

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: P270454

Luminaire Tested: **NAV-AF-03-D-UNV-SLR-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270454  
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-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 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: 9158.2 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - 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

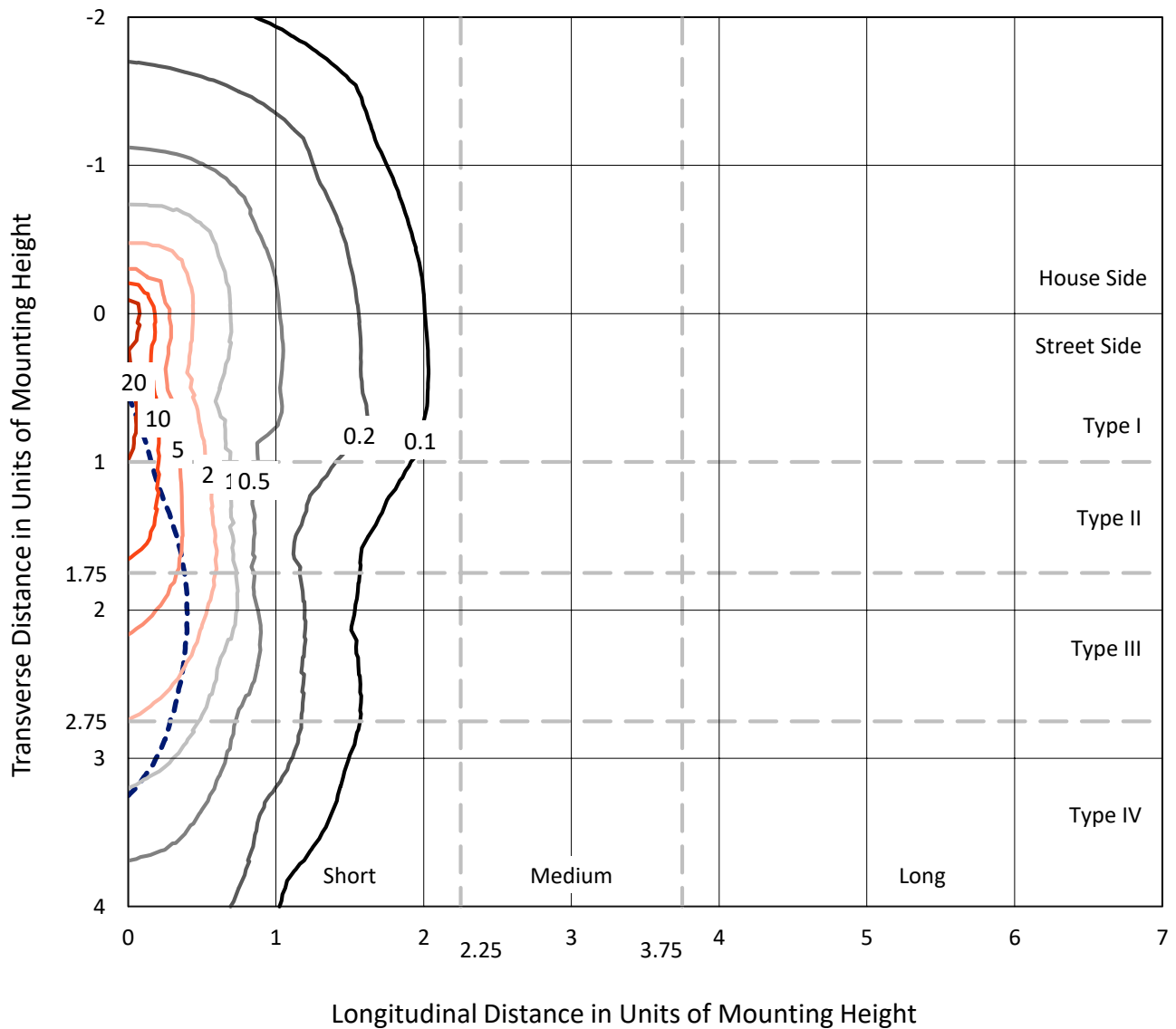


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### Iso-Footcandle Lines of Horizontal Illumination

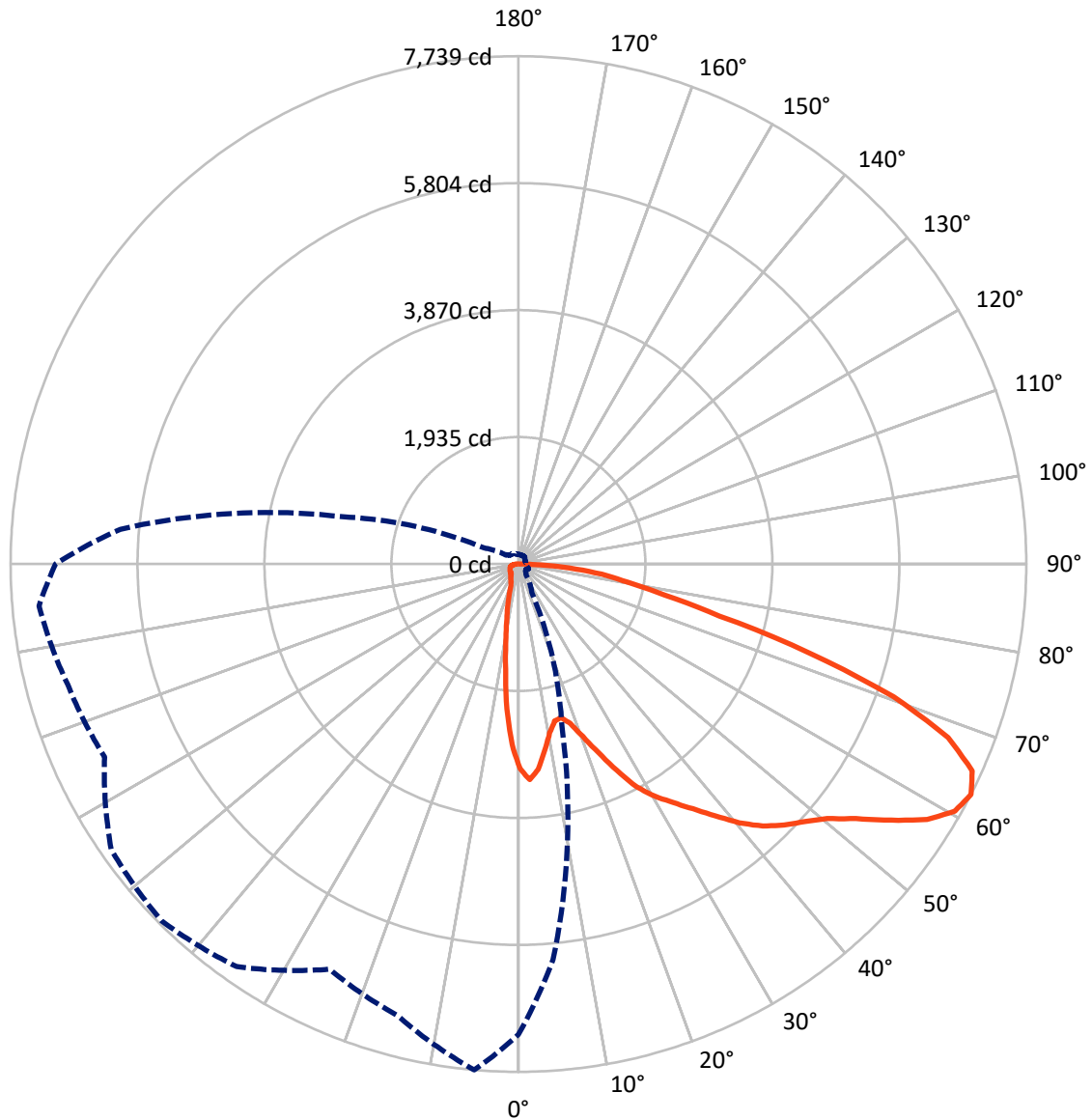
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 31.2 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1622.4	0.0	1622.4
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	7535.8	0.0	7535.8
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	9158.2	0.0	9158.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.1	2.5
10°-20°	414.7	4.5
20°-30°	596.5	6.5
30°-40°	913.6	10.0
40°-50°	1335.7	14.6
50°-60°	1943.4	21.2
60°-70°	2251.7	24.6
70°-80°	1173.8	12.8
80°-90°	301.7	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°	9158.2	100.0
0°-180°	9158.2	100.0



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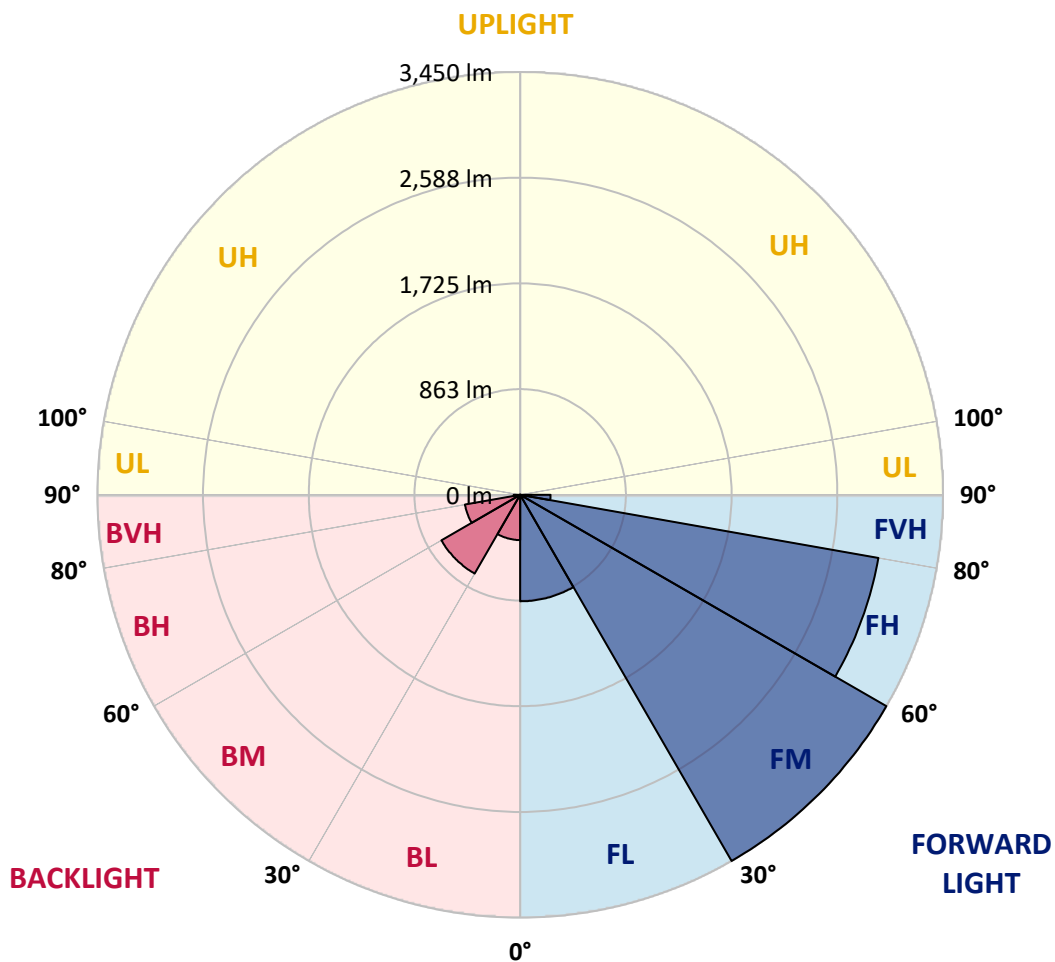
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	869.2	9.5			
FM	(30°-60°)	3450.4	37.7			
FH	(60°-80°)	2968.0	32.4			G2/5000
FVH	(80°-90°)	248.2	2.7			G3/500
BL	(0°-30°)	369.1	4.0	B1/500		
BM	(30°-60°)	742.3	8.1	B1/1000		
BH	(60°-80°)	457.5	5.0	B1/500		G1/500
BVH	(80°-90°)	53.5	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1
2.5°	3223.2	3178.1	3073.7	2982.2	2867.8	2782.2	2677.9	2623.0	2582.4	2555.1	2533.2
5°	3010.7	2901.7	2702.6	2527.9	2339.4	2203.3	2043.9	1956.9	1903.1	1873.9	1860.6
7.5°	2695.3	2551.1	2293.6	2059.2	1823.4	1653.4	1532.6	1403.7	1335.3	1290.9	1276.2
10°	2419.7	2257.0	1949.5	1685.9	1504.0	1383.1	1279.5	1161.4	1073.7	997.4	968.8
12.5°	2259.6	2070.5	1719.8	1481.5	1328.8	1199.1	1089.6	962.2	869.9	790.1	759.6
15°	2225.8	2014.5	1623.5	1351.3	1164.1	1008.0	876.4	737.7	647.4	581.7	560.5
17.5°	2328.0	2067.8	1583.1	1232.5	1006.6	816.1	654.1	505.3	430.3	394.4	385.8
20°	2538.5	2184.6	1563.8	1125.4	853.8	628.2	452.1	343.3	306.1	295.5	294.9
22.5°	2815.5	2374.5	1585.0	1037.8	710.5	463.4	331.4	282.2	266.9	261.0	261.0
25°	3128.2	2631.6	1641.5	970.8	584.3	360.6	285.5	259.0	246.3	240.3	241.0
27.5°	3510.7	2944.3	1718.5	909.1	494.1	316.1	266.9	244.3	231.8	225.7	226.5
30°	3798.8	3213.1	1784.9	852.6	447.5	298.1	256.9	235.7	221.8	213.2	212.4
32.5°	4068.5	3450.2	1838.7	812.1	420.9	266.3	232.4	216.5	204.5	194.6	192.5
35°	4366.7	3673.3	1864.0	810.8	403.7	240.3	212.4	193.2	181.3	170.0	168.1
37.5°	4704.6	3946.3	1885.2	818.7	394.4	223.8	203.1	184.6	174.6	163.3	160.6
40°	5056.5	4213.2	1901.7	825.4	393.1	212.4	195.9	179.3	169.3	157.4	154.7
42.5°	5358.6	4449.6	1924.3	822.7	383.8	210.6	191.2	174.6	165.4	153.4	150.0
45°	5600.4	4637.5	1959.6	822.0	369.8	215.1	189.9	173.4	162.1	149.4	146.8
47.5°	5825.4	4849.3	2033.9	819.4	354.7	213.7	197.2	171.9	160.6	148.1	146.1
50°	6083.1	5134.3	2160.8	799.5	333.4	204.5	210.6	170.7	157.4	146.1	144.1
52.5°	6441.7	5551.2	2348.6	763.6	304.2	194.6	212.4	170.0	152.1	142.1	139.4
55°	6863.3	5998.1	2551.1	711.8	265.5	177.2	201.8	167.4	146.8	136.2	132.1
57.5°	7189.3	6328.1	2692.6	637.4	227.8	167.4	179.9	161.3	140.1	129.4	126.1
60°	7280.9	6342.8	2717.8	548.4	208.4	160.6	154.7	176.0	134.7	123.4	120.3
62.5°	7171.3	6052.5	2553.2	486.1	201.8	154.1	140.8	168.1	129.4	118.1	114.9
65°	6846.7	5562.5	2184.6	476.8	208.4	148.1	133.5	134.1	124.1	112.8	109.6
67.5°	6088.4	4841.3	1721.2	482.7	216.5	142.1	128.2	122.2	118.1	108.2	104.3
70°	4951.5	3897.7	1355.9	493.3	223.8	134.1	121.5	114.3	110.9	100.3	98.3
72.5°	3814.2	3119.5	1069.7	486.1	231.0	126.1	112.2	106.2	102.2	92.3	90.3
75°	2708.5	2478.8	786.1	417.1	211.8	114.9	101.6	96.3	93.0	82.4	81.7
77.5°	1952.1	1856.5	547.2	313.4	167.4	100.9	89.7	85.0	83.1	71.1	71.1
80°	1557.1	1413.0	327.3	204.5	122.2	83.6	75.0	73.0	71.1	59.1	59.7
82.5°	1118.8	980.1	209.1	127.5	89.7	63.7	58.4	57.9	54.4	43.8	43.8
85°	573.7	500.6	134.1	85.7	63.2	41.1	38.4	37.2	35.3	27.2	27.2
87.5°	111.6	153.4	74.4	41.9	30.5	14.6	14.6	12.7	14.6	9.9	10.6
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1
2.5°	2575.0	2561.7	2552.4	2547.9	2614.8	2642.9	2674.7	2720.4	2751.7	2738.5	2781.0
5°	1923.0	1932.3	1953.5	1986.7	2080.4	2124.9	2153.3	2191.2	2218.5	2191.2	2236.4
7.5°	1314.8	1328.8	1373.9	1442.3	1555.1	1604.9	1615.0	1615.5	1609.6	1565.0	1595.6
10°	968.2	940.3	950.1	999.4	1100.2	1144.8	1149.4	1137.4	1135.5	1117.5	1152.0
12.5°	750.4	711.8	689.3	697.3	772.9	809.5	815.4	822.0	849.3	857.9	900.5
15°	559.7	539.8	523.3	515.9	565.8	594.3	597.6	613.5	642.1	650.1	686.6
17.5°	393.7	399.0	407.7	411.1	446.8	465.5	460.1	460.1	464.9	462.8	483.4
20°	300.8	311.4	328.1	344.1	376.5	387.1	373.9	357.3	346.7	341.3	345.9
22.5°	265.5	272.9	283.5	304.2	331.4	336.7	319.3	306.1	296.1	290.8	291.5
25°	246.3	253.6	262.2	278.8	302.1	304.7	288.9	280.2	272.2	266.9	265.5
27.5°	229.7	234.4	239.7	250.4	274.3	275.6	264.9	259.6	254.3	250.4	249.0
30°	214.4	216.5	218.5	229.1	247.0	249.0	243.7	241.0	239.0	236.4	236.4
32.5°	194.6	197.2	200.5	209.8	227.1	229.7	226.5	224.4	221.2	219.7	217.7
35°	170.7	177.2	184.6	195.9	214.4	215.9	211.8	205.8	197.8	195.9	194.6
37.5°	160.6	162.1	171.2	184.6	203.8	205.3	199.9	189.9	184.0	184.6	185.9
40°	154.1	156.0	161.3	174.6	193.9	195.9	191.2	184.0	178.0	178.7	180.6
42.5°	148.7	151.5	154.7	163.3	182.6	186.6	185.3	178.7	172.7	174.0	176.6
45°	146.1	148.1	148.1	154.1	172.7	178.7	179.3	174.0	169.3	170.7	174.0
47.5°	144.7	144.7	142.8	147.4	165.9	171.9	173.4	170.7	168.1	169.3	172.7
50°	142.8	140.1	138.1	142.1	160.6	165.9	167.4	165.4	166.6	169.3	171.2
52.5°	136.8	134.1	134.1	136.8	155.3	160.6	161.3	160.0	162.8	165.9	169.3
55°	129.4	129.4	130.2	132.8	152.7	156.8	156.0	154.7	157.4	161.3	164.7
57.5°	122.9	122.2	125.6	128.8	149.4	152.1	150.7	150.7	152.7	156.0	159.4
60°	118.8	115.5	118.1	123.4	146.1	148.7	146.8	146.1	149.4	152.1	154.7
62.5°	114.9	111.6	113.5	118.8	141.5	143.4	142.1	142.1	145.4	147.4	150.0
65°	109.0	107.5	109.0	114.3	137.4	138.1	138.1	138.8	141.5	142.8	145.4
67.5°	103.6	103.6	104.3	109.6	134.1	132.8	132.8	136.2	136.8	138.1	140.8
70°	96.9	98.3	98.3	104.9	131.5	126.8	127.5	130.2	131.5	132.8	133.5
72.5°	89.7	90.3	91.6	100.3	127.5	120.8	121.5	123.4	124.1	126.1	126.8
75°	81.7	82.4	84.4	95.6	124.9	114.9	113.5	114.9	116.2	117.5	116.9
77.5°	72.4	73.8	75.6	93.0	116.2	113.5	103.6	104.9	106.2	106.2	105.6
80°	61.1	63.2	66.5	89.0	98.3	109.6	92.3	93.0	93.7	93.7	92.3
82.5°	45.9	49.8	54.4	73.8	77.1	93.7	79.7	80.9	79.1	77.8	77.1
85°	29.9	33.1	39.9	51.2	56.5	73.8	65.8	66.5	62.4	61.8	61.8
87.5°	11.9	12.7	18.0	26.0	33.9	45.9	47.2	48.5	45.2	45.2	46.5
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1
2.5°	2845.3	2911.8	2988.1	3065.7	3129.5	3211.9	3291.5	3376.5	3419.7	3444.9	3516.0
5°	2306.8	2397.8	2506.0	2627.5	2728.4	2901.0	3087.0	3294.2	3393.7	3492.2	3678.0
7.5°	1650.0	1739.1	1865.2	2022.7	2166.1	2393.9	2638.9	2919.0	3057.1	3216.6	3521.3
10°	1225.1	1319.4	1433.7	1567.2	1708.5	1945.5	2220.5	2535.2	2687.3	2867.2	3213.9
12.5°	993.3	1103.6	1221.8	1341.3	1462.8	1622.2	1910.3	2260.3	2423.6	2604.9	2952.2
15°	774.9	893.2	1020.7	1150.8	1271.6	1449.5	1743.7	2157.4	2343.9	2519.2	2803.5
17.5°	548.4	660.1	803.4	961.5	1136.7	1347.3	1707.9	2202.6	2428.9	2612.2	2802.8
20°	373.9	450.9	594.3	781.5	998.0	1265.0	1721.2	2361.3	2644.2	2845.3	2917.7
22.5°	298.7	335.3	432.3	622.9	878.5	1205.2	1775.6	2579.0	2952.9	3198.0	3126.9
25°	271.6	292.2	342.7	492.0	772.3	1165.3	1881.8	2866.6	3298.8	3547.1	3378.5
27.5°	254.9	272.9	305.5	404.3	680.6	1139.5	2016.7	3205.2	3688.6	3892.4	3640.8
30°	244.3	262.2	292.2	363.3	611.6	1101.0	2134.8	3514.7	4000.1	4132.3	3782.3
32.5°	223.8	237.7	262.2	325.4	559.7	1055.8	2237.0	3791.6	4294.2	4338.1	3952.3
35°	202.5	217.1	241.7	294.9	529.2	1020.7	2290.9	4037.3	4585.7	4543.8	4121.0
37.5°	194.6	206.5	229.1	272.9	512.7	997.4	2311.5	4278.9	4898.5	4771.6	4238.5
40°	189.3	199.9	219.7	258.4	508.0	975.4	2306.8	4508.8	5201.9	5007.3	4330.6
42.5°	185.3	194.6	213.2	248.3	495.3	954.9	2291.5	4707.2	5444.9	5210.6	4419.0
45°	181.9	191.9	210.6	253.6	472.1	932.4	2282.2	4888.4	5631.6	5381.8	4537.2
47.5°	180.6	191.9	211.1	252.3	446.8	907.1	2315.4	5089.6	5794.2	5526.0	4694.6
50°	178.7	191.2	225.7	240.3	412.3	875.8	2427.7	5329.5	5964.8	5688.0	4898.5
52.5°	175.3	190.6	241.0	231.0	367.9	832.6	2609.5	5668.0	6259.7	6003.5	5199.8
55°	171.2	191.9	230.4	216.5	320.8	776.9	2791.6	6132.2	6737.7	6512.1	5632.8
57.5°	166.6	189.9	217.7	203.1	281.6	706.4	2929.6	6512.7	7132.3	7036.7	6164.8
60°	163.3	194.6	195.9	195.2	256.2	639.5	2942.9	6488.1	7245.8	7377.2	6685.4
62.5°	159.4	198.5	178.7	189.3	243.7	577.0	2778.8	6086.3	7053.9	7333.5	7109.6
65°	154.1	173.4	169.3	184.0	243.7	543.8	2397.0	5417.7	6523.3	6919.0	7340.1
67.5°	148.7	157.4	162.8	176.6	249.0	512.7	1926.3	4569.8	5686.6	6250.3	7081.1
70°	141.5	148.7	155.3	170.0	246.3	490.7	1516.0	3662.7	4680.0	5325.4	6364.6
72.5°	134.7	140.1	146.8	160.0	246.3	480.8	1217.8	2873.1	3573.1	4116.9	5272.3
75°	124.9	129.4	135.5	150.0	241.7	439.6	914.4	2302.1	2614.2	2954.9	4160.1
77.5°	114.9	118.1	122.9	137.4	217.7	367.1	646.8	1782.9	1936.9	2125.5	3243.2
80°	102.2	104.9	108.2	122.9	180.6	284.9	420.9	1394.3	1448.2	1539.2	2133.5
82.5°	87.7	91.6	92.3	105.6	145.4	206.5	250.4	955.5	954.9	1088.3	1505.3
85°	71.8	73.8	75.0	83.1	107.5	137.4	164.7	521.9	465.5	652.1	1307.5
87.5°	53.8	51.8	53.8	55.8	71.1	80.9	88.4	96.3	57.9	118.1	760.2
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1	3122.1
2.5°	3553.9	3593.0	3569.8	3541.8	3472.2	3369.9	3291.5	3223.2
5°	3806.7	3879.2	3847.4	3743.7	3563.1	3358.0	3142.1	3010.7
7.5°	3774.9	3918.3	3905.7	3733.0	3474.1	3172.1	2868.6	2695.3
10°	3520.0	3721.1	3755.6	3579.0	3304.9	2966.8	2615.5	2419.7
12.5°	3242.4	3411.8	3482.1	3415.0	3156.7	2813.4	2455.5	2259.6
15°	3010.0	3095.6	3165.4	3208.6	3048.5	2759.1	2427.7	2225.8
17.5°	2838.0	2821.3	2879.8	2983.5	2990.1	2831.4	2553.8	2328.0
20°	2755.0	2624.8	2658.8	2804.1	2974.2	3015.3	2805.4	2538.5
22.5°	2750.4	2547.1	2553.8	2710.5	3019.9	3266.2	3119.5	2815.5
25°	2822.0	2538.5	2544.4	2700.6	3100.9	3519.3	3482.8	3128.2
27.5°	2944.3	2575.7	2571.8	2744.4	3209.3	3730.4	3849.2	3510.7
30°	3076.3	2629.5	2619.5	2814.7	3315.5	3860.6	4109.6	3798.8
32.5°	3241.1	2725.1	2690.7	2917.7	3420.3	3985.4	4332.0	4068.5
35°	3397.7	2865.2	2815.5	3065.0	3532.6	4124.2	4581.0	4366.7
37.5°	3557.7	3074.4	3046.5	3277.6	3691.2	4274.9	4865.8	4704.6
40°	3763.0	3371.9	3358.7	3586.4	3903.0	4439.7	5185.3	5056.5
42.5°	3984.2	3687.9	3676.7	3941.0	4166.1	4605.0	5458.9	5358.6
45°	4209.2	4071.1	4073.8	4319.4	4442.9	4760.9	5674.1	5600.4
47.5°	4474.7	4490.1	4585.0	4711.9	4712.6	4935.0	5864.7	5825.4
50°	4812.1	4996.1	5171.4	5191.2	4984.8	5164.7	6097.6	6083.1
52.5°	5194.0	5579.7	5783.6	5720.5	5250.5	5449.6	6442.4	6441.7
55°	5647.5	6190.0	6381.9	6274.3	5568.5	5820.7	6892.5	6863.3
57.5°	6117.5	6777.0	6931.7	6791.5	5966.3	6253.0	7344.1	7189.3
60°	6625.5	7282.3	7439.7	7229.2	6412.5	6684.0	7642.9	7280.9
62.5°	6958.2	7577.8	7690.7	7488.8	6812.1	7122.9	7739.2	7171.3
65°	6975.5	7381.3	7411.0	7339.4	6982.2	7504.1	7599.8	6846.7
67.5°	6501.5	6525.3	6564.5	6641.4	6618.9	7334.1	7061.8	6088.4
70°	5487.4	5168.7	5297.6	5372.0	5539.3	6523.3	6067.8	4951.5
72.5°	4196.0	3730.4	3876.5	3851.4	4199.2	5350.7	4642.1	3814.2
75°	3019.9	2543.9	2555.1	2556.4	3017.2	4270.9	3165.4	2708.5
77.5°	2052.4	1800.2	1837.4	1814.0	2019.3	3345.9	2278.9	1952.1
80°	1403.7	1397.1	1405.0	1350.6	1346.6	2162.7	1687.2	1557.1
82.5°	1041.1	962.2	950.9	893.2	1032.0	1653.4	1281.0	1118.8
85°	821.4	532.5	462.8	558.4	893.8	1521.3	780.8	573.7
87.5°	348.0	209.1	126.8	250.9	496.8	1114.8	216.5	111.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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