

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: P331981-935

Luminaire Tested: **S123DIP-S775D805U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331981-935
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-S775D805U935-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5232.7 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

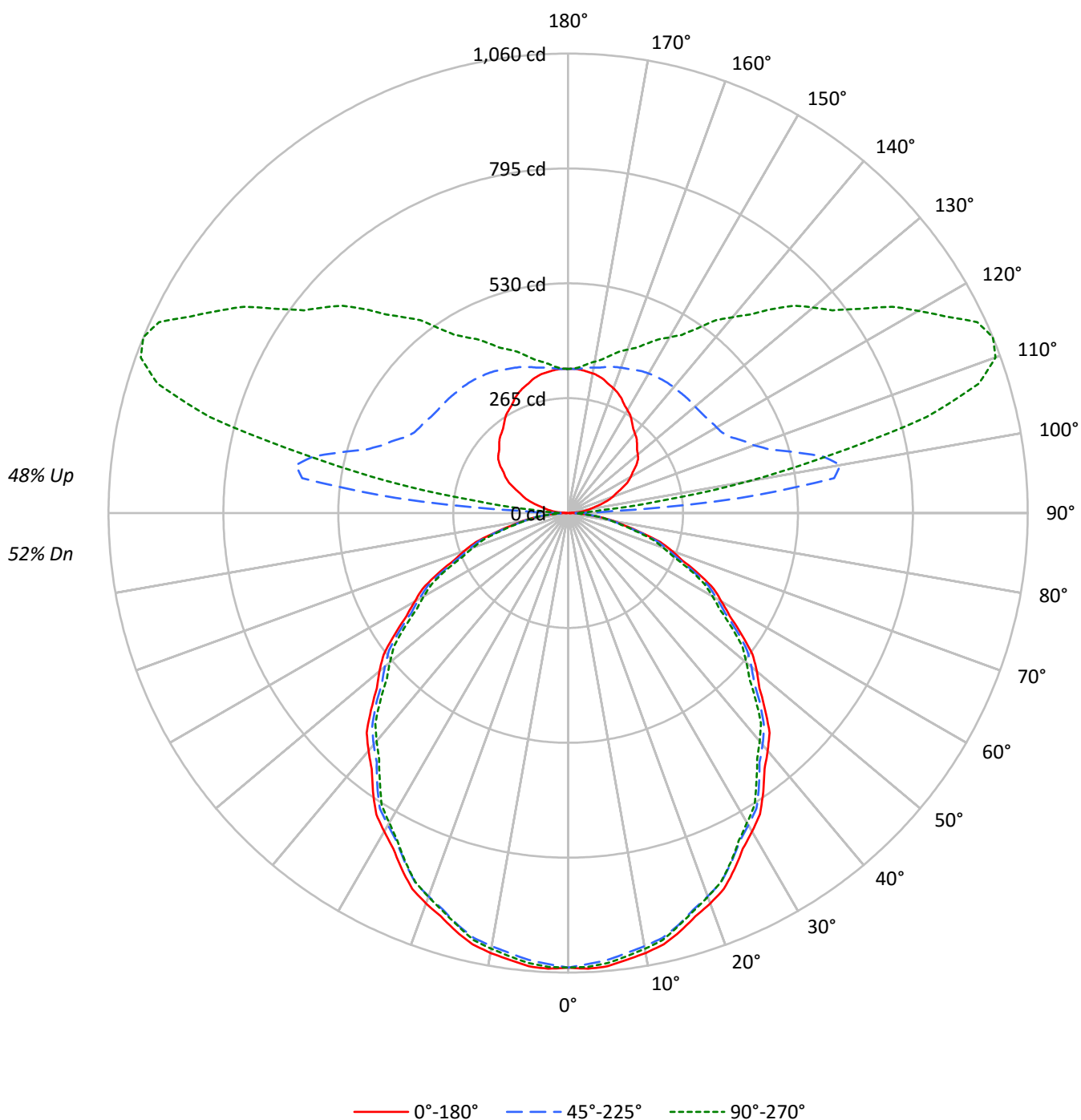
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
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	100	100	100	100	85	85	85	71	71	71	58	58	58	52		
1	98	94	90	86	91	87	84	80	74	72	69	62	60	59	51	50	49	44		
2	89	82	76	70	82	76	71	66	65	61	57	55	52	49	45	43	41	37		
3	82	72	65	59	75	67	60	55	57	52	48	48	45	41	40	37	35	31		
4	75	64	56	50	69	59	52	47	51	45	41	43	39	36	36	33	30	27		
5	68	57	49	43	63	53	46	40	45	40	35	39	34	31	32	29	26	23		
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	26	23	20		
7	58	46	38	32	54	43	36	31	37	31	27	32	27	24	27	23	21	18		
8	54	42	34	29	50	39	32	27	34	28	24	29	25	21	24	21	18	16		
9	50	38	31	25	47	36	29	24	31	26	22	27	22	19	23	19	17	14		
10	47	35	28	23	44	33	26	22	29	23	19	25	20	17	21	18	15	13		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11286	11286	11286
5°	11339	11182	11261
10°	11262	11086	11154
15°	11131	10961	10981
20°	10977	10781	10791
25°	10772	10568	10546
30°	10544	10331	10253
35°	10307	10081	9950
40°	10058	9805	9653
45°	9785	9552	9319
50°	9512	9239	8982
55°	9154	8916	8646
60°	8792	8540	8269
65°	8474	8130	7875
70°	8003	7660	7320
75°	7311	7049	6750
80°	6595	6316	6261
85°	5780	5570	5348

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	1.9
10°-20°	278.9	5.3
20°-30°	411.9	7.9
30°-40°	481.2	9.2
40°-50°	483.8	9.2
50°-60°	425.0	8.1
60°-70°	316.6	6.1
70°-80°	180.4	3.4
80°-90°	54.4	1.0
90°-100°	185.1	3.5
100°-110°	524.0	10.0
110°-120°	515.5	9.9
120°-130°	411.2	7.9
130°-140°	324.2	6.2
140°-150°	242.0	4.6
150°-160°	168.6	3.2
160°-170°	99.1	1.9
170°-180°	32.2	0.6
0°-30°	789.6	15.1
0°-40°	1270.8	24.3
0°-60°	2179.5	41.7
0°-90°	2730.8	52.2
90°-120°	1224.6	23.4
90°-150°	2201.9	42.1
90°-180°	2502.0	47.8
0°-180°	5232.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1049	1045	1035	1043	1042	99
15°	999	995	984	990	985	281
25°	907	901	890	890	888	418
35°	784	779	767	762	757	490
45°	643	639	628	617	612	496
55°	488	486	475	466	461	437
65°	333	328	319	312	309	328
75°	176	172	170	165	162	188
85°	47	45	45	43	43	51
90°	1	8	17	19	20	4
95°	23	74	399	116	78	25
105°	78	115	541	946	856	83
115°	138	172	414	908	1041	137
125°	192	226	386	700	821	170
135°	225	268	381	576	666	174
145°	256	294	376	473	520	161
155°	291	314	364	414	431	134
165°	318	327	349	370	376	90
175°	332	332	335	339	339	32
180°	332	332	332	332	332	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5
2.5°	1052.1	1051.5	1050.9	1050.2	1049.6	1048.4	1046.5	1044.8	1043.0	1041.3	1042.8
5°	1049.4	1048.4	1047.4	1046.4	1045.3	1043.8	1041.6	1039.4	1037.2	1034.9	1037.0
7.5°	1039.1	1038.1	1037.1	1036.1	1035.1	1033.5	1031.1	1028.9	1026.6	1024.3	1026.1
10°	1030.4	1029.4	1028.5	1027.4	1026.5	1024.7	1022.0	1019.4	1016.8	1014.3	1016.1
12.5°	1018.9	1018.0	1017.3	1016.4	1015.5	1013.9	1011.5	1009.0	1006.6	1004.1	1005.5
15°	998.9	998.1	997.3	996.5	995.7	994.0	991.4	988.8	986.2	983.6	985.2
17.5°	975.6	974.6	973.5	972.5	971.5	969.7	967.1	964.4	961.8	959.2	960.4
20°	958.3	957.1	956.0	954.8	953.6	951.6	949.0	946.4	943.8	941.2	942.0
22.5°	938.8	937.6	936.4	935.2	934.0	932.1	929.5	927.0	924.4	921.7	922.4
25°	907.0	905.8	904.6	903.4	902.2	900.3	897.6	895.0	892.4	889.8	890.0
27.5°	872.9	871.7	870.6	869.4	868.2	866.3	863.4	860.7	857.8	855.0	855.1
30°	848.3	847.3	846.4	845.3	844.3	842.4	839.6	836.8	834.1	831.2	831.2
32.5°	823.8	822.5	821.1	819.8	818.6	816.8	814.6	812.4	810.3	808.1	807.0
35°	784.4	783.2	782.0	780.8	779.5	777.7	775.0	772.4	769.8	767.2	766.0
37.5°	743.9	742.4	740.9	739.3	737.9	735.8	733.1	730.5	727.8	725.2	723.8
40°	715.8	714.6	713.4	712.2	711.0	709.0	706.2	703.4	700.6	697.8	696.2
42.5°	687.7	686.3	684.9	683.6	682.3	680.2	677.3	674.5	671.8	668.9	667.4
45°	642.8	642.0	641.2	640.4	639.6	637.9	635.2	632.7	630.1	627.5	625.1
47.5°	598.2	597.1	595.9	594.8	593.6	591.8	589.4	586.9	584.4	582.0	579.6
50°	568.0	567.0	565.9	565.0	564.0	562.1	559.6	557.0	554.3	551.7	549.6
52.5°	536.2	535.5	534.9	534.2	533.5	531.8	529.0	526.2	523.5	520.7	518.8
55°	487.8	487.5	487.3	487.2	486.9	485.5	482.9	480.4	477.7	475.1	472.9
57.5°	441.6	440.9	440.2	439.5	438.9	437.5	435.4	433.3	431.2	429.1	427.1
60°	408.4	408.2	408.0	407.8	407.6	406.3	403.9	401.5	399.1	396.7	394.9
62.5°	378.8	378.3	377.8	377.3	376.8	375.3	372.9	370.5	368.1	365.7	363.9
65°	332.7	331.7	330.6	329.7	328.6	327.2	325.1	323.1	321.2	319.2	317.5
67.5°	283.8	282.9	282.1	281.1	280.3	279.1	277.6	276.0	274.5	273.0	271.6
70°	254.3	253.0	251.8	250.6	249.4	248.2	247.0	245.8	244.6	243.4	242.0
72.5°	223.3	222.3	221.4	220.6	219.7	218.6	217.2	215.9	214.5	213.1	211.9
75°	175.8	175.0	174.2	173.4	172.6	171.9	171.3	170.7	170.0	169.5	168.5
77.5°	133.8	133.4	132.9	132.5	132.0	131.5	130.7	130.0	129.3	128.5	127.9
80°	106.4	105.8	105.2	104.6	104.0	103.5	103.1	102.7	102.3	101.9	101.7
82.5°	79.7	79.6	79.5	79.3	79.2	79.1	79.0	79.0	78.9	78.8	78.4
85°	46.8	46.5	46.1	45.7	45.3	45.1	45.1	45.1	45.1	45.1	44.7
87.5°	19.0	18.8	18.6	18.5	18.3	18.3	18.5	18.8	19.0	19.2	18.9
90°	1.4	2.7	4.0	6.0	7.4	8.8	10.8	12.8	14.8	16.8	16.2
92.5°	8.4	12.4	18.1	23.3	28.9	38.9	56.6	85.5	113.9	103.5	78.1
95°	22.9	24.9	32.3	43.7	61.2	87.5	144.7	245.0	355.4	399.2	323.8
97.5°	39.0	39.7	45.5	55.4	72.7	101.1	155.8	268.9	452.9	618.6	661.9
100°	49.9	50.5	55.2	64.7	80.8	107.0	154.1	253.7	430.8	637.5	770.1
102.5°	61.1	62.3	66.5	75.4	90.0	114.0	156.3	240.8	398.5	602.4	775.5
105°	78.1	80.1	84.1	92.2	105.0	125.9	162.2	231.5	358.8	541.2	734.4
107.5°	96.1	98.2	102.0	109.9	122.0	141.4	173.2	230.9	333.5	487.1	662.5
110°	109.1	111.1	114.4	121.8	133.3	152.1	182.4	233.6	323.8	456.4	617.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	120.9	123.0	126.3	133.7	145.2	163.4	191.6	238.9	318.4	435.9	578.0
115°	138.0	140.7	144.7	151.4	162.9	181.1	206.6	247.7	316.4	414.0	530.5
117.5°	155.1	158.2	161.5	167.7	180.6	197.3	222.7	259.3	317.6	401.1	501.8
120°	166.9	168.9	172.3	179.1	191.8	208.7	232.9	267.9	319.8	395.1	486.7
122.5°	177.2	179.2	182.5	189.9	202.1	220.0	243.7	276.0	323.5	391.4	474.3
125°	191.8	193.2	197.3	204.7	217.4	235.6	259.2	288.8	329.2	386.4	458.4
127.5°	203.0	205.0	210.0	217.6	231.7	249.9	272.6	299.3	335.6	384.0	444.4
130°	210.0	212.1	218.1	226.2	240.3	258.5	280.7	306.3	339.9	382.4	436.9
132.5°	215.4	218.0	224.5	234.3	248.4	266.0	287.7	312.7	343.2	381.8	429.9
135°	224.8	227.6	235.0	245.0	259.2	277.3	298.2	321.1	348.0	381.0	420.7
137.5°	233.7	236.5	243.8	254.6	268.5	285.4	305.5	327.3	351.3	379.5	412.8
140°	239.6	243.0	249.8	260.5	274.0	290.8	310.3	330.5	353.4	379.0	407.9
142.5°	246.1	248.9	256.2	265.9	279.4	295.1	314.1	333.7	355.0	377.9	403.6
145°	256.5	258.5	264.6	274.7	286.1	301.6	319.1	337.3	356.1	376.3	397.9
147.5°	267.0	268.2	274.1	282.8	293.9	307.1	323.1	339.4	356.1	373.8	392.2
150°	274.0	274.7	280.0	288.8	298.2	310.3	325.8	339.9	356.1	371.6	388.4
152.5°	280.9	281.1	286.5	294.2	302.5	314.1	327.4	341.0	354.5	368.9	384.1
155°	291.4	291.4	295.5	302.2	309.6	319.1	330.5	341.3	352.8	364.2	377.6
157.5°	299.8	300.3	303.6	309.5	315.8	323.1	332.3	342.0	350.4	360.0	370.4
160°	306.3	306.3	309.0	314.4	319.1	325.8	333.9	342.0	349.4	356.8	365.5
162.5°	311.2	311.2	313.3	317.6	321.8	327.4	334.4	341.4	347.2	353.5	360.7
165°	318.4	317.7	319.1	322.4	325.1	329.8	335.2	339.9	344.0	348.7	354.0
167.5°	323.9	323.1	323.8	326.3	328.2	331.2	335.1	338.9	340.8	343.9	347.8
170°	327.2	325.8	326.5	328.5	329.8	331.2	334.6	337.3	338.6	340.6	344.0
172.5°	329.3	328.5	328.6	330.1	330.9	331.7	334.6	336.7	337.0	337.9	340.2
175°	331.8	331.2	330.5	331.8	331.8	332.5	333.9	335.2	334.6	334.6	335.9
177.5°	333.0	332.5	332.0	332.5	332.5	332.5	333.0	334.2	333.0	332.5	333.0
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5	1048.5
2.5°	1044.5	1046.1	1047.7	1048.4	1048.3	1048.1	1047.9	1047.8
5°	1039.0	1040.9	1043.0	1043.8	1043.4	1043.0	1042.6	1042.2
7.5°	1027.9	1029.8	1031.6	1032.3	1032.1	1031.8	1031.6	1031.4
10°	1017.9	1019.6	1021.4	1022.2	1021.7	1021.3	1021.0	1020.5
12.5°	1006.8	1008.1	1009.4	1010.0	1009.7	1009.4	1009.3	1009.0
15°	986.8	988.3	990.0	990.2	988.9	987.7	986.6	985.4
17.5°	961.5	962.6	963.7	964.1	963.6	963.2	962.8	962.3
20°	942.8	943.6	944.4	944.5	943.9	943.3	942.7	942.1
22.5°	923.0	923.7	924.3	924.2	923.5	922.7	922.0	921.2
25°	890.2	890.4	890.6	890.4	889.8	889.2	888.6	888.0
27.5°	855.3	855.5	855.7	855.3	854.6	853.9	853.1	852.3
30°	831.2	831.2	831.2	830.5	829.1	827.7	826.3	824.9
32.5°	805.9	804.8	803.7	802.7	801.9	801.2	800.4	799.7
35°	764.8	763.6	762.4	761.3	760.3	759.3	758.3	757.2
37.5°	722.3	720.8	719.5	718.4	717.7	717.1	716.4	715.8
40°	694.6	693.0	691.4	690.2	689.4	688.5	687.8	687.0
42.5°	665.7	664.1	662.5	661.3	660.6	659.7	658.9	658.1
45°	622.7	620.3	617.9	616.1	615.2	614.2	613.1	612.2
47.5°	577.3	575.0	572.6	570.9	570.1	569.2	568.3	567.4
50°	547.3	545.1	542.9	541.2	540.0	538.8	537.6	536.4
52.5°	516.9	515.1	513.2	511.7	510.5	509.3	508.1	506.9
55°	470.7	468.5	466.3	464.7	463.6	462.7	461.7	460.7
57.5°	425.2	423.3	421.3	419.7	418.5	417.4	416.2	415.1
60°	393.0	391.2	389.4	388.1	387.0	386.1	385.0	384.1
62.5°	362.1	360.2	358.4	357.2	356.5	355.9	355.2	354.5
65°	315.9	314.4	312.7	311.6	311.0	310.4	309.8	309.2
67.5°	270.2	268.8	267.3	266.2	265.4	264.6	263.7	262.9
70°	240.6	239.2	237.8	236.6	235.6	234.6	233.6	232.6
72.5°	210.6	209.4	208.2	207.2	206.7	206.2	205.7	205.2
75°	167.5	166.5	165.5	164.7	164.1	163.5	162.9	162.3
77.5°	127.2	126.5	125.8	125.5	125.5	125.5	125.5	125.5
80°	101.5	101.3	101.1	101.0	101.0	101.0	101.0	101.0
82.5°	78.1	77.7	77.3	77.1	77.0	76.8	76.6	76.5
85°	44.3	43.9	43.5	43.3	43.3	43.3	43.3	43.3
87.5°	18.9	18.9	18.9	19.0	18.9	19.0	19.2	19.0
90°	16.8	17.5	18.2	19.5	18.9	19.5	20.2	19.5
92.5°	56.7	44.9	39.7	36.2	35.0	33.0	33.7	32.5
95°	242.4	164.3	128.5	104.4	91.5	85.5	80.8	78.1
97.5°	604.1	483.9	397.0	316.5	266.8	236.5	218.3	212.6
100°	793.7	739.1	660.4	564.7	496.8	447.6	421.4	422.1
102.5°	856.6	854.9	809.0	748.4	695.5	656.6	634.6	619.1
105°	875.1	942.4	955.2	937.7	906.7	881.1	859.6	856.3
107.5°	822.1	931.3	990.3	1014.3	1014.9	1006.3	998.9	992.7
110°	771.5	895.3	980.1	1027.3	1046.0	1051.5	1050.1	1048.8

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	721.3	847.9	943.0	1003.5	1038.0	1054.7	1059.8	1060.1
115°	655.0	772.1	871.1	944.4	994.9	1024.5	1038.0	1041.4
117.5°	606.9	708.0	796.9	871.3	923.9	957.9	977.2	981.9
120°	581.6	672.4	753.3	821.2	874.4	912.1	928.2	932.3
122.5°	561.7	643.9	718.8	782.0	829.1	863.1	880.9	886.0
125°	535.1	608.6	673.1	727.0	770.1	799.7	816.5	821.2
127.5°	512.0	577.4	635.8	684.8	723.1	748.4	763.6	767.9
130°	497.5	558.0	612.6	658.3	694.1	718.2	732.4	737.8
132.5°	484.0	539.8	590.5	634.1	667.6	691.9	704.4	708.2
135°	465.8	513.6	557.3	595.7	628.7	648.9	661.0	665.7
137.5°	449.3	488.4	526.2	559.4	587.1	607.6	617.9	621.0
140°	439.5	473.9	506.2	535.1	560.8	579.5	590.4	589.7
142.5°	430.4	459.9	487.9	513.1	534.9	551.6	561.3	560.6
145°	419.4	441.6	463.1	482.7	499.5	513.6	519.0	520.3
147.5°	410.4	428.0	445.4	459.3	472.0	481.6	486.7	487.2
150°	403.9	419.4	433.5	446.3	456.4	463.8	467.9	467.9
152.5°	398.0	411.3	423.8	434.5	442.4	449.3	451.7	451.7
155°	389.1	399.8	409.9	418.0	424.0	429.5	430.8	431.4
157.5°	379.6	388.7	396.5	402.8	408.0	412.1	413.2	413.0
160°	374.3	381.7	388.4	393.1	397.9	401.8	401.8	401.2
162.5°	367.8	374.1	380.3	384.5	387.6	391.1	391.1	390.5
165°	359.5	363.5	368.2	371.6	374.3	376.9	376.3	376.3
167.5°	352.1	355.2	358.0	360.4	361.6	363.5	362.8	362.8
170°	347.3	349.4	352.1	353.4	354.0	355.4	354.7	354.7
172.5°	343.0	344.5	346.6	347.5	347.6	349.0	347.8	347.2
175°	337.3	337.9	339.2	339.2	339.2	339.9	339.2	338.6
177.5°	333.6	334.2	334.7	334.7	334.2	334.7	333.6	333.6
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5

(END OF REPORT)