

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: P333403-830

Luminaire Tested: **S125DIW-S850D470U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333403-830
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-S850D470U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4625.6 lumens
Efficiency: N/A
Efficacy: 122.7 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: Semi-Direct

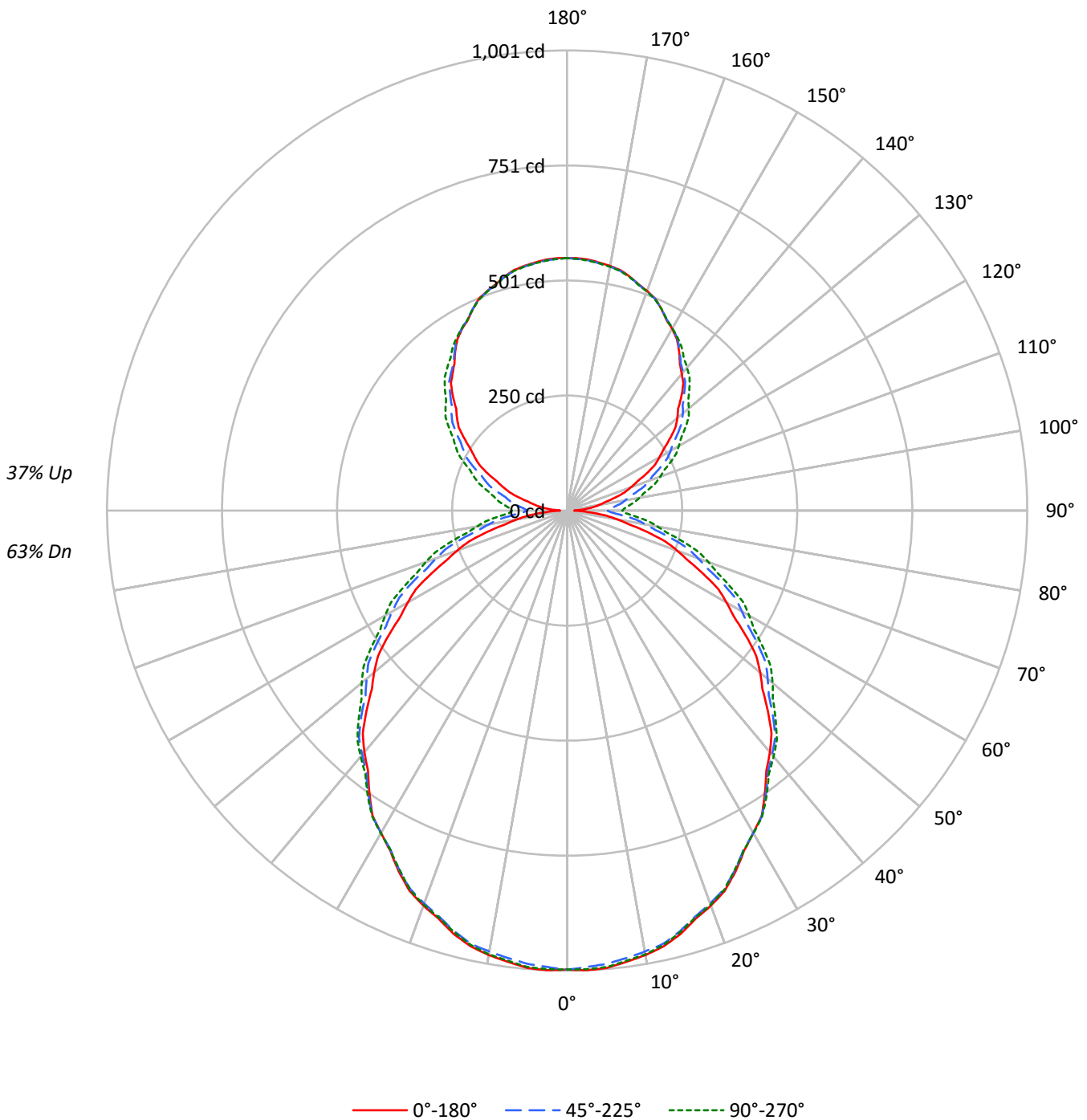
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	59	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	53	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	33	28	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	26	22	18	23	19	16	14

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	2.0
10°-20°	268.0	5.8
20°-30°	398.6	8.6
30°-40°	472.1	10.2
40°-50°	488.1	10.6
50°-60°	449.7	9.7
60°-70°	363.5	7.9
70°-80°	243.4	5.3
80°-90°	127.5	2.8
90°-100°	107.6	2.3
100°-110°	160.8	3.5
110°-120°	218.9	4.7
120°-130°	261.9	5.7
130°-140°	279.9	6.1
140°-150°	267.5	5.8
150°-160°	223.3	4.8
160°-170°	148.4	3.2
170°-180°	51.9	1.1
0°-30°	761.0	16.5
0°-40°	1233.2	26.7
0°-60°	2171.0	46.9
0°-90°	2905.4	62.8
90°-120°	487.3	10.5
90°-150°	1296.6	28.0
90°-180°	1720.0	37.2
0°-180°	4625.6	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	51	87	111	120	12
95°	40	67	104	128	137	40
105°	106	125	156	177	186	113
115°	190	200	225	241	248	188
125°	273	275	294	308	314	244
135°	351	353	360	372	376	271
145°	424	425	426	431	434	265
155°	484	484	485	486	484	223
165°	527	526	526	528	526	149
175°	548	546	546	548	546	52
180°	549	549	549	549	549	



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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°	30.6	37.7	44.9	51.9	59.1	66.4	73.9	81.4	89.0	96.5	101.6
90°	16.1	23.8	31.6	39.2	46.9	54.9	63.0	71.0	79.1	87.1	92.6
92.5°	24.4	31.4	38.4	45.3	52.3	60.0	68.3	76.7	85.1	93.5	99.0
95°	40.5	46.4	52.2	58.1	63.9	71.0	79.4	87.7	96.0	104.3	109.8
97.5°	57.7	62.9	68.1	73.1	78.3	85.1	93.6	102.1	110.5	118.9	124.1
100°	70.6	75.1	79.7	84.3	88.9	95.2	103.4	111.6	119.8	128.0	133.5
102.5°	84.5	89.1	93.7	98.3	102.9	108.9	116.3	123.8	131.1	138.6	143.8
105°	106.2	110.2	114.1	118.1	122.1	127.5	134.7	141.8	148.8	155.9	160.9
107.5°	130.4	133.7	137.2	140.6	144.0	149.1	155.8	162.5	169.2	176.0	180.5
110°	146.9	150.1	153.2	156.3	159.3	164.0	170.4	176.8	183.1	189.5	194.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	164.8	167.1	169.4	171.7	174.1	178.4	184.6	191.0	197.2	203.5	207.5
115°	190.0	191.9	193.8	195.7	197.7	201.5	207.4	213.2	219.0	224.9	228.7
117.5°	215.4	216.5	217.6	218.9	220.0	223.4	228.8	234.4	240.0	245.4	249.2
120°	231.8	232.9	234.0	235.2	236.2	239.3	244.5	249.6	254.7	259.8	263.4
122.5°	248.7	249.2	249.7	250.2	250.6	253.4	258.4	263.5	268.6	273.7	277.1
125°	272.6	273.0	273.3	273.7	274.0	276.4	280.9	285.3	289.7	294.2	297.5
127.5°	297.3	297.4	297.5	297.6	297.7	299.6	303.3	307.0	310.7	314.3	317.4
130°	312.6	312.9	313.2	313.4	313.7	315.5	318.7	321.9	325.2	328.4	331.3
132.5°	327.3	328.0	328.8	329.4	330.2	331.7	334.0	336.3	338.7	340.9	343.9
135°	351.4	351.8	352.1	352.4	352.8	353.8	355.4	357.0	358.6	360.2	363.1
137.5°	374.1	374.5	374.8	375.2	375.6	376.3	377.2	378.1	379.1	380.0	382.8
140°	388.0	388.5	389.0	389.5	389.9	390.4	390.9	391.4	391.9	392.4	395.0
142.5°	402.7	402.9	403.1	403.4	403.6	404.0	404.4	404.7	405.1	405.6	407.7
145°	424.3	424.5	424.6	424.8	425.0	425.2	425.5	425.7	426.0	426.3	427.4
147.5°	443.4	443.6	443.7	443.9	444.2	444.4	444.6	444.9	445.1	445.4	445.9
150°	456.7	456.6	456.5	456.4	456.3	456.5	456.9	457.2	457.6	458.0	458.0
152.5°	467.6	467.8	467.9	468.0	468.2	468.3	468.4	468.6	468.7	468.9	469.1
155°	484.5	484.5	484.5	484.5	484.5	484.5	484.6	484.7	484.7	484.8	485.2
157.5°	499.5	499.3	499.1	498.9	498.6	498.6	498.7	498.8	498.9	499.0	499.4
160°	508.4	508.1	507.7	507.5	507.2	507.1	507.2	507.3	507.4	507.5	507.9
162.5°	516.2	516.0	515.9	515.6	515.4	515.3	515.3	515.3	515.4	515.4	515.9
165°	526.7	526.5	526.3	526.1	525.9	525.9	526.0	526.1	526.2	526.3	526.7
167.5°	535.6	535.3	534.9	534.5	534.1	534.0	534.0	534.0	534.0	534.0	534.5
170°	540.4	540.0	539.6	539.2	538.9	538.7	538.7	538.7	538.7	538.7	539.2
172.5°	543.8	543.5	543.1	542.7	542.3	542.2	542.2	542.2	542.2	542.2	542.7
175°	547.7	547.2	546.9	546.5	546.1	545.9	545.9	545.9	545.9	545.9	546.5
177.5°	549.6	549.3	549.0	548.7	548.4	548.2	548.2	548.1	548.0	547.9	548.4
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9



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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°	106.7	111.8	116.9	120.3	121.9	123.4	125.0	126.6
90°	98.0	103.5	109.1	112.6	114.4	116.3	118.1	119.9
92.5°	104.4	109.9	115.4	118.9	120.6	122.4	124.1	125.9
95°	115.3	120.7	126.1	129.7	131.5	133.2	134.9	136.6
97.5°	129.3	134.5	139.7	143.1	144.7	146.3	147.9	149.5
100°	138.8	144.3	149.7	153.2	154.7	156.2	157.7	159.1
102.5°	149.2	154.5	159.9	163.2	164.9	166.5	168.0	169.6
105°	165.8	170.7	175.6	179.0	180.8	182.6	184.4	186.2
107.5°	185.1	189.7	194.3	197.3	198.6	199.9	201.2	202.6
110°	198.4	202.8	207.2	210.2	211.6	213.0	214.4	215.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	211.7	215.7	219.9	222.6	223.9	225.3	226.7	228.0
115°	232.5	236.3	240.2	242.7	243.8	245.1	246.3	247.5
117.5°	253.0	256.7	260.5	263.0	264.1	265.2	266.3	267.4
120°	267.1	270.9	274.6	276.8	277.8	278.7	279.7	280.6
122.5°	280.6	284.1	287.5	289.7	290.7	291.7	292.8	293.7
125°	300.8	304.1	307.4	309.5	310.5	311.5	312.5	313.5
127.5°	320.6	323.7	326.8	328.9	330.0	331.0	332.2	333.2
130°	334.2	337.2	340.2	342.1	343.0	343.9	344.8	345.7
132.5°	346.9	349.8	352.8	354.6	355.2	355.8	356.5	357.1
135°	365.9	368.7	371.6	373.3	374.1	374.8	375.5	376.2
137.5°	385.4	388.1	390.8	392.3	392.8	393.1	393.5	393.9
140°	397.6	400.2	402.7	404.3	404.6	405.0	405.4	405.9
142.5°	409.8	412.0	414.2	415.5	415.8	416.2	416.6	417.1
145°	428.5	429.6	430.6	431.5	432.2	432.7	433.3	433.9
147.5°	446.5	447.0	447.6	447.8	447.5	447.2	447.0	446.8
150°	458.0	458.0	458.0	458.0	458.0	458.0	458.1	458.1
152.5°	469.4	469.6	469.8	469.8	469.5	469.2	468.9	468.5
155°	485.6	486.0	486.4	486.4	485.9	485.4	484.9	484.5
157.5°	499.7	500.1	500.5	500.4	499.7	499.1	498.5	497.9
160°	508.3	508.7	509.1	509.0	508.5	508.0	507.6	507.1
162.5°	516.3	516.7	517.2	517.2	516.6	516.0	515.5	514.9
165°	527.1	527.4	527.8	527.7	527.2	526.6	526.0	525.5
167.5°	535.1	535.6	536.2	536.2	535.6	535.0	534.4	533.9
170°	539.8	540.4	541.0	540.9	540.3	539.6	538.9	538.3
172.5°	543.3	543.8	544.4	544.4	543.8	543.2	542.6	542.1
175°	547.1	547.7	548.3	548.2	547.5	546.9	546.2	545.5
177.5°	548.8	549.3	549.8	549.7	549.2	548.7	548.1	547.6
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9

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