

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: P333177-840

Luminaire Tested: **S125DIP-S610D590U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333177-840
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-S610D590U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4668.0 lumens
Efficiency: N/A
Efficacy: 142.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

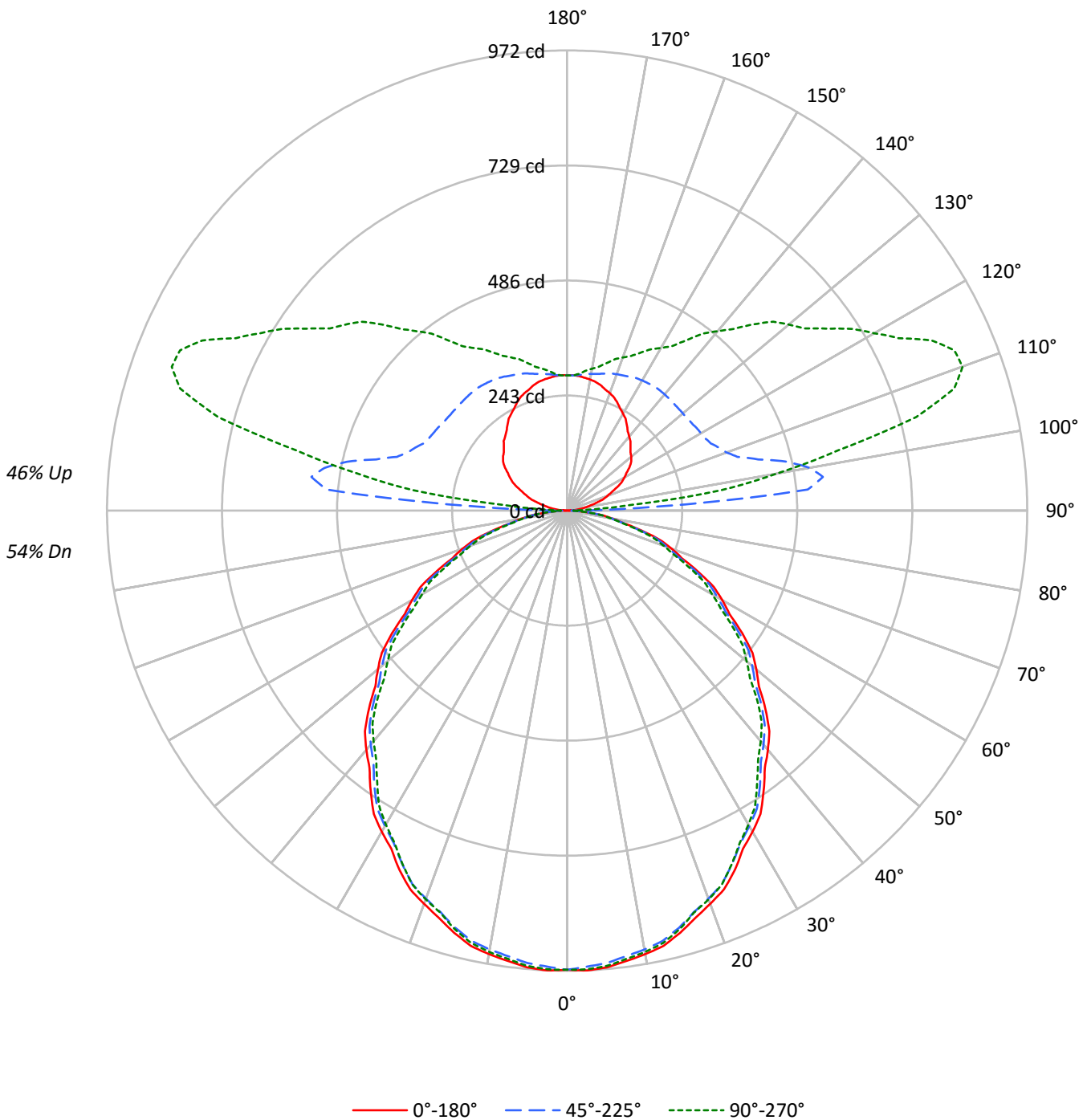
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	72	70	63	62	60	53	52	50	45
2	90	82	76	71	83	76	71	66	66	62	58	56	53	50	46	44	42	38
3	82	72	65	59	76	67	61	56	58	53	49	49	45	42	41	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	44	40	36	37	34	31	28
5	69	57	49	43	64	53	46	40	46	40	36	39	35	31	33	30	27	24
6	63	51	43	37	59	48	40	35	41	36	31	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19
8	54	42	34	29	50	39	32	27	34	29	25	30	25	22	25	22	19	17
9	51	38	31	26	47	36	29	24	31	26	22	27	23	20	23	20	17	15
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6264	6264	6264
5°	6278	6218	6257
10°	6239	6174	6209
15°	6171	6100	6125
20°	6075	5996	6006
25°	5971	5872	5867
30°	5842	5739	5711
35°	5705	5595	5517
40°	5563	5440	5363
45°	5411	5298	5193
50°	5243	5127	4972
55°	5080	4933	4796
60°	4886	4738	4570
65°	4655	4504	4351
70°	4434	4232	4086
75°	4040	3905	3773
80°	3593	3537	3451
85°	3127	3179	3016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	2.0
10°-20°	258.3	5.5
20°-30°	381.4	8.2
30°-40°	445.0	9.5
40°-50°	447.0	9.6
50°-60°	392.4	8.4
60°-70°	292.4	6.3
70°-80°	167.2	3.6
80°-90°	50.2	1.1
90°-100°	207.1	4.4
100°-110°	445.2	9.5
110°-120°	417.8	9.0
120°-130°	338.6	7.3
130°-140°	271.7	5.8
140°-150°	205.1	4.4
150°-160°	144.3	3.1
160°-170°	85.1	1.8
170°-180°	27.7	0.6
0°-30°	731.2	15.7
0°-40°	1176.2	25.2
0°-60°	2015.6	43.2
0°-90°	2525.3	54.1
90°-120°	1070.2	22.9
90°-150°	1885.6	40.4
90°-180°	2143.0	45.9
0°-180°	4668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	966	959	966	965	92
15°	923	920	912	916	916	260
25°	838	834	824	825	823	385
35°	724	720	710	706	700	452
45°	592	589	580	571	569	456
55°	451	448	438	431	426	403
65°	305	303	295	288	285	302
75°	162	160	156	154	151	173
85°	42	43	43	42	41	47
90°	1	5	9	12	13	3
95°	19	56	510	232	135	20
105°	65	91	418	822	763	69
115°	116	140	335	723	850	114
125°	161	189	321	575	670	143
135°	189	227	319	482	556	147
145°	220	252	320	399	439	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	972.3	971.9	971.5	971.1	970.7	969.8	968.5	967.0	965.7	964.3	965.7
5°	968.4	968.0	967.7	967.2	966.9	965.9	964.2	962.5	960.8	959.1	960.7
7.5°	959.4	959.1	958.8	958.4	958.1	956.9	955.0	953.2	951.3	949.5	950.9
10°	951.4	951.1	950.8	950.4	950.1	949.0	947.1	945.2	943.3	941.5	942.8
12.5°	941.6	941.0	940.4	939.8	939.2	938.0	936.2	934.5	932.7	931.0	932.1
15°	923.0	922.5	922.0	921.5	921.0	919.8	918.0	916.0	914.1	912.3	913.1
17.5°	901.7	901.0	900.2	899.5	898.7	897.4	895.4	893.4	891.5	889.6	890.6
20°	883.9	883.5	883.2	882.9	882.5	881.3	879.1	876.9	874.6	872.4	873.6
22.5°	866.1	865.5	864.8	864.2	863.6	862.3	860.2	858.2	856.1	853.9	854.7
25°	837.9	837.0	836.2	835.4	834.5	832.9	830.7	828.5	826.3	824.0	824.5
27.5°	804.9	804.4	803.9	803.3	802.8	801.4	799.1	796.9	794.6	792.3	792.3
30°	783.4	782.8	782.3	781.8	781.3	779.8	777.3	774.7	772.1	769.6	769.2
32.5°	760.0	759.3	758.5	757.7	756.9	755.4	753.2	750.8	748.5	746.3	745.7
35°	723.6	722.9	722.2	721.5	720.8	719.3	716.9	714.5	712.2	709.7	708.9
37.5°	685.6	684.8	684.0	683.1	682.3	680.6	678.4	676.2	673.9	671.7	670.4
40°	659.8	659.0	658.1	657.3	656.4	654.8	652.5	650.1	647.6	645.3	643.8
42.5°	632.3	631.6	630.8	630.1	629.3	627.8	625.4	623.1	620.7	618.2	616.9
45°	592.4	591.7	591.0	590.3	589.7	588.2	586.2	584.2	582.1	580.1	578.0
47.5°	549.4	549.4	549.5	549.5	549.5	548.3	545.8	543.4	541.0	538.5	536.4
50°	521.8	521.2	520.7	520.2	519.7	518.5	516.3	514.3	512.3	510.3	508.1
52.5°	493.5	493.1	492.8	492.4	492.0	490.7	488.6	486.4	484.2	482.0	480.1
55°	451.2	450.6	450.1	449.6	449.1	447.7	445.2	442.9	440.5	438.1	436.6
57.5°	406.5	406.3	406.0	405.7	405.5	404.2	402.2	400.2	398.2	396.3	394.3
60°	378.3	377.6	376.9	376.2	375.6	374.3	372.4	370.5	368.6	366.8	365.1
62.5°	348.8	348.3	347.7	347.2	346.6	345.6	344.0	342.3	340.7	339.1	337.3
65°	304.6	304.3	304.0	303.6	303.3	302.2	300.2	298.4	296.5	294.7	293.1
67.5°	261.8	261.1	260.3	259.6	258.9	257.9	256.5	255.1	253.7	252.3	251.0
70°	234.8	234.0	233.1	232.3	231.4	230.1	228.6	227.1	225.6	224.1	223.0
72.5°	205.3	204.7	204.2	203.6	203.0	202.2	201.3	200.3	199.2	198.2	197.1
75°	161.9	161.6	161.2	160.9	160.6	160.0	159.1	158.2	157.3	156.5	156.0
77.5°	121.9	121.7	121.6	121.4	121.3	121.0	120.5	120.1	119.6	119.1	118.8
80°	96.6	96.6	96.6	96.6	96.6	96.5	96.1	95.8	95.5	95.1	94.9
82.5°	74.6	74.3	74.0	73.7	73.5	73.3	73.2	73.2	73.1	73.0	72.7
85°	42.2	42.4	42.5	42.7	42.9	42.9	42.9	42.9	42.9	42.9	42.8
87.5°	16.7	16.8	17.1	17.3	17.5	17.7	17.7	17.8	17.7	17.8	17.9
90°	0.6	1.1	2.3	3.4	4.6	5.8	6.4	7.5	8.1	9.2	9.8
92.5°	7.1	8.5	13.3	20.5	30.4	47.3	78.7	131.5	188.7	185.7	150.4
95°	19.0	19.6	24.2	30.5	43.2	69.2	130.8	257.5	416.5	510.4	499.5
97.5°	31.6	32.2	35.4	41.8	53.2	71.9	112.7	205.5	371.9	545.0	632.0
100°	40.3	41.5	43.8	50.1	61.1	78.4	111.8	186.6	331.8	520.2	664.2
102.5°	50.0	50.7	52.5	59.4	69.4	86.1	115.9	178.8	301.3	476.4	644.8
105°	65.1	65.1	68.0	73.7	82.9	99.1	124.4	175.7	271.9	417.7	583.0
107.5°	79.9	81.0	83.7	88.5	98.1	112.6	137.1	181.0	259.4	377.2	519.9
110°	90.5	91.6	93.9	99.1	107.8	122.7	146.3	186.0	255.8	358.3	483.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.1	102.2	104.0	109.3	117.9	132.4	155.1	192.5	255.8	347.3	457.2
115°	116.3	117.5	119.3	124.4	133.1	147.4	168.7	202.2	257.5	335.3	428.0
117.5°	130.2	131.9	133.8	139.0	148.8	162.7	182.9	213.3	261.3	329.4	410.6
120°	139.4	141.2	143.4	148.7	158.4	172.8	193.0	220.7	265.0	326.6	400.9
122.5°	149.1	150.4	152.2	157.3	168.1	182.5	202.7	228.9	268.2	324.4	392.6
125°	161.3	162.5	165.3	170.5	181.5	196.4	215.4	240.2	273.7	321.4	381.3
127.5°	170.9	172.6	176.3	182.9	194.5	209.4	227.7	250.5	279.7	320.0	371.0
130°	176.8	178.5	183.2	190.7	202.8	217.7	235.6	257.5	283.5	319.1	364.1
132.5°	181.5	183.7	189.1	197.6	210.2	225.1	243.0	263.5	287.6	319.1	358.5
135°	188.9	191.3	198.1	207.4	219.4	235.0	252.9	271.9	293.2	319.1	351.9
137.5°	198.4	200.2	206.6	215.8	227.6	243.7	259.9	278.1	298.4	319.8	346.1
140°	203.9	205.6	212.6	221.8	232.8	248.3	265.0	282.3	300.7	320.3	343.4
142.5°	210.4	211.7	218.1	227.3	237.8	252.5	268.2	284.6	302.1	320.7	341.0
145°	220.0	221.2	226.9	235.0	245.4	258.6	273.7	288.0	303.6	320.3	337.6
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.0
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	967.0	968.5	969.8	970.4	970.3	970.1	970.0	969.9
5°	962.2	963.7	965.2	965.9	965.7	965.6	965.4	965.2
7.5°	952.4	953.9	955.4	956.1	955.9	955.7	955.6	955.4
10°	944.2	945.5	947.0	947.6	947.4	947.2	947.0	946.8
12.5°	933.2	934.3	935.3	935.9	935.8	935.8	935.8	935.7
15°	914.0	914.8	915.7	916.1	916.1	916.1	916.1	916.1
17.5°	891.7	892.7	893.8	893.9	893.0	892.2	891.4	890.5
20°	874.7	876.0	877.2	877.4	876.5	875.7	874.7	873.9
22.5°	855.6	856.4	857.2	857.3	856.7	856.1	855.5	855.0
25°	824.8	825.1	825.5	825.4	824.9	824.4	823.8	823.3
27.5°	792.4	792.5	792.5	792.3	791.8	791.3	790.8	790.3
30°	768.9	768.6	768.2	767.8	767.3	766.8	766.3	765.8
32.5°	745.1	744.4	743.8	743.1	742.1	741.2	740.2	739.3
35°	708.0	707.2	706.3	705.2	703.9	702.5	701.1	699.7
37.5°	669.1	667.9	666.6	665.6	664.8	664.1	663.3	662.5
40°	642.2	640.7	639.1	638.1	637.6	637.1	636.6	636.1
42.5°	615.5	614.1	612.7	611.6	610.8	610.1	609.3	608.4
45°	575.9	573.9	571.9	570.6	570.1	569.6	569.1	568.6
47.5°	534.3	532.2	530.2	528.6	527.4	526.1	524.9	523.7
50°	505.8	503.6	501.4	499.7	498.5	497.3	496.0	494.9
52.5°	478.1	476.2	474.2	472.6	471.3	469.9	468.6	467.3
55°	435.0	433.5	432.0	430.6	429.4	428.2	427.1	425.9
57.5°	392.2	390.3	388.3	387.0	386.4	385.7	385.1	384.5
60°	363.3	361.6	359.9	358.5	357.3	356.1	354.9	353.8
62.5°	335.5	333.7	331.7	330.4	329.5	328.5	327.6	326.7
65°	291.5	290.0	288.5	287.4	286.7	286.0	285.4	284.7
67.5°	249.7	248.4	247.1	246.2	245.8	245.4	245.0	244.6
70°	222.0	221.0	219.9	219.1	218.4	217.7	217.0	216.4
72.5°	195.9	194.8	193.6	192.7	192.0	191.4	190.7	190.0
75°	155.5	155.0	154.5	153.9	153.2	152.5	151.9	151.2
77.5°	118.5	118.2	117.9	117.4	116.9	116.5	116.0	115.5
80°	94.8	94.6	94.4	94.2	93.8	93.5	93.2	92.8
82.5°	72.4	72.1	71.8	71.6	71.6	71.5	71.4	71.4
85°	42.6	42.4	42.3	42.0	41.7	41.3	41.0	40.7
87.5°	18.1	18.2	18.3	18.4	18.1	17.8	17.7	17.4
90°	10.4	10.9	11.5	12.6	12.6	12.6	13.2	13.2
92.5°	102.1	74.1	55.7	47.3	39.9	38.5	37.7	36.8
95°	414.1	326.6	255.8	207.4	166.5	149.2	144.6	135.4
97.5°	616.8	555.4	486.5	419.1	383.5	351.2	334.6	327.2
100°	708.5	680.3	621.0	561.1	521.3	479.9	458.6	449.3
102.5°	739.4	756.8	728.3	687.8	645.3	615.8	592.7	585.7
105°	721.2	800.1	825.5	819.1	800.7	781.7	770.2	763.3
107.5°	656.2	761.5	826.7	856.7	866.1	866.0	862.1	857.5
110°	608.3	717.8	799.0	848.0	873.8	884.8	888.9	888.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	570.6	674.5	756.6	814.4	852.2	871.0	881.0	885.1
115°	523.0	612.4	691.3	754.1	799.0	826.7	842.7	850.3
117.5°	492.4	569.4	637.3	695.0	739.9	768.5	784.5	789.1
120°	475.8	544.9	608.3	659.0	701.7	729.3	744.9	749.4
122.5°	463.4	527.5	583.9	631.4	669.3	694.7	710.2	714.4
125°	445.2	504.0	554.2	595.6	627.9	651.6	664.2	669.9
127.5°	426.9	481.7	528.5	567.3	596.5	617.4	629.3	632.0
130°	415.4	466.1	511.0	548.4	577.2	596.2	607.7	611.2
132.5°	403.8	451.3	492.1	528.2	556.9	575.9	586.5	590.5
135°	388.8	428.6	465.4	498.3	523.6	542.6	553.0	556.4
137.5°	376.2	408.3	439.0	466.9	489.5	506.9	516.3	520.2
140°	369.2	396.4	422.8	447.1	468.4	483.3	491.9	494.8
142.5°	363.2	386.2	409.0	430.0	448.1	460.7	468.9	471.3
145°	355.5	373.2	391.1	406.7	420.5	430.3	436.7	439.0
147.5°	348.1	362.5	376.3	388.0	399.0	406.8	410.5	411.5
150°	343.9	356.6	367.5	377.9	386.6	393.4	395.8	396.4
152.5°	339.3	350.6	360.6	368.7	376.0	381.4	383.7	384.4
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

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