

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: P333543-840

Luminaire Tested: **S125RDIP-S610D1035U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333543-840
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-S610D1035U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6152.5 lumens
Efficiency: N/A
Efficacy: 138.3 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-Indirect

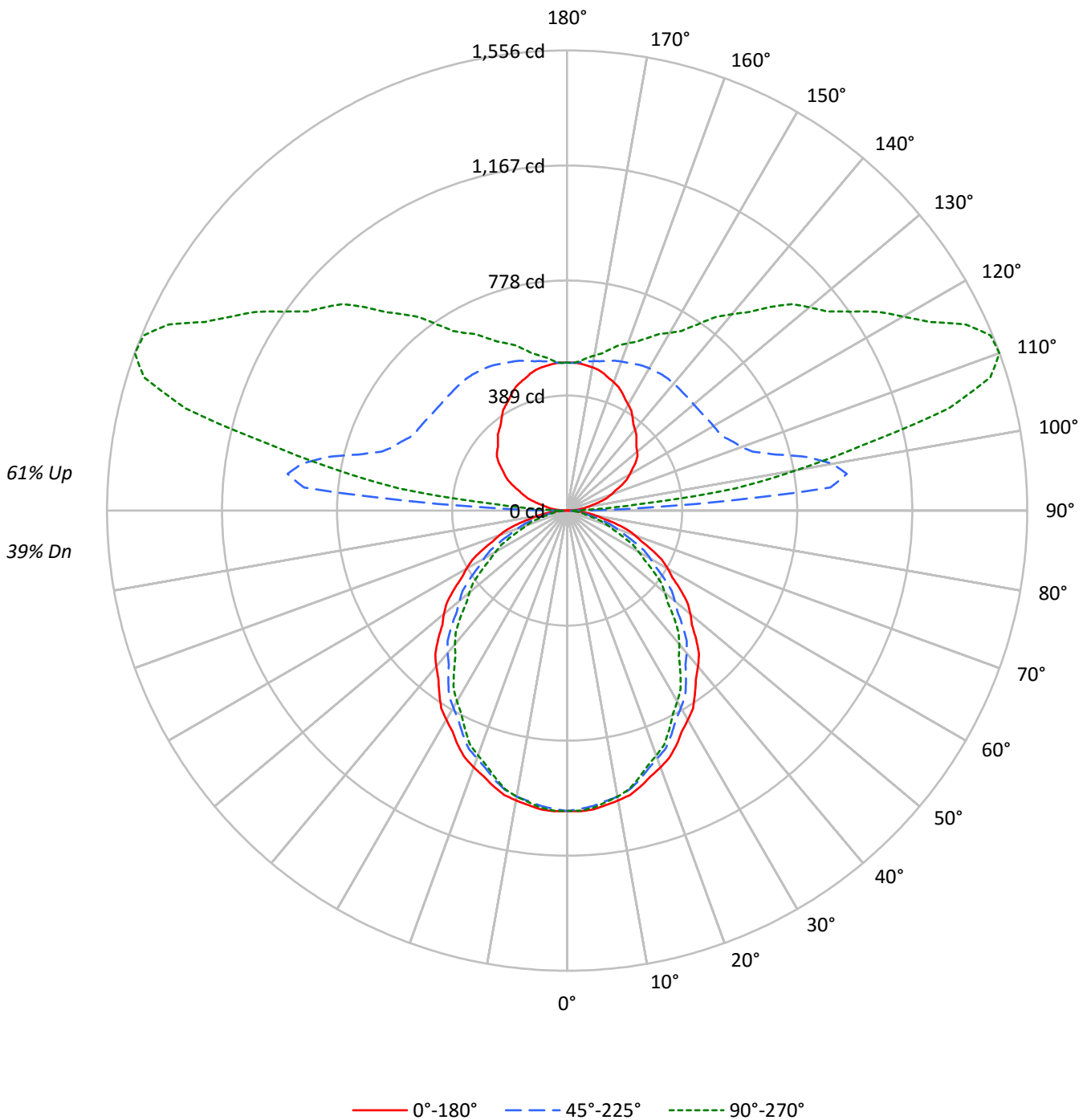
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333543-840

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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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	96	91	88	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	74	69	79	73	68	64	60	56	53	47	45	43	36	35	33	28
3	79	70	63	58	72	64	58	53	53	48	45	42	39	36	32	30	28	24
4	73	62	55	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	48	42	60	51	44	39	42	37	33	34	30	27	26	24	22	18
6	61	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	30	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	37	31	26	31	26	22	25	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	18	16	14	11
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6561	6561	6561
5°	6576	6501	6541
10°	6526	6441	6441
15°	6449	6310	6258
20°	6349	6128	6054
25°	6233	5949	5818
30°	6088	5739	5557
35°	5941	5523	5263
40°	5802	5298	4975
45°	5634	5045	4661
50°	5466	4772	4332
55°	5271	4510	3984
60°	5074	4193	3608
65°	4843	3822	3177
70°	4579	3361	2738
75°	4212	2832	2278
80°	3712	2228	1912
85°	3127	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.6
10°-20°	267.0	4.3
20°-30°	387.1	6.3
30°-40°	441.2	7.2
40°-50°	430.0	7.0
50°-60°	362.0	5.9
60°-70°	253.8	4.1
70°-80°	130.4	2.1
80°-90°	35.7	0.6
90°-100°	362.4	5.9
100°-110°	779.1	12.7
110°-120°	731.2	11.9
120°-130°	592.6	9.6
130°-140°	475.6	7.7
140°-150°	358.9	5.8
150°-160°	252.6	4.1
160°-170°	148.9	2.4
170°-180°	48.4	0.8
0°-30°	749.6	12.2
0°-40°	1190.8	19.4
0°-60°	1982.8	32.2
0°-90°	2402.7	39.1
90°-120°	1872.8	30.4
90°-150°	3299.8	53.6
90°-180°	3750.0	61.0
0°-180°	6152.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1014	1011	1003	1010	1009	96
15°	964	959	944	943	936	272
25°	875	862	835	825	816	402
35°	754	734	700	679	668	472
45°	617	594	552	523	510	476
55°	468	442	400	367	354	418
65°	317	290	250	220	208	314
75°	169	145	114	97	91	179
85°	42	29	24	24	23	47
90°	1	9	16	21	23	4
95°	33	98	893	405	237	35
105°	114	159	731	1439	1336	120
115°	204	246	587	1265	1488	200
125°	282	331	562	1006	1172	250
135°	331	398	558	843	974	257
145°	385	441	560	698	768	241
155°	440	473	546	618	644	202
165°	480	493	524	556	564	135
175°	499	499	503	509	507	47
180°	500	500	500	500	500	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1017.7	1017.3	1016.9	1016.5	1016.1	1015.2	1013.8	1012.5	1011.1	1009.8	1011.1
5°	1014.3	1013.7	1013.0	1012.3	1011.6	1010.4	1008.5	1006.6	1004.7	1002.8	1004.5
7.5°	1004.4	1003.7	1003.1	1002.4	1001.8	1000.4	998.0	995.8	993.6	991.3	992.5
10°	995.1	994.6	994.1	993.6	993.1	991.7	989.3	986.9	984.5	982.1	982.6
12.5°	984.7	984.1	983.4	982.8	982.1	980.2	977.0	973.8	970.6	967.3	967.8
15°	964.5	963.4	962.4	961.4	960.4	958.1	954.5	950.9	947.4	943.7	943.6
17.5°	941.6	940.1	938.5	937.0	935.3	932.3	927.8	923.3	918.8	914.3	913.4
20°	923.8	922.1	920.4	918.7	917.0	913.4	908.0	902.5	897.1	891.6	890.7
22.5°	904.1	902.4	900.8	899.1	897.4	893.6	887.9	882.2	876.5	870.7	869.1
25°	874.7	872.1	869.6	867.1	864.4	860.0	853.7	847.4	841.1	834.8	832.6
27.5°	840.9	837.9	834.8	831.6	828.5	823.6	816.9	810.1	803.3	796.6	793.5
30°	816.4	813.1	809.9	806.7	803.4	798.2	791.0	784.0	776.8	769.6	765.7
32.5°	792.4	788.7	784.9	781.1	777.3	771.7	764.5	757.2	749.8	742.6	738.2
35°	753.5	749.4	745.3	741.2	737.1	731.2	723.6	715.9	708.2	700.5	695.6
37.5°	715.3	710.2	705.3	700.3	695.4	688.9	681.0	673.1	665.2	657.2	651.4
40°	688.2	683.2	678.0	672.9	667.8	661.2	653.0	644.8	636.6	628.4	622.0
42.5°	660.0	654.8	649.5	644.3	639.0	632.2	623.7	615.2	606.8	598.3	592.1
45°	616.9	612.0	607.0	602.1	597.1	590.0	580.6	571.2	561.8	552.4	545.6
47.5°	572.3	567.0	561.8	556.6	551.4	544.0	534.6	525.1	515.7	506.2	499.3
50°	544.0	538.4	532.7	527.1	521.5	513.8	504.1	494.4	484.6	474.9	467.8
52.5°	513.3	507.6	501.8	496.0	490.3	482.8	473.6	464.4	455.2	446.1	438.4
55°	468.1	462.6	457.2	451.7	446.3	438.7	429.2	419.6	410.1	400.5	392.8
57.5°	422.3	416.5	410.6	404.9	399.0	391.4	382.2	373.0	363.9	354.7	347.1
60°	392.8	386.9	380.9	375.0	369.0	361.4	352.1	343.0	333.8	324.6	317.1
62.5°	361.5	355.9	350.1	344.5	338.8	331.2	321.9	312.6	303.3	293.9	286.9
65°	316.9	311.1	305.3	299.5	293.7	286.3	277.2	268.2	259.1	250.1	243.3
67.5°	272.6	266.7	260.9	255.2	249.3	242.2	233.5	224.8	216.1	207.4	201.3
70°	242.5	236.7	230.9	225.1	219.2	212.1	203.6	195.1	186.5	178.0	172.7
72.5°	213.0	207.3	201.7	196.0	190.4	183.5	175.5	167.5	159.6	151.6	146.7
75°	168.8	163.7	158.5	153.5	148.3	142.2	135.0	127.8	120.7	113.5	109.8
77.5°	124.9	120.8	116.7	112.6	108.6	103.6	97.9	92.2	86.4	80.7	78.1
80°	99.8	95.6	91.6	87.5	83.4	79.0	74.1	69.4	64.6	59.9	58.3
82.5°	75.2	71.5	67.9	64.1	60.5	57.0	53.7	50.4	47.2	43.9	43.2
85°	42.2	39.1	36.1	33.0	29.9	28.0	27.1	26.3	25.4	24.5	24.3
87.5°	14.3	13.5	13.0	12.4	11.9	11.8	11.8	12.1	12.1	12.4	12.6
90°	1.0	2.0	4.0	6.1	8.1	10.1	11.1	13.1	14.1	16.2	17.2
92.5°	12.3	14.9	23.4	35.9	53.2	82.7	137.7	230.0	330.2	325.0	263.1
95°	33.2	34.2	42.3	53.4	75.6	121.0	228.8	450.6	728.9	893.2	874.0
97.5°	55.2	56.5	62.1	73.2	93.1	125.8	197.2	359.7	650.9	953.9	1105.9
100°	70.6	72.6	76.6	87.7	106.8	137.1	195.6	326.6	580.7	910.3	1162.4
102.5°	87.6	88.7	91.9	103.8	121.4	150.8	202.9	313.0	527.5	833.7	1128.5
105°	113.9	113.9	119.0	129.1	145.2	173.4	217.7	307.5	475.8	730.8	1020.3
107.5°	139.8	141.8	146.5	154.8	171.6	197.0	239.9	316.8	454.0	660.1	909.7
110°	158.2	160.3	164.3	173.4	188.5	214.7	256.1	325.6	447.6	627.0	846.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.8	178.8	182.1	191.2	206.2	231.7	271.4	336.9	447.6	607.7	800.0
115°	203.7	205.6	208.6	217.7	232.9	258.1	295.4	353.9	450.6	586.7	749.0
117.5°	227.8	230.9	234.1	243.2	260.3	284.7	320.0	373.2	457.3	576.4	718.6
120°	244.0	247.0	251.1	260.1	277.2	302.5	337.7	386.1	463.7	571.6	701.7
122.5°	260.9	263.1	266.3	275.4	294.2	319.4	354.7	400.6	469.4	567.5	687.1
125°	282.3	284.3	289.3	298.4	317.6	343.8	377.1	420.4	478.9	562.5	667.4
127.5°	299.0	302.1	308.5	320.0	340.3	366.6	398.6	438.5	489.6	560.1	649.2
130°	309.5	312.6	320.6	333.7	354.9	381.0	412.3	450.6	496.0	558.5	637.1
132.5°	317.6	321.3	331.0	345.8	367.8	393.9	425.3	461.1	503.2	558.5	627.4
135°	330.6	334.7	346.8	362.9	384.1	411.3	442.5	475.8	513.1	558.5	615.9
137.5°	347.2	350.2	361.5	377.7	398.4	426.5	454.8	486.8	522.2	559.7	605.7
140°	356.9	359.9	372.0	388.1	407.3	434.5	463.7	494.0	526.2	560.5	600.9
142.5°	368.2	370.4	381.6	397.8	416.2	441.7	469.4	498.0	528.7	561.3	596.8
145°	385.1	387.1	397.2	411.3	429.5	452.6	478.9	504.0	531.3	560.5	590.8
147.5°	402.8	404.0	412.7	425.9	441.5	461.9	484.9	507.7	532.3	557.8	584.5
150°	413.3	415.4	422.4	435.6	449.6	466.8	489.0	510.1	532.3	555.4	579.7
152.5°	424.6	425.9	432.1	443.5	456.9	472.4	493.0	511.7	531.5	552.3	574.0
155°	439.5	439.5	445.6	455.7	465.7	479.9	497.0	513.1	529.3	546.4	564.5
157.5°	452.8	452.6	457.5	466.2	475.0	485.7	500.4	514.1	526.6	540.4	555.6
160°	461.7	460.7	464.7	471.8	479.9	489.0	502.0	514.1	524.2	536.3	548.5
162.5°	469.0	468.0	472.0	478.3	484.7	492.2	503.6	513.3	521.8	531.5	542.0
165°	479.9	477.9	480.9	485.9	490.0	496.0	504.0	512.1	518.2	524.2	532.3
167.5°	487.2	486.1	488.0	490.8	493.6	497.4	504.0	509.7	512.5	517.2	522.8
170°	492.0	491.0	492.0	494.0	496.0	499.0	504.0	508.1	510.1	513.1	517.2
172.5°	495.2	493.4	494.4	496.3	497.6	499.0	503.2	506.4	506.9	508.3	511.5
175°	499.0	497.0	498.0	499.0	499.0	499.0	502.0	504.0	503.0	503.0	504.0
177.5°	500.8	499.2	499.2	500.0	499.2	499.2	500.8	501.6	500.0	500.0	500.8
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1012.5	1013.8	1015.2	1015.8	1015.7	1015.5	1015.4	1015.3
5°	1006.2	1007.9	1009.7	1010.4	1010.0	1009.7	1009.4	1009.0
7.5°	993.7	994.9	996.1	996.5	996.1	995.7	995.4	995.0
10°	983.1	983.6	984.2	984.2	983.6	983.1	982.6	982.1
12.5°	968.2	968.6	968.9	968.7	967.9	967.1	966.3	965.5
15°	943.4	943.2	943.1	942.2	940.7	939.2	937.7	936.0
17.5°	912.6	911.7	910.9	909.8	908.6	907.3	906.1	904.7
20°	889.9	889.0	888.2	887.0	885.4	883.9	882.4	880.8
22.5°	867.4	865.7	864.0	862.5	861.3	860.0	858.8	857.5
25°	830.4	828.2	826.0	823.8	822.0	820.1	818.3	816.4
27.5°	790.4	787.3	784.2	781.7	779.9	778.1	776.3	774.5
30°	761.7	757.8	753.9	751.1	749.6	748.1	746.6	745.1
32.5°	733.9	729.6	725.3	722.2	720.1	718.2	716.3	714.4
35°	690.6	685.7	680.8	677.1	674.7	672.3	669.9	667.5
37.5°	645.4	639.4	633.5	629.3	627.0	624.8	622.5	620.2
40°	615.4	608.9	602.5	598.2	596.2	594.1	592.1	590.1
42.5°	585.9	579.7	573.5	568.9	565.9	562.9	559.9	556.9
45°	538.8	532.0	525.1	520.5	518.0	515.3	512.8	510.3
47.5°	492.2	485.1	478.2	473.2	470.4	467.6	464.7	461.9
50°	460.6	453.4	446.3	441.4	438.9	436.4	433.7	431.2
52.5°	430.7	422.9	415.3	410.1	407.6	405.1	402.4	399.9
55°	385.2	377.5	369.8	364.7	361.9	359.2	356.5	353.8
57.5°	339.6	332.1	324.7	319.6	317.2	314.8	312.5	310.0
60°	309.5	302.1	294.6	289.5	287.0	284.4	281.9	279.3
62.5°	279.9	273.0	266.0	261.3	258.7	256.2	253.6	251.1
65°	236.5	229.6	222.9	218.1	215.6	213.1	210.5	207.9
67.5°	195.0	188.7	182.5	178.3	176.3	174.3	172.2	170.2
70°	167.4	162.2	156.8	153.2	151.2	149.2	147.0	145.0
72.5°	141.9	136.9	132.1	129.0	127.6	126.2	124.9	123.5
75°	106.0	102.3	98.6	96.0	94.9	93.7	92.5	91.3
77.5°	75.4	72.8	70.2	68.5	67.6	66.7	65.8	64.9
80°	56.8	55.2	53.7	52.8	52.4	52.1	51.7	51.4
82.5°	42.4	41.7	41.0	40.6	40.4	40.2	40.0	39.8
85°	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0
87.5°	12.8	13.0	13.2	13.5	13.4	13.3	13.3	13.2
90°	18.2	19.2	20.2	22.2	22.2	22.2	23.2	23.2
92.5°	178.6	129.7	97.6	82.7	69.8	67.4	65.9	64.3
95°	724.9	571.6	447.6	362.9	291.3	261.2	253.1	236.9
97.5°	1079.5	972.0	851.2	733.5	671.3	614.7	585.5	572.6
100°	1240.0	1190.6	1086.7	981.9	912.3	839.8	802.4	786.4
102.5°	1294.0	1324.4	1274.7	1203.7	1129.3	1077.7	1037.1	1025.0
105°	1262.1	1400.3	1444.6	1433.5	1401.3	1368.1	1347.9	1335.7
107.5°	1148.4	1332.7	1446.6	1499.2	1515.6	1515.4	1508.7	1500.7
110°	1064.6	1256.1	1398.3	1484.0	1529.3	1548.4	1555.5	1555.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	998.5	1180.3	1324.0	1425.1	1491.4	1524.3	1541.9	1549.0
115°	915.3	1071.7	1209.7	1319.6	1398.3	1446.6	1474.9	1488.0
117.5°	861.7	996.4	1115.4	1216.2	1294.8	1344.8	1372.8	1380.9
120°	832.7	953.7	1064.6	1153.3	1227.9	1276.3	1303.5	1311.6
122.5°	810.9	923.0	1021.8	1104.9	1171.4	1215.8	1243.0	1250.3
125°	779.3	882.1	969.8	1042.4	1098.8	1140.1	1162.4	1172.5
127.5°	747.0	843.0	924.8	992.8	1044.0	1080.5	1101.5	1105.9
130°	726.9	815.6	894.2	959.8	1010.2	1043.4	1063.6	1069.6
132.5°	706.7	789.7	861.1	924.2	974.6	1007.9	1026.4	1033.3
135°	680.4	750.0	814.6	872.0	916.4	949.7	967.8	973.8
137.5°	658.3	714.6	768.2	817.0	856.7	887.0	903.7	910.3
140°	646.2	693.6	739.9	782.3	819.6	845.9	860.9	866.0
142.5°	635.7	675.8	715.8	752.5	784.2	806.3	820.6	824.9
145°	622.0	653.3	684.5	711.8	735.9	753.1	764.2	768.2
147.5°	609.2	634.5	658.5	679.0	698.2	712.0	718.4	720.2
150°	601.9	624.0	643.2	661.4	676.4	688.5	692.6	693.6
152.5°	593.8	613.5	631.1	645.2	657.9	667.6	671.6	672.6
155°	581.7	597.8	612.0	623.0	633.1	640.2	643.2	644.2
157.5°	569.6	582.9	593.8	602.5	610.4	616.1	618.9	618.7
160°	561.5	571.6	581.7	588.8	595.8	600.9	602.9	601.9
162.5°	552.7	561.9	570.4	576.6	582.1	586.3	586.7	586.5
165°	540.4	547.4	553.5	558.5	562.5	564.5	564.5	564.5
167.5°	528.7	533.3	538.0	541.6	543.6	545.4	544.6	544.4
170°	522.2	525.2	528.3	530.3	532.3	533.3	533.3	532.3
172.5°	514.9	518.0	520.2	521.4	521.8	523.6	522.0	521.0
175°	507.1	507.1	509.1	509.1	509.1	510.1	508.1	507.1
177.5°	501.6	502.4	502.4	502.4	501.6	502.4	500.0	500.0
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0

(END OF REPORT)