	982	978	275
175°	1016	1014	1012	1018	1013	97
180°	1018	1018	1018	1018	1018	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3
2.5°	792.9	792.3	791.7	791.1	790.5	789.5	788.0	786.6	785.1	783.8	784.8
5°	790.6	789.9	789.1	788.3	787.6	786.4	784.9	783.3	781.9	780.3	781.9
7.5°	783.5	783.0	782.5	782.0	781.5	780.7	779.5	778.3	777.1	776.0	777.8
10°	778.1	777.6	777.1	776.5	776.0	775.4	774.6	773.9	773.1	772.3	774.4
12.5°	768.9	769.0	769.1	769.2	769.3	769.0	768.5	767.9	767.4	766.8	768.9
15°	754.1	754.6	755.1	755.6	756.0	756.3	756.3	756.3	756.3	756.3	758.6
17.5°	734.9	735.9	737.0	738.0	739.1	740.0	740.9	741.7	742.5	743.3	745.7
20°	722.0	723.3	724.6	725.9	727.1	728.3	729.3	730.3	731.3	732.4	735.1
22.5°	708.3	709.8	711.3	712.7	714.2	715.7	717.1	718.5	720.0	721.3	724.2
25°	685.5	687.3	689.1	690.9	692.6	694.7	696.9	699.2	701.5	703.8	706.8
27.5°	658.1	661.0	663.8	666.8	669.7	672.4	675.1	677.9	680.5	683.2	687.1
30°	639.8	643.1	646.4	649.7	653.0	656.3	659.6	662.9	666.2	669.5	673.6
32.5°	619.7	623.4	627.1	630.9	634.6	638.3	642.2	646.2	650.1	653.9	658.7
35°	590.6	595.0	599.3	603.6	608.0	612.5	617.3	622.2	627.0	631.8	637.4
37.5°	559.1	564.1	569.1	574.0	579.0	584.6	590.9	597.2	603.4	609.7	615.9
40°	538.1	543.7	549.3	554.9	560.4	566.7	573.5	580.4	587.3	594.1	600.7
42.5°	518.0	523.6	529.2	534.8	540.4	547.1	554.9	562.8	570.7	578.6	585.7
45°	484.4	491.3	498.1	505.0	511.9	519.7	528.6	537.5	546.4	555.3	563.1
47.5°	451.3	458.7	466.2	473.7	481.1	490.1	500.5	510.9	521.3	531.8	539.9
50°	428.4	436.3	444.2	452.0	459.9	469.6	481.0	492.4	503.9	515.3	523.9
52.5°	406.5	414.7	423.1	431.4	439.6	449.8	461.8	473.8	485.9	497.9	506.7
55°	371.3	380.5	389.6	398.7	407.9	419.0	432.2	445.5	458.7	471.8	481.0
57.5°	336.6	346.9	357.2	367.5	377.8	389.7	403.1	416.6	430.1	443.5	453.4
60°	311.9	322.8	333.7	344.7	355.6	368.2	382.7	397.2	411.6	426.2	435.8
62.5°	290.0	301.3	312.6	323.9	335.3	348.2	362.7	377.1	391.6	406.0	416.3
65°	253.7	266.0	278.5	290.9	303.4	317.1	332.1	347.1	362.1	377.0	387.4
67.5°	220.2	233.2	246.2	259.2	272.2	286.5	301.8	317.1	332.4	347.8	358.3
70°	196.5	209.7	222.9	236.1	249.3	263.8	279.6	295.2	311.0	326.7	337.7
72.5°	174.6	188.2	201.8	215.4	229.0	243.7	259.8	275.7	291.6	307.5	318.3
75°	140.5	154.7	168.9	183.2	197.4	212.7	228.9	245.1	261.4	277.6	288.5
77.5°	107.6	122.5	137.4	152.2	167.1	182.8	199.3	215.9	232.3	248.8	259.7
80°	85.7	101.2	116.7	132.2	147.7	163.6	180.1	196.7	213.1	229.6	240.3
82.5°	67.4	82.7	98.0	113.2	128.5	144.6	161.3	178.0	194.7	211.4	222.1
85°	41.2	56.9	72.6	88.3	104.1	120.1	136.3	152.6	168.8	185.1	195.8
87.5°	22.6	38.1	53.7	69.3	84.9	101.3	118.4	135.4	152.6	169.6	179.9
90°	12.3	29.3	46.3	63.4	80.3	99.1	119.5	140.0	160.4	180.9	190.6
92.5°	25.8	41.2	56.6	72.0	87.4	103.4	120.0	136.6	153.3	169.9	179.9
95°	53.8	67.7	81.5	95.3	109.2	123.9	139.6	155.2	170.7	186.4	196.0
97.5°	89.6	101.9	114.2	126.5	138.8	152.7	168.0	183.3	198.6	214.0	223.4
100°	117.1	128.0	139.0	149.9	160.8	173.7	188.5	203.3	218.0	232.8	242.2
102.5°	145.1	154.9	164.7	174.5	184.3	196.5	211.0	225.5	240.0	254.6	264.0
105°	190.5	198.4	206.3	214.2	222.2	233.0	246.5	260.1	273.7	287.3	296.5
107.5°	237.3	244.0	250.8	257.5	264.2	273.9	286.5	299.2	311.9	324.5	333.2
110°	266.7	272.9	279.1	285.3	291.5	300.8	313.3	325.7	338.2	350.6	358.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	299.6	305.1	310.5	315.9	321.2	329.8	341.5	353.2	364.9	376.5	384.2
115°	348.3	352.2	356.1	360.1	364.0	371.5	382.5	393.6	404.7	415.7	423.1
117.5°	395.5	398.9	402.3	405.6	409.0	415.4	424.9	434.4	443.9	453.4	460.5
120°	427.9	430.4	433.0	435.5	438.1	443.7	452.3	460.9	469.5	478.2	485.3
122.5°	457.4	459.7	461.9	464.2	466.4	471.7	480.3	488.7	497.2	505.7	512.1
125°	502.4	504.1	505.8	507.5	509.2	513.8	521.4	529.0	536.5	544.1	550.4
127.5°	547.3	549.1	551.0	553.0	554.9	558.8	564.6	570.5	576.4	582.2	587.9
130°	575.4	577.6	579.9	582.1	584.3	587.9	592.9	597.8	602.8	607.7	613.4
132.5°	607.0	608.8	610.5	612.3	614.1	617.1	621.3	625.4	629.6	633.9	638.9
135°	648.2	650.2	652.4	654.4	656.5	659.1	662.0	664.9	667.8	670.7	675.9
137.5°	692.7	694.3	696.0	697.7	699.3	700.9	702.6	704.2	705.8	707.4	712.0
140°	719.5	720.9	722.4	723.8	725.3	726.8	728.2	729.7	731.2	732.6	736.7
142.5°	746.9	748.5	749.9	751.4	752.9	753.9	754.7	755.4	756.2	756.9	760.3
145°	785.3	786.7	788.0	789.4	790.7	791.9	793.1	794.2	795.4	796.5	798.2
147.5°	820.5	822.2	823.8	825.4	827.0	828.2	829.0	829.7	830.4	831.2	831.8
150°	844.6	845.8	846.9	848.1	849.2	850.2	850.9	851.7	852.5	853.3	853.8
152.5°	865.9	867.1	868.2	869.4	870.6	871.6	872.5	873.4	874.3	875.2	876.0
155°	897.9	898.5	899.1	899.7	900.2	900.8	901.4	901.9	902.5	903.0	904.0
157.5°	925.2	925.6	926.0	926.3	926.8	927.1	927.5	927.8	928.2	928.5	929.8
160°	941.8	942.1	942.5	942.9	943.2	943.6	943.7	943.9	944.1	944.3	945.5
162.5°	956.8	956.9	957.0	957.1	957.2	957.3	957.5	957.7	957.9	958.0	959.3
165°	977.0	976.8	976.5	976.4	976.2	976.1	976.1	976.1	976.1	976.1	977.4
167.5°	993.8	993.2	992.6	992.0	991.5	991.2	991.2	991.1	991.1	991.0	992.4
170°	1002.7	1002.1	1001.6	1001.0	1000.4	1000.1	999.9	999.7	999.4	999.3	1000.7
172.5°	1008.9	1008.3	1007.8	1007.2	1006.6	1006.3	1006.1	1005.8	1005.6	1005.5	1006.9
175°	1016.5	1015.9	1015.3	1014.8	1014.2	1013.7	1013.3	1013.0	1012.5	1012.2	1013.5
177.5°	1019.6	1019.1	1018.6	1018.2	1017.7	1017.4	1017.0	1016.8	1016.4	1016.2	1017.0
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3
2.5°	785.7	786.8	787.8	788.2	787.7	787.3	786.9	786.5
5°	783.3	784.9	786.4	787.0	786.8	786.5	786.3	786.0
7.5°	779.6	781.4	783.3	784.1	783.9	783.6	783.3	783.1
10°	776.4	778.4	780.5	781.4	781.1	780.8	780.6	780.3
12.5°	770.9	772.9	775.0	775.8	775.6	775.3	775.1	774.8
15°	760.9	763.2	765.5	766.5	766.2	765.9	765.7	765.5
17.5°	748.1	750.4	752.9	754.1	754.1	754.1	754.1	754.1
20°	738.0	740.7	743.5	744.9	744.9	744.9	744.9	744.9
22.5°	726.9	729.8	732.5	734.2	734.5	734.9	735.4	735.8
25°	709.9	712.9	716.0	717.9	718.6	719.4	720.1	720.9
27.5°	691.0	694.8	698.6	700.9	701.5	702.0	702.6	703.1
30°	677.6	681.7	685.8	688.2	688.9	689.7	690.4	691.2
32.5°	663.3	668.0	672.6	675.7	677.0	678.4	679.8	681.1
35°	643.0	648.6	654.2	657.8	659.6	661.4	663.1	665.0
37.5°	622.0	628.2	634.4	638.4	640.3	642.2	644.1	646.0
40°	607.3	613.9	620.5	624.9	627.2	629.5	631.8	634.1
42.5°	593.0	600.2	607.4	612.2	614.4	616.7	619.0	621.3
45°	571.0	578.9	586.8	591.9	594.5	597.0	599.6	602.1
47.5°	548.2	556.4	564.6	570.2	572.9	575.8	578.5	581.3
50°	532.5	541.1	549.8	555.5	558.3	561.1	563.9	566.7
52.5°	515.6	524.4	533.2	539.2	542.2	545.2	548.1	551.1
55°	490.2	499.3	508.4	514.6	517.9	521.2	524.5	527.8
57.5°	463.2	473.0	482.9	489.6	492.8	496.2	499.6	502.9
60°	445.5	455.1	464.8	471.3	474.9	478.5	482.0	485.6
62.5°	426.5	436.8	447.0	453.9	457.2	460.5	463.9	467.3
65°	397.9	408.3	418.7	425.5	428.8	432.1	435.4	438.7
67.5°	368.8	379.3	389.9	396.8	400.3	403.7	407.2	410.6
70°	348.6	359.5	370.4	377.4	380.5	383.5	386.6	389.6
72.5°	329.0	339.7	350.4	357.6	361.3	364.9	368.6	372.2
75°	299.5	310.4	321.3	328.4	331.7	335.0	338.3	341.6
77.5°	270.6	281.5	292.3	299.5	303.1	306.6	310.2	313.7
80°	251.0	261.7	272.3	279.4	282.9	286.5	290.1	293.6
82.5°	232.7	243.3	254.0	261.1	264.4	267.7	271.0	274.4
85°	206.4	217.1	227.7	234.9	238.4	241.9	245.5	249.1
87.5°	190.2	200.4	210.8	217.6	220.8	224.1	227.4	230.7
90°	200.4	210.2	220.0	226.4	229.7	233.0	236.2	239.4
92.5°	189.9	200.0	210.0	216.5	219.6	222.7	225.8	228.9
95°	205.7	215.3	225.0	231.1	233.8	236.4	239.1	241.8
97.5°	232.8	242.2	251.6	257.8	260.7	263.7	266.7	269.6
100°	251.6	261.0	270.4	276.4	279.0	281.6	284.2	286.8
102.5°	273.3	282.7	292.0	298.0	300.6	303.2	305.7	308.3
105°	305.8	315.1	324.3	330.4	333.2	336.0	338.8	341.6
107.5°	341.8	350.5	359.2	364.5	366.4	368.3	370.2	372.2
110°	366.9	375.0	383.1	388.3	390.5	392.7	394.9	397.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	391.8	399.5	407.2	412.2	414.6	417.0	419.3	421.7
115°	430.5	438.0	445.4	450.2	452.5	454.6	456.8	459.1
117.5°	467.5	474.6	481.6	486.2	488.2	490.2	492.2	494.2
120°	492.4	499.5	506.6	511.3	513.5	515.7	517.9	520.1
122.5°	518.6	525.0	531.5	535.6	537.6	539.6	541.6	543.5
125°	556.6	562.9	569.2	573.4	575.5	577.6	579.7	581.8
127.5°	593.5	599.1	604.7	608.3	609.9	611.6	613.2	614.8
130°	619.1	624.8	630.5	634.0	635.3	636.5	637.8	639.1
132.5°	643.9	649.0	654.0	657.3	658.7	660.1	661.5	663.0
135°	681.1	686.1	691.3	694.6	696.0	697.5	699.0	700.4
137.5°	716.4	721.0	725.5	728.2	729.2	730.1	731.2	732.1
140°	740.7	744.9	748.9	751.3	752.1	752.9	753.5	754.3
142.5°	763.7	767.2	770.5	772.5	773.1	773.6	774.2	774.7
145°	800.0	801.7	803.4	804.5	804.9	805.5	806.0	806.5
147.5°	832.5	833.1	833.7	834.0	833.9	833.7	833.6	833.5
150°	854.4	855.0	855.5	855.5	855.0	854.4	853.8	853.3
152.5°	876.7	877.4	878.1	878.1	877.4	876.7	876.0	875.2
155°	905.0	905.9	906.9	907.1	906.5	905.9	905.3	904.7
157.5°	931.1	932.4	933.7	933.8	933.0	932.0	931.1	930.2
160°	946.6	947.7	948.9	949.1	948.3	947.5	946.8	946.0
162.5°	960.6	961.9	963.2	963.5	962.5	961.6	960.7	959.8
165°	978.8	980.1	981.5	981.6	980.7	979.7	978.8	977.8
167.5°	993.7	995.1	996.3	996.5	995.6	994.5	993.6	992.6
170°	1001.9	1003.3	1004.6	1004.7	1003.6	1002.5	1001.3	1000.1
172.5°	1008.1	1009.5	1010.8	1010.9	1009.8	1008.7	1007.5	1006.3
175°	1014.9	1016.2	1017.5	1017.6	1016.5	1015.3	1014.2	1013.1
177.5°	1018.0	1018.9	1019.8	1019.8	1018.9	1018.0	1017.0	1016.2
180°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2

(END OF REPORT)