

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: P332612-927

Luminaire Tested: **S124DIP-S795D1035U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

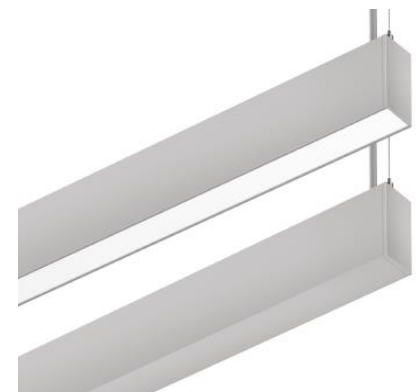
Test Information

Test Method: LM-79-08
Report Number: P332612-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1035U927-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5494.9 lumens
Efficiency: N/A
Efficacy: 105.7 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

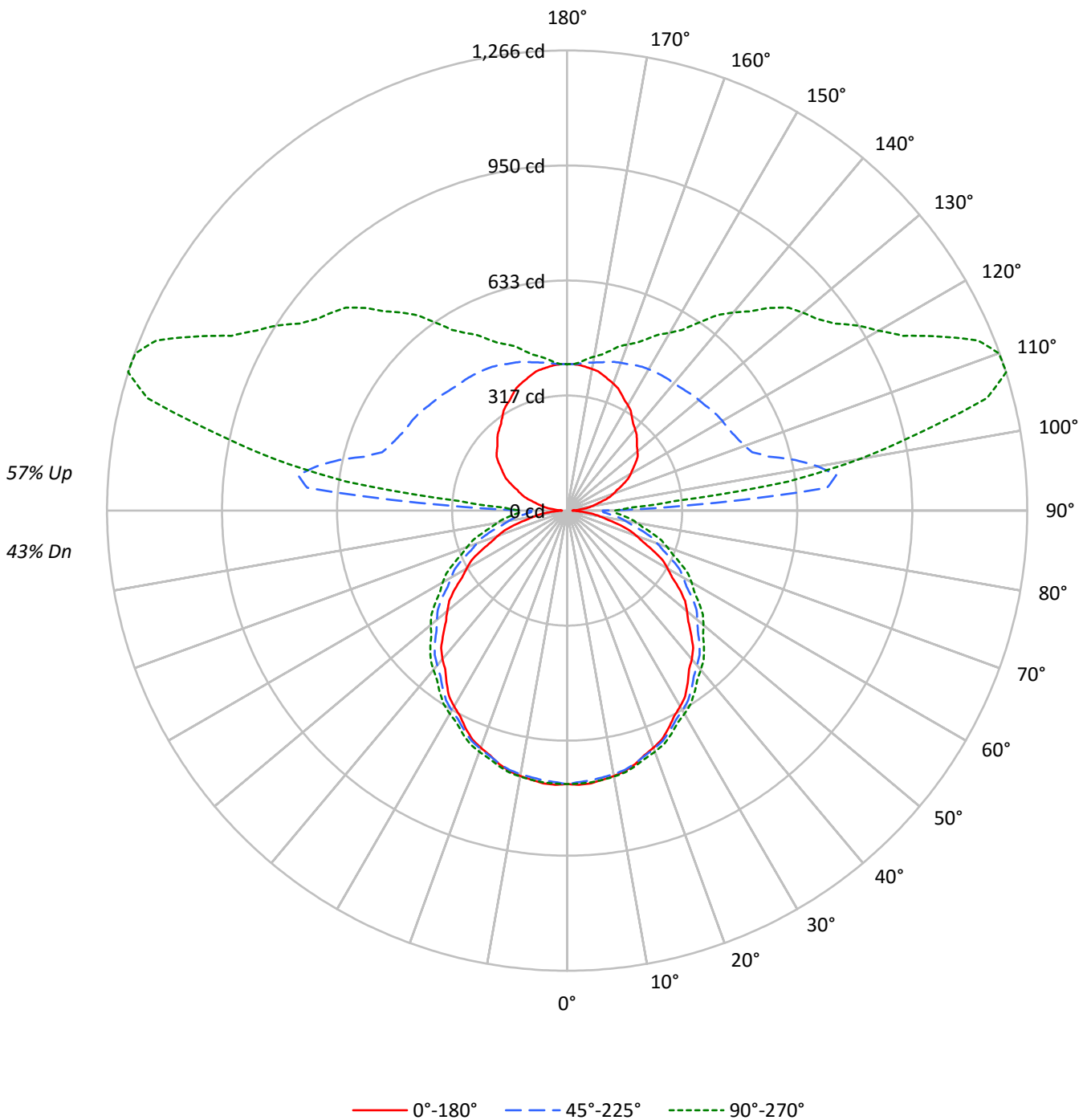
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332612-927

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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	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40	35
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.3
10°-20°	204.2	3.7
20°-30°	308.7	5.6
30°-40°	373.5	6.8
40°-50°	394.9	7.2
50°-60°	371.6	6.8
60°-70°	308.3	5.6
70°-80°	216.6	3.9
80°-90°	124.7	2.3
90°-100°	363.4	6.6
100°-110°	658.9	12.0
110°-120°	578.1	10.5
120°-130°	476.3	8.7
130°-140°	388.9	7.1
140°-150°	292.2	5.3
150°-160°	204.1	3.7
160°-170°	120.1	2.2
170°-180°	39.1	0.7
0°-30°	584.1	10.6
0°-40°	957.6	17.4
0°-60°	1724.1	31.4
0°-90°	2373.7	43.2
90°-120°	1600.5	29.1
90°-150°	2757.9	50.2
90°-180°	3121.0	56.8
0°-180°	5494.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	14	54	98	123	131	10
95°	37	121	718	414	297	38
105°	100	159	574	1193	1196	107
115°	168	218	502	946	1132	167
125°	230	273	484	795	897	205
135°	271	323	464	692	788	210
145°	312	356	454	571	631	196
155°	354	382	441	500	521	163
165°	385	397	423	448	455	109
175°	402	402	406	411	410	38
180°	402	402	402	402	402	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.1	33.0	41.2	49.0	56.8	64.7	73.8	82.1	90.5	99.1	104.3
90°	14.3	23.4	33.2	41.5	49.7	57.5	70.3	78.4	88.0	97.7	102.3
92.5°	21.8	32.6	46.8	63.2	81.5	105.4	153.6	223.0	290.9	330.3	293.6
95°	37.1	45.6	59.7	76.1	101.3	141.5	217.9	355.3	552.0	717.9	741.1
97.5°	56.8	62.1	74.2	89.0	110.6	144.9	205.5	320.2	515.7	746.9	905.6
100°	69.4	74.2	84.7	99.0	118.9	150.3	204.2	301.0	469.5	699.9	907.4
102.5°	82.0	87.5	96.7	109.9	128.5	158.3	207.6	293.4	437.8	642.7	856.4
105°	100.1	106.2	113.9	127.1	145.1	173.4	218.3	290.9	408.5	574.4	764.9
107.5°	121.8	126.4	133.5	146.6	163.3	190.8	232.1	298.4	399.6	534.1	690.4
110°	135.6	139.8	146.4	158.5	175.4	201.4	242.7	304.6	398.2	519.4	652.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	148.9	152.8	159.7	170.9	187.4	213.1	252.9	311.3	398.9	510.3	629.5
115°	167.9	172.1	179.3	188.9	205.6	230.8	268.4	321.8	401.3	502.2	606.0
117.5°	188.7	191.9	197.8	207.6	222.6	248.0	283.7	333.0	404.5	496.4	592.5
120°	201.9	204.1	210.2	219.4	233.5	258.6	294.1	340.6	406.9	493.1	584.6
122.5°	214.6	216.3	221.9	230.1	244.9	269.0	304.2	347.9	409.6	489.0	576.2
125°	230.4	233.3	237.9	246.4	261.3	285.6	318.8	359.8	414.3	483.9	563.3
127.5°	244.9	247.2	252.7	262.5	278.0	302.0	333.1	370.1	417.2	477.1	546.8
130°	252.5	255.4	261.6	273.2	288.0	312.4	342.3	376.1	419.5	473.1	536.5
132.5°	260.6	263.0	271.0	282.1	298.2	321.0	350.2	382.9	421.8	469.8	527.4
135°	271.4	274.5	282.4	295.9	312.5	333.7	361.1	390.9	424.6	463.9	512.8
137.5°	282.9	285.7	294.2	306.9	323.9	343.7	368.8	395.9	425.4	459.9	500.4
140°	291.1	293.3	301.8	315.1	331.5	350.5	374.4	399.9	427.0	457.2	493.7
142.5°	299.3	301.7	309.7	322.4	338.4	356.6	379.6	402.9	428.5	455.9	488.2
145°	311.6	313.9	321.5	332.4	347.3	364.6	385.2	406.5	429.4	453.9	480.4
147.5°	325.7	326.3	333.1	344.3	356.6	372.2	391.5	410.1	430.2	451.1	473.6
150°	334.6	335.2	341.4	350.6	362.3	377.2	394.7	412.0	430.2	449.2	469.0
152.5°	342.1	342.2	348.6	357.4	367.9	381.7	397.2	413.3	429.0	446.0	463.9
155°	353.5	354.3	359.0	366.9	375.7	387.5	400.9	414.4	427.1	441.3	456.3
157.5°	364.7	364.7	369.2	375.3	382.9	392.3	403.6	414.4	425.0	436.4	448.5
160°	371.7	371.7	374.9	380.4	386.7	395.5	404.9	414.4	423.1	432.6	442.9
162.5°	378.0	377.4	379.9	384.8	390.5	397.4	406.2	414.4	421.2	428.8	437.8
165°	385.2	385.2	386.7	390.7	394.7	399.3	406.5	412.8	417.6	423.1	429.4
167.5°	392.3	391.5	392.3	395.3	397.5	401.1	406.3	410.9	413.8	417.4	421.8
170°	395.5	394.7	395.5	397.8	399.3	401.7	405.7	409.6	411.2	413.6	416.8
172.5°	398.5	397.8	397.9	399.7	400.6	402.3	405.0	408.4	408.7	409.8	412.3
175°	401.7	400.9	400.9	401.7	402.5	402.5	404.1	406.5	405.7	405.7	407.3
177.5°	403.1	402.5	401.9	402.5	402.5	402.5	403.1	404.4	403.1	403.1	403.8
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	110.0	115.5	121.1	124.7	126.4	128.3	129.8	131.4
90°	108.5	114.7	121.0	124.5	126.7	129.0	129.7	131.2
92.5°	245.3	212.1	193.5	181.1	173.3	170.5	169.3	170.8
95°	669.5	551.9	451.0	377.6	340.6	317.7	305.2	296.6
97.5°	943.7	903.1	830.6	751.3	696.2	650.1	628.0	613.2
100°	1027.9	1048.8	1015.1	959.7	892.2	845.3	822.9	817.9
102.5°	1019.8	1103.2	1119.3	1098.1	1057.3	1023.9	1000.4	996.7
105°	950.7	1092.2	1175.2	1210.7	1213.8	1208.9	1199.4	1196.1
107.5°	855.4	1005.7	1120.5	1194.1	1234.5	1253.8	1263.1	1266.5
110°	797.6	938.8	1057.8	1147.6	1205.3	1240.0	1255.8	1264.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	754.2	879.3	991.8	1081.6	1146.8	1188.5	1210.0	1223.0
115°	709.0	810.4	907.0	985.6	1049.5	1098.2	1124.8	1132.5
117.5°	683.9	768.3	844.9	912.0	966.8	1008.1	1035.3	1041.6
120°	671.4	748.6	815.6	874.4	921.0	957.3	979.4	989.5
122.5°	660.4	735.1	796.5	848.2	887.6	918.8	937.5	947.5
125°	642.9	714.4	772.5	818.3	851.1	875.2	891.3	897.2
127.5°	621.5	690.0	747.7	791.3	824.4	846.1	860.0	866.0
130°	605.5	671.4	728.6	772.7	806.3	827.1	840.9	846.8
132.5°	589.3	651.2	706.9	751.0	783.9	807.3	820.5	826.3
135°	565.6	620.0	671.2	712.8	745.6	768.8	782.6	788.5
137.5°	544.5	590.8	634.2	671.8	702.3	725.1	736.4	743.1
140°	532.4	572.0	610.1	645.0	673.6	692.0	703.9	711.2
142.5°	521.7	556.5	589.2	619.4	644.8	661.6	672.2	677.5
145°	506.8	534.8	559.7	582.7	603.2	617.4	626.1	630.8
147.5°	494.6	516.1	535.2	552.9	568.2	580.3	586.9	588.9
150°	488.0	506.1	522.0	536.2	548.8	559.1	563.9	564.7
152.5°	481.0	496.6	511.2	522.9	533.7	542.0	544.9	545.7
155°	470.6	483.2	495.0	504.5	512.5	518.8	521.2	521.2
157.5°	459.3	469.9	479.9	487.5	493.5	498.2	499.6	499.6
160°	452.3	461.1	469.8	476.1	480.9	485.6	486.4	486.4
162.5°	445.4	452.8	459.6	465.3	468.8	473.6	474.4	473.7
165°	435.8	440.5	446.0	450.0	453.1	456.3	455.5	454.7
167.5°	426.4	430.1	434.5	436.9	438.5	440.5	440.4	439.7
170°	420.7	423.1	426.3	428.6	430.2	431.0	430.2	430.2
172.5°	415.7	417.4	419.3	421.0	422.0	422.8	422.0	420.7
175°	408.8	409.6	411.2	411.2	411.2	412.8	411.2	409.6
177.5°	404.4	405.0	405.0	405.7	405.0	405.7	404.4	403.1
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5

(END OF REPORT)