

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: P333409-830

Luminaire Tested: **S125DIW-S850D770U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333409-830
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: S125DIW-S850D770U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5603.4 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

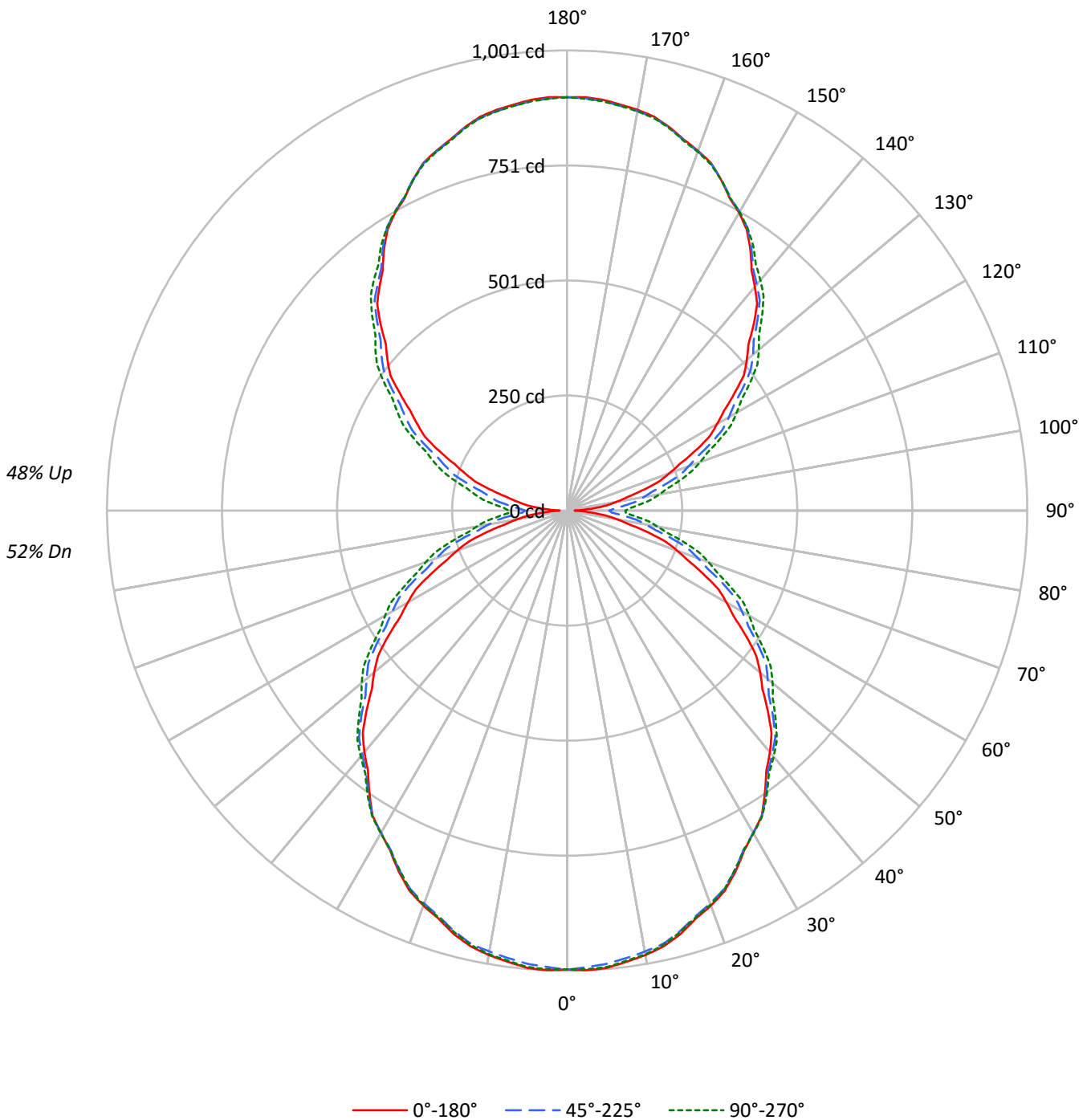
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	99	99	99	99	84	84	84	71	71	71	58	58	58	52
1	97	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	42
2	88	81	74	69	81	75	69	64	63	59	55	53	50	47	43	41	39	35
3	80	71	63	57	74	65	59	53	56	50	46	47	43	40	38	35	33	29
4	73	62	54	48	68	58	51	45	49	44	39	41	37	34	34	31	28	25
5	67	55	47	41	62	51	44	38	44	38	34	37	33	29	31	27	25	21
6	62	50	41	35	57	46	39	33	40	34	29	33	29	25	28	24	21	19
7	57	45	37	31	53	42	34	29	36	30	26	30	26	22	25	22	19	16
8	53	41	33	27	49	38	31	26	33	27	23	28	23	20	23	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	28	22	18	24	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6448	6448	6448
5°	6461	6330	6350
10°	6415	6216	6207
15°	6340	6081	6026
20°	6237	5914	5845
25°	6114	5735	5621
30°	5965	5538	5419
35°	5827	5357	5233
40°	5686	5166	5046
45°	5526	5003	4880
50°	5375	4826	4733
55°	5192	4659	4561
60°	4992	4468	4385
65°	4783	4270	4187
70°	4546	3997	3985
75°	4170	3735	3735
80°	3682	3416	3463
85°	3220	3204	3378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.7
10°-20°	268.0	4.8
20°-30°	398.6	7.1
30°-40°	472.1	8.4
40°-50°	488.1	8.7
50°-60°	449.7	8.0
60°-70°	363.5	6.5
70°-80°	243.4	4.3
80°-90°	128.2	2.3
90°-100°	131.0	2.3
100°-110°	230.1	4.1
110°-120°	336.2	6.0
120°-130°	416.3	7.4
130°-140°	452.8	8.1
140°-150°	437.1	7.8
150°-160°	365.6	6.5
160°-170°	243.1	4.3
170°-180°	85.1	1.5
0°-30°	761.0	13.6
0°-40°	1233.2	22.0
0°-60°	2171.0	38.7
0°-90°	2906.1	51.9
90°-120°	697.3	12.4
90°-150°	2003.5	35.8
90°-180°	2697.0	48.1
0°-180°	5603.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	998	996	990	997	997	95
15°	954	954	948	953	950	268
25°	866	869	863	867	862	399
35°	750	756	754	757	757	469
45°	618	628	633	640	641	477
55°	475	490	506	516	521	424
65°	327	349	373	387	392	324
75°	180	206	237	256	261	191
85°	54	86	120	141	150	57
90°	16	53	91	117	126	13
95°	58	86	125	151	160	59
105°	168	188	221	244	254	180
115°	308	318	344	360	366	304
125°	444	448	468	481	486	397
135°	574	578	585	597	600	443
145°	694	696	698	703	705	434
155°	793	793	794	797	793	365
165°	863	861	862	864	861	243
175°	897	894	894	898	894	85
180°	899	899	899	899	899	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	1000.8	1000.5	1000.1	999.8	999.4	998.6	997.4	996.2	994.9	993.7	994.9
5°	998.4	998.1	997.6	997.1	996.7	995.7	994.2	992.7	991.2	989.7	991.4
7.5°	989.7	989.5	989.3	989.1	988.9	988.1	986.6	985.0	983.4	981.8	983.4
10°	981.8	981.8	981.8	981.8	981.8	981.0	979.2	977.5	975.7	974.0	975.5
12.5°	970.8	971.0	971.2	971.4	971.6	970.9	969.6	968.2	966.8	965.4	966.6
15°	953.5	953.7	953.9	954.0	954.3	953.7	952.2	950.6	949.0	947.5	948.9
17.5°	930.8	931.1	931.6	932.0	932.5	931.9	930.4	928.9	927.4	925.9	926.8
20°	914.3	914.7	915.1	915.6	916.1	915.5	914.0	912.5	910.9	909.4	910.0
22.5°	895.5	896.3	897.0	897.9	898.6	898.1	896.5	894.8	893.1	891.4	892.2
25°	866.3	867.0	867.6	868.3	868.9	868.6	867.3	866.0	864.7	863.4	864.2
27.5°	833.8	834.8	835.8	836.7	837.6	837.4	835.9	834.4	832.9	831.5	832.1
30°	809.5	810.9	812.2	813.4	814.7	814.7	813.4	812.2	810.9	809.5	810.0
32.5°	787.6	788.7	789.9	791.0	792.1	792.2	791.3	790.3	789.4	788.4	788.8
35°	749.8	751.4	752.9	754.4	755.9	756.4	755.7	755.1	754.4	753.8	754.4
37.5°	712.0	713.4	714.8	716.2	717.7	718.2	717.9	717.7	717.6	717.4	718.2
40°	686.2	688.0	689.7	691.4	693.1	693.9	693.7	693.5	693.2	693.1	693.9
42.5°	658.0	660.3	662.5	664.8	667.0	668.5	668.9	669.4	669.9	670.3	671.4
45°	617.6	620.1	622.5	624.8	627.3	629.0	630.1	631.1	632.3	633.3	634.9
47.5°	576.4	578.6	580.8	583.1	585.2	587.3	589.2	591.1	592.9	594.7	597.0
50°	548.2	550.5	553.0	555.3	557.7	560.2	562.5	565.0	567.3	569.7	572.1
52.5°	518.4	521.3	524.2	527.2	530.1	533.0	535.9	538.9	541.8	544.7	547.2
55°	474.8	478.2	481.7	485.2	488.7	492.2	495.7	499.2	502.6	506.1	508.5
57.5°	430.1	434.3	438.5	442.6	446.9	450.9	455.0	458.9	462.9	466.9	469.7
60°	400.4	404.7	409.1	413.4	417.7	422.2	426.5	430.8	435.2	439.5	442.8
62.5°	371.4	375.7	380.1	384.5	388.8	393.3	398.0	402.7	407.4	412.1	415.8
65°	327.0	332.0	337.0	342.0	346.9	352.0	357.3	362.5	367.8	373.0	376.3
67.5°	285.0	289.9	294.7	299.5	304.3	309.4	314.7	320.1	325.4	330.6	334.6
70°	254.5	259.5	264.5	269.6	274.6	279.8	285.5	291.2	296.8	302.5	306.6
72.5°	224.8	229.9	235.1	240.3	245.4	251.1	257.3	263.5	269.7	275.9	280.3
75°	180.1	185.8	191.4	197.1	202.7	209.1	216.0	223.0	229.9	236.9	241.2
77.5°	137.2	143.7	150.3	156.8	163.3	169.9	176.6	183.3	190.0	196.8	201.5
80°	110.7	117.2	123.7	130.2	136.8	143.6	151.1	158.4	165.9	173.2	178.0
82.5°	86.3	93.2	100.1	107.0	113.9	121.0	128.7	136.2	143.7	151.4	156.0
85°	53.8	61.0	68.2	75.4	82.6	89.9	97.6	105.2	112.8	120.4	125.2
87.5°	30.7	37.9	45.1	52.3	59.5	66.9	74.6	82.2	89.7	97.4	102.5
90°	16.4	24.6	32.8	41.0	49.2	57.5	66.0	74.5	82.9	91.4	97.3
92.5°	31.0	38.4	45.6	53.0	60.2	68.3	77.3	86.1	95.1	104.0	109.9
95°	58.2	64.2	70.1	76.1	82.1	89.5	98.5	107.4	116.4	125.4	131.2
97.5°	87.1	92.4	97.6	102.7	108.0	115.2	124.5	133.7	143.1	152.3	158.0
100°	108.8	113.3	117.8	122.4	127.0	133.7	142.8	151.7	160.7	169.7	175.7
102.5°	132.1	136.9	141.7	146.6	151.4	157.7	165.5	173.3	181.2	189.0	194.9
105°	168.3	172.6	176.8	181.2	185.4	191.2	198.7	206.1	213.6	221.0	226.3
107.5°	208.6	212.4	216.0	219.8	223.6	228.8	235.8	242.9	249.9	256.8	261.6
110°	236.4	239.8	243.1	246.5	249.9	254.9	261.5	268.0	274.6	281.1	285.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	265.4	268.0	270.4	273.0	275.4	279.9	286.4	292.9	299.4	305.9	310.1
115°	307.5	309.6	311.7	313.9	316.0	320.1	326.0	332.0	338.0	343.9	347.7
117.5°	349.6	350.8	352.1	353.4	354.7	358.2	363.7	369.4	375.0	380.7	384.5
120°	376.5	377.9	379.3	380.7	382.1	385.4	390.6	395.8	401.0	406.0	409.8
122.5°	404.7	405.3	406.0	406.5	407.1	410.0	415.2	420.5	425.7	430.9	434.3
125°	444.0	444.7	445.4	446.2	446.9	449.5	454.0	458.5	463.0	467.5	470.7
127.5°	485.0	485.3	485.7	486.0	486.3	488.3	492.1	495.8	499.5	503.3	506.4
130°	510.2	510.8	511.3	511.9	512.5	514.4	517.7	521.1	524.5	527.8	530.7
132.5°	534.6	535.8	537.1	538.3	539.5	541.3	543.6	545.9	548.2	550.4	553.4
135°	574.3	575.0	575.7	576.5	577.2	578.3	580.0	581.7	583.4	585.0	587.9
137.5°	611.6	612.4	613.0	613.8	614.5	615.4	616.5	617.6	618.7	619.7	622.5
140°	634.9	635.7	636.5	637.3	638.0	638.8	639.4	640.1	640.8	641.5	644.2
142.5°	658.9	659.5	660.0	660.4	660.9	661.5	662.0	662.7	663.4	664.0	666.2
145°	694.4	694.7	695.2	695.6	696.0	696.4	696.9	697.4	697.9	698.3	699.4
147.5°	726.1	726.5	726.8	727.2	727.5	727.8	728.2	728.6	729.0	729.3	730.1
150°	748.0	747.8	747.6	747.5	747.3	747.6	748.2	748.9	749.4	750.1	750.1
152.5°	765.9	766.1	766.3	766.6	766.8	766.9	767.2	767.5	767.7	768.0	768.4
155°	793.4	793.4	793.4	793.4	793.4	793.5	793.7	793.8	794.0	794.2	794.8
157.5°	818.1	817.7	817.4	817.1	816.7	816.6	816.8	816.9	817.1	817.3	817.8
160°	832.6	832.2	831.7	831.2	830.8	830.6	830.8	830.9	831.0	831.2	831.9
162.5°	845.6	845.2	844.8	844.5	844.1	844.0	844.0	844.0	844.0	844.1	844.9
165°	862.7	862.4	862.1	861.8	861.5	861.4	861.6	861.7	861.9	862.0	862.6
167.5°	877.3	876.7	876.0	875.4	874.8	874.5	874.5	874.5	874.5	874.5	875.4
170°	885.1	884.5	883.8	883.3	882.6	882.3	882.3	882.3	882.3	882.3	883.3
172.5°	890.7	890.0	889.5	888.8	888.3	887.9	887.9	887.9	887.9	887.9	888.8
175°	897.0	896.4	895.8	895.1	894.5	894.2	894.2	894.2	894.2	894.2	895.1
177.5°	900.2	899.8	899.2	898.7	898.2	898.0	897.8	897.7	897.6	897.4	898.1
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	996.2	997.4	998.6	999.2	999.0	998.8	998.6	998.4
5°	993.2	994.9	996.6	997.4	997.1	996.9	996.7	996.6
7.5°	984.9	986.4	987.9	988.5	988.4	988.2	987.9	987.7
10°	977.0	978.5	980.1	980.7	980.5	980.3	980.1	979.9
12.5°	967.7	968.9	970.1	970.3	969.8	969.2	968.7	968.1
15°	950.2	951.5	952.8	953.0	952.2	951.2	950.4	949.5
17.5°	927.8	928.9	929.8	930.1	929.5	929.1	928.5	928.0
20°	910.7	911.3	912.0	912.3	912.3	912.3	912.3	912.3
22.5°	893.1	893.8	894.7	894.8	894.3	893.8	893.2	892.8
25°	865.2	866.0	866.9	866.8	865.6	864.6	863.5	862.4
27.5°	832.6	833.3	833.9	834.1	833.6	833.2	832.8	832.5
30°	810.4	810.9	811.2	811.4	811.2	811.0	810.8	810.5
32.5°	789.3	789.7	790.1	790.2	790.0	789.9	789.6	789.4
35°	755.1	755.7	756.4	756.7	756.7	756.7	756.7	756.7
37.5°	719.1	719.9	720.8	721.2	721.1	721.0	721.0	720.9
40°	694.7	695.7	696.5	697.2	697.6	698.0	698.5	698.9
42.5°	672.4	673.4	674.5	675.0	675.1	675.2	675.3	675.4
45°	636.4	637.9	639.4	640.3	640.6	640.7	640.9	641.2
47.5°	599.2	601.4	603.6	605.0	605.5	606.0	606.4	606.9
50°	574.5	576.9	579.3	580.8	581.5	582.1	582.8	583.4
52.5°	549.8	552.3	554.9	556.5	556.9	557.4	557.9	558.4
55°	510.9	513.3	515.7	517.3	518.1	519.1	519.9	520.8
57.5°	472.4	475.1	477.9	479.6	480.2	480.9	481.5	482.2
60°	446.0	449.3	452.6	454.5	455.2	455.8	456.5	457.1
62.5°	419.3	422.9	426.6	428.8	429.6	430.5	431.2	432.1
65°	379.5	382.8	386.0	388.0	389.0	389.8	390.7	391.5
67.5°	338.6	342.5	346.5	349.0	350.2	351.3	352.4	353.5
70°	310.8	314.9	319.1	321.7	323.0	324.3	325.6	327.0
72.5°	284.8	289.3	293.8	296.5	297.5	298.4	299.4	300.3
75°	245.6	250.0	254.3	257.0	258.1	259.2	260.2	261.4
77.5°	206.3	211.1	215.9	218.8	219.6	220.5	221.3	222.3
80°	182.9	187.7	192.4	195.2	196.1	197.0	197.8	198.7
82.5°	160.5	165.1	169.8	172.9	174.5	176.0	177.6	179.2
85°	130.0	134.8	139.6	142.8	144.6	146.3	148.1	149.8
87.5°	107.7	112.8	118.0	121.4	123.0	124.6	126.3	127.9
90°	103.0	108.8	114.6	118.5	120.5	122.4	124.4	126.4
92.5°	115.7	121.6	127.4	131.3	133.2	135.0	136.9	138.7
95°	137.0	143.0	148.8	152.7	154.5	156.4	158.2	160.0
97.5°	163.5	169.1	174.7	178.3	180.0	181.7	183.3	185.0
100°	181.6	187.6	193.6	197.4	199.0	200.6	202.2	203.9
102.5°	200.8	206.7	212.6	216.5	218.2	219.9	221.7	223.4
105°	231.7	237.0	242.2	245.8	247.8	249.8	251.8	253.8
107.5°	266.4	271.2	275.9	279.0	280.3	281.5	282.9	284.2
110°	290.3	294.9	299.5	302.5	303.9	305.2	306.6	307.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	314.3	318.5	322.6	325.4	326.6	327.8	329.1	330.4
115°	351.5	355.2	359.0	361.5	362.6	363.7	364.9	366.1
117.5°	388.3	392.1	396.0	398.3	399.2	400.0	400.9	401.7
120°	413.5	417.2	420.8	423.1	423.8	424.4	425.1	425.8
122.5°	437.7	441.1	444.5	446.7	447.4	448.3	449.0	449.9
125°	473.8	477.0	480.2	482.2	483.1	484.1	485.0	486.0
127.5°	509.4	512.6	515.6	517.6	518.5	519.5	520.5	521.4
130°	533.6	536.5	539.4	541.2	542.0	542.8	543.6	544.3
132.5°	556.2	559.1	562.0	563.7	564.2	564.7	565.1	565.6
135°	590.7	593.5	596.3	598.0	598.5	599.0	599.5	599.9
137.5°	625.3	628.0	630.7	632.2	632.3	632.4	632.4	632.5
140°	646.9	649.6	652.3	653.7	653.7	653.8	653.9	654.0
142.5°	668.5	670.7	672.9	674.1	674.2	674.3	674.4	674.5
145°	700.5	701.5	702.7	703.4	703.8	704.2	704.6	705.0
147.5°	730.8	731.5	732.3	732.3	731.6	730.9	730.3	729.6
150°	750.1	750.1	750.1	750.0	749.9	749.8	749.7	749.7
152.5°	768.7	769.1	769.5	769.4	768.9	768.4	767.9	767.3
155°	795.4	796.0	796.6	796.5	795.8	795.0	794.2	793.4
157.5°	818.5	819.1	819.7	819.5	818.5	817.5	816.4	815.4
160°	832.5	833.1	833.7	833.7	832.8	832.1	831.3	830.6
162.5°	845.6	846.3	847.1	847.1	846.1	845.2	844.3	843.4
165°	863.3	863.9	864.5	864.3	863.5	862.5	861.6	860.6
167.5°	876.4	877.3	878.2	878.2	877.2	876.3	875.3	874.3
170°	884.2	885.1	886.1	886.0	884.9	883.8	882.7	881.7
172.5°	889.8	890.7	891.6	891.6	890.7	889.7	888.7	887.8
175°	896.1	897.0	898.0	897.9	896.7	895.7	894.6	893.5
177.5°	898.9	899.7	900.4	900.3	899.5	898.6	897.8	896.8
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1

(END OF REPORT)