

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: P333210-830

Luminaire Tested: **S125DIP-S850D365U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333210-830
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: S125DIP-S850D365U830-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4332.5 lumens
Efficiency: N/A
Efficacy: 123.8 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

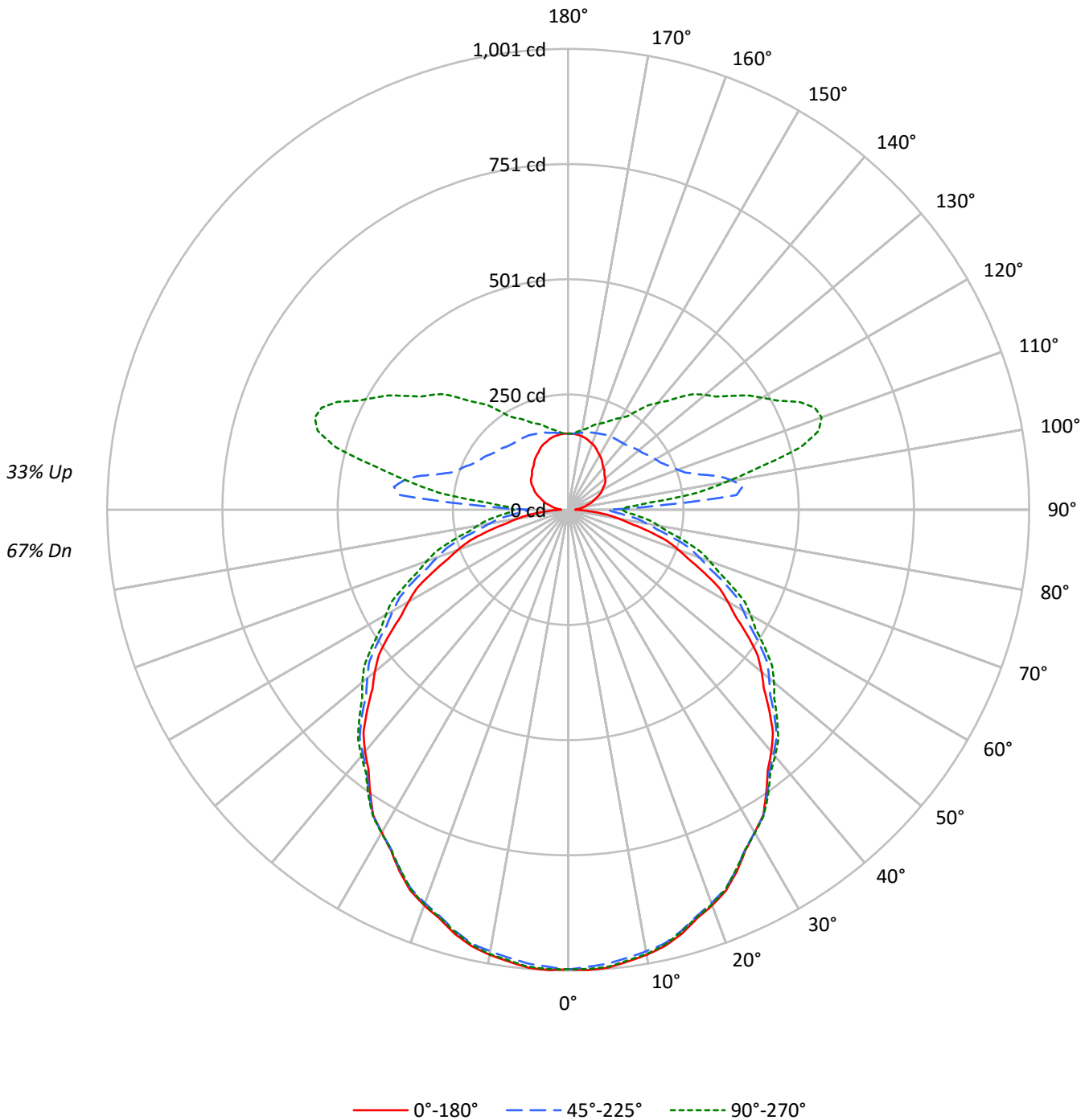
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	101	96	91	87	95	90	86	83	80	77	74	71	68	66	62	60	59	54				
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45				
3	83	73	65	58	78	69	62	56	61	55	51	54	50	46	47	44	41	37				
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	42	38	35	32				
5	70	57	49	42	65	54	46	40	48	42	37	43	38	34	38	34	30	28				
6	64	51	43	37	60	49	41	35	44	37	32	39	34	29	34	30	27	24				
7	59	46	38	32	56	44	36	31	40	33	28	35	30	26	31	27	24	21				
8	55	42	34	28	52	40	33	27	36	30	25	32	27	23	29	24	21	19				
9	51	39	31	25	48	37	29	24	33	27	23	30	25	21	27	22	19	17				
10	48	35	28	23	45	34	27	22	31	25	20	28	22	19	25	20	17	15				

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	2.2
10°-20°	268.0	6.2
20°-30°	398.6	9.2
30°-40°	472.1	10.9
40°-50°	488.1	11.3
50°-60°	449.7	10.4
60°-70°	363.5	8.4
70°-80°	243.4	5.6
80°-90°	127.2	2.9
90°-100°	190.6	4.4
100°-110°	309.7	7.1
110°-120°	276.6	6.4
120°-130°	215.7	5.0
130°-140°	165.8	3.8
140°-150°	120.3	2.8
150°-160°	83.5	1.9
160°-170°	49.2	1.1
170°-180°	16.0	0.4
0°-30°	761.0	17.6
0°-40°	1233.2	28.5
0°-60°	2171.0	50.1
0°-90°	2905.1	67.1
90°-120°	776.9	17.9
90°-150°	1278.7	29.5
90°-180°	1427.0	32.9
0°-180°	4332.5	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	50	86	109	117	11
95°	24	71	367	226	178	22
105°	46	78	295	548	522	49
115°	73	95	232	473	553	72
125°	97	113	208	370	430	86
135°	111	133	192	299	347	86
145°	128	146	185	236	263	80
155°	145	156	181	204	213	67
165°	158	163	173	184	186	45
175°	165	165	166	168	168	16
180°	165	165	165	165	165	



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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	37.6	44.8	51.8	58.9	66.3	73.7	81.2	88.7	96.2	101.3
90°	16.0	23.3	30.9	38.5	46.2	54.0	61.7	69.8	77.6	85.6	91.0
92.5°	18.2	25.4	34.7	45.2	57.4	74.2	99.9	138.0	178.7	184.5	168.9
95°	23.8	29.7	38.0	47.3	60.3	81.8	124.9	205.6	304.9	366.6	365.0
97.5°	29.8	35.3	42.2	51.0	62.7	79.6	110.3	171.2	274.5	381.7	436.6
100°	34.1	39.3	45.2	53.4	64.4	80.1	106.4	156.7	247.5	363.4	451.3
102.5°	38.9	43.5	48.8	56.9	67.0	82.2	106.1	149.3	227.1	335.0	436.8
105°	46.5	50.0	55.0	61.9	70.7	85.0	106.2	142.4	204.5	295.3	395.3
107.5°	53.8	57.4	62.0	67.7	76.2	89.2	109.6	141.3	192.9	267.3	354.0
110°	59.2	62.4	66.4	72.0	79.6	92.6	112.4	141.4	187.8	253.2	330.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	65.3	68.1	71.2	76.3	83.3	95.8	114.8	142.3	184.8	243.6	311.2
115°	73.1	75.3	77.9	82.4	88.9	100.9	118.9	143.8	181.4	232.1	289.5
117.5°	80.2	82.2	84.3	88.2	94.9	106.1	123.2	146.1	179.2	223.9	274.7
120°	85.5	87.2	89.2	92.8	99.2	110.3	127.0	147.9	178.6	219.2	265.9
122.5°	90.3	91.3	92.7	96.0	102.5	113.4	129.9	150.0	177.5	214.7	257.8
125°	97.2	97.6	99.1	101.9	108.0	118.7	134.0	152.7	176.3	208.4	246.5
127.5°	101.7	102.5	104.4	108.0	114.5	124.9	139.0	155.8	176.2	203.1	235.7
130°	105.2	105.9	108.4	112.5	119.3	129.4	142.8	158.4	176.5	200.2	229.2
132.5°	107.1	108.3	111.5	116.3	123.5	133.3	146.0	160.2	176.4	197.1	222.9
135°	111.2	112.4	116.1	121.2	128.0	137.6	149.5	162.0	175.9	192.4	214.1
137.5°	116.5	117.3	120.8	126.0	132.7	142.2	152.4	163.6	176.2	189.3	207.0
140°	118.9	119.9	123.9	129.2	135.5	144.7	154.6	164.8	175.6	187.2	202.9
142.5°	122.6	123.2	126.8	131.9	137.8	146.2	155.3	164.9	175.0	185.9	199.6
145°	128.2	128.7	131.8	136.2	142.0	149.6	158.3	166.5	175.5	185.2	196.3
147.5°	133.1	133.5	136.4	140.7	145.9	152.6	160.2	167.8	175.9	184.4	193.5
150°	136.6	137.2	139.6	143.9	148.5	154.2	161.6	168.5	175.9	183.5	191.5
152.5°	140.3	140.7	142.8	146.6	151.0	156.1	162.9	169.1	175.6	182.5	189.6
155°	145.2	145.2	147.2	150.5	153.9	158.5	164.2	169.6	174.8	180.6	186.5
157.5°	149.7	149.6	151.2	154.0	156.9	160.5	165.3	169.8	174.0	178.5	183.6
160°	152.6	152.2	153.5	155.9	158.5	161.6	165.9	169.8	173.2	177.2	181.3
162.5°	155.0	154.7	156.0	158.1	160.1	162.6	166.5	169.7	172.4	175.6	179.1
165°	158.5	157.9	158.9	160.5	161.9	163.9	166.5	169.2	171.3	173.2	175.9
167.5°	161.0	160.6	161.3	162.1	163.1	164.4	166.5	168.4	169.4	170.9	172.8
170°	162.6	162.2	162.6	163.2	163.9	164.9	166.5	167.9	168.5	169.6	170.9
172.5°	163.6	163.1	163.3	164.0	164.4	164.9	166.3	167.4	167.5	168.0	169.0
175°	164.9	164.2	164.6	164.9	164.9	164.9	165.9	166.5	166.3	166.3	166.5
177.5°	165.5	164.9	164.9	165.2	164.9	164.9	165.5	165.8	165.2	165.2	165.5
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2



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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°	106.3	111.4	116.5	119.9	121.4	122.9	124.5	126.0
90°	96.2	101.6	107.0	110.8	112.4	114.0	115.7	117.3
92.5°	145.8	134.5	128.7	127.0	124.2	124.9	126.0	127.0
95°	320.6	274.7	238.5	213.7	191.5	183.0	181.9	178.1
97.5°	432.4	401.4	366.1	330.3	311.1	294.0	285.8	283.0
100°	481.5	469.8	440.0	408.3	386.6	363.9	352.9	348.9
102.5°	495.9	510.3	498.2	477.7	454.4	438.7	426.6	423.9
105°	479.6	529.6	548.6	547.9	538.8	529.2	524.1	521.6
107.5°	437.2	502.5	544.4	564.6	571.4	572.6	571.7	570.4
110°	406.0	473.4	524.5	555.7	572.2	580.0	583.9	585.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	380.7	444.8	496.2	532.3	555.8	568.2	575.5	579.4
115°	348.5	404.0	453.6	492.5	519.8	537.1	547.7	553.4
117.5°	325.6	373.8	416.8	452.7	480.2	498.2	508.9	513.0
120°	312.9	356.6	396.9	428.7	454.7	471.9	482.3	486.3
122.5°	302.2	342.8	378.9	408.8	432.1	448.1	458.4	462.0
125°	287.0	324.4	356.8	383.1	402.9	417.6	426.0	430.5
127.5°	271.3	306.2	336.5	361.2	379.4	392.7	400.9	403.6
130°	261.9	294.3	323.3	347.0	364.8	376.8	384.6	387.7
132.5°	252.1	282.7	309.2	332.1	349.7	361.6	368.6	371.7
135°	238.4	264.1	288.3	309.2	325.0	337.1	344.1	347.2
137.5°	227.0	248.1	268.4	286.3	300.2	311.1	317.5	320.6
140°	220.3	238.3	256.0	271.6	284.8	294.4	300.2	302.7
142.5°	214.5	229.9	245.1	258.6	269.9	278.1	283.8	286.1
145°	207.7	219.1	230.5	240.5	249.4	255.9	260.4	262.6
147.5°	202.0	210.7	219.0	226.1	232.9	237.8	240.3	241.3
150°	198.9	206.2	212.5	218.7	223.9	228.1	229.6	230.2
152.5°	196.2	202.7	208.5	213.2	217.4	220.6	222.1	222.4
155°	192.2	197.6	202.2	205.9	209.2	211.5	212.5	212.8
157.5°	188.2	192.6	196.2	199.1	201.7	203.6	204.5	204.4
160°	185.6	188.9	192.2	194.5	196.9	198.5	199.2	198.9
162.5°	182.6	185.7	188.5	190.6	192.4	193.7	193.9	193.8
165°	178.5	180.9	182.9	184.5	185.9	186.5	186.5	186.5
167.5°	174.7	176.3	177.8	179.0	179.6	180.2	179.9	179.8
170°	172.6	173.5	174.6	175.2	175.9	176.3	176.3	175.9
172.5°	170.1	171.2	171.9	172.3	172.4	173.1	172.5	172.1
175°	167.6	167.6	168.2	168.2	168.2	168.5	167.9	167.6
177.5°	165.8	166.0	166.0	166.0	165.8	166.0	165.2	165.2
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2

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