

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: P243680

Luminaire Tested: **S125DR-H375D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-61)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H375D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1199.4 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

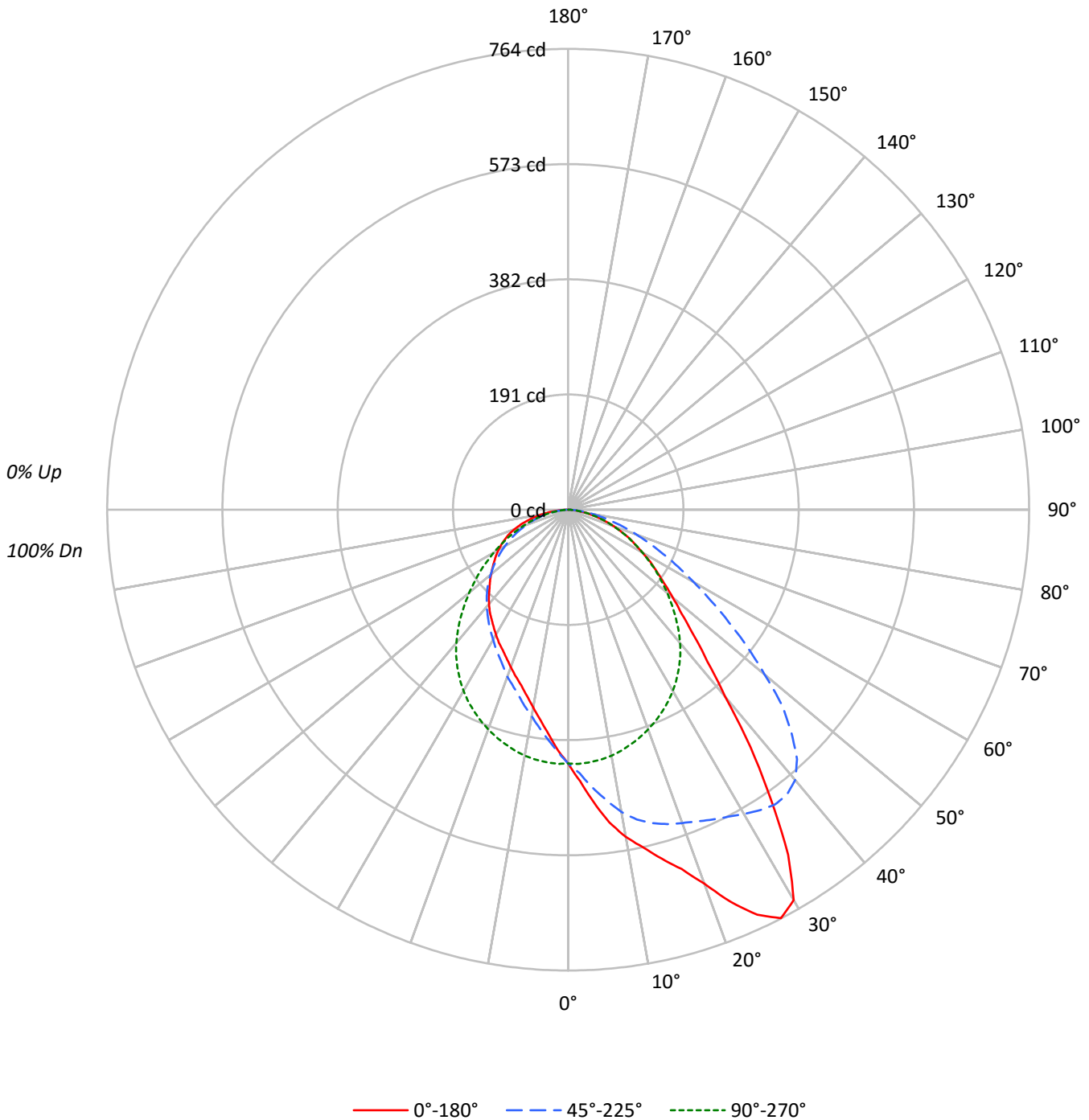
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2991	2991	2991
5°	3474	2997	2664
10°	3976	2988	2404
15°	4407	2961	2215
20°	4990	2931	2101
25°	5811	2893	2013
30°	6134	2846	1963
35°	5072	2776	1922
40°	3752	2676	1894
45°	2950	2530	1852
50°	2498	2366	1845
55°	2224	2203	1852
60°	2018	2023	1892
65°	1872	1853	1946
70°	1681	1660	1958
75°	1433	1458	1930
80°	1175	1195	1801
85°	807	848	1533



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	3.4
10°-20°	121.5	10.1
20°-30°	197.5	16.5
30°-40°	240.3	20.0
40°-50°	219.9	18.3
50°-60°	176.0	14.7
60°-70°	122.5	10.2
70°-80°	65.1	5.4
80°-90°	16.0	1.3
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°	359.6	30.0
0°-40°	599.9	50.0
0°-60°	995.7	83.0
0°-90°	1199.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1199.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	487	462	420	382	373	48
15°	599	538	402	318	301	172
25°	741	567	369	270	257	338
35°	585	597	320	229	222	362
45°	294	523	252	190	184	231
55°	180	325	178	145	150	162
65°	111	173	110	97	116	110
75°	52	77	53	51	70	56
85°	10	15	10	12	19	13
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°	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8
2.5°	450.5	448.6	448.1	448.3	447.3	446.4	444.4	441.6	439.8	437.4	436.7
5°	487.0	482.4	483.3	481.9	479.7	476.8	474.2	470.1	466.2	462.5	457.5
7.5°	522.9	522.0	519.6	519.3	515.7	510.7	505.6	500.0	491.6	485.8	479.2
10°	550.9	552.6	549.1	549.3	543.0	538.1	533.6	526.3	516.9	509.0	499.3
12.5°	573.4	574.1	573.5	571.3	567.2	558.9	554.6	546.9	536.7	525.9	518.4
15°	599.0	597.1	594.2	591.5	585.5	579.5	570.6	561.6	548.6	537.9	527.0
17.5°	624.6	624.2	620.6	614.8	607.3	599.5	586.2	574.6	560.7	546.6	532.9
20°	659.7	657.8	652.6	645.9	632.1	621.0	604.4	588.6	570.5	552.7	536.9
22.5°	703.8	697.6	692.3	682.1	666.2	646.9	628.3	605.3	580.0	559.2	539.4
25°	741.0	738.2	732.6	721.2	703.1	679.9	652.2	626.1	594.4	566.7	541.0
27.5°	763.5	762.3	758.9	748.1	733.1	710.1	680.5	647.3	611.3	573.9	543.0
30°	747.4	747.6	749.5	748.3	741.6	726.8	700.5	667.1	625.4	582.4	543.5
32.5°	678.5	683.1	697.8	704.8	714.2	717.2	705.5	677.6	637.4	591.0	545.2
35°	584.6	595.9	605.8	626.3	650.7	670.6	682.3	673.2	642.3	596.8	546.1
37.5°	496.2	495.4	510.7	532.9	558.9	592.8	625.8	643.9	633.8	595.6	544.5
40°	404.4	412.3	421.8	441.5	471.8	513.7	552.9	591.6	605.6	585.0	538.6
42.5°	341.6	345.2	354.8	370.1	392.0	434.6	473.4	523.2	559.0	561.4	525.4
45°	293.5	297.4	300.2	315.4	335.7	364.3	404.1	454.3	502.4	523.2	504.1
47.5°	254.9	257.2	263.1	272.4	285.7	311.1	342.8	388.4	440.8	481.2	474.7
50°	225.9	227.6	232.4	237.5	248.5	267.2	292.8	330.2	380.5	424.7	439.2
52.5°	200.3	202.6	204.9	209.9	220.0	232.6	253.4	282.6	329.4	374.6	397.6
55°	179.5	180.4	182.9	186.7	194.4	203.9	220.5	246.9	279.7	324.7	356.5
57.5°	161.4	160.6	163.3	165.9	171.0	179.0	191.0	210.6	241.8	280.2	313.3
60°	142.0	142.8	144.9	146.9	150.5	157.5	166.9	182.6	205.5	239.9	273.7
62.5°	125.3	125.9	126.5	129.4	132.6	137.5	145.2	158.0	177.0	205.5	235.7
65°	111.3	110.1	110.8	112.8	115.4	119.5	126.6	136.0	150.2	173.4	198.5
67.5°	94.9	95.2	95.4	96.6	98.8	102.7	107.8	115.5	127.1	145.4	167.4
70°	80.9	81.1	81.2	82.3	84.1	86.3	89.9	95.9	105.8	120.0	137.2
72.5°	66.6	67.2	67.2	68.1	69.5	70.6	74.1	79.0	86.5	97.8	112.3
75°	52.2	53.4	53.8	54.8	56.0	56.3	58.9	62.8	67.6	76.8	88.2
77.5°	40.6	40.6	41.3	42.5	42.5	43.5	46.2	48.0	51.7	58.0	66.7
80°	28.7	29.2	29.2	29.5	30.2	31.1	32.3	33.8	37.0	41.6	46.2
82.5°	18.8	18.9	19.1	20.0	19.6	20.5	21.0	22.9	24.4	26.6	29.5
85°	9.9	9.9	10.1	10.6	11.1	11.3	11.6	12.5	13.7	14.7	16.4
87.5°	4.1	3.9	3.9	4.3	4.3	4.4	4.6	4.9	5.6	5.6	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8
2.5°	436.2	434.8	432.4	430.4	427.8	425.9	424.1	421.7	419.3	416.7	414.0
5°	453.6	449.5	444.9	440.3	434.8	430.4	425.6	420.1	415.5	410.4	404.9
7.5°	473.5	466.4	458.4	449.3	440.8	433.1	425.3	417.7	410.9	403.2	395.7
10°	492.8	480.4	470.3	458.0	445.9	434.6	423.9	414.0	404.1	394.5	385.3
12.5°	506.0	491.8	479.2	465.0	450.9	436.7	422.5	408.9	397.1	385.5	375.8
15°	515.0	505.1	488.4	471.3	452.7	434.3	418.3	402.4	388.4	374.9	363.3
17.5°	520.6	507.8	491.5	473.5	453.1	433.8	414.5	395.6	379.5	365.0	351.9
20°	522.2	507.2	490.1	471.5	451.0	429.9	408.2	387.5	370.1	353.6	340.3
22.5°	520.6	503.2	485.0	466.9	445.4	423.9	401.2	378.7	358.7	341.6	327.6
25°	518.1	497.1	478.0	456.7	436.7	416.2	392.8	368.9	348.1	330.4	314.7
27.5°	514.8	490.8	467.2	446.2	424.6	404.4	382.9	358.5	336.9	317.4	302.7
30°	511.1	482.4	456.3	431.4	410.9	390.8	369.8	346.8	324.9	306.3	290.4
32.5°	506.8	473.5	442.8	416.0	394.2	375.6	356.0	334.0	312.5	292.5	278.7
35°	500.9	461.4	428.3	399.3	376.6	356.5	339.2	320.0	298.6	280.0	265.7
37.5°	493.9	450.7	413.7	382.3	357.5	336.9	321.0	305.3	285.3	267.4	253.6
40°	484.5	437.7	398.1	364.2	337.7	317.4	301.9	288.4	271.8	253.8	241.3
42.5°	472.2	423.4	380.5	344.4	318.8	297.1	282.6	270.3	256.1	240.4	228.2
45°	458.2	407.0	360.9	325.4	297.6	277.0	262.8	251.7	241.0	227.0	215.5
47.5°	436.3	387.7	343.2	303.9	276.6	256.7	243.3	232.8	224.7	213.7	202.4
50°	410.4	365.9	322.2	282.8	255.1	235.8	223.2	214.0	207.2	198.6	190.1
52.5°	381.9	341.3	299.1	262.3	234.6	216.4	203.1	194.9	190.4	183.6	177.0
55°	348.6	313.7	274.4	240.8	213.7	195.1	183.6	177.8	172.9	169.5	163.5
57.5°	315.2	285.7	250.7	217.4	192.5	175.9	165.7	159.2	155.6	153.2	149.0
60°	278.7	255.5	223.4	194.5	172.4	156.7	147.6	142.3	139.1	137.7	134.8
62.5°	243.9	226.1	196.9	172.9	153.1	139.2	130.2	125.9	123.9	122.4	120.6
65°	209.6	195.6	172.5	150.0	133.3	120.8	113.7	110.2	108.7	107.0	106.8
67.5°	178.7	165.9	147.4	129.0	115.0	104.4	98.1	94.7	93.0	93.2	92.3
70°	148.3	138.4	123.4	108.4	96.4	88.1	82.1	79.9	79.2	79.0	78.3
72.5°	120.0	114.3	101.2	88.6	79.2	72.7	67.9	66.0	65.2	64.8	64.8
75°	95.1	91.0	79.7	70.1	63.0	57.7	54.4	53.1	51.9	52.6	52.0
77.5°	71.3	67.9	60.2	53.4	48.0	43.5	42.0	40.8	40.1	39.9	40.6
80°	50.2	48.1	43.3	37.9	33.8	31.2	30.2	29.2	28.7	28.3	28.7
82.5°	32.3	31.1	27.6	24.4	22.0	20.6	19.6	19.1	18.3	18.4	18.8
85°	17.6	17.2	15.0	14.0	11.8	11.6	10.9	10.4	10.6	10.2	10.8
87.5°	7.2	6.8	6.3	5.8	5.1	4.6	4.3	4.6	4.1	4.6	4.4
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°	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8	420.8
2.5°	412.6	410.7	408.5	406.5	403.4	401.4	400.3	400.7	399.5	399.1	399.0
5°	401.7	397.4	393.3	389.9	386.3	382.3	379.4	378.5	378.2	377.3	375.4
7.5°	390.4	385.0	379.7	374.7	369.6	364.8	361.9	359.6	358.2	355.8	355.3
10°	378.5	371.8	366.2	359.0	352.9	348.0	344.2	342.1	341.0	338.7	336.9
12.5°	367.1	360.1	351.4	344.9	338.4	333.3	329.0	325.6	324.7	321.8	320.3
15°	354.8	346.2	338.4	330.9	324.7	318.3	315.7	312.6	309.6	307.0	306.5
17.5°	343.0	332.8	325.1	317.7	310.2	305.5	302.0	300.0	297.6	296.2	293.9
20°	328.8	320.5	311.9	305.1	298.6	294.5	289.9	288.1	286.3	283.1	282.1
22.5°	316.9	306.8	299.7	292.8	287.0	281.2	278.0	276.1	273.5	271.8	270.5
25°	304.4	296.1	287.0	280.2	275.3	269.5	267.2	264.8	262.6	261.1	259.7
27.5°	292.3	283.1	275.8	268.9	263.8	259.7	256.7	254.1	252.6	251.4	250.5
30°	279.7	271.2	264.3	258.0	252.2	248.8	245.9	244.9	243.2	242.3	241.0
32.5°	268.3	259.6	253.1	247.6	242.5	239.1	237.4	235.8	234.1	232.6	232.4
35°	255.3	247.8	241.8	235.8	232.1	229.4	227.5	225.9	224.6	223.4	222.7
37.5°	243.9	236.7	230.0	225.8	221.7	219.3	217.2	216.7	215.4	215.5	214.5
40°	231.6	225.1	219.5	215.2	212.5	209.9	208.5	206.8	206.0	206.1	205.3
42.5°	219.6	213.7	208.5	204.6	201.7	199.8	198.6	197.3	196.2	195.6	195.4
45°	207.5	202.2	198.0	194.0	191.6	189.9	188.4	186.7	185.8	185.5	185.3
47.5°	195.6	190.8	186.2	183.4	181.2	179.7	178.2	176.8	176.1	175.6	174.7
50°	183.3	178.5	175.3	171.8	170.0	167.9	166.2	165.5	164.7	164.5	165.4
52.5°	170.5	166.7	163.8	161.1	158.9	156.7	154.9	154.1	154.6	154.6	155.6
55°	158.4	154.4	151.7	149.5	147.1	145.1	143.3	143.3	143.3	144.4	145.7
57.5°	144.9	141.5	139.4	136.9	134.6	133.3	132.1	131.9	132.6	134.3	135.8
60°	131.2	128.8	126.6	124.6	122.4	121.3	121.2	120.8	121.8	123.5	126.8
62.5°	117.7	116.2	113.5	112.5	110.6	109.4	109.4	109.7	111.3	114.0	116.9
65°	104.8	102.6	100.5	99.5	98.3	97.3	97.3	98.6	100.9	103.4	107.0
67.5°	91.5	89.6	88.2	87.2	85.8	85.3	85.8	87.4	90.1	92.7	96.4
70°	77.1	76.8	75.6	74.2	73.5	73.5	74.1	75.8	77.8	81.7	85.0
72.5°	64.0	64.0	63.3	62.5	61.9	62.5	62.8	64.5	67.1	70.5	74.1
75°	52.0	51.5	51.0	50.7	50.5	50.9	51.4	52.7	55.8	59.0	61.9
77.5°	40.3	39.9	39.4	39.8	39.8	39.9	41.5	43.0	44.7	47.3	50.3
80°	29.0	29.2	28.7	28.5	29.4	29.7	30.9	32.1	33.3	36.2	38.4
82.5°	19.1	19.5	19.3	19.6	20.0	20.0	21.3	22.5	23.5	25.6	27.3
85°	10.9	11.1	11.1	11.6	11.9	11.8	13.0	13.7	14.2	15.7	16.7
87.5°	4.8	4.9	5.1	5.1	5.1	5.8	6.0	6.3	6.5	6.8	7.3
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°	420.8	420.8	420.8	420.8
2.5°	397.4	397.3	398.1	398.6
5°	374.2	373.7	373.0	373.4
7.5°	353.6	352.2	351.9	351.9
10°	335.3	334.0	333.6	333.1
12.5°	319.8	317.7	316.9	316.0
15°	305.1	304.8	302.9	301.0
17.5°	291.6	292.1	290.3	289.4
20°	280.4	278.8	278.2	277.8
22.5°	268.9	267.7	267.7	266.6
25°	258.7	257.7	257.8	256.7
27.5°	249.1	249.0	248.8	248.5
30°	240.3	239.6	238.9	239.2
32.5°	231.7	230.7	230.2	230.0
35°	222.9	222.5	221.8	221.5
37.5°	214.2	214.3	213.5	213.3
40°	204.8	204.6	204.4	204.1
42.5°	194.9	194.4	194.7	194.5
45°	185.0	184.5	184.8	184.3
47.5°	175.3	175.6	175.6	175.8
50°	165.7	166.4	166.4	166.9
52.5°	156.8	158.2	158.2	158.0
55°	147.3	148.8	149.3	149.5
57.5°	138.2	139.8	141.3	141.6
60°	128.5	131.2	132.8	133.1
62.5°	119.8	122.4	124.4	124.6
65°	110.1	113.1	115.0	115.7
67.5°	100.2	102.6	105.1	106.1
70°	88.9	91.8	93.5	94.2
72.5°	77.1	80.4	82.6	82.9
75°	65.9	68.3	70.0	70.3
77.5°	53.1	55.5	57.0	57.3
80°	40.3	42.3	43.3	44.0
82.5°	28.5	29.9	30.4	31.1
85°	17.6	18.6	18.8	18.8
87.5°	7.7	7.8	7.8	8.2
90°	0.0	0.0	0.0	0.0

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