

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: P197204

Luminaire Tested: **NAV-AF-02-D-UNV-SLR-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197204  
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-02-D-UNV-SLR-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 3000K, 1200mA 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: 9630 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - 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

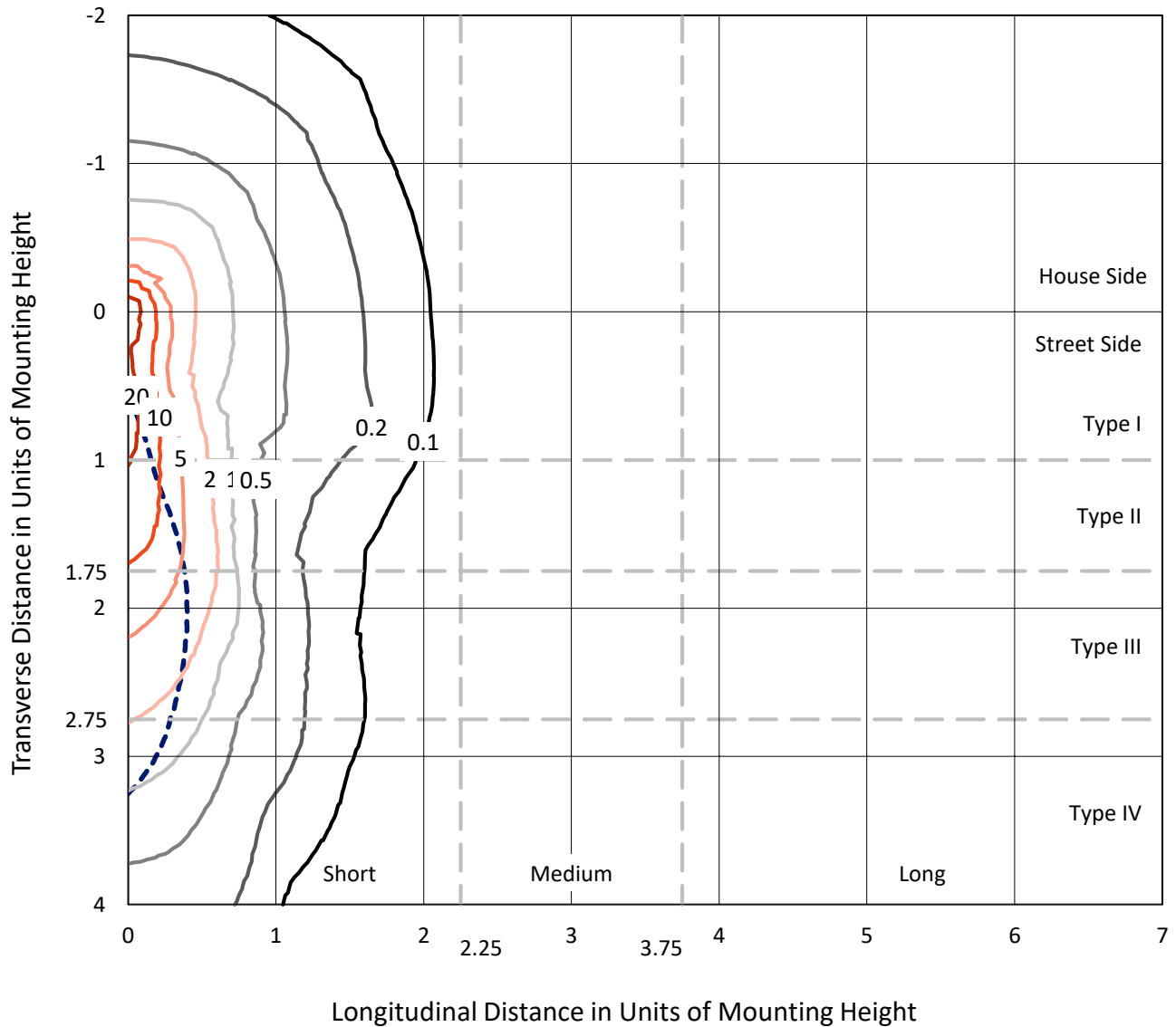


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### Iso-Footcandle Lines of Horizontal Illumination

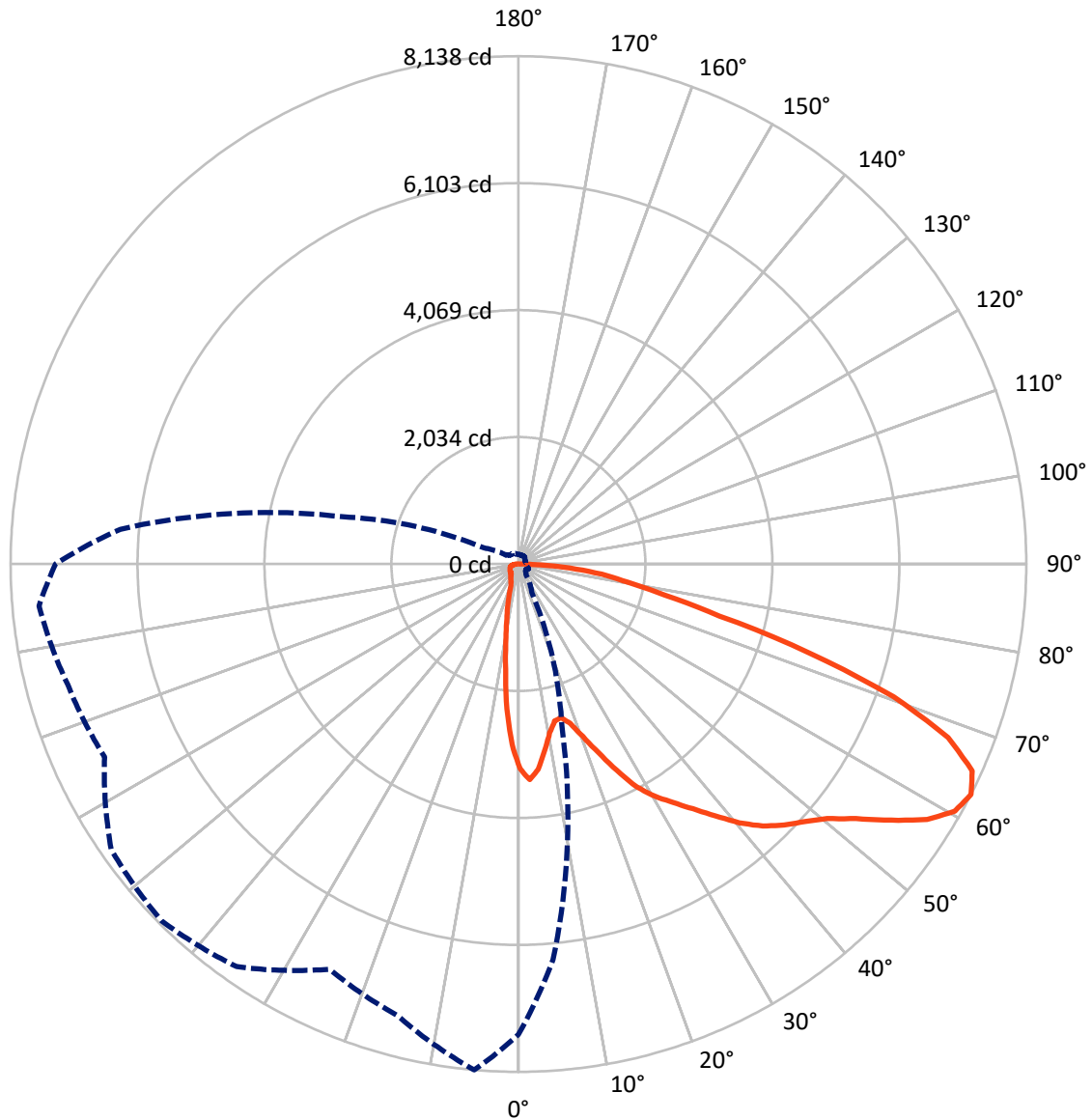
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 32.8 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	1706.0	0.0	1706.0
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	7924.0	0.0	7924.0
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	9630.0	0.0	9630.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	238.8	2.5
10°-20°	436.1	4.5
20°-30°	627.2	6.5
30°-40°	960.6	10.0
40°-50°	1404.5	14.6
50°-60°	2043.6	21.2
60°-70°	2367.7	24.6
70°-80°	1234.3	12.8
80°-90°	317.3	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°	9630.0	100.0
0°-180°	9630.0	100.0



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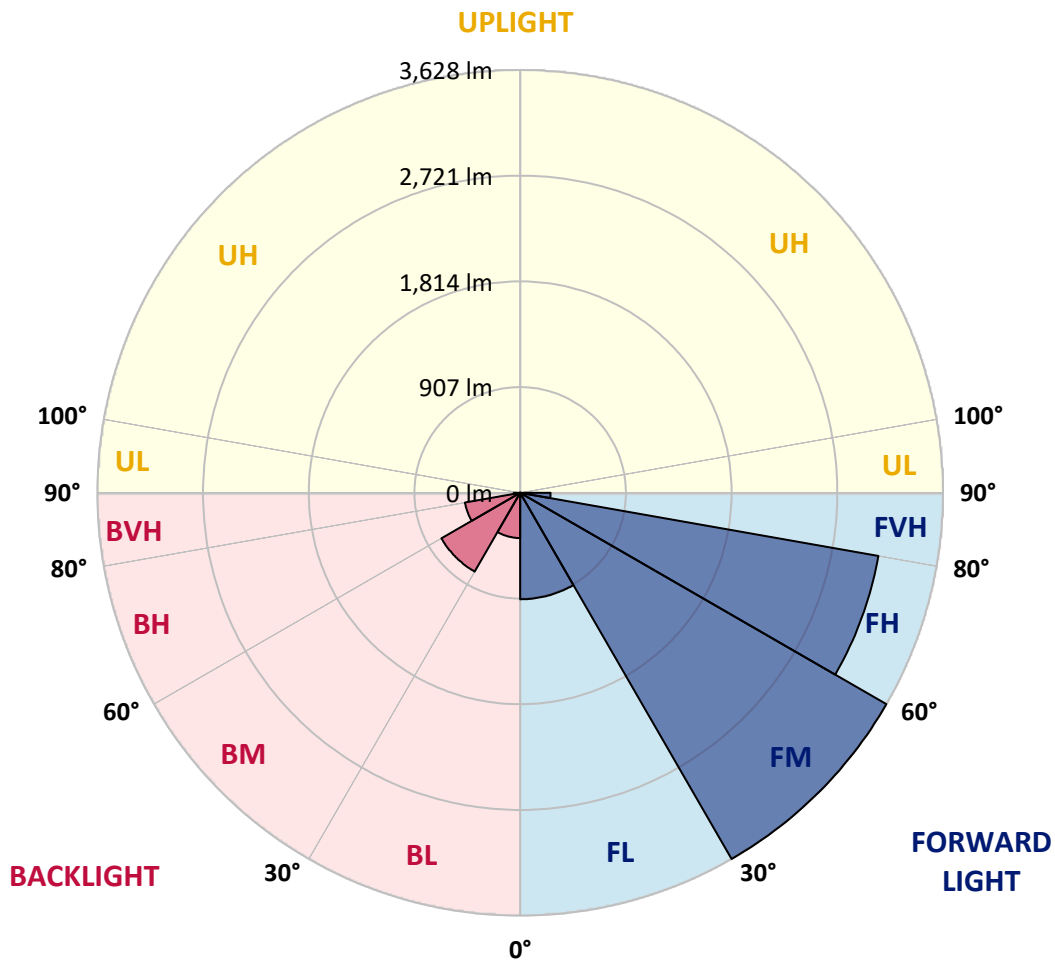
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	913.9	9.5			
FM	(30°-60°)	3628.1	37.7			
FH	(60°-80°)	3120.9	32.4			G2/5000
FVH	(80°-90°)	261.0	2.7			G3/500
BL	(0°-30°)	388.1	4.0	B1/500		
BM	(30°-60°)	780.5	8.1	B1/1000		
BH	(60°-80°)	481.0	5.0	B1/500		G1/500
BVH	(80°-90°)	56.3	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°	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1
2.5°	3389.2	3341.7	3232.1	3135.7	3015.6	2925.6	2815.9	2758.0	2715.4	2686.8	2663.7
5°	3165.8	3051.2	2841.8	2658.1	2459.9	2316.7	2149.1	2057.7	2001.1	1970.4	1956.4
7.5°	2834.1	2682.6	2411.7	2165.2	1917.3	1738.6	1611.5	1476.0	1404.1	1357.4	1342.0
10°	2544.3	2373.3	2050.0	1772.8	1581.5	1454.4	1345.5	1221.2	1129.0	1048.7	1018.7
12.5°	2376.1	2177.1	1808.4	1557.7	1397.2	1261.0	1145.8	1011.7	914.7	830.9	798.8
15°	2340.5	2118.4	1707.2	1420.9	1224.0	1059.9	921.7	775.7	680.8	611.6	589.3
17.5°	2448.0	2174.3	1664.6	1295.9	1058.5	858.1	687.8	531.4	452.5	414.7	405.7
20°	2669.3	2297.2	1644.3	1183.5	897.9	660.5	475.5	361.0	321.9	310.7	310.0
22.5°	2960.5	2496.9	1666.7	1091.3	747.1	487.4	348.4	296.7	280.7	274.4	274.4
25°	3289.3	2767.1	1726.0	1020.8	614.4	379.1	300.2	272.3	259.0	252.8	253.5
27.5°	3691.5	3095.9	1807.0	955.9	519.5	332.4	280.7	256.9	243.7	237.4	238.1
30°	3994.6	3378.7	1876.8	896.5	470.6	313.5	270.2	247.9	233.2	224.1	223.4
32.5°	4278.0	3628.0	1933.4	853.9	442.7	280.0	244.4	227.6	215.1	204.6	202.5
35°	4591.5	3862.6	1959.9	852.5	424.5	252.8	223.4	203.2	190.6	178.7	176.7
37.5°	4946.9	4149.6	1982.3	860.9	414.7	235.3	213.7	194.1	183.6	171.8	169.0
40°	5317.0	4430.2	1999.7	867.9	413.3	223.4	206.0	188.5	178.0	165.5	162.7
42.5°	5634.7	4678.8	2023.5	865.1	403.6	221.3	201.1	183.6	173.9	161.3	157.8
45°	5888.8	4876.4	2060.5	864.4	388.9	226.2	199.7	182.2	170.4	157.1	154.3
47.5°	6125.5	5099.1	2138.7	861.6	372.9	224.8	207.4	180.8	169.0	155.7	153.6
50°	6396.4	5398.7	2272.0	840.7	350.5	215.1	221.3	179.4	165.5	153.6	151.5
52.5°	6773.5	5837.2	2469.6	803.0	319.8	204.6	223.4	178.7	159.9	149.4	146.6
55°	7216.9	6307.1	2682.6	748.5	279.3	186.4	212.3	176.0	154.3	143.1	138.9
57.5°	7559.7	6654.1	2831.3	670.3	239.5	176.0	189.2	169.7	147.3	136.2	132.7
60°	7656.0	6669.5	2857.8	576.7	219.2	169.0	162.7	185.0	141.7	129.9	126.4
62.5°	7540.8	6364.3	2684.7	511.1	212.3	162.0	148.0	176.7	136.2	124.3	120.8
65°	7199.4	5849.0	2297.2	501.3	219.2	155.7	140.3	141.0	130.6	118.7	115.2
67.5°	6402.0	5090.8	1809.8	507.6	227.6	149.4	134.8	128.5	124.3	113.8	109.6
70°	5206.7	4098.6	1425.8	518.8	235.3	141.0	127.8	120.1	116.6	105.4	103.3
72.5°	4010.6	3280.3	1124.8	511.1	243.0	132.7	118.0	111.7	107.5	97.1	95.0
75°	2848.1	2606.5	826.7	438.5	222.7	120.8	106.8	101.2	97.8	86.6	85.9
77.5°	2052.8	1952.2	575.3	329.6	176.0	106.1	94.3	89.4	87.3	74.7	74.7
80°	1637.3	1485.8	344.2	215.1	128.5	88.0	78.9	76.8	74.7	62.1	62.8
82.5°	1176.5	1030.6	219.9	134.1	94.3	67.0	61.4	60.7	57.3	46.1	46.1
85°	603.3	526.5	141.0	90.1	66.3	43.3	40.5	39.1	37.0	28.6	28.6
87.5°	117.3	161.3	78.2	44.0	32.1	15.4	15.4	13.3	15.4	10.5	11.2
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1
2.5°	2707.7	2693.8	2684.0	2679.1	2749.6	2778.9	2812.5	2860.6	2893.4	2879.5	2924.2
5°	2022.1	2031.8	2054.2	2089.1	2187.5	2234.3	2264.3	2304.1	2332.8	2304.1	2351.6
7.5°	1382.5	1397.2	1444.6	1516.5	1635.2	1687.6	1698.1	1698.8	1692.5	1645.7	1677.8
10°	1018.0	988.7	999.2	1050.8	1157.0	1203.7	1208.6	1196.1	1194.0	1175.1	1211.4
12.5°	789.0	748.5	724.8	733.1	812.7	851.1	857.4	864.4	893.0	902.1	946.8
15°	588.6	567.7	550.2	542.5	594.9	624.9	628.4	645.2	675.2	683.6	722.0
17.5°	414.0	419.6	428.7	432.2	469.9	489.5	483.9	483.9	488.8	486.7	508.3
20°	316.3	327.5	344.9	361.7	395.9	407.1	393.1	375.6	364.5	358.9	363.8
22.5°	279.3	287.0	298.1	319.8	348.4	354.0	335.8	321.9	311.4	305.8	306.5
25°	259.0	266.7	275.8	293.3	317.7	320.5	303.7	294.7	286.3	280.7	279.3
27.5°	241.6	246.5	252.1	263.2	288.4	289.8	278.6	273.0	267.4	263.2	261.8
30°	225.5	227.6	229.7	240.9	259.7	261.8	256.2	253.5	251.4	248.6	248.6
32.5°	204.6	207.4	210.9	220.6	238.8	241.6	238.1	236.0	232.5	231.1	229.0
35°	179.4	186.4	194.1	206.0	225.5	226.9	222.7	216.5	208.1	206.0	204.6
37.5°	169.0	170.4	180.1	194.1	214.4	215.8	210.2	199.7	193.4	194.1	195.5
40°	162.0	164.1	169.7	183.6	203.9	206.0	201.1	193.4	187.1	187.8	189.9
42.5°	156.4	159.2	162.7	171.8	192.0	196.2	194.8	187.8	181.5	182.9	185.7
45°	153.6	155.7	155.7	162.0	181.5	187.8	188.5	182.9	178.0	179.4	182.9
47.5°	152.2	152.2	150.1	155.0	174.6	180.8	182.2	179.4	176.7	178.0	181.5
50°	150.1	147.3	145.2	149.4	169.0	174.6	176.0	173.9	175.3	178.0	180.1
52.5°	143.8	141.0	141.0	143.8	163.4	169.0	169.7	168.3	171.1	174.6	178.0
55°	136.2	136.2	136.9	139.6	160.6	164.8	164.1	162.7	165.5	169.7	173.2
57.5°	129.2	128.5	132.0	135.5	157.1	159.9	158.5	158.5	160.6	164.1	167.6
60°	125.0	121.5	124.3	129.9	153.6	156.4	154.3	153.6	157.1	159.9	162.7
62.5°	120.8	117.3	119.4	125.0	148.7	150.8	149.4	149.4	152.9	155.0	157.8
65°	114.5	113.1	114.5	120.1	144.5	145.2	145.2	145.9	148.7	150.1	152.9
67.5°	108.9	108.9	109.6	115.2	141.0	139.6	139.6	143.1	143.8	145.2	148.0
70°	101.9	103.3	103.3	110.3	138.2	133.4	134.1	136.9	138.2	139.6	140.3
72.5°	94.3	95.0	96.4	105.4	134.1	127.1	127.8	129.9	130.6	132.7	133.4
75°	85.9	86.6	88.7	100.5	131.3	120.8	119.4	120.8	122.2	123.6	122.9
77.5°	76.1	77.5	79.6	97.8	122.2	119.4	108.9	110.3	111.7	111.7	111.0
80°	64.2	66.3	69.8	93.6	103.3	115.2	97.1	97.8	98.4	98.4	97.1
82.5°	48.2	52.4	57.3	77.5	81.0	98.4	83.8	85.2	83.1	81.7	81.0
85°	31.4	34.9	41.9	53.8	59.3	77.5	69.1	69.8	65.6	64.9	64.9
87.5°	12.6	13.3	18.9	27.2	35.6	48.2	49.6	51.0	47.5	47.5	48.9
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1
2.5°	2991.9	3061.7	3142.0	3223.7	3290.7	3377.3	3461.1	3550.5	3595.9	3622.4	3697.1
5°	2425.6	2521.3	2635.1	2762.9	2869.0	3050.5	3246.1	3463.9	3568.6	3672.0	3867.5
7.5°	1735.1	1828.7	1961.3	2126.8	2277.6	2517.1	2774.8	3069.4	3214.6	3382.2	3702.7
10°	1288.2	1387.4	1507.5	1647.8	1796.5	2045.8	2334.9	2665.8	2825.7	3014.9	3379.4
12.5°	1044.5	1160.5	1284.7	1410.4	1538.2	1705.8	2008.8	2376.8	2548.5	2739.1	3104.3
15°	814.8	939.1	1073.2	1210.0	1337.1	1524.2	1833.5	2268.5	2464.7	2649.1	2947.9
17.5°	576.7	694.0	844.9	1011.0	1195.4	1416.7	1795.8	2316.0	2554.1	2746.8	2947.2
20°	393.1	474.1	624.9	821.8	1049.4	1330.1	1809.8	2482.9	2780.3	2991.9	3068.0
22.5°	314.2	352.6	454.5	654.9	923.8	1267.3	1867.1	2711.9	3105.0	3362.7	3287.9
25°	285.6	307.2	360.3	517.4	812.0	1225.4	1978.8	3014.2	3468.8	3729.9	3552.6
27.5°	268.1	287.0	321.2	425.2	715.7	1198.2	2120.5	3370.3	3878.6	4093.0	3828.4
30°	256.9	275.8	307.2	381.9	643.1	1157.7	2244.8	3695.7	4206.1	4345.1	3977.1
32.5°	235.3	250.0	275.8	342.1	588.6	1110.2	2352.3	3986.9	4515.4	4561.5	4155.8
35°	213.0	228.3	254.2	310.0	556.5	1073.2	2408.9	4245.2	4821.9	4778.0	4333.2
37.5°	204.6	217.1	240.9	287.0	539.0	1048.7	2430.5	4499.4	5150.8	5017.5	4456.8
40°	199.0	210.2	231.1	271.6	534.1	1025.7	2425.6	4741.0	5469.9	5265.3	4553.8
42.5°	194.8	204.6	224.1	261.1	520.9	1004.0	2409.6	4949.7	5725.5	5479.0	4646.7
45°	191.3	201.8	221.3	266.7	496.4	980.3	2399.8	5140.3	5921.7	5659.1	4771.0
47.5°	189.9	201.8	222.0	265.3	469.9	953.8	2434.7	5351.9	6092.7	5810.6	4936.5
50°	187.8	201.1	237.4	252.8	433.6	921.0	2552.7	5604.0	6272.2	5981.0	5150.8
52.5°	184.3	200.4	253.5	243.0	386.8	875.6	2744.0	5960.1	6582.2	6312.7	5467.8
55°	180.1	201.8	242.3	227.6	337.2	816.9	2935.3	6448.1	7084.9	6847.5	5923.1
57.5°	175.3	199.7	229.0	213.7	296.0	742.9	3080.6	6848.2	7499.6	7399.1	6482.3
60°	171.8	204.6	206.0	205.3	269.5	672.4	3094.5	6822.4	7619.0	7757.3	7029.7
62.5°	167.6	208.8	187.8	199.0	256.2	606.8	2922.1	6399.9	7417.3	7711.2	7475.9
65°	162.0	182.2	178.0	193.4	256.2	571.8	2520.6	5696.8	6859.4	7275.5	7718.2
67.5°	156.4	165.5	171.1	185.7	261.8	539.0	2025.6	4805.2	5979.6	6572.4	7445.9
70°	148.7	156.4	163.4	178.7	259.0	516.0	1594.1	3851.4	4921.1	5599.8	6692.5
72.5°	141.7	147.3	154.3	168.3	259.0	505.5	1280.5	3021.2	3757.2	4329.0	5543.9
75°	131.3	136.2	142.4	157.8	254.2	462.2	961.5	2420.7	2748.9	3107.1	4374.4
77.5°	120.8	124.3	129.2	144.5	229.0	386.1	680.1	1874.7	2036.7	2235.0	3410.1
80°	107.5	110.3	113.8	129.2	189.9	299.5	442.7	1466.3	1522.8	1618.5	2243.4
82.5°	92.2	96.4	97.1	111.0	152.9	217.1	263.2	1004.7	1004.0	1144.4	1582.9
85°	75.4	77.5	78.9	87.3	113.1	144.5	173.2	548.8	489.5	685.7	1374.8
87.5°	56.6	54.5	56.6	58.7	74.7	85.2	92.9	101.2	60.7	124.3	799.5
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1	3283.1
2.5°	3736.9	3778.1	3753.7	3724.3	3651.0	3543.5	3461.1	3389.2
5°	4002.9	4079.0	4045.5	3936.6	3746.7	3530.9	3304.0	3165.8
7.5°	3969.4	4120.2	4107.0	3925.4	3653.1	3335.4	3016.3	2834.1
10°	3701.3	3912.9	3949.2	3763.4	3475.1	3119.7	2750.3	2544.3
12.5°	3409.4	3587.5	3661.5	3591.0	3319.4	2958.4	2582.0	2376.1
15°	3165.1	3255.1	3328.4	3373.8	3205.6	2901.1	2552.7	2340.5
17.5°	2984.2	2966.8	3028.2	3137.1	3144.1	2977.2	2685.4	2448.0
20°	2896.9	2760.1	2795.7	2948.6	3127.4	3170.6	2950.0	2669.3
22.5°	2892.1	2678.4	2685.4	2850.2	3175.5	3434.6	3280.3	2960.5
25°	2967.5	2669.3	2675.6	2839.7	3260.7	3700.6	3662.2	3289.3
27.5°	3095.9	2708.4	2704.2	2885.8	3374.5	3922.6	4047.6	3691.5
30°	3234.9	2765.0	2754.5	2959.8	3486.2	4059.5	4321.3	3994.6
32.5°	3408.0	2865.5	2829.2	3068.0	3596.6	4190.8	4555.2	4278.0
35°	3572.8	3012.8	2960.5	3223.0	3714.6	4336.7	4817.1	4591.5
37.5°	3741.1	3232.8	3203.5	3446.4	3881.4	4495.2	5116.6	4946.9
40°	3956.8	3545.6	3531.6	3771.1	4104.2	4668.3	5452.4	5317.0
42.5°	4189.4	3877.9	3866.1	4144.0	4380.7	4842.2	5740.1	5634.7
45°	4426.1	4280.8	4283.6	4542.0	4671.8	5006.3	5966.3	5888.8
47.5°	4705.3	4721.4	4821.3	4954.6	4955.3	5189.2	6166.7	6125.5
50°	5060.0	5253.5	5437.8	5458.7	5241.6	5430.8	6411.8	6396.4
52.5°	5461.5	5867.2	6081.5	6015.2	5520.9	5730.3	6774.2	6773.5
55°	5938.4	6508.9	6710.7	6597.5	5855.3	6120.6	7247.6	7216.9
57.5°	6432.8	7126.1	7288.8	7141.5	6273.6	6575.2	7722.4	7559.7
60°	6966.9	7657.4	7822.9	7601.6	6742.8	7028.3	8036.6	7656.0
62.5°	7316.7	7968.2	8086.9	7874.6	7163.1	7489.9	8137.8	7540.8
65°	7334.9	7761.5	7792.9	7717.5	7341.8	7890.7	7991.2	7199.4
67.5°	6836.3	6861.5	6902.7	6983.7	6959.9	7711.9	7425.6	6402.0
70°	5770.1	5435.0	5570.4	5648.6	5824.6	6859.4	6380.4	5206.7
72.5°	4412.1	3922.6	4076.2	4049.7	4415.6	5626.3	4881.3	4010.6
75°	3175.5	2674.9	2686.8	2688.2	3172.7	4491.0	3328.4	2848.1
77.5°	2158.2	1892.9	1932.0	1907.6	2123.3	3518.4	2396.3	2052.8
80°	1476.0	1469.1	1477.4	1420.2	1416.0	2274.1	1774.2	1637.3
82.5°	1094.8	1011.7	999.9	939.1	1085.0	1738.6	1346.9	1176.5
85°	863.7	560.0	486.7	587.2	939.8	1599.6	821.1	603.3
87.5°	365.9	219.9	133.4	263.9	522.3	1172.3	227.6	117.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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