

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: P331308-935

Luminaire Tested: **S122DIP-S485D725U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331308-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S485D725U935-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4131.3 lumens
Efficiency: N/A
Efficacy: 107.6 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-Indirect

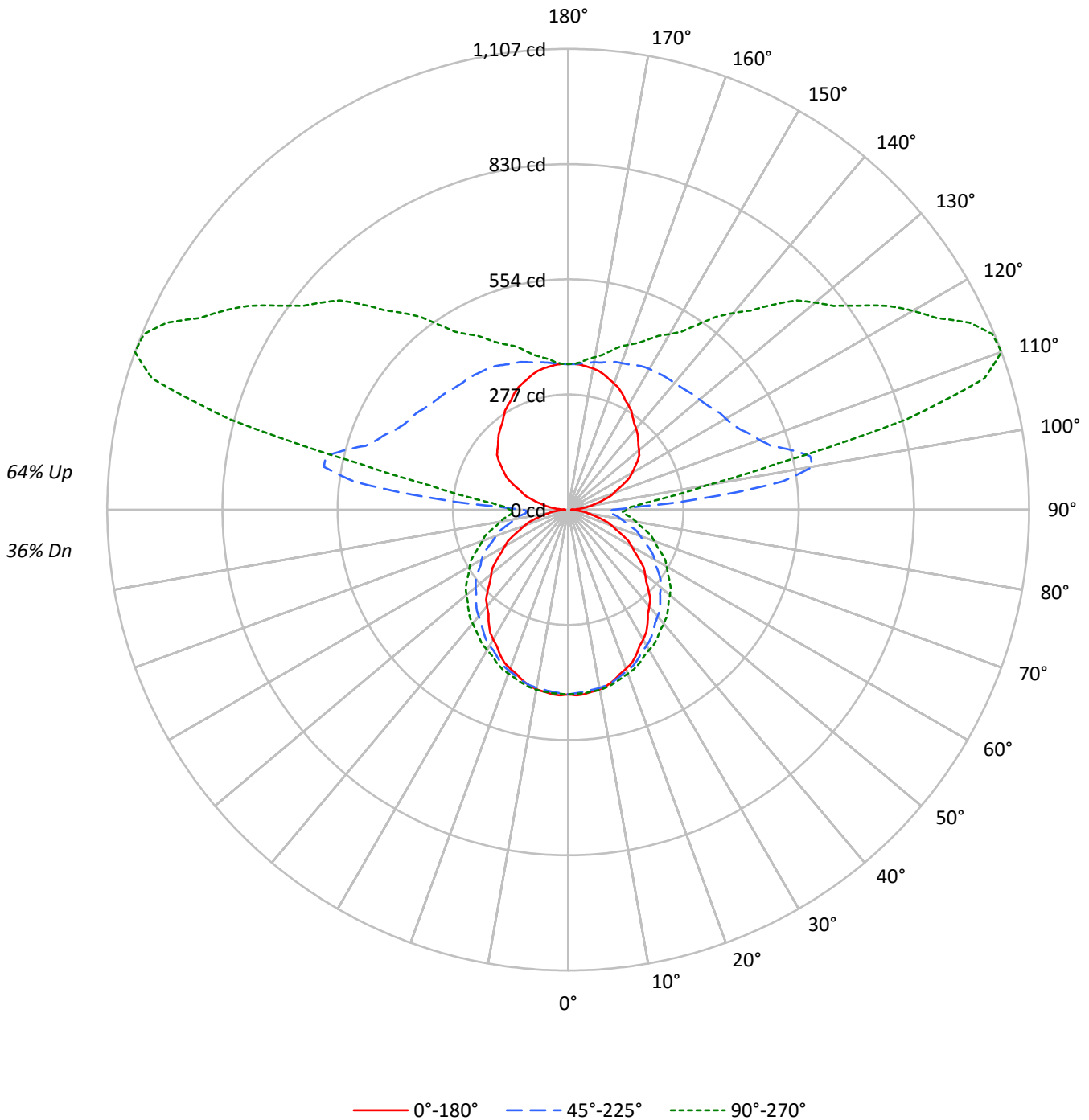
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36
1	94	89	85	81	84	80	77	74	65	62	60	50	48	47	37	36	35	28
2	85	77	71	65	76	70	64	59	56	52	49	43	41	38	32	30	28	23
3	77	67	60	54	69	61	54	49	49	44	40	38	35	32	28	26	24	19
4	70	59	51	45	63	54	47	41	43	38	34	34	30	27	25	22	20	16
5	64	53	44	38	58	48	40	35	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	35	30	35	29	25	27	23	20	20	17	15	12
7	55	42	34	29	49	38	31	26	31	26	22	24	20	18	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	17	14	12	9
9	47	35	27	22	42	32	25	20	26	21	17	20	17	14	15	13	11	8
10	44	32	24	20	39	29	23	18	24	19	15	19	15	12	14	11	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7164	7164	7164
5°	7199	6896	6870
10°	7153	6692	6617
15°	7055	6477	6350
20°	6930	6245	6094
25°	6807	6022	5862
30°	6634	5793	5628
35°	6458	5572	5464
40°	6275	5384	5299
45°	6100	5215	5159
50°	5912	5062	5019
55°	5713	4898	4878
60°	5473	4730	4729
65°	5222	4530	4552
70°	4938	4315	4361
75°	4578	4106	4186
80°	4008	3889	4005
85°	3471	3705	3868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	1.0
10°-20°	120.6	2.9
20°-30°	182.7	4.4
30°-40°	222.5	5.4
40°-50°	239.4	5.8
50°-60°	232.5	5.6
60°-70°	203.0	4.9
70°-80°	156.3	3.8
80°-90°	108.0	2.6
90°-100°	212.2	5.1
100°-110°	527.6	12.8
110°-120°	539.3	13.1
120°-130°	434.7	10.5
130°-140°	341.7	8.3
140°-150°	253.4	6.1
150°-160°	177.1	4.3
160°-170°	104.3	2.5
170°-180°	33.9	0.8
0°-30°	345.3	8.4
0°-40°	567.8	13.7
0°-60°	1039.7	25.2
0°-90°	1507.0	36.5
90°-120°	1279.2	31.0
90°-150°	2309.0	55.9
90°-180°	2624.0	63.5
0°-180°	4131.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	445	443	439	443	442	42
15°	424	426	426	431	431	119
25°	386	390	396	404	406	177
35°	332	343	356	369	374	208
45°	273	290	312	332	339	210
55°	209	233	266	288	297	187
65°	143	175	212	238	247	142
75°	79	115	156	183	192	84
85°	23	63	104	130	140	25
90°	7	53	108	131	140	6
95°	29	94	338	197	183	29
105°	85	147	554	968	843	91
115°	147	194	456	918	1063	146
125°	203	241	423	736	855	181
135°	238	284	404	606	697	184
145°	270	311	394	493	543	170
155°	308	332	383	433	450	141
165°	335	345	367	389	395	94
175°	349	350	353	357	356	33
180°	350	350	350	350	350	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	446.3	445.9	445.6	445.2	444.9	444.3	443.5	442.7	442.0	441.1	441.7
5°	445.0	444.5	444.1	443.7	443.2	442.6	441.8	440.9	440.1	439.2	440.1
7.5°	441.0	440.7	440.4	440.1	439.9	439.4	438.7	438.1	437.4	436.7	437.7
10°	437.9	437.6	437.3	437.0	436.8	436.4	436.0	435.6	435.1	434.7	435.8
12.5°	432.7	432.8	432.9	432.9	433.0	432.8	432.6	432.2	431.9	431.6	432.7
15°	424.4	424.6	425.0	425.2	425.5	425.7	425.7	425.7	425.7	425.7	427.0
17.5°	413.6	414.2	414.8	415.4	416.0	416.6	417.0	417.4	417.9	418.4	419.7
20°	406.4	407.1	407.9	408.5	409.2	409.9	410.4	411.0	411.6	412.2	413.7
22.5°	398.6	399.5	400.4	401.1	402.0	402.8	403.6	404.4	405.2	406.0	407.6
25°	385.8	386.8	387.8	388.8	389.8	391.0	392.3	393.6	394.9	396.1	397.8
27.5°	370.4	372.0	373.7	375.3	376.9	378.5	380.0	381.5	383.0	384.5	386.7
30°	360.1	362.0	363.8	365.7	367.6	369.4	371.3	373.1	375.0	376.8	379.1
32.5°	348.8	350.9	352.9	355.1	357.1	359.3	361.4	363.7	365.8	368.1	370.7
35°	332.4	334.8	337.3	339.8	342.2	344.7	347.4	350.2	352.8	355.6	358.7
37.5°	314.7	317.5	320.3	323.1	325.9	329.1	332.6	336.0	339.6	343.1	346.6
40°	302.9	306.0	309.2	312.3	315.5	318.9	322.8	326.7	330.5	334.4	338.1
42.5°	291.5	294.7	297.8	301.0	304.1	307.9	312.4	316.8	321.2	325.6	329.7
45°	272.7	276.5	280.3	284.2	288.1	292.5	297.5	302.5	307.5	312.5	316.9
47.5°	254.0	258.2	262.4	266.6	270.8	275.9	281.7	287.6	293.4	299.3	303.9
50°	241.2	245.6	250.0	254.4	258.8	264.2	270.7	277.2	283.6	290.0	294.9
52.5°	228.8	233.4	238.1	242.8	247.5	253.1	259.9	266.7	273.5	280.3	285.2
55°	209.0	214.1	219.3	224.4	229.5	235.8	243.3	250.7	258.1	265.5	270.7
57.5°	189.4	195.3	201.0	206.8	212.7	219.3	226.9	234.5	242.0	249.6	255.2
60°	175.6	181.7	187.9	194.0	200.1	207.2	215.4	223.5	231.7	239.9	245.3
62.5°	163.2	169.5	176.0	182.4	188.7	196.0	204.1	212.2	220.4	228.5	234.3
65°	142.8	149.7	156.8	163.8	170.7	178.5	186.9	195.4	203.8	212.2	218.1
67.5°	124.0	131.3	138.6	145.9	153.3	161.2	169.9	178.5	187.1	195.7	201.6
70°	110.6	118.0	125.4	132.9	140.3	148.4	157.3	166.2	175.0	183.9	190.0
72.5°	98.2	105.9	113.6	121.2	128.9	137.2	146.2	155.2	164.1	173.1	179.2
75°	79.1	87.1	95.1	103.1	111.1	119.7	128.8	137.9	147.1	156.3	162.4
77.5°	60.6	69.0	77.3	85.7	94.1	102.9	112.2	121.5	130.8	140.1	146.2
80°	48.2	56.9	65.7	74.4	83.1	92.1	101.4	110.6	119.9	129.2	135.3
82.5°	38.0	46.6	55.1	63.7	72.3	81.4	90.7	100.1	109.5	119.0	124.9
85°	23.2	32.0	40.9	49.8	58.5	67.6	76.7	85.8	95.1	104.2	110.2
87.5°	12.7	21.7	30.7	39.5	48.3	57.5	67.3	77.4	87.4	96.7	102.4
90°	7.1	17.4	28.4	38.1	47.7	58.4	70.9	84.7	98.0	107.8	112.8
92.5°	14.1	25.5	38.1	48.7	61.0	75.6	99.6	129.8	157.7	167.7	159.7
95°	28.7	38.1	51.6	64.3	81.8	105.6	145.2	212.2	298.9	337.8	310.2
97.5°	42.9	52.4	65.6	80.7	99.1	124.5	171.6	261.4	399.4	518.8	546.2
100°	56.3	63.6	75.0	91.0	109.8	135.3	178.9	269.1	422.4	596.0	698.2
102.5°	68.2	74.5	85.4	101.0	119.9	145.0	185.7	266.5	408.8	595.1	752.7
105°	85.3	92.1	101.0	115.3	134.2	158.9	197.9	265.3	383.7	554.1	738.0
107.5°	104.6	110.0	118.0	130.5	148.5	172.7	210.5	269.8	368.8	510.5	673.5
110°	117.0	122.5	129.4	141.0	158.0	182.4	219.1	274.6	363.7	489.1	633.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	128.8	133.9	140.9	151.5	167.6	192.1	227.3	279.7	360.9	473.7	603.6
115°	147.3	152.2	157.8	167.5	182.5	204.7	240.0	287.6	359.2	455.9	566.5
117.5°	165.7	169.4	174.5	182.7	196.7	219.0	251.8	296.2	359.3	444.3	541.0
120°	177.6	180.9	185.5	192.1	206.1	228.1	260.1	302.1	359.6	437.4	526.9
122.5°	188.9	191.3	195.5	202.3	216.0	238.2	268.3	307.3	360.7	432.1	514.5
125°	203.2	205.2	209.2	217.3	230.8	251.9	280.7	315.6	361.9	423.0	496.2
127.5°	215.1	217.6	223.1	231.9	244.6	265.8	293.0	323.9	363.9	416.1	479.1
130°	222.1	224.6	231.2	240.5	253.7	274.1	300.6	329.2	365.8	411.9	467.9
132.5°	228.5	231.6	238.8	248.6	262.4	282.3	307.1	334.5	367.7	408.3	458.1
135°	237.5	240.2	248.3	258.4	273.9	293.4	316.4	341.4	369.8	403.5	444.9
137.5°	246.7	249.9	258.0	268.7	284.0	301.8	323.7	346.3	371.4	399.6	434.5
140°	253.7	256.2	264.2	274.8	289.5	307.0	327.5	348.7	371.9	397.0	428.3
142.5°	260.7	262.7	270.1	280.8	294.9	311.3	331.0	351.4	372.6	396.0	423.0
145°	270.5	273.3	280.0	290.1	303.5	318.3	336.6	355.3	374.2	394.4	416.8
147.5°	281.9	283.9	290.3	299.6	310.8	324.0	341.1	357.7	374.8	392.0	411.0
150°	289.4	291.4	296.8	305.6	315.6	327.8	343.3	358.7	374.2	390.4	406.5
152.5°	297.0	297.9	303.2	310.9	320.5	331.6	345.4	359.3	373.2	387.7	402.8
155°	307.5	308.2	312.3	319.7	327.1	337.2	348.6	360.1	371.5	383.0	395.7
157.5°	316.5	317.1	320.4	326.8	332.8	341.2	350.9	360.1	368.4	378.2	389.2
160°	322.4	323.0	325.7	331.1	336.6	343.9	352.0	360.1	366.8	374.9	384.4
162.5°	328.3	327.9	330.6	334.9	339.8	345.5	352.6	359.6	365.2	372.2	380.0
165°	335.2	334.5	335.9	339.9	343.3	347.3	353.4	358.1	362.1	366.8	372.9
167.5°	340.9	340.0	341.2	343.8	346.2	348.8	353.2	357.1	359.0	362.1	365.8
170°	344.6	343.3	343.9	345.9	347.3	349.3	352.7	356.0	357.4	359.4	362.1
172.5°	346.7	345.9	345.5	347.6	348.4	349.8	352.1	354.4	355.2	356.2	358.3
175°	349.3	348.6	347.9	349.3	349.3	350.0	351.3	352.7	352.0	352.7	353.4
177.5°	350.5	349.5	348.9	350.0	350.0	350.0	350.5	351.6	350.5	350.0	350.5
180°	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	442.3	442.8	443.4	443.6	443.3	443.2	442.9	442.6
5°	440.9	441.8	442.6	443.0	442.8	442.7	442.6	442.4
7.5°	438.8	439.8	440.8	441.3	441.2	441.0	440.8	440.7
10°	437.0	438.1	439.3	439.8	439.6	439.5	439.4	439.2
12.5°	433.9	435.1	436.2	436.7	436.5	436.4	436.3	436.1
15°	428.3	429.6	430.8	431.4	431.3	431.1	430.9	430.8
17.5°	421.0	422.4	423.7	424.4	424.4	424.4	424.4	424.4
20°	415.3	416.9	418.4	419.2	419.2	419.2	419.2	419.2
22.5°	409.1	410.7	412.3	413.2	413.5	413.6	413.9	414.1
25°	399.5	401.2	402.9	404.1	404.5	404.9	405.4	405.8
27.5°	388.9	391.1	393.2	394.4	394.8	395.1	395.4	395.7
30°	381.4	383.7	386.0	387.3	387.7	388.1	388.6	389.0
32.5°	373.3	375.9	378.6	380.3	381.1	381.9	382.6	383.4
35°	361.9	365.1	368.2	370.2	371.3	372.2	373.2	374.3
37.5°	350.1	353.6	357.1	359.3	360.4	361.4	362.5	363.6
40°	341.8	345.5	349.2	351.7	353.0	354.3	355.6	356.9
42.5°	333.7	337.8	341.8	344.6	345.8	347.1	348.4	349.7
45°	321.4	325.8	330.2	333.1	334.6	336.0	337.4	338.9
47.5°	308.5	313.1	317.8	320.9	322.4	324.0	325.6	327.2
50°	299.7	304.5	309.4	312.6	314.3	315.8	317.4	318.9
52.5°	290.2	295.2	300.1	303.4	305.1	306.9	308.5	310.2
55°	275.9	281.0	286.1	289.6	291.5	293.3	295.2	297.0
57.5°	260.7	266.2	271.8	275.5	277.4	279.3	281.2	283.1
60°	250.7	256.1	261.6	265.3	267.3	269.3	271.3	273.3
62.5°	240.0	245.8	251.6	255.5	257.4	259.2	261.1	263.0
65°	223.9	229.8	235.7	239.5	241.3	243.2	245.0	246.9
67.5°	207.6	213.4	219.4	223.3	225.2	227.2	229.2	231.1
70°	196.2	202.3	208.4	212.4	214.1	215.9	217.6	219.3
72.5°	185.2	191.2	197.3	201.3	203.3	205.3	207.4	209.5
75°	168.6	174.7	180.8	184.9	186.7	188.6	190.4	192.3
77.5°	152.3	158.4	164.5	168.6	170.6	172.5	174.6	176.6
80°	141.3	147.2	153.3	157.2	159.3	161.3	163.2	165.2
82.5°	131.0	137.0	142.9	146.9	148.8	150.7	152.6	154.5
85°	116.1	122.2	128.2	132.2	134.1	136.2	138.2	140.2
87.5°	108.1	113.7	119.7	123.6	125.5	127.3	129.2	131.0
90°	117.9	122.2	129.3	133.6	135.3	137.1	138.8	140.5
92.5°	150.2	147.4	147.3	146.8	148.0	147.6	149.8	150.4
95°	261.1	225.5	202.7	191.5	184.4	180.7	180.5	182.8
97.5°	490.5	420.9	353.4	308.3	277.8	262.9	254.8	250.8
100°	689.4	611.2	524.3	446.3	392.0	364.6	346.6	336.1
102.5°	818.6	804.9	742.6	659.7	600.5	552.7	529.9	515.1
105°	883.0	964.1	977.8	958.9	918.8	878.7	851.3	843.4
107.5°	826.7	946.2	1020.9	1056.7	1063.5	1062.8	1058.6	1047.6
110°	779.6	904.7	995.4	1053.6	1084.2	1098.5	1106.1	1107.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	736.2	856.4	953.0	1019.3	1061.2	1084.2	1097.2	1102.3
115°	681.8	789.8	882.3	954.5	1003.8	1036.4	1055.4	1063.1
117.5°	639.6	734.8	819.0	886.8	937.0	971.2	991.1	997.6
120°	617.7	705.2	780.5	844.6	893.2	926.4	947.5	955.8
122.5°	599.9	680.2	751.7	809.6	853.3	885.6	904.4	911.4
125°	573.4	646.6	709.6	762.8	803.1	829.9	848.0	854.7
127.5°	547.3	613.5	673.0	721.9	757.2	782.5	798.2	803.8
130°	530.5	591.9	648.4	695.1	729.3	753.3	767.8	774.4
132.5°	514.3	571.2	623.4	667.3	700.9	724.9	738.4	744.4
135°	491.6	539.1	586.4	626.2	656.3	679.7	692.9	696.7
137.5°	472.8	512.6	550.4	585.0	612.4	632.5	644.1	649.1
140°	460.8	495.4	528.7	559.8	582.3	600.6	611.6	616.5
142.5°	451.3	480.6	509.1	535.2	556.4	573.0	582.8	584.4
145°	438.5	461.6	483.3	503.6	520.5	532.6	540.1	542.8
147.5°	428.9	446.4	462.9	477.3	491.0	500.5	505.4	507.0
150°	422.7	437.5	451.6	463.7	473.8	481.9	485.9	486.6
152.5°	416.7	430.5	442.5	453.0	460.9	467.9	470.9	471.0
155°	408.5	419.3	429.4	436.8	444.2	448.9	451.6	450.3
157.5°	399.0	408.0	416.5	422.2	427.5	431.4	432.7	432.7
160°	393.0	400.5	407.9	412.6	417.3	420.7	421.3	421.3
162.5°	387.1	393.5	399.8	403.5	408.1	410.4	411.1	410.5
165°	378.2	383.0	387.7	390.4	393.0	395.7	395.7	395.1
167.5°	369.8	373.4	376.6	379.1	380.3	381.8	381.6	380.8
170°	365.5	367.5	370.1	371.5	372.2	374.2	373.5	372.2
172.5°	360.6	362.1	364.3	365.1	365.8	366.7	366.0	365.2
175°	355.3	356.0	356.7	357.4	357.4	358.1	357.4	356.0
177.5°	351.6	351.6	352.1	352.1	352.1	352.1	351.6	350.5
180°	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0

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