

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: P331540-927

Luminaire Tested: **S122DIW-S675D970U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331540-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIW-S675D970U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 970 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4791.3 lumens
Efficiency: N/A
Efficacy: 91.1 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

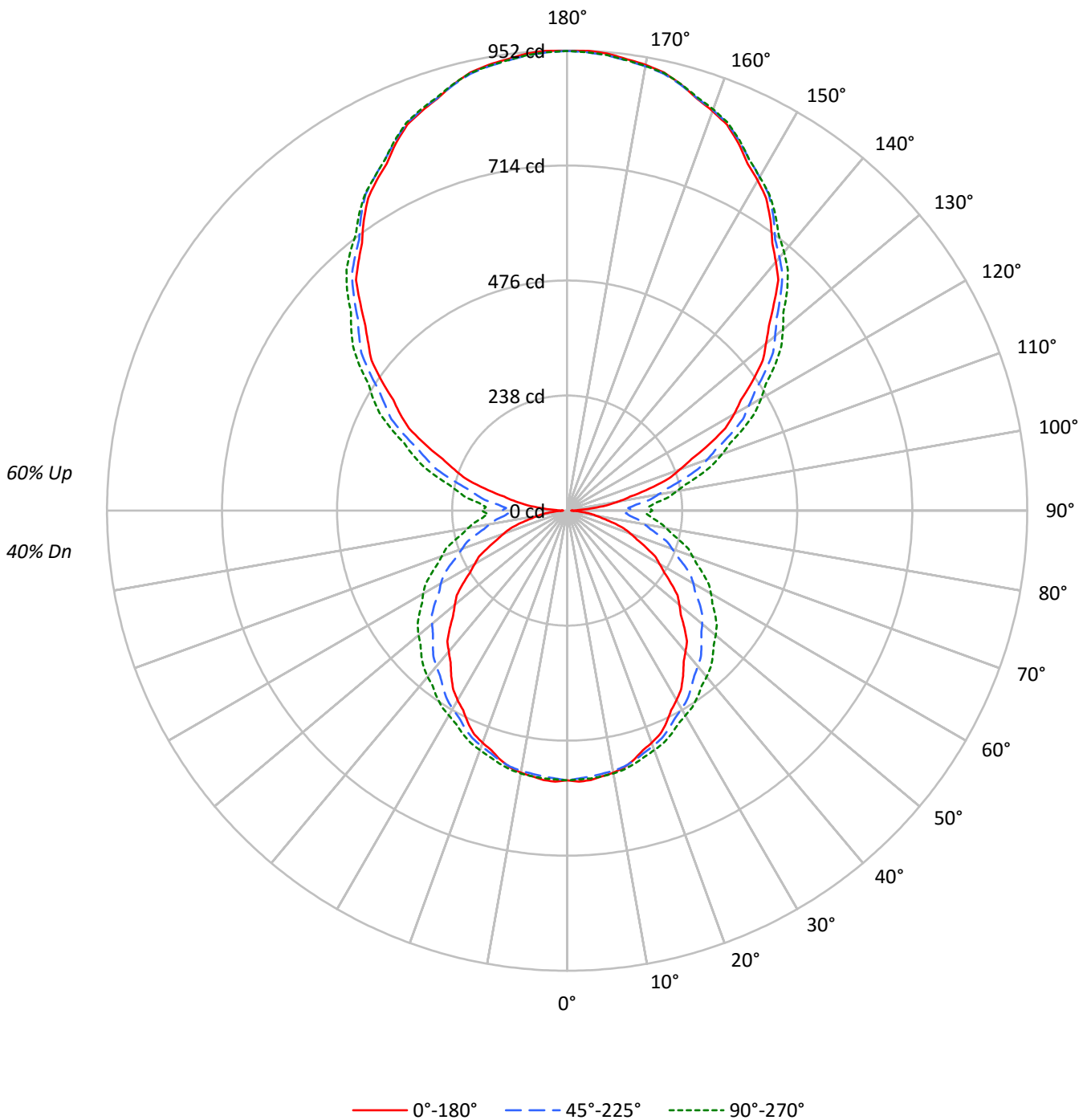
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47
1	94	89	85	81	85	81	78	74	66	63	61	52	50	49	39	38	37
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30
3	78	68	60	54	70	62	55	50	50	45	41	39	36	33	30	27	25
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21
5	65	53	44	38	58	48	41	35	39	34	30	31	27	24	23	21	18
6	59	47	39	33	54	43	36	30	35	30	26	28	24	21	21	18	16
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.1
10°-20°	151.6	3.2
20°-30°	229.8	4.8
30°-40°	279.8	5.8
40°-50°	301.1	6.3
50°-60°	292.4	6.1
60°-70°	255.3	5.3
70°-80°	196.5	4.1
80°-90°	135.7	2.8
90°-100°	151.1	3.2
100°-110°	253.5	5.3
110°-120°	363.7	7.6
120°-130°	445.1	9.3
130°-140°	482.4	10.1
140°-150°	464.7	9.7
150°-160°	388.3	8.1
160°-170°	257.5	5.4
170°-180°	90.0	1.9
0°-30°	434.3	9.1
0°-40°	714.1	14.9
0°-60°	1307.5	27.3
0°-90°	1895.1	39.6
90°-120°	768.3	16.0
90°-150°	2160.4	45.1
90°-180°	2896.0	60.4
0°-180°	4791.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	9	66	135	164	176	8
95°	48	94	144	174	183	53
105°	177	203	246	275	285	187
115°	324	339	373	395	403	320
125°	469	477	499	518	525	419
135°	605	614	624	639	644	467
145°	733	739	744	749	750	458
155°	838	841	843	847	845	386
165°	912	912	912	917	913	257
175°	949	947	945	950	946	90
180°	951	951	951	951	951	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	16.0	27.2	38.3	49.4	60.6	72.2	84.5	96.9	109.2	121.4	128.7
90°	8.9	21.5	34.0	46.6	59.2	73.1	88.6	104.0	119.4	134.8	141.6
92.5°	21.7	33.0	44.3	55.5	66.8	78.4	90.5	102.4	114.5	126.4	133.6
95°	48.2	58.4	68.7	78.9	89.1	99.8	110.9	122.1	133.2	144.3	151.1
97.5°	81.9	90.9	100.1	109.2	118.2	128.3	139.3	150.4	161.4	172.4	179.0
100°	107.6	115.7	123.7	131.8	139.9	149.2	159.8	170.4	181.0	191.6	198.3
102.5°	133.9	141.1	148.3	155.5	162.7	171.6	182.0	192.5	203.0	213.4	220.1
105°	176.6	182.3	188.1	193.8	199.6	207.2	217.0	226.6	236.4	246.1	252.7
107.5°	220.4	225.3	230.3	235.2	240.2	247.2	256.1	265.1	273.9	282.9	289.1
110°	248.0	252.6	257.3	262.0	266.6	273.4	282.2	291.0	299.8	308.6	314.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	278.8	282.9	286.9	291.0	295.1	301.3	309.5	317.7	326.0	334.2	339.5
115°	324.2	327.3	330.3	333.4	336.4	341.7	349.5	357.2	365.0	372.6	377.9
117.5°	368.6	371.4	374.1	376.8	379.5	384.1	390.5	397.0	403.5	410.0	414.9
120°	398.8	400.9	403.1	405.2	407.3	411.3	417.1	422.9	428.6	434.4	439.4
122.5°	426.4	428.4	430.4	432.4	434.4	438.2	444.0	449.8	455.6	461.3	465.8
125°	468.6	470.2	471.8	473.4	475.0	478.4	483.6	488.9	494.1	499.3	503.6
127.5°	510.5	512.3	514.2	516.0	517.9	520.8	524.8	528.8	532.8	536.8	540.6
130°	536.8	538.9	541.1	543.2	545.3	548.1	551.5	554.9	558.4	561.8	565.8
132.5°	566.3	568.0	569.7	571.5	573.1	575.5	578.5	581.5	584.5	587.4	590.8
135°	605.0	607.0	609.0	610.9	612.8	614.9	617.0	619.2	621.4	623.5	627.1
137.5°	646.6	648.1	649.7	651.3	652.8	654.3	655.5	656.7	658.0	659.3	662.4
140°	671.6	673.0	674.5	675.9	677.3	678.7	679.9	681.1	682.4	683.7	686.5
142.5°	697.3	698.7	700.1	701.6	703.0	704.0	704.7	705.4	706.1	706.7	709.2
145°	733.3	734.6	735.9	737.1	738.4	739.5	740.6	741.6	742.8	743.8	745.0
147.5°	766.3	767.8	769.3	770.7	772.2	773.3	774.0	774.8	775.5	776.2	776.7
150°	788.7	789.8	790.8	791.9	793.0	793.9	794.6	795.4	796.1	796.8	797.3
152.5°	808.7	809.7	810.8	811.8	812.9	813.9	814.8	815.6	816.4	817.3	817.9
155°	838.4	839.0	839.6	840.1	840.6	841.1	841.7	842.2	842.7	843.3	844.1
157.5°	864.0	864.4	864.7	865.1	865.4	865.8	866.1	866.4	866.7	867.0	868.2
160°	879.4	879.7	880.1	880.4	880.8	881.1	881.3	881.5	881.6	881.8	882.9
162.5°	893.5	893.6	893.7	893.7	893.8	893.9	894.1	894.3	894.5	894.6	895.9
165°	912.3	912.1	912.0	911.7	911.6	911.5	911.5	911.5	911.5	911.5	912.8
167.5°	928.0	927.5	926.9	926.4	925.9	925.6	925.6	925.5	925.5	925.4	926.7
170°	936.4	935.8	935.3	934.8	934.2	933.9	933.7	933.5	933.3	933.2	934.4
172.5°	942.1	941.6	941.0	940.6	940.0	939.6	939.4	939.3	939.1	938.9	940.2
175°	949.2	948.6	948.2	947.6	947.1	946.6	946.3	945.9	945.5	945.2	946.4
177.5°	952.1	951.6	951.3	950.8	950.4	950.0	949.7	949.4	949.2	948.9	949.7
180°	950.8	950.8	950.8	950.8	950.8	950.8	950.8	950.8	950.8	950.8	950.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	135.9	143.2	150.4	155.3	157.6	159.9	162.2	164.6
90°	148.5	155.3	162.2	166.8	169.1	171.4	173.7	176.1
92.5°	140.7	147.8	154.9	159.5	161.8	164.0	166.1	168.3
95°	158.0	164.9	171.7	175.9	177.8	179.6	181.4	183.2
97.5°	185.7	192.3	199.0	203.4	205.4	207.6	209.6	211.7
100°	204.9	211.5	218.2	222.4	224.2	226.0	227.8	229.6
102.5°	226.6	233.3	240.0	244.2	246.0	247.8	249.6	251.4
105°	259.4	266.0	272.7	276.9	278.9	280.9	282.9	284.9
107.5°	295.3	301.5	307.7	311.3	312.4	313.6	314.8	315.9
110°	320.0	325.8	331.6	335.2	336.6	338.0	339.5	341.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	344.8	350.1	355.5	358.9	360.5	362.1	363.7	365.3
115°	383.1	388.3	393.6	396.9	398.3	399.7	401.2	402.6
117.5°	419.8	424.7	429.6	432.7	434.0	435.3	436.6	437.8
120°	444.4	449.5	454.5	457.7	459.1	460.7	462.1	463.5
122.5°	470.2	474.7	479.1	482.0	483.3	484.7	485.9	487.2
125°	507.9	512.2	516.6	519.4	520.9	522.3	523.8	525.2
127.5°	544.4	548.3	552.1	554.4	555.5	556.5	557.5	558.5
130°	569.7	573.7	577.7	580.0	580.7	581.4	582.2	582.9
132.5°	594.2	597.6	600.9	603.1	604.0	604.8	605.7	606.6
135°	630.7	634.3	637.9	640.2	641.0	642.0	642.9	643.7
137.5°	665.6	668.8	671.9	673.8	674.2	674.8	675.3	675.8
140°	689.4	692.3	695.1	696.7	697.1	697.5	697.8	698.2
142.5°	711.6	714.1	716.5	717.8	718.0	718.3	718.5	718.7
145°	746.3	747.6	748.8	749.6	749.7	749.9	750.1	750.3
147.5°	777.3	777.8	778.3	778.5	778.2	778.0	777.8	777.5
150°	797.8	798.4	798.9	798.9	798.4	797.8	797.3	796.8
152.5°	818.6	819.4	820.0	820.0	819.4	818.6	817.9	817.3
155°	845.1	846.0	846.8	847.0	846.5	846.0	845.4	844.9
157.5°	869.5	870.7	871.9	872.0	871.2	870.4	869.5	868.6
160°	883.9	885.0	886.1	886.3	885.6	884.9	884.2	883.4
162.5°	897.1	898.3	899.5	899.7	898.8	897.9	897.1	896.3
165°	914.0	915.2	916.5	916.6	915.8	914.9	914.0	913.1
167.5°	928.0	929.2	930.4	930.6	929.7	928.8	927.8	926.9
170°	935.6	936.9	938.2	938.3	937.2	936.1	935.0	934.0
172.5°	941.4	942.7	943.9	944.0	942.9	941.9	940.8	939.8
175°	947.7	949.0	950.1	950.3	949.2	948.2	947.1	946.0
177.5°	950.6	951.4	952.3	952.3	951.4	950.6	949.7	948.9
180°	950.8	950.8	950.8	950.8	950.8	950.8	950.8	950.8

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