

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: LUMARK

Report Number: P196707

Luminaire Tested: **NAV-AF-03-D-UNV-SLR-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-SLR-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10195 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 96
Input Voltage (V): NR
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

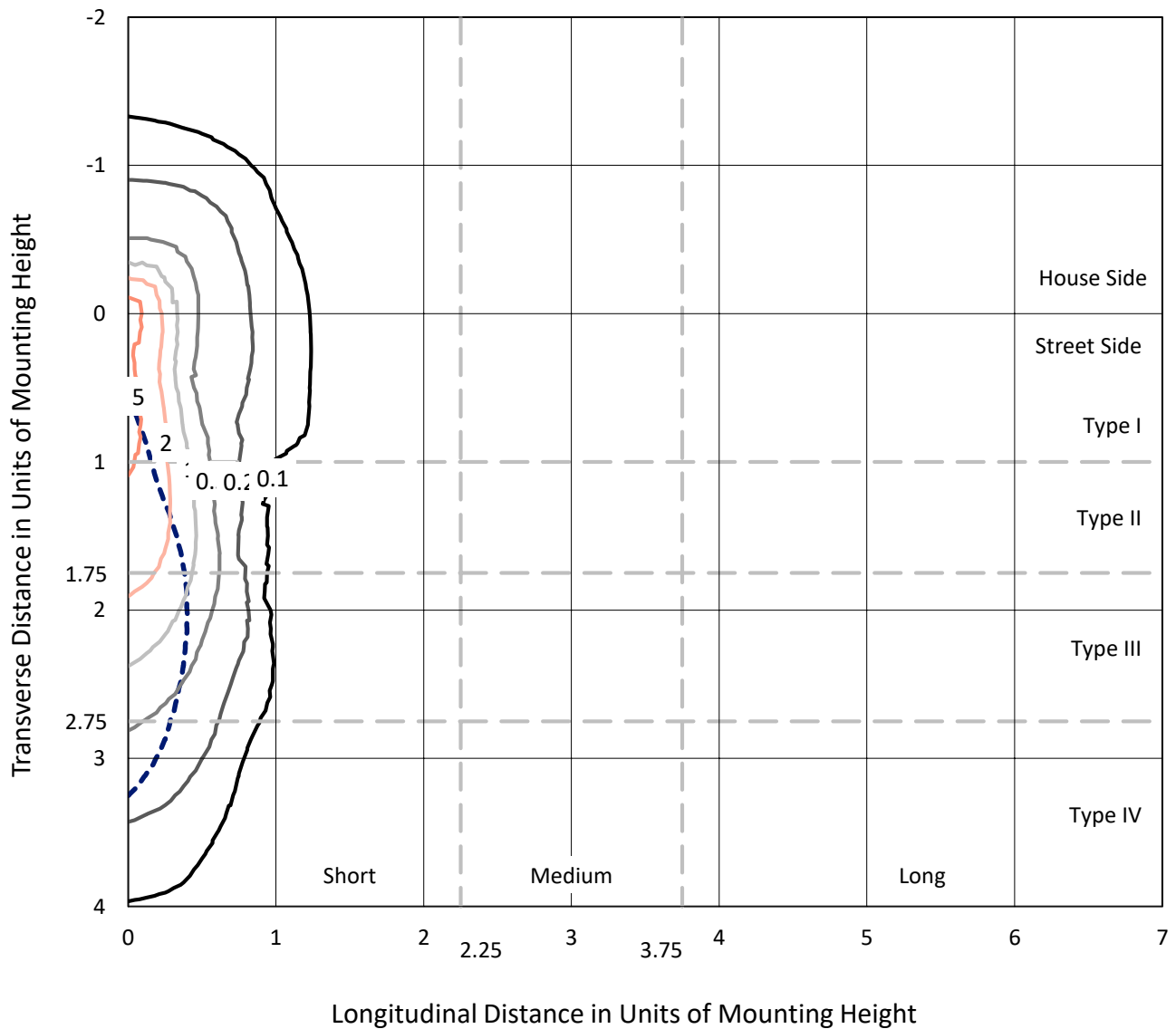


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Iso-Footcandle Lines of Horizontal Illumination

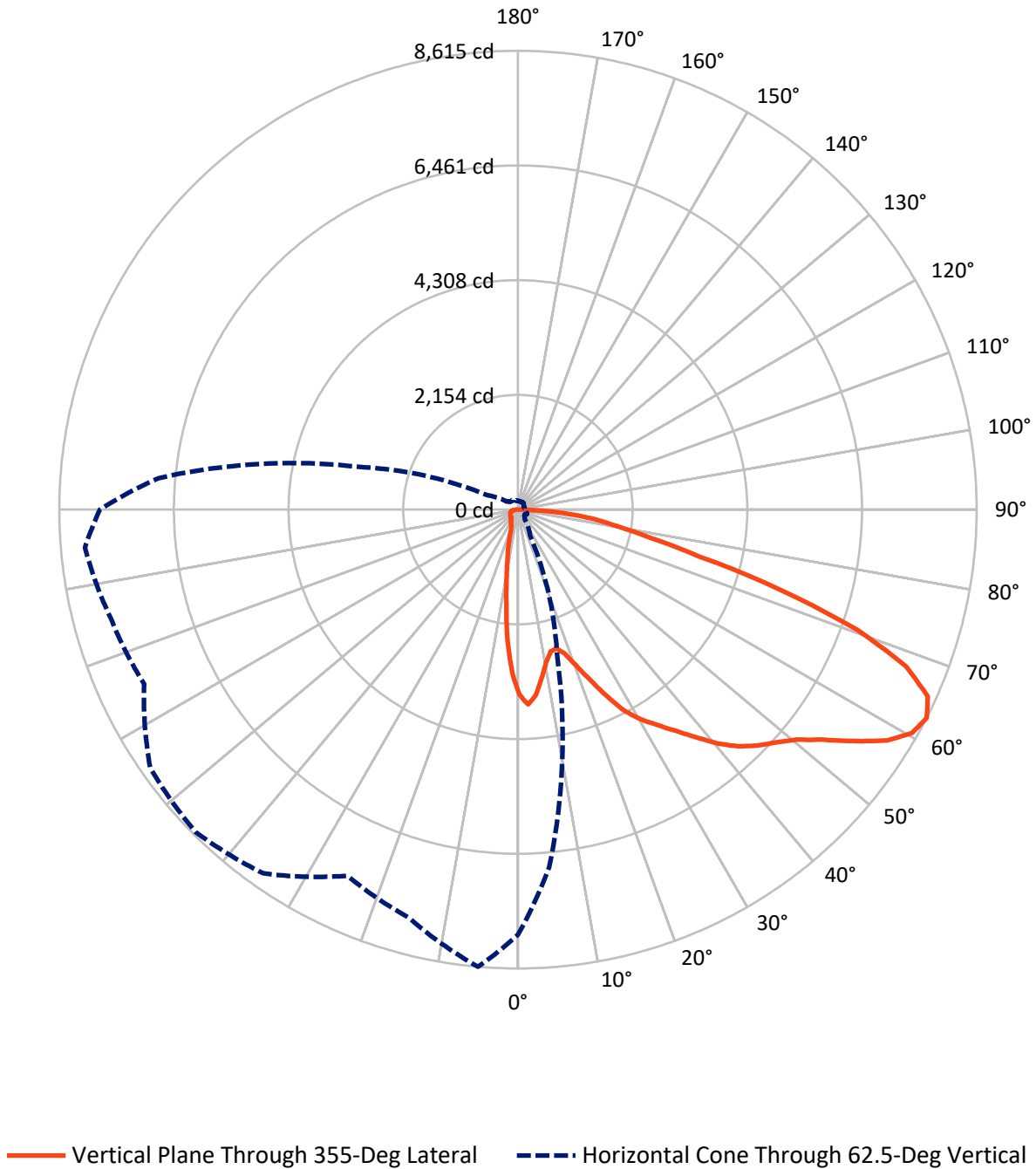
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1806.1	0.0	1806.1
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	8388.9	0.0	8388.9
	% Fixture	82.3	0.0	82.3
Total	Lumens	10195.0	0.0	10195.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.8	2.5
10°-20°	461.7	4.5
20°-30°	664.0	6.5
30°-40°	1017.0	10.0
40°-50°	1486.9	14.6
50°-60°	2163.4	21.2
60°-70°	2506.6	24.6
70°-80°	1306.7	12.8
80°-90°	335.9	3.3
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°-90°	10195.0	100.0
0°-180°	10195.0	100.0



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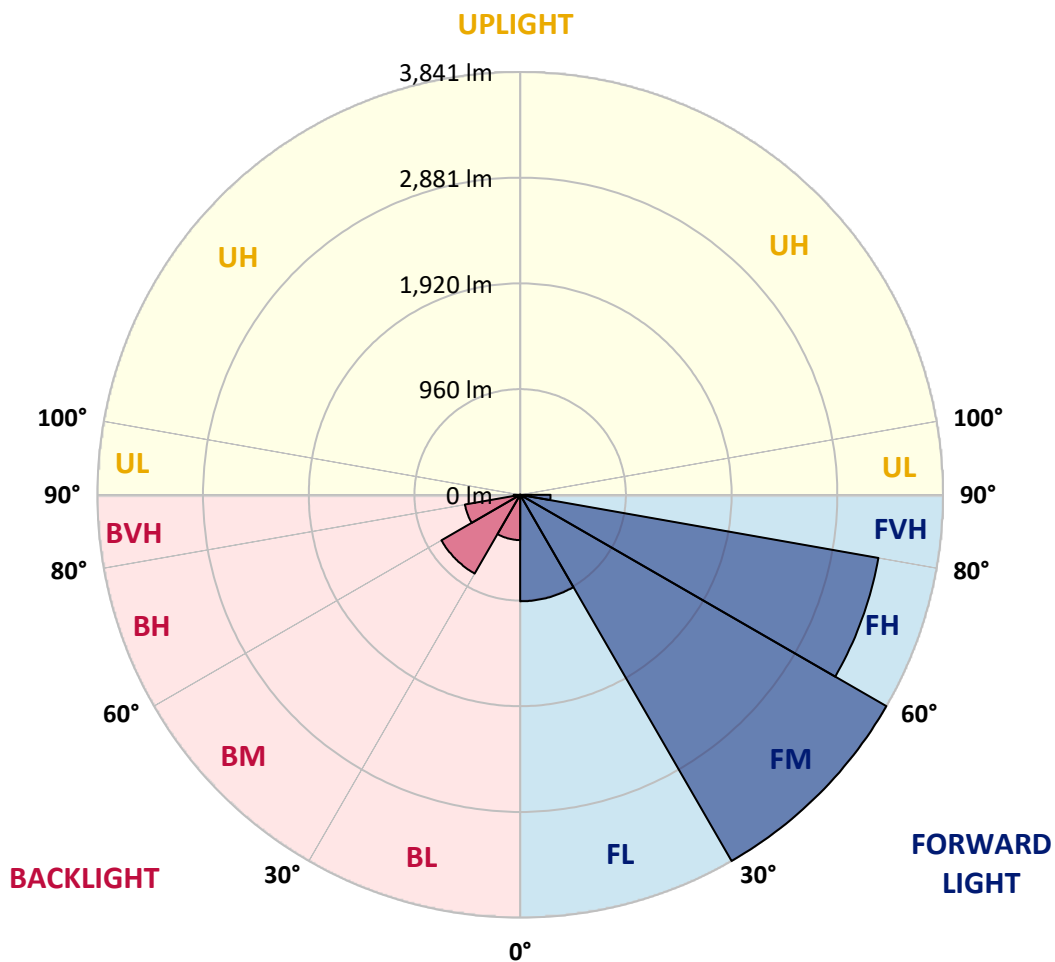
CATALOG NUMBER: NAV-AF-03-D-UNV-SLR-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	967.5	9.5			
FM	(30°-60°)	3841.0	37.7			
FH	(60°-80°)	3304.0	32.4			G2/5000
FVH	(80°-90°)	276.3	2.7			G3/500
BL	(0°-30°)	410.9	4.0	B1/500		
BM	(30°-60°)	826.3	8.1	B1/1000		
BH	(60°-80°)	509.3	5.0	B2/1000		G2/1000
BVH	(80°-90°)	59.6	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6
2.5°	3588.1	3537.9	3421.7	3319.8	3192.5	3097.2	2981.1	2919.9	2874.7	2844.4	2820.0
5°	3351.5	3230.2	3008.5	2814.1	2604.2	2452.7	2275.3	2178.4	2118.5	2086.0	2071.2
7.5°	3000.4	2839.9	2553.2	2292.3	2029.8	1840.6	1706.1	1562.6	1486.5	1437.0	1420.7
10°	2693.6	2512.5	2170.2	1876.8	1674.3	1539.7	1424.4	1292.9	1195.3	1110.3	1078.5
12.5°	2515.4	2304.9	1914.5	1649.2	1479.2	1334.9	1213.0	1071.1	968.4	879.6	845.6
15°	2477.8	2242.6	1807.3	1504.3	1295.9	1122.1	975.6	821.2	720.7	647.6	623.9
17.5°	2591.6	2301.9	1762.3	1372.0	1120.6	908.5	728.1	562.5	479.0	439.1	429.5
20°	2825.9	2431.9	1740.8	1252.8	950.5	699.3	503.3	382.2	340.8	329.0	328.3
22.5°	3134.2	2643.3	1764.4	1155.3	790.9	515.9	368.9	314.1	297.1	290.5	290.5
25°	3482.3	2929.5	1827.3	1080.7	650.5	401.4	317.8	288.3	274.2	267.5	268.3
27.5°	3908.1	3277.6	1913.0	1012.0	550.0	351.9	297.1	272.0	258.0	251.3	252.1
30°	4228.9	3576.9	1987.0	949.1	498.2	331.9	286.0	262.4	246.9	237.3	236.5
32.5°	4529.1	3840.8	2046.9	904.0	468.6	296.4	258.7	241.0	227.7	216.6	214.3
35°	4861.0	4089.2	2075.0	902.6	449.4	267.5	236.5	215.1	201.8	189.2	187.1
37.5°	5237.2	4393.0	2098.6	911.4	439.1	249.1	226.1	205.5	194.4	181.8	178.8
40°	5628.9	4690.2	2117.0	918.8	437.6	236.5	218.1	199.6	188.5	175.2	172.2
42.5°	5965.2	4953.3	2142.1	915.8	427.2	234.4	212.8	194.4	184.1	170.8	167.0
45°	6234.4	5162.5	2181.4	915.1	411.7	239.5	211.4	193.0	180.4	166.3	163.4
47.5°	6484.9	5398.3	2264.2	912.2	394.8	237.9	219.5	191.4	178.8	164.9	162.6
50°	6771.7	5715.5	2405.4	890.0	371.1	227.7	234.4	190.0	175.2	162.6	160.4
52.5°	7170.9	6179.6	2614.5	850.0	338.6	216.6	236.5	189.2	169.3	158.2	155.2
55°	7640.3	6677.1	2839.9	792.4	295.6	197.3	224.7	186.3	163.4	151.6	147.1
57.5°	8003.2	7044.5	2997.4	709.6	253.6	186.3	200.3	179.6	156.0	144.1	140.4
60°	8105.2	7060.8	3025.5	610.5	232.0	178.8	172.2	195.9	150.0	137.4	133.9
62.5°	7983.2	6737.7	2842.2	541.1	224.7	171.5	156.7	187.1	144.1	131.5	127.9
65°	7621.8	6192.2	2431.9	530.8	232.0	164.9	148.6	149.3	138.2	125.6	122.0
67.5°	6777.7	5389.4	1916.0	537.3	241.0	158.2	142.7	136.0	131.5	120.5	116.1
70°	5512.1	4339.0	1509.4	549.2	249.1	149.3	135.3	127.2	123.5	111.7	109.4
72.5°	4246.0	3472.7	1190.8	541.1	257.2	140.4	124.9	118.2	113.8	102.7	100.5
75°	3015.1	2759.4	875.1	464.3	235.8	127.9	113.1	107.2	103.5	91.7	90.9
77.5°	2173.1	2066.7	609.1	348.9	186.3	112.3	99.8	94.6	92.5	79.1	79.1
80°	1733.4	1573.0	364.4	227.7	136.0	93.1	83.5	81.3	79.1	65.8	66.5
82.5°	1245.5	1091.1	232.8	141.9	99.8	70.9	65.0	64.4	60.6	48.8	48.8
85°	638.6	557.3	149.3	95.4	70.3	45.8	42.8	41.4	39.3	30.3	30.3
87.5°	124.2	170.8	82.8	46.6	34.0	16.3	16.3	14.1	16.3	11.0	11.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6
2.5°	2866.5	2851.7	2841.4	2836.3	2910.8	2942.1	2977.5	3028.4	3063.2	3048.5	3095.8
5°	2140.7	2151.1	2174.7	2211.6	2315.9	2365.5	2397.1	2439.3	2469.6	2439.3	2489.6
7.5°	1463.6	1479.2	1529.4	1605.6	1731.2	1786.6	1797.8	1798.4	1791.8	1742.2	1776.2
10°	1077.8	1046.7	1057.7	1112.5	1224.8	1274.4	1279.5	1266.2	1264.0	1244.0	1282.4
12.5°	835.3	792.4	767.3	776.2	860.4	901.1	907.7	915.1	945.4	955.0	1002.4
15°	623.1	600.9	582.5	574.3	629.8	661.6	665.3	683.0	714.8	723.7	764.3
17.5°	438.3	444.2	453.9	457.6	497.4	518.2	512.2	512.2	517.5	515.2	538.1
20°	334.9	346.7	365.2	383.0	419.1	430.9	416.2	397.7	385.9	379.9	385.1
22.5°	295.6	303.8	315.6	338.6	368.9	374.8	355.5	340.8	329.6	323.7	324.5
25°	274.2	282.3	291.9	310.4	336.3	339.2	321.6	311.9	303.0	297.1	295.6
27.5°	255.7	260.9	266.8	278.7	305.3	306.8	294.9	289.0	283.1	278.7	277.2
30°	238.7	241.0	243.2	255.0	275.0	277.2	271.3	268.3	266.1	263.2	263.2
32.5°	216.6	219.5	223.2	233.6	252.8	255.7	252.1	249.8	246.2	244.6	242.4
35°	190.0	197.3	205.5	218.1	238.7	240.3	235.8	229.1	220.2	218.1	216.6
37.5°	178.8	180.4	190.6	205.5	226.9	228.5	222.5	211.4	204.8	205.5	206.9
40°	171.5	173.7	179.6	194.4	215.9	218.1	212.8	204.8	198.1	198.9	201.0
42.5°	165.5	168.6	172.2	181.8	203.3	207.7	206.3	198.9	192.2	193.7	196.6
45°	162.6	164.9	164.9	171.5	192.2	198.9	199.6	193.7	188.5	190.0	193.7
47.5°	161.1	161.1	159.0	164.1	184.7	191.4	193.0	190.0	187.1	188.5	192.2
50°	159.0	156.0	153.7	158.2	178.8	184.7	186.3	184.1	185.5	188.5	190.6
52.5°	152.3	149.3	149.3	152.3	172.9	178.8	179.6	178.1	181.2	184.7	188.5
55°	144.1	144.1	144.9	147.8	170.0	174.5	173.7	172.2	175.2	179.6	183.3
57.5°	136.8	136.0	139.8	143.4	166.3	169.3	167.8	167.8	170.0	173.7	177.4
60°	132.3	128.6	131.5	137.4	162.6	165.5	163.4	162.6	166.3	169.3	172.2
62.5°	127.9	124.2	126.4	132.3	157.5	159.6	158.2	158.2	161.9	164.1	167.0
65°	121.3	119.7	121.3	127.2	153.0	153.7	153.7	154.5	157.5	159.0	161.9
67.5°	115.3	115.3	116.1	122.0	149.3	147.8	147.8	151.6	152.3	153.7	156.7
70°	107.9	109.4	109.4	116.8	146.4	141.2	141.9	144.9	146.4	147.8	148.6
72.5°	99.8	100.5	102.0	111.7	141.9	134.5	135.3	137.4	138.2	140.4	141.2
75°	90.9	91.7	93.9	106.4	139.0	127.9	126.4	127.9	129.4	130.8	130.1
77.5°	80.6	82.1	84.2	103.5	129.4	126.4	115.3	116.8	118.2	118.2	117.6
80°	68.0	70.3	74.0	99.1	109.4	122.0	102.7	103.5	104.3	104.3	102.7
82.5°	51.1	55.4	60.6	82.1	85.8	104.3	88.7	90.1	88.0	86.6	85.8
85°	33.3	36.9	44.4	57.0	62.9	82.1	73.2	74.0	69.5	68.8	68.8
87.5°	13.3	14.1	20.0	28.9	37.7	51.1	52.5	54.0	50.3	50.3	51.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6
2.5°	3167.4	3241.4	3326.4	3412.8	3483.8	3575.5	3664.1	3758.7	3806.8	3834.9	3914.0
5°	2567.9	2669.2	2789.7	2925.0	3037.3	3229.4	3436.5	3667.1	3777.9	3887.5	4094.4
7.5°	1836.8	1936.0	2076.4	2251.7	2411.3	2664.9	2937.6	3249.5	3403.2	3580.7	3919.9
10°	1363.8	1468.8	1596.0	1744.6	1901.9	2165.8	2471.9	2822.2	2991.5	3191.8	3577.7
12.5°	1105.8	1228.5	1360.1	1493.1	1628.4	1805.8	2126.6	2516.2	2698.0	2899.8	3286.4
15°	862.6	994.3	1136.2	1281.1	1415.6	1613.6	1941.1	2401.6	2609.3	2804.4	3120.9
17.5°	610.5	734.8	894.4	1070.3	1265.4	1499.8	1901.2	2451.9	2703.9	2907.9	3120.1
20°	416.2	501.9	661.6	870.0	1111.0	1408.2	1916.0	2628.6	2943.5	3167.4	3248.0
22.5°	332.5	373.3	481.2	693.4	978.0	1341.6	1976.6	2871.0	3287.2	3560.0	3480.9
25°	302.3	325.3	381.5	547.7	859.7	1297.2	2094.8	3191.1	3672.3	3948.7	3761.0
27.5°	283.8	303.8	340.1	450.1	757.7	1268.5	2245.0	3568.1	4106.2	4333.1	4053.0
30°	272.0	291.9	325.3	404.4	680.8	1225.6	2376.5	3912.6	4452.9	4600.1	4210.5
32.5°	249.1	264.6	291.9	362.2	623.1	1175.3	2490.3	4220.8	4780.3	4829.2	4399.7
35°	225.4	241.7	269.1	328.3	589.1	1136.2	2550.2	4494.3	5104.8	5058.2	4587.5
37.5°	216.6	229.9	255.0	303.8	570.7	1110.3	2573.2	4763.3	5453.0	5311.8	4718.3
40°	210.7	222.5	244.6	287.6	565.5	1085.8	2567.9	5019.2	5790.8	5574.2	4820.9
42.5°	206.3	216.6	237.3	276.4	551.4	1063.0	2550.9	5240.1	6061.3	5800.5	4919.3
45°	202.5	213.6	234.4	282.3	525.5	1037.9	2540.6	5441.8	6269.1	5991.1	5050.8
47.5°	201.0	213.6	235.0	280.9	497.4	1009.8	2577.5	5665.8	6450.1	6151.6	5226.1
50°	198.9	212.8	251.3	267.5	459.0	975.0	2702.5	5932.8	6640.1	6331.9	5453.0
52.5°	195.1	212.2	268.3	257.2	409.5	926.9	2904.9	6309.7	6968.3	6683.1	5788.5
55°	190.6	213.6	256.5	241.0	357.1	864.9	3107.6	6826.4	7500.5	7249.3	6270.5
57.5°	185.5	211.4	242.4	226.1	313.5	786.4	3261.3	7250.0	7939.7	7833.3	6862.7
60°	181.8	216.6	218.1	217.3	285.2	711.9	3276.1	7222.6	8066.1	8212.4	7442.2
62.5°	177.4	221.0	198.9	210.7	271.3	642.3	3093.4	6775.3	7852.5	8163.7	7914.5
65°	171.5	193.0	188.5	204.8	271.3	605.4	2668.4	6031.0	7261.8	7702.3	8171.0
67.5°	165.5	175.2	181.2	196.6	277.2	570.7	2144.4	5087.1	6330.4	6957.9	7882.7
70°	157.5	165.5	172.9	189.2	274.2	546.3	1687.6	4077.3	5209.8	5928.3	7085.1
72.5°	150.0	156.0	163.4	178.1	274.2	535.2	1355.7	3198.4	3977.6	4583.0	5869.2
75°	139.0	144.1	150.8	167.0	269.1	489.4	1017.9	2562.7	2910.2	3289.4	4631.1
77.5°	127.9	131.5	136.8	153.0	242.4	408.7	720.0	1984.7	2156.2	2366.1	3610.3
80°	113.8	116.8	120.5	136.8	201.0	317.1	468.6	1552.2	1612.1	1713.4	2375.0
82.5°	97.6	102.0	102.7	117.6	161.9	229.9	278.7	1063.7	1063.0	1211.5	1675.7
85°	79.9	82.1	83.5	92.5	119.7	153.0	183.3	581.0	518.2	725.9	1455.5
87.5°	59.9	57.7	59.9	62.1	79.1	90.1	98.4	107.2	64.4	131.5	846.3
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6	3475.6
2.5°	3956.2	3999.8	3973.9	3942.8	3865.3	3751.4	3664.1	3588.1
5°	4237.7	4318.4	4282.9	4167.5	3966.5	3738.1	3497.8	3351.5
7.5°	4202.3	4361.9	4347.9	4155.6	3867.4	3531.2	3193.3	3000.4
10°	3918.5	4142.4	4180.8	3984.2	3679.0	3302.7	2911.6	2693.6
12.5°	3609.5	3798.0	3876.3	3801.6	3514.1	3131.9	2733.5	2515.4
15°	3350.8	3446.1	3523.7	3571.8	3393.6	3071.4	2702.5	2477.8
17.5°	3159.3	3140.7	3205.8	3321.2	3328.6	3151.9	2842.9	2591.6
20°	3066.9	2922.0	2959.8	3121.6	3310.9	3356.7	3123.0	2825.9
22.5°	3061.8	2835.5	2842.9	3017.4	3361.8	3636.0	3472.7	3134.2
25°	3141.5	2825.9	2832.5	3006.3	3452.0	3917.7	3877.1	3482.3
27.5°	3277.6	2867.3	2862.9	3055.1	3572.6	4152.7	4285.0	3908.1
30°	3424.6	2927.2	2916.1	3133.4	3690.8	4297.6	4574.8	4228.9
32.5°	3608.0	3033.6	2995.3	3248.0	3807.5	4436.6	4822.4	4529.1
35°	3782.4	3189.6	3134.2	3412.0	3932.5	4591.1	5099.6	4861.0
37.5°	3960.5	3422.4	3391.4	3648.6	4109.1	4758.9	5416.7	5237.2
40°	4189.0	3753.6	3738.9	3992.4	4344.9	4942.3	5772.3	5628.9
42.5°	4435.2	4105.4	4092.9	4387.1	4637.7	5126.3	6076.9	5965.2
45°	4685.7	4532.0	4535.0	4808.4	4945.9	5299.9	6316.4	6234.4
47.5°	4981.3	4998.4	5104.1	5245.3	5246.1	5493.7	6528.6	6484.9
50°	5356.9	5561.7	5756.8	5778.9	5549.1	5749.4	6787.9	6771.7
52.5°	5782.0	6211.4	6438.3	6368.1	5844.9	6066.5	7171.7	7170.9
55°	6286.8	6890.8	7104.4	6984.6	6198.9	6479.7	7672.8	7640.3
57.5°	6810.1	7544.2	7716.4	7560.4	6641.7	6960.9	8175.5	8003.2
60°	7375.6	8106.7	8281.9	8047.6	7138.4	7440.7	8508.1	8105.2
62.5°	7745.9	8435.7	8561.3	8336.6	7583.3	7929.3	8615.3	7983.2
65°	7765.2	8216.9	8250.0	8170.3	7772.6	8353.6	8460.1	7621.8
67.5°	7237.5	7264.0	7307.6	7393.3	7368.2	8164.4	7861.3	6777.7
70°	6108.6	5753.8	5897.3	5980.1	6166.4	7261.8	6754.7	5512.1
72.5°	4671.0	4152.7	4315.4	4287.4	4674.6	5956.4	5167.6	4246.0
75°	3361.8	2831.9	2844.4	2845.8	3358.8	4754.4	3523.7	3015.1
77.5°	2284.8	2004.0	2045.4	2019.4	2247.9	3724.7	2536.9	2173.1
80°	1562.6	1555.3	1564.1	1503.5	1499.0	2407.5	1878.2	1733.4
82.5°	1159.0	1071.1	1058.5	994.3	1148.8	1840.6	1426.0	1245.5
85°	914.4	592.8	515.2	621.6	995.0	1693.5	869.2	638.6
87.5°	387.4	232.8	141.2	279.3	553.0	1241.0	241.0	124.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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