

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: P333554-927

Luminaire Tested: **S125RDIP-S850D365U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333554-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D365U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3578.2 lumens
Efficiency: N/A
Efficacy: 102.2 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

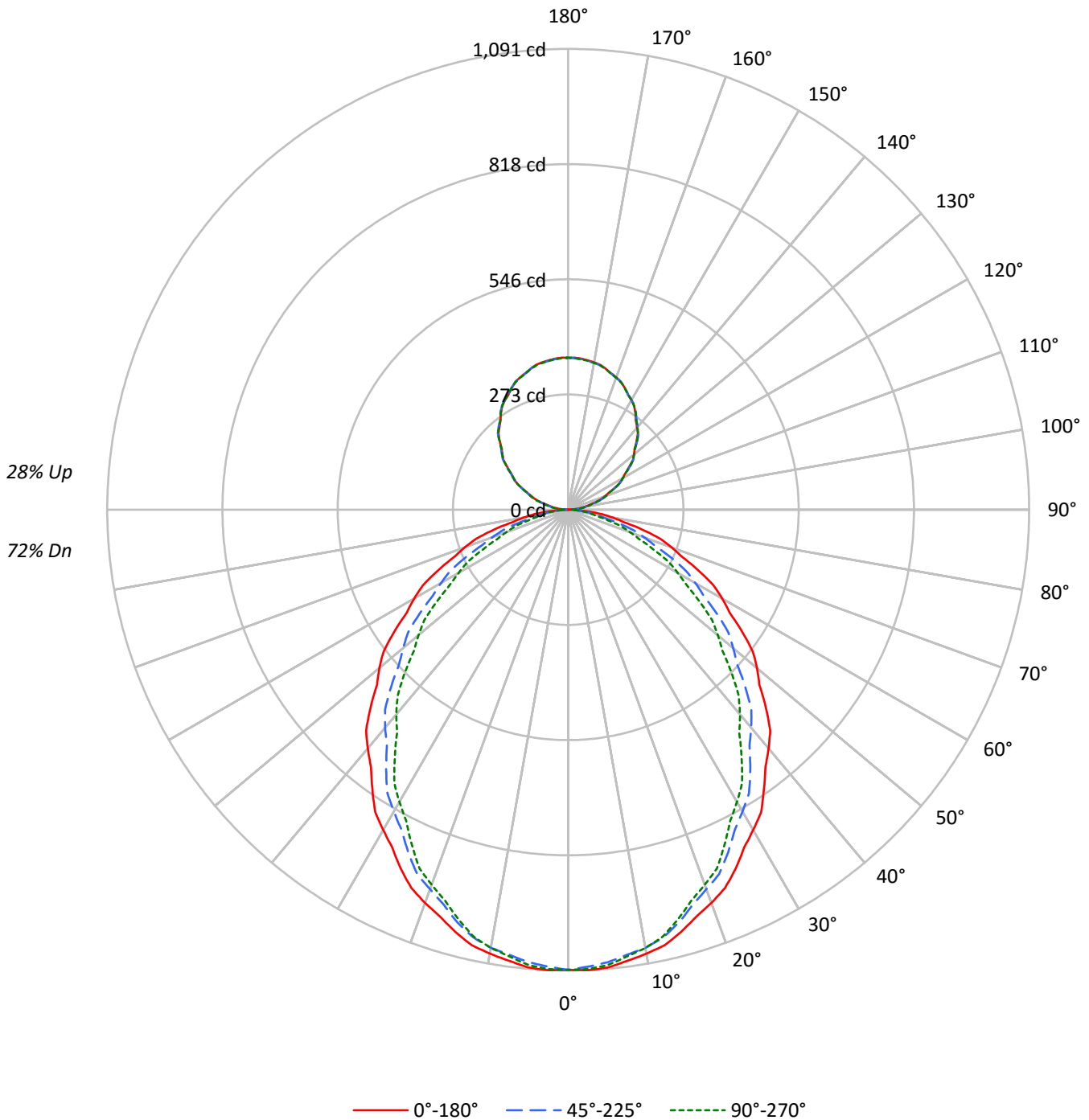
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	112	112	112	112	106	106	106	106	96	96	96	85	85	85	76	76	76	72
1	103	99	95	91	98	94	90	87	84	82	79	76	74	72	68	67	65	61
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	52
3	86	76	69	63	81	73	66	61	66	60	56	60	55	52	54	50	47	44
4	79	68	60	54	75	65	57	52	59	53	48	53	48	45	48	44	41	38
5	73	61	52	46	69	58	50	45	53	47	42	48	43	39	43	39	36	33
6	67	55	46	40	63	52	45	39	48	41	37	44	38	34	40	35	32	29
7	62	50	41	36	59	48	40	35	44	37	33	40	34	30	36	32	28	26
8	58	45	37	32	55	43	36	31	40	34	29	36	31	27	33	29	26	23
9	54	41	34	29	51	40	33	28	37	31	26	34	28	25	31	26	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7035	7035	7035
5°	7052	6971	7014
10°	6998	6906	6906
15°	6915	6766	6711
20°	6808	6570	6491
25°	6683	6379	6238
30°	6528	6154	5957
35°	6370	5922	5643
40°	6222	5681	5334
45°	6042	5411	4997
50°	5861	5117	4646
55°	5650	4835	4271
60°	5441	4495	3867
65°	5193	4099	3406
70°	4910	3603	2936
75°	4517	3039	2443
80°	3976	2388	2049
85°	3349	1949	1830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	2.9
10°-20°	286.2	8.0
20°-30°	415.1	11.6
30°-40°	473.1	13.2
40°-50°	461.1	12.9
50°-60°	388.2	10.8
60°-70°	272.1	7.6
70°-80°	139.9	3.9
80°-90°	36.1	1.0
90°-100°	24.1	0.7
100°-110°	71.2	2.0
110°-120°	120.5	3.4
120°-130°	158.6	4.4
130°-140°	177.7	5.0
140°-150°	174.2	4.9
150°-160°	146.3	4.1
160°-170°	97.3	2.7
170°-180°	34.0	1.0
0°-30°	803.8	22.5
0°-40°	1276.8	35.7
0°-60°	2126.1	59.4
0°-90°	2574.2	71.9
90°-120°	215.8	6.0
90°-150°	726.3	20.3
90°-180°	1004.0	28.1
0°-180°	3578.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1084	1075	1083	1082	103
15°	1034	1029	1012	1011	1004	291
25°	938	925	895	885	875	431
35°	808	787	751	728	716	506
45°	662	636	592	561	547	510
55°	502	474	429	394	379	449
65°	340	311	268	236	223	336
75°	181	156	122	104	98	192
85°	45	31	26	26	25	51
90°	0	3	4	6	7	3
95°	18	19	22	23	24	19
105°	64	65	67	69	70	68
115°	121	122	122	122	122	119
125°	176	178	178	178	177	158
135°	229	231	231	231	230	176
145°	278	279	279	279	279	173
155°	318	318	318	319	318	146
165°	345	345	345	346	344	97
175°	359	358	358	359	358	34
180°	360	360	360	360	360	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1091.2	1090.8	1090.4	1090.0	1089.5	1088.5	1087.1	1085.6	1084.2	1082.7	1084.2
5°	1087.7	1087.0	1086.2	1085.4	1084.7	1083.4	1081.3	1079.3	1077.3	1075.3	1077.1
7.5°	1077.0	1076.3	1075.5	1074.8	1074.2	1072.6	1070.2	1067.8	1065.4	1063.0	1064.2
10°	1067.1	1066.5	1066.0	1065.4	1064.9	1063.3	1060.8	1058.2	1055.7	1053.1	1053.6
12.5°	1055.9	1055.2	1054.5	1053.8	1053.1	1051.1	1047.6	1044.2	1040.8	1037.3	1037.7
15°	1034.2	1033.1	1032.0	1030.9	1029.8	1027.3	1023.5	1019.6	1015.8	1011.9	1011.8
17.5°	1009.6	1008.0	1006.3	1004.6	1002.9	999.7	994.8	990.0	985.2	980.3	979.5
20°	990.5	988.7	986.9	985.1	983.3	979.4	973.6	967.7	961.9	956.0	955.1
22.5°	969.5	967.7	965.8	964.0	962.2	958.2	952.0	945.9	939.8	933.7	931.8
25°	937.9	935.2	932.4	929.7	926.9	922.2	915.4	908.6	901.9	895.2	892.8
27.5°	901.7	898.4	895.1	891.8	888.4	883.1	875.9	868.6	861.4	854.1	850.8
30°	875.4	871.9	868.5	865.0	861.5	855.9	848.3	840.6	832.9	825.2	821.0
32.5°	849.7	845.7	841.6	837.6	833.5	827.5	819.8	811.9	804.1	796.2	791.6
35°	807.9	803.5	799.2	794.7	790.4	784.0	775.9	767.6	759.4	751.1	745.8
37.5°	766.9	761.6	756.3	750.9	745.6	738.7	730.2	721.7	713.2	704.7	698.4
40°	738.0	732.5	727.0	721.5	716.1	708.9	700.1	691.3	682.6	673.8	666.9
42.5°	707.7	702.1	696.5	690.8	685.2	677.9	668.8	659.7	650.6	641.6	634.9
45°	661.5	656.2	650.9	645.5	640.2	632.6	622.5	612.5	602.5	592.4	585.0
47.5°	613.6	608.0	602.4	596.8	591.2	583.4	573.2	563.1	552.9	542.8	535.3
50°	583.3	577.3	571.2	565.2	559.2	551.0	540.5	530.1	519.7	509.3	501.6
52.5°	550.4	544.2	538.1	531.9	525.7	517.7	507.9	498.0	488.1	478.3	470.1
55°	501.8	496.0	490.2	484.3	478.5	470.4	460.2	450.0	439.7	429.4	421.2
57.5°	452.8	446.6	440.3	434.0	427.9	419.8	409.9	400.0	390.1	380.2	372.2
60°	421.2	414.9	408.4	402.0	395.6	387.5	377.6	367.7	357.9	348.0	340.0
62.5°	387.7	381.6	375.5	369.3	363.2	355.2	345.2	335.2	325.1	315.1	307.7
65°	339.8	333.6	327.3	321.2	314.9	307.0	297.3	287.6	277.9	268.2	260.9
67.5°	292.2	286.0	279.8	273.6	267.4	259.6	250.3	241.1	231.8	222.4	215.8
70°	260.0	253.7	247.6	241.3	235.1	227.4	218.3	209.1	200.0	190.8	185.2
72.5°	228.4	222.3	216.3	210.2	204.1	196.8	188.2	179.7	171.1	162.6	157.3
75°	181.0	175.5	170.0	164.5	159.1	152.5	144.8	137.1	129.4	121.8	117.7
77.5°	134.0	129.5	125.2	120.8	116.4	111.1	105.0	98.9	92.7	86.6	83.7
80°	106.9	102.6	98.2	93.8	89.4	84.7	79.5	74.4	69.3	64.2	62.5
82.5°	80.6	76.7	72.7	68.8	64.8	61.1	57.6	54.1	50.5	47.1	46.3
85°	45.2	42.0	38.7	35.4	32.1	29.9	29.1	28.1	27.3	26.3	26.1
87.5°	15.2	14.3	13.3	12.4	11.5	11.0	10.9	10.9	10.9	10.8	10.9
90°	0.3	0.8	1.3	1.7	2.3	2.8	3.2	3.6	4.0	4.5	4.8
92.5°	6.8	7.1	7.4	7.8	8.2	8.6	9.1	9.7	10.2	10.8	11.2
95°	18.2	18.3	18.5	18.5	18.7	19.1	19.7	20.3	20.9	21.5	22.0
97.5°	30.3	30.3	30.3	30.4	30.4	30.9	31.8	32.6	33.4	34.3	34.8
100°	39.2	39.2	39.2	39.2	39.2	39.6	40.4	41.2	42.1	42.9	43.4
102.5°	48.8	49.1	49.4	49.6	49.8	50.1	50.5	50.9	51.4	51.8	52.4
105°	63.8	64.2	64.5	64.8	65.1	65.4	65.8	66.1	66.5	66.9	67.3
107.5°	80.4	80.7	81.0	81.4	81.7	82.0	82.2	82.5	82.8	83.1	83.3
110°	91.8	92.1	92.4	92.8	93.1	93.3	93.5	93.7	93.9	94.1	94.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	103.5	103.6	103.8	103.9	104.1	104.3	104.6	104.8	105.0	105.3	105.4
115°	120.6	120.9	121.2	121.4	121.7	121.8	122.0	122.1	122.2	122.4	122.3
117.5°	137.9	138.0	138.2	138.2	138.4	138.5	138.6	138.7	138.8	138.9	138.9
120°	148.7	149.0	149.3	149.6	149.9	150.1	150.2	150.2	150.3	150.4	150.4
122.5°	160.3	160.4	160.6	160.7	160.7	160.9	161.1	161.2	161.4	161.5	161.5
125°	176.1	176.5	176.9	177.2	177.6	177.8	177.9	177.9	178.0	178.1	177.9
127.5°	192.9	193.1	193.4	193.5	193.8	193.9	194.0	194.1	194.2	194.2	194.2
130°	203.0	203.3	203.6	203.9	204.2	204.5	204.5	204.7	204.9	204.9	204.9
132.5°	213.1	213.6	214.1	214.6	215.1	215.4	215.3	215.3	215.3	215.2	215.2
135°	229.0	229.4	229.8	230.1	230.5	230.8	230.8	230.8	230.9	231.0	231.0
137.5°	244.1	244.4	244.8	245.1	245.5	245.7	245.9	246.0	246.1	246.3	246.4
140°	253.7	254.0	254.3	254.6	254.9	255.2	255.3	255.6	255.7	255.9	256.0
142.5°	263.3	263.6	263.8	264.1	264.4	264.6	264.8	265.1	265.3	265.5	265.6
145°	277.5	277.7	278.0	278.2	278.5	278.7	278.8	279.1	279.2	279.4	279.4
147.5°	290.6	290.7	290.8	291.0	291.1	291.3	291.4	291.6	291.7	291.8	292.0
150°	299.3	299.3	299.2	299.1	299.0	299.1	299.4	299.7	299.9	300.2	300.2
152.5°	306.5	306.6	306.7	306.7	306.8	306.9	307.0	307.1	307.2	307.3	307.4
155°	317.5	317.5	317.5	317.5	317.5	317.5	317.6	317.7	317.7	317.8	318.1
157.5°	327.3	327.3	327.1	326.9	326.9	326.8	326.9	326.9	326.9	327.0	327.3
160°	333.2	333.0	332.8	332.6	332.5	332.4	332.5	332.5	332.6	332.6	332.9
162.5°	338.3	338.2	338.1	337.9	337.8	337.7	337.7	337.8	337.8	337.8	338.1
165°	345.2	345.1	345.0	344.8	344.8	344.7	344.8	344.8	344.9	344.9	345.2
167.5°	351.0	350.8	350.5	350.3	350.1	349.9	349.9	349.9	349.9	349.9	350.3
170°	354.2	353.9	353.7	353.5	353.2	353.1	353.1	353.1	353.1	353.1	353.5
172.5°	356.4	356.2	355.9	355.7	355.5	355.3	355.3	355.3	355.3	355.3	355.7
175°	358.9	358.7	358.5	358.2	358.0	357.8	357.8	357.8	357.8	357.8	358.2
177.5°	360.2	360.0	359.8	359.7	359.4	359.3	359.3	359.3	359.2	359.1	359.4
180°	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1085.6	1087.1	1088.5	1089.3	1089.1	1088.9	1088.8	1088.6
5°	1079.0	1080.8	1082.6	1083.4	1083.0	1082.6	1082.3	1081.9
7.5°	1065.6	1066.8	1068.1	1068.5	1068.1	1067.7	1067.3	1066.9
10°	1054.2	1054.7	1055.3	1055.3	1054.7	1054.2	1053.6	1053.1
12.5°	1038.1	1038.5	1038.9	1038.7	1037.8	1037.0	1036.2	1035.3
15°	1011.6	1011.4	1011.2	1010.3	1008.7	1007.0	1005.4	1003.7
17.5°	978.5	977.6	976.7	975.6	974.2	972.9	971.5	970.2
20°	954.2	953.2	952.4	951.1	949.4	947.8	946.1	944.5
22.5°	930.0	928.3	926.5	924.9	923.5	922.2	920.8	919.5
25°	890.4	888.0	885.7	883.4	881.4	879.4	877.4	875.4
27.5°	847.5	844.1	840.8	838.2	836.3	834.3	832.4	830.4
30°	816.8	812.6	808.3	805.5	803.8	802.2	800.5	798.8
32.5°	787.0	782.3	777.7	774.3	772.2	770.2	768.0	766.0
35°	740.5	735.2	729.9	726.0	723.4	720.9	718.4	715.7
37.5°	692.1	685.6	679.3	674.9	672.4	669.9	667.4	665.0
40°	659.9	653.0	646.0	641.4	639.3	637.1	634.9	632.7
42.5°	628.3	621.6	615.0	610.0	606.8	603.6	600.3	597.1
45°	577.7	570.5	563.1	558.1	555.3	552.6	549.9	547.1
47.5°	527.8	520.2	512.7	507.4	504.4	501.4	498.3	495.3
50°	493.9	486.2	478.6	473.3	470.6	467.9	465.1	462.4
52.5°	461.8	453.5	445.3	439.7	437.0	434.3	431.6	428.8
55°	413.0	404.8	396.6	390.9	388.1	385.2	382.2	379.3
57.5°	364.2	356.2	348.1	342.8	340.2	337.5	335.0	332.4
60°	331.9	323.8	315.8	310.5	307.7	305.0	302.2	299.4
62.5°	300.2	292.7	285.3	280.2	277.4	274.6	272.0	269.2
65°	253.6	246.3	238.9	233.9	231.2	228.5	225.7	222.9
67.5°	209.1	202.4	195.7	191.2	189.1	186.9	184.7	182.5
70°	179.5	173.9	168.2	164.3	162.1	159.9	157.7	155.5
72.5°	152.1	146.9	141.6	138.3	136.8	135.4	134.0	132.5
75°	113.8	109.7	105.7	103.1	101.7	100.4	99.2	97.9
77.5°	80.9	78.1	75.3	73.4	72.5	71.5	70.6	69.6
80°	60.9	59.3	57.6	56.6	56.2	55.8	55.5	55.1
82.5°	45.6	44.8	44.0	43.5	43.3	43.1	42.9	42.6
85°	26.0	25.7	25.6	25.4	25.2	25.0	24.9	24.7
87.5°	10.9	10.9	11.0	11.0	10.9	10.8	10.7	10.5
90°	5.1	5.4	5.7	5.9	6.2	6.3	6.5	6.7
92.5°	11.6	12.0	12.4	12.7	12.8	12.9	13.1	13.2
95°	22.4	22.9	23.3	23.6	23.7	23.8	23.9	24.1
97.5°	35.2	35.6	36.0	36.2	36.3	36.4	36.4	36.5
100°	44.0	44.5	45.1	45.4	45.6	45.7	45.8	45.9
102.5°	53.0	53.6	54.3	54.7	54.8	55.0	55.1	55.3
105°	67.7	68.0	68.4	68.7	68.8	69.1	69.2	69.5
107.5°	83.5	83.7	83.8	84.0	83.9	83.9	83.9	83.9
110°	94.4	94.7	94.8	94.9	94.8	94.7	94.7	94.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	105.4	105.5	105.6	105.6	105.5	105.4	105.3	105.2
115°	122.2	122.2	122.1	122.1	122.0	121.9	121.8	121.8
117.5°	139.0	139.1	139.1	139.0	138.8	138.6	138.3	138.0
120°	150.4	150.4	150.4	150.2	150.0	149.7	149.5	149.2
122.5°	161.4	161.4	161.4	161.2	161.1	160.8	160.7	160.4
125°	177.8	177.7	177.6	177.4	177.4	177.4	177.3	177.2
127.5°	194.1	194.0	193.9	193.8	193.8	193.6	193.5	193.4
130°	204.9	204.8	204.7	204.6	204.5	204.4	204.2	204.1
132.5°	215.2	215.1	215.0	214.9	214.7	214.5	214.4	214.2
135°	231.0	231.0	231.0	230.8	230.6	230.4	230.1	229.9
137.5°	246.4	246.5	246.6	246.4	246.1	245.8	245.5	245.2
140°	256.2	256.3	256.4	256.4	256.0	255.7	255.4	255.1
142.5°	265.7	265.8	265.9	265.7	265.4	265.1	264.8	264.5
145°	279.4	279.4	279.4	279.3	279.2	278.9	278.8	278.6
147.5°	292.2	292.3	292.5	292.3	291.9	291.4	291.0	290.7
150°	300.2	300.2	300.2	300.1	300.0	299.8	299.7	299.6
152.5°	307.6	307.8	307.9	307.8	307.7	307.4	307.2	307.0
155°	318.3	318.5	318.8	318.8	318.5	318.1	317.8	317.5
157.5°	327.5	327.8	328.0	328.0	327.6	327.1	326.7	326.3
160°	333.1	333.4	333.6	333.6	333.3	333.0	332.6	332.3
162.5°	338.3	338.7	339.0	339.0	338.6	338.2	337.9	337.5
165°	345.5	345.7	345.9	345.9	345.5	345.2	344.8	344.4
167.5°	350.7	351.0	351.4	351.4	351.0	350.6	350.2	349.9
170°	353.8	354.2	354.6	354.5	354.1	353.6	353.2	352.8
172.5°	356.1	356.4	356.8	356.8	356.4	356.0	355.6	355.2
175°	358.5	358.9	359.3	359.3	358.9	358.4	358.0	357.5
177.5°	359.7	360.0	360.3	360.3	360.0	359.6	359.3	358.9
180°	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8

(END OF REPORT)