

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: P196708

Luminaire Tested: **NAV-AF-04-D-UNV-SLR-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196708  
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-04-D-UNV-SLR-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 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: 13730.6 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 129  
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

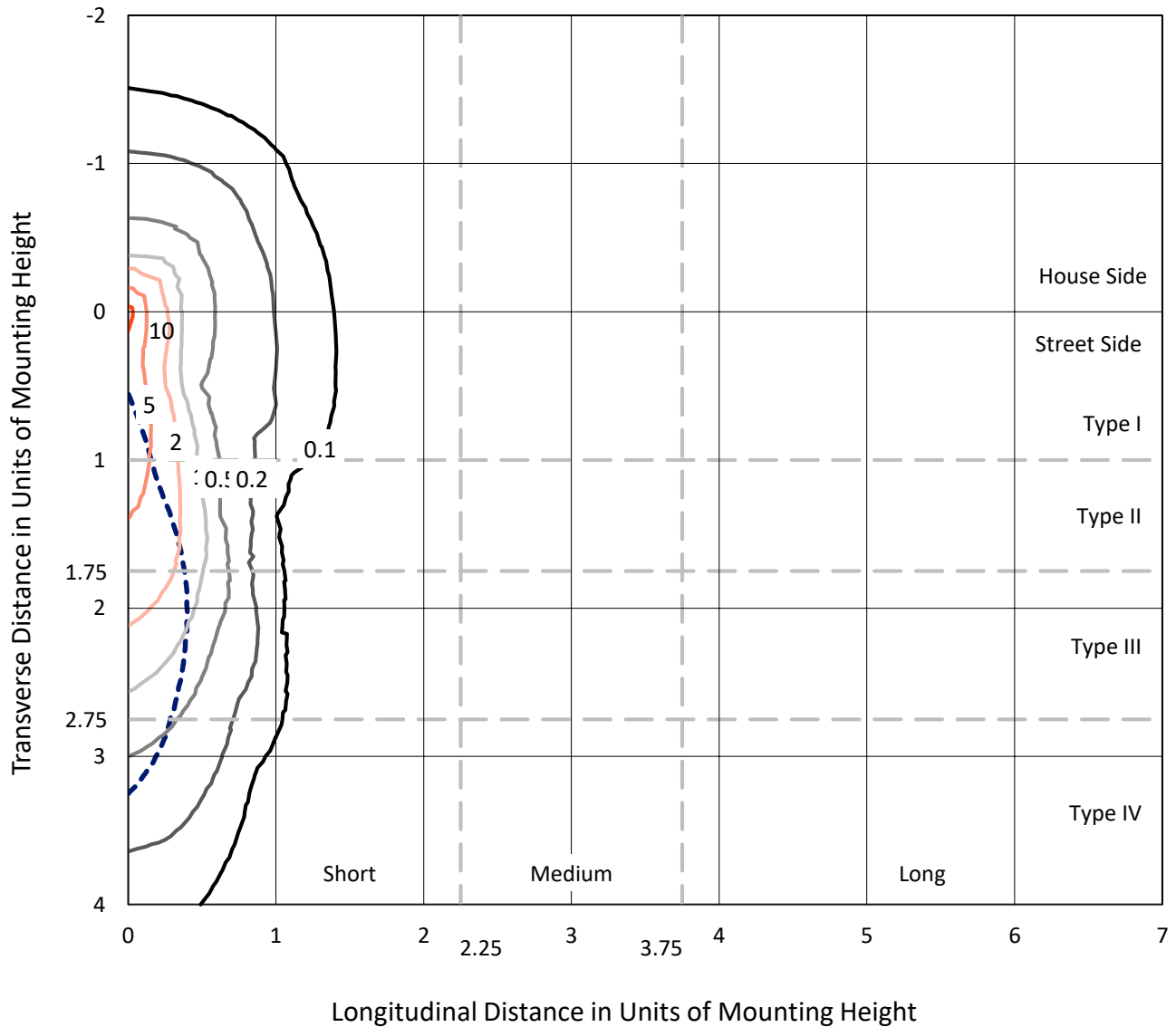


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### Iso-Footcandle Lines of Horizontal Illumination

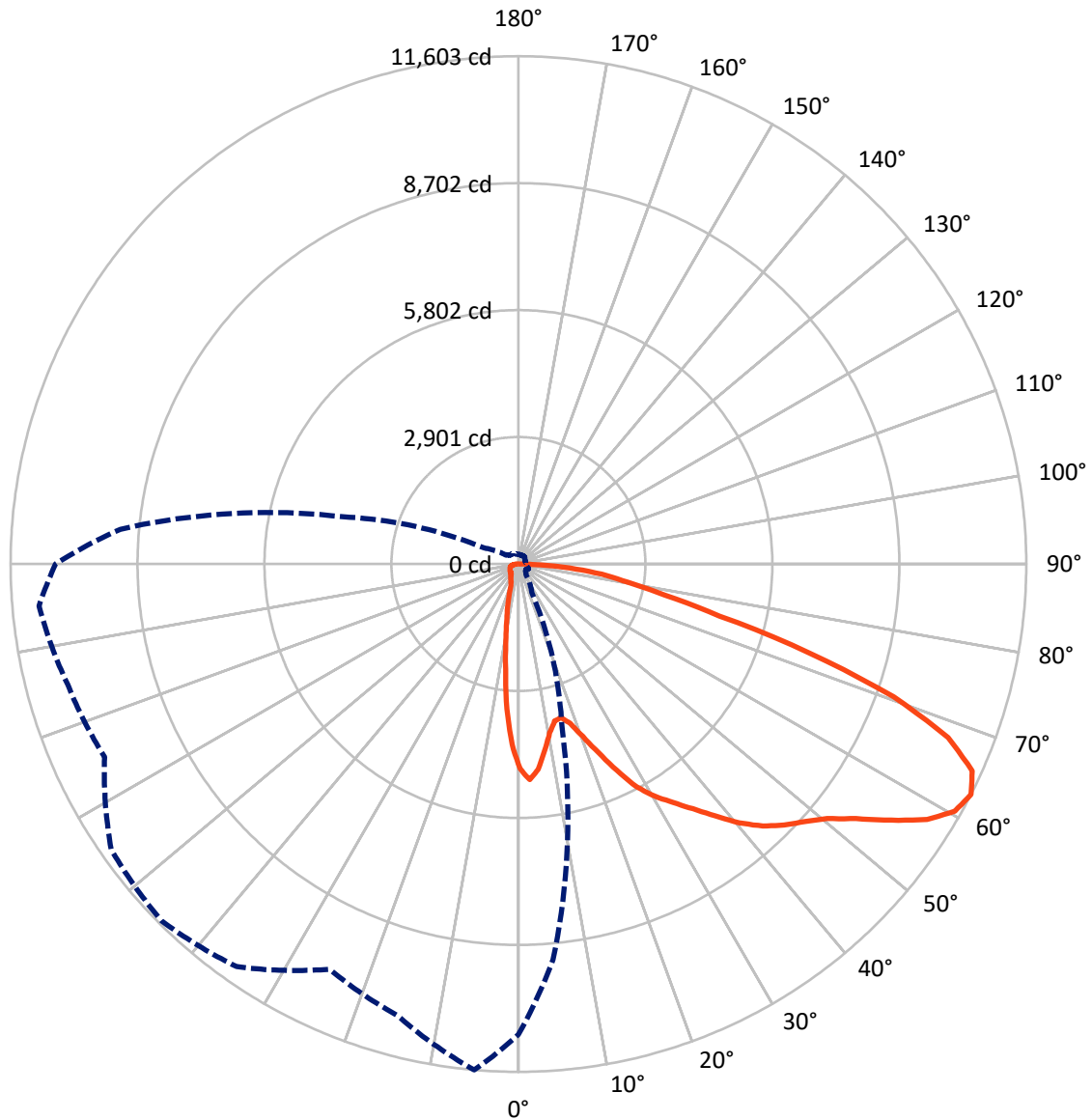
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.7 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	2432.4	0.0	2432.4
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	11298.2	0.0	11298.2
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	13730.6	0.0	13730.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	340.4	2.5
10°-20°	621.8	4.5
20°-30°	894.3	6.5
30°-40°	1369.7	10.0
40°-50°	2002.5	14.6
50°-60°	2913.7	21.2
60°-70°	3375.9	24.6
70°-80°	1759.8	12.8
80°-90°	452.4	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°	13730.6	100.0
0°-180°	13730.6	100.0



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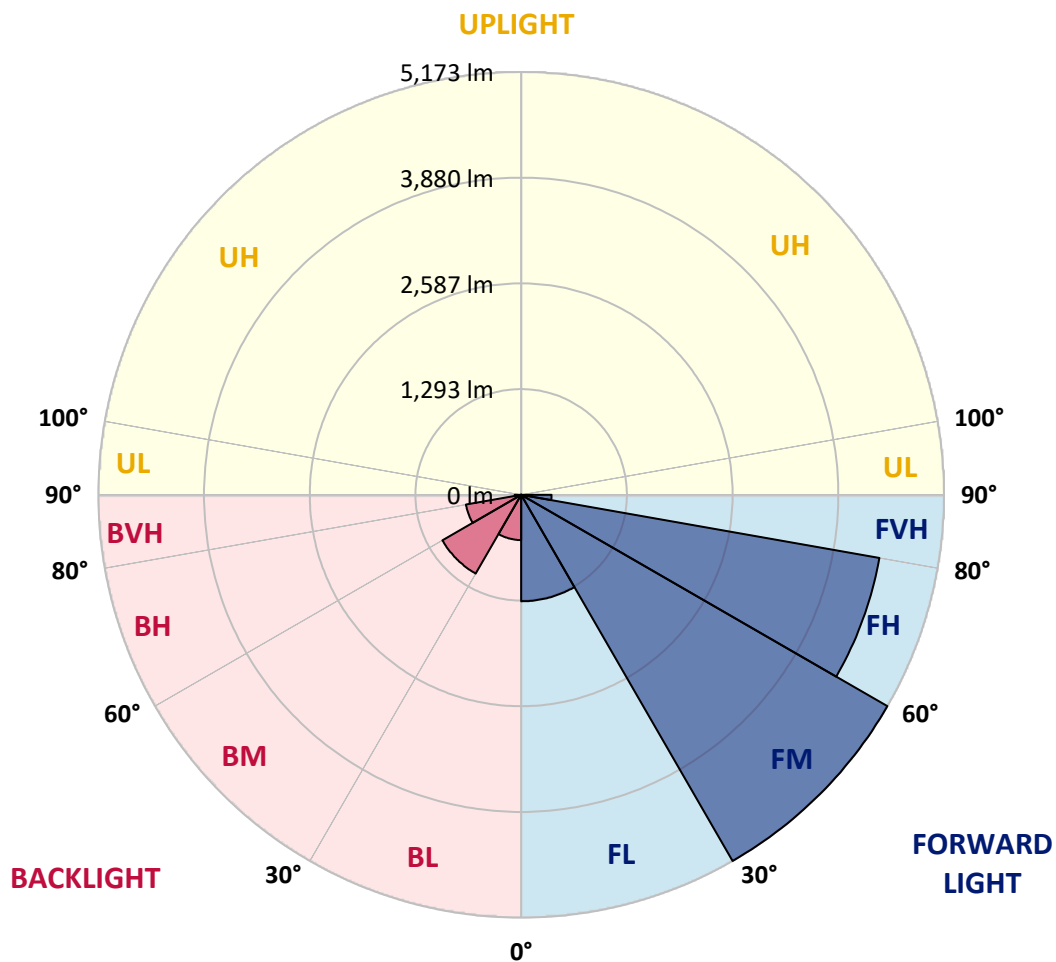
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1303.1	9.5			
FM	(30°-60°)	5173.1	37.7			
FH	(60°-80°)	4449.9	32.4			G2/5000
FVH	(80°-90°)	372.2	2.7			G3/500
BL	(0°-30°)	553.4	4.0	B2/1000		
BM	(30°-60°)	1112.9	8.1	B2/2500		
BH	(60°-80°)	685.9	5.0	B2/1000		G2/1000
BVH	(80°-90°)	80.2	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°	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0
2.5°	4832.3	4764.7	4608.3	4471.0	4299.8	4171.3	4015.1	3932.3	3871.7	3830.8	3798.0
5°	4513.8	4350.4	4051.9	3789.9	3507.3	3303.2	3064.2	2933.8	2853.2	2809.4	2789.5
7.5°	4041.0	3824.8	3438.6	3087.2	2733.7	2478.9	2297.7	2104.6	2002.0	1935.3	1913.4
10°	3627.7	3383.9	2922.9	2527.7	2254.9	2073.7	1918.4	1741.1	1609.8	1495.3	1452.5
12.5°	3387.8	3104.0	2578.4	2221.0	1992.2	1798.0	1633.7	1442.5	1304.1	1184.7	1138.9
15°	3337.1	3020.5	2434.1	2025.8	1745.2	1511.3	1314.1	1106.0	970.7	872.1	840.2
17.5°	3490.4	3100.1	2373.3	1847.7	1509.2	1223.4	980.6	757.6	645.0	591.3	578.4
20°	3805.9	3275.4	2344.4	1687.4	1280.3	941.9	678.0	514.7	459.0	443.0	442.1
22.5°	4221.1	3560.1	2376.4	1556.1	1065.3	694.9	496.8	423.1	400.2	391.2	391.2
25°	4690.0	3945.4	2460.9	1455.5	876.0	540.7	428.1	388.3	369.3	360.3	361.4
27.5°	5263.4	4414.2	2576.5	1362.9	740.7	473.8	400.2	366.3	347.5	338.4	339.5
30°	5695.4	4817.5	2676.0	1278.3	671.0	447.0	385.2	353.5	332.4	319.6	318.6
32.5°	6099.7	5172.9	2756.6	1217.5	631.2	399.3	348.4	324.5	306.6	291.7	288.7
35°	6546.7	5507.3	2794.6	1215.5	605.3	360.3	318.6	289.7	271.8	254.9	251.9
37.5°	7053.4	5916.5	2826.3	1227.5	591.3	335.5	304.7	276.8	261.7	244.8	240.9
40°	7581.1	6316.8	2851.2	1237.5	589.4	318.6	293.7	268.8	253.8	235.9	231.9
42.5°	8034.1	6671.2	2885.1	1233.4	575.5	315.5	286.7	261.7	247.9	230.0	225.0
45°	8396.3	6952.8	2937.9	1232.5	554.5	322.6	284.7	259.8	242.9	224.0	220.0
47.5°	8733.8	7270.4	3049.3	1228.5	531.6	320.5	295.6	257.9	240.9	222.1	219.1
50°	9120.2	7697.6	3239.5	1198.7	499.8	306.6	315.5	255.8	235.9	219.1	216.0
52.5°	9657.8	8322.8	3521.2	1144.9	455.9	291.7	318.6	254.9	228.1	213.0	209.0
55°	10289.9	8992.7	3824.8	1067.3	398.2	265.8	302.6	250.9	220.0	204.1	198.1
57.5°	10778.8	9487.5	4036.9	955.7	341.4	250.9	269.8	241.9	210.1	194.2	189.1
60°	10916.1	9509.4	4074.8	822.2	312.6	240.9	231.9	263.9	202.1	185.2	180.2
62.5°	10751.8	9074.4	3827.9	728.8	302.6	231.0	211.1	251.9	194.2	177.2	172.2
65°	10265.0	8339.6	3275.4	714.8	312.6	222.1	200.1	201.1	186.2	169.3	164.2
67.5°	9128.2	7258.5	2580.4	723.8	324.5	213.0	192.2	183.2	177.2	162.2	156.3
70°	7423.7	5843.8	2032.9	739.6	335.5	201.1	182.1	171.2	166.3	150.3	147.4
72.5°	5718.4	4677.1	1603.8	728.8	346.5	189.1	168.3	159.3	153.3	138.4	135.4
75°	4060.8	3716.4	1178.7	625.2	317.6	172.2	152.3	144.3	139.5	123.5	122.5
77.5°	2926.9	2783.5	820.3	470.0	250.9	151.4	134.4	127.4	124.4	106.5	106.5
80°	2334.6	2118.5	490.8	306.6	183.2	125.4	112.5	109.5	106.5	88.6	89.6
82.5°	1677.4	1469.4	313.6	191.1	134.4	95.6	87.6	86.7	81.6	65.7	65.7
85°	860.2	750.6	201.1	128.4	94.6	61.7	57.7	55.7	52.8	40.9	40.9
87.5°	167.2	230.0	111.6	62.8	45.8	21.9	21.9	18.9	21.9	15.0	16.0
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°	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0
2.5°	3860.6	3840.8	3827.0	3819.9	3920.4	3962.3	4010.1	4078.7	4125.5	4105.6	4169.4
5°	2883.2	2897.0	2928.9	2978.6	3119.1	3185.8	3228.5	3285.3	3326.1	3285.3	3352.9
7.5°	1971.1	1992.2	2059.7	2162.3	2331.6	2406.2	2421.1	2422.2	2413.2	2346.5	2392.3
10°	1451.5	1409.7	1424.6	1498.3	1649.6	1716.4	1723.2	1705.3	1702.4	1675.5	1727.3
12.5°	1125.0	1067.3	1033.4	1045.3	1158.8	1213.6	1222.5	1232.5	1273.3	1286.2	1350.0
15°	839.2	809.4	784.5	773.5	848.2	891.0	896.0	919.9	962.7	974.6	1029.4
17.5°	590.3	598.3	611.3	616.2	670.0	697.8	689.9	689.9	696.8	693.9	724.7
20°	451.0	466.9	491.7	515.7	564.5	580.3	560.5	535.6	519.6	511.7	518.7
22.5°	398.2	409.1	425.1	455.9	496.8	504.8	478.9	459.0	444.0	436.1	437.0
25°	369.3	380.3	393.3	418.1	453.0	456.9	433.1	420.1	408.2	400.2	398.2
27.5°	344.5	351.4	359.4	375.3	411.2	413.1	397.2	389.3	381.4	375.3	373.3
30°	321.6	324.5	327.6	343.5	370.4	373.3	365.4	361.4	358.4	354.4	354.4
32.5°	291.7	295.6	300.7	314.5	340.5	344.5	339.5	336.5	331.5	329.5	326.5
35°	255.8	265.8	276.8	293.7	321.6	323.5	317.6	308.6	296.6	293.7	291.7
37.5°	240.9	242.9	256.9	276.8	305.6	307.7	299.7	284.7	275.8	276.8	278.7
40°	231.0	234.0	241.9	261.7	290.7	293.7	286.7	275.8	266.8	267.8	270.8
42.5°	223.0	226.9	231.9	244.8	273.8	279.7	277.7	267.8	258.8	260.8	264.9
45°	219.1	222.1	222.1	231.0	258.8	267.8	268.8	260.8	253.8	255.8	260.8
47.5°	217.0	217.0	214.0	221.0	248.9	257.9	259.8	255.8	251.9	253.8	258.8
50°	214.0	210.1	207.0	213.0	240.9	248.9	250.9	247.9	249.8	253.8	256.9
52.5°	205.1	201.1	201.1	205.1	232.9	240.9	241.9	240.0	243.8	248.9	253.8
55°	194.2	194.2	195.1	199.1	229.0	234.9	234.0	231.9	235.9	241.9	246.9
57.5°	184.2	183.2	188.2	193.2	224.0	228.1	225.9	225.9	229.0	234.0	239.0
60°	178.2	173.1	177.2	185.2	219.1	223.0	220.0	219.1	224.0	228.1	231.9
62.5°	172.2	167.2	170.2	178.2	212.1	215.0	213.0	213.0	218.0	221.0	225.0
65°	163.3	161.2	163.3	171.2	206.1	207.0	207.0	208.0	212.1	214.0	218.0
67.5°	155.2	155.2	156.3	164.2	201.1	199.1	199.1	204.1	205.1	207.0	211.1
70°	145.4	147.4	147.4	157.4	197.1	190.1	191.1	195.1	197.1	199.1	200.1
72.5°	134.4	135.4	137.3	150.3	191.1	181.2	182.1	185.2	186.2	189.1	190.1
75°	122.5	123.5	126.4	143.3	187.2	172.2	170.2	172.2	174.3	176.2	175.3
77.5°	108.5	110.5	113.5	139.5	174.3	170.2	155.2	157.4	159.3	159.3	158.3
80°	91.6	94.6	99.5	133.4	147.4	164.2	138.4	139.5	140.4	140.4	138.4
82.5°	68.8	74.7	81.6	110.5	115.5	140.4	119.4	121.5	118.4	116.5	115.5
85°	44.8	49.8	59.8	76.7	84.5	110.5	98.6	99.5	93.6	92.6	92.6
87.5°	17.9	18.9	26.9	38.8	50.8	68.8	70.7	72.6	67.7	67.7	69.7
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°	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0
2.5°	4265.9	4365.5	4479.9	4596.4	4692.0	4815.4	4934.9	5062.3	5127.0	5164.9	5271.4
5°	3458.5	3594.8	3757.2	3939.4	4090.6	4349.5	4628.2	4938.8	5088.2	5235.6	5514.4
7.5°	2473.9	2607.4	2796.5	3032.4	3247.4	3588.9	3956.3	4376.4	4583.4	4822.3	5279.4
10°	1836.7	1978.1	2149.3	2349.5	2561.6	2916.9	3329.1	3801.0	4028.9	4298.7	4818.5
12.5°	1489.3	1654.6	1831.8	2011.0	2193.2	2432.1	2864.1	3388.7	3633.8	3905.5	4426.2
15°	1161.8	1339.0	1530.1	1725.3	1906.5	2173.2	2614.2	3234.5	3514.3	3777.1	4203.2
17.5°	822.2	989.6	1204.6	1441.5	1704.3	2019.9	2560.5	3302.3	3641.7	3916.5	4202.2
20°	560.5	676.0	891.0	1171.8	1496.3	1896.5	2580.4	3540.1	3964.3	4265.9	4374.4
22.5°	448.0	502.7	648.1	933.8	1317.1	1806.9	2662.1	3866.6	4427.1	4794.6	4688.0
25°	407.2	438.0	513.7	737.7	1157.8	1747.2	2821.4	4297.7	4945.8	5318.2	5065.4
27.5°	382.3	409.1	457.9	606.3	1020.5	1708.4	3023.4	4805.4	5530.2	5835.9	5458.6
30°	366.3	393.3	438.0	544.5	916.9	1650.6	3200.6	5269.3	5997.1	6195.2	5670.5
32.5°	335.5	356.4	393.3	487.9	839.2	1582.9	3353.9	5684.5	6438.2	6503.8	5925.4
35°	303.6	325.6	362.4	442.1	793.4	1530.1	3434.7	6052.9	6875.2	6812.6	6178.3
37.5°	291.7	309.6	343.5	409.1	768.5	1495.3	3465.4	6415.2	7344.1	7154.0	6354.5
40°	283.7	299.7	329.5	387.3	761.5	1462.4	3458.5	6759.8	7799.0	7507.4	6492.9
42.5°	277.7	291.7	319.6	372.3	742.6	1431.7	3435.6	7057.4	8163.5	7812.0	6625.4
45°	272.8	287.7	315.5	380.3	707.8	1397.8	3421.7	7329.2	8443.2	8068.9	6802.6
47.5°	270.8	287.7	316.7	378.2	670.0	1360.0	3471.5	7630.7	8687.1	8284.9	7038.5
50°	267.8	286.7	338.4	360.3	618.2	1313.1	3639.8	7990.2	8943.0	8527.8	7344.1
52.5°	262.8	285.7	361.4	346.5	551.5	1248.4	3912.5	8497.9	9385.0	9000.7	7796.0
55°	256.9	287.7	345.5	324.5	480.8	1164.8	4185.2	9193.8	10101.8	9763.3	8445.2
57.5°	249.8	284.7	326.5	304.7	422.1	1059.3	4392.3	9764.3	10693.1	10549.7	9242.6
60°	244.8	291.7	293.7	292.7	384.3	958.7	4412.2	9727.5	10863.3	11060.5	10023.1
62.5°	239.0	297.6	267.8	283.7	365.4	865.2	4166.4	9125.2	10575.6	10994.8	10659.3
65°	231.0	259.8	253.8	275.8	365.4	815.4	3593.9	8122.7	9780.3	10373.5	11004.7
67.5°	223.0	235.9	243.8	264.9	373.3	768.5	2888.0	6851.3	8525.8	9371.0	10616.5
70°	212.1	223.0	232.9	254.9	369.3	735.8	2272.8	5491.4	7016.6	7984.2	9542.2
72.5°	202.1	210.1	220.0	240.0	369.3	720.8	1825.8	4307.8	5357.0	6172.4	7904.6
75°	187.2	194.2	203.1	225.0	362.4	659.1	1370.8	3451.5	3919.4	4430.1	6237.1
77.5°	172.2	177.2	184.2	206.1	326.5	550.5	969.6	2673.0	2904.0	3186.8	4862.2
80°	153.3	157.4	162.2	184.2	270.8	427.1	631.2	2090.6	2171.3	2307.7	3198.7
82.5°	131.4	137.3	138.4	158.3	218.0	309.6	375.3	1432.6	1431.7	1631.7	2256.9
85°	107.5	110.5	112.5	124.4	161.2	206.1	246.9	782.6	697.8	977.7	1960.2
87.5°	80.7	77.7	80.7	83.6	106.5	121.5	132.4	144.3	86.7	177.2	1139.9
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°	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0	4681.0
2.5°	5328.1	5386.9	5352.1	5310.2	5205.6	5052.3	4934.9	4832.3
5°	5707.4	5816.0	5768.2	5612.8	5342.1	5034.4	4710.9	4513.8
7.5°	5659.6	5874.7	5855.8	5597.0	5208.7	4755.7	4300.8	4041.0
10°	5277.3	5579.0	5630.7	5365.9	4954.8	4448.1	3921.5	3627.7
12.5°	4861.3	5115.1	5220.6	5120.1	4732.8	4218.1	3681.5	3387.8
15°	4512.9	4641.3	4745.7	4810.4	4570.6	4136.4	3639.8	3337.1
17.5°	4255.0	4230.1	4317.7	4473.0	4482.9	4244.9	3828.9	3490.4
20°	4130.5	3935.4	3986.1	4204.2	4459.0	4520.7	4206.2	3805.9
22.5°	4123.6	3818.9	3828.9	4063.8	4527.7	4897.1	4677.1	4221.1
25°	4231.1	3805.9	3814.9	4048.8	4649.2	5276.3	5221.6	4690.0
27.5°	4414.2	3861.7	3855.8	4114.6	4811.4	5593.0	5771.2	5263.4
30°	4612.4	3942.3	3927.5	4220.1	4970.8	5788.1	6161.4	5695.4
32.5°	4859.2	4085.7	4034.0	4374.4	5128.1	5975.3	6494.9	6099.7
35°	5094.2	4295.7	4221.1	4595.5	5296.3	6183.3	6868.2	6546.7
37.5°	5334.1	4609.3	4567.6	4914.1	5534.2	6409.2	7295.4	7053.4
40°	5641.7	5055.3	5035.4	5376.9	5851.8	6656.2	7774.3	7581.1
42.5°	5973.2	5529.3	5512.3	5908.5	6246.1	6904.1	8184.4	8034.1
45°	6310.7	6103.7	6107.7	6476.1	6661.2	7138.0	8506.9	8396.3
47.5°	6708.9	6731.9	6874.3	7064.3	7065.4	7398.8	8792.6	8733.8
50°	7214.7	7490.5	7753.2	7783.2	7473.6	7743.3	9142.0	9120.2
52.5°	7787.1	8365.6	8671.2	8576.7	7871.8	8170.4	9658.7	9657.8
55°	8467.0	9280.5	9568.2	9406.9	8348.6	8727.0	10333.7	10289.9
57.5°	9171.9	10160.4	10392.4	10182.4	8944.9	9375.0	11010.7	10778.8
60°	9933.6	10918.1	11154.1	10838.5	9613.9	10021.1	11458.7	10916.1
62.5°	10432.3	11361.1	11530.3	11227.7	10213.2	10679.2	11603.0	10751.8
65°	10458.2	11066.5	11111.2	11003.7	10468.1	11250.7	11394.0	10265.0
67.5°	9747.3	9783.2	9842.0	9957.5	9923.6	10995.8	10587.6	9128.2
70°	8227.1	7749.3	7942.4	8053.9	8304.8	9780.3	9097.3	7423.7
72.5°	6290.8	5593.0	5811.9	5774.2	6295.8	8022.1	6959.9	5718.4
75°	4527.7	3813.9	3830.8	3832.9	4523.8	6403.3	4745.7	4060.8
77.5°	3077.2	2698.9	2754.7	2719.8	3027.5	5016.5	3416.6	2926.9
80°	2104.6	2094.6	2106.5	2024.9	2019.0	3242.5	2529.7	2334.6
82.5°	1561.0	1442.5	1425.7	1339.0	1547.1	2478.9	1920.4	1677.4
85°	1231.5	798.4	693.9	837.3	1339.9	2280.8	1170.7	860.2
87.5°	521.7	313.6	190.1	376.3	744.7	1671.5	324.5	167.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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