

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: P242800

Luminaire Tested: **S125DR-S375D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242800
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-S375D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1149.8 lumens
Efficiency: N/A
Efficacy: 99.1 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

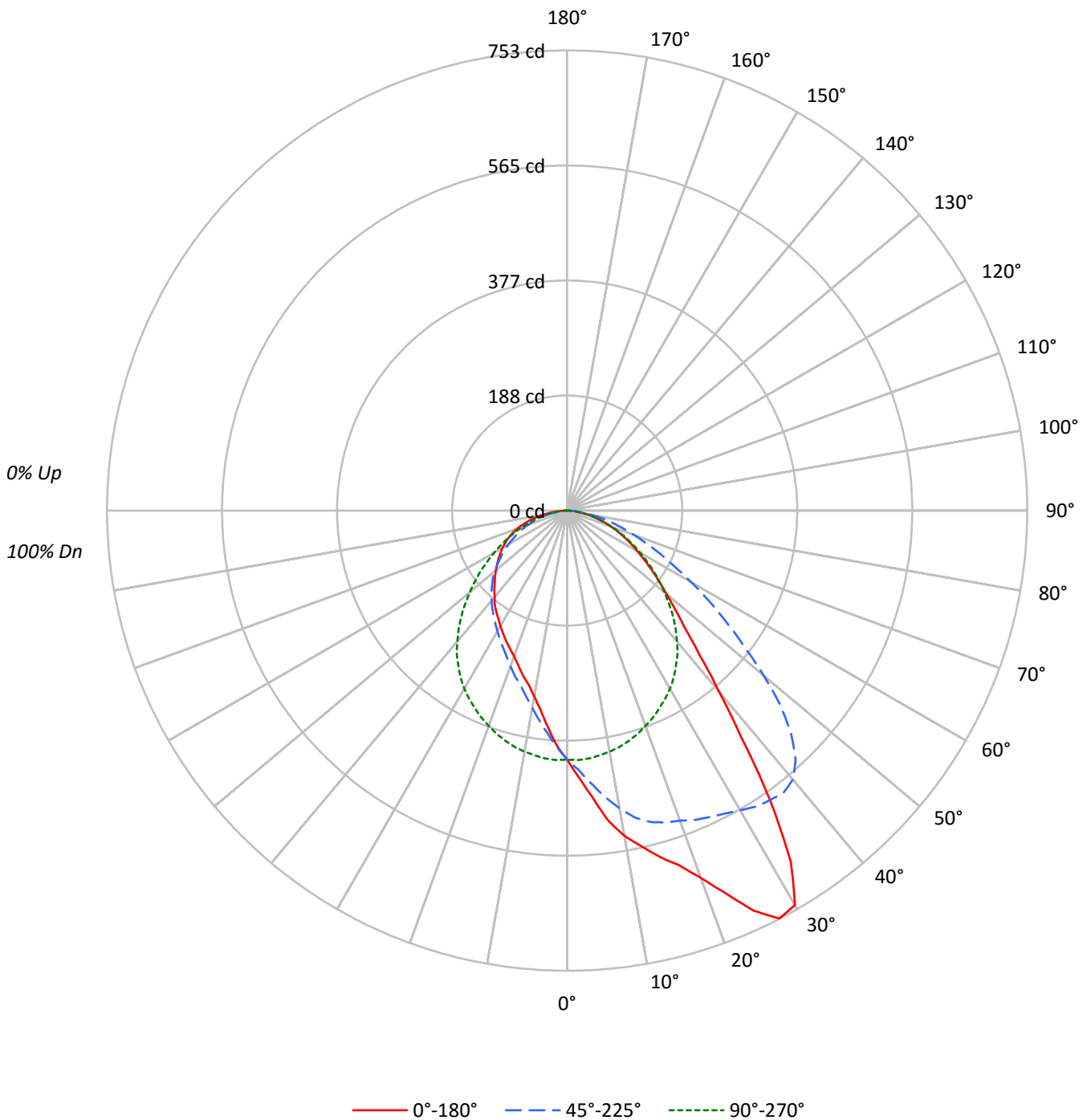
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2896	2896	2896
5°	3353	2906	2544
10°	3902	2890	2229
15°	4318	2870	2057
20°	4835	2836	1917
25°	5664	2798	1850
30°	6117	2761	1791
35°	5030	2691	1753
40°	3575	2593	1710
45°	2746	2462	1686
50°	2344	2299	1683
55°	2087	2139	1698
60°	1883	1964	1740
65°	1739	1789	1786
70°	1581	1606	1812
75°	1395	1414	1796
80°	1175	1154	1641
85°	930	832	1329



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	3.4
10°-20°	116.8	10.2
20°-30°	189.7	16.5
30°-40°	231.9	20.2
40°-50°	210.4	18.3
50°-60°	167.5	14.6
60°-70°	116.7	10.1
70°-80°	62.2	5.4
80°-90°	15.4	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°	345.7	30.1
0°-40°	577.6	50.2
0°-60°	955.5	83.1
0°-90°	1149.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1149.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	407	407	407	407	407	
5°	470	448	407	366	357	47
15°	587	528	390	296	280	168
25°	722	553	357	248	236	331
35°	580	578	310	210	202	356
45°	273	519	245	174	168	217
55°	168	318	173	132	137	151
65°	103	169	106	89	106	103
75°	51	75	52	47	65	55
85°	11	15	10	11	16	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°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	436.8	436.1	435.4	434.1	435.1	432.2	430.8	428.4	425.4	424.4	423.2
5°	470.0	470.9	471.8	468.1	468.5	466.1	460.5	456.0	452.4	447.7	444.4
7.5°	511.2	508.6	508.8	506.5	502.5	499.3	493.9	486.5	479.7	472.1	465.5
10°	540.6	540.8	539.2	536.4	532.1	529.0	521.4	514.1	505.3	494.9	487.5
12.5°	562.7	563.6	561.5	557.5	556.0	548.0	542.5	533.5	522.6	514.8	502.5
15°	586.9	585.0	583.7	579.0	575.4	568.1	558.6	549.6	538.2	527.6	517.1
17.5°	608.4	609.9	607.7	604.2	593.5	585.0	573.3	561.9	548.2	535.1	522.8
20°	639.2	640.5	636.6	629.1	615.6	607.2	590.4	574.5	558.1	539.9	526.1
22.5°	677.6	675.8	670.1	657.8	646.6	629.1	610.6	590.4	568.8	547.7	528.1
25°	722.2	714.9	711.6	697.6	682.2	659.2	634.3	606.0	580.4	553.2	529.7
27.5°	752.6	749.7	745.0	733.6	715.9	689.8	660.4	626.5	592.1	558.9	529.4
30°	745.3	745.7	746.0	742.9	732.6	714.0	684.8	647.6	604.8	566.2	530.6
32.5°	681.0	688.8	696.2	705.9	712.1	712.3	696.8	664.1	619.6	574.5	529.9
35°	579.7	581.6	601.1	620.5	646.8	667.2	680.8	666.0	628.8	578.5	529.4
37.5°	468.7	478.2	492.9	514.7	554.1	586.2	628.4	643.0	625.5	581.8	529.2
40°	385.3	393.9	402.8	425.1	457.1	498.2	547.9	590.2	600.1	574.5	524.0
42.5°	321.0	327.4	337.4	352.8	378.2	413.5	460.4	519.0	559.1	553.4	513.1
45°	273.2	277.6	285.2	298.5	317.9	346.4	388.2	448.8	501.5	519.0	494.6
47.5°	239.3	239.5	245.7	255.3	270.0	296.2	327.5	377.3	434.2	474.5	468.8
50°	212.0	211.2	215.8	223.8	234.8	250.9	280.5	318.4	372.5	419.7	432.9
52.5°	188.5	188.8	191.3	196.6	205.4	218.6	238.8	272.0	316.3	365.1	392.7
55°	168.4	167.7	171.0	175.0	181.8	190.7	206.7	232.8	270.3	318.0	350.2
57.5°	149.1	151.0	152.4	155.1	161.0	167.2	181.4	201.5	232.4	274.8	308.9
60°	132.5	134.4	135.4	138.2	142.7	147.9	158.2	173.8	198.9	234.2	267.9
62.5°	117.6	119.0	119.2	121.6	125.0	130.0	137.7	150.1	168.6	198.4	231.2
65°	103.4	103.4	104.1	106.7	108.4	112.9	119.2	128.7	144.6	168.6	196.8
67.5°	89.6	90.4	90.3	91.5	93.0	96.8	101.5	109.5	122.1	140.2	163.6
70°	76.1	76.8	76.6	77.5	79.2	81.5	85.1	92.5	101.0	116.0	135.4
72.5°	64.0	64.2	63.6	64.9	65.7	67.6	71.8	74.9	82.7	94.8	109.8
75°	50.8	51.2	51.5	52.2	53.3	54.3	56.4	60.4	65.5	75.1	85.3
77.5°	40.5	39.6	40.6	40.5	41.0	41.9	43.8	46.0	50.5	56.9	65.4
80°	28.7	28.9	28.9	29.1	29.9	30.4	32.0	33.5	36.8	41.3	46.9
82.5°	19.0	19.5	19.2	19.5	20.2	20.6	21.3	22.5	24.0	27.3	31.0
85°	11.4	10.5	10.9	11.2	11.2	11.4	12.1	12.6	13.7	15.0	16.6
87.5°	4.2	4.5	4.7	4.7	4.8	4.8	5.5	5.5	6.1	6.6	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	422.1	420.9	419.5	417.1	414.2	412.6	410.2	408.6	405.5	402.9	400.2
5°	440.5	436.0	431.8	426.5	420.6	416.8	412.3	407.3	402.1	396.7	390.8
7.5°	458.8	451.4	443.2	434.8	426.5	418.7	411.4	404.0	397.2	388.8	381.7
10°	477.3	467.3	456.5	443.9	431.6	420.9	410.0	400.5	390.8	380.5	371.3
12.5°	495.8	481.6	465.4	451.2	435.8	422.3	409.0	396.2	383.4	371.6	360.6
15°	502.5	490.8	476.8	457.1	440.5	422.7	405.7	390.0	375.3	362.5	349.0
17.5°	509.1	494.1	479.2	460.2	438.6	419.4	400.2	383.1	366.8	350.7	338.4
20°	510.7	495.1	479.4	460.9	438.6	415.7	396.5	374.9	357.1	340.3	324.4
22.5°	510.2	492.0	474.5	455.3	433.7	413.1	388.9	366.8	347.1	330.7	313.9
25°	506.4	487.5	466.1	446.9	425.4	403.1	379.6	356.8	337.0	318.2	301.8
27.5°	504.1	480.2	456.7	434.6	414.0	393.4	370.6	347.1	325.5	306.3	291.0
30°	499.1	472.3	445.0	421.6	400.3	380.5	359.2	336.4	313.5	294.9	278.3
32.5°	494.6	462.3	433.0	407.1	384.3	365.1	345.9	324.4	302.1	283.1	266.5
35°	488.5	452.4	419.4	390.7	366.6	346.7	330.3	310.1	289.5	271.2	255.3
37.5°	481.4	439.6	404.7	374.7	348.6	327.9	312.3	296.6	276.0	258.0	243.8
40°	472.8	425.8	388.2	357.5	330.1	308.3	294.2	279.5	263.0	246.6	231.4
42.5°	461.9	413.3	371.6	337.9	310.9	289.8	274.8	262.9	248.9	233.8	220.0
45°	448.1	397.7	353.5	317.9	290.5	269.6	254.2	244.9	234.0	219.5	207.5
47.5°	429.7	380.1	334.5	297.6	269.4	250.1	235.4	226.2	218.2	206.8	195.6
50°	403.6	359.9	313.5	277.0	248.9	229.3	216.0	207.9	201.3	193.0	183.8
52.5°	374.4	334.5	293.0	257.0	229.1	209.9	197.0	190.1	184.9	179.5	170.5
55°	343.1	308.5	269.1	234.8	209.1	190.2	178.8	172.6	168.1	163.6	158.1
57.5°	309.4	281.4	245.2	213.2	189.4	171.7	161.0	154.6	151.0	148.6	145.1
60°	273.4	250.2	220.1	191.6	168.4	153.2	142.8	138.2	135.2	133.3	130.9
62.5°	240.0	222.0	194.7	169.3	149.8	135.6	126.6	122.1	119.3	118.6	116.7
65°	207.3	192.6	169.6	148.0	130.7	118.5	110.7	106.4	104.6	103.6	103.8
67.5°	174.5	165.0	145.8	126.8	112.6	101.7	95.3	92.0	91.1	89.6	89.6
70°	144.9	138.2	122.6	106.5	94.2	86.3	80.8	77.3	76.4	75.7	75.6
72.5°	118.8	113.1	100.1	88.0	77.3	70.6	66.2	64.5	62.9	62.6	62.6
75°	93.2	89.9	79.2	69.0	61.4	56.5	53.4	51.5	50.5	50.3	50.5
77.5°	70.4	67.3	59.8	52.2	47.2	43.4	40.5	39.9	38.6	38.7	38.4
80°	49.8	47.9	43.6	37.9	33.9	30.8	29.4	28.2	27.8	27.3	27.8
82.5°	32.7	30.6	28.0	24.9	21.8	20.2	18.8	18.7	18.5	18.3	18.3
85°	17.8	18.0	16.3	13.5	12.1	11.1	10.2	10.2	10.0	9.9	10.0
87.5°	7.6	7.3	6.6	6.1	5.2	4.7	4.5	4.7	4.2	4.0	4.2
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°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4
2.5°	398.6	396.7	395.2	391.7	389.8	387.2	385.1	387.4	385.0	386.0	384.4
5°	387.9	383.1	379.6	374.6	370.3	366.3	363.3	362.8	361.4	360.7	358.7
7.5°	375.1	369.6	363.9	357.6	352.4	346.9	343.6	340.5	338.6	336.2	334.3
10°	364.0	355.9	349.0	341.0	334.1	328.1	323.2	320.8	318.5	315.3	314.0
12.5°	350.4	341.9	333.1	324.4	317.9	310.9	307.0	303.0	301.6	297.8	297.6
15°	340.0	327.4	319.1	310.4	301.3	295.7	292.3	288.3	286.6	284.0	282.1
17.5°	327.2	315.8	305.4	296.6	288.3	283.8	279.3	276.5	273.6	271.7	268.6
20°	313.0	302.3	291.9	282.4	276.3	271.0	267.5	264.9	261.8	261.0	257.8
22.5°	301.1	289.0	279.1	271.5	264.8	258.5	254.7	253.2	251.3	248.2	248.2
25°	287.9	275.7	267.2	259.2	253.3	247.8	245.2	243.0	240.9	239.0	238.3
27.5°	276.9	266.0	255.6	248.3	243.3	238.1	235.9	232.9	231.4	229.8	227.8
30°	265.1	253.9	245.0	238.1	232.6	228.1	225.7	223.8	222.4	221.0	220.0
32.5°	253.0	242.8	234.3	227.6	222.0	218.9	216.9	215.6	214.1	212.4	211.0
35°	242.6	231.2	222.9	217.0	212.7	210.1	207.7	206.5	204.8	204.8	203.4
37.5°	230.3	220.3	212.9	207.5	203.7	201.3	198.5	197.8	196.6	195.9	195.4
40°	219.6	210.5	203.5	198.2	194.0	192.1	190.1	188.7	188.0	187.1	186.8
42.5°	208.6	199.9	193.3	188.5	185.0	183.5	181.6	180.7	179.2	177.9	177.8
45°	197.3	188.8	182.8	178.8	175.7	173.8	172.6	170.5	169.8	168.4	168.3
47.5°	186.9	178.6	172.6	169.3	166.5	165.2	163.3	161.0	160.1	159.3	159.1
50°	175.0	167.6	162.0	158.9	156.3	154.1	152.2	150.8	150.3	150.3	150.6
52.5°	162.9	156.9	152.4	148.4	146.0	143.5	141.8	141.1	140.2	141.3	142.0
55°	151.1	144.7	141.3	137.7	135.2	132.5	131.6	131.3	130.7	132.1	132.8
57.5°	138.5	134.2	130.0	126.2	124.2	122.4	121.1	120.9	121.9	122.3	124.3
60°	126.6	121.4	117.8	115.0	112.4	111.4	111.0	110.7	111.4	113.3	116.2
62.5°	113.4	109.5	105.5	103.6	101.9	100.0	100.0	100.3	101.9	104.1	107.0
65°	100.6	97.0	94.4	92.0	90.4	89.4	89.8	90.4	92.0	94.9	98.2
67.5°	87.5	85.1	82.7	80.4	78.9	79.0	79.2	80.1	82.0	85.4	88.5
70°	74.9	72.1	70.2	69.3	68.1	67.4	68.5	70.2	71.8	74.9	77.5
72.5°	62.3	60.0	58.6	58.1	57.8	57.2	57.4	59.3	61.6	64.7	67.8
75°	49.8	48.9	47.9	47.2	46.7	47.0	47.4	49.1	50.8	54.1	57.6
77.5°	38.6	37.5	36.8	36.7	36.3	36.5	37.4	38.7	40.5	42.9	45.7
80°	27.5	27.2	26.8	26.6	26.6	26.8	28.2	29.1	30.6	32.9	34.9
82.5°	18.2	18.0	18.0	18.0	18.2	18.2	18.8	20.1	21.3	22.8	24.6
85°	10.5	10.2	10.7	10.9	10.5	11.1	11.4	12.1	12.6	13.5	14.4
87.5°	4.3	4.7	4.5	4.7	4.7	5.0	4.8	5.5	5.9	6.2	6.1
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):

	165°	170°	175°	180°
0°	407.4	407.4	407.4	407.4
2.5°	383.4	384.6	383.6	385.0
5°	357.8	356.2	357.3	356.6
7.5°	334.1	332.7	330.7	330.0
10°	312.1	310.2	310.1	308.9
12.5°	296.1	294.3	291.9	291.6
15°	281.0	279.6	278.4	279.5
17.5°	268.2	267.0	266.7	265.6
20°	256.3	255.4	255.8	253.5
22.5°	246.8	244.9	244.5	244.5
25°	236.7	235.9	235.0	235.9
27.5°	227.9	227.1	226.7	226.9
30°	220.0	218.2	218.4	218.2
32.5°	211.3	210.3	209.9	209.6
35°	202.9	202.9	202.0	202.0
37.5°	195.1	194.9	194.4	194.7
40°	186.1	185.9	185.4	184.3
42.5°	177.4	176.7	176.6	176.4
45°	168.3	168.3	167.9	167.7
47.5°	159.3	159.6	160.3	160.1
50°	151.3	151.5	152.0	152.2
52.5°	142.5	143.7	144.4	144.2
55°	134.4	135.6	136.8	137.0
57.5°	126.2	127.8	129.0	129.4
60°	117.9	120.2	121.7	122.4
62.5°	110.0	112.6	114.1	114.1
65°	101.2	103.8	105.1	106.2
67.5°	92.0	94.6	96.0	96.8
70°	81.8	84.4	86.5	87.2
72.5°	71.8	74.0	75.6	76.4
75°	59.8	62.9	64.5	65.4
77.5°	48.4	51.5	52.4	52.9
80°	37.0	38.7	39.9	40.1
82.5°	26.3	27.7	27.8	28.4
85°	15.6	16.3	16.4	16.3
87.5°	6.4	6.2	6.2	6.6
90°	0.0	0.0	0.0	0.0

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