

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: P242908

Luminaire Tested: **S125RDR-S375D830-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242908
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-S375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1298.6 lumens
Efficiency: N/A
Efficacy: 112.0 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

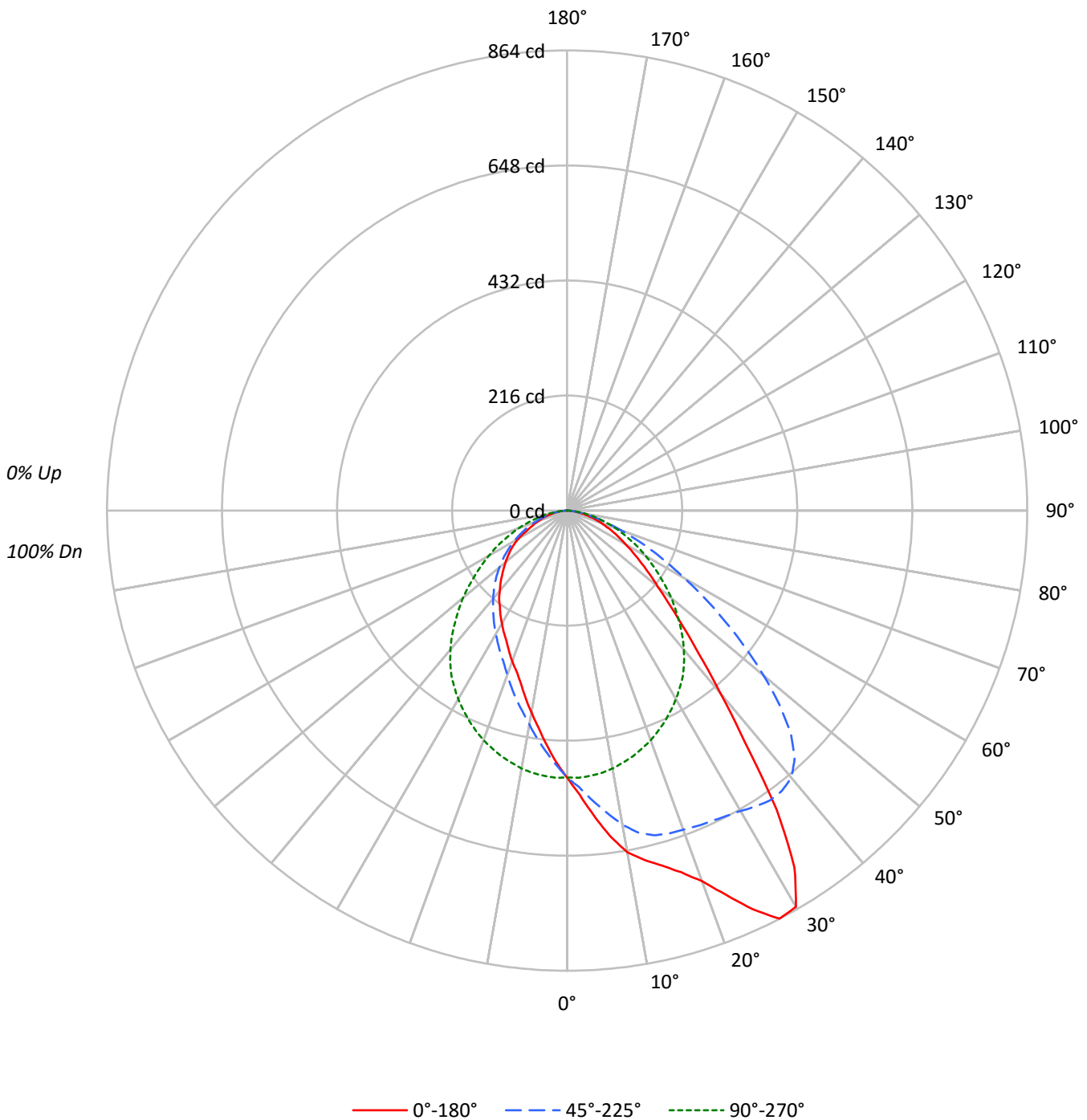
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					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°	3562	3562	3562
5°	4099	3567	3151
10°	4701	3549	2780
15°	5078	3513	2471
20°	5599	3470	2281
25°	6480	3414	2117
30°	7051	3355	2009
35°	5949	3287	1911
40°	4154	3163	1825
45°	3082	2996	1741
50°	2457	2823	1670
55°	2085	2608	1606
60°	1801	2416	1504
65°	1606	2208	1295
70°	1411	2022	1180
75°	1219	1752	1107
80°	925	1473	925
85°	775	1158	873



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	3.7
10°-20°	140.9	10.9
20°-30°	223.4	17.2
30°-40°	270.0	20.8
40°-50°	240.4	18.5
50°-60°	184.3	14.2
60°-70°	119.7	9.2
70°-80°	58.1	4.5
80°-90°	13.7	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°	412.4	31.8
0°-40°	682.4	52.5
0°-60°	1107.2	85.3
0°-90°	1298.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	501	501	501	501	501	
5°	574	546	500	454	442	57
15°	690	631	477	368	336	198
25°	826	643	435	296	270	380
35°	686	664	379	241	220	416
45°	307	595	298	191	173	243
55°	168	361	210	140	130	152
65°	96	172	131	90	77	95
75°	44	60	64	44	40	47
85°	10	10	14	11	11	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°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	533.7	533.3	534.1	531.9	532.1	528.6	528.6	525.9	522.4	519.7	518.5
5°	574.5	574.9	574.1	571.0	568.9	565.8	562.3	556.2	551.0	546.1	542.2
7.5°	616.0	616.4	613.8	613.2	607.8	604.5	596.7	588.7	581.7	572.4	565.8
10°	651.4	651.2	648.3	646.1	641.5	635.8	628.2	618.3	609.0	598.7	588.9
12.5°	672.0	671.4	671.0	668.1	664.0	659.0	652.9	643.2	631.3	619.7	607.8
15°	690.1	688.7	686.0	682.5	676.5	670.6	663.4	654.7	643.8	631.1	620.4
17.5°	711.9	712.1	708.0	704.3	696.5	686.6	675.9	662.7	648.7	635.8	625.1
20°	740.3	739.7	735.6	726.1	716.9	703.7	690.9	673.9	655.7	637.4	623.2
22.5°	781.0	779.2	774.9	761.7	746.1	728.2	707.0	685.2	662.3	640.9	621.2
25°	826.3	825.1	816.6	802.2	782.1	755.9	730.4	701.8	670.4	643.0	620.4
27.5°	863.8	861.3	853.7	840.1	820.3	792.2	757.0	719.9	682.5	646.5	615.4
30°	859.2	862.3	861.5	855.9	842.0	817.3	785.4	742.4	695.7	651.4	612.5
32.5°	794.6	797.3	806.6	821.6	826.1	819.9	798.1	759.2	710.5	658.6	610.3
35°	685.6	689.3	703.3	725.3	754.1	778.2	783.1	761.7	718.3	664.2	608.0
37.5°	546.9	571.0	580.4	602.9	648.1	692.0	730.0	738.7	715.2	662.9	605.3
40°	447.7	452.7	473.6	499.8	536.4	582.5	643.2	687.0	688.5	654.7	596.7
42.5°	367.1	373.7	386.4	406.0	436.0	482.1	545.3	606.6	639.7	632.1	585.4
45°	306.6	311.3	321.8	337.9	361.9	400.0	453.9	520.8	573.9	594.6	563.4
47.5°	259.3	261.7	271.4	284.4	302.9	331.7	375.5	436.0	499.2	541.3	533.1
50°	222.2	225.1	232.1	241.4	256.4	279.8	313.2	361.5	427.1	481.7	492.6
52.5°	193.4	195.7	199.4	208.0	219.7	236.4	261.7	304.3	361.7	420.6	449.4
55°	168.3	170.0	173.5	178.4	188.3	201.2	224.5	254.7	302.5	360.9	397.9
57.5°	146.9	147.7	149.8	154.7	161.9	171.6	189.3	216.9	251.4	306.4	347.1
60°	126.7	127.6	130.4	133.5	138.9	147.5	160.7	178.6	211.5	254.9	296.3
62.5°	110.7	111.1	111.9	115.0	119.5	125.7	135.4	149.2	173.7	210.5	249.0
65°	95.5	95.7	96.1	98.6	101.4	106.4	113.2	123.5	143.2	172.0	206.6
67.5°	80.2	80.7	82.1	82.9	86.4	88.9	93.2	101.4	116.7	137.2	165.2
70°	67.9	67.7	69.1	70.2	71.2	74.3	77.0	83.3	92.0	106.8	129.2
72.5°	56.4	55.8	56.2	56.4	57.8	59.7	62.3	65.6	71.8	80.9	96.7
75°	44.4	44.6	44.6	45.1	46.1	46.9	47.7	49.8	53.5	60.3	69.5
77.5°	33.3	32.9	33.9	33.9	34.8	35.8	36.4	37.2	38.7	41.8	47.3
80°	22.6	22.6	22.8	23.5	23.3	23.7	24.7	25.5	27.4	29.0	30.7
82.5°	16.0	15.8	16.0	16.0	16.0	16.5	16.7	16.7	17.1	17.7	18.7
85°	9.5	9.5	9.7	9.7	9.9	9.9	10.1	10.1	10.1	10.3	10.5
87.5°	4.5	4.3	4.1	4.1	4.3	4.7	4.5	4.3	4.3	4.3	4.5
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°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	518.5	517.1	514.4	511.9	508.8	506.2	504.3	502.0	499.2	495.7	492.8
5°	537.8	533.3	527.4	522.2	515.6	510.5	505.1	500.0	494.8	488.3	482.5
7.5°	559.2	550.4	542.2	531.5	521.8	513.4	505.1	496.7	488.7	479.6	471.2
10°	578.6	567.3	554.7	540.3	527.1	514.6	503.1	491.8	479.8	469.3	458.0
12.5°	596.7	581.3	566.4	547.3	530.8	514.8	499.4	484.6	471.6	457.2	444.8
15°	606.2	591.8	575.7	553.5	531.5	512.9	495.7	477.4	461.5	446.3	432.7
17.5°	611.7	596.5	578.0	556.4	532.7	509.7	487.8	468.3	450.2	432.7	417.7
20°	609.2	594.6	575.5	555.1	529.4	505.1	481.1	458.8	438.1	419.3	403.1
22.5°	603.3	588.1	569.7	547.9	523.9	497.7	471.6	447.5	425.5	406.0	387.8
25°	597.3	576.7	557.8	536.8	513.6	488.1	461.5	435.4	412.1	392.4	373.0
27.5°	591.5	566.7	543.2	523.0	498.1	475.1	449.2	422.2	397.9	378.0	358.2
30°	583.1	554.3	527.8	504.1	480.9	459.2	435.0	408.8	383.7	363.0	342.8
32.5°	572.6	541.5	511.7	483.5	461.3	439.9	418.5	393.8	369.5	347.9	327.4
35°	564.2	525.1	493.4	464.4	439.5	418.7	399.0	378.8	354.3	332.1	312.1
37.5°	552.5	509.5	473.6	442.0	416.0	395.5	379.6	360.5	337.6	316.0	297.5
40°	542.0	492.2	452.0	420.8	393.2	371.2	356.6	340.9	320.6	300.6	282.1
42.5°	528.0	476.3	430.2	397.3	369.5	348.6	333.7	320.6	304.3	285.8	265.6
45°	508.8	454.9	407.8	372.8	344.8	324.1	310.3	298.1	285.2	267.9	250.6
47.5°	486.0	434.6	385.0	346.5	319.5	300.0	286.4	276.3	266.9	251.8	234.4
50°	457.4	408.2	360.1	323.0	293.8	275.5	263.0	255.3	246.9	233.5	219.5
52.5°	423.7	381.1	334.1	296.1	268.9	252.1	240.1	232.5	225.9	215.6	202.5
55°	387.8	349.4	306.2	271.8	246.5	229.2	217.7	210.5	206.4	197.1	186.6
57.5°	347.3	317.7	278.6	245.1	222.2	204.9	196.3	189.9	185.2	178.4	170.6
60°	304.5	285.2	251.0	219.5	199.0	182.7	175.1	170.0	165.6	160.1	154.3
62.5°	261.1	248.3	219.7	193.8	175.3	162.3	155.3	150.8	145.7	142.4	136.8
65°	223.2	210.7	190.1	168.9	151.4	140.5	135.4	131.3	128.2	124.1	120.2
67.5°	181.3	175.5	160.3	144.4	131.7	121.2	116.7	113.4	109.9	107.4	104.5
70°	143.2	140.7	130.7	121.0	109.3	102.7	98.6	97.3	92.8	90.3	88.5
72.5°	109.5	108.6	103.9	97.9	90.5	85.0	81.3	79.8	77.4	75.5	74.5
75°	79.6	80.0	79.0	74.7	71.6	67.9	64.6	63.8	61.7	60.1	59.1
77.5°	54.3	56.4	56.0	55.8	54.3	51.6	50.2	49.6	47.3	46.7	46.5
80°	34.6	36.8	38.9	38.7	38.3	37.7	36.6	36.0	35.0	34.4	33.9
82.5°	20.2	22.2	23.9	25.3	25.3	24.7	24.1	23.9	23.9	23.5	23.5
85°	10.9	11.3	11.9	13.4	14.4	14.6	14.4	14.2	13.6	13.8	14.0
87.5°	4.7	4.7	4.9	4.9	4.7	5.8	6.4	6.6	6.2	5.8	5.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	490.7	487.8	485.8	481.7	478.8	477.6	475.3	474.7	476.9	475.3	475.1
5°	478.2	472.2	467.5	462.7	457.6	454.3	449.4	448.5	447.3	445.5	445.0
7.5°	463.6	456.2	450.6	442.8	436.4	431.3	425.1	422.6	421.4	419.1	415.4
10°	448.8	439.5	431.3	423.4	415.0	408.2	402.0	397.3	394.2	391.3	390.1
12.5°	434.1	424.7	413.6	403.7	394.0	386.2	379.2	376.5	373.0	369.5	366.2
15°	418.9	406.4	394.8	383.9	375.9	367.7	361.1	356.6	351.4	350.0	344.4
17.5°	402.7	390.9	377.4	365.6	356.6	347.9	340.7	335.4	331.5	325.9	323.2
20°	387.6	373.0	359.9	349.4	339.1	328.4	321.0	316.7	313.0	308.6	306.6
22.5°	371.6	357.4	343.8	331.1	320.6	310.1	305.3	300.8	296.5	292.6	289.7
25°	356.0	341.6	327.4	314.6	303.7	296.1	289.9	284.8	282.5	278.6	275.7
27.5°	340.3	325.1	310.7	297.3	288.9	281.3	276.3	272.2	267.9	264.4	261.7
30°	325.3	309.7	293.6	283.5	274.5	267.3	261.7	257.8	254.7	251.6	249.8
32.5°	310.3	294.0	280.2	269.1	260.7	254.7	249.0	245.3	242.0	238.5	236.2
35°	294.0	277.6	266.0	255.3	246.9	241.1	237.2	231.9	229.2	226.7	224.5
37.5°	279.4	263.8	251.0	241.8	233.9	228.4	223.2	220.6	217.1	215.0	213.2
40°	263.0	249.0	237.6	227.8	222.4	216.0	211.3	207.6	205.1	202.3	200.2
42.5°	248.1	235.4	224.5	215.8	208.8	203.7	199.2	195.5	192.2	190.3	188.7
45°	234.4	221.4	210.7	202.5	196.3	191.1	186.4	184.6	180.4	178.0	177.2
47.5°	220.0	208.2	197.7	190.1	183.7	179.0	174.5	170.4	168.3	165.8	164.6
50°	205.3	194.2	184.6	177.2	171.0	165.6	161.5	159.0	156.0	153.7	152.1
52.5°	190.7	180.7	171.0	164.0	158.8	153.5	148.8	146.3	143.4	142.2	141.1
55°	176.9	166.0	157.8	150.8	145.3	140.3	136.0	133.5	131.7	130.2	129.8
57.5°	161.1	152.3	144.4	138.3	132.3	127.6	123.7	121.4	119.7	119.5	118.1
60°	145.7	137.9	130.9	124.1	119.1	114.8	111.5	108.8	107.2	107.0	106.6
62.5°	130.2	122.8	116.5	110.7	106.4	102.3	99.2	96.1	95.3	94.0	93.0
65°	115.0	108.2	102.9	98.1	93.4	89.9	86.8	85.0	82.7	81.5	79.2
67.5°	100.0	94.4	89.3	85.4	81.5	78.0	75.3	72.6	71.0	70.0	68.1
70°	85.2	81.1	75.9	71.6	68.7	66.0	64.0	60.9	59.9	59.1	58.2
72.5°	71.2	67.7	63.6	60.3	57.4	54.9	52.5	51.4	50.4	49.6	49.2
75°	58.2	54.7	51.0	48.6	46.5	44.4	43.2	42.2	41.8	41.6	40.7
77.5°	45.3	43.2	40.1	37.9	36.4	35.6	34.4	33.9	34.2	33.1	32.9
80°	32.7	31.7	29.2	28.4	27.4	26.5	25.9	24.9	23.9	23.5	22.8
82.5°	22.2	21.2	20.6	19.1	18.3	17.9	17.3	17.1	17.5	16.9	16.7
85°	13.0	11.9	11.5	11.3	10.9	11.3	11.1	10.9	10.7	10.5	10.7
87.5°	5.1	5.1	4.9	5.3	4.7	4.9	4.9	4.7	4.7	4.7	4.5
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°	501.2	501.2	501.2	501.2
2.5°	474.9	472.6	472.0	472.8
5°	443.0	440.9	442.0	441.6
7.5°	416.0	413.4	410.3	411.1
10°	387.4	385.4	384.1	385.2
12.5°	363.4	362.3	361.3	360.5
15°	342.0	339.5	338.5	335.8
17.5°	321.4	320.6	317.9	316.0
20°	303.5	302.7	300.0	301.6
22.5°	288.7	286.6	286.2	285.2
25°	274.9	272.2	271.2	270.0
27.5°	260.9	259.5	258.0	257.6
30°	247.3	245.9	244.8	244.8
32.5°	235.2	234.2	233.1	232.9
35°	223.5	221.8	221.4	220.2
37.5°	211.1	209.7	209.7	209.9
40°	199.4	198.3	198.1	196.7
42.5°	186.8	186.4	185.6	185.2
45°	175.7	174.3	174.3	173.2
47.5°	164.0	162.8	163.0	161.7
50°	152.3	151.6	151.4	151.0
52.5°	140.5	140.3	141.4	140.3
55°	130.2	129.6	130.9	129.6
57.5°	118.1	117.7	118.9	118.1
60°	106.2	104.9	105.6	105.8
62.5°	92.0	91.4	91.8	90.5
65°	78.8	78.2	77.4	77.0
67.5°	68.5	66.7	66.7	67.1
70°	57.0	57.0	56.8	56.8
72.5°	49.0	48.8	48.4	48.1
75°	40.7	40.9	40.5	40.3
77.5°	31.9	30.9	31.3	30.9
80°	22.8	22.6	23.3	22.6
82.5°	16.9	16.7	16.9	16.5
85°	10.9	10.7	10.5	10.7
87.5°	4.7	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0

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