

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: P333643-840

Luminaire Tested: **S125RDIW-S375D470U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333643-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S375D470U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3102.4 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

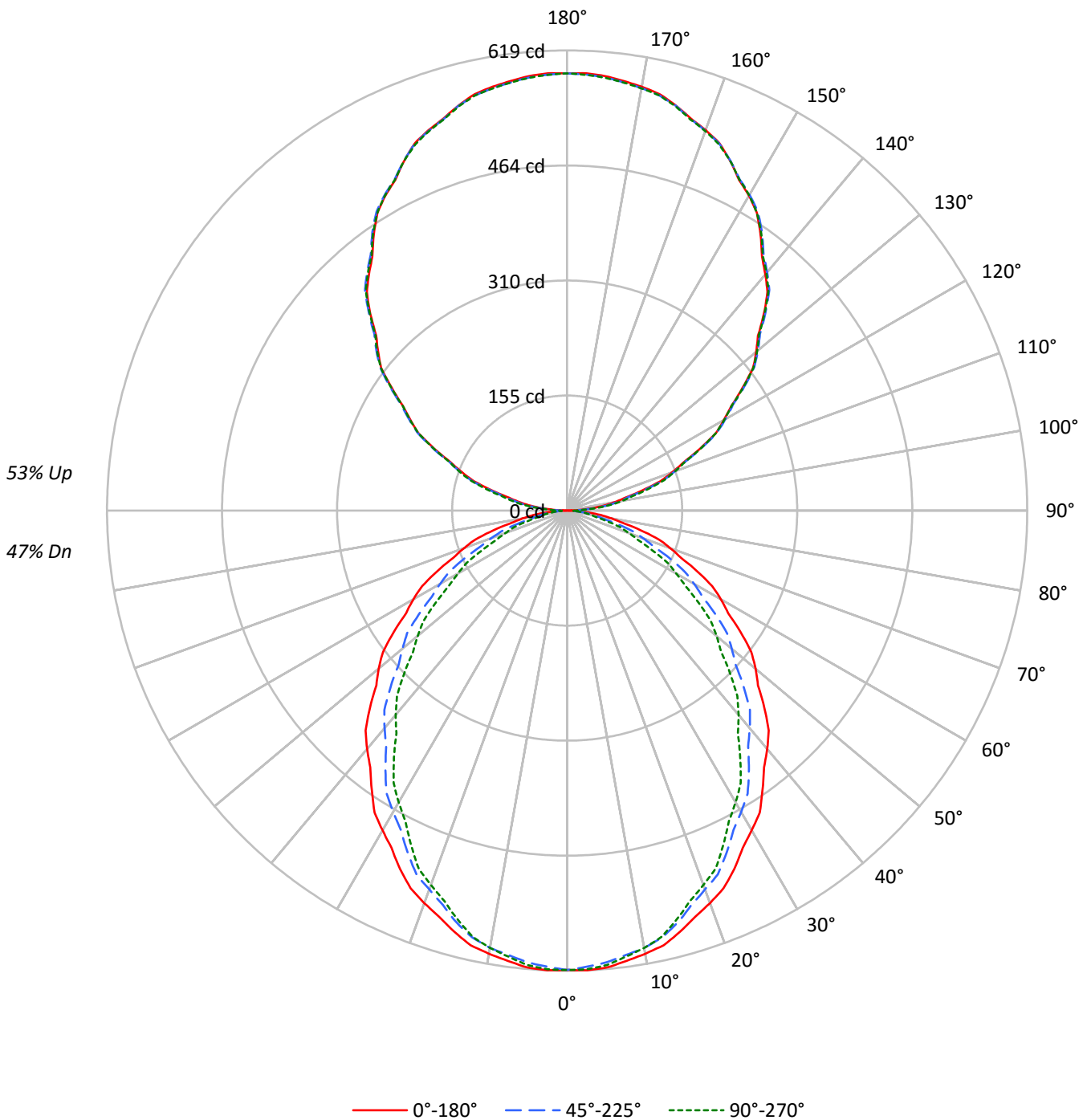
Input Watts (W): 23
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	97	93	89	86	89	86	83	80	72	70	68	59	58	56	48	47	46	40
2	89	82	76	70	81	75	70	66	63	59	56	52	50	47	42	40	39	34
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	37	35	33	29
4	74	64	56	50	68	59	52	47	50	45	41	41	38	35	34	31	29	25
5	68	57	49	43	62	53	46	40	45	39	35	37	33	30	30	27	25	22
6	63	51	43	37	58	47	40	35	40	35	31	34	30	26	28	25	22	19
7	58	46	38	33	53	43	36	31	37	31	27	31	26	23	25	22	20	17
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18	15
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	21	18	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3991	3991	3991
5°	4000	3955	3979
10°	3970	3918	3918
15°	3922	3839	3807
20°	3862	3727	3682
25°	3792	3619	3539
30°	3703	3491	3380
35°	3613	3360	3202
40°	3530	3222	3026
45°	3428	3070	2834
50°	3325	2903	2635
55°	3206	2743	2423
60°	3086	2550	2195
65°	2946	2326	1932
70°	2783	2045	1665
75°	2563	1724	1385
80°	2258	1354	1164
85°	1904	1104	1037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.9
10°-20°	162.4	5.2
20°-30°	235.5	7.6
30°-40°	268.4	8.7
40°-50°	261.6	8.4
50°-60°	220.2	7.1
60°-70°	154.3	5.0
70°-80°	79.3	2.6
80°-90°	21.3	0.7
90°-100°	39.4	1.3
100°-110°	116.3	3.7
110°-120°	197.1	6.4
120°-130°	259.3	8.4
130°-140°	290.6	9.4
140°-150°	284.8	9.2
150°-160°	239.2	7.7
160°-170°	159.0	5.1
170°-180°	55.6	1.8
0°-30°	456.0	14.7
0°-40°	724.3	23.3
0°-60°	1206.1	38.9
0°-90°	1461.1	47.1
90°-120°	352.8	11.4
90°-150°	1187.4	38.3
90°-180°	1641.0	52.9
0°-180°	3102.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	617	615	610	614	614	58
15°	587	584	574	573	569	165
25°	532	524	508	502	497	245
35°	458	447	426	413	406	287
45°	375	361	336	318	310	289
55°	285	269	244	223	215	255
65°	193	176	152	134	126	191
75°	103	88	69	59	56	109
85°	26	18	15	14	14	29
90°	0	4	7	10	11	3
95°	30	31	35	38	39	32
105°	104	107	109	112	114	111
115°	197	199	200	200	199	195
125°	288	290	291	290	290	258
135°	374	377	378	378	376	288
145°	454	455	457	457	455	283
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9
2.5°	619.0	618.8	618.5	618.3	618.0	617.5	616.7	615.8	615.0	614.2	615.0
5°	617.0	616.6	616.2	615.7	615.3	614.6	613.4	612.3	611.2	610.0	611.1
7.5°	611.0	610.6	610.2	609.8	609.4	608.4	607.1	605.7	604.4	603.0	603.7
10°	605.3	605.0	604.7	604.4	604.1	603.2	601.8	600.3	598.8	597.4	597.7
12.5°	599.0	598.5	598.2	597.8	597.4	596.2	594.3	592.4	590.4	588.4	588.7
15°	586.6	586.0	585.4	584.8	584.2	582.8	580.6	578.5	576.2	574.1	574.0
17.5°	572.8	571.8	570.9	569.9	569.0	567.1	564.3	561.6	558.9	556.1	555.6
20°	561.9	560.9	559.9	558.9	557.7	555.6	552.3	549.0	545.6	542.3	541.8
22.5°	550.0	549.0	548.0	546.8	545.8	543.6	540.1	536.6	533.1	529.7	528.7
25°	532.1	530.5	529.0	527.4	525.8	523.1	519.3	515.4	511.6	507.8	506.4
27.5°	511.5	509.7	507.8	505.8	503.9	501.0	496.9	492.7	488.7	484.5	482.6
30°	496.6	494.6	492.6	490.7	488.7	485.5	481.2	476.9	472.5	468.1	465.7
32.5°	482.0	479.7	477.5	475.1	472.8	469.5	465.0	460.6	456.2	451.7	449.1
35°	458.3	455.9	453.3	450.8	448.4	444.7	440.1	435.5	430.8	426.2	423.1
37.5°	435.0	432.0	429.0	426.0	422.9	419.0	414.2	409.4	404.7	399.8	396.2
40°	418.7	415.6	412.4	409.3	406.2	402.1	397.2	392.2	387.2	382.2	378.3
42.5°	401.4	398.3	395.1	391.9	388.7	384.6	379.4	374.3	369.1	364.0	360.2
45°	375.3	372.2	369.2	366.2	363.2	358.8	353.1	347.5	341.7	336.1	331.8
47.5°	348.1	344.9	341.7	338.5	335.4	330.9	325.2	319.4	313.7	307.9	303.7
50°	330.9	327.5	324.1	320.6	317.2	312.6	306.6	300.7	294.8	288.9	284.6
52.5°	312.3	308.7	305.2	301.7	298.2	293.7	288.1	282.5	276.9	271.4	266.7
55°	284.7	281.3	278.0	274.8	271.5	266.9	261.1	255.2	249.4	243.6	238.9
57.5°	256.9	253.4	249.7	246.2	242.7	238.1	232.5	226.9	221.4	215.7	211.2
60°	238.9	235.3	231.7	228.0	224.4	219.8	214.2	208.6	203.0	197.4	192.9
62.5°	219.9	216.4	213.0	209.5	206.0	201.5	195.8	190.2	184.4	178.7	174.5
65°	192.8	189.2	185.7	182.2	178.6	174.1	168.6	163.2	157.6	152.2	148.0
67.5°	165.8	162.3	158.8	155.2	151.7	147.2	142.0	136.7	131.5	126.2	122.4
70°	147.4	144.0	140.5	136.9	133.4	129.1	123.8	118.7	113.5	108.3	105.0
72.5°	129.6	126.1	122.7	119.3	115.8	111.6	106.7	101.9	97.0	92.2	89.3
75°	102.7	99.6	96.4	93.3	90.3	86.5	82.1	77.8	73.4	69.1	66.8
77.5°	75.9	73.5	71.0	68.5	66.0	63.0	59.6	56.0	52.6	49.1	47.5
80°	60.7	58.2	55.7	53.2	50.7	48.1	45.1	42.2	39.3	36.4	35.4
82.5°	45.7	43.5	41.3	39.0	36.8	34.6	32.7	30.7	28.7	26.7	26.3
85°	25.7	23.8	21.9	20.1	18.2	17.0	16.5	16.0	15.5	14.9	14.8
87.5°	8.7	8.3	7.9	7.5	7.0	6.9	6.9	7.0	7.0	7.1	7.2
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.2	5.9	6.6	7.4	7.9
92.5°	11.1	11.6	12.2	12.8	13.3	14.0	14.9	15.9	16.7	17.6	18.3
95°	29.8	30.0	30.2	30.4	30.6	31.2	32.2	33.2	34.2	35.2	36.0
97.5°	49.4	49.5	49.6	49.7	49.8	50.5	51.9	53.3	54.7	56.1	56.8
100°	64.1	64.1	64.1	64.1	64.1	64.7	66.0	67.4	68.7	70.0	71.0
102.5°	79.8	80.2	80.7	81.1	81.5	82.0	82.7	83.3	84.0	84.6	85.6
105°	104.3	104.8	105.3	105.8	106.4	106.9	107.6	108.2	108.8	109.4	110.0
107.5°	131.5	132.0	132.5	133.0	133.5	134.0	134.4	134.9	135.4	135.8	136.1
110°	150.2	150.7	151.2	151.7	152.2	152.6	152.9	153.2	153.5	153.8	154.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	169.2	169.5	169.7	170.0	170.3	170.6	171.0	171.4	171.7	172.1	172.3
115°	197.2	197.6	198.1	198.5	198.9	199.2	199.4	199.7	199.9	200.1	200.0
117.5°	225.5	225.6	225.8	226.0	226.2	226.4	226.6	226.7	226.9	227.1	227.2
120°	243.1	243.6	244.1	244.6	245.1	245.4	245.5	245.6	245.7	245.8	245.8
122.5°	262.1	262.3	262.5	262.7	262.8	263.1	263.3	263.6	263.9	264.1	264.0
125°	287.9	288.5	289.1	289.7	290.3	290.7	290.8	290.9	291.0	291.1	290.9
127.5°	315.4	315.7	316.1	316.4	316.8	317.0	317.1	317.2	317.3	317.5	317.4
130°	331.8	332.3	332.9	333.4	333.9	334.3	334.5	334.7	334.9	335.1	335.0
132.5°	348.3	349.1	350.0	350.8	351.6	352.0	352.0	351.9	351.9	351.8	351.7
135°	374.4	375.1	375.7	376.3	376.9	377.2	377.3	377.4	377.5	377.6	377.6
137.5°	398.9	399.5	400.1	400.7	401.3	401.7	401.9	402.1	402.3	402.6	402.7
140°	414.7	415.2	415.7	416.2	416.7	417.2	417.5	417.8	418.1	418.4	418.6
142.5°	430.4	430.8	431.3	431.7	432.1	432.5	432.9	433.3	433.7	434.1	434.2
145°	453.6	454.0	454.4	454.8	455.2	455.6	455.9	456.2	456.5	456.8	456.8
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	477.4
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9
2.5°	615.8	616.7	617.5	617.9	617.8	617.7	617.6	617.5
5°	612.1	613.1	614.1	614.6	614.4	614.1	613.9	613.7
7.5°	604.4	605.2	605.9	606.1	605.9	605.7	605.5	605.2
10°	598.0	598.3	598.6	598.6	598.3	598.0	597.7	597.4
12.5°	588.9	589.2	589.4	589.3	588.8	588.2	587.8	587.3
15°	573.8	573.7	573.6	573.1	572.2	571.3	570.4	569.4
17.5°	555.1	554.6	554.1	553.4	552.7	551.9	551.1	550.4
20°	541.3	540.8	540.3	539.6	538.6	537.7	536.7	535.8
22.5°	527.6	526.5	525.5	524.6	523.9	523.1	522.4	521.6
25°	505.1	503.7	502.4	501.2	500.0	498.9	497.8	496.6
27.5°	480.8	478.9	477.0	475.5	474.4	473.3	472.2	471.1
30°	463.3	461.0	458.6	457.0	456.0	455.0	454.1	453.2
32.5°	446.5	443.8	441.1	439.3	438.1	436.9	435.7	434.5
35°	420.1	417.1	414.0	411.8	410.4	409.0	407.5	406.1
37.5°	392.5	389.0	385.4	382.8	381.4	380.0	378.6	377.2
40°	374.4	370.4	366.5	363.9	362.6	361.4	360.1	358.9
42.5°	356.4	352.6	348.8	346.1	344.3	342.3	340.5	338.7
45°	327.7	323.6	319.4	316.6	315.1	313.5	311.9	310.3
47.5°	299.4	295.1	290.8	287.8	286.1	284.4	282.7	280.9
50°	280.1	275.8	271.5	268.5	267.0	265.4	263.9	262.3
52.5°	262.0	257.3	252.6	249.4	247.9	246.4	244.8	243.3
55°	234.3	229.6	225.0	221.8	220.2	218.4	216.8	215.2
57.5°	206.6	202.1	197.4	194.4	193.0	191.5	190.1	188.5
60°	188.3	183.7	179.2	176.1	174.5	173.0	171.5	169.9
62.5°	170.3	166.0	161.8	159.0	157.3	155.8	154.3	152.7
65°	143.8	139.7	135.5	132.7	131.2	129.6	128.1	126.4
67.5°	118.6	114.8	111.0	108.5	107.2	106.0	104.7	103.5
70°	101.9	98.7	95.4	93.2	91.9	90.7	89.5	88.2
72.5°	86.2	83.3	80.4	78.5	77.7	76.9	75.9	75.1
75°	64.5	62.2	60.0	58.5	57.8	57.0	56.2	55.5
77.5°	45.9	44.3	42.7	41.6	41.1	40.6	40.0	39.5
80°	34.5	33.6	32.7	32.1	31.9	31.7	31.5	31.3
82.5°	25.9	25.3	24.9	24.6	24.5	24.4	24.3	24.1
85°	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0
87.5°	7.3	7.4	7.5	7.5	7.5	7.5	7.5	7.5
90°	8.4	8.9	9.4	9.8	10.1	10.4	10.7	11.0
92.5°	18.9	19.6	20.3	20.7	20.9	21.1	21.4	21.6
95°	36.7	37.4	38.1	38.6	38.8	39.0	39.2	39.4
97.5°	57.5	58.2	58.8	59.2	59.3	59.5	59.6	59.7
100°	71.9	72.8	73.7	74.2	74.4	74.6	74.8	75.0
102.5°	86.6	87.7	88.7	89.3	89.6	89.9	90.2	90.5
105°	110.6	111.2	111.8	112.3	112.6	112.9	113.2	113.5
107.5°	136.4	136.7	137.0	137.2	137.2	137.1	137.1	137.1
110°	154.4	154.7	155.0	155.1	155.0	154.9	154.8	154.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.4	172.5	172.7	172.7	172.5	172.3	172.1	171.9
115°	199.9	199.8	199.7	199.5	199.4	199.3	199.2	199.1
117.5°	227.3	227.3	227.4	227.3	226.9	226.5	226.0	225.6
120°	245.8	245.8	245.8	245.6	245.2	244.8	244.4	244.0
122.5°	264.0	263.9	263.8	263.6	263.3	263.0	262.6	262.3
125°	290.7	290.5	290.3	290.1	290.0	289.9	289.8	289.7
127.5°	317.3	317.2	317.1	316.9	316.7	316.5	316.3	316.1
130°	334.9	334.8	334.7	334.5	334.3	334.1	333.9	333.7
132.5°	351.6	351.5	351.4	351.3	351.0	350.7	350.4	350.1
135°	377.6	377.6	377.6	377.4	377.0	376.6	376.2	375.8
137.5°	402.8	402.9	403.1	402.9	402.4	401.9	401.3	400.8
140°	418.8	419.0	419.2	419.0	418.5	418.0	417.5	417.0
142.5°	434.3	434.4	434.5	434.3	433.8	433.3	432.8	432.3
145°	456.8	456.8	456.8	456.7	456.4	456.1	455.8	455.4
147.5°	477.6	477.9	478.1	477.9	477.2	476.5	475.7	475.1
150°	490.7	490.7	490.7	490.6	490.4	490.2	490.0	489.8
152.5°	502.9	503.1	503.3	503.3	502.9	502.6	502.2	501.8
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

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