

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: P270294

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270294
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-SLR-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT 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 (A_{in}): 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

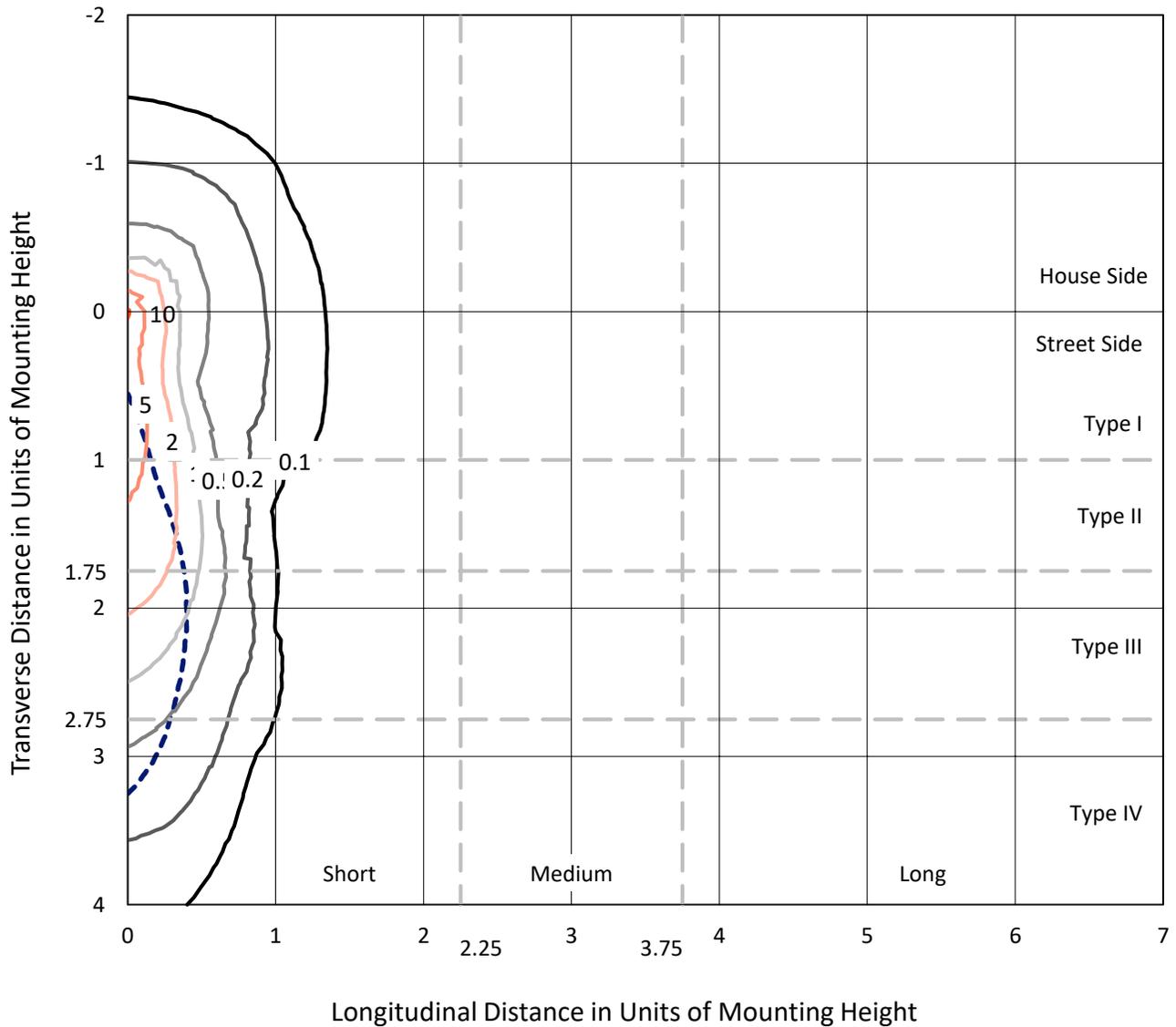


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Iso-Footcandle Lines of Horizontal Illumination

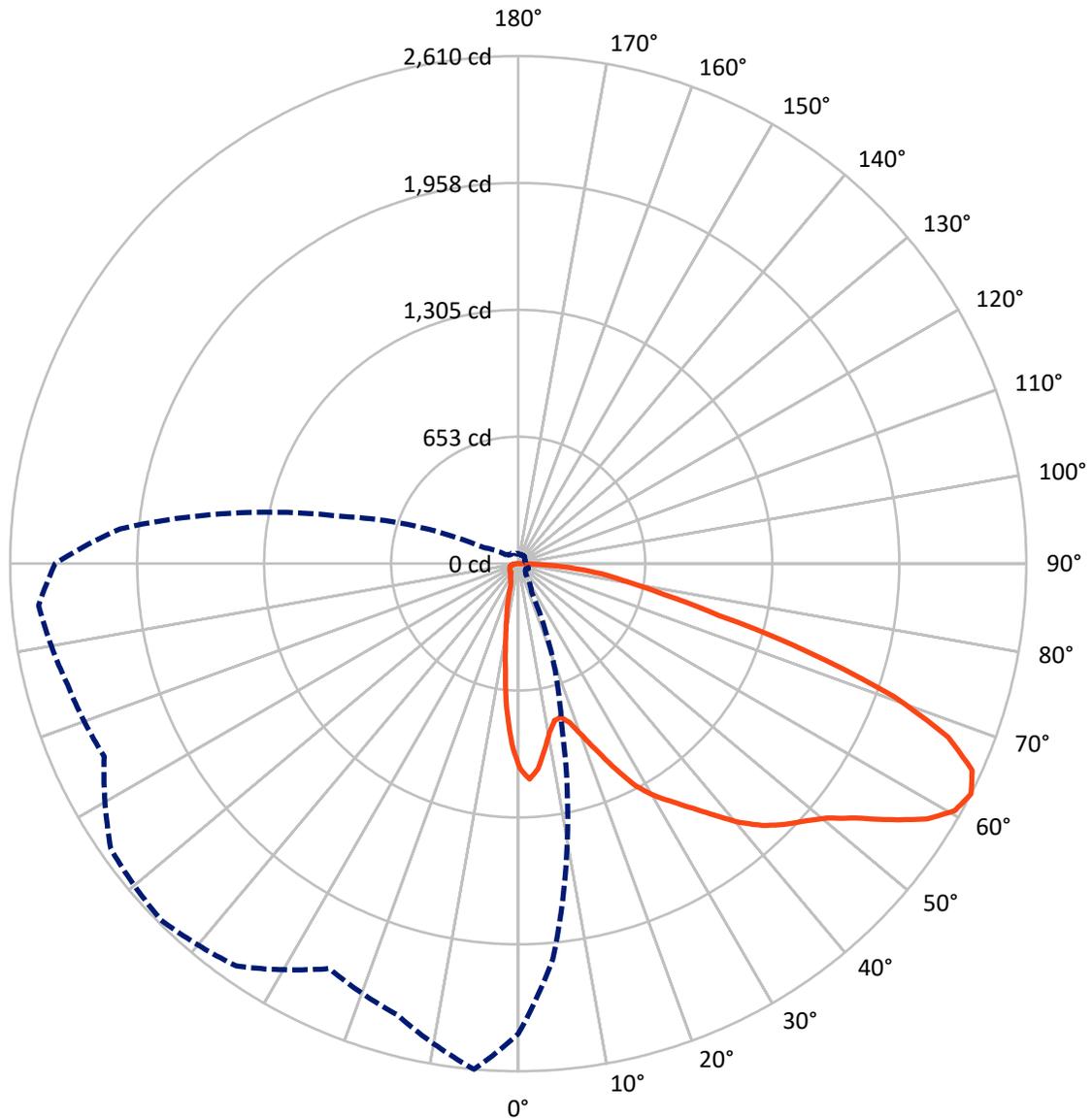
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 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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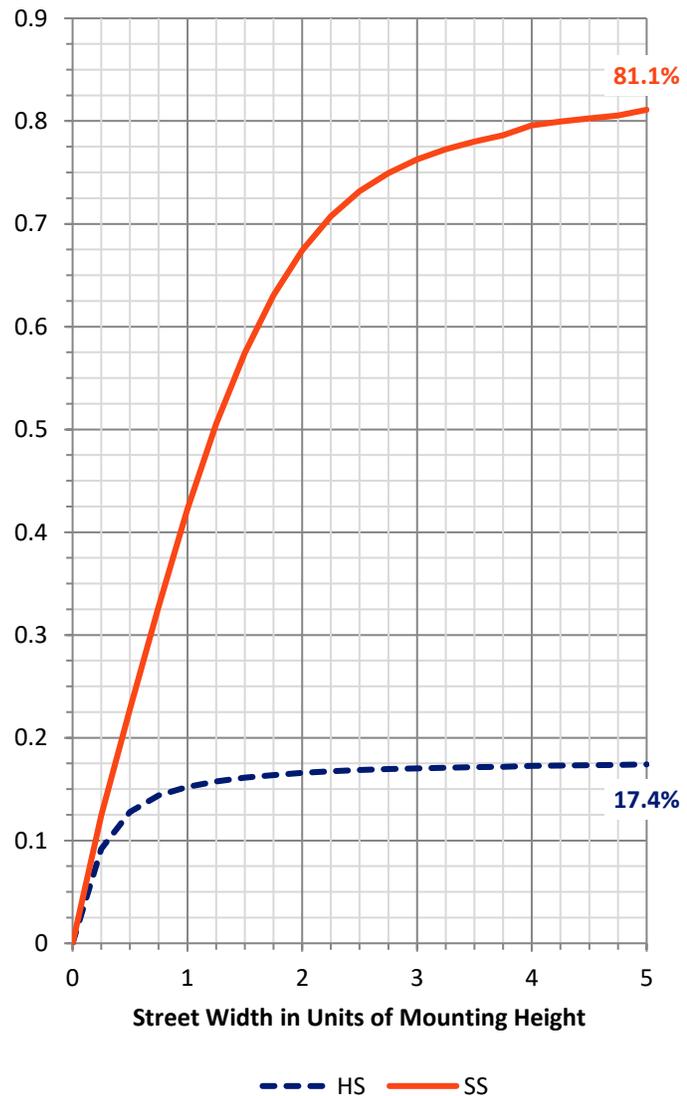
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	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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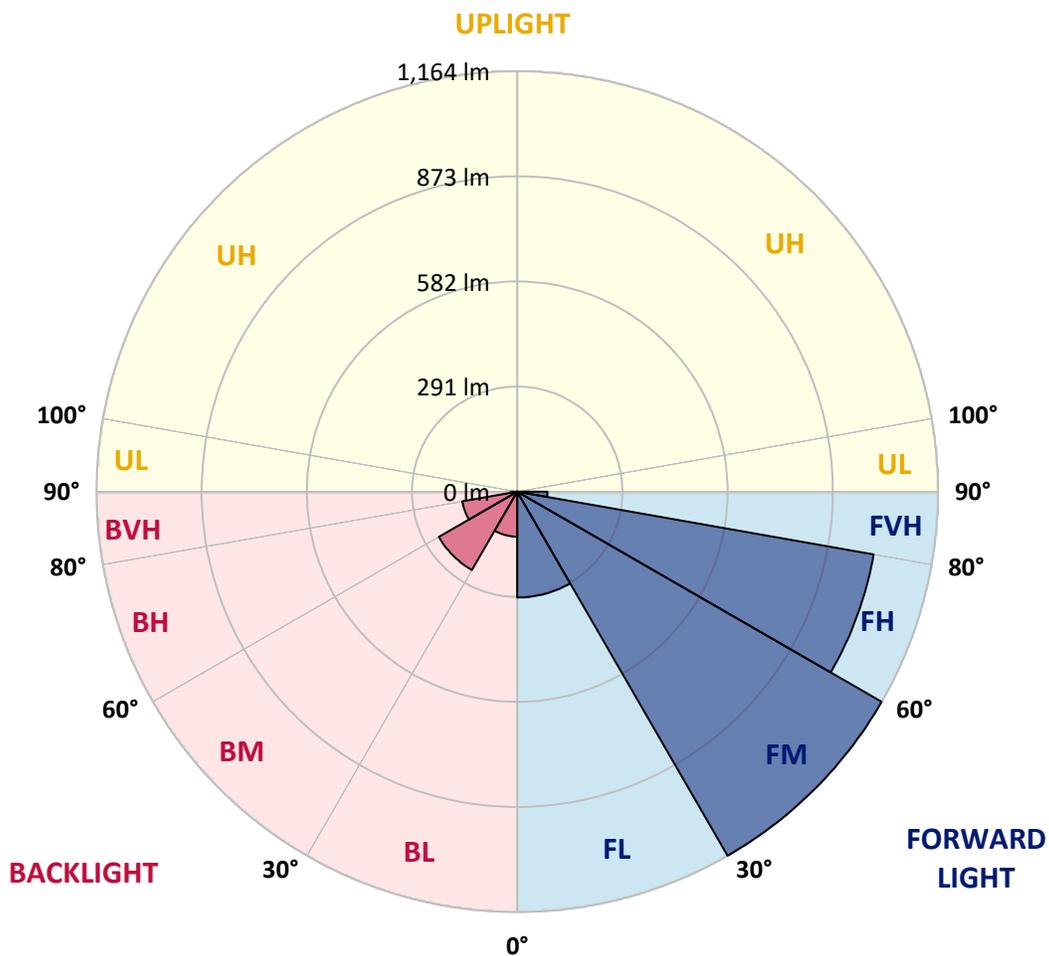
CATALOG NUMBER: NAV-AF-01-D-UNV-SLR-7027-600

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	1071.8	1036.6	1005.7	967.3	938.3	903.2	884.7	870.9	861.7	854.4
5°	1015.4	978.7	911.5	852.6	789.0	743.1	689.3	660.0	641.7	632.0	627.5
7.5°	909.1	860.3	773.5	694.5	615.0	557.7	516.9	473.4	450.4	435.4	430.5
10°	816.1	761.3	657.5	568.5	507.3	466.5	431.5	391.8	362.1	336.3	326.8
12.5°	762.1	698.3	580.0	499.6	448.2	404.4	367.4	324.5	293.3	266.4	256.1
15°	750.7	679.5	547.5	455.7	392.6	340.0	295.6	248.8	218.4	196.2	189.1
17.5°	785.2	697.4	534.0	415.6	339.5	275.2	220.7	170.4	145.2	132.9	130.2
20°	856.2	736.8	527.5	379.7	287.9	211.9	152.5	115.8	103.2	99.6	99.4
22.5°	949.6	800.8	534.6	350.0	239.6	156.3	111.7	95.2	90.0	88.0	88.0
25°	1055.0	887.5	553.5	327.4	197.1	121.6	96.3	87.3	83.2	81.0	81.2
27.5°	1184.1	992.9	579.5	306.6	166.6	106.5	90.0	82.5	78.2	76.1	76.4
30°	1281.3	1083.6	602.0	287.5	150.9	100.6	86.6	79.5	74.7	71.9	71.7
32.5°	1372.2	1163.7	620.1	274.0	142.0	89.8	78.4	73.0	69.0	65.7	64.9
35°	1472.7	1238.9	628.6	273.4	136.2	81.0	71.7	65.1	61.2	57.3	56.7
37.5°	1586.6	1330.8	635.8	276.0	132.9	75.5	68.5	62.3	58.8	55.1	54.2
40°	1705.3	1420.9	641.4	278.4	132.6	71.7	66.0	60.5	57.1	53.1	52.2
42.5°	1807.3	1500.7	648.9	277.4	129.4	71.0	64.5	58.8	55.8	51.7	50.7
45°	1888.7	1564.0	660.9	277.2	124.8	72.6	64.0	58.5	54.6	50.3	49.4
47.5°	1964.8	1635.5	685.9	276.4	119.6	72.1	66.6	58.0	54.2	49.9	49.2
50°	2051.5	1731.6	728.7	269.6	112.4	69.0	71.0	57.5	53.1	49.2	48.6
52.5°	2172.6	1872.2	792.1	257.5	102.5	65.7	71.7	57.3	51.4	47.9	47.0
55°	2314.8	2023.0	860.3	240.0	89.7	59.7	68.1	56.5	49.4	46.0	44.6
57.5°	2424.6	2134.3	908.0	215.0	76.8	56.5	60.6	54.3	47.3	43.7	42.6
60°	2455.5	2139.1	916.6	185.1	70.2	54.2	52.2	59.4	45.5	41.6	40.6
62.5°	2418.6	2041.3	861.0	163.9	68.1	51.9	47.5	56.7	43.7	39.9	38.7
65°	2309.2	1876.0	736.8	160.7	70.2	49.9	45.0	45.3	42.0	38.1	36.9
67.5°	2053.3	1632.8	580.5	162.9	73.0	47.9	43.2	41.2	39.9	36.6	35.2
70°	1669.9	1314.6	457.2	166.4	75.5	45.3	41.1	38.4	37.4	33.9	33.1
72.5°	1286.4	1052.2	360.8	163.9	78.0	42.6	37.9	35.8	34.5	31.1	30.5
75°	913.4	836.1	265.2	140.7	71.4	38.7	34.2	32.5	31.4	27.8	27.6
77.5°	658.4	626.2	184.5	105.7	56.5	34.0	30.3	28.7	27.9	24.0	24.0
80°	525.1	476.6	110.4	69.0	41.2	28.1	25.3	24.7	24.0	19.9	20.1
82.5°	377.4	330.5	70.5	42.9	30.3	21.5	19.8	19.6	18.3	14.8	14.8
85°	193.4	168.8	45.3	28.8	21.3	13.8	12.9	12.5	11.9	9.3	9.3
87.5°	37.5	51.7	25.2	14.2	10.3	4.9	4.9	4.2	4.9	3.4	3.7
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):

	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°	868.5	864.0	860.8	859.3	881.9	891.3	902.1	917.4	928.0	923.5	937.9
5°	648.5	651.7	658.8	670.0	701.7	716.7	726.3	739.0	748.2	739.0	754.2
7.5°	443.5	448.2	463.3	486.4	524.5	541.3	544.6	544.8	542.8	527.8	538.2
10°	326.5	317.1	320.4	337.0	371.1	386.1	387.7	383.7	382.9	376.8	388.5
12.5°	253.1	240.0	232.4	235.1	260.7	272.9	275.1	277.2	286.4	289.3	303.6
15°	188.9	182.0	176.4	174.0	190.8	200.4	201.6	206.9	216.5	219.2	231.6
17.5°	132.8	134.6	137.5	138.6	150.7	157.1	155.1	155.1	156.8	156.0	163.0
20°	101.5	105.0	110.6	116.1	127.0	130.6	126.1	120.6	116.9	115.2	116.7
22.5°	89.7	92.0	95.6	102.5	111.7	113.5	107.7	103.2	99.9	98.1	98.4
25°	83.2	85.6	88.5	94.1	101.9	102.8	97.5	94.5	91.8	90.0	89.7
27.5°	77.4	79.1	80.8	84.4	92.4	93.0	89.3	87.6	85.8	84.4	84.0
30°	72.4	73.0	73.8	77.3	83.4	84.0	82.1	81.2	80.6	79.7	79.7
32.5°	65.7	66.6	67.6	70.7	76.5	77.4	76.4	75.6	74.6	74.1	73.4
35°	57.5	59.7	62.3	66.0	72.4	72.9	71.4	69.3	66.7	66.0	65.7
37.5°	54.2	54.6	57.9	62.3	68.7	69.2	67.5	64.0	62.1	62.3	62.7
40°	51.9	52.6	54.3	58.8	65.3	66.0	64.5	62.1	60.0	60.2	60.9
42.5°	50.1	51.1	52.2	55.1	61.5	62.9	62.5	60.2	58.2	58.7	59.6
45°	49.2	49.9	49.9	51.9	58.2	60.2	60.5	58.7	57.1	57.5	58.7
47.5°	48.8	48.8	48.1	49.8	56.0	58.0	58.5	57.5	56.7	57.1	58.2
50°	48.1	47.3	46.6	47.9	54.2	56.0	56.5	55.8	56.2	57.1	57.9
52.5°	46.2	45.3	45.3	46.2	52.5	54.2	54.3	54.0	54.8	56.0	57.1
55°	43.7	43.7	43.8	44.7	51.6	52.8	52.6	52.2	53.1	54.3	55.5
57.5°	41.4	41.2	42.3	43.5	50.3	51.4	50.8	50.8	51.6	52.6	53.8
60°	40.1	38.9	39.9	41.6	49.2	50.1	49.4	49.2	50.3	51.4	52.2
62.5°	38.7	37.5	38.3	40.1	47.7	48.4	47.9	47.9	49.0	49.8	50.7
65°	36.7	36.3	36.7	38.4	46.4	46.6	46.6	46.8	47.7	48.1	49.0
67.5°	34.9	34.9	35.2	36.9	45.3	44.7	44.7	46.0	46.2	46.6	47.5
70°	32.7	33.1	33.1	35.5	44.3	42.8	42.9	43.8	44.3	44.7	45.0
72.5°	30.3	30.5	30.9	33.9	42.9	40.8	41.1	41.6	42.0	42.6	42.8
75°	27.6	27.8	28.4	32.2	42.1	38.7	38.3	38.7	39.2	39.6	39.4
77.5°	24.4	24.9	25.5	31.4	39.2	38.3	34.9	35.5	35.8	35.8	35.7
80°	20.7	21.3	22.4	30.1	33.1	36.9	31.1	31.4	31.6	31.6	31.1
82.5°	15.5	16.8	18.3	24.9	26.1	31.6	26.9	27.3	26.7	26.2	26.1
85°	10.2	11.1	13.5	17.2	19.0	24.9	22.2	22.4	21.0	20.8	20.8
87.5°	4.0	4.2	6.1	8.8	11.4	15.5	15.9	16.3	15.2	15.2	15.7
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°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	959.6	981.9	1007.8	1033.9	1055.5	1083.3	1110.1	1138.8	1153.3	1161.9	1185.9
5°	778.0	808.7	845.1	886.2	920.3	978.4	1041.1	1111.1	1144.6	1177.8	1240.5
7.5°	556.5	586.6	629.1	682.2	730.5	807.3	890.0	984.5	1031.1	1084.9	1187.6
10°	413.2	445.0	483.5	528.6	576.3	656.2	748.8	855.0	906.3	967.0	1084.0
12.5°	335.0	372.2	412.1	452.3	493.3	547.1	644.4	762.3	817.4	878.5	995.7
15°	261.3	301.2	344.2	388.1	428.9	488.9	588.1	727.5	790.6	849.6	945.6
17.5°	185.1	222.6	271.0	324.3	383.3	454.5	576.1	742.9	819.3	881.0	945.2
20°	126.1	152.1	200.4	263.7	336.5	426.6	580.5	796.3	891.7	959.6	984.1
22.5°	100.8	113.0	145.7	210.1	296.4	406.5	598.8	869.7	996.0	1078.5	1054.6
25°	91.5	98.5	115.5	165.9	260.5	393.0	634.7	966.8	1112.6	1196.4	1139.5
27.5°	86.0	92.0	103.0	136.5	229.5	384.2	680.1	1081.0	1244.1	1312.9	1228.0
30°	82.5	88.5	98.5	122.4	206.3	371.3	720.0	1185.4	1349.1	1393.6	1275.7
32.5°	75.5	80.2	88.5	109.8	188.9	356.1	754.4	1278.7	1448.2	1463.1	1332.9
35°	68.4	73.2	81.6	99.4	178.6	344.2	772.6	1361.7	1546.6	1532.5	1389.8
37.5°	65.7	69.7	77.3	92.0	173.0	336.3	779.5	1443.1	1652.1	1609.4	1429.5
40°	63.8	67.5	74.1	87.1	171.3	329.0	778.0	1520.7	1754.4	1688.9	1460.6
42.5°	62.5	65.7	71.9	83.7	167.1	322.0	772.8	1587.6	1836.3	1757.4	1490.4
45°	61.4	64.7	71.0	85.6	159.2	314.4	769.7	1648.7	1899.2	1815.1	1530.3
47.5°	60.9	64.7	71.2	85.1	150.7	306.0	780.8	1716.7	1954.2	1863.8	1583.4
50°	60.2	64.5	76.1	81.0	139.1	295.5	818.7	1797.4	2011.8	1918.3	1652.1
52.5°	59.1	64.3	81.2	78.0	124.1	280.8	880.1	1911.7	2111.1	2024.7	1753.8
55°	57.9	64.7	77.8	73.0	108.2	262.0	941.5	2068.2	2272.4	2196.3	1899.7
57.5°	56.2	64.0	73.4	68.5	95.0	238.3	988.0	2196.4	2405.4	2373.2	2079.1
60°	55.1	65.7	66.0	65.8	86.4	215.7	992.5	2188.2	2443.7	2488.0	2254.7
62.5°	53.8	67.0	60.2	63.8	82.1	194.7	937.2	2052.6	2379.0	2473.4	2397.8
65°	51.9	58.5	57.1	62.1	82.1	183.4	808.5	1827.2	2200.0	2333.5	2475.5
67.5°	50.1	53.1	54.8	59.6	84.0	173.0	649.7	1541.2	1917.9	2108.1	2388.1
70°	47.7	50.1	52.5	57.3	83.2	165.5	511.2	1235.3	1578.4	1796.2	2146.5
72.5°	45.5	47.3	49.4	54.0	83.2	162.1	410.7	969.0	1205.0	1388.5	1778.1
75°	42.1	43.7	45.6	50.7	81.6	148.3	308.4	776.5	881.6	996.6	1403.1
77.5°	38.7	39.9	41.4	46.4	73.4	123.8	218.1	601.2	653.2	716.8	1093.7
80°	34.5	35.5	36.6	41.4	60.9	96.1	142.0	470.4	488.4	519.1	719.5
82.5°	29.6	30.9	31.1	35.7	49.0	69.7	84.4	322.2	322.0	367.0	507.7
85°	24.2	24.9	25.3	27.9	36.3	46.4	55.5	176.0	157.1	219.9	441.0
87.5°	18.1	17.4	18.1	18.9	24.0	27.3	29.7	32.5	19.6	39.9	256.5
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°	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	1198.6	1211.9	1204.0	1194.6	1171.0	1136.5	1110.1	1087.0
5°	1283.9	1308.3	1297.5	1262.6	1201.8	1132.6	1059.7	1015.4
7.5°	1273.2	1321.5	1317.3	1259.1	1171.7	1069.8	967.5	909.1
10°	1187.2	1255.0	1266.7	1207.1	1114.5	1000.6	882.1	816.1
12.5°	1093.5	1150.6	1174.4	1151.7	1064.6	948.9	828.1	762.1
15°	1015.2	1044.0	1067.5	1082.1	1028.1	930.6	818.7	750.7
17.5°	957.1	951.6	971.2	1006.2	1008.4	954.9	861.4	785.2
20°	929.1	885.3	896.7	945.7	1003.0	1016.9	946.2	856.2
22.5°	927.6	859.0	861.4	914.1	1018.5	1101.6	1052.2	949.6
25°	951.8	856.2	858.2	910.8	1045.8	1186.9	1174.7	1055.0
27.5°	992.9	868.8	867.4	925.6	1082.4	1258.2	1298.2	1184.1
30°	1037.5	886.8	883.5	949.2	1118.2	1302.1	1386.1	1281.3
32.5°	1093.1	919.1	907.5	984.1	1153.6	1344.1	1461.1	1372.2
35°	1146.0	966.3	949.6	1033.8	1191.4	1390.9	1545.1	1472.7
37.5°	1200.0	1036.9	1027.5	1105.5	1245.0	1441.8	1641.2	1586.6
40°	1269.1	1137.3	1132.8	1209.6	1316.3	1497.4	1748.8	1705.3
42.5°	1343.7	1243.9	1240.0	1329.1	1405.0	1553.1	1841.0	1807.3
45°	1419.6	1373.0	1373.9	1456.8	1498.5	1605.7	1913.6	1888.7
47.5°	1509.2	1514.4	1546.3	1589.1	1589.5	1664.4	1977.9	1964.8
50°	1623.0	1685.0	1744.1	1750.8	1681.2	1741.9	2056.5	2051.5
52.5°	1751.8	1881.8	1950.6	1929.3	1770.7	1837.9	2172.7	2172.6
55°	1904.6	2087.7	2152.3	2116.0	1878.0	1963.2	2324.5	2314.8
57.5°	2063.2	2285.6	2337.7	2290.6	2012.2	2109.0	2476.8	2424.6
60°	2234.5	2456.1	2509.1	2438.1	2162.7	2254.2	2577.6	2455.5
62.5°	2346.7	2555.7	2593.8	2525.7	2297.4	2402.2	2610.1	2418.6
65°	2352.7	2489.5	2499.5	2475.3	2354.8	2530.9	2563.1	2309.2
67.5°	2192.8	2200.8	2214.0	2240.0	2232.3	2473.6	2381.6	2053.3
70°	1850.7	1743.3	1786.6	1811.7	1868.1	2200.0	2046.5	1669.9
72.5°	1415.1	1258.2	1307.5	1298.9	1416.3	1804.5	1565.7	1286.4
75°	1018.5	857.9	861.7	862.3	1017.6	1440.4	1067.5	913.4
77.5°	692.2	607.2	619.7	611.8	681.0	1128.5	768.6	658.4
80°	473.4	471.3	473.9	455.5	454.2	729.5	569.0	525.1
82.5°	351.1	324.5	320.6	301.2	348.1	557.7	431.9	377.4
85°	277.0	179.7	156.0	188.4	301.4	513.0	263.4	193.4
87.5°	117.4	70.5	42.8	84.6	167.5	376.0	73.0	37.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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