

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: P331433-930

Luminaire Tested: **SA2XXDIP-C1005D530U930-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331433-930
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-C1005D530U930-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

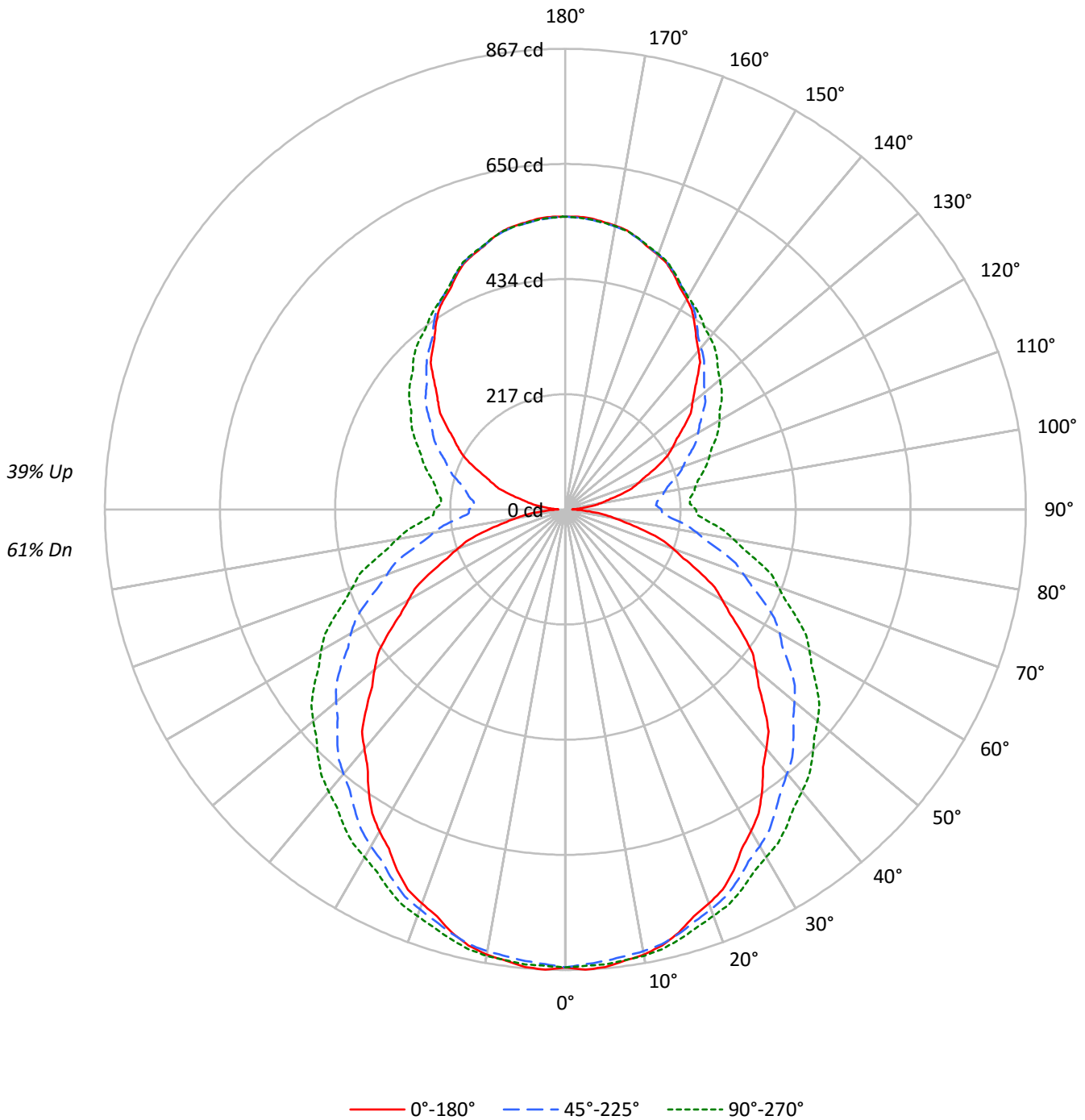
Lumens per Lamp: N/A
Luminaire Lumens: 4831.8 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	98	93	88	84	92	87	83	79	76	72	70	65	63	60	55	54	52	47
2	89	80	73	67	82	75	69	64	65	60	56	56	52	49	48	45	42	38
3	81	70	62	55	75	65	58	52	57	51	46	49	44	41	42	38	35	31
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30	26
5	67	55	46	39	62	51	43	37	45	38	33	39	34	30	33	29	26	23
6	62	49	40	34	57	46	38	32	40	34	29	35	30	26	30	26	22	20
7	57	44	36	30	53	41	34	28	36	30	25	32	26	23	27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	18	15
9	49	37	29	23	46	34	27	22	30	24	20	27	22	18	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	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	1.7
10°-20°	234.3	4.8
20°-30°	355.0	7.3
30°-40°	432.4	8.9
40°-50°	465.2	9.6
50°-60°	451.7	9.3
60°-70°	394.4	8.2
70°-80°	303.7	6.3
80°-90°	206.0	4.3
90°-100°	175.3	3.6
100°-110°	210.9	4.4
110°-120°	253.0	5.2
120°-130°	281.5	5.8
130°-140°	289.4	6.0
140°-150°	271.0	5.6
150°-160°	225.0	4.7
160°-170°	149.2	3.1
170°-180°	52.2	1.1
0°-30°	670.9	13.9
0°-40°	1103.3	22.8
0°-60°	2020.2	41.8
0°-90°	2924.3	60.5
90°-120°	639.3	13.2
90°-150°	1481.2	30.7
90°-180°	1908.0	39.5
0°-180°	4831.8	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	246	10
95°	34	98	173	219	235	36
105°	106	145	210	253	268	113
115°	191	210	263	298	312	188
125°	273	279	316	347	359	244
135°	351	357	370	395	404	272
145°	425	428	431	439	443	266
155°	486	487	489	491	490	224
165°	529	528	528	531	529	149
175°	550	549	548	551	548	52
180°	551	551	551	551	551	



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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	58.2	75.0	91.8	109.3	127.5	145.7	164.0	182.2	193.5
90°	13.0	30.3	47.6	65.0	82.3	101.0	121.1	141.1	161.2	181.2	192.1
92.5°	19.7	35.7	51.6	67.5	83.4	100.1	117.8	135.4	153.1	170.7	181.6
95°	34.2	48.3	62.4	76.4	90.5	106.0	122.9	139.7	156.5	173.4	184.0
97.5°	52.9	65.5	77.9	90.5	103.0	117.4	133.8	150.2	166.6	183.0	193.2
100°	67.8	78.9	90.0	101.1	112.2	125.6	141.5	157.4	173.3	189.1	199.3
102.5°	82.4	92.5	102.5	112.5	122.6	135.3	150.8	166.4	181.9	197.4	207.5
105°	106.2	114.5	122.9	131.3	139.7	151.2	165.8	180.4	195.1	209.8	219.6
107.5°	131.4	138.4	145.2	152.1	159.0	169.4	183.2	197.1	210.8	224.7	234.1
110°	146.8	153.0	159.1	165.3	171.5	181.4	195.0	208.6	222.2	235.8	244.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	164.7	169.9	175.2	180.5	185.8	194.9	207.7	220.5	233.4	246.3	254.9
115°	190.9	194.6	198.3	201.9	205.7	213.6	225.9	238.2	250.5	262.8	271.0
117.5°	216.0	218.7	221.6	224.5	227.2	234.2	245.1	256.1	267.1	278.0	286.0
120°	233.4	235.4	237.3	239.2	241.2	247.3	257.6	267.8	278.1	288.4	296.2
122.5°	249.4	250.9	252.3	253.7	255.2	260.8	270.7	280.5	290.4	300.3	307.5
125°	273.0	274.0	274.9	275.9	276.8	281.5	290.2	298.7	307.3	315.8	323.0
127.5°	297.3	298.2	299.1	300.0	300.9	304.8	311.6	318.4	325.1	332.0	338.5
130°	312.6	313.6	314.7	315.8	316.8	320.2	325.8	331.4	337.0	342.7	349.2
132.5°	329.7	330.5	331.3	332.2	333.0	335.7	340.2	344.7	349.3	353.8	359.8
135°	351.3	352.5	353.6	354.7	355.9	357.9	360.9	363.9	366.9	369.9	375.6
137.5°	375.4	376.3	377.2	378.1	379.0	380.1	381.6	383.1	384.6	386.0	391.1
140°	390.0	390.6	391.3	391.9	392.6	393.4	394.4	395.5	396.6	397.7	402.1
142.5°	404.8	405.4	406.1	406.8	407.4	408.0	408.5	408.9	409.4	409.9	413.4
145°	424.9	425.7	426.4	427.1	427.9	428.5	429.1	429.7	430.4	431.0	432.8
147.5°	444.0	444.8	445.7	446.6	447.4	448.1	448.5	448.9	449.3	449.8	450.2
150°	457.1	457.6	458.3	458.9	459.5	460.0	460.4	460.8	461.2	461.7	461.9
152.5°	468.6	469.2	469.8	470.4	471.0	471.6	472.1	472.5	473.0	473.6	473.9
155°	485.8	486.2	486.5	486.7	487.1	487.4	487.7	488.0	488.3	488.6	489.2
157.5°	500.6	500.8	501.0	501.2	501.5	501.7	501.8	502.1	502.2	502.4	503.1
160°	509.6	509.7	510.0	510.1	510.4	510.5	510.6	510.7	510.9	510.9	511.6
162.5°	517.7	517.8	517.8	517.9	517.9	518.0	518.0	518.2	518.3	518.4	519.1
165°	528.6	528.5	528.4	528.3	528.2	528.2	528.2	528.2	528.2	528.2	528.9
167.5°	537.7	537.4	537.1	536.8	536.5	536.3	536.3	536.3	536.2	536.2	537.0
170°	542.6	542.3	541.9	541.6	541.4	541.1	541.0	540.9	540.8	540.7	541.4
172.5°	545.9	545.6	545.3	544.9	544.7	544.5	544.4	544.3	544.1	544.0	544.8
175°	550.0	549.7	549.3	549.1	548.8	548.5	548.3	548.1	547.9	547.6	548.4
177.5°	551.7	551.4	551.1	550.9	550.7	550.5	550.3	550.2	550.0	549.8	550.3
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9



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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°	204.7	216.1	227.3	234.7	238.3	241.9	245.5	249.1
90°	203.0	213.9	224.8	232.0	235.4	238.8	242.3	245.7
92.5°	192.6	203.5	214.4	221.6	224.9	228.3	231.6	235.0
95°	194.5	205.1	215.6	222.5	225.6	228.8	231.9	235.0
97.5°	203.5	213.8	224.0	230.8	234.1	237.3	240.6	243.9
100°	209.6	219.9	230.2	236.8	239.8	242.7	245.6	248.6
102.5°	217.6	227.8	237.9	244.4	247.4	250.4	253.3	256.2
105°	229.6	239.5	249.4	255.9	259.0	262.0	265.1	268.2
107.5°	243.5	252.9	262.4	268.3	270.9	273.5	276.1	278.7
110°	253.6	262.4	271.3	277.1	279.9	282.7	285.4	288.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	263.6	272.2	280.9	286.6	289.4	292.2	295.1	297.9
115°	279.2	287.5	295.7	301.2	303.9	306.7	309.4	312.2
117.5°	294.0	301.9	309.9	315.2	317.6	320.2	322.7	325.2
120°	303.9	311.7	319.5	324.7	327.5	330.3	333.0	335.7
122.5°	314.9	322.1	329.5	334.3	336.7	339.1	341.4	343.8
125°	330.2	337.5	344.6	349.4	351.8	354.2	356.6	359.0
127.5°	345.0	351.5	358.0	362.3	364.4	366.6	368.7	370.8
130°	355.6	362.1	368.5	372.7	374.5	376.3	378.1	379.9
132.5°	365.8	371.8	377.7	381.7	383.6	385.5	387.3	389.3
135°	381.3	387.0	392.8	396.6	398.5	400.4	402.4	404.2
137.5°	396.1	401.1	406.2	409.4	410.9	412.4	413.8	415.3
140°	406.6	411.0	415.5	418.3	419.6	420.8	422.1	423.3
142.5°	417.1	420.7	424.4	426.7	427.7	428.8	429.8	430.8
145°	434.6	436.3	438.1	439.4	440.4	441.4	442.4	443.4
147.5°	450.7	451.1	451.6	451.9	452.2	452.5	452.7	453.0
150°	462.3	462.6	462.9	462.9	462.6	462.3	461.9	461.7
152.5°	474.3	474.7	475.2	475.2	474.7	474.3	473.9	473.6
155°	489.7	490.2	490.7	490.8	490.5	490.2	489.8	489.6
157.5°	503.8	504.5	505.2	505.3	504.8	504.3	503.9	503.3
160°	512.2	512.8	513.4	513.6	513.1	512.7	512.3	511.8
162.5°	519.8	520.5	521.2	521.3	520.8	520.3	519.8	519.3
165°	529.6	530.4	531.0	531.2	530.6	530.1	529.6	529.0
167.5°	537.7	538.4	539.2	539.2	538.7	538.2	537.6	537.0
170°	542.2	542.9	543.6	543.6	543.0	542.4	541.8	541.2
172.5°	545.5	546.3	546.9	547.0	546.4	545.8	545.1	544.5
175°	549.1	549.8	550.6	550.7	550.0	549.3	548.8	548.1
177.5°	550.8	551.3	551.8	551.8	551.3	550.8	550.3	549.8
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9

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