

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: P242810

Luminaire Tested: **S125DR-S375D835-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S375D835-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1451.4 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

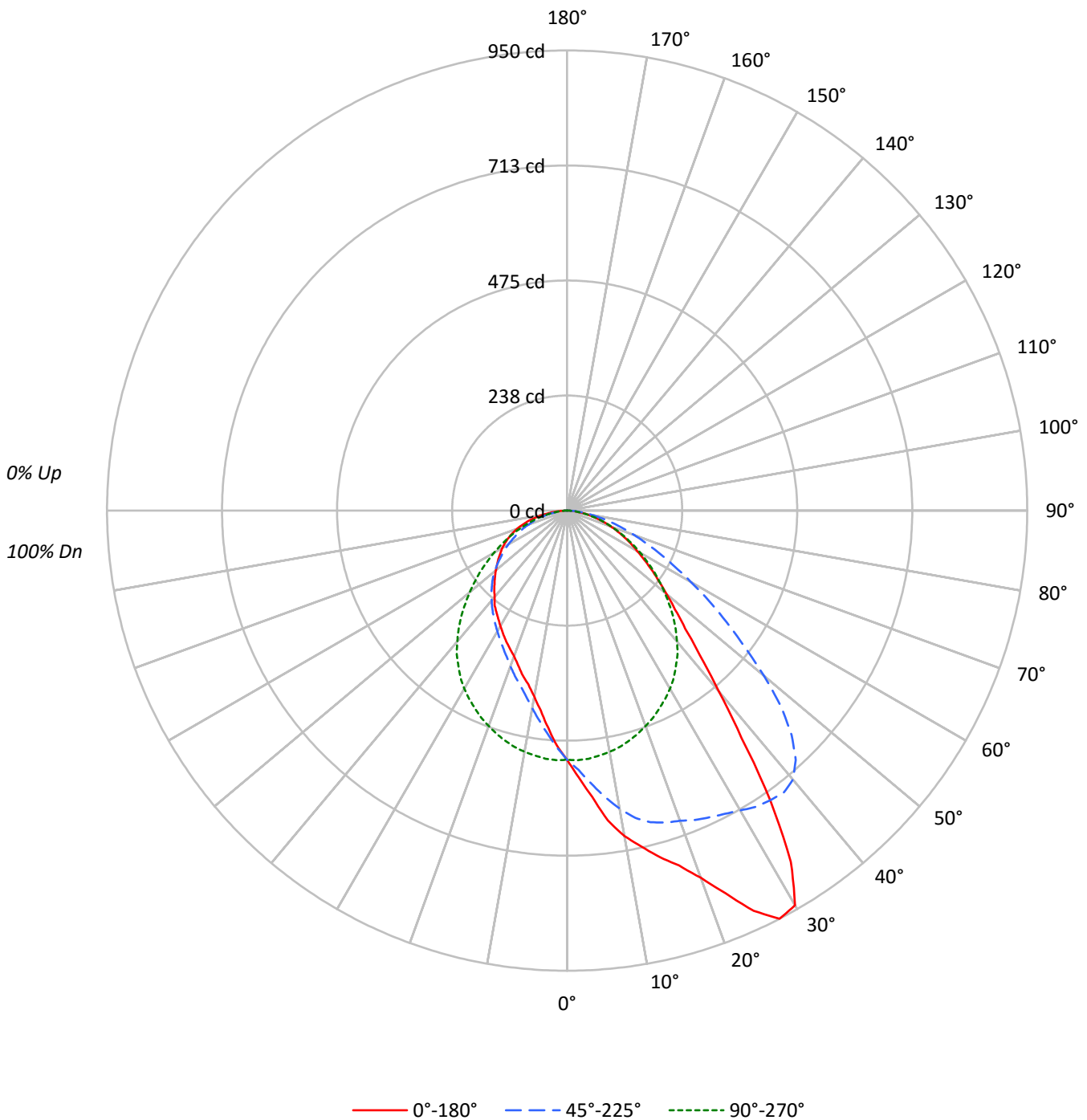
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	76	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	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	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°	3655	3655	3655
5°	4233	3668	3211
10°	4925	3649	2814
15°	5452	3622	2596
20°	6102	3580	2420
25°	7149	3532	2335
30°	7722	3485	2261
35°	6349	3396	2212
40°	4513	3273	2159
45°	3467	3107	2129
50°	2959	2901	2124
55°	2634	2700	2142
60°	2377	2479	2198
65°	2195	2259	2254
70°	1997	2028	2286
75°	1763	1788	2266
80°	1482	1457	2071
85°	1174	1052	1672



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	3.4
10°-20°	147.4	10.2
20°-30°	239.5	16.5
30°-40°	292.7	20.2
40°-50°	265.5	18.3
50°-60°	211.5	14.6
60°-70°	147.3	10.1
70°-80°	78.5	5.4
80°-90°	19.5	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°	436.4	30.1
0°-40°	729.1	50.2
0°-60°	1206.2	83.1
0°-90°	1451.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1451.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	514	514	514	514	514	
5°	593	565	514	462	450	60
15°	741	666	492	373	353	212
25°	912	698	450	313	298	418
35°	732	730	391	265	255	449
45°	345	655	309	219	212	274
55°	213	402	218	167	173	191
65°	130	213	134	113	134	129
75°	64	95	65	59	82	69
85°	14	19	13	14	20	17
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°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	551.4	550.6	549.7	547.9	549.2	545.5	543.8	540.7	537.0	535.7	534.2
5°	593.3	594.4	595.5	590.9	591.4	588.3	581.3	575.7	571.1	565.2	561.0
7.5°	645.3	642.0	642.2	639.4	634.4	630.2	623.5	614.1	605.6	596.0	587.7
10°	682.4	682.6	680.7	677.2	671.7	667.8	658.2	649.0	637.9	624.8	615.4
12.5°	710.4	711.4	708.8	703.8	701.8	691.8	684.8	673.5	659.7	649.9	634.4
15°	740.9	738.5	736.8	730.9	726.3	717.1	705.1	693.8	679.4	666.0	652.7
17.5°	768.0	769.9	767.1	762.7	749.2	738.5	723.7	709.3	692.0	675.4	659.9
20°	806.8	808.6	803.6	794.2	777.2	766.5	745.3	725.2	704.5	681.5	664.1
22.5°	855.3	853.1	845.9	830.4	816.2	794.2	770.8	745.3	718.0	691.4	666.7
25°	911.6	902.5	898.3	880.6	861.2	832.2	800.7	764.9	732.6	698.3	668.7
27.5°	950.0	946.3	940.4	926.0	903.8	870.8	833.7	790.9	747.5	705.6	668.2
30°	940.9	941.3	941.8	937.8	924.7	901.4	864.5	817.5	763.4	714.7	669.7
32.5°	859.7	869.5	878.9	891.1	899.0	899.2	879.5	838.3	782.2	725.2	668.9
35°	731.7	734.1	758.8	783.3	816.4	842.2	859.5	840.7	793.7	730.2	668.2
37.5°	591.6	603.6	622.2	649.7	699.4	740.0	793.3	811.6	789.6	734.4	668.0
40°	486.4	497.3	508.4	536.6	577.0	628.9	691.6	745.1	757.5	725.2	661.5
42.5°	405.2	413.2	425.9	445.3	477.4	522.0	581.1	655.1	705.8	698.6	647.7
45°	344.9	350.4	360.0	376.8	401.2	437.3	490.1	566.5	633.1	655.1	624.3
47.5°	302.1	302.3	310.2	322.2	340.8	374.0	413.5	476.3	548.2	599.0	591.8
50°	267.6	266.5	272.4	282.5	296.5	316.8	354.1	401.9	470.2	529.8	546.4
52.5°	237.9	238.4	241.4	248.2	259.3	275.9	301.5	343.4	399.3	460.8	495.8
55°	212.6	211.8	215.9	220.9	229.4	240.8	260.9	293.8	341.2	401.5	442.1
57.5°	188.2	190.6	192.3	195.8	203.2	211.1	229.0	254.3	293.4	346.9	389.9
60°	167.2	169.6	170.9	174.4	180.1	186.6	199.7	219.4	251.0	295.6	338.1
62.5°	148.4	150.2	150.4	153.5	157.8	164.2	173.8	189.5	212.8	250.4	291.9
65°	130.5	130.5	131.4	134.7	136.9	142.6	150.4	162.4	182.5	212.8	248.4
67.5°	113.1	114.2	114.0	115.5	117.4	122.2	128.1	138.2	154.1	177.0	206.5
70°	96.1	96.9	96.7	97.8	100.0	102.8	107.4	116.8	127.5	146.5	170.9
72.5°	80.8	81.0	80.3	81.9	83.0	85.4	90.6	94.5	104.3	119.6	138.6
75°	64.2	64.6	65.1	65.9	67.2	68.5	71.2	76.2	82.7	94.7	107.6
77.5°	51.1	50.0	51.3	51.1	51.7	52.8	55.2	58.1	63.7	71.8	82.5
80°	36.2	36.5	36.5	36.7	37.8	38.4	40.4	42.4	46.5	52.2	59.2
82.5°	24.0	24.7	24.2	24.7	25.5	26.0	26.9	28.4	30.3	34.5	39.1
85°	14.4	13.3	13.8	14.2	14.2	14.4	15.3	15.9	17.2	19.0	21.0
87.5°	5.2	5.7	5.9	5.9	6.1	6.1	7.0	7.0	7.6	8.3	9.2
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°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	532.9	531.3	529.6	526.5	522.8	520.9	517.8	515.8	511.9	508.6	505.1
5°	556.0	550.3	545.1	538.3	530.9	526.1	520.4	514.1	507.6	500.8	493.4
7.5°	579.2	569.8	559.5	548.8	538.3	528.5	519.3	510.0	501.4	490.7	481.8
10°	602.5	589.9	576.3	560.4	544.9	531.3	517.6	505.6	493.4	480.3	468.7
12.5°	625.9	608.0	587.4	569.5	550.1	533.1	516.3	500.1	484.0	469.1	455.2
15°	634.4	619.5	601.9	577.0	556.0	533.5	512.1	492.3	473.7	457.6	440.5
17.5°	642.7	623.7	604.9	580.9	553.6	529.4	505.1	483.5	463.0	442.7	427.2
20°	644.6	625.0	605.1	581.8	553.6	524.8	500.6	473.3	450.8	429.6	409.5
22.5°	644.0	621.1	599.0	574.8	547.5	521.5	491.0	463.0	438.1	417.4	396.2
25°	639.2	615.4	588.3	564.1	537.0	508.9	479.2	450.4	425.5	401.7	380.9
27.5°	636.3	606.2	576.5	548.6	522.6	496.6	467.8	438.1	410.8	386.6	367.4
30°	630.0	596.2	561.7	532.2	505.4	480.3	453.4	424.6	395.8	372.2	351.2
32.5°	624.3	583.5	546.6	513.9	485.1	460.8	436.6	409.5	381.4	357.4	336.4
35°	616.7	571.1	529.4	493.1	462.8	437.7	417.0	391.4	365.4	342.3	322.2
37.5°	607.8	554.9	510.8	473.1	440.1	413.9	394.3	374.4	348.4	325.7	307.8
40°	596.8	537.5	490.1	451.2	416.7	389.2	371.3	352.8	332.0	311.3	292.1
42.5°	583.1	521.7	469.1	426.6	392.5	365.9	346.9	331.8	314.1	295.1	277.7
45°	565.6	502.1	446.2	401.2	366.7	340.3	320.9	309.1	295.4	277.0	262.0
47.5°	542.5	479.8	422.2	375.7	340.1	315.7	297.1	285.5	275.5	261.1	246.9
50°	509.5	454.3	395.8	349.7	314.1	289.5	272.7	262.4	254.1	243.6	232.1
52.5°	472.6	422.2	369.8	324.4	289.2	265.0	248.6	239.9	233.4	226.6	215.2
55°	433.1	389.4	339.7	296.5	263.9	240.1	225.7	217.9	212.2	206.5	199.5
57.5°	390.5	355.2	309.6	269.2	239.0	216.8	203.2	195.2	190.6	187.5	183.2
60°	345.1	315.9	277.9	241.9	212.6	193.4	180.3	174.4	170.7	168.3	165.3
62.5°	303.0	280.3	245.8	213.7	189.0	171.1	159.8	154.1	150.6	149.8	147.4
65°	261.7	243.2	214.2	186.9	165.0	149.5	139.7	134.3	132.1	130.8	131.0
67.5°	220.3	208.3	184.0	160.0	142.1	128.4	120.3	116.1	115.0	113.1	113.1
70°	182.9	174.4	154.8	134.5	119.0	108.9	101.9	97.6	96.5	95.6	95.4
72.5°	150.0	142.8	126.4	111.1	97.6	89.1	83.6	81.4	79.5	79.0	79.0
75°	117.7	113.5	100.0	87.1	77.5	71.4	67.5	65.1	63.7	63.5	63.7
77.5°	88.8	84.9	75.5	65.9	59.6	54.8	51.1	50.4	48.7	48.9	48.5
80°	62.9	60.5	55.0	47.8	42.8	38.9	37.1	35.6	35.1	34.5	35.1
82.5°	41.3	38.6	35.4	31.4	27.5	25.5	23.8	23.6	23.4	23.1	23.1
85°	22.5	22.7	20.5	17.0	15.3	14.0	12.9	12.9	12.7	12.4	12.7
87.5°	9.6	9.2	8.3	7.6	6.5	5.9	5.7	5.9	5.2	5.0	5.2
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°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	503.2	500.8	498.8	494.5	492.1	488.8	486.2	489.0	485.9	487.2	485.3
5°	489.7	483.5	479.2	472.8	467.4	462.4	458.7	458.0	456.3	455.4	452.8
7.5°	473.5	466.5	459.3	451.4	444.9	437.9	433.8	429.8	427.4	424.4	422.0
10°	459.5	449.3	440.5	430.5	421.8	414.1	408.0	404.9	402.1	398.0	396.4
12.5°	442.3	431.6	420.4	409.5	401.2	392.5	387.5	382.5	380.7	375.9	375.7
15°	429.2	413.2	402.8	391.9	380.3	373.3	368.9	363.9	361.7	358.5	356.0
17.5°	413.0	398.6	385.5	374.4	363.9	358.2	352.6	349.1	345.4	343.0	339.0
20°	395.1	381.6	368.5	356.5	348.8	342.1	337.7	334.4	330.5	329.4	325.5
22.5°	380.1	364.8	352.3	342.7	334.2	326.4	321.6	319.6	317.2	313.3	313.3
25°	363.5	348.0	337.3	327.2	319.8	312.8	309.6	306.7	304.1	301.7	300.8
27.5°	349.5	335.7	322.6	313.5	307.2	300.6	297.8	294.1	292.1	290.1	287.5
30°	334.7	320.5	309.3	300.6	293.6	287.9	284.9	282.5	280.7	279.0	277.7
32.5°	319.4	306.5	295.8	287.3	280.3	276.4	273.8	272.2	270.3	268.1	266.3
35°	306.3	291.9	281.4	274.0	268.5	265.2	262.2	260.7	258.5	258.5	256.7
37.5°	290.8	278.1	268.7	262.0	257.2	254.1	250.6	249.7	248.2	247.3	246.7
40°	277.2	265.7	256.9	250.2	244.9	242.5	239.9	238.2	237.3	236.2	235.8
42.5°	263.3	252.4	244.1	237.9	233.6	231.6	229.2	228.1	226.2	224.6	224.4
45°	249.1	238.4	230.7	225.7	221.8	219.4	217.9	215.2	214.4	212.6	212.4
47.5°	236.0	225.5	217.9	213.7	210.2	208.5	206.1	203.2	202.1	201.1	200.8
50°	220.9	211.5	204.5	200.6	197.3	194.5	192.1	190.4	189.7	189.7	190.1
52.5°	205.6	198.0	192.3	187.3	184.2	181.2	179.0	178.1	177.0	178.4	179.2
55°	190.8	182.7	178.4	173.8	170.7	167.2	166.1	165.7	165.0	166.8	167.7
57.5°	174.9	169.4	164.2	159.4	156.7	154.6	152.8	152.6	153.9	154.3	157.0
60°	159.8	153.2	148.7	145.2	141.9	140.6	140.1	139.7	140.6	143.0	146.7
62.5°	143.2	138.2	133.2	130.8	128.6	126.2	126.2	126.6	128.6	131.4	135.1
65°	127.1	122.5	119.2	116.1	114.2	112.9	113.3	114.2	116.1	119.8	124.0
67.5°	110.5	107.4	104.3	101.5	99.5	99.8	100.0	101.1	103.5	107.8	111.8
70°	94.5	91.0	88.6	87.5	86.0	85.1	86.4	88.6	90.6	94.5	97.8
72.5°	78.6	75.8	74.0	73.3	72.9	72.3	72.5	74.9	77.7	81.6	85.6
75°	62.9	61.8	60.5	59.6	58.9	59.4	59.8	62.0	64.2	68.3	72.7
77.5°	48.7	47.4	46.5	46.3	45.8	46.1	47.2	48.9	51.1	54.1	57.6
80°	34.7	34.3	33.8	33.6	33.6	33.8	35.6	36.7	38.6	41.5	44.1
82.5°	22.9	22.7	22.7	22.7	22.9	22.9	23.8	25.3	26.9	28.8	31.0
85°	13.3	12.9	13.5	13.8	13.3	14.0	14.4	15.3	15.9	17.0	18.1
87.5°	5.5	5.9	5.7	5.9	5.9	6.3	6.1	7.0	7.4	7.9	7.6
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):

	165°	170°	175°	180°
0°	514.3	514.3	514.3	514.3
2.5°	484.0	485.5	484.2	485.9
5°	451.7	449.7	451.0	450.1
7.5°	421.8	420.0	417.4	416.5
10°	394.0	391.6	391.4	389.9
12.5°	373.7	371.5	368.5	368.1
15°	354.7	353.0	351.5	352.8
17.5°	338.6	337.1	336.6	335.3
20°	323.5	322.4	322.9	320.0
22.5°	311.5	309.1	308.7	308.7
25°	298.9	297.8	296.7	297.8
27.5°	287.7	286.6	286.2	286.4
30°	277.7	275.5	275.7	275.5
32.5°	266.8	265.5	265.0	264.6
35°	256.1	256.1	255.0	255.0
37.5°	246.2	246.0	245.4	245.8
40°	234.9	234.7	234.0	232.7
42.5°	224.0	223.1	222.9	222.7
45°	212.4	212.4	212.0	211.8
47.5°	201.1	201.5	202.4	202.1
50°	191.0	191.2	191.9	192.1
52.5°	179.9	181.4	182.3	182.1
55°	169.6	171.1	172.7	172.9
57.5°	159.4	161.3	162.9	163.3
60°	148.9	151.7	153.7	154.6
62.5°	138.8	142.1	144.1	144.1
65°	127.7	131.0	132.7	134.0
67.5°	116.1	119.4	121.2	122.2
70°	103.3	106.5	109.2	110.0
72.5°	90.6	93.4	95.4	96.5
75°	75.5	79.5	81.4	82.5
77.5°	61.1	65.1	66.1	66.8
80°	46.7	48.9	50.4	50.6
82.5°	33.2	34.9	35.1	35.8
85°	19.6	20.5	20.7	20.5
87.5°	8.1	7.9	7.9	8.3
90°	0.0	0.0	0.0	0.0

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