

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: P197205

Luminaire Tested: **NAV-AF-03-D-UNV-SLR-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197205
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 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: 14321 lumens
Efficiency: N/A
Efficacy: 75.0 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

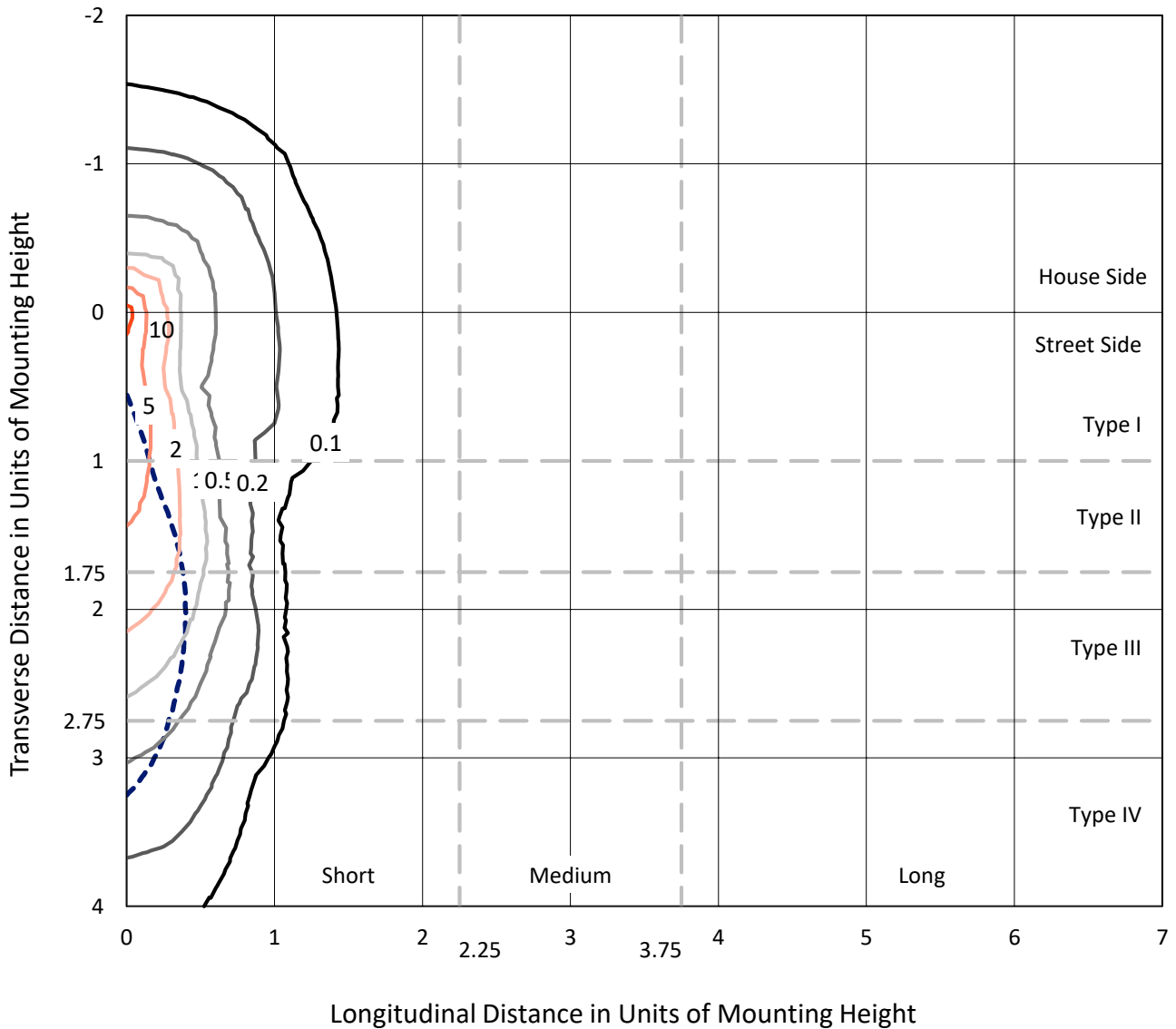
Input Watts (W): 191
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

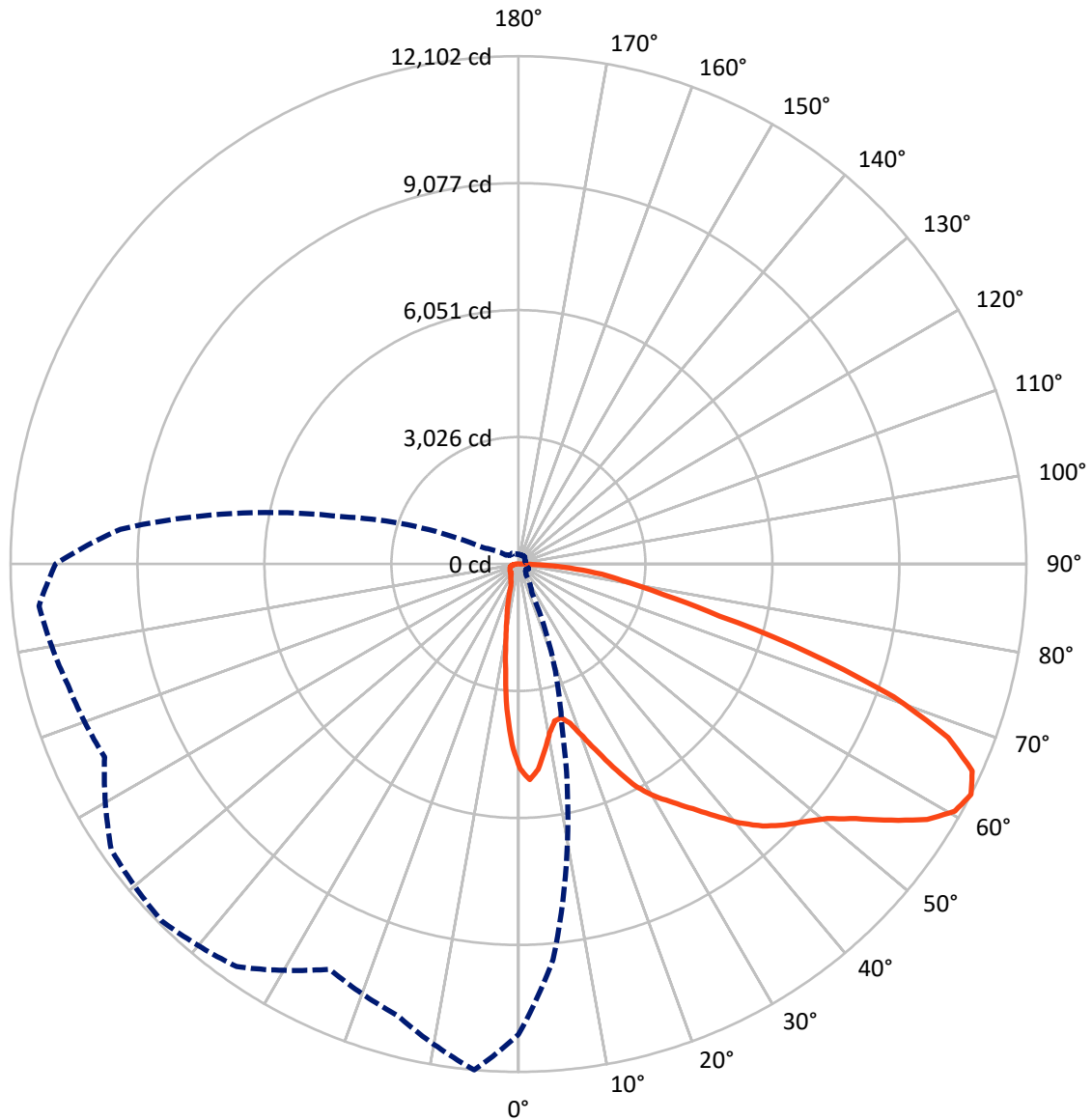
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12.2 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
House Side	Lumens	2537.0	0.0	2537.0
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	11784.0	0.0	11784.0
	% Fixture	82.3	0.0	82.3
Total	Lumens	14321.0	0.0	14321.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.1	2.5
10°-20°	648.5	4.5
20°-30°	932.7	6.5
30°-40°	1428.6	10.0
40°-50°	2088.6	14.6
50°-60°	3039.0	21.2
60°-70°	3521.1	24.6
70°-80°	1835.5	12.8
80°-90°	471.8	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°	14321.0	100.0
0°-180°	14321.0	100.0



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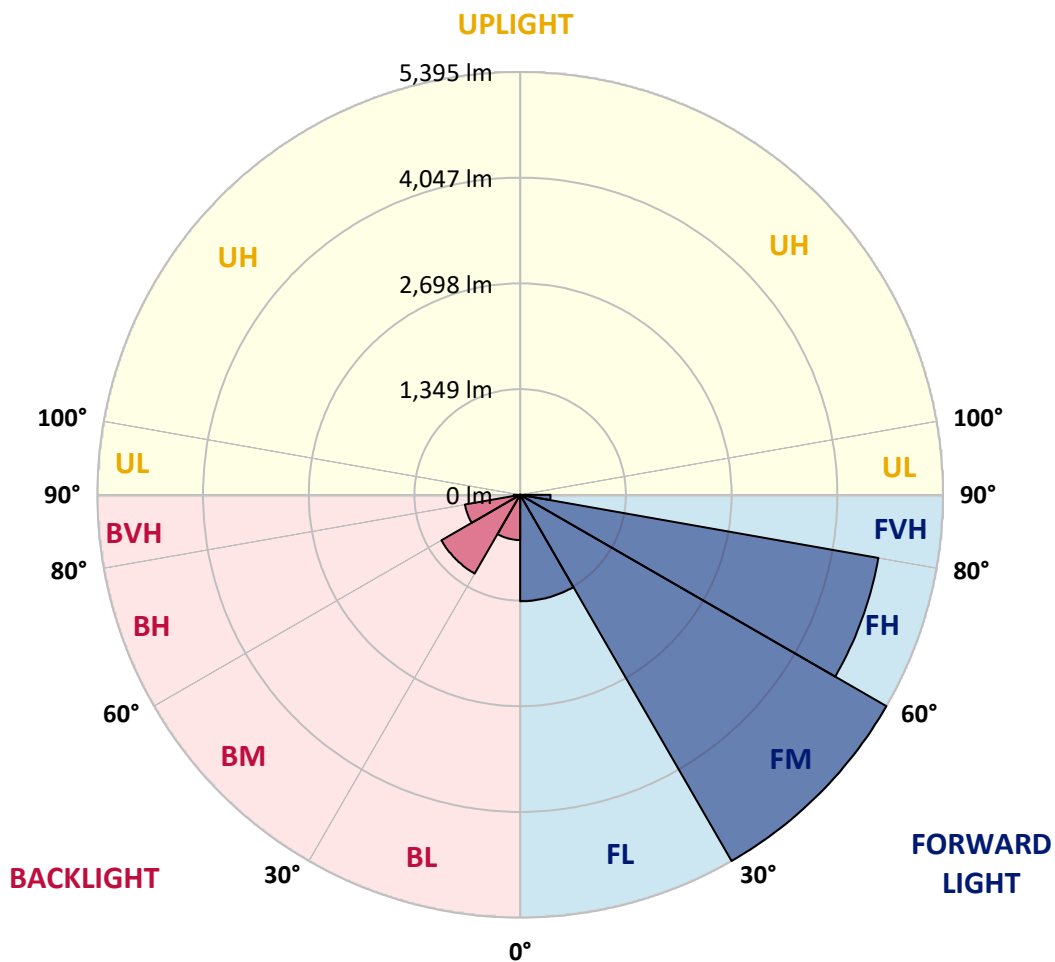
CATALOG NUMBER: NAV-AF-03-D-UNV-SLR-8030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1359.1	9.5			
FM	(30°-60°)	5395.5	37.7			
FH	(60°-80°)	4641.2	32.4			G2/5000
FVH	(80°-90°)	388.2	2.7			G3/500
BL	(0°-30°)	577.2	4.0	B2/1000		
BM	(30°-60°)	1160.8	8.1	B2/2500		
BH	(60°-80°)	715.4	5.0	B2/1000		G2/1000
BVH	(80°-90°)	83.7	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°	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3
2.5°	5040.1	4969.5	4806.5	4663.2	4484.6	4350.7	4187.7	4101.5	4038.1	3995.6	3961.3
5°	4707.9	4537.6	4226.1	3953.0	3658.1	3445.2	3196.0	3060.0	2975.9	2930.2	2909.5
7.5°	4214.7	3989.3	3586.5	3219.9	2851.3	2585.5	2396.5	2195.1	2088.1	2018.5	1995.7
10°	3783.7	3529.3	3048.6	2636.4	2351.9	2162.9	2000.9	1816.1	1679.0	1559.6	1515.0
12.5°	3533.5	3237.6	2689.3	2316.6	2077.7	1875.3	1703.9	1504.6	1360.2	1235.6	1187.9
15°	3480.5	3150.3	2538.8	2113.0	1820.2	1576.2	1370.6	1153.6	1012.4	909.6	876.4
17.5°	3640.4	3233.4	2475.4	1927.2	1574.1	1276.1	1022.8	790.2	672.8	616.8	603.3
20°	3969.6	3416.2	2445.3	1760.0	1335.3	982.3	707.1	536.8	478.7	462.1	461.0
22.5°	4402.6	3713.1	2478.5	1622.9	1111.0	724.8	518.1	441.3	417.4	408.1	408.1
25°	4891.7	4115.0	2566.8	1518.1	913.7	563.8	446.5	405.0	385.2	375.9	376.9
27.5°	5489.7	4604.0	2687.2	1421.5	772.5	494.3	417.4	382.1	362.4	353.0	354.1
30°	5940.4	5024.6	2791.1	1333.2	699.8	466.2	401.8	368.6	346.8	333.3	332.3
32.5°	6362.0	5395.3	2875.2	1269.9	658.3	416.4	363.4	338.5	319.8	304.2	301.1
35°	6828.2	5744.1	2914.6	1267.8	631.3	375.9	332.3	302.2	283.5	265.8	262.7
37.5°	7356.7	6170.9	2947.9	1280.3	616.8	349.9	317.7	288.7	273.1	255.4	251.3
40°	7907.0	6588.3	2973.8	1290.7	614.7	332.3	306.3	280.4	264.8	246.1	241.9
42.5°	8379.5	6958.0	3009.1	1286.5	600.2	329.2	299.0	273.1	258.5	239.9	234.7
45°	8757.4	7251.8	3064.2	1285.5	578.4	336.4	297.0	271.0	253.4	233.6	229.5
47.5°	9109.4	7583.1	3180.5	1281.3	554.5	334.3	308.4	268.9	251.3	231.6	228.4
50°	9512.3	8028.5	3378.8	1250.2	521.3	319.8	329.2	266.9	246.1	228.4	225.3
52.5°	10073.0	8680.6	3672.6	1194.1	475.6	304.2	332.3	265.8	237.8	222.2	218.1
55°	10732.4	9379.4	3989.3	1113.1	415.3	277.2	315.7	261.7	229.5	212.9	206.6
57.5°	11242.2	9895.5	4210.5	996.8	356.2	261.7	281.4	252.3	219.1	202.5	197.3
60°	11385.5	9918.3	4250.0	857.7	326.0	251.3	241.9	275.2	210.8	193.1	187.9
62.5°	11214.2	9464.5	3992.4	760.1	315.7	240.9	220.1	262.7	202.5	184.8	179.6
65°	10706.4	8698.2	3416.2	745.5	326.0	231.6	208.7	209.7	194.2	176.5	171.3
67.5°	9520.6	7570.6	2691.4	754.9	338.5	222.2	200.4	191.1	184.8	169.3	163.0
70°	7743.0	6095.1	2120.3	771.5	349.9	209.7	190.0	178.6	173.4	156.8	153.7
72.5°	5964.3	4878.2	1672.8	760.1	361.3	197.3	175.5	166.1	159.9	144.3	141.2
75°	4235.4	3876.2	1229.4	652.1	331.2	179.6	158.9	150.6	145.4	128.8	127.7
77.5°	3052.7	2903.2	855.6	490.1	261.7	157.8	140.2	132.9	129.8	111.1	111.1
80°	2434.9	2209.6	511.9	319.8	191.1	130.8	117.3	114.2	111.1	92.4	93.5
82.5°	1749.6	1532.6	327.1	199.4	140.2	99.7	91.4	90.3	85.1	68.5	68.5
85°	897.1	782.9	209.7	133.9	98.6	64.4	60.2	58.1	55.0	42.6	42.6
87.5°	174.4	239.9	116.3	65.4	47.8	22.8	22.8	19.7	22.8	15.6	16.6
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°	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3
2.5°	4026.7	4005.9	3991.4	3984.1	4089.0	4132.6	4182.5	4254.1	4302.9	4282.1	4348.6
5°	3007.1	3021.6	3054.8	3106.7	3253.1	3322.7	3367.4	3426.5	3469.1	3426.5	3497.2
7.5°	2055.9	2077.7	2148.3	2255.3	2431.8	2509.7	2525.3	2526.3	2517.0	2447.4	2495.2
10°	1513.9	1470.3	1485.9	1562.7	1720.5	1790.1	1797.4	1778.7	1775.6	1747.5	1801.5
12.5°	1173.3	1113.1	1077.8	1090.3	1208.6	1265.7	1275.1	1285.5	1328.0	1341.5	1408.0
15°	875.3	844.2	818.2	806.8	884.7	929.3	934.5	959.4	1004.1	1016.5	1073.7
17.5°	615.7	624.0	637.5	642.7	698.8	727.9	719.6	719.6	726.8	723.7	755.9
20°	470.4	487.0	512.9	537.9	588.7	605.4	584.6	558.6	542.0	533.7	541.0
22.5°	415.3	426.8	443.4	475.6	518.1	526.4	499.4	478.7	463.1	454.8	455.8
25°	385.2	396.6	410.1	436.1	472.4	476.6	451.7	438.2	425.7	417.4	415.3
27.5°	359.3	366.5	374.8	391.5	428.8	430.9	414.3	406.0	397.7	391.5	389.4
30°	335.4	338.5	341.6	358.2	386.3	389.4	381.1	376.9	373.8	369.7	369.7
32.5°	304.2	308.4	313.6	328.1	355.1	359.3	354.1	351.0	345.8	343.7	340.6
35°	266.9	277.2	288.7	306.3	335.4	337.5	331.2	321.9	309.4	306.3	304.2
37.5°	251.3	253.4	267.9	288.7	318.8	320.8	312.5	297.0	287.6	288.7	290.7
40°	240.9	244.0	252.3	273.1	303.2	306.3	299.0	287.6	278.3	279.3	282.4
42.5°	232.6	236.7	241.9	255.4	285.5	291.8	289.7	279.3	270.0	272.0	276.2
45°	228.4	231.6	231.6	240.9	270.0	279.3	280.4	272.0	264.8	266.9	272.0
47.5°	226.4	226.4	223.2	230.5	259.6	268.9	271.0	266.9	262.7	264.8	270.0
50°	223.2	219.1	216.0	222.2	251.3	259.6	261.7	258.5	260.6	264.8	267.9
52.5°	213.9	209.7	209.7	213.9	243.0	251.3	252.3	250.2	254.4	259.6	264.8
55°	202.5	202.5	203.5	207.7	238.8	245.1	244.0	241.9	246.1	252.3	257.5
57.5°	192.1	191.1	196.2	201.4	233.6	237.8	235.7	235.7	238.8	244.0	249.2
60°	185.9	180.7	184.8	193.1	228.4	232.6	229.5	228.4	233.6	237.8	241.9
62.5°	179.6	174.4	177.6	185.9	221.2	224.3	222.2	222.2	227.4	230.5	234.7
65°	170.3	168.2	170.3	178.6	214.9	216.0	216.0	217.0	221.2	223.2	227.4
67.5°	162.0	162.0	163.0	171.3	209.7	207.7	207.7	212.9	213.9	216.0	220.1
70°	151.6	153.7	153.7	164.1	205.6	198.3	199.4	203.5	205.6	207.7	208.7
72.5°	140.2	141.2	143.3	156.8	199.4	189.0	190.0	193.1	194.2	197.3	198.3
75°	127.7	128.8	131.9	149.5	195.2	179.6	177.6	179.6	181.7	183.8	182.7
77.5°	113.2	115.3	118.4	145.4	181.7	177.6	162.0	164.1	166.1	166.1	165.1
80°	95.5	98.6	103.8	139.1	153.7	171.3	144.3	145.4	146.4	146.4	144.3
82.5°	71.6	77.9	85.1	115.3	120.4	146.4	124.6	126.7	123.6	121.5	120.4
85°	46.7	51.9	62.3	80.0	88.3	115.3	102.8	103.8	97.6	96.6	96.6
87.5°	18.7	19.7	28.0	40.5	53.0	71.6	73.7	75.8	70.6	70.6	72.7
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°	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3
2.5°	4449.3	4553.2	4672.6	4794.1	4893.7	5022.5	5147.1	5280.0	5347.5	5387.0	5498.1
5°	3607.2	3749.5	3918.7	4108.7	4266.6	4536.5	4827.3	5151.2	5307.0	5460.7	5751.4
7.5°	2580.3	2719.4	2916.7	3162.8	3387.1	3743.2	4126.4	4564.6	4780.6	5029.8	5506.4
10°	1915.8	2063.2	2241.8	2450.5	2671.7	3042.4	3472.2	3964.4	4202.2	4483.6	5025.6
12.5°	1553.4	1725.7	1910.6	2097.5	2287.5	2536.7	2987.3	3534.5	3790.0	4073.4	4616.5
15°	1211.8	1396.6	1595.9	1799.5	1988.4	2266.7	2726.7	3373.6	3665.4	3939.5	4383.9
17.5°	857.7	1032.1	1256.4	1503.5	1777.7	2106.8	2670.6	3444.2	3798.3	4084.9	4382.9
20°	584.6	705.0	929.3	1222.1	1560.6	1978.1	2691.4	3692.4	4134.7	4449.3	4562.5
22.5°	467.3	524.4	676.0	974.0	1373.7	1884.6	2776.5	4032.9	4617.5	5000.7	4889.6
25°	424.7	456.9	535.8	769.4	1207.6	1822.3	2942.7	4482.6	5158.5	5546.9	5283.1
27.5°	398.7	426.8	477.6	632.4	1064.3	1781.8	3153.5	5012.1	5768.0	6086.8	5693.3
30°	382.1	410.1	456.9	568.0	956.3	1721.6	3338.3	5496.0	6255.0	6461.6	5914.4
32.5°	349.9	371.7	410.1	508.8	875.3	1651.0	3498.2	5929.0	6715.0	6783.5	6180.2
35°	316.7	339.5	378.0	461.0	827.6	1595.9	3582.3	6313.2	7170.8	7105.4	6444.0
37.5°	304.2	322.9	358.2	426.8	801.6	1559.6	3614.5	6691.1	7659.9	7461.6	6627.8
40°	295.9	312.5	343.7	403.9	794.3	1525.3	3607.2	7050.4	8134.4	7830.2	6772.1
42.5°	289.7	304.2	333.3	388.3	774.6	1493.1	3583.3	7360.9	8514.5	8147.9	6910.2
45°	284.5	300.1	329.2	396.6	738.3	1457.8	3568.8	7644.3	8806.2	8415.8	7095.0
47.5°	282.4	300.1	330.2	394.6	698.8	1418.4	3620.7	7958.9	9060.6	8641.1	7341.1
50°	279.3	299.0	353.0	375.9	644.8	1369.6	3796.2	8333.8	9327.5	8894.5	7659.9
52.5°	274.1	298.0	376.9	361.3	575.2	1302.1	4080.7	8863.3	9788.5	9387.7	8131.3
55°	267.9	300.1	360.3	338.5	501.5	1214.9	4365.2	9589.1	10536.1	10183.1	8808.3
57.5°	260.6	297.0	340.6	317.7	440.3	1104.8	4581.2	10184.1	11152.9	11003.4	9640.0
60°	255.4	304.2	306.3	305.3	400.8	999.9	4602.0	10145.7	11330.5	11536.1	10454.1
62.5°	249.2	310.5	279.3	295.9	381.1	902.3	4345.5	9517.5	11030.4	11467.5	11117.6
65°	240.9	271.0	264.8	287.6	381.1	850.4	3748.4	8471.9	10200.7	10819.6	11477.9
67.5°	232.6	246.1	254.4	276.2	389.4	801.6	3012.2	7145.9	8892.4	9774.0	11072.9
70°	221.2	232.6	243.0	265.8	385.2	767.3	2370.5	5727.5	7318.3	8327.6	9952.6
72.5°	210.8	219.1	229.5	250.2	385.2	751.8	1904.3	4492.9	5587.4	6437.8	8244.5
75°	195.2	202.5	211.8	234.7	378.0	687.4	1429.8	3600.0	4088.0	4620.7	6505.3
77.5°	179.6	184.8	192.1	214.9	340.6	574.2	1011.4	2788.0	3028.9	3323.8	5071.3
80°	159.9	164.1	169.3	192.1	282.4	445.5	658.3	2180.5	2264.6	2406.9	3336.2
82.5°	137.1	143.3	144.3	165.1	227.4	322.9	391.5	1494.2	1493.1	1701.9	2353.9
85°	112.1	115.3	117.3	129.8	168.2	214.9	257.5	816.1	727.9	1019.7	2044.5
87.5°	84.1	81.0	84.1	87.2	111.1	126.7	138.1	150.6	90.3	184.8	1188.9
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°	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3	4882.3
2.5°	5557.2	5618.5	5582.2	5538.6	5429.5	5269.6	5147.1	5040.1
5°	5952.9	6066.0	6016.2	5854.2	5571.8	5250.9	4913.5	4707.9
7.5°	5903.0	6127.3	6107.6	5837.6	5432.6	4960.2	4485.7	4214.7
10°	5504.3	5818.9	5872.9	5596.7	5167.9	4639.3	4090.1	3783.7
12.5°	5070.3	5335.0	5445.1	5340.2	4936.3	4399.5	3839.8	3533.5
15°	4706.8	4840.8	4949.8	5017.3	4767.1	4314.3	3796.2	3480.5
17.5°	4437.9	4411.9	4503.3	4665.3	4675.7	4427.5	3993.5	3640.4
20°	4308.1	4104.6	4157.5	4384.9	4650.8	4715.1	4387.0	3969.6
22.5°	4300.8	3983.1	3993.5	4238.5	4722.4	5107.6	4878.2	4402.6
25°	4413.0	3969.6	3979.0	4223.0	4849.1	5503.2	5446.1	4891.7
27.5°	4604.0	4027.8	4021.5	4291.5	5018.3	5833.4	6019.3	5489.7
30°	4810.7	4111.9	4096.3	4401.6	5184.5	6037.0	6426.3	5940.4
32.5°	5068.2	4261.4	4207.4	4562.5	5348.5	6232.2	6774.2	6362.0
35°	5313.2	4480.5	4402.6	4793.0	5524.0	6449.2	7163.6	6828.2
37.5°	5563.5	4807.6	4763.9	5125.3	5772.2	6684.9	7609.0	7356.7
40°	5884.3	5272.7	5252.0	5608.1	6103.4	6942.4	8108.5	7907.0
42.5°	6230.1	5767.0	5749.3	6162.6	6514.6	7200.9	8536.3	8379.5
45°	6582.1	6366.1	6370.3	6754.5	6947.6	7445.0	8872.7	8757.4
47.5°	6997.4	7021.3	7169.8	7368.1	7369.2	7717.0	9170.7	9109.4
50°	7524.9	7812.5	8086.7	8117.8	7794.9	8076.3	9535.2	9512.3
52.5°	8122.0	8725.2	9044.0	8945.4	8210.2	8521.7	10074.1	10073.0
55°	8831.2	9679.5	9979.6	9811.4	8707.6	9102.2	10778.1	10732.4
57.5°	9566.3	10597.4	10839.3	10620.2	9329.6	9778.1	11484.1	11242.2
60°	10360.6	11387.6	11633.7	11304.5	10027.3	10452.0	11951.4	11385.5
62.5°	10880.9	11849.6	12026.2	11710.5	10652.4	11138.4	12102.0	11214.2
65°	10907.8	11542.3	11589.0	11476.9	10918.2	11734.4	11883.9	10706.4
67.5°	10166.5	10203.8	10265.1	10385.6	10350.3	11468.6	11042.8	9520.6
70°	8580.9	8082.5	8283.9	8400.2	8661.9	10200.7	9488.4	7743.0
72.5°	6561.3	5833.4	6061.9	6022.4	6566.5	8367.0	7259.1	5964.3
75°	4722.4	3977.9	3995.6	3997.6	4718.3	6678.7	4949.8	4235.4
77.5°	3209.5	2815.0	2873.1	2836.8	3157.6	5232.2	3563.6	3052.7
80°	2195.1	2184.7	2197.1	2112.0	2105.8	3381.9	2638.4	2434.9
82.5°	1628.1	1504.6	1486.9	1396.6	1613.6	2585.5	2003.0	1749.6
85°	1284.4	832.8	723.7	873.3	1397.6	2378.9	1221.1	897.1
87.5°	544.1	327.1	198.3	392.5	776.7	1743.4	338.5	174.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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