

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: P270290

Luminaire Tested: **NAV-AF-01-D-UNV-SLL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270290
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-01-D-UNV-SLL-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3088.7 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

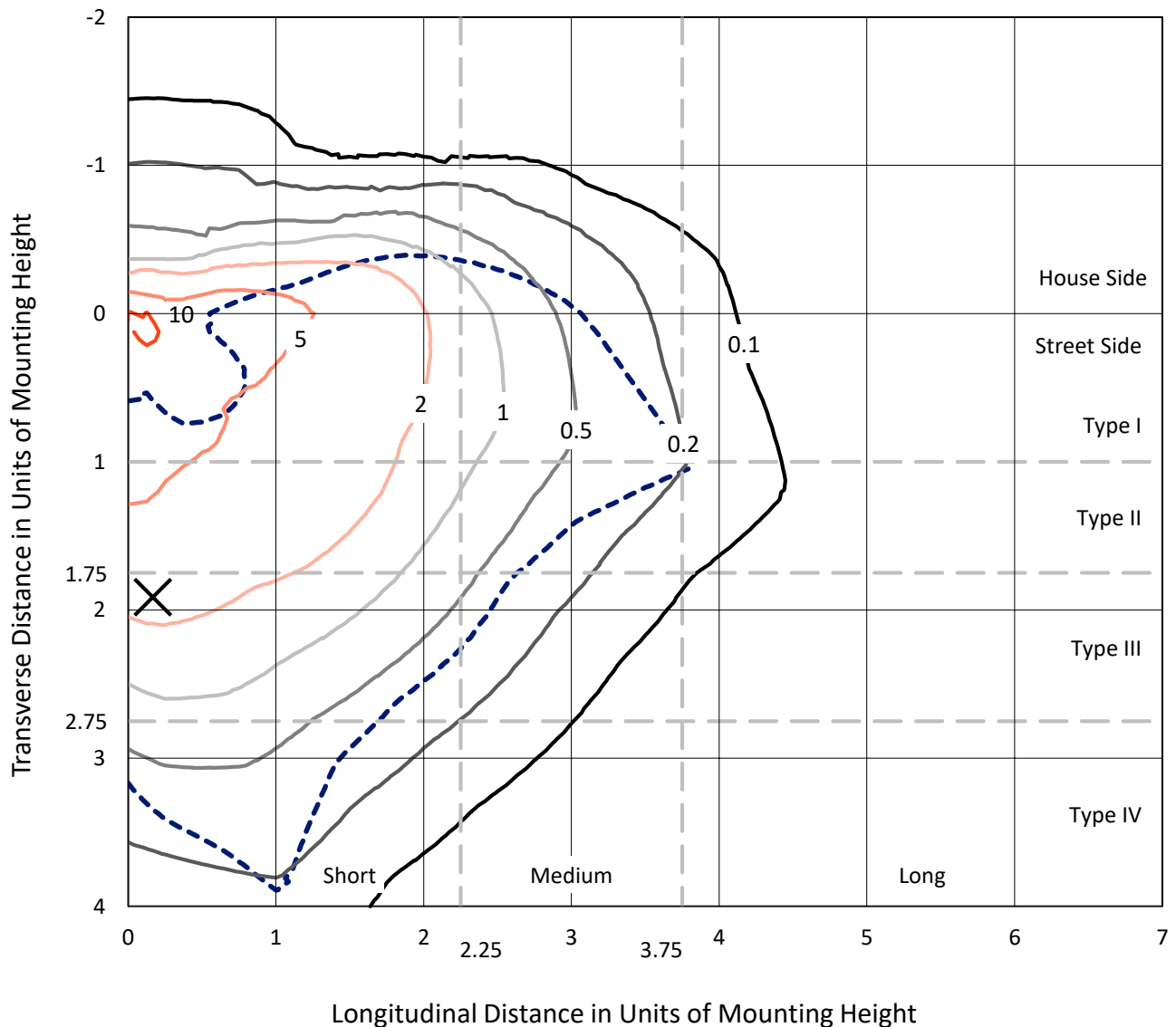
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

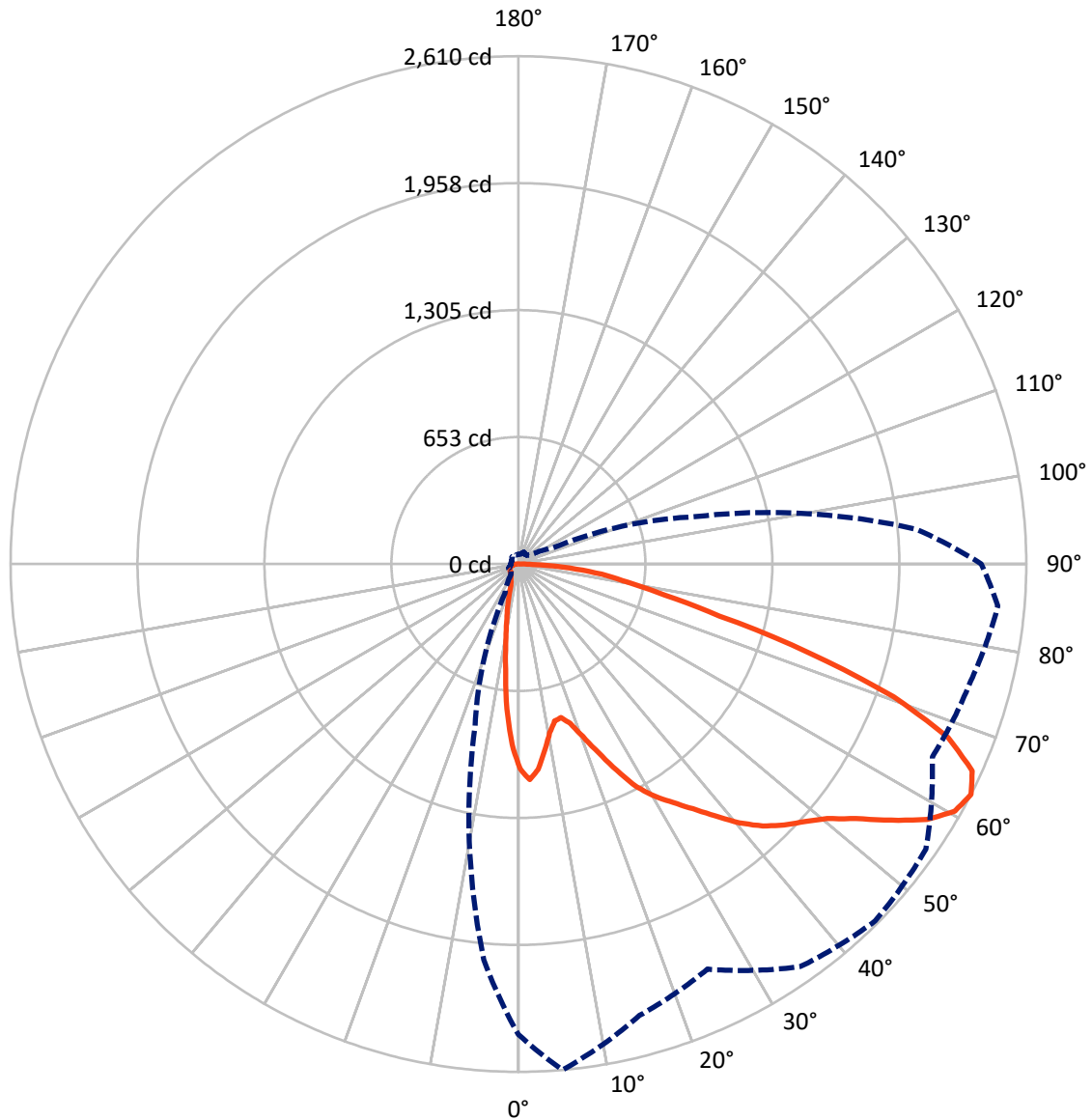
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	547.2	0.0	547.2
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	2541.6	0.0	2541.6
	% Fixture	82.3	0.0	82.3
Total	Lumens	3088.7	0.0	3088.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	2.5
10°-20°	139.9	4.5
20°-30°	201.2	6.5
30°-40°	308.1	10.0
40°-50°	450.5	14.6
50°-60°	655.4	21.2
60°-70°	759.4	24.6
70°-80°	395.9	12.8
80°-90°	101.8	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°	3088.7	100.0
0°-180°	3088.7	100.0



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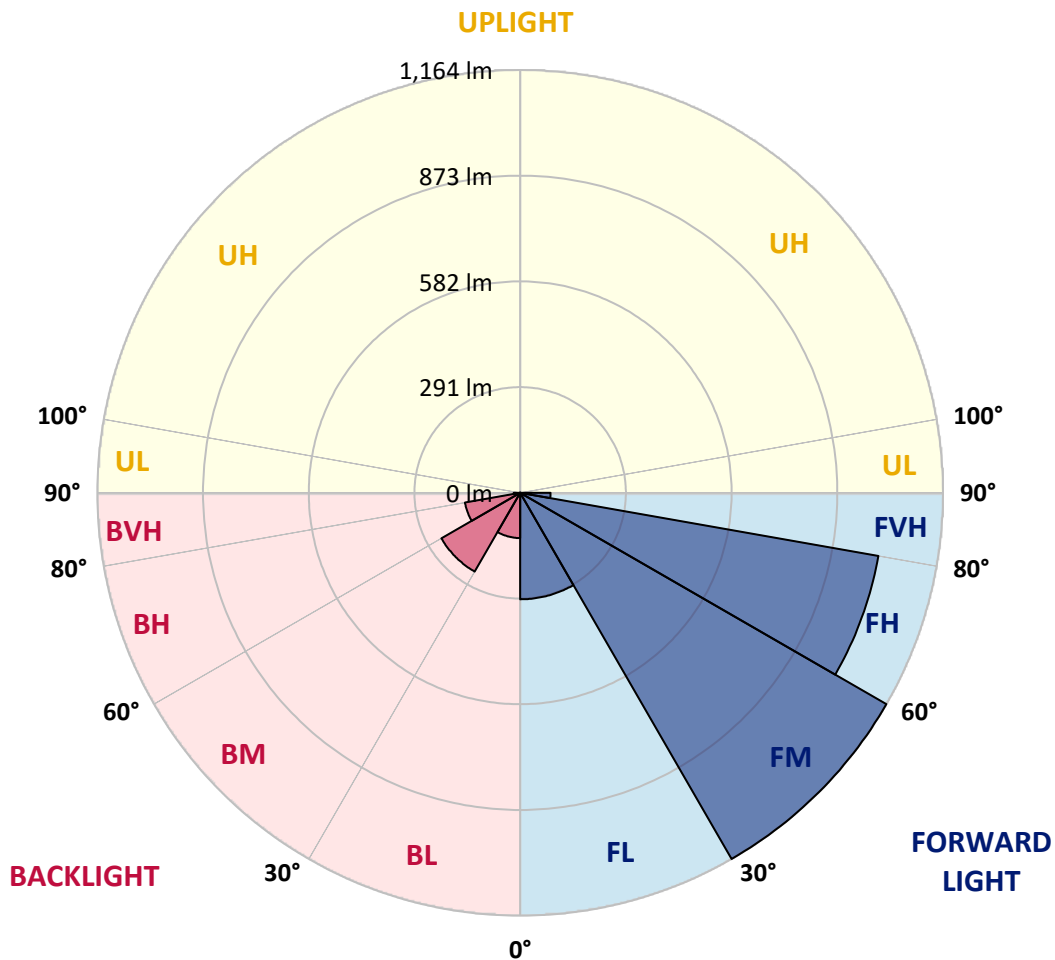
CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	293.1	9.5			
FM	(30°-60°)	1163.7	37.7			
FH	(60°-80°)	1001.0	32.4			G1/1800
FVH	(80°-90°)	83.7	2.7			G1/100
BL	(0°-30°)	124.5	4.0	B1/500		
BM	(30°-60°)	250.3	8.1	B1/1000		
BH	(60°-80°)	154.3	5.0	B1/500		G1/500
BVH	(80°-90°)	18.0	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-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	1087.0	1110.1	1136.5	1171.0	1194.6	1204.0	1211.9	1198.6	1185.9	1161.9	1153.3
5°	1015.4	1059.7	1132.6	1201.8	1262.6	1297.5	1308.3	1283.9	1240.5	1177.8	1144.6
7.5°	909.1	967.5	1069.8	1171.7	1259.1	1317.3	1321.5	1273.2	1187.6	1084.9	1031.1
10°	816.1	882.1	1000.6	1114.5	1207.1	1266.7	1255.0	1187.2	1084.0	967.0	906.3
12.5°	762.1	828.1	948.9	1064.6	1151.7	1174.4	1150.6	1093.5	995.7	878.5	817.4
15°	750.7	818.7	930.6	1028.1	1082.1	1067.5	1044.0	1015.2	945.6	849.6	790.6
17.5°	785.2	861.4	954.9	1008.4	1006.2	971.2	951.6	957.1	945.2	881.0	819.3
20°	856.2	946.2	1016.9	1003.0	945.7	896.7	885.3	929.1	984.1	959.6	891.7
22.5°	949.6	1052.2	1101.6	1018.5	914.1	861.4	859.0	927.6	1054.6	1078.5	996.0
25°	1055.0	1174.7	1186.9	1045.8	910.8	858.2	856.2	951.8	1139.5	1196.4	1112.6
27.5°	1184.1	1298.2	1258.2	1082.4	925.6	867.4	868.8	992.9	1228.0	1312.9	1244.1
30°	1281.3	1386.1	1302.1	1118.2	949.2	883.5	886.8	1037.5	1275.7	1393.6	1349.1
32.5°	1372.2	1461.1	1344.1	1153.6	984.1	907.5	919.1	1093.1	1332.9	1463.1	1448.2
35°	1472.7	1545.1	1390.9	1191.4	1033.8	949.6	966.3	1146.0	1389.8	1532.5	1546.6
37.5°	1586.6	1641.2	1441.8	1245.0	1105.5	1027.5	1036.9	1200.0	1429.5	1609.4	1652.1
40°	1705.3	1748.8	1497.4	1316.3	1209.6	1132.8	1137.3	1269.1	1460.6	1688.9	1754.4
42.5°	1807.3	1841.0	1553.1	1405.0	1329.1	1240.0	1243.9	1343.7	1490.4	1757.4	1836.3
45°	1888.7	1913.6	1605.7	1498.5	1456.8	1373.9	1373.0	1419.6	1530.3	1815.1	1899.2
47.5°	1964.8	1977.9	1664.4	1589.5	1589.1	1546.3	1514.4	1509.2	1583.4	1863.8	1954.2
50°	2051.5	2056.5	1741.9	1681.2	1750.8	1744.1	1685.0	1623.0	1652.1	1918.3	2011.8
52.5°	2172.6	2172.7	1837.9	1770.7	1929.3	1950.6	1881.8	1751.8	1753.8	2024.7	2111.1
55°	2314.8	2324.5	1963.2	1878.0	2116.0	2152.3	2087.7	1904.6	1899.7	2196.3	2272.4
57.5°	2424.6	2476.8	2109.0	2012.2	2290.6	2337.7	2285.6	2063.2	2079.1	2373.2	2405.4
60°	2455.5	2577.6	2254.2	2162.7	2438.1	2509.1	2456.1	2234.5	2254.7	2488.0	2443.7
62.5°	2418.6	2610.1	2402.2	2297.4	2525.7	2593.8	2555.7	2346.7	2397.8	2473.4	2379.0
65°	2309.2	2563.1	2530.9	2354.8	2475.3	2499.5	2489.5	2352.7	2475.5	2333.5	2200.0
67.5°	2053.3	2381.6	2473.6	2232.3	2240.0	2214.0	2200.8	2192.8	2388.1	2108.1	1917.9
70°	1669.9	2046.5	2200.0	1868.1	1811.7	1786.6	1743.3	1850.7	2146.5	1796.2	1578.4
72.5°	1286.4	1565.7	1804.5	1416.3	1298.9	1307.5	1258.2	1415.1	1778.1	1388.5	1205.0
75°	913.4	1067.5	1440.4	1017.6	862.3	861.7	857.9	1018.5	1403.1	996.6	881.6
77.5°	658.4	768.6	1128.5	681.0	611.8	619.7	607.2	692.2	1093.7	716.8	653.2
80°	525.1	569.0	729.5	454.2	455.5	473.9	471.3	473.4	719.5	519.1	488.4
82.5°	377.4	431.9	557.7	348.1	301.2	320.6	324.5	351.1	507.7	367.0	322.0
85°	193.4	263.4	513.0	301.4	188.4	156.0	179.7	277.0	441.0	219.9	157.1
87.5°	37.5	73.0	376.0	167.5	84.6	42.8	70.5	117.4	256.5	39.9	19.6
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°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	1138.8	1110.1	1083.3	1055.5	1033.9	1007.8	981.9	959.6	937.9	923.5	928.0
5°	1111.1	1041.1	978.4	920.3	886.2	845.1	808.7	778.0	754.2	739.0	748.2
7.5°	984.5	890.0	807.3	730.5	682.2	629.1	586.6	556.5	538.2	527.8	542.8
10°	855.0	748.8	656.2	576.3	528.6	483.5	445.0	413.2	388.5	376.8	382.9
12.5°	762.3	644.4	547.1	493.3	452.3	412.1	372.2	335.0	303.6	289.3	286.4
15°	727.5	588.1	488.9	428.9	388.1	344.2	301.2	261.3	231.6	219.2	216.5
17.5°	742.9	576.1	454.5	383.3	324.3	271.0	222.6	185.1	163.0	156.0	156.8
20°	796.3	580.5	426.6	336.5	263.7	200.4	152.1	126.1	116.7	115.2	116.9
22.5°	869.7	598.8	406.5	296.4	210.1	145.7	113.0	100.8	98.4	98.1	99.9
25°	966.8	634.7	393.0	260.5	165.9	115.5	98.5	91.5	89.7	90.0	91.8
27.5°	1081.0	680.1	384.2	229.5	136.5	103.0	92.0	86.0	84.0	84.4	85.8
30°	1185.4	720.0	371.3	206.3	122.4	98.5	88.5	82.5	79.7	79.7	80.6
32.5°	1278.7	754.4	356.1	188.9	109.8	88.5	80.2	75.5	73.4	74.1	74.6
35°	1361.7	772.6	344.2	178.6	99.4	81.6	73.2	68.4	65.7	66.0	66.7
37.5°	1443.1	779.5	336.3	173.0	92.0	77.3	69.7	65.7	62.7	62.3	62.1
40°	1520.7	778.0	329.0	171.3	87.1	74.1	67.5	63.8	60.9	60.2	60.0
42.5°	1587.6	772.8	322.0	167.1	83.7	71.9	65.7	62.5	59.6	58.7	58.2
45°	1648.7	769.7	314.4	159.2	85.6	71.0	64.7	61.4	58.7	57.5	57.1
47.5°	1716.7	780.8	306.0	150.7	85.1	71.2	64.7	60.9	58.2	57.1	56.7
50°	1797.4	818.7	295.5	139.1	81.0	76.1	64.5	60.2	57.9	57.1	56.2
52.5°	1911.7	880.1	280.8	124.1	78.0	81.2	64.3	59.1	57.1	56.0	54.8
55°	2068.2	941.5	262.0	108.2	73.0	77.8	64.7	57.9	55.5	54.3	53.1
57.5°	2196.4	988.0	238.3	95.0	68.5	73.4	64.0	56.2	53.8	52.6	51.6
60°	2188.2	992.5	215.7	86.4	65.8	66.0	65.7	55.1	52.2	51.4	50.3
62.5°	2052.6	937.2	194.7	82.1	63.8	60.2	67.0	53.8	50.7	49.8	49.0
65°	1827.2	808.5	183.4	82.1	62.1	57.1	58.5	51.9	49.0	48.1	47.7
67.5°	1541.2	649.7	173.0	84.0	59.6	54.8	53.1	50.1	47.5	46.6	46.2
70°	1235.3	511.2	165.5	83.2	57.3	52.5	50.1	47.7	45.0	44.7	44.3
72.5°	969.0	410.7	162.1	83.2	54.0	49.4	47.3	45.5	42.8	42.6	42.0
75°	776.5	308.4	148.3	81.6	50.7	45.6	43.7	42.1	39.4	39.6	39.2
77.5°	601.2	218.1	123.8	73.4	46.4	41.4	39.9	38.7	35.7	35.8	35.8
80°	470.4	142.0	96.1	60.9	41.4	36.6	35.5	34.5	31.1	31.6	31.6
82.5°	322.2	84.4	69.7	49.0	35.7	31.1	30.9	29.6	26.1	26.2	26.7
85°	176.0	55.5	46.4	36.3	27.9	25.3	24.9	24.2	20.8	20.8	21.0
87.5°	32.5	29.7	27.3	24.0	18.9	18.1	17.4	18.1	15.7	15.2	15.2
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	917.4	902.1	891.3	881.9	859.3	860.8	864.0	868.5	854.4	861.7	870.9
5°	739.0	726.3	716.7	701.7	670.0	658.8	651.7	648.5	627.5	632.0	641.7
7.5°	544.8	544.6	541.3	524.5	486.4	463.3	448.2	443.5	430.5	435.4	450.4
10°	383.7	387.7	386.1	371.1	337.0	320.4	317.1	326.5	326.8	336.3	362.1
12.5°	277.2	275.1	272.9	260.7	235.1	232.4	240.0	253.1	256.1	266.4	293.3
15°	206.9	201.6	200.4	190.8	174.0	176.4	182.0	188.9	189.1	196.2	218.4
17.5°	155.1	155.1	157.1	150.7	138.6	137.5	134.6	132.8	130.2	132.9	145.2
20°	120.6	126.1	130.6	127.0	116.1	110.6	105.0	101.5	99.4	99.6	103.2
22.5°	103.2	107.7	113.5	111.7	102.5	95.6	92.0	89.7	88.0	88.0	90.0
25°	94.5	97.5	102.8	101.9	94.1	88.5	85.6	83.2	81.2	81.0	83.2
27.5°	87.6	89.3	93.0	92.4	84.4	80.8	79.1	77.4	76.4	76.1	78.2
30°	81.2	82.1	84.0	83.4	77.3	73.8	73.0	72.4	71.7	71.9	74.7
32.5°	75.6	76.4	77.4	76.5	70.7	67.6	66.6	65.7	64.9	65.7	69.0
35°	69.3	71.4	72.9	72.4	66.0	62.3	59.7	57.5	56.7	57.3	61.2
37.5°	64.0	67.5	69.2	68.7	62.3	57.9	54.6	54.2	54.2	55.1	58.8
40°	62.1	64.5	66.0	65.3	58.8	54.3	52.6	51.9	52.2	53.1	57.1
42.5°	60.2	62.5	62.9	61.5	55.1	52.2	51.1	50.1	50.7	51.7	55.8
45°	58.7	60.5	60.2	58.2	51.9	49.9	49.9	49.2	49.4	50.3	54.6
47.5°	57.5	58.5	58.0	56.0	49.8	48.1	48.8	48.8	49.2	49.9	54.2
50°	55.8	56.5	56.0	54.2	47.9	46.6	47.3	48.1	48.6	49.2	53.1
52.5°	54.0	54.3	54.2	52.5	46.2	45.3	45.3	46.2	47.0	47.9	51.4
55°	52.2	52.6	52.8	51.6	44.7	43.8	43.7	43.7	44.6	46.0	49.4
57.5°	50.8	50.8	51.4	50.3	43.5	42.3	41.2	41.4	42.6	43.7	47.3
60°	49.2	49.4	50.1	49.2	41.6	39.9	38.9	40.1	40.6	41.6	45.5
62.5°	47.9	47.9	48.4	47.7	40.1	38.3	37.5	38.7	38.7	39.9	43.7
65°	46.8	46.6	46.6	46.4	38.4	36.7	36.3	36.7	36.9	38.1	42.0
67.5°	46.0	44.7	44.7	45.3	36.9	35.2	34.9	34.9	35.2	36.6	39.9
70°	43.8	42.9	42.8	44.3	35.5	33.1	33.1	32.7	33.1	33.9	37.4
72.5°	41.6	41.1	40.8	42.9	33.9	30.9	30.5	30.3	30.5	31.1	34.5
75°	38.7	38.3	38.7	42.1	32.2	28.4	27.8	27.6	27.6	27.8	31.4
77.5°	35.5	34.9	38.3	39.2	31.4	25.5	24.9	24.4	24.0	24.0	27.9
80°	31.4	31.1	36.9	33.1	30.1	22.4	21.3	20.7	20.1	19.9	24.0
82.5°	27.3	26.9	31.6	26.1	24.9	18.3	16.8	15.5	14.8	14.8	18.3
85°	22.4	22.2	24.9	19.0	17.2	13.5	11.1	10.2	9.3	9.3	11.9
87.5°	16.3	15.9	15.5	11.4	8.8	6.1	4.2	4.0	3.7	3.4	4.9
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°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	884.7	903.2	938.3	967.3	1005.7	1036.6	1071.8	1087.0
5°	660.0	689.3	743.1	789.0	852.6	911.5	978.7	1015.4
7.5°	473.4	516.9	557.7	615.0	694.5	773.5	860.3	909.1
10°	391.8	431.5	466.5	507.3	568.5	657.5	761.3	816.1
12.5°	324.5	367.4	404.4	448.2	499.6	580.0	698.3	762.1
15°	248.8	295.6	340.0	392.6	455.7	547.5	679.5	750.7
17.5°	170.4	220.7	275.2	339.5	415.6	534.0	697.4	785.2
20°	115.8	152.5	211.9	287.9	379.7	527.5	736.8	856.2
22.5°	95.2	111.7	156.3	239.6	350.0	534.6	800.8	949.6
25°	87.3	96.3	121.6	197.1	327.4	553.5	887.5	1055.0
27.5°	82.5	90.0	106.5	166.6	306.6	579.5	992.9	1184.1
30°	79.5	86.6	100.6	150.9	287.5	602.0	1083.6	1281.3
32.5°	73.0	78.4	89.8	142.0	274.0	620.1	1163.7	1372.2
35°	65.1	71.7	81.0	136.2	273.4	628.6	1238.9	1472.7
37.5°	62.3	68.5	75.5	132.9	276.0	635.8	1330.8	1586.6
40°	60.5	66.0	71.7	132.6	278.4	641.4	1420.9	1705.3
42.5°	58.8	64.5	71.0	129.4	277.4	648.9	1500.7	1807.3
45°	58.5	64.0	72.6	124.8	277.2	660.9	1564.0	1888.7
47.5°	58.0	66.6	72.1	119.6	276.4	685.9	1635.5	1964.8
50°	57.5	71.0	69.0	112.4	269.6	728.7	1731.6	2051.5
52.5°	57.3	71.7	65.7	102.5	257.5	792.1	1872.2	2172.6
55°	56.5	68.1	59.7	89.7	240.0	860.3	2023.0	2314.8
57.5°	54.3	60.6	56.5	76.8	215.0	908.0	2134.3	2424.6
60°	59.4	52.2	54.2	70.2	185.1	916.6	2139.1	2455.5
62.5°	56.7	47.5	51.9	68.1	163.9	861.0	2041.3	2418.6
65°	45.3	45.0	49.9	70.2	160.7	736.8	1876.0	2309.2
67.5°	41.2	43.2	47.9	73.0	162.9	580.5	1632.8	2053.3
70°	38.4	41.1	45.3	75.5	166.4	457.2	1314.6	1669.9
72.5°	35.8	37.9	42.6	78.0	163.9	360.8	1052.2	1286.4
75°	32.5	34.2	38.7	71.4	140.7	265.2	836.1	913.4
77.5°	28.7	30.3	34.0	56.5	105.7	184.5	626.2	658.4
80°	24.7	25.3	28.1	41.2	69.0	110.4	476.6	525.1
82.5°	19.6	19.8	21.5	30.3	42.9	70.5	330.5	377.4
85°	12.5	12.9	13.8	21.3	28.8	45.3	168.8	193.4
87.5°	4.2	4.9	4.9	10.3	14.2	25.2	51.7	37.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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