

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: P332041-930

Luminaire Tested: **S123DIP-S1000D1195U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332041-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D1195U930-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6947.3 lumens
Efficiency: N/A
Efficacy: 106.2 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

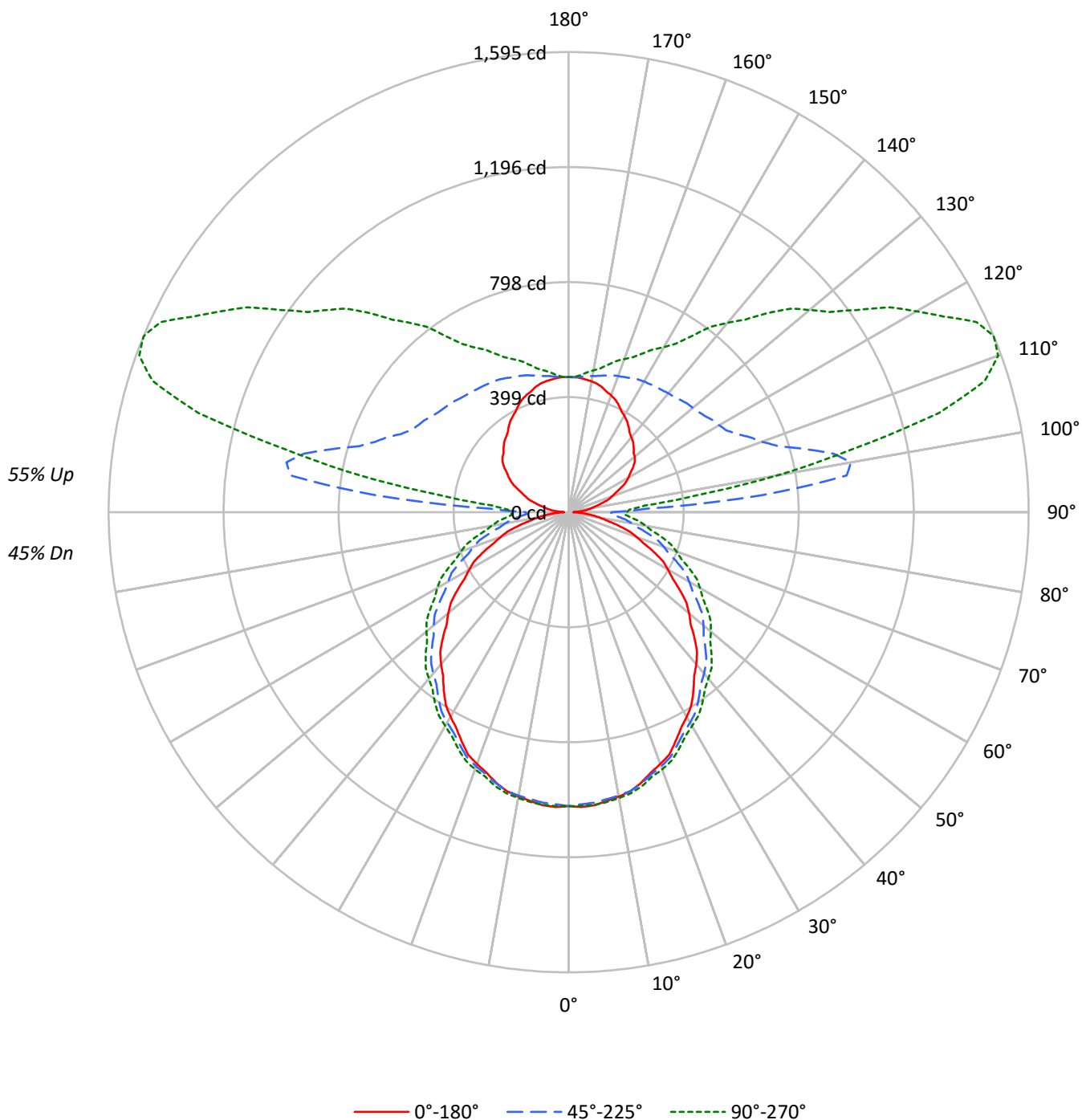
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	106	106	106	106	97	97	97	97	81	81	81		66	66	66		52
1	96	91	87	83	87	83	80	77	69	67	64		56	54	53		44
2	87	79	72	67	79	72	67	62	60	56	52		49	46	43		38
3	79	69	61	55	72	63	57	51	53	48	44		43	39	36		34
4	72	61	53	47	66	56	49	43	47	41	37		38	34	31		30
5	66	54	46	40	60	50	42	37	42	36	32		34	30	26		27
6	61	48	40	34	55	45	37	32	37	32	27		31	26	23		24
7	56	44	35	30	51	40	33	28	34	28	24		28	23	20		22
8	52	39	32	26	47	36	29	25	31	25	21		25	21	18		20
9	48	36	28	23	44	33	26	22	28	23	19		23	19	16		19
10	45	33	26	21	41	31	24	20	26	21	17		21	17	14		17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.4
10°-20°	275.3	4.0
20°-30°	411.7	5.9
30°-40°	491.7	7.1
40°-50°	514.4	7.4
50°-60°	482.8	6.9
60°-70°	403.2	5.8
70°-80°	288.5	4.2
80°-90°	175.7	2.5
90°-100°	368.4	5.3
100°-110°	816.7	11.8
110°-120°	778.4	11.2
120°-130°	608.9	8.8
130°-140°	469.8	6.8
140°-150°	343.4	4.9
150°-160°	237.3	3.4
160°-170°	139.4	2.0
170°-180°	45.4	0.7
0°-30°	783.6	11.3
0°-40°	1275.2	18.4
0°-60°	2272.4	32.7
0°-90°	3139.8	45.2
90°-120°	1963.4	28.3
90°-150°	3385.5	48.7
90°-180°	3808.0	54.8
0°-180°	6947.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	16	80	149	188	202	12
95°	44	161	672	307	265	44
105°	119	199	845	1445	1329	126
115°	200	262	641	1362	1560	198
125°	273	324	579	1043	1222	243
135°	319	379	549	844	976	246
145°	362	414	530	674	746	227
155°	410	442	512	583	607	189
165°	448	461	491	520	530	126
175°	467	468	471	477	476	44
180°	468	468	468	468	468	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.9	42.6	55.2	68.1	80.7	93.5	106.6	119.8	133.0	146.1	154.3
90°	16.3	30.3	44.3	59.2	73.2	87.4	102.8	118.2	133.6	149.0	156.5
92.5°	25.3	41.9	60.7	79.0	97.8	123.5	160.7	213.9	266.2	264.0	236.4
95°	44.4	56.9	76.9	102.6	136.9	184.7	277.3	430.5	597.9	671.6	573.2
97.5°	65.8	75.4	92.3	115.0	147.9	198.0	286.4	457.1	727.7	972.4	1040.6
100°	80.1	88.9	103.5	124.6	155.2	201.8	279.4	431.0	691.5	993.6	1187.3
102.5°	95.1	104.0	116.9	136.5	164.0	207.1	277.7	407.8	640.8	939.0	1189.4
105°	118.8	127.5	139.1	156.4	180.3	217.9	279.7	387.8	577.5	844.8	1123.6
107.5°	142.8	150.7	161.2	177.4	199.3	234.2	289.1	380.3	534.7	760.9	1014.3
110°	160.1	167.4	176.6	191.4	212.0	245.6	298.2	380.0	516.8	713.2	946.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.8	183.3	191.7	205.7	225.5	257.8	306.9	383.0	504.3	679.1	885.3
115°	199.7	206.5	215.2	227.6	246.6	278.1	323.0	389.6	495.1	641.4	811.1
117.5°	223.6	229.8	236.4	246.9	266.7	295.5	339.4	399.3	489.6	615.4	763.0
120°	239.4	243.4	249.4	260.1	279.3	307.7	349.9	407.3	488.4	602.7	737.1
122.5°	253.7	257.2	262.6	273.5	291.4	320.7	361.8	415.1	489.7	592.9	715.1
125°	273.3	275.2	280.9	291.3	309.3	338.4	378.8	427.5	491.5	579.3	685.7
127.5°	289.0	291.6	298.4	308.8	328.4	356.8	394.8	438.1	495.2	569.2	659.1
130°	298.9	301.5	309.7	320.9	340.6	368.4	404.6	445.6	497.8	562.5	643.8
132.5°	305.6	309.1	318.4	331.9	351.8	378.5	413.0	452.2	499.0	557.3	629.4
135°	318.6	322.1	332.3	346.3	365.9	392.7	424.8	459.7	500.3	549.4	609.8
137.5°	330.8	334.7	344.7	359.6	379.2	403.5	433.3	465.5	500.8	542.0	592.7
140°	338.3	343.1	352.5	367.7	386.6	410.7	438.9	468.1	501.0	537.8	582.2
142.5°	347.4	351.2	361.3	374.7	393.5	415.6	442.5	470.3	500.3	532.7	572.2
145°	362.0	364.6	372.9	386.9	402.7	424.4	449.0	474.6	501.1	529.5	561.8
147.5°	375.7	377.4	385.7	398.0	413.6	432.1	454.7	477.6	501.1	525.9	552.4
150°	385.6	386.5	394.0	406.3	419.6	436.7	458.4	478.3	501.1	522.9	546.6
152.5°	395.4	395.6	403.2	413.9	425.7	442.0	460.7	479.9	498.8	519.1	540.5
155°	410.2	410.2	415.9	425.3	435.7	449.0	465.1	480.3	496.4	512.5	531.4
157.5°	421.9	422.7	427.2	435.5	444.4	454.7	467.6	481.2	493.2	506.6	521.1
160°	431.0	431.0	434.8	442.4	449.0	458.4	469.9	481.2	491.6	502.1	514.4
162.5°	437.8	437.8	440.8	446.9	452.8	460.7	470.6	480.5	488.6	497.5	507.5
165°	448.1	447.1	449.0	453.7	457.5	464.1	471.7	478.3	484.0	490.6	498.2
167.5°	455.8	454.7	455.6	459.3	461.9	466.0	471.6	476.9	479.5	483.9	489.3
170°	460.4	458.4	459.4	462.3	464.1	466.0	470.8	474.6	476.5	479.3	484.0
172.5°	463.4	462.3	462.4	464.6	465.7	466.8	470.8	473.9	474.2	475.5	478.7
175°	467.0	466.0	465.1	467.0	467.0	468.0	469.9	471.7	470.8	470.8	472.7
177.5°	468.7	468.0	467.2	468.0	468.0	468.0	468.7	470.2	468.7	468.0	468.7
180°	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	162.9	171.5	180.0	185.8	188.1	190.8	193.4	195.7
90°	165.8	175.2	184.5	191.8	193.3	196.7	200.2	201.7
92.5°	214.4	206.1	206.9	207.2	207.8	207.2	210.4	211.0
95°	466.2	363.9	321.4	292.3	276.8	270.8	266.5	265.2
97.5°	966.6	804.8	690.0	581.6	514.1	473.9	450.9	445.2
100°	1227.7	1158.1	1054.4	924.7	831.5	764.8	730.3	733.8
102.5°	1310.6	1315.1	1257.4	1176.9	1104.9	1052.6	1024.2	1004.9
105°	1328.4	1430.1	1455.0	1434.9	1393.6	1359.8	1331.7	1329.2
107.5°	1245.5	1405.9	1495.5	1533.6	1536.5	1526.6	1518.5	1512.0
110°	1169.4	1350.1	1475.9	1546.4	1574.8	1584.4	1584.5	1584.5

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1093.2	1277.5	1417.5	1506.9	1557.5	1583.2	1592.6	1595.1
115°	992.3	1163.1	1308.2	1415.4	1488.4	1532.1	1553.0	1559.7
117.5°	916.8	1064.9	1195.9	1304.6	1380.5	1430.2	1459.4	1467.8
120°	876.4	1009.9	1129.3	1228.7	1305.2	1360.0	1384.5	1391.9
122.5°	843.5	964.7	1075.5	1168.0	1236.2	1285.6	1312.4	1321.4
125°	798.9	907.3	1003.5	1082.7	1145.1	1188.5	1213.9	1222.2
127.5°	759.1	856.1	943.0	1015.2	1070.9	1108.2	1131.2	1139.0
130°	733.8	823.8	905.1	972.7	1024.3	1059.9	1081.2	1090.4
132.5°	710.0	793.0	868.9	933.4	982.2	1018.0	1037.2	1044.2
135°	677.7	749.4	815.4	872.2	919.9	949.5	967.8	975.7
137.5°	648.0	707.0	763.9	813.3	853.5	883.6	899.2	904.8
140°	630.4	682.4	731.6	774.8	812.0	839.8	856.1	856.4
142.5°	613.2	657.9	700.7	738.3	770.3	795.0	809.9	810.2
145°	594.1	627.3	659.6	688.5	713.2	734.1	742.7	745.5
147.5°	578.6	604.1	629.1	649.3	668.2	682.6	690.6	692.3
150°	568.3	590.1	610.0	628.3	642.9	653.9	660.1	660.6
152.5°	560.0	578.8	596.4	611.4	622.6	632.4	635.9	636.0
155°	547.5	562.6	576.9	588.2	596.8	604.4	606.3	607.2
157.5°	534.3	547.0	557.9	566.8	574.2	579.9	581.4	581.2
160°	526.7	537.1	546.6	553.2	559.9	565.5	565.5	564.6
162.5°	517.6	526.5	535.2	541.0	545.4	550.3	550.3	549.4
165°	505.8	511.5	518.1	522.9	526.7	530.4	529.5	529.5
167.5°	495.6	499.9	503.8	507.2	508.8	511.5	510.5	510.5
170°	488.8	491.6	495.4	497.3	498.2	500.2	499.2	499.2
172.5°	482.7	484.8	487.9	488.9	489.2	491.1	489.3	488.6
175°	474.6	475.5	477.4	477.4	477.4	478.3	477.4	476.5
177.5°	469.4	470.2	471.0	471.0	470.2	471.0	469.4	469.4
180°	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0

(END OF REPORT)