

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: P242923

Luminaire Tested: **S125RDR-S375D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-S375D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1123.3 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

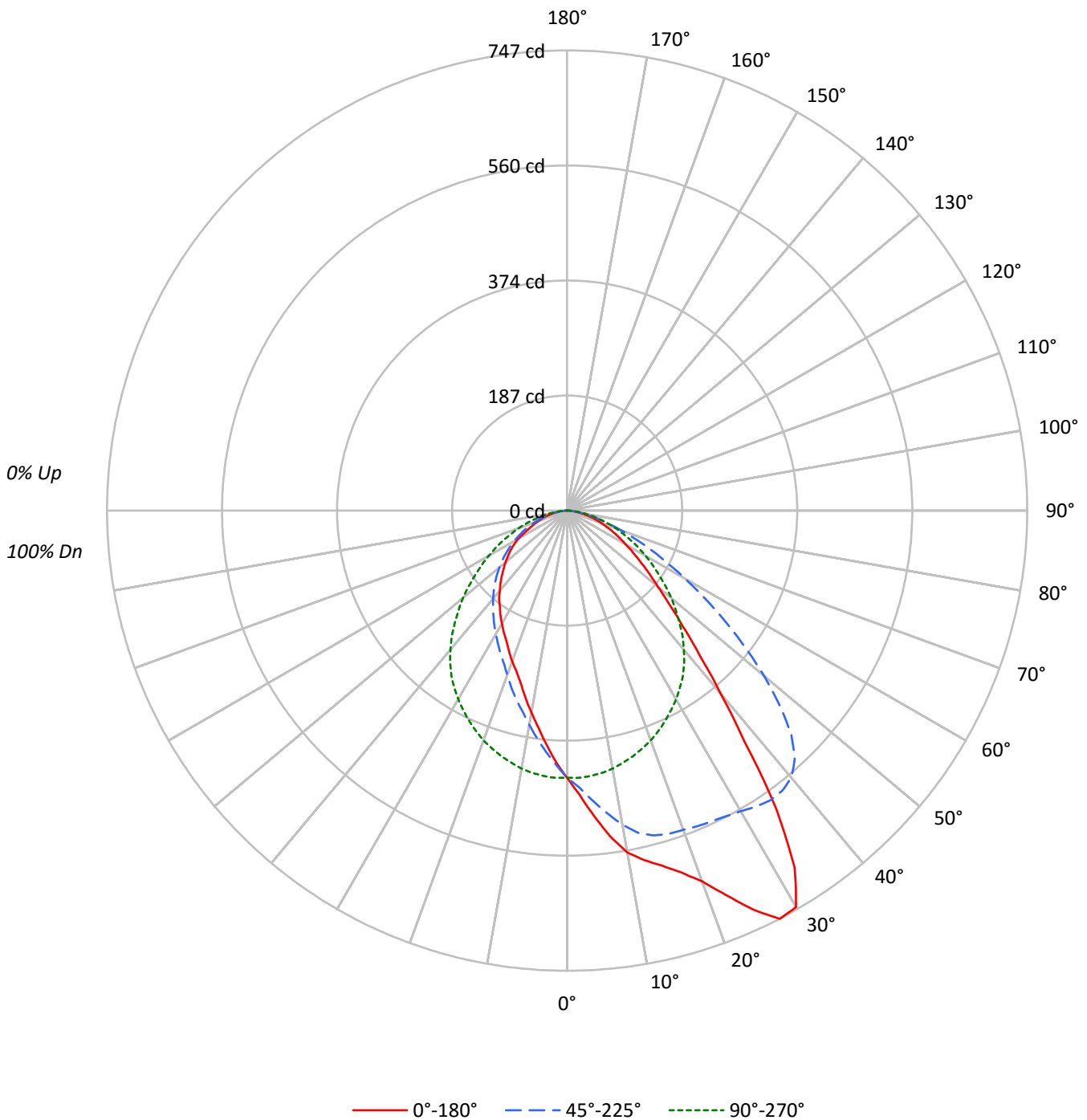
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3082	3082	3082
5°	3545	3086	2725
10°	4067	3070	2405
15°	4392	3038	2138
20°	4844	3002	1973
25°	5606	2953	1831
30°	6099	2902	1738
35°	5145	2843	1652
40°	3593	2736	1578
45°	2666	2592	1507
50°	2125	2443	1444
55°	1804	2256	1389
60°	1558	2090	1301
65°	1389	1910	1120
70°	1220	1750	1020
75°	1054	1516	958
80°	802	1273	802
85°	669	1003	758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	3.7
10°-20°	121.9	10.9
20°-30°	193.3	17.2
30°-40°	233.5	20.8
40°-50°	208.0	18.5
50°-60°	159.5	14.2
60°-70°	103.6	9.2
70°-80°	50.3	4.5
80°-90°	11.8	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	356.7	31.8
0°-40°	590.3	52.5
0°-60°	957.7	85.3
0°-90°	1123.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1123.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	434	434	434	434	434	
5°	497	472	432	393	382	49
15°	597	546	413	318	290	171
25°	715	556	377	256	234	329
35°	593	574	328	209	190	359
45°	265	514	258	165	150	210
55°	146	312	182	121	112	132
65°	83	149	114	78	67	82
75°	38	52	55	38	35	41
85°	8	9	12	10	9	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6
2.5°	461.7	461.3	462.0	460.1	460.3	457.2	457.2	454.9	451.9	449.6	448.5
5°	496.9	497.3	496.6	493.9	492.1	489.4	486.4	481.1	476.6	472.4	469.0
7.5°	532.9	533.2	530.9	530.4	525.7	522.9	516.1	509.2	503.1	495.1	489.4
10°	563.5	563.3	560.8	558.9	554.9	550.0	543.4	534.8	526.8	517.9	509.4
12.5°	581.3	580.7	580.4	577.9	574.3	570.1	564.7	556.4	546.0	536.1	525.7
15°	596.9	595.7	593.4	590.4	585.2	580.0	573.8	566.3	556.9	545.9	536.6
17.5°	615.8	616.0	612.4	609.2	602.5	593.9	584.7	573.3	561.2	550.0	540.7
20°	640.4	639.8	636.3	628.1	620.1	608.7	597.7	582.9	567.2	551.4	539.1
22.5°	675.6	674.0	670.3	658.9	645.4	629.9	611.5	592.7	572.9	554.4	537.3
25°	714.8	713.7	706.4	693.9	676.5	653.9	631.8	607.1	579.9	556.2	536.6
27.5°	747.2	745.0	738.4	726.7	709.6	685.2	654.8	622.7	590.4	559.2	532.3
30°	743.2	745.9	745.2	740.4	728.3	706.9	679.3	642.1	601.7	563.5	529.8
32.5°	687.4	689.7	697.7	710.7	714.6	709.2	690.4	656.7	614.6	569.7	527.9
35°	593.0	596.2	608.3	627.4	652.3	673.1	677.4	658.9	621.3	574.5	525.9
37.5°	473.1	493.9	502.1	521.5	560.6	598.5	631.5	638.9	618.7	573.4	523.6
40°	387.3	391.6	409.7	432.3	464.0	503.9	556.4	594.3	595.5	566.3	516.1
42.5°	317.5	323.2	334.2	351.2	377.1	417.0	471.6	524.7	553.3	546.8	506.3
45°	265.2	269.3	278.4	292.2	313.1	346.0	392.6	450.5	496.4	514.4	487.3
47.5°	224.3	226.4	234.8	246.0	262.0	286.9	324.8	377.1	431.8	468.3	461.1
50°	192.2	194.7	200.8	208.8	221.8	242.1	270.9	312.7	369.5	416.6	426.1
52.5°	167.3	169.3	172.5	179.9	190.1	204.5	226.4	263.2	312.9	363.8	388.7
55°	145.6	147.0	150.0	154.3	162.9	174.1	194.2	220.3	261.6	312.2	344.2
57.5°	127.1	127.8	129.6	133.8	140.1	148.4	163.7	187.6	217.5	265.0	300.3
60°	109.6	110.3	112.8	115.5	120.1	127.6	139.0	154.5	183.0	220.5	256.3
62.5°	95.8	96.1	96.8	99.5	103.4	108.7	117.1	129.0	150.2	182.1	215.4
65°	82.6	82.8	83.1	85.3	87.7	92.0	97.9	106.8	123.9	148.8	178.7
67.5°	69.4	69.8	71.0	71.7	74.8	76.9	80.6	87.7	100.9	118.7	142.9
70°	58.7	58.6	59.8	60.7	61.6	64.3	66.6	72.1	79.6	92.4	111.8
72.5°	48.8	48.2	48.6	48.8	50.0	51.6	53.9	56.8	62.1	69.9	83.7
75°	38.4	38.6	38.6	39.0	39.9	40.6	41.3	43.1	46.3	52.1	60.2
77.5°	28.8	28.5	29.4	29.4	30.1	31.0	31.5	32.2	33.5	36.1	40.9
80°	19.6	19.6	19.8	20.3	20.1	20.5	21.4	22.1	23.7	25.1	26.5
82.5°	13.9	13.7	13.9	13.9	13.9	14.2	14.4	14.4	14.8	15.3	16.2
85°	8.2	8.2	8.4	8.4	8.5	8.5	8.7	8.7	8.7	8.9	9.1
87.5°	3.9	3.7	3.6	3.6	3.7	4.1	3.9	3.7	3.7	3.7	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6
2.5°	448.5	447.3	444.9	442.8	440.1	437.8	436.2	434.3	431.8	428.8	426.3
5°	465.2	461.3	456.2	451.7	446.0	441.6	436.9	432.5	428.0	422.3	417.4
7.5°	483.7	476.1	469.0	459.7	451.4	444.1	436.9	429.6	422.7	414.9	407.6
10°	500.5	490.7	479.8	467.4	456.0	445.1	435.2	425.4	415.0	406.0	396.2
12.5°	516.1	502.8	490.0	473.4	459.2	445.3	432.0	419.1	407.9	395.5	384.8
15°	524.3	511.9	498.0	478.8	459.7	443.7	428.8	412.9	399.2	386.0	374.3
17.5°	529.1	516.0	499.9	481.3	460.8	440.9	422.0	405.1	389.4	374.3	361.3
20°	527.0	514.4	497.8	480.2	457.9	436.9	416.1	396.9	378.9	362.7	348.7
22.5°	521.8	508.7	492.8	474.0	453.1	430.5	407.9	387.1	368.1	351.2	335.5
25°	516.7	498.9	482.5	464.3	444.2	422.2	399.2	376.6	356.5	339.4	322.7
27.5°	511.7	490.2	469.9	452.4	430.9	411.0	388.5	365.2	344.2	326.9	309.9
30°	504.4	479.5	456.5	436.0	415.9	397.2	376.2	353.6	331.9	314.0	296.5
32.5°	495.3	468.4	442.6	418.3	399.0	380.5	362.0	340.7	319.6	301.0	283.2
35°	488.0	454.2	426.8	401.7	380.2	362.2	345.1	327.7	306.5	287.3	270.0
37.5°	477.9	440.7	409.7	382.3	359.9	342.1	328.4	311.8	292.1	273.4	257.4
40°	468.8	425.7	391.0	364.0	340.1	321.1	308.4	294.9	277.3	260.0	244.0
42.5°	456.7	412.0	372.2	343.7	319.6	301.5	288.7	277.3	263.2	247.2	229.8
45°	440.1	393.5	352.8	322.5	298.3	280.3	268.4	257.9	246.7	231.7	216.8
47.5°	420.4	375.9	333.0	299.7	276.4	259.5	247.7	239.0	230.8	217.8	202.7
50°	395.6	353.1	311.5	279.4	254.2	238.3	227.5	220.9	213.6	202.0	189.9
52.5°	366.5	329.6	289.0	256.1	232.6	218.0	207.7	201.1	195.4	186.5	175.1
55°	335.5	302.2	264.8	235.1	213.2	198.3	188.3	182.1	178.5	170.5	161.4
57.5°	300.4	274.8	241.0	212.0	192.2	177.3	169.8	164.3	160.2	154.3	147.5
60°	263.4	246.7	217.1	189.9	172.1	158.0	151.5	147.0	143.3	138.5	133.5
62.5°	225.9	214.8	190.1	167.7	151.6	140.4	134.4	130.5	126.0	123.2	118.4
65°	193.1	182.3	164.5	146.1	131.0	121.6	117.1	113.6	110.9	107.3	103.9
67.5°	156.8	151.8	138.6	124.9	113.9	104.8	100.9	98.1	95.0	92.9	90.4
70°	123.9	121.7	113.0	104.7	94.5	88.8	85.3	84.2	80.3	78.1	76.5
72.5°	94.7	94.0	89.9	84.7	78.3	73.5	70.3	69.1	66.9	65.3	64.4
75°	68.9	69.2	68.3	64.6	61.9	58.7	55.9	55.2	53.4	52.0	51.1
77.5°	47.0	48.8	48.4	48.2	47.0	44.7	43.4	42.9	40.9	40.4	40.2
80°	29.9	31.9	33.6	33.5	33.1	32.6	31.7	31.1	30.3	29.7	29.4
82.5°	17.4	19.2	20.6	21.9	21.9	21.4	20.8	20.6	20.6	20.3	20.3
85°	9.4	9.8	10.3	11.6	12.5	12.6	12.5	12.3	11.7	11.9	12.1
87.5°	4.1	4.1	4.3	4.3	4.1	5.0	5.5	5.7	5.3	5.0	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6	433.6
2.5°	424.5	422.0	420.2	416.6	414.2	413.1	411.1	410.6	412.6	411.1	411.0
5°	413.6	408.5	404.4	400.3	395.8	393.0	388.7	388.0	386.9	385.3	385.0
7.5°	401.0	394.6	389.8	383.0	377.5	373.0	367.7	365.6	364.5	362.5	359.3
10°	388.2	380.2	373.0	366.3	359.0	353.1	347.8	343.7	341.0	338.5	337.4
12.5°	375.5	367.3	357.7	349.2	340.8	334.1	328.0	325.7	322.7	319.6	316.8
15°	362.4	351.5	341.5	332.1	325.2	318.0	312.4	308.4	304.0	302.7	297.9
17.5°	348.3	338.2	326.4	316.3	308.4	301.0	294.7	290.1	286.7	281.9	279.6
20°	335.3	322.7	311.3	302.2	293.3	284.1	277.6	273.9	270.7	267.0	265.2
22.5°	321.4	309.1	297.4	286.4	277.3	268.2	264.1	260.2	256.5	253.1	250.6
25°	307.9	295.4	283.2	272.1	262.7	256.1	250.8	246.3	244.4	241.0	238.5
27.5°	294.4	281.2	268.7	257.2	249.9	243.3	239.0	235.5	231.7	228.7	226.4
30°	281.4	267.9	254.0	245.3	237.4	231.2	226.4	223.0	220.3	217.7	216.1
32.5°	268.4	254.3	242.4	232.8	225.5	220.3	215.4	212.2	209.3	206.3	204.3
35°	254.3	240.1	230.1	220.9	213.6	208.6	205.2	200.6	198.3	196.1	194.2
37.5°	241.7	228.2	217.1	209.1	202.4	197.6	193.1	190.8	187.8	186.0	184.4
40°	227.5	215.4	205.6	197.0	192.4	186.9	182.8	179.6	177.4	175.0	173.2
42.5°	214.6	203.6	194.2	186.7	180.6	176.2	172.3	169.1	166.2	164.6	163.2
45°	202.7	191.5	182.3	175.1	169.8	165.3	161.2	159.6	156.1	154.0	153.2
47.5°	190.3	180.1	171.0	164.5	158.9	154.8	150.9	147.4	145.6	143.5	142.4
50°	177.6	168.0	159.6	153.2	147.9	143.3	139.7	137.6	134.9	133.0	131.5
52.5°	165.0	156.3	147.9	141.8	137.4	132.8	128.7	126.5	124.1	123.0	122.1
55°	153.1	143.6	136.5	130.5	125.7	121.4	117.6	115.5	113.9	112.7	112.3
57.5°	139.4	131.7	124.9	119.6	114.4	110.3	107.0	105.0	103.6	103.4	102.2
60°	126.0	119.2	113.2	107.3	103.0	99.3	96.5	94.2	92.7	92.5	92.2
62.5°	112.7	106.3	100.7	95.8	92.0	88.5	85.8	83.1	82.4	81.3	80.4
65°	99.5	93.6	89.0	84.9	80.8	77.8	75.1	73.5	71.5	70.5	68.5
67.5°	86.5	81.7	77.2	73.9	70.5	67.5	65.1	62.8	61.4	60.5	58.9
70°	73.7	70.1	65.7	61.9	59.4	57.1	55.4	52.7	51.8	51.1	50.4
72.5°	61.6	58.6	55.0	52.1	49.7	47.5	45.4	44.5	43.6	42.9	42.5
75°	50.4	47.3	44.1	42.0	40.2	38.4	37.4	36.5	36.1	36.0	35.2
77.5°	39.2	37.4	34.7	32.7	31.5	30.8	29.7	29.4	29.5	28.7	28.5
80°	28.3	27.4	25.3	24.6	23.7	23.0	22.4	21.5	20.6	20.3	19.8
82.5°	19.2	18.3	17.8	16.6	15.8	15.5	15.0	14.8	15.1	14.6	14.4
85°	11.2	10.3	10.0	9.8	9.4	9.8	9.6	9.4	9.3	9.1	9.3
87.5°	4.4	4.4	4.3	4.6	4.1	4.3	4.3	4.1	4.1	4.1	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	433.6	433.6	433.6	433.6
2.5°	410.8	408.8	408.3	409.0
5°	383.2	381.4	382.3	381.9
7.5°	359.9	357.6	354.9	355.6
10°	335.1	333.4	332.3	333.2
12.5°	314.3	313.4	312.5	311.8
15°	295.8	293.7	292.8	290.5
17.5°	278.0	277.3	275.0	273.4
20°	262.5	261.8	259.5	260.9
22.5°	249.7	247.9	247.6	246.7
25°	237.8	235.5	234.6	233.5
27.5°	225.7	224.4	223.2	222.8
30°	213.9	212.7	211.8	211.8
32.5°	203.4	202.5	201.6	201.5
35°	193.3	191.9	191.5	190.4
37.5°	182.6	181.4	181.4	181.5
40°	172.5	171.6	171.4	170.1
42.5°	161.6	161.2	160.5	160.2
45°	152.0	150.7	150.7	149.9
47.5°	141.8	140.8	141.0	139.9
50°	131.7	131.2	131.0	130.6
52.5°	121.6	121.4	122.3	121.4
55°	112.7	112.1	113.2	112.1
57.5°	102.2	101.8	102.9	102.2
60°	91.8	90.8	91.3	91.5
62.5°	79.6	79.0	79.4	78.3
65°	68.2	67.6	66.9	66.6
67.5°	59.3	57.7	57.7	58.0
70°	49.3	49.3	49.1	49.1
72.5°	42.4	42.2	41.8	41.6
75°	35.2	35.4	35.1	34.9
77.5°	27.6	26.7	27.1	26.7
80°	19.8	19.6	20.1	19.6
82.5°	14.6	14.4	14.6	14.2
85°	9.4	9.3	9.1	9.3
87.5°	4.1	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0

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