

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: P242933

Luminaire Tested: **S125RDR-S375D940-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242933  
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-S375D940-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1228.6 lumens  
Efficiency: N/A  
Efficacy: 105.9 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

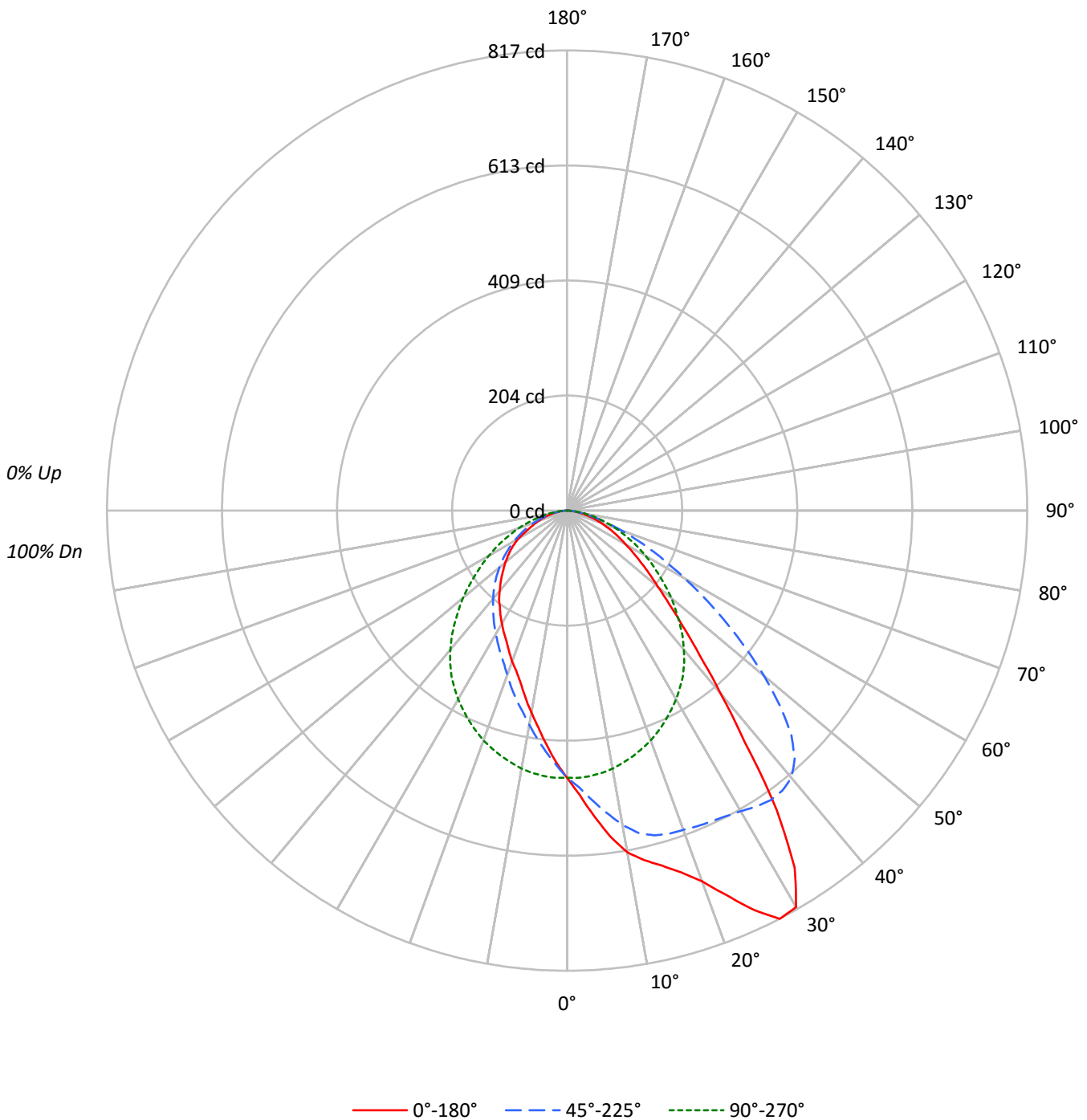
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3370	3370	3370
5°	3878	3375	2980
10°	4448	3357	2630
15°	4804	3323	2338
20°	5297	3283	2159
25°	6131	3230	2003
30°	6671	3174	1901
35°	5628	3110	1807
40°	3930	2993	1727
45°	2915	2835	1647
50°	2324	2671	1580
55°	1973	2467	1519
60°	1704	2286	1423
65°	1519	2089	1224
70°	1334	1914	1116
75°	1153	1656	1049
80°	876	1396	876
85°	734	1093	824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.5	3.7
10°-20°	133.3	10.9
20°-30°	211.4	17.2
30°-40°	255.4	20.8
40°-50°	227.5	18.5
50°-60°	174.4	14.2
60°-70°	113.3	9.2
70°-80°	55.0	4.5
80°-90°	12.9	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°	390.2	31.8
0°-40°	645.6	52.5
0°-60°	1047.5	85.3
0°-90°	1228.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1228.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	544	517	473	430	418	54
15°	653	597	452	348	318	187
25°	782	608	412	280	255	360
35°	649	628	358	228	208	393
45°	290	563	282	181	164	230
55°	159	341	199	133	123	144
65°	90	163	124	85	73	90
75°	42	57	60	42	38	45
85°	9	10	13	11	10	11
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°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	504.9	504.6	505.3	503.2	503.4	500.1	500.1	497.5	494.2	491.7	490.5
5°	543.5	543.9	543.1	540.2	538.2	535.3	532.0	526.2	521.3	516.6	512.9
7.5°	582.8	583.2	580.7	580.1	575.0	571.9	564.5	556.9	550.3	541.5	535.3
10°	616.3	616.1	613.4	611.2	606.9	601.5	594.3	585.0	576.2	566.5	557.1
12.5°	635.8	635.2	634.8	632.1	628.2	623.5	617.7	608.5	597.2	586.3	575.0
15°	652.9	651.5	649.0	645.7	640.0	634.4	627.6	619.4	609.1	597.0	586.9
17.5°	673.5	673.7	669.8	666.3	658.9	649.6	639.5	627.0	613.8	601.5	591.4
20°	700.4	699.8	695.9	687.0	678.2	665.7	653.7	637.5	620.4	603.1	589.6
22.5°	738.9	737.2	733.1	720.6	705.8	688.9	668.8	648.2	626.6	606.4	587.7
25°	781.8	780.6	772.6	759.0	739.9	715.2	691.0	664.0	634.2	608.3	586.9
27.5°	817.2	814.8	807.6	794.8	776.1	749.4	716.2	681.1	645.7	611.6	582.2
30°	812.9	815.8	815.0	809.8	796.5	773.2	743.0	702.3	658.1	616.3	579.5
32.5°	751.8	754.3	763.1	777.3	781.6	775.7	755.1	718.3	672.2	623.1	577.4
35°	648.6	652.1	665.3	686.2	713.4	736.2	740.9	720.6	679.6	628.4	575.2
37.5°	517.4	540.2	549.1	570.4	613.2	654.6	690.7	698.8	676.6	627.2	572.7
40°	423.6	428.3	448.1	472.8	507.5	551.1	608.5	650.0	651.3	619.4	564.5
42.5°	347.3	353.5	365.6	384.1	412.5	456.1	515.8	573.9	605.2	598.0	553.8
45°	290.0	294.5	304.4	319.6	342.4	378.4	429.4	492.7	542.9	562.6	533.0
47.5°	245.3	247.6	256.8	269.0	286.5	313.8	355.3	412.5	472.2	512.1	504.4
50°	210.2	213.0	219.6	228.3	242.5	264.7	296.3	342.0	404.1	455.7	466.0
52.5°	183.0	185.1	188.6	196.8	207.9	223.7	247.6	287.9	342.2	397.9	425.1
55°	159.2	160.8	164.1	168.8	178.1	190.4	212.4	241.0	286.1	341.4	376.5
57.5°	139.0	139.8	141.7	146.4	153.2	162.3	179.1	205.2	237.9	289.8	328.4
60°	119.9	120.7	123.4	126.3	131.4	139.6	152.0	169.0	200.1	241.2	280.3
62.5°	104.7	105.1	105.9	108.8	113.1	118.9	128.1	141.1	164.3	199.1	235.5
65°	90.3	90.5	90.9	93.2	96.0	100.6	107.1	116.8	135.5	162.7	195.4
67.5°	75.9	76.3	77.7	78.4	81.8	84.1	88.2	96.0	110.4	129.8	156.3
70°	64.2	64.0	65.4	66.4	67.4	70.3	72.8	78.8	87.0	101.0	122.2
72.5°	53.3	52.8	53.1	53.3	54.7	56.5	59.0	62.1	67.9	76.5	91.5
75°	42.0	42.2	42.2	42.6	43.6	44.4	45.2	47.1	50.6	57.0	65.8
77.5°	31.5	31.1	32.1	32.1	32.9	33.9	34.5	35.2	36.6	39.5	44.8
80°	21.4	21.4	21.6	22.2	22.0	22.4	23.4	24.1	25.9	27.4	29.0
82.5°	15.2	15.0	15.2	15.2	15.2	15.6	15.8	15.8	16.2	16.7	17.7
85°	9.0	9.0	9.1	9.1	9.3	9.3	9.5	9.5	9.5	9.7	9.9
87.5°	4.3	4.1	3.9	3.9	4.1	4.5	4.3	4.1	4.1	4.1	4.3
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	490.5	489.2	486.6	484.3	481.4	478.9	477.1	475.0	472.2	468.9	466.2
5°	508.8	504.6	498.9	494.0	487.8	482.9	477.9	473.0	468.2	461.9	456.5
7.5°	529.1	520.7	512.9	502.8	493.7	485.7	477.9	469.9	462.3	453.8	445.8
10°	547.4	536.7	524.8	511.2	498.7	486.8	475.9	465.2	453.9	444.0	433.3
12.5°	564.5	549.9	535.9	517.8	502.2	487.0	472.4	458.4	446.2	432.5	420.9
15°	573.5	559.8	544.7	523.6	502.8	485.3	468.9	451.6	436.6	422.2	409.4
17.5°	578.7	564.3	546.8	526.4	504.0	482.2	461.5	443.0	425.9	409.4	395.2
20°	576.4	562.6	544.5	525.2	500.9	477.9	455.1	434.1	414.4	396.7	381.3
22.5°	570.7	556.3	539.0	518.4	495.6	470.9	446.2	423.4	402.6	384.1	366.9
25°	565.1	545.6	527.7	507.9	485.9	461.7	436.6	411.9	389.9	371.2	352.9
27.5°	559.6	536.1	513.9	494.8	471.3	449.5	424.9	399.4	376.5	357.6	338.9
30°	551.7	524.4	499.3	476.9	454.9	434.5	411.5	386.8	363.0	343.4	324.3
32.5°	541.7	512.3	484.1	457.4	436.4	416.2	395.9	372.6	349.6	329.2	309.7
35°	533.8	496.8	466.8	439.3	415.8	396.1	377.4	358.4	335.2	314.2	295.3
37.5°	522.7	482.0	448.1	418.1	393.6	374.1	359.1	341.0	319.4	299.0	281.5
40°	512.7	465.6	427.7	398.1	372.0	351.2	337.3	322.6	303.3	284.4	266.9
42.5°	499.5	450.6	407.0	375.9	349.6	329.8	315.7	303.3	287.9	270.4	251.3
45°	481.4	430.4	385.8	352.7	326.2	306.6	293.5	282.1	269.8	253.4	237.1
47.5°	459.8	411.1	364.2	327.8	302.3	283.8	271.0	261.4	252.5	238.3	221.7
50°	432.7	386.2	340.7	305.6	278.0	260.6	248.8	241.6	233.6	220.9	207.7
52.5°	400.8	360.5	316.1	280.1	254.4	238.5	227.2	220.0	213.7	204.0	191.5
55°	366.9	330.5	289.7	257.1	233.2	216.9	205.9	199.1	195.2	186.5	176.6
57.5°	328.6	300.6	263.6	231.8	210.2	193.9	185.7	179.7	175.2	168.8	161.4
60°	288.1	269.8	237.5	207.7	188.2	172.9	165.7	160.8	156.7	151.4	146.0
62.5°	247.0	235.0	207.9	183.4	165.8	153.6	147.0	142.7	137.8	134.7	129.4
65°	211.2	199.3	179.9	159.8	143.3	133.0	128.1	124.2	121.3	117.4	113.7
67.5°	171.5	166.0	151.6	136.7	124.6	114.7	110.4	107.3	103.9	101.6	98.9
70°	135.5	133.1	123.6	114.5	103.4	97.1	93.2	92.1	87.8	85.5	83.7
72.5°	103.6	102.8	98.3	92.7	85.7	80.4	76.9	75.5	73.2	71.4	70.5
75°	75.3	75.7	74.7	70.7	67.7	64.2	61.1	60.3	58.4	56.8	55.9
77.5°	51.4	53.3	52.9	52.8	51.4	48.9	47.5	46.9	44.8	44.2	44.0
80°	32.7	34.8	36.8	36.6	36.2	35.6	34.6	34.1	33.1	32.5	32.1
82.5°	19.1	21.0	22.6	23.9	23.9	23.4	22.8	22.6	22.6	22.2	22.2
85°	10.3	10.7	11.3	12.7	13.6	13.8	13.6	13.4	12.8	13.0	13.2
87.5°	4.5	4.5	4.7	4.7	4.5	5.5	6.0	6.2	5.8	5.5	5.1
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°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	464.3	461.5	459.6	455.7	453.0	451.8	449.7	449.1	451.2	449.7	449.5
5°	452.4	446.7	442.3	437.8	432.9	429.8	425.1	424.4	423.2	421.4	421.0
7.5°	438.6	431.6	426.3	418.9	412.9	408.0	402.2	399.8	398.7	396.5	393.0
10°	424.6	415.8	408.0	400.6	392.6	386.2	380.4	375.9	373.0	370.2	369.1
12.5°	410.7	401.8	391.3	381.9	372.8	365.4	358.8	356.2	352.9	349.6	346.5
15°	396.3	384.5	373.6	363.2	355.6	347.9	341.6	337.3	332.5	331.1	325.9
17.5°	380.9	369.9	357.0	345.9	337.3	329.2	322.4	317.3	313.6	308.3	305.8
20°	366.7	352.9	340.5	330.5	320.8	310.7	303.7	299.6	296.1	292.0	290.0
22.5°	351.6	338.1	325.3	313.2	303.3	293.4	288.9	284.6	280.5	276.8	274.1
25°	336.8	323.1	309.7	297.6	287.3	280.1	274.3	269.4	267.3	263.6	260.8
27.5°	322.0	307.6	293.9	281.3	273.3	266.1	261.4	257.5	253.4	250.1	247.6
30°	307.8	293.0	277.8	268.2	259.7	252.9	247.6	243.9	241.0	238.1	236.3
32.5°	293.5	278.2	265.1	254.6	246.6	241.0	235.5	232.0	228.9	225.6	223.5
35°	278.2	262.6	251.7	241.6	233.6	228.1	224.4	219.4	216.9	214.5	212.4
37.5°	264.3	249.6	237.5	228.7	221.3	216.1	211.2	208.7	205.4	203.4	201.7
40°	248.8	235.5	224.8	215.5	210.4	204.4	199.9	196.4	194.1	191.4	189.4
42.5°	234.8	222.7	212.4	204.2	197.6	192.7	188.4	184.9	181.8	180.1	178.5
45°	221.7	209.5	199.3	191.5	185.7	180.8	176.4	174.6	170.7	168.4	167.6
47.5°	208.1	197.0	187.1	179.9	173.8	169.4	165.1	161.2	159.2	156.9	155.7
50°	194.3	183.8	174.6	167.6	161.8	156.7	152.8	150.5	147.6	145.4	143.9
52.5°	180.4	170.9	161.8	155.1	150.3	145.2	140.7	138.4	135.7	134.5	133.5
55°	167.4	157.1	149.3	142.7	137.4	132.8	128.7	126.3	124.6	123.2	122.8
57.5°	152.4	144.0	136.7	130.8	125.2	120.7	117.0	114.8	113.3	113.1	111.7
60°	137.8	130.4	123.8	117.4	112.7	108.6	105.5	103.0	101.4	101.2	100.8
62.5°	123.2	116.2	110.2	104.7	100.6	96.7	93.8	90.9	90.1	89.0	88.0
65°	108.8	102.4	97.3	92.9	88.4	85.1	82.1	80.4	78.3	77.1	74.9
67.5°	94.6	89.3	84.5	80.8	77.1	73.8	71.2	68.7	67.2	66.2	64.4
70°	80.6	76.7	71.8	67.7	65.0	62.5	60.5	57.6	56.6	55.9	55.1
72.5°	67.4	64.0	60.1	57.0	54.3	52.0	49.6	48.7	47.7	46.9	46.5
75°	55.1	51.8	48.3	45.9	44.0	42.0	40.9	39.9	39.5	39.3	38.5
77.5°	42.8	40.9	38.0	35.8	34.5	33.7	32.5	32.1	32.3	31.3	31.1
80°	31.0	30.0	27.6	26.9	25.9	25.1	24.5	23.6	22.6	22.2	21.6
82.5°	21.0	20.0	19.5	18.1	17.3	16.9	16.4	16.2	16.5	16.0	15.8
85°	12.3	11.3	10.9	10.7	10.3	10.7	10.5	10.3	10.1	9.9	10.1
87.5°	4.9	4.9	4.7	5.1	4.5	4.7	4.7	4.5	4.5	4.5	4.3
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°	474.2	474.2	474.2	474.2
2.5°	449.3	447.1	446.5	447.3
5°	419.1	417.2	418.1	417.7
7.5°	393.6	391.1	388.2	388.9
10°	366.5	364.6	363.4	364.4
12.5°	343.8	342.8	341.8	341.0
15°	323.5	321.2	320.2	317.7
17.5°	304.1	303.3	300.7	299.0
20°	287.1	286.3	283.8	285.4
22.5°	273.1	271.2	270.8	269.8
25°	260.1	257.5	256.6	255.4
27.5°	246.8	245.5	244.1	243.7
30°	234.0	232.6	231.6	231.6
32.5°	222.5	221.5	220.5	220.4
35°	211.4	209.8	209.5	208.3
37.5°	199.7	198.4	198.4	198.6
40°	188.6	187.7	187.5	186.1
42.5°	176.8	176.4	175.6	175.2
45°	166.2	164.9	164.9	163.9
47.5°	155.1	154.0	154.2	153.0
50°	144.0	143.5	143.3	142.9
52.5°	133.0	132.8	133.7	132.8
55°	123.2	122.6	123.8	122.6
57.5°	111.7	111.3	112.5	111.7
60°	100.4	99.3	99.9	100.1
62.5°	87.0	86.4	86.8	85.7
65°	74.6	74.0	73.2	72.8
67.5°	64.8	63.1	63.1	63.5
70°	53.9	53.9	53.7	53.7
72.5°	46.3	46.1	45.7	45.6
75°	38.5	38.7	38.3	38.2
77.5°	30.2	29.2	29.6	29.2
80°	21.6	21.4	22.0	21.4
82.5°	16.0	15.8	16.0	15.6
85°	10.3	10.1	9.9	10.1
87.5°	4.5	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0

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