

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: P331434-930

Luminaire Tested: **SA2XXDIP-C1005D530U930-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331434-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D530U930-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

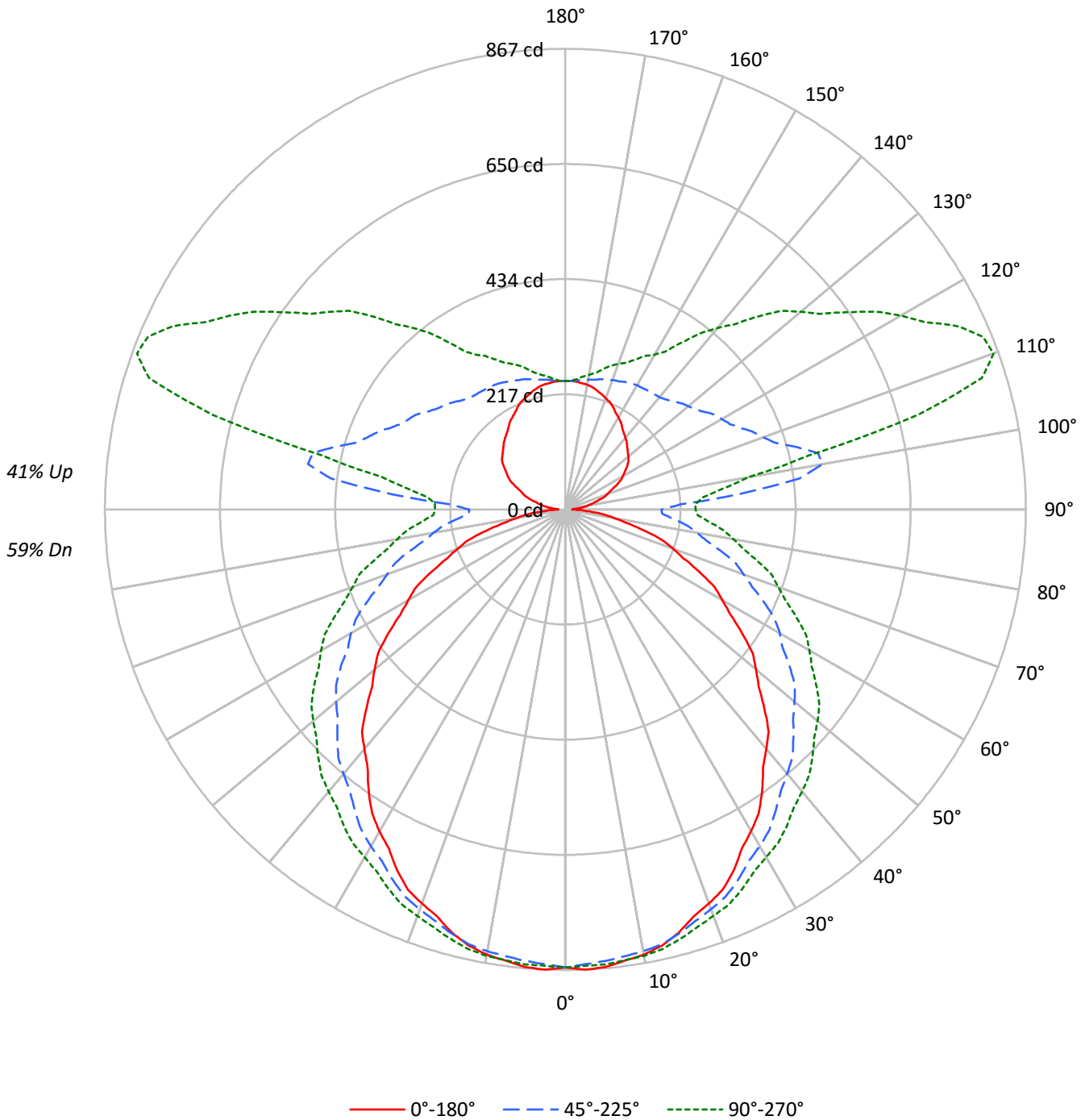
Lumens per Lamp: N/A
Luminaire Lumens: 4973.7 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 55.1
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	98	93	88	84	91	87	82	79	75	72	69	64	62	60	54	52	51	46
2	89	80	73	67	82	75	69	63	65	60	56	55	52	48	46	44	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	41	37	34	31
4	73	61	53	46	68	57	50	44	50	44	39	43	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	18	22	18	16	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13919	13919	13919
5°	13988	13400	13350
10°	13899	13004	12858
15°	13709	12584	12339
20°	13467	12136	11842
25°	13227	11701	11390
30°	12890	11257	10936
35°	12550	10828	10617
40°	12191	10461	10297
45°	11850	10133	10022
50°	11485	9837	9754
55°	11101	9519	9479
60°	10631	9187	9189
65°	10145	8801	8846
70°	9596	8384	8474
75°	8897	7976	8132
80°	7792	7559	7784
85°	6733	7197	7515



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	1.6
10°-20°	234.3	4.7
20°-30°	355.0	7.1
30°-40°	432.4	8.7
40°-50°	465.2	9.4
50°-60°	451.7	9.1
60°-70°	394.4	7.9
70°-80°	303.7	6.1
80°-90°	206.0	4.1
90°-100°	237.1	4.8
100°-110°	430.6	8.7
110°-120°	416.2	8.4
120°-130°	324.7	6.5
130°-140°	246.2	5.0
140°-150°	176.9	3.6
150°-160°	122.4	2.5
160°-170°	72.0	1.4
170°-180°	23.4	0.5
0°-30°	670.9	13.5
0°-40°	1103.3	22.2
0°-60°	2020.2	40.6
0°-90°	2924.2	58.8
90°-120°	1083.9	21.8
90°-150°	1831.7	36.8
90°-180°	2049.0	41.2
0°-180°	4973.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	862	862	862	862	862	
5°	865	861	853	860	860	82
15°	825	827	827	838	837	232
25°	750	759	770	784	788	345
35°	646	667	691	717	727	404
45°	530	564	607	644	658	409
55°	406	452	516	559	577	363
65°	277	339	412	462	480	275
75°	154	224	304	355	374	163
85°	45	123	202	253	272	48
90°	13	92	181	228	245	9
95°	26	110	326	258	259	25
105°	63	130	452	765	689	67
115°	105	147	363	706	816	104
125°	142	170	320	557	647	126
135°	165	197	288	444	514	128
145°	187	215	272	346	384	118
155°	212	229	265	299	311	98
165°	232	238	253	269	273	65
175°	241	242	244	247	246	23
180°	242	242	242	242	242	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	867.2	866.5	865.8	865.1	864.5	863.3	861.8	860.2	858.7	857.1	858.3
5°	864.6	863.8	863.0	862.1	861.3	860.1	858.4	856.7	855.1	853.4	855.1
7.5°	856.9	856.3	855.7	855.2	854.7	853.8	852.5	851.2	849.9	848.6	850.6
10°	850.9	850.4	849.8	849.2	848.6	848.0	847.2	846.3	845.5	844.7	846.9
12.5°	840.9	841.0	841.1	841.2	841.3	841.1	840.5	839.8	839.3	838.6	840.9
15°	824.7	825.2	825.7	826.3	826.9	827.1	827.1	827.1	827.1	827.1	829.6
17.5°	803.6	804.9	806.0	807.1	808.3	809.3	810.2	811.1	812.0	812.9	815.5
20°	789.7	791.1	792.5	793.9	795.2	796.5	797.6	798.7	799.8	801.0	804.0
22.5°	774.7	776.2	777.9	779.5	781.1	782.7	784.2	785.8	787.3	788.9	792.0
25°	749.7	751.6	753.6	755.5	757.5	759.7	762.1	764.7	767.2	769.6	773.0
27.5°	719.7	722.8	726.0	729.2	732.4	735.4	738.3	741.3	744.2	747.2	751.4
30°	699.7	703.3	706.9	710.5	714.1	717.8	721.4	725.0	728.6	732.2	736.6
32.5°	677.7	681.8	685.8	689.9	693.9	698.1	702.4	706.6	710.9	715.2	720.3
35°	646.0	650.7	655.4	660.1	664.9	669.8	675.1	680.4	685.7	691.0	697.1
37.5°	611.5	616.9	622.4	627.8	633.2	639.4	646.2	653.1	659.9	666.8	673.5
40°	588.5	594.6	600.7	606.8	612.9	619.7	627.2	634.7	642.2	649.7	657.0
42.5°	566.6	572.6	578.7	584.8	590.9	598.3	606.9	615.6	624.1	632.8	640.6
45°	529.8	537.3	544.8	552.3	559.8	568.3	578.1	587.8	597.5	607.2	615.9
47.5°	493.6	501.7	509.9	518.0	526.2	536.0	547.4	558.7	570.1	581.5	590.5
50°	468.6	477.2	485.8	494.4	503.0	513.6	526.0	538.5	551.0	563.5	573.0
52.5°	444.6	453.6	462.7	471.7	480.8	491.9	505.0	518.2	531.3	544.5	554.2
55°	406.1	416.0	426.1	436.1	446.1	458.3	472.7	487.1	501.6	516.0	526.0
57.5°	368.1	379.4	390.6	401.9	413.2	426.2	440.9	455.6	470.3	485.0	495.8
60°	341.1	353.0	365.0	376.9	388.9	402.8	418.6	434.4	450.2	466.0	476.6
62.5°	317.2	329.5	341.9	354.2	366.6	380.7	396.6	412.4	428.3	444.1	455.3
65°	277.4	291.0	304.6	318.2	331.8	346.8	363.2	379.5	395.9	412.3	423.7
67.5°	240.9	255.1	269.3	283.6	297.7	313.2	330.0	346.8	363.5	380.3	391.8
70°	214.9	229.3	243.8	258.2	272.6	288.5	305.7	322.9	340.1	357.3	369.2
72.5°	190.9	205.8	220.7	235.5	250.5	266.6	284.1	301.5	318.9	336.4	348.1
75°	153.7	169.3	184.7	200.3	215.9	232.5	250.3	268.1	285.8	303.6	315.5
77.5°	117.7	134.0	150.3	166.5	182.8	199.9	218.0	236.0	254.0	272.1	284.1
80°	93.7	110.6	127.6	144.6	161.4	179.0	197.0	215.1	233.1	251.1	262.8
82.5°	73.7	90.4	107.1	123.8	140.6	158.1	176.3	194.6	212.9	231.1	242.8
85°	45.0	62.2	79.4	96.6	113.8	131.3	149.1	166.9	184.7	202.4	214.1
87.5°	24.6	41.4	58.3	75.1	91.8	109.3	127.5	145.9	164.2	182.1	193.3
90°	13.0	30.5	48.4	65.5	82.5	100.9	120.9	141.9	162.5	180.8	191.4
92.5°	17.2	34.7	53.0	70.0	88.2	108.6	136.2	168.1	198.4	216.4	217.8
95°	26.3	41.2	58.9	76.1	96.6	122.6	160.7	217.8	288.4	326.0	313.7
97.5°	35.2	49.3	65.9	83.8	104.0	130.4	173.3	245.6	351.3	444.1	469.6
100°	44.5	56.3	70.7	88.4	107.9	133.9	174.1	246.4	362.3	492.3	569.5
102.5°	52.1	62.5	76.1	92.9	111.9	137.2	175.1	240.6	348.7	487.1	602.4
105°	62.9	72.9	84.2	99.2	117.5	141.8	178.1	233.9	325.1	452.0	585.4
107.5°	76.1	84.1	93.7	106.5	123.1	146.3	181.3	231.3	308.5	415.3	533.9
110°	84.1	91.5	99.8	111.4	126.7	149.8	183.8	230.9	301.3	396.7	501.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	92.2	98.7	106.6	116.9	130.9	153.6	186.3	230.8	295.3	381.5	477.0
115°	104.9	110.3	116.2	124.8	137.1	157.5	190.0	230.8	288.5	363.2	445.1
117.5°	116.9	120.7	125.6	132.5	143.4	163.2	193.3	231.4	282.5	348.6	420.7
120°	125.1	128.1	132.0	137.3	147.7	166.8	196.1	232.3	279.2	340.1	406.8
122.5°	132.9	134.9	138.1	143.1	152.8	171.6	199.1	232.8	276.5	332.6	394.3
125°	142.0	143.4	146.2	151.7	161.0	178.6	204.2	233.9	271.7	319.6	375.0
127.5°	150.2	151.7	155.4	161.3	169.9	186.7	210.2	236.1	268.4	309.0	357.0
130°	155.0	156.6	160.9	167.2	176.2	192.0	214.1	237.6	266.7	302.3	345.2
132.5°	159.5	161.4	166.2	172.8	182.1	197.3	217.4	239.1	265.0	295.9	334.5
135°	164.9	166.8	172.4	179.4	190.0	204.4	222.1	241.2	262.5	287.6	319.9
137.5°	171.2	173.4	179.0	186.3	196.9	209.5	225.4	241.8	260.0	280.3	307.6
140°	176.1	177.7	183.0	190.1	200.1	212.3	226.8	241.7	258.1	275.9	300.4
142.5°	180.9	182.1	187.0	194.2	203.8	215.1	228.8	242.9	257.7	273.9	294.8
145°	186.9	188.7	193.4	200.4	209.7	219.9	232.4	245.5	258.5	272.5	289.0
147.5°	194.7	196.1	200.6	207.0	214.7	223.8	235.6	247.1	258.9	270.8	284.1
150°	199.9	201.3	205.0	211.1	218.1	226.4	237.1	247.9	258.5	269.7	280.9
152.5°	205.1	205.8	209.5	214.8	221.4	229.0	238.6	248.2	257.8	267.8	278.3
155°	212.5	213.0	215.7	220.9	226.0	232.9	240.8	248.7	256.7	264.6	273.4
157.5°	218.6	219.1	221.4	225.8	229.9	235.7	242.4	248.7	254.5	261.2	268.8
160°	222.7	223.1	225.0	228.8	232.4	237.6	243.2	248.7	253.4	259.0	265.5
162.5°	226.8	226.5	228.4	231.4	234.7	238.7	243.5	248.3	252.3	257.1	262.5
165°	231.5	231.1	232.0	234.8	237.1	239.9	244.1	247.4	250.1	253.4	257.6
167.5°	235.5	234.9	235.7	237.5	239.2	240.9	244.0	246.7	248.0	250.1	252.7
170°	238.1	237.1	237.6	239.0	239.9	241.3	243.6	246.0	246.9	248.3	250.1
172.5°	239.5	239.0	238.7	240.1	240.7	241.7	243.3	244.8	245.4	246.1	247.5
175°	241.3	240.8	240.4	241.3	241.3	241.7	242.7	243.6	243.2	243.6	244.1
177.5°	242.1	241.4	241.0	241.7	241.7	241.7	242.1	242.9	242.1	241.7	242.1
180°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	859.3	860.5	861.6	861.9	861.4	861.0	860.5	860.1
5°	856.7	858.4	860.1	860.7	860.5	860.2	859.9	859.7
7.5°	852.6	854.7	856.6	857.5	857.2	857.0	856.6	856.4
10°	849.1	851.3	853.5	854.5	854.2	853.9	853.7	853.4
12.5°	843.1	845.3	847.5	848.5	848.2	847.9	847.7	847.4
15°	832.2	834.6	837.1	838.3	838.0	837.7	837.4	837.1
17.5°	818.2	820.8	823.4	824.7	824.7	824.7	824.7	824.7
20°	807.0	810.1	813.1	814.6	814.6	814.6	814.6	814.6
22.5°	795.0	798.1	801.1	802.9	803.3	803.8	804.2	804.7
25°	776.3	779.7	783.0	785.1	785.9	786.8	787.6	788.4
27.5°	755.6	759.9	764.1	766.5	767.1	767.7	768.3	768.9
30°	741.1	745.5	750.0	752.6	753.4	754.2	755.1	755.9
32.5°	725.5	730.5	735.6	738.9	740.5	741.9	743.5	744.9
35°	703.2	709.3	715.4	719.4	721.4	723.3	725.3	727.2
37.5°	680.3	687.1	693.8	698.2	700.3	702.4	704.4	706.5
40°	664.1	671.4	678.6	683.5	686.0	688.4	691.0	693.5
42.5°	648.5	656.4	664.3	669.4	672.0	674.5	676.9	679.5
45°	624.4	633.1	641.6	647.3	650.1	652.9	655.7	658.4
47.5°	599.5	608.5	617.5	623.5	626.6	629.7	632.7	635.8
50°	582.4	591.8	601.3	607.6	610.6	613.6	616.7	619.7
52.5°	563.9	573.5	583.2	589.6	592.9	596.2	599.5	602.8
55°	536.1	546.0	556.0	562.8	566.4	570.1	573.6	577.2
57.5°	506.6	517.4	528.2	535.3	539.0	542.7	546.3	550.0
60°	487.1	497.7	508.3	515.5	519.3	523.3	527.2	531.0
62.5°	466.5	477.7	488.9	496.4	500.0	503.7	507.4	511.0
65°	435.1	446.5	457.9	465.4	469.0	472.5	476.2	479.8
67.5°	403.3	414.8	426.3	434.0	437.7	441.5	445.3	449.1
70°	381.2	393.1	405.1	412.7	416.0	419.4	422.7	426.1
72.5°	359.8	371.5	383.2	391.1	395.1	399.1	403.1	407.1
75°	327.5	339.4	351.4	359.1	362.7	366.4	370.0	373.6
77.5°	295.9	307.8	319.7	327.6	331.4	335.3	339.2	343.1
80°	274.4	286.2	297.8	305.6	309.5	313.3	317.2	321.1
82.5°	254.5	266.1	277.8	285.4	289.1	292.8	296.4	300.1
85°	225.8	237.4	249.1	256.8	260.7	264.6	268.5	272.4
87.5°	204.6	215.7	227.2	234.7	238.3	241.8	245.4	249.0
90°	202.0	212.2	224.2	232.0	235.2	238.6	241.9	245.2
92.5°	218.3	223.4	230.3	234.6	237.5	239.4	243.0	245.6
95°	286.6	268.8	259.8	256.6	253.8	253.4	255.4	259.2
97.5°	437.7	396.3	356.3	329.5	310.5	302.4	298.9	298.2
100°	570.0	522.6	469.2	419.6	384.1	367.1	356.7	351.4
102.5°	654.4	651.4	614.9	561.9	523.0	492.0	478.2	469.9
105°	691.8	754.1	769.8	760.8	735.1	709.3	692.4	688.9
107.5°	645.8	734.3	792.0	820.7	827.4	828.8	827.9	822.3
110°	608.8	700.9	769.3	813.4	836.5	848.3	855.6	858.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	574.3	663.1	735.6	785.2	816.1	833.9	844.9	850.4
115°	530.1	610.0	679.2	732.9	768.9	793.4	808.5	815.7
117.5°	494.2	565.2	628.7	679.1	715.6	741.0	756.6	763.0
120°	474.6	540.1	597.1	644.8	680.4	705.3	721.9	729.5
122.5°	458.1	518.4	572.7	616.0	647.8	671.9	686.6	693.0
125°	433.2	488.5	537.0	576.8	606.3	626.5	640.6	646.8
127.5°	408.5	458.8	504.3	541.0	567.0	586.0	598.5	604.0
130°	392.8	439.4	482.8	518.0	543.0	561.0	572.5	578.5
132.5°	377.4	420.9	461.1	494.2	518.9	536.9	547.6	553.3
135°	356.0	392.5	429.0	459.1	481.3	498.9	509.5	513.6
137.5°	337.4	368.1	397.6	423.8	443.9	459.0	468.2	472.9
140°	325.7	352.5	378.3	401.8	418.3	432.1	440.8	445.2
142.5°	316.7	339.2	361.2	380.8	396.4	408.8	416.5	418.5
145°	305.1	322.1	338.2	353.2	365.7	375.0	381.1	383.8
147.5°	296.5	308.8	320.3	330.6	340.5	347.5	351.3	352.8
150°	292.0	302.2	312.0	320.3	327.3	332.9	335.7	336.1
152.5°	287.9	297.4	305.7	312.9	318.4	323.3	325.3	325.4
155°	282.3	289.7	296.6	301.7	306.9	310.1	312.0	311.0
157.5°	275.7	281.8	287.7	291.7	295.3	298.1	298.9	298.9
160°	271.5	276.6	281.8	285.0	288.3	290.6	291.1	291.1
162.5°	267.4	271.8	276.2	278.7	281.9	283.6	284.0	283.6
165°	261.3	264.6	267.8	269.7	271.5	273.4	273.4	273.0
167.5°	255.4	258.0	260.2	261.9	262.7	263.7	263.7	263.1
170°	252.5	253.9	255.8	256.7	257.1	258.5	258.0	257.1
172.5°	249.2	250.1	251.6	252.2	252.7	253.3	252.8	252.3
175°	245.5	246.0	246.5	246.9	246.9	247.4	246.9	246.0
177.5°	242.9	242.9	243.3	243.3	243.3	243.3	242.9	242.1
180°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7

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