

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: P332602-935

Luminaire Tested: **SA4XXDIP-C795D810U935-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332602-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D810U935-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5205.2 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

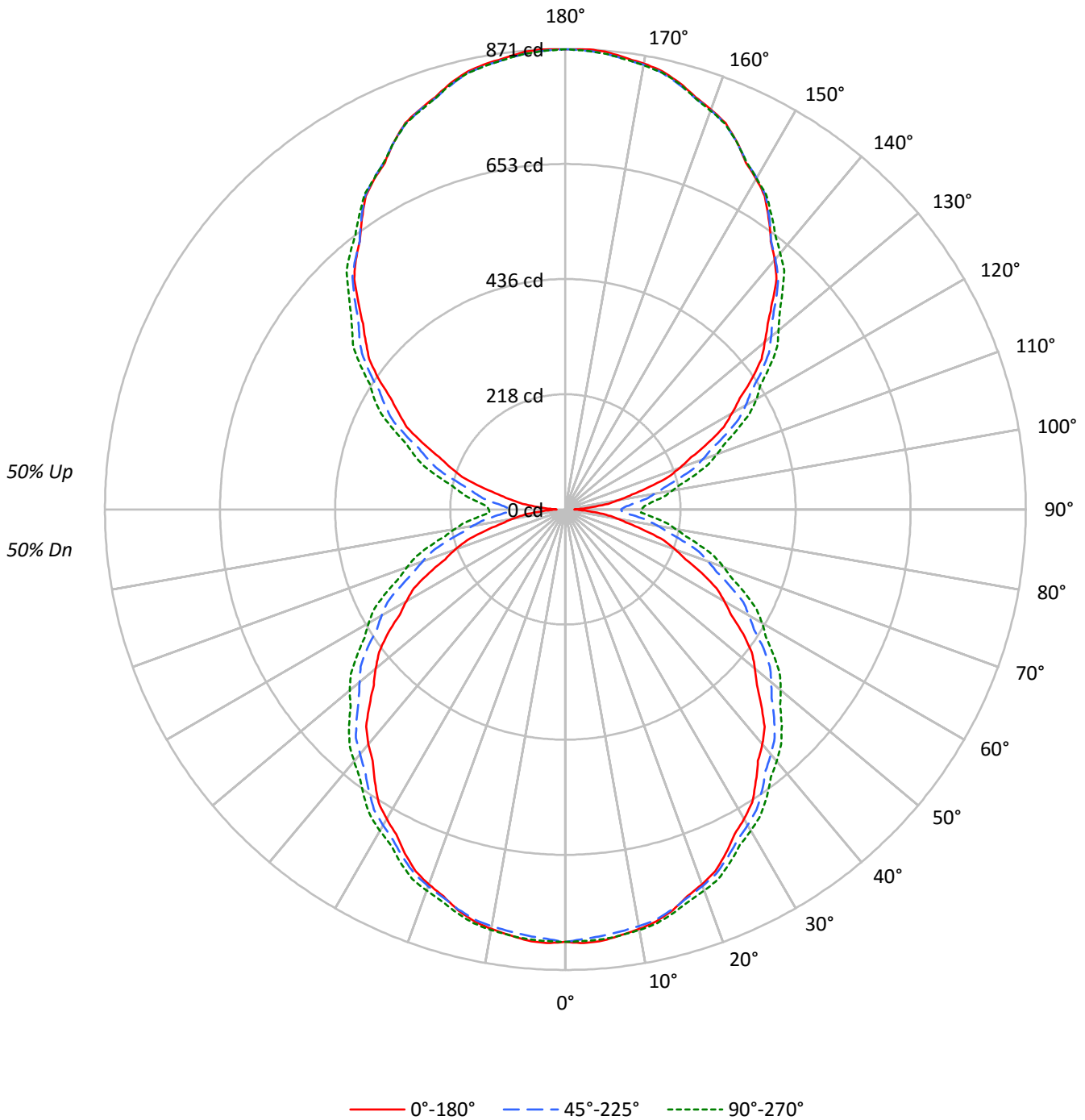
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									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	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50																												
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	46	45	40																												
2	88	80	73	68	80	73	68	63	62	58	54	51	48	45	41	39	37	32																												
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	36	33	31	27																												
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	27	23																												
5	67	55	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20																												
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17																												
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15																												
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13																												
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12																												
10	46	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.5
10°-20°	221.9	4.3
20°-30°	335.5	6.4
30°-40°	405.9	7.8
40°-50°	429.2	8.2
50°-60°	403.9	7.8
60°-70°	335.1	6.4
70°-80°	235.4	4.5
80°-90°	135.7	2.6
90°-100°	136.4	2.6
100°-110°	228.5	4.4
110°-120°	327.9	6.3
120°-130°	402.7	7.7
130°-140°	437.0	8.4
140°-150°	421.9	8.1
150°-160°	353.3	6.8
160°-170°	235.0	4.5
170°-180°	82.3	1.6
0°-30°	634.9	12.2
0°-40°	1040.8	20.0
0°-60°	1873.9	36.0
0°-90°	2580.1	49.6
90°-120°	692.8	13.3
90°-150°	1954.5	37.5
90°-180°	2625.0	50.4
0°-180°	5205.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	17	61	106	135	145	12
95°	52	89	131	157	166	54
105°	165	185	221	245	255	176
115°	299	308	335	354	360	295
125°	431	431	452	468	473	384
135°	553	557	564	576	580	428
145°	671	672	673	678	680	420
155°	767	767	767	769	767	353
165°	835	833	832	836	833	235
175°	869	866	865	869	865	82
180°	870	870	870	870	870	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.6	36.2	44.8	53.4	62.1	70.9	80.1	89.2	98.4	107.5	113.7
90°	16.7	26.4	36.2	46.1	55.8	65.7	75.6	85.6	95.5	105.5	112.3
92.5°	28.3	37.5	46.8	56.0	65.2	74.6	84.1	93.8	103.3	113.0	119.2
95°	52.3	60.4	68.4	76.5	84.6	93.2	102.6	112.0	121.4	130.9	136.8
97.5°	81.4	88.2	95.1	101.9	108.7	116.9	126.5	136.0	145.4	154.9	160.7
100°	104.4	110.2	116.1	122.0	127.9	135.4	144.7	154.0	163.3	172.6	178.4
102.5°	129.1	134.0	138.9	143.7	148.6	155.5	164.5	173.6	182.5	191.6	197.3
105°	165.1	169.3	173.5	177.7	181.9	188.1	196.2	204.4	212.5	220.7	226.2
107.5°	204.6	208.1	211.6	215.2	218.7	224.0	231.3	238.5	245.6	252.9	258.3
110°	230.8	233.9	237.1	240.2	243.4	248.5	255.5	262.4	269.4	276.4	280.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	258.0	260.6	263.2	265.8	268.4	272.9	279.5	286.0	292.6	299.1	303.5
115°	298.9	300.8	302.6	304.4	306.3	310.3	316.5	322.8	329.0	335.2	339.5
117.5°	338.4	339.6	340.8	342.0	343.3	346.8	352.7	358.5	364.4	370.2	373.9
120°	364.0	365.2	366.4	367.6	368.9	372.2	377.6	383.1	388.6	394.0	397.4
122.5°	391.5	391.8	392.2	392.5	393.0	395.8	401.1	406.6	411.9	417.2	420.9
125°	431.1	430.9	430.7	430.5	430.2	432.7	437.6	442.6	447.5	452.4	456.0
127.5°	467.7	467.9	468.1	468.4	468.6	470.6	474.2	477.9	481.6	485.3	488.6
130°	492.8	493.0	493.3	493.5	493.8	495.5	498.8	502.0	505.3	508.5	511.9
132.5°	519.2	519.3	519.4	519.5	519.7	521.0	523.5	526.0	528.4	530.9	534.1
135°	553.1	554.1	554.9	555.8	556.7	557.8	559.3	560.7	562.1	563.5	566.5
137.5°	591.1	591.3	591.5	591.8	591.9	592.5	593.5	594.3	595.3	596.2	598.8
140°	616.4	616.5	616.6	616.6	616.7	616.9	617.2	617.3	617.5	617.8	620.3
142.5°	638.8	639.0	639.3	639.6	639.8	639.9	639.6	639.4	639.1	638.9	641.2
145°	670.6	671.1	671.5	671.8	672.3	672.5	672.7	672.8	673.0	673.1	674.2
147.5°	702.4	702.9	703.4	704.0	704.5	704.7	704.6	704.5	704.3	704.2	704.3
150°	721.9	722.2	722.6	723.0	723.4	723.6	723.6	723.6	723.6	723.6	723.6
152.5°	739.4	739.7	740.0	740.4	740.6	740.9	741.0	741.1	741.2	741.4	741.8
155°	767.3	767.3	767.3	767.3	767.3	767.2	767.2	767.0	766.8	766.7	767.2
157.5°	791.1	790.7	790.5	790.2	790.0	789.8	789.8	789.8	789.7	789.7	790.1
160°	805.0	804.9	804.8	804.6	804.4	804.3	804.2	804.0	803.8	803.7	804.2
162.5°	817.9	817.6	817.2	816.8	816.4	816.1	816.0	815.9	815.7	815.5	816.4
165°	835.3	834.9	834.5	834.0	833.5	833.2	832.8	832.6	832.2	832.0	832.8
167.5°	848.7	848.0	847.4	846.8	846.2	845.8	845.8	845.9	845.9	845.9	846.9
170°	856.2	855.5	854.7	853.9	853.3	852.9	853.1	853.3	853.3	853.5	854.4
172.5°	861.6	861.0	860.3	859.7	859.1	858.8	858.8	858.8	858.8	858.9	859.9
175°	869.0	868.2	867.5	866.8	866.0	865.6	865.4	865.2	865.1	865.0	866.0
177.5°	871.4	870.8	870.2	869.6	869.0	868.7	868.7	868.7	868.7	868.7	869.5
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	119.7	125.8	131.9	135.9	137.7	139.6	141.4	143.3
90°	119.1	125.9	132.7	137.1	139.0	140.9	142.8	144.7
92.5°	125.4	131.7	138.0	142.1	143.9	145.7	147.5	149.3
95°	142.8	148.7	154.6	158.5	160.3	162.1	164.0	165.8
97.5°	166.7	172.5	178.4	182.2	183.9	185.7	187.4	189.2
100°	184.2	189.9	195.8	199.4	200.8	202.2	203.6	205.1
102.5°	203.0	208.8	214.6	218.3	220.0	221.7	223.4	225.1
105°	231.7	237.3	242.8	246.6	248.7	250.7	252.8	254.9
107.5°	263.7	269.1	274.6	278.0	279.5	280.9	282.3	283.8
110°	285.1	289.5	293.9	297.1	299.2	301.3	303.3	305.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	308.0	312.5	316.9	320.0	321.7	323.4	325.1	326.8
115°	343.8	348.2	352.5	355.2	356.5	357.8	359.1	360.4
117.5°	377.6	381.3	385.1	387.6	389.0	390.3	391.6	393.0
120°	400.6	404.0	407.3	409.9	411.8	413.8	415.7	417.6
122.5°	424.4	427.9	431.5	433.8	434.7	435.6	436.5	437.5
125°	459.5	463.1	466.7	468.9	469.8	470.8	471.7	472.6
127.5°	492.0	495.3	498.7	501.0	502.1	503.3	504.5	505.6
130°	515.2	518.7	522.0	524.0	524.6	525.2	525.8	526.5
132.5°	537.4	540.5	543.7	545.8	546.8	547.8	548.7	549.7
135°	569.5	572.5	575.4	577.3	578.0	578.8	579.5	580.3
137.5°	601.4	604.0	606.6	608.4	609.5	610.6	611.7	612.9
140°	622.8	625.3	627.8	629.4	630.3	631.1	632.0	632.8
142.5°	643.4	645.8	648.1	649.6	650.4	651.3	652.1	652.9
145°	675.3	676.3	677.4	678.1	678.5	678.8	679.2	679.6
147.5°	704.3	704.4	704.4	704.6	705.2	705.7	706.2	706.7
150°	723.6	723.6	723.6	723.5	723.4	723.2	723.1	722.9
152.5°	742.1	742.4	742.8	742.8	742.4	742.0	741.7	741.2
155°	767.8	768.4	769.0	769.0	768.4	767.8	767.2	766.7
157.5°	790.6	791.1	791.5	791.4	791.0	790.5	790.0	789.5
160°	804.6	805.0	805.5	805.4	804.6	803.8	803.1	802.4
162.5°	817.2	817.9	818.8	818.8	818.0	817.3	816.6	815.8
165°	833.8	834.7	835.6	835.7	835.1	834.5	833.9	833.4
167.5°	847.7	848.7	849.5	849.5	848.6	847.7	846.8	845.8
170°	855.3	856.2	857.1	857.0	856.0	855.0	853.9	852.8
172.5°	860.9	861.9	863.0	863.0	861.9	860.8	859.8	858.8
175°	867.0	868.1	869.2	869.2	868.1	867.0	866.0	865.0
177.5°	870.4	871.2	872.1	872.0	871.1	870.1	869.2	868.1
180°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	870.3

(END OF REPORT)