

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: P331319-927

Luminaire Tested: **SA2XXDIP-C485D925U927-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331319-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D925U927-4F0-1E-UDD-F1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4188.6 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

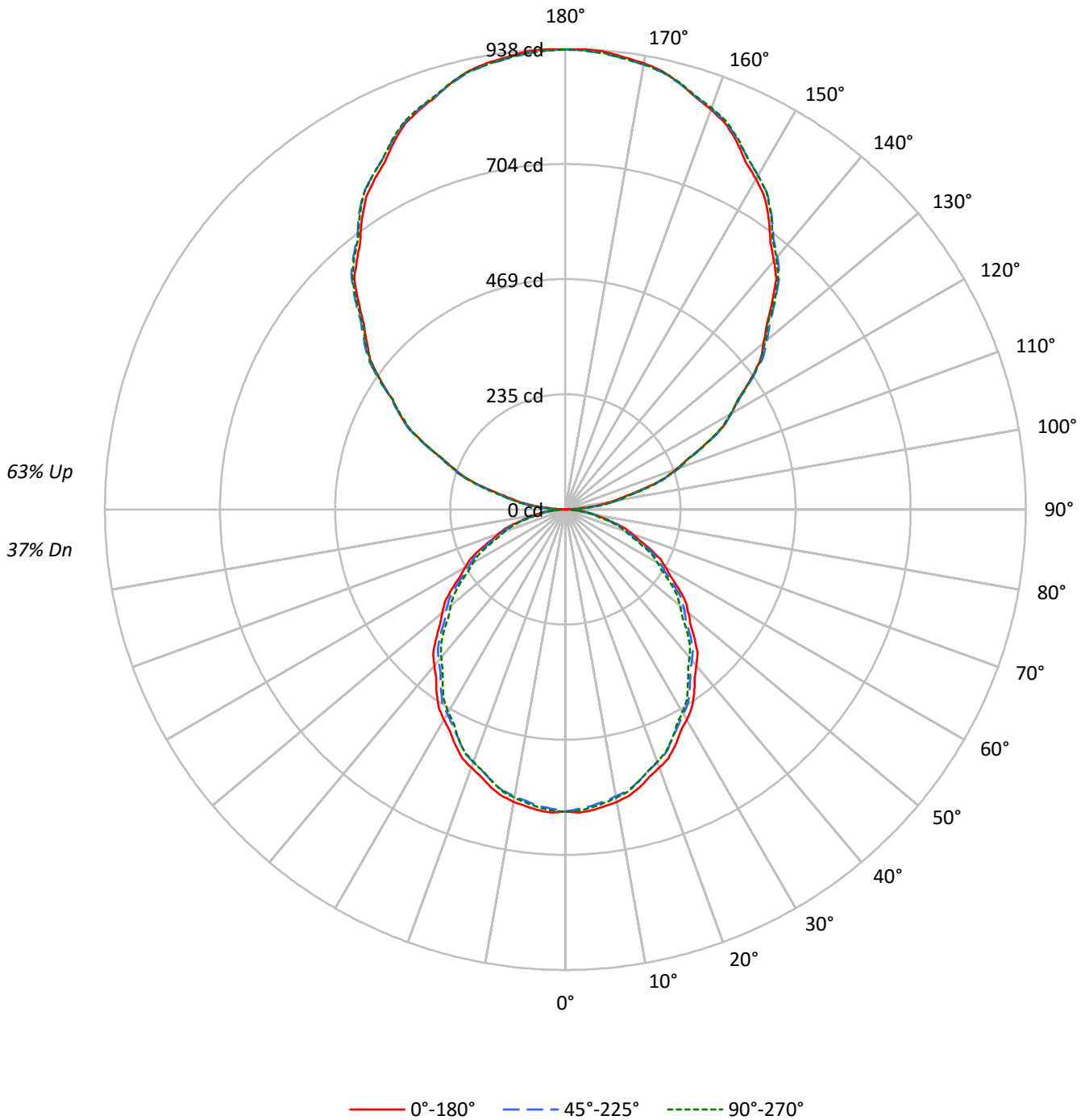
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				
1	95	91	87	83	86	82	79	76	67	65	63	53	51	50	39	38	38	31				
2	86	79	73	68	78	72	67	63	59	55	52	46	44	41	35	33	32	26				
3	79	70	62	57	71	63	57	52	52	47	43	41	38	35	31	29	27	22				
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19				
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17				
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15				
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13				
8	52	40	32	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12				
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	10				
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9935	9935	9935
5°	9972	9828	9887
10°	9914	9729	9778
15°	9790	9603	9593
20°	9617	9414	9402
25°	9444	9180	9180
30°	9221	8968	8889
35°	9014	8712	8584
40°	8753	8456	8292
45°	8499	8200	7996
50°	8219	7935	7654
55°	7927	7626	7344
60°	7601	7259	6991
65°	7255	6896	6575
70°	6812	6453	6146
75°	6201	5939	5795
80°	5504	5337	5058
85°	4483	4279	3835



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	1.4
10°-20°	162.8	3.9
20°-30°	239.3	5.7
30°-40°	278.0	6.6
40°-50°	277.7	6.6
50°-60°	242.1	5.8
60°-70°	179.0	4.3
70°-80°	101.4	2.4
80°-90°	31.0	0.7
90°-100°	59.4	1.4
100°-110°	184.4	4.4
110°-120°	315.1	7.5
120°-130°	414.4	9.9
130°-140°	465.2	11.1
140°-150°	456.1	10.9
150°-160°	382.5	9.1
160°-170°	253.7	6.1
170°-180°	88.7	2.1
0°-30°	459.9	11.0
0°-40°	737.9	17.6
0°-60°	1257.7	30.0
0°-90°	1569.1	37.5
90°-120°	558.9	13.3
90°-150°	1894.5	45.2
90°-180°	2620.0	62.6
0°-180°	4188.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	615	613	606	611	610	58
15°	586	582	574	577	574	165
25°	530	525	515	516	515	244
35°	457	451	442	438	436	285
45°	372	368	359	353	350	287
55°	282	278	271	264	261	252
65°	190	186	180	175	172	188
75°	99	98	95	92	93	106
85°	24	24	23	21	21	28
90°	1	11	28	26	27	3
95°	41	49	51	50	49	47
105°	170	172	174	175	176	180
115°	316	321	319	318	316	313
125°	460	467	465	463	462	411
135°	595	604	606	605	602	460
145°	722	728	733	733	730	451
155°	826	828	831	834	832	380
165°	899	898	898	903	900	253
175°	935	933	931	936	932	89
180°	937	937	937	937	937	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3
2.5°	618.1	617.6	617.1	616.6	616.0	615.2	614.0	612.9	611.7	610.5	611.6
5°	615.3	614.7	614.3	613.7	613.2	612.2	610.8	609.3	607.8	606.4	607.4
7.5°	609.8	609.0	608.2	607.4	606.6	605.5	604.0	602.5	601.0	599.5	600.6
10°	604.7	603.7	602.8	601.9	600.9	599.7	598.1	596.6	595.0	593.4	594.5
12.5°	597.5	596.8	595.9	595.1	594.3	593.1	591.5	589.9	588.4	586.8	587.5
15°	585.7	584.9	584.2	583.4	582.6	581.3	579.6	577.9	576.2	574.5	575.0
17.5°	570.5	569.8	569.0	568.2	567.4	566.2	564.4	562.7	560.9	559.2	559.8
20°	559.7	558.9	558.1	557.3	556.5	555.2	553.3	551.5	549.7	547.9	548.3
22.5°	548.8	547.7	546.6	545.5	544.4	543.0	541.2	539.5	537.7	536.0	536.1
25°	530.1	529.0	528.0	527.0	525.9	524.3	522.0	519.8	517.5	515.3	515.6
27.5°	508.8	507.9	506.9	506.0	505.0	503.7	501.9	500.1	498.4	496.6	496.2
30°	494.6	493.5	492.5	491.5	490.4	488.9	486.9	485.0	483.0	481.0	480.6
32.5°	479.4	478.6	477.8	476.9	476.1	474.6	472.5	470.5	468.4	466.4	465.6
35°	457.3	456.0	454.7	453.4	452.1	450.4	448.3	446.2	444.0	442.0	441.2
37.5°	432.4	431.2	430.1	428.9	427.7	426.1	424.0	421.9	419.8	417.7	416.7
40°	415.3	414.2	413.2	412.2	411.1	409.6	407.4	405.4	403.2	401.2	400.0
42.5°	398.8	397.7	396.6	395.6	394.6	393.0	390.9	388.8	386.7	384.5	383.3
45°	372.2	371.2	370.3	369.4	368.4	367.0	365.0	363.1	361.1	359.1	357.7
47.5°	345.6	344.8	343.9	343.0	342.1	340.7	338.7	336.6	334.5	332.5	331.0
50°	327.2	326.5	325.8	325.2	324.6	323.3	321.5	319.6	317.7	315.9	314.1
52.5°	309.2	308.3	307.4	306.6	305.7	304.4	302.7	301.0	299.2	297.5	296.0
55°	281.6	280.8	280.0	279.2	278.5	277.3	275.7	274.1	272.5	270.9	269.4
57.5°	253.9	253.3	252.6	252.1	251.4	250.3	248.5	246.8	245.0	243.3	241.7
60°	235.4	235.0	234.4	233.9	233.4	232.2	230.4	228.5	226.6	224.8	223.4
62.5°	217.5	216.7	215.8	214.9	214.1	213.0	211.6	210.2	208.7	207.3	206.0
65°	189.9	189.1	188.3	187.5	186.8	185.7	184.4	183.1	181.7	180.5	179.3
67.5°	161.8	161.2	160.6	159.9	159.3	158.4	157.2	156.1	154.9	153.7	152.8
70°	144.3	143.9	143.3	142.8	142.3	141.4	140.2	139.0	137.8	136.7	135.8
72.5°	126.4	125.9	125.3	124.8	124.3	123.7	122.9	122.1	121.4	120.6	119.6
75°	99.4	99.1	98.9	98.6	98.3	97.9	97.2	96.6	95.9	95.2	94.4
77.5°	75.3	74.8	74.4	73.9	73.4	73.1	72.9	72.6	72.3	72.1	71.7
80°	59.2	59.0	58.9	58.8	58.6	58.5	58.1	57.9	57.7	57.4	57.0
82.5°	44.0	44.0	44.0	44.0	43.9	43.8	43.6	43.5	43.3	43.2	42.7
85°	24.2	24.2	24.0	23.8	23.8	23.6	23.4	23.4	23.2	23.1	22.7
87.5°	8.7	8.9	9.1	9.3	9.5	9.9	10.5	11.0	11.6	12.2	11.8
90°	0.8	2.9	5.0	7.1	9.2	12.2	16.1	20.0	23.8	27.6	27.3
92.5°	14.1	15.6	17.2	18.7	20.3	21.5	22.4	23.3	24.2	25.1	25.2
95°	41.1	42.9	44.6	46.3	48.2	49.2	49.5	49.9	50.2	50.6	50.6
97.5°	75.1	76.7	78.2	79.8	81.3	82.4	83.1	83.7	84.4	85.1	85.1
100°	100.4	101.8	103.2	104.6	106.0	107.0	107.5	108.1	108.6	109.1	109.1
102.5°	127.0	128.1	129.2	130.3	131.4	132.4	133.0	133.7	134.4	135.1	135.1
105°	170.0	170.5	171.0	171.6	172.1	172.5	172.9	173.3	173.6	173.9	174.3
107.5°	213.3	214.0	214.8	215.6	216.4	216.7	216.7	216.7	216.7	216.7	216.9
110°	241.1	242.2	243.2	244.3	245.3	245.9	245.9	245.9	245.9	245.9	245.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	271.5	272.5	273.6	274.6	275.7	276.2	276.0	275.8	275.8	275.6	275.2
115°	316.2	317.3	318.3	319.4	320.4	320.8	320.4	320.1	319.7	319.4	319.2
117.5°	360.8	362.2	363.6	365.0	366.5	366.6	365.7	364.6	363.7	362.7	362.3
120°	390.5	392.0	393.3	394.7	396.2	396.2	394.7	393.3	392.0	390.5	390.5
122.5°	417.7	419.4	421.1	422.8	424.5	424.8	423.8	422.9	421.9	420.9	420.5
125°	460.1	461.7	463.3	464.9	466.4	467.0	466.4	465.9	465.4	464.9	464.3
127.5°	501.4	503.4	505.4	507.4	509.4	510.1	509.5	508.8	508.2	507.6	506.9
130°	527.3	529.6	531.9	534.2	536.5	537.4	537.0	536.7	536.4	536.0	535.7
132.5°	556.4	558.3	560.2	562.0	563.9	564.8	564.9	565.0	565.0	565.1	564.4
135°	595.3	597.2	599.1	601.1	603.0	604.2	604.5	604.8	605.2	605.5	605.4
137.5°	636.3	637.8	639.4	641.0	642.5	643.6	644.0	644.5	645.0	645.4	645.3
140°	660.9	662.5	664.1	665.7	667.3	668.4	669.3	670.2	671.1	672.0	672.0
142.5°	686.2	687.8	689.4	690.9	692.5	693.6	694.2	694.8	695.4	696.0	696.2
145°	722.5	723.8	725.0	726.3	727.5	728.6	729.7	730.7	731.8	732.8	733.0
147.5°	754.9	756.5	758.0	759.4	760.9	762.0	762.7	763.3	764.1	764.8	765.2
150°	777.1	778.2	779.2	780.3	781.3	782.2	782.9	783.6	784.3	785.1	785.5
152.5°	796.7	797.8	798.8	799.9	801.0	801.9	802.7	803.6	804.4	805.3	806.0
155°	826.2	826.6	827.2	827.8	828.2	828.8	829.3	829.8	830.4	830.8	831.8
157.5°	851.3	851.6	852.0	852.3	852.7	853.0	853.3	853.7	854.0	854.3	855.5
160°	866.5	866.8	867.1	867.5	867.8	868.2	868.3	868.5	868.6	868.8	869.9
162.5°	880.4	880.4	880.5	880.6	880.7	880.7	881.0	881.1	881.3	881.5	882.6
165°	898.9	898.7	898.5	898.3	898.2	898.1	898.1	898.1	898.1	898.1	899.3
167.5°	914.3	913.9	913.3	912.8	912.3	912.0	912.0	911.9	911.9	911.8	913.1
170°	922.6	922.0	921.5	921.0	920.4	920.1	920.0	919.8	919.6	919.4	920.7
172.5°	928.3	927.7	927.2	926.7	926.1	925.8	925.7	925.4	925.3	925.1	926.4
175°	935.3	934.7	934.1	933.7	933.1	932.7	932.3	932.0	931.6	931.3	932.5
177.5°	938.1	937.6	937.2	936.8	936.4	936.0	935.7	935.5	935.2	934.9	935.7
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3
2.5°	612.7	613.7	614.7	615.2	615.0	614.7	614.6	614.3
5°	608.6	609.6	610.6	611.0	610.8	610.5	610.2	610.0
7.5°	601.7	602.7	603.8	604.1	603.9	603.6	603.2	603.0
10°	595.5	596.6	597.6	597.9	597.5	597.1	596.8	596.4
12.5°	588.3	589.0	589.7	589.9	589.6	589.4	589.1	588.7
15°	575.5	576.1	576.6	576.5	575.8	575.2	574.6	573.9
17.5°	560.4	561.0	561.7	561.6	560.9	560.4	559.8	559.1
20°	548.7	549.1	549.5	549.4	548.8	548.3	547.8	547.2
22.5°	536.1	536.2	536.3	536.2	535.9	535.6	535.3	535.0
25°	515.9	516.1	516.3	516.3	516.1	515.9	515.6	515.3
27.5°	495.8	495.4	495.0	494.6	493.9	493.3	492.7	492.0
30°	480.2	479.8	479.4	479.0	478.4	477.9	477.4	476.8
32.5°	464.9	464.2	463.5	462.9	462.3	461.8	461.3	460.7
35°	440.4	439.6	438.8	438.1	437.4	436.7	436.1	435.5
37.5°	415.7	414.8	413.8	413.0	412.3	411.7	411.1	410.5
40°	398.8	397.6	396.4	395.5	395.0	394.5	394.0	393.4
42.5°	382.0	380.7	379.4	378.4	377.6	376.9	376.2	375.4
45°	356.2	354.8	353.3	352.4	351.8	351.3	350.8	350.2
47.5°	329.5	327.9	326.4	325.3	324.5	323.8	323.0	322.2
50°	312.3	310.4	308.6	307.3	306.7	306.0	305.3	304.7
52.5°	294.5	292.9	291.4	290.2	289.3	288.4	287.6	286.7
55°	267.8	266.3	264.7	263.6	262.8	262.2	261.6	260.9
57.5°	240.2	238.6	237.1	236.1	235.5	235.0	234.6	234.0
60°	221.9	220.5	219.0	218.1	217.7	217.3	216.9	216.5
62.5°	204.6	203.3	201.9	201.1	200.5	200.0	199.6	199.0
65°	178.1	176.9	175.7	174.8	174.1	173.5	172.9	172.1
67.5°	151.9	150.9	150.0	149.3	148.8	148.2	147.7	147.2
70°	134.8	133.9	133.0	132.3	131.7	131.2	130.7	130.2
72.5°	118.7	117.8	116.9	116.2	115.8	115.3	114.9	114.5
75°	93.6	92.9	92.1	91.8	92.1	92.4	92.6	92.9
77.5°	71.3	70.9	70.5	70.1	69.7	69.4	69.0	68.6
80°	56.6	56.2	55.8	55.5	55.2	55.0	54.7	54.4
82.5°	42.2	41.7	41.2	40.9	40.9	40.8	40.7	40.7
85°	22.3	21.9	21.5	21.2	21.1	21.0	20.8	20.7
87.5°	11.4	11.0	10.6	10.4	10.3	10.2	10.1	10.1
90°	26.9	26.6	26.3	26.1	26.4	26.5	26.7	26.9
92.5°	25.3	25.3	25.4	25.5	25.5	25.5	25.6	25.6
95°	50.6	50.6	50.6	50.4	50.1	49.7	49.4	49.0
97.5°	85.1	85.1	85.1	85.1	85.0	85.0	84.9	84.9
100°	109.1	109.1	109.1	109.0	108.8	108.7	108.4	108.3
102.5°	135.3	135.5	135.6	135.5	135.4	135.2	135.1	134.9
105°	174.6	175.0	175.3	175.5	175.5	175.5	175.5	175.5
107.5°	217.1	217.2	217.3	217.0	216.2	215.4	214.6	213.7
110°	245.9	245.9	245.9	245.6	245.1	244.5	244.0	243.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	274.7	274.3	273.9	273.5	273.1	272.7	272.4	272.0
115°	319.0	318.9	318.7	318.3	317.8	317.3	316.7	316.2
117.5°	361.9	361.5	361.0	360.5	360.0	359.5	358.9	358.5
120°	390.5	390.5	390.5	390.3	389.8	389.2	388.7	388.2
122.5°	420.0	419.6	419.2	418.8	418.4	418.0	417.6	417.2
125°	463.8	463.3	462.7	462.4	462.2	462.0	461.8	461.7
127.5°	506.3	505.6	505.0	504.4	503.8	503.3	502.7	502.2
130°	535.3	535.0	534.6	534.1	533.4	532.7	532.0	531.2
132.5°	563.6	562.8	562.0	561.3	560.8	560.2	559.7	559.1
135°	605.2	605.1	604.8	604.5	604.0	603.5	602.9	602.4
137.5°	645.2	645.0	644.8	644.4	643.7	643.0	642.3	641.6
140°	672.0	672.0	672.0	671.6	670.9	670.2	669.6	668.8
142.5°	696.3	696.4	696.6	696.3	695.6	694.9	694.2	693.5
145°	733.2	733.4	733.6	733.3	732.6	731.9	731.2	730.5
147.5°	765.6	766.0	766.4	766.2	765.6	764.9	764.2	763.5
150°	786.1	786.6	787.1	787.1	786.6	786.1	785.5	785.1
152.5°	806.6	807.2	807.9	807.9	807.2	806.6	806.0	805.3
155°	832.7	833.5	834.4	834.6	834.0	833.5	833.0	832.4
157.5°	856.7	857.9	859.0	859.2	858.4	857.5	856.7	855.9
160°	870.9	872.0	873.1	873.2	872.5	871.8	871.1	870.4
162.5°	883.8	885.0	886.2	886.5	885.6	884.7	883.9	883.0
165°	900.6	901.7	903.0	903.2	902.3	901.4	900.6	899.7
167.5°	914.3	915.5	916.7	916.9	916.0	915.0	914.2	913.2
170°	921.9	923.1	924.3	924.4	923.4	922.3	921.2	920.2
172.5°	927.6	928.8	930.0	930.1	929.1	928.0	926.9	925.9
175°	933.7	934.9	936.2	936.3	935.3	934.1	933.1	932.1
177.5°	936.6	937.5	938.3	938.3	937.5	936.6	935.7	934.9
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8

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