

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: P333561-935

Luminaire Tested: **S125RDIP-S850D590U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333561-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D590U935-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4625.1 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

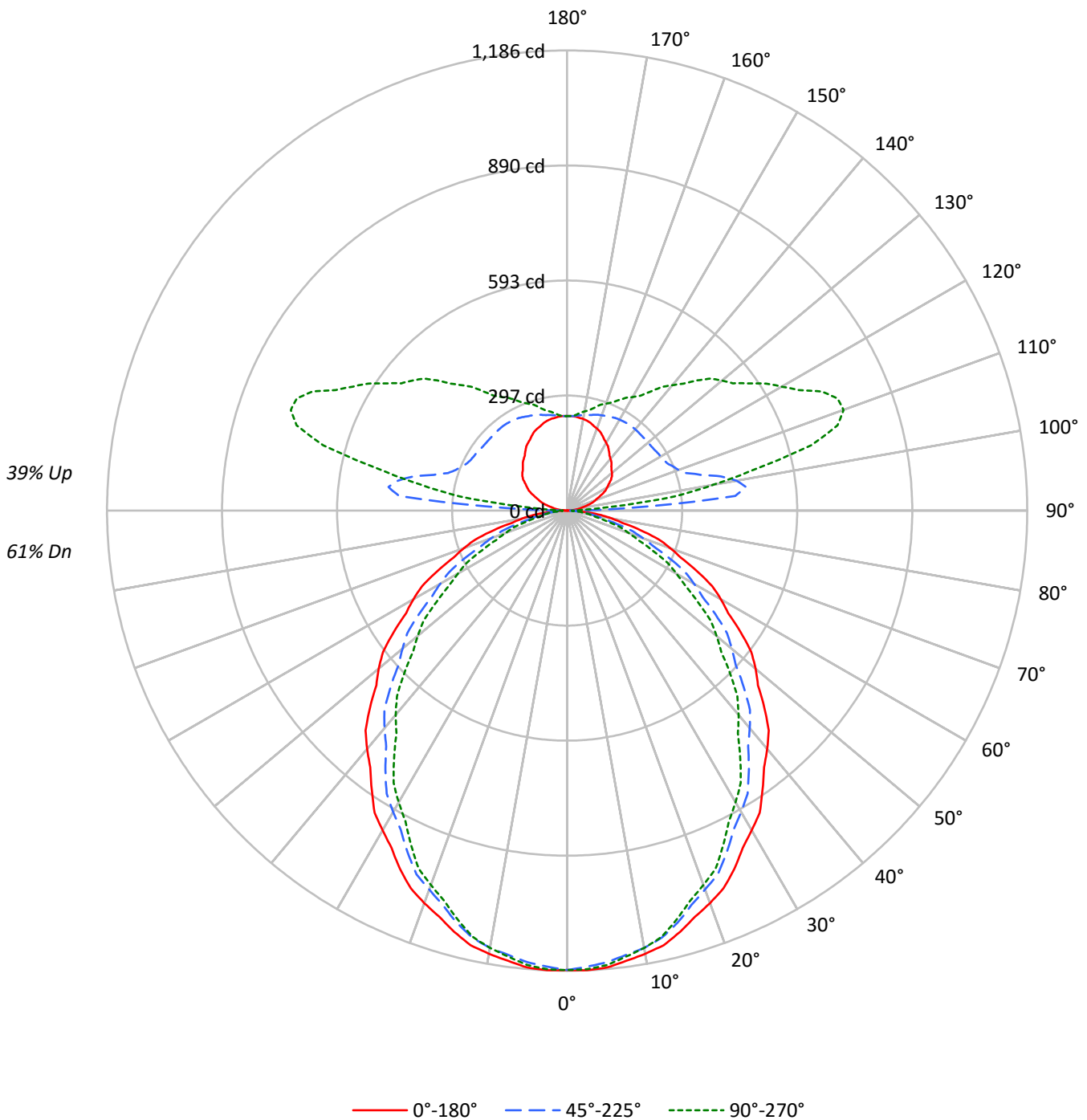
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333561-935

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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
RCR																	
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	59	57	56
2	92	84	78	73	85	79	74	69	69	65	62	60	57	54	52	50	48
3	84	74	67	61	78	70	63	58	61	56	52	53	50	46	46	43	41
4	77	66	58	52	72	62	55	49	55	49	45	48	43	40	41	38	35
5	71	59	51	45	66	56	48	43	49	43	39	43	38	35	37	34	31
6	65	53	45	39	61	50	43	37	44	38	34	39	34	31	34	30	27
7	60	48	40	34	56	45	38	33	40	34	30	36	31	27	31	27	24
8	56	44	36	31	52	41	34	29	37	31	27	33	28	24	29	25	22
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	23	20
10	49	37	29	25	46	35	28	24	31	26	22	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7647	7647	7647
5°	7664	7577	7623
10°	7606	7506	7506
15°	7515	7353	7294
20°	7399	7142	7056
25°	7264	6933	6780
30°	7095	6689	6475
35°	6923	6437	6133
40°	6762	6175	5798
45°	6566	5881	5431
50°	6370	5561	5050
55°	6141	5255	4641
60°	5913	4885	4204
65°	5644	4455	3703
70°	5336	3916	3191
75°	4908	3301	2655
80°	4322	2592	2228
85°	3646	2119	1993



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	2.4
10°-20°	311.1	6.7
20°-30°	451.2	9.8
30°-40°	514.2	11.1
40°-50°	501.2	10.8
50°-60°	421.9	9.1
60°-70°	295.7	6.4
70°-80°	152.0	3.3
80°-90°	39.7	0.9
90°-100°	176.6	3.8
100°-110°	379.6	8.2
110°-120°	356.2	7.7
120°-130°	288.7	6.2
130°-140°	231.7	5.0
140°-150°	174.8	3.8
150°-160°	123.1	2.7
160°-170°	72.5	1.6
170°-180°	23.6	0.5
0°-30°	873.6	18.9
0°-40°	1387.8	30.0
0°-60°	2310.8	50.0
0°-90°	2798.3	60.5
90°-120°	912.4	19.7
90°-150°	1607.6	34.8
90°-180°	1827.0	39.5
0°-180°	4625.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1182	1178	1169	1177	1176	112
15°	1124	1118	1100	1099	1091	317
25°	1019	1005	973	961	951	469
35°	878	856	816	791	778	550
45°	719	692	644	609	595	554
55°	545	516	467	428	412	488
65°	369	338	292	257	242	366
75°	197	169	132	113	106	208
85°	49	34	29	28	27	55
90°	0	4	8	10	11	3
95°	16	48	435	197	116	17
105°	56	78	356	701	651	59
115°	99	120	286	616	725	98
125°	138	161	274	490	571	122
135°	161	194	272	411	474	125
145°	188	215	273	340	374	118
155°	214	230	266	301	314	99
165°	234	240	255	271	275	66
175°	243	243	245	248	247	23
180°	244	244	244	244	244	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1186.0	1185.6	1185.1	1184.6	1184.1	1183.1	1181.6	1179.9	1178.4	1176.7	1178.4
5°	1182.2	1181.4	1180.5	1179.7	1179.0	1177.5	1175.3	1173.1	1170.9	1168.7	1170.7
7.5°	1170.5	1169.8	1169.0	1168.2	1167.5	1165.8	1163.2	1160.5	1158.0	1155.3	1156.7
10°	1159.8	1159.2	1158.6	1158.0	1157.4	1155.7	1153.0	1150.1	1147.4	1144.6	1145.1
12.5°	1147.6	1146.9	1146.1	1145.4	1144.6	1142.4	1138.6	1134.9	1131.2	1127.4	1127.8
15°	1124.0	1122.8	1121.6	1120.4	1119.2	1116.5	1112.4	1108.2	1104.1	1099.8	1099.7
17.5°	1097.3	1095.5	1093.7	1091.9	1090.0	1086.5	1081.2	1076.0	1070.7	1065.5	1064.5
20°	1076.6	1074.6	1072.6	1070.7	1068.7	1064.5	1058.2	1051.8	1045.4	1039.1	1038.1
22.5°	1053.7	1051.7	1049.7	1047.8	1045.8	1041.5	1034.7	1028.1	1021.4	1014.8	1012.8
25°	1019.4	1016.4	1013.4	1010.5	1007.5	1002.3	995.0	987.6	980.2	972.9	970.3
27.5°	980.1	976.5	972.8	969.2	965.6	959.8	952.0	944.1	936.3	928.3	924.7
30°	951.4	947.6	943.9	940.1	936.3	930.2	922.0	913.6	905.3	896.9	892.3
32.5°	923.5	919.1	914.7	910.3	905.9	899.4	891.0	882.4	873.9	865.4	860.4
35°	878.1	873.3	868.6	863.8	859.0	852.1	843.3	834.3	825.4	816.4	810.6
37.5°	833.5	827.8	822.0	816.1	810.4	802.9	793.7	784.4	775.2	765.9	759.1
40°	802.1	796.2	790.1	784.2	778.3	770.5	761.0	751.4	741.9	732.4	724.8
42.5°	769.2	763.1	757.0	750.8	744.7	736.8	726.9	717.0	707.1	697.3	690.1
45°	718.9	713.2	707.4	701.6	695.9	687.5	676.6	665.7	654.8	643.9	635.8
47.5°	666.9	660.8	654.7	648.7	642.6	634.0	623.0	612.0	601.0	590.0	581.8
50°	634.0	627.4	620.9	614.3	607.8	598.8	587.5	576.2	564.8	553.5	545.2
52.5°	598.2	591.5	584.8	578.1	571.4	562.7	552.0	541.3	530.5	519.9	510.9
55°	545.4	539.1	532.8	526.4	520.0	511.3	500.2	489.0	477.9	466.7	457.8
57.5°	492.1	485.3	478.5	471.7	465.0	456.2	445.5	434.7	424.0	413.3	404.6
60°	457.8	450.9	443.9	437.0	430.0	421.2	410.4	399.7	389.0	378.2	369.5
62.5°	421.4	414.7	408.1	401.4	394.8	386.1	375.1	364.3	353.4	342.5	334.4
65°	369.3	362.6	355.8	349.0	342.2	333.6	323.1	312.5	302.0	291.5	283.5
67.5°	317.6	310.8	304.1	297.4	290.6	282.1	272.1	262.0	251.9	241.8	234.5
70°	282.6	275.8	269.1	262.3	255.5	247.2	237.3	227.3	217.4	207.4	201.3
72.5°	248.2	241.6	235.1	228.4	221.9	213.9	204.6	195.3	186.0	176.7	171.0
75°	196.7	190.8	184.8	178.8	172.9	165.7	157.4	149.0	140.7	132.3	127.9
77.5°	145.6	140.8	136.0	131.3	126.5	120.8	114.1	107.5	100.7	94.1	91.0
80°	116.2	111.5	106.7	101.9	97.2	92.0	86.4	80.8	75.3	69.7	67.9
82.5°	87.6	83.3	79.0	74.7	70.4	66.4	62.6	58.8	54.9	51.1	50.3
85°	49.2	45.6	42.0	38.5	34.9	32.5	31.6	30.6	29.6	28.6	28.4
87.5°	16.5	15.5	14.6	13.7	12.8	12.3	12.3	12.3	12.2	12.3	12.4
90°	0.5	0.9	2.0	2.9	4.0	4.9	5.4	6.4	6.9	7.8	8.4
92.5°	6.0	7.2	11.4	17.5	25.9	40.3	67.1	112.1	160.9	158.3	128.2
95°	16.2	16.7	20.7	26.0	36.9	59.0	111.5	219.6	355.1	435.1	425.9
97.5°	26.9	27.5	30.2	35.6	45.4	61.3	96.1	175.2	317.1	464.7	538.8
100°	34.4	35.4	37.4	42.7	52.1	66.8	95.3	159.1	282.9	443.5	566.3
102.5°	42.6	43.2	44.8	50.6	59.2	73.4	98.8	152.5	256.9	406.1	549.7
105°	55.5	55.5	57.9	62.9	70.7	84.5	106.1	149.8	231.8	356.1	497.1
107.5°	68.1	69.1	71.4	75.4	83.6	96.0	116.9	154.3	221.2	321.6	443.2
110°	77.1	78.1	80.1	84.5	91.9	104.6	124.8	158.6	218.1	305.5	412.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	86.2	87.1	88.7	93.2	100.5	112.9	132.2	164.1	218.1	296.1	389.8
115°	99.2	100.2	101.7	106.1	113.5	125.7	143.9	172.4	219.6	285.9	364.9
117.5°	111.0	112.4	114.1	118.5	126.8	138.7	155.9	181.8	222.7	280.9	350.1
120°	118.8	120.4	122.3	126.7	135.1	147.3	164.5	188.1	225.9	278.4	341.8
122.5°	127.1	128.2	129.8	134.1	143.4	155.6	172.8	195.2	228.7	276.6	334.8
125°	137.5	138.5	140.9	145.3	154.7	167.5	183.7	204.8	233.3	274.1	325.1
127.5°	145.7	147.1	150.3	155.9	165.8	178.6	194.2	213.6	238.5	272.9	316.3
130°	150.8	152.2	156.2	162.6	172.9	185.6	200.9	219.6	241.7	272.1	310.4
132.5°	154.7	156.6	161.3	168.5	179.2	191.9	207.2	224.6	245.2	272.1	305.7
135°	161.1	163.1	168.9	176.8	187.1	200.4	215.6	231.8	249.9	272.1	300.1
137.5°	169.2	170.7	176.2	184.0	194.1	207.8	221.6	237.1	254.4	272.7	295.1
140°	173.8	175.3	181.2	189.1	198.5	211.7	225.9	240.6	256.4	273.1	292.7
142.5°	179.3	180.5	186.0	193.8	202.8	215.2	228.7	242.6	257.5	273.5	290.8
145°	187.6	188.6	193.5	200.4	209.2	220.5	233.3	245.6	258.8	273.1	287.8
147.5°	196.2	196.8	201.0	207.4	215.1	225.1	236.3	247.4	259.3	271.8	284.7
150°	201.4	202.3	205.8	212.2	219.0	227.4	238.2	248.5	259.3	270.6	282.4
152.5°	206.9	207.4	210.5	216.1	222.6	230.1	240.1	249.3	258.9	269.1	279.7
155°	214.1	214.1	217.1	222.0	226.9	233.8	242.1	249.9	257.9	266.2	275.0
157.5°	220.6	220.5	222.9	227.1	231.4	236.6	243.8	250.5	256.6	263.2	270.7
160°	225.0	224.5	226.4	229.9	233.8	238.2	244.6	250.5	255.4	261.3	267.2
162.5°	228.5	228.0	230.0	233.0	236.2	239.8	245.4	250.1	254.3	258.9	264.1
165°	233.8	232.8	234.3	236.7	238.7	241.7	245.6	249.5	252.4	255.4	259.3
167.5°	237.3	236.9	237.7	239.1	240.5	242.3	245.6	248.3	249.7	251.9	254.7
170°	239.7	239.2	239.7	240.6	241.7	243.1	245.6	247.5	248.5	249.9	251.9
172.5°	241.3	240.4	240.8	241.9	242.5	243.1	245.2	246.8	246.9	247.6	249.2
175°	243.1	242.1	242.6	243.1	243.1	243.1	244.6	245.6	245.0	245.0	245.6
177.5°	244.0	243.2	243.2	243.6	243.2	243.2	244.0	244.4	243.6	243.6	244.0
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1179.9	1181.6	1183.1	1183.9	1183.7	1183.5	1183.4	1183.2
5°	1172.7	1174.7	1176.6	1177.5	1177.1	1176.6	1176.3	1175.9
7.5°	1158.1	1159.5	1160.9	1161.3	1160.9	1160.5	1160.0	1159.6
10°	1145.7	1146.3	1146.9	1146.9	1146.3	1145.7	1145.1	1144.6
12.5°	1128.3	1128.7	1129.1	1128.9	1128.0	1127.0	1126.2	1125.2
15°	1099.5	1099.2	1099.1	1098.1	1096.3	1094.5	1092.7	1090.9
17.5°	1063.5	1062.6	1061.5	1060.3	1058.9	1057.4	1055.9	1054.5
20°	1037.1	1036.0	1035.1	1033.7	1031.9	1030.1	1028.3	1026.6
22.5°	1010.8	1008.9	1006.9	1005.2	1003.8	1002.3	1000.8	999.4
25°	967.8	965.2	962.6	960.2	957.9	955.8	953.6	951.4
27.5°	921.1	917.5	913.9	911.0	909.0	906.8	904.7	902.6
30°	887.8	883.2	878.6	875.5	873.7	871.8	870.0	868.2
32.5°	855.3	850.2	845.2	841.5	839.3	837.1	834.7	832.5
35°	804.9	799.1	793.3	789.1	786.3	783.5	780.8	777.9
37.5°	752.2	745.2	738.3	733.5	730.8	728.1	725.4	722.7
40°	717.2	709.7	702.1	697.2	694.8	692.4	690.0	687.7
42.5°	682.9	675.6	668.4	663.0	659.5	656.0	652.5	649.0
45°	627.9	620.0	612.0	606.6	603.6	600.6	597.6	594.6
47.5°	573.6	565.4	557.2	551.5	548.2	544.9	541.6	538.3
50°	536.8	528.5	520.1	514.4	511.5	508.5	505.5	502.6
52.5°	502.0	492.9	484.0	477.9	475.0	472.0	469.1	466.1
55°	448.9	440.0	431.0	424.9	421.8	418.6	415.4	412.2
57.5°	395.8	387.1	378.3	372.6	369.7	366.9	364.1	361.3
60°	360.8	352.0	343.3	337.4	334.4	331.5	328.5	325.5
62.5°	326.2	318.1	310.0	304.5	301.5	298.5	295.6	292.6
65°	275.6	267.7	259.7	254.3	251.2	248.3	245.3	242.3
67.5°	227.2	220.0	212.7	207.8	205.5	203.1	200.7	198.4
70°	195.1	189.0	182.8	178.6	176.2	173.7	171.4	169.0
72.5°	165.3	159.6	153.9	150.3	148.7	147.1	145.6	144.0
75°	123.6	119.2	114.9	112.0	110.6	109.2	107.8	106.4
77.5°	87.9	84.9	81.8	79.8	78.8	77.7	76.7	75.7
80°	66.2	64.4	62.6	61.5	61.1	60.7	60.3	59.9
82.5°	49.5	48.6	47.8	47.3	47.0	46.8	46.6	46.3
85°	28.2	28.0	27.8	27.6	27.4	27.2	27.0	26.9
87.5°	12.5	12.6	12.7	12.8	12.7	12.5	12.4	12.3
90°	8.9	9.3	9.8	10.8	10.8	10.8	11.3	11.3
92.5°	87.0	63.2	47.5	40.3	34.0	32.8	32.1	31.3
95°	353.1	278.4	218.1	176.8	142.0	127.2	123.3	115.5
97.5°	525.9	473.6	414.7	357.3	327.0	299.5	285.2	279.0
100°	604.1	580.1	529.4	478.4	444.4	409.1	391.0	383.1
102.5°	630.4	645.2	621.0	586.4	550.2	525.0	505.3	499.4
105°	614.9	682.2	703.8	698.4	682.7	666.5	656.7	650.7
107.5°	559.5	649.3	704.8	730.4	738.4	738.3	735.0	731.1
110°	518.7	612.0	681.2	723.0	745.0	754.4	757.9	757.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	486.5	575.1	645.1	694.3	726.6	742.6	751.1	754.7
115°	445.9	522.1	589.4	642.9	681.2	704.8	718.5	725.0
117.5°	419.8	485.4	543.4	592.5	630.9	655.2	668.8	672.8
120°	405.7	464.6	518.7	561.9	598.2	621.8	635.1	638.9
122.5°	395.1	449.7	497.8	538.3	570.7	592.3	605.5	609.1
125°	379.6	429.7	472.5	507.8	535.4	555.5	566.3	571.2
127.5°	363.9	410.7	450.6	483.7	508.6	526.4	536.6	538.8
130°	354.1	397.4	435.7	467.5	492.1	508.3	518.1	521.1
132.5°	344.3	384.8	419.6	450.3	474.8	491.0	500.1	503.4
135°	331.5	365.4	396.8	424.8	446.4	462.6	471.5	474.4
137.5°	320.7	348.1	374.3	398.0	417.3	432.1	440.2	443.5
140°	314.8	337.9	360.5	381.2	399.3	412.1	419.4	421.9
142.5°	309.7	329.2	348.7	366.6	382.0	392.8	399.8	401.8
145°	303.1	318.2	333.5	346.7	358.5	366.9	372.3	374.3
147.5°	296.8	309.1	320.8	330.8	340.2	346.8	350.0	350.9
150°	293.2	304.0	313.3	322.2	329.6	335.4	337.4	337.9
152.5°	289.3	298.9	307.5	314.4	320.6	325.2	327.2	327.7
155°	283.4	291.3	298.1	303.5	308.4	311.9	313.3	313.8
157.5°	277.5	284.0	289.3	293.5	297.3	300.1	301.5	301.4
160°	273.5	278.4	283.4	286.8	290.2	292.7	293.7	293.2
162.5°	269.2	273.8	277.8	280.9	283.6	285.7	285.9	285.8
165°	263.2	266.7	269.7	272.1	274.1	275.0	275.0	275.0
167.5°	257.5	259.8	262.1	263.8	264.8	265.7	265.3	265.2
170°	254.4	255.9	257.4	258.3	259.3	259.8	259.8	259.3
172.5°	250.9	252.4	253.4	254.0	254.3	255.1	254.3	253.8
175°	247.0	247.0	248.1	248.1	248.1	248.5	247.5	247.0
177.5°	244.4	244.8	244.8	244.8	244.4	244.8	243.6	243.6
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6

(END OF REPORT)