

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: P243764

Luminaire Tested: **S125RDR-H610D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-H610D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1772.3 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

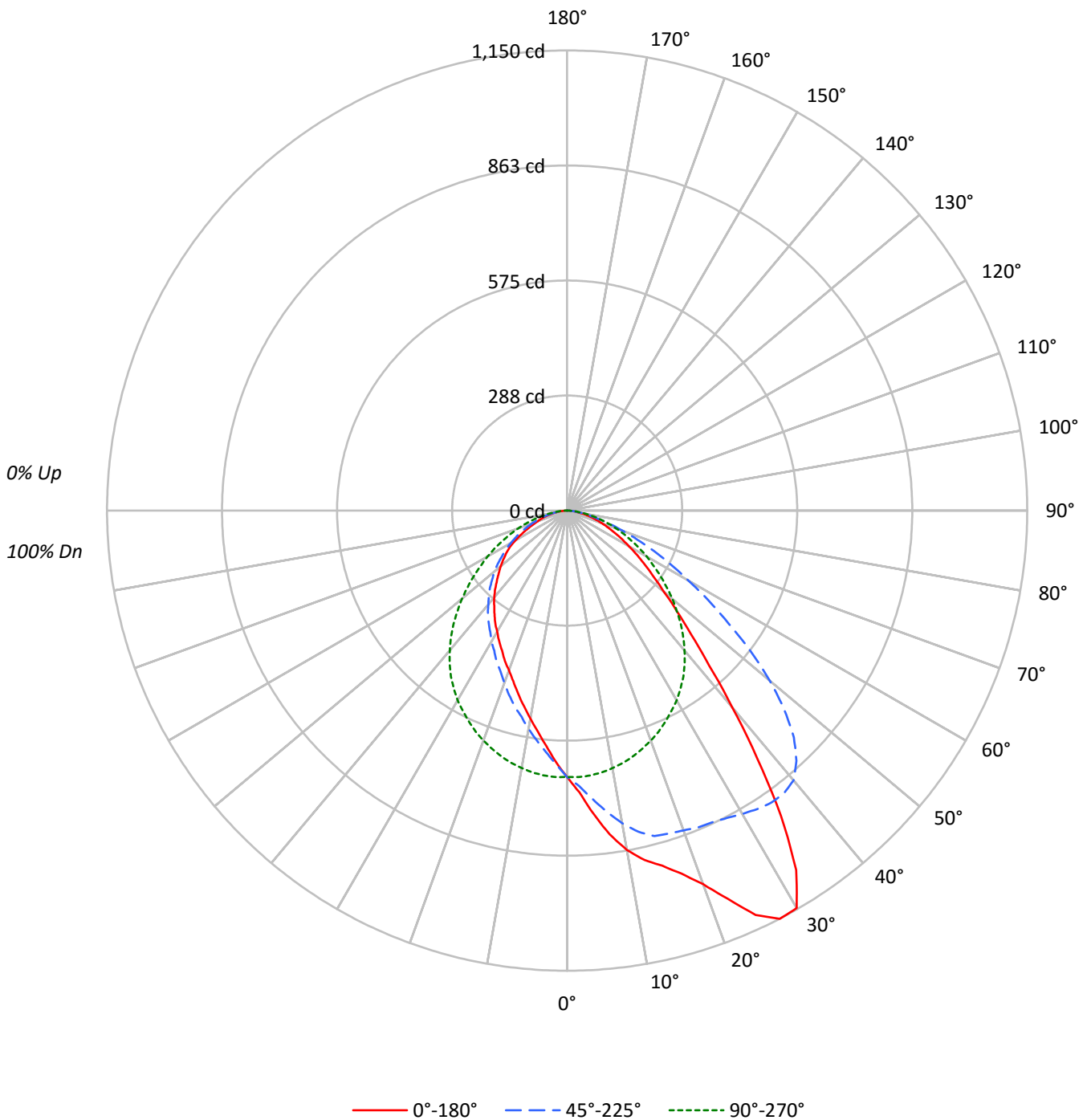
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	68	78	72	67	75	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4733	4733	4733
5°	5433	4740	4216
10°	6217	4716	3811
15°	6761	4678	3486
20°	7514	4626	3211
25°	8742	4560	3023
30°	9414	4492	2869
35°	8087	4392	2744
40°	5958	4234	2631
45°	4400	4037	2495
50°	3486	3796	2394
55°	2945	3518	2304
60°	2537	3258	2132
65°	2203	2967	1857
70°	1931	2716	1625
75°	1639	2378	1538
80°	1277	1989	1277
85°	1117	1590	1166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.6
10°-20°	189.6	10.7
20°-30°	302.5	17.1
30°-40°	367.3	20.7
40°-50°	330.9	18.7
50°-60°	254.5	14.4
60°-70°	165.1	9.3
70°-80°	79.5	4.5
80°-90°	18.8	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°	556.2	31.4
0°-40°	923.5	52.1
0°-60°	1508.9	85.1
0°-90°	1772.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	666	666	666	666	666	
5°	762	724	664	606	591	76
15°	919	842	636	506	474	263
25°	1115	859	582	417	386	510
35°	932	891	506	342	316	570
45°	438	801	402	272	248	348
55°	238	492	284	199	186	215
65°	131	239	176	126	110	131
75°	60	81	87	62	56	64
85°	14	14	20	16	14	16
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°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	704.5	707.1	705.0	706.4	704.2	703.2	700.5	696.6	692.6	688.9	688.7
5°	761.5	761.0	758.9	756.0	753.9	748.6	746.0	737.0	730.9	723.5	719.8
7.5°	815.9	814.6	811.4	807.5	805.6	798.8	791.4	780.0	770.5	758.9	750.2
10°	861.4	861.1	858.7	856.1	848.9	841.3	834.2	822.3	808.0	793.5	781.3
12.5°	894.6	893.3	890.4	885.9	880.1	874.8	865.3	854.5	837.1	822.3	805.6
15°	918.9	918.4	914.2	912.6	901.2	893.8	881.2	870.3	856.9	842.1	824.1
17.5°	951.1	952.2	948.5	939.5	929.2	917.9	899.9	882.2	863.5	846.3	831.8
20°	993.4	990.7	984.4	973.6	955.1	941.1	923.1	901.2	875.9	850.5	829.7
22.5°	1049.9	1047.0	1037.0	1023.7	1000.5	974.9	947.4	914.7	885.6	856.6	829.1
25°	1114.8	1109.3	1094.5	1080.3	1047.2	1020.1	979.1	940.0	897.8	859.2	828.3
27.5°	1150.2	1150.2	1143.4	1127.8	1101.6	1061.5	1019.8	967.8	918.9	866.1	822.3
30°	1147.1	1145.2	1147.9	1141.3	1124.4	1094.3	1052.8	998.1	935.8	875.3	822.8
32.5°	1065.2	1066.0	1081.8	1092.7	1101.1	1093.7	1066.8	1017.4	955.4	884.3	820.7
35°	932.1	934.2	962.2	980.7	1018.5	1040.1	1046.5	1019.8	964.1	890.7	817.0
37.5°	780.0	780.0	812.5	840.5	882.7	936.1	976.0	986.0	958.8	890.4	813.8
40°	642.2	641.4	667.0	701.3	746.5	805.4	864.8	915.7	922.4	880.1	802.7
42.5°	525.5	524.2	552.1	571.2	618.7	671.2	750.2	822.3	863.5	848.2	786.4
45°	437.8	436.7	455.0	476.6	510.2	564.8	631.1	711.1	780.3	801.4	755.7
47.5°	371.8	372.3	382.1	400.3	428.8	467.9	527.3	601.5	687.1	735.9	717.2
50°	315.3	317.1	324.5	338.3	359.1	390.5	441.5	508.6	596.5	661.2	665.2
52.5°	273.0	275.7	283.6	291.0	308.4	330.6	370.2	428.3	500.9	578.5	606.3
55°	237.7	239.0	243.5	251.4	264.3	282.8	311.6	355.9	423.3	492.5	541.3
57.5°	208.1	208.1	211.0	216.5	226.8	243.5	262.7	299.4	356.2	418.8	470.8
60°	178.5	179.6	181.7	187.7	194.6	207.3	226.0	249.3	298.4	350.7	406.6
62.5°	153.7	155.5	157.6	160.5	166.9	175.9	189.1	210.5	243.5	291.8	341.7
65°	131.0	132.8	133.1	136.5	140.7	148.1	158.2	173.7	201.2	239.2	280.4
67.5°	110.9	111.7	112.5	115.1	119.1	123.8	130.4	142.1	163.7	189.3	229.5
70°	92.9	93.5	93.7	96.6	98.5	102.7	106.2	113.5	127.3	147.1	178.2
72.5°	76.0	75.3	75.0	77.4	78.2	81.6	85.8	91.1	98.5	112.5	135.7
75°	59.7	59.9	60.2	61.5	61.8	63.4	66.0	69.4	72.9	81.1	95.9
77.5°	45.9	44.9	44.9	46.5	47.0	47.3	49.1	51.0	52.8	57.6	63.4
80°	31.2	31.7	31.7	31.7	32.0	32.5	33.5	35.1	36.4	39.3	40.4
82.5°	22.2	22.2	21.9	22.4	22.7	23.0	23.0	23.0	23.8	24.6	25.6
85°	13.7	14.0	13.2	13.7	14.0	14.0	14.0	14.0	14.8	14.5	14.8
87.5°	5.8	6.1	6.1	6.3	6.3	6.6	6.3	6.6	6.3	6.3	6.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	687.9	684.7	683.1	679.9	675.7	673.1	670.4	666.7	663.8	659.3	655.4
5°	713.2	706.9	701.1	693.1	685.5	678.9	672.0	664.4	657.5	649.8	641.7
7.5°	741.5	731.4	719.3	705.3	693.4	683.1	671.5	660.1	649.8	637.7	626.6
10°	768.7	752.6	736.5	717.7	700.3	685.0	669.4	653.5	640.1	625.0	611.3
12.5°	789.8	774.5	750.4	727.2	704.5	684.7	665.2	645.9	628.2	611.6	595.2
15°	808.3	782.9	762.6	737.2	709.5	682.6	658.3	635.8	614.5	594.9	578.3
17.5°	813.6	790.8	768.7	739.1	709.3	678.6	650.6	624.0	600.2	578.5	559.8
20°	813.0	790.1	766.0	737.8	706.1	672.6	641.4	611.6	584.6	559.8	539.7
22.5°	805.1	782.9	758.6	730.1	697.9	663.3	630.6	597.6	568.3	542.4	521.8
25°	796.7	768.7	743.3	714.5	683.9	652.0	617.1	581.5	550.8	523.9	500.7
27.5°	789.3	755.7	724.6	696.3	664.9	636.1	601.5	564.3	532.9	504.6	480.6
30°	777.4	742.0	704.2	673.3	643.0	612.9	581.2	547.4	513.1	484.3	460.3
32.5°	767.1	722.5	681.5	646.7	616.3	589.9	559.5	527.1	493.5	466.1	440.2
35°	755.7	702.4	659.6	618.7	588.3	559.5	535.5	506.2	472.9	443.9	420.6
37.5°	742.3	681.8	632.7	591.0	559.5	530.0	508.3	482.2	452.1	423.3	400.3
40°	727.2	660.7	604.2	561.1	527.3	497.7	479.5	456.3	430.7	402.2	380.8
42.5°	708.2	638.2	578.3	531.3	493.8	467.1	448.9	429.6	406.1	381.3	358.1
45°	684.2	610.2	547.4	497.7	460.8	434.9	415.9	401.6	382.9	359.6	337.7
47.5°	654.9	580.9	515.7	464.2	428.6	403.7	386.1	371.8	357.5	337.5	316.6
50°	616.0	547.4	484.8	432.3	394.5	370.5	354.6	343.3	330.3	314.0	295.0
52.5°	573.3	509.6	448.4	399.3	362.8	338.8	322.4	312.9	303.1	289.7	273.3
55°	523.6	471.9	413.5	365.5	329.8	306.0	293.1	283.9	275.7	265.4	251.6
57.5°	471.1	425.7	375.0	330.6	297.1	274.6	263.3	255.6	248.7	241.3	230.0
60°	415.9	383.7	335.6	295.0	265.6	247.2	236.3	229.2	222.9	216.8	208.3
62.5°	358.3	331.7	295.7	261.2	235.0	217.6	209.7	203.6	197.0	191.7	185.6
65°	300.0	284.7	259.8	227.4	203.3	189.1	181.4	176.4	173.2	167.1	162.4
67.5°	246.9	238.4	217.3	195.4	176.9	164.0	156.8	153.2	149.7	146.8	141.5
70°	196.5	190.4	178.2	162.7	148.1	137.0	131.8	130.7	126.0	123.1	120.4
72.5°	149.7	148.1	138.1	131.2	123.1	114.3	110.4	108.3	105.1	102.5	101.4
75°	106.4	108.8	105.6	102.2	98.2	91.1	87.7	86.6	83.7	82.9	81.6
77.5°	72.6	76.0	77.1	75.5	73.7	71.3	68.9	67.9	65.0	64.4	63.6
80°	45.7	50.7	52.5	52.3	51.5	51.8	48.9	48.6	47.3	46.5	47.3
82.5°	27.7	30.4	33.8	34.6	33.5	34.1	33.3	32.2	32.2	32.7	31.7
85°	15.1	15.3	16.9	18.0	19.3	20.3	19.3	19.5	19.3	19.3	18.5
87.5°	6.6	6.9	6.9	6.6	7.1	7.7	8.7	9.2	9.0	8.2	7.1
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°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	652.2	650.4	647.2	644.6	638.5	634.3	633.7	634.0	633.5	632.9	632.7
5°	636.4	630.3	624.5	619.5	612.6	605.7	602.6	601.3	600.7	597.8	599.4
7.5°	619.5	610.2	603.4	593.9	585.7	579.9	574.3	571.7	571.2	567.2	566.1
10°	601.5	590.4	580.1	570.6	562.4	554.3	547.7	545.3	542.1	538.9	534.2
12.5°	583.8	570.1	558.7	548.2	537.1	527.8	522.6	519.1	515.2	512.3	510.7
15°	562.7	551.1	537.1	525.7	514.4	506.2	499.1	492.7	489.0	486.7	480.1
17.5°	543.7	528.4	515.2	504.3	491.9	482.7	475.3	470.0	463.7	458.9	454.7
20°	523.4	507.5	495.4	482.4	469.8	458.4	449.2	444.9	440.4	436.0	433.6
22.5°	501.4	487.7	474.0	460.5	447.0	434.9	429.1	423.0	419.1	414.6	411.4
25°	482.4	467.4	453.6	438.6	423.8	416.7	408.8	402.7	399.5	395.0	391.6
27.5°	462.1	447.6	431.2	415.6	406.9	394.8	389.5	384.7	380.5	376.0	373.6
30°	443.1	426.2	409.8	397.7	386.3	377.6	372.6	366.8	361.0	358.9	355.7
32.5°	423.0	404.8	390.5	378.4	368.9	358.3	353.6	348.8	343.3	340.6	337.7
35°	402.2	384.5	370.5	359.4	349.6	341.7	336.4	331.4	328.0	324.0	321.9
37.5°	380.2	364.9	351.5	340.4	331.4	325.1	318.5	314.5	309.7	306.0	304.5
40°	359.4	345.7	332.7	322.4	314.2	306.6	300.8	295.7	292.8	289.7	287.0
42.5°	340.6	326.4	315.3	304.5	297.1	289.7	283.9	280.2	275.1	273.8	270.1
45°	320.6	307.4	296.3	286.2	278.6	272.5	265.6	261.2	258.0	254.8	253.5
47.5°	300.2	288.1	277.8	268.5	260.6	253.8	248.5	243.7	240.3	237.4	235.8
50°	280.4	269.9	259.6	250.6	242.4	237.4	231.0	225.8	223.1	220.0	218.1
52.5°	259.6	250.9	239.8	232.1	224.4	217.8	211.5	208.1	205.4	202.8	201.5
55°	240.0	230.8	221.3	213.1	205.7	198.8	193.8	191.2	187.7	186.2	185.9
57.5°	220.0	210.5	202.5	195.1	186.7	181.4	176.9	173.7	170.8	169.5	169.5
60°	198.0	190.4	183.0	174.8	168.7	162.7	157.9	155.8	152.9	152.4	150.5
62.5°	178.0	170.8	163.7	156.1	150.5	144.4	141.0	138.1	136.5	134.4	132.3
65°	157.1	150.8	143.9	137.3	132.8	126.2	123.1	119.6	117.8	115.4	112.8
67.5°	137.0	131.0	124.6	118.6	114.9	108.5	106.4	102.2	100.9	98.2	95.9
70°	115.9	111.7	106.7	100.6	97.4	92.4	90.3	86.3	84.2	82.6	81.3
72.5°	97.7	93.7	87.9	84.0	80.0	76.8	73.4	71.6	69.7	68.4	68.1
75°	79.7	74.7	71.3	67.6	65.0	61.8	60.2	58.9	58.1	57.3	56.5
77.5°	61.0	58.9	55.5	51.8	49.6	48.3	47.3	46.7	45.9	45.7	44.9
80°	45.4	42.5	40.4	39.1	37.5	36.4	35.6	33.8	32.7	32.2	31.7
82.5°	30.1	29.3	27.7	26.4	25.1	24.8	24.0	23.5	23.2	23.2	23.0
85°	18.2	16.1	16.1	15.8	15.8	15.6	15.1	15.1	14.5	15.3	15.3
87.5°	7.4	7.4	6.9	6.9	7.1	6.6	6.3	6.3	6.3	6.1	6.3
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°	666.0	666.0	666.0	666.0
2.5°	632.7	631.4	631.6	630.0
5°	596.5	595.7	593.1	591.0
7.5°	563.5	560.1	559.8	557.7
10°	532.6	529.4	527.8	528.1
12.5°	505.7	502.2	502.2	500.1
15°	476.9	473.5	474.0	473.7
17.5°	453.1	450.7	448.9	447.3
20°	429.9	427.0	425.9	424.6
22.5°	408.5	406.4	406.6	406.6
25°	388.2	388.4	386.1	385.5
27.5°	370.2	369.7	369.2	368.1
30°	353.3	351.2	350.7	349.6
32.5°	335.9	335.6	333.5	334.3
35°	318.2	317.4	316.9	316.3
37.5°	301.8	300.2	300.0	299.4
40°	285.2	284.7	282.3	283.6
42.5°	267.2	266.2	266.2	266.2
45°	252.2	249.3	249.3	248.2
47.5°	235.3	234.2	233.7	231.8
50°	218.6	217.1	216.5	216.5
52.5°	201.5	201.2	201.7	200.7
55°	186.4	186.7	186.4	185.9
57.5°	170.1	168.7	168.7	169.0
60°	150.5	150.5	151.0	150.0
62.5°	131.8	131.2	129.4	128.9
65°	112.5	110.4	110.1	110.4
67.5°	95.3	94.5	93.2	93.5
70°	80.5	80.3	79.0	78.2
72.5°	67.3	67.3	66.5	66.5
75°	56.2	55.7	55.5	56.0
77.5°	43.3	42.0	42.5	41.7
80°	31.4	32.0	31.4	31.2
82.5°	23.2	22.7	23.0	22.7
85°	14.8	14.3	14.5	14.3
87.5°	6.1	6.3	6.3	5.8
90°	0.0	0.0	0.0	0.0

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