

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: P270295

Luminaire Tested: **NAV-AF-01-D-UNV-SLR-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270295  
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-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 800mA 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: 3787.5 lumens  
Efficiency: N/A  
Efficacy: 86.1 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 - G2

Input Watts (W): 44  
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

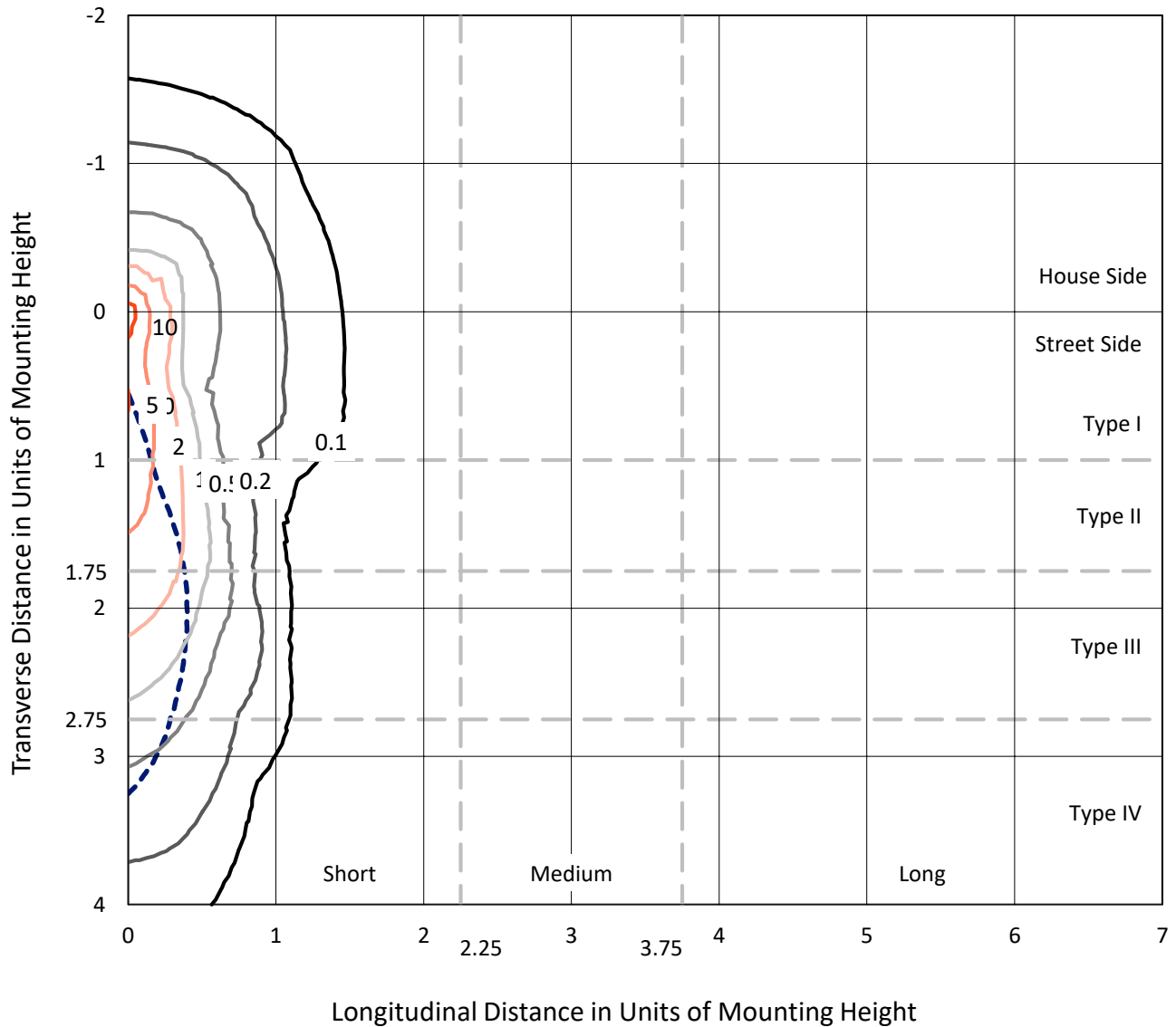


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### Iso-Footcandle Lines of Horizontal Illumination

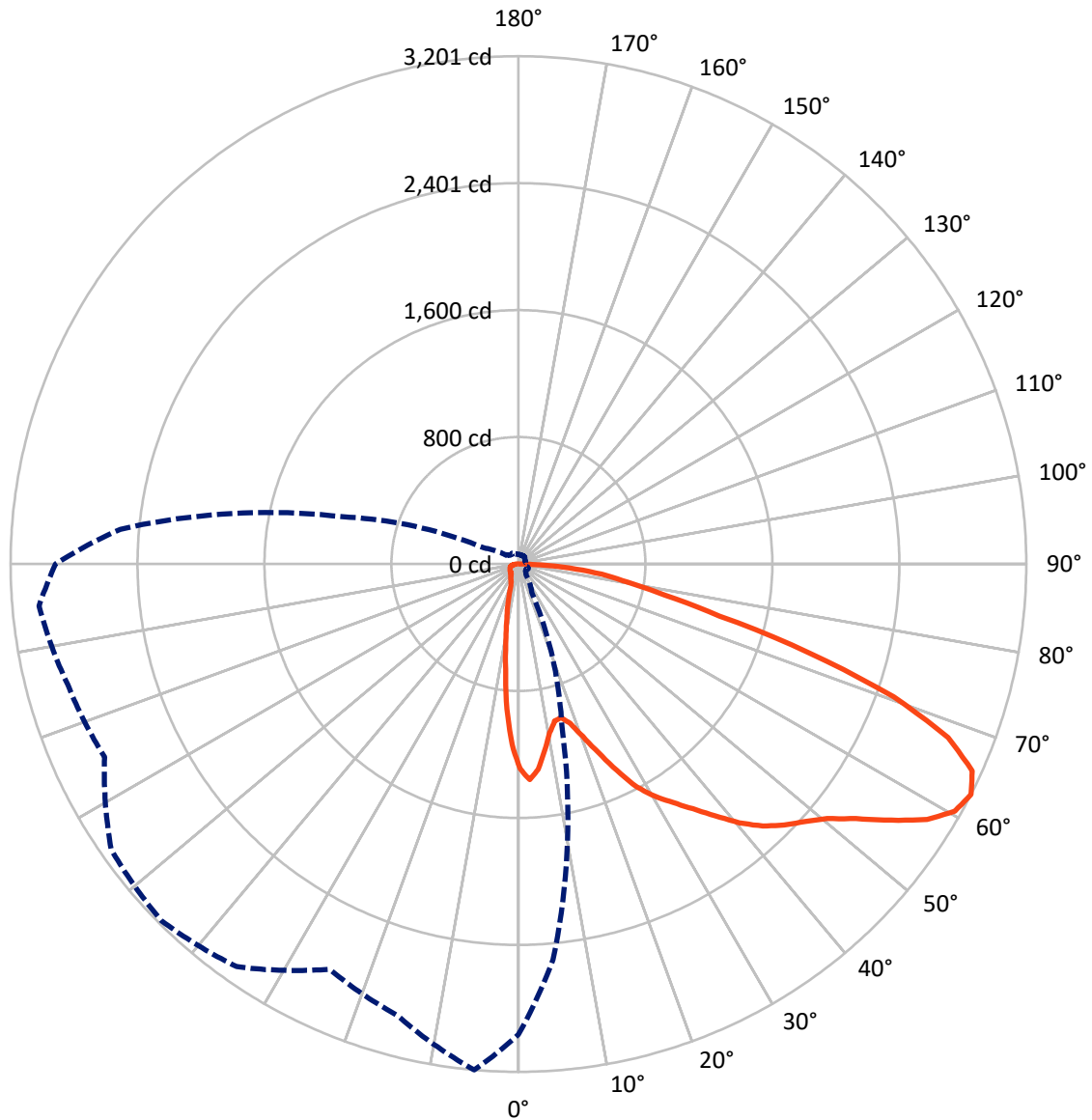
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 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	671.0	0.0	671.0
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	3116.6	0.0	3116.6
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	3787.5	0.0	3787.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	2.5
10°-20°	171.5	4.5
20°-30°	246.7	6.5
30°-40°	377.8	10.0
40°-50°	552.4	14.6
50°-60°	803.7	21.2
60°-70°	931.2	24.6
70°-80°	485.4	12.8
80°-90°	124.8	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°	3787.5	100.0
0°-180°	3787.5	100.0

**Coefficient of Utilization**



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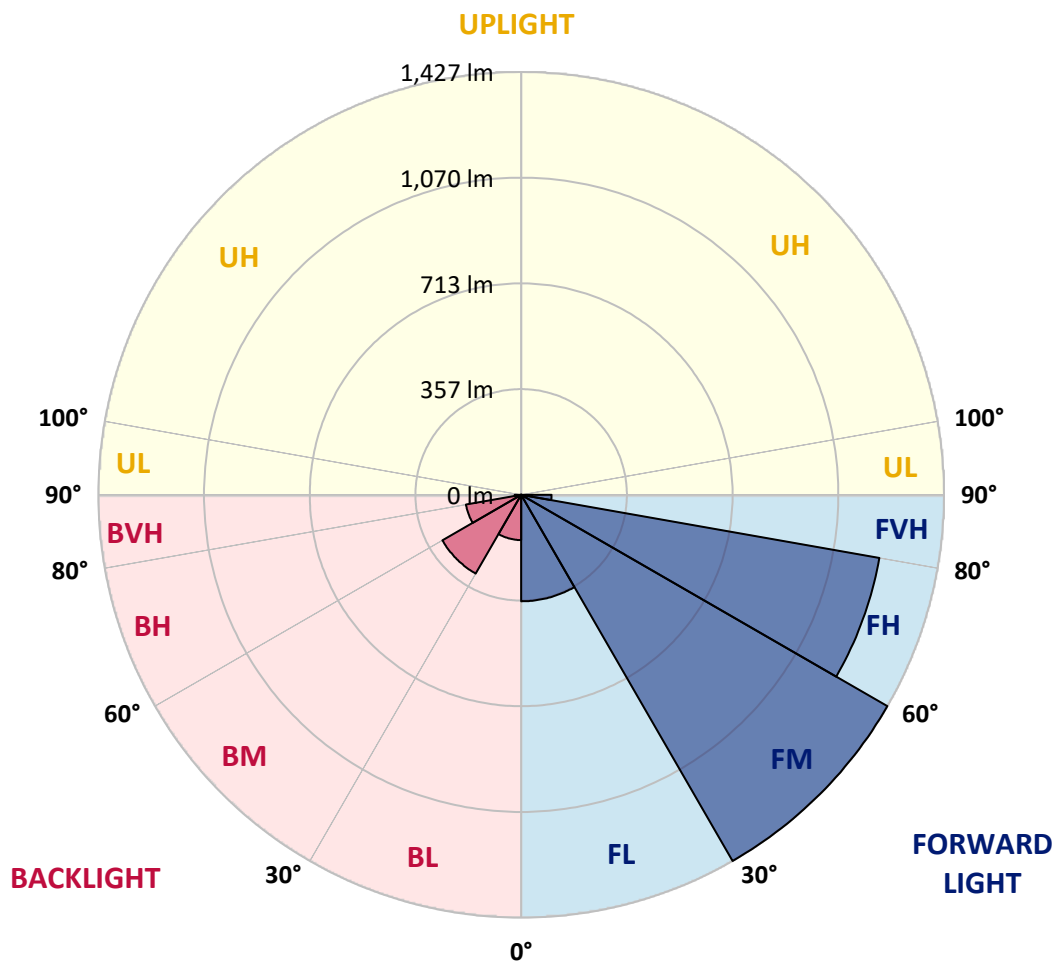
CATALOG NUMBER: NAV-AF-01-D-UNV-SLR-7027-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	359.5	9.5			
FM	(30°-60°)	1427.0	37.7			
FH	(60°-80°)	1227.5	32.4			G1/1800
FVH	(80°-90°)	102.7	2.7			G2/225
BL	(0°-30°)	152.7	4.0	B1/500		
BM	(30°-60°)	307.0	8.1	B1/1000		
BH	(60°-80°)	189.2	5.0	B1/500		G1/500
BVH	(80°-90°)	22.1	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-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3
2.5°	1332.9	1314.3	1271.2	1233.4	1186.0	1150.6	1107.5	1084.8	1067.9	1056.8	1047.7
5°	1245.1	1200.0	1117.8	1045.4	967.5	911.2	845.2	809.4	787.0	775.0	769.5
7.5°	1114.6	1055.1	948.5	851.7	754.0	683.8	633.8	580.6	552.3	533.9	527.8
10°	1000.7	933.3	806.3	697.3	621.9	572.0	529.2	480.4	444.0	412.5	400.6
12.5°	934.5	856.3	711.3	612.6	549.6	496.0	450.6	397.9	359.7	326.9	314.1
15°	920.6	833.2	671.5	558.8	481.4	416.9	362.5	305.2	267.8	240.6	231.8
17.5°	962.9	855.1	654.7	509.7	416.4	337.6	270.5	208.9	178.0	163.1	159.5
20°	1049.8	903.4	646.7	465.5	353.2	259.8	186.9	142.0	126.7	122.2	121.9
22.5°	1164.4	982.0	655.6	429.2	293.8	191.7	137.0	116.7	110.4	107.9	107.9
25°	1293.6	1088.2	678.8	401.5	241.6	149.1	118.0	107.1	101.9	99.4	99.7
27.5°	1451.9	1217.7	710.6	375.9	204.4	130.8	110.4	101.1	95.8	93.3	93.7
30°	1571.0	1328.9	738.1	352.7	185.1	123.2	106.3	97.5	91.7	88.2	87.9
32.5°	1682.5	1426.9	760.4	335.8	174.1	110.1	96.1	89.6	84.6	80.5	79.6
35°	1806.0	1519.2	770.8	335.2	166.9	99.4	87.9	79.9	75.0	70.2	69.4
37.5°	1945.6	1632.0	779.5	338.7	163.1	92.5	84.0	76.4	72.3	67.6	66.5
40°	2091.3	1742.4	786.5	341.4	162.6	87.9	80.9	74.1	70.0	65.0	64.0
42.5°	2216.2	1840.2	795.9	340.3	158.7	87.0	79.1	72.3	68.5	63.4	62.1
45°	2316.1	1917.9	810.5	340.0	152.9	89.0	78.5	71.7	67.1	61.9	60.6
47.5°	2409.3	2005.6	841.2	338.9	146.7	88.5	81.6	71.1	66.5	61.3	60.5
50°	2515.8	2123.4	893.6	330.7	137.9	84.6	87.0	70.5	65.0	60.5	59.6
52.5°	2664.1	2295.8	971.2	315.8	125.8	80.5	87.9	70.2	62.9	58.7	57.8
55°	2838.5	2480.6	1055.1	294.4	109.9	73.3	83.5	69.2	60.6	56.4	54.6
57.5°	2973.3	2617.1	1113.5	263.7	94.2	69.2	74.4	66.7	57.9	53.5	52.2
60°	3011.2	2623.1	1124.0	226.8	86.2	66.5	64.0	72.8	55.8	51.1	49.6
62.5°	2965.8	2503.1	1055.9	201.0	83.5	63.7	58.2	69.4	53.5	48.9	47.5
65°	2831.5	2300.5	903.4	197.2	86.2	61.3	55.2	55.4	51.4	46.7	45.4
67.5°	2517.9	2002.2	711.7	199.7	89.6	58.7	53.0	50.6	48.9	44.7	43.1
70°	2047.9	1612.0	560.7	204.1	92.5	55.4	50.2	47.3	45.9	41.4	40.7
72.5°	1577.5	1290.1	442.4	201.0	95.6	52.2	46.4	43.9	42.3	38.2	37.4
75°	1120.1	1025.1	325.1	172.5	87.7	47.5	42.0	39.9	38.4	34.0	33.7
77.5°	807.3	767.8	226.4	129.6	69.2	41.7	37.1	35.2	34.3	29.4	29.4
80°	643.9	584.3	135.4	84.6	50.6	34.7	31.0	30.3	29.4	24.4	24.8
82.5°	462.7	405.3	86.4	52.7	37.1	26.4	24.2	23.9	22.5	18.1	18.1
85°	237.2	207.1	55.4	35.5	26.1	17.0	15.9	15.5	14.6	11.3	11.3
87.5°	46.2	63.4	30.7	17.2	12.7	6.1	6.1	5.2	6.1	4.1	4.4
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°	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3
2.5°	1065.0	1059.6	1055.6	1053.7	1081.4	1093.0	1106.2	1125.0	1138.1	1132.6	1150.1
5°	795.3	799.1	807.9	821.7	860.3	878.8	890.6	906.2	917.4	906.2	925.0
7.5°	543.7	549.6	568.2	596.5	643.1	663.8	667.9	668.1	665.6	647.3	660.0
10°	400.4	388.8	393.0	413.3	455.0	473.4	475.4	470.4	469.6	462.2	476.5
12.5°	310.4	294.4	285.0	288.4	319.6	334.8	337.3	340.0	351.2	354.8	372.3
15°	231.6	223.3	216.4	213.3	234.0	245.7	247.2	253.7	265.5	268.9	284.0
17.5°	162.9	165.1	168.6	170.0	184.8	192.4	190.4	190.4	192.2	191.3	200.0
20°	124.3	128.7	135.6	142.2	155.6	160.1	154.6	147.7	143.4	141.2	143.1
22.5°	109.9	112.8	117.3	125.8	137.0	139.2	132.1	126.7	122.4	120.4	120.6
25°	101.9	104.9	108.4	115.3	125.0	126.0	119.5	115.9	112.6	110.4	109.9
27.5°	95.0	96.9	99.2	103.6	113.5	113.9	109.6	107.3	105.2	103.6	102.9
30°	88.8	89.6	90.4	94.7	102.1	102.9	100.8	99.7	98.9	97.7	97.7
32.5°	80.5	81.6	83.0	86.7	94.0	95.0	93.7	92.9	91.4	90.9	90.1
35°	70.5	73.3	76.4	80.9	88.8	89.2	87.7	85.1	81.8	80.9	80.5
37.5°	66.5	67.1	70.8	76.4	84.4	84.9	82.6	78.5	76.0	76.4	76.8
40°	63.7	64.6	66.7	72.3	80.2	80.9	79.1	76.0	73.7	73.9	74.6
42.5°	61.5	62.6	64.0	67.6	75.5	77.2	76.6	73.9	71.3	72.0	73.0
45°	60.5	61.3	61.3	63.7	71.3	73.9	74.1	72.0	70.0	70.5	72.0
47.5°	59.8	59.8	59.1	60.9	68.6	71.1	71.7	70.5	69.4	70.0	71.3
50°	59.1	57.9	57.1	58.7	66.5	68.6	69.2	68.5	68.9	70.0	70.8
52.5°	56.6	55.4	55.4	56.6	64.3	66.5	66.7	66.1	67.4	68.6	70.0
55°	53.5	53.5	53.8	54.9	63.2	64.8	64.6	64.0	65.0	66.7	68.1
57.5°	50.8	50.6	51.9	53.3	61.9	62.9	62.3	62.3	63.2	64.6	65.9
60°	49.1	47.8	48.9	51.1	60.5	61.5	60.6	60.5	61.9	62.9	64.0
62.5°	47.5	46.2	46.9	49.1	58.5	59.3	58.7	58.7	60.1	60.9	62.1
65°	45.0	44.5	45.0	47.3	56.9	57.1	57.1	57.4	58.5	59.1	60.1
67.5°	42.8	42.8	43.1	45.4	55.4	54.9	54.9	56.4	56.6	57.1	58.2
70°	40.2	40.7	40.7	43.4	54.3	52.5	52.7	53.8	54.3	54.9	55.2
72.5°	37.1	37.4	37.9	41.4	52.7	49.9	50.2	51.1	51.4	52.2	52.5
75°	33.7	34.0	34.9	39.5	51.7	47.5	46.9	47.5	48.1	48.6	48.2
77.5°	30.0	30.5	31.4	38.4	48.1	46.9	42.8	43.4	43.9	43.9	43.7
80°	25.2	26.1	27.5	36.8	40.7	45.4	38.2	38.4	38.7	38.7	38.2
82.5°	19.0	20.7	22.5	30.5	31.9	38.7	33.0	33.4	32.7	32.1	31.9
85°	12.3	13.7	16.4	21.1	23.4	30.5	27.2	27.5	25.8	25.5	25.5
87.5°	4.9	5.2	7.5	10.7	14.1	19.0	19.6	20.0	18.7	18.7	19.3
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°	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3
2.5°	1176.7	1204.2	1235.8	1267.9	1294.3	1328.4	1361.3	1396.4	1414.3	1424.7	1454.0
5°	954.0	991.6	1036.5	1086.7	1128.5	1199.7	1276.8	1362.4	1403.5	1444.2	1521.1
7.5°	682.4	719.3	771.5	836.5	895.8	990.0	1091.4	1207.2	1264.4	1330.2	1456.3
10°	506.6	545.7	592.9	648.0	706.5	804.6	918.2	1048.5	1111.4	1185.9	1329.1
12.5°	410.9	456.3	505.2	554.8	605.0	670.9	790.1	934.7	1002.4	1077.2	1220.9
15°	320.4	369.4	422.1	475.9	525.9	599.4	721.1	892.2	969.5	1041.9	1159.4
17.5°	226.8	272.9	332.4	397.6	470.2	557.2	706.2	910.9	1004.6	1080.3	1159.2
20°	154.6	186.5	245.7	323.2	412.7	523.2	711.7	976.5	1093.5	1176.7	1206.7
22.5°	123.5	138.7	178.8	257.6	363.4	498.4	734.4	1066.6	1221.2	1322.6	1293.2
25°	112.3	120.8	141.8	203.5	319.3	481.9	778.2	1185.6	1364.3	1467.0	1397.3
27.5°	105.5	112.8	126.3	167.3	281.4	471.3	833.9	1325.5	1525.5	1609.9	1505.6
30°	101.1	108.4	120.8	150.1	253.0	455.4	882.9	1453.5	1654.3	1708.9	1564.2
32.5°	92.5	98.4	108.4	134.6	231.6	436.7	925.2	1568.0	1775.9	1794.1	1634.6
35°	83.7	89.8	99.9	121.9	218.8	422.1	947.4	1669.7	1896.5	1879.3	1704.3
37.5°	80.5	85.3	94.7	112.8	212.0	412.5	955.9	1769.7	2025.9	1973.3	1753.0
40°	78.2	82.6	90.9	106.8	210.1	403.3	954.0	1864.6	2151.4	2071.0	1791.0
42.5°	76.6	80.5	88.2	102.6	204.9	394.9	947.7	1946.7	2251.8	2154.9	1827.6
45°	75.3	79.4	87.0	104.9	195.2	385.6	943.8	2021.7	2329.0	2225.8	1876.5
47.5°	74.6	79.4	87.3	104.4	184.8	375.1	957.7	2105.0	2396.3	2285.4	1941.5
50°	73.9	79.1	93.3	99.4	170.6	362.2	1003.9	2204.1	2466.8	2352.3	2025.9
52.5°	72.6	78.8	99.7	95.6	152.2	344.4	1079.3	2344.1	2588.8	2482.8	2150.5
55°	70.8	79.4	95.3	89.6	132.6	321.4	1154.5	2536.1	2786.5	2693.2	2329.6
57.5°	68.9	78.5	90.1	84.0	116.4	292.2	1211.6	2693.5	2949.7	2910.1	2549.5
60°	67.6	80.5	80.9	80.8	106.0	264.5	1217.2	2683.2	2996.7	3051.1	2764.9
62.5°	65.9	82.1	73.9	78.2	100.8	238.6	1149.3	2517.1	2917.2	3032.9	2940.3
65°	63.7	71.7	70.0	76.0	100.8	224.9	991.4	2240.6	2697.8	2861.6	3035.6
67.5°	61.5	65.0	67.4	73.0	102.9	212.0	796.6	1889.9	2351.9	2585.0	2928.6
70°	58.5	61.5	64.3	70.2	101.9	202.9	626.9	1514.8	1935.5	2202.5	2632.3
72.5°	55.8	57.9	60.6	66.1	101.9	198.9	503.6	1188.3	1477.7	1702.6	2180.5
75°	51.7	53.5	56.1	62.1	99.9	181.7	378.1	952.2	1081.2	1222.1	1720.4
77.5°	47.5	48.9	50.8	56.9	90.1	151.9	267.4	737.4	801.1	879.0	1341.2
80°	42.3	43.4	44.7	50.8	74.6	117.8	174.1	576.7	598.9	636.5	882.3
82.5°	36.2	37.9	38.2	43.7	60.1	85.3	103.6	395.2	394.9	450.1	622.5
85°	29.6	30.5	31.0	34.3	44.5	56.9	68.1	215.9	192.4	269.8	540.7
87.5°	22.3	21.4	22.3	23.0	29.4	33.4	36.6	39.9	23.9	48.9	314.4
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°	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3	1291.3
2.5°	1469.7	1485.9	1476.4	1464.7	1436.0	1393.7	1361.3	1332.9
5°	1574.4	1604.4	1591.1	1548.3	1473.6	1388.7	1299.5	1245.1
7.5°	1561.3	1620.5	1615.3	1543.8	1436.7	1311.9	1186.3	1114.6
10°	1455.8	1538.9	1553.2	1480.1	1366.9	1226.9	1081.6	1000.7
12.5°	1341.0	1411.0	1440.2	1412.3	1305.5	1163.6	1015.5	934.5
15°	1244.8	1280.3	1309.1	1326.9	1260.9	1141.0	1003.9	920.6
17.5°	1173.7	1166.9	1191.1	1233.8	1236.5	1171.0	1056.1	962.9
20°	1139.4	1085.5	1099.5	1159.7	1230.0	1247.0	1160.3	1049.8
22.5°	1137.4	1053.4	1056.1	1120.9	1249.0	1350.8	1290.1	1164.4
25°	1167.1	1049.8	1052.4	1116.9	1282.5	1455.4	1440.3	1293.6
27.5°	1217.7	1065.2	1063.7	1135.0	1327.2	1542.7	1591.9	1451.9
30°	1272.3	1087.5	1083.4	1164.2	1371.2	1596.6	1699.7	1571.0
32.5°	1340.5	1127.1	1112.7	1206.7	1414.6	1648.2	1791.6	1682.5
35°	1405.2	1185.0	1164.4	1267.6	1461.0	1705.6	1894.5	1806.0
37.5°	1471.5	1271.6	1260.0	1355.5	1526.6	1768.0	2012.5	1945.6
40°	1556.3	1394.4	1389.0	1483.2	1614.3	1836.0	2144.4	2091.3
42.5°	1647.8	1525.2	1520.6	1629.9	1722.9	1904.4	2257.6	2216.2
45°	1740.7	1683.7	1684.9	1786.4	1837.5	1969.1	2346.6	2316.1
47.5°	1850.7	1856.9	1896.2	1948.7	1949.0	2040.9	2425.5	2409.3
50°	1990.1	2066.2	2138.8	2146.9	2061.5	2136.0	2521.8	2515.8
52.5°	2148.0	2307.6	2391.8	2365.9	2171.5	2253.8	2664.4	2664.1
55°	2335.7	2560.0	2639.3	2594.8	2303.0	2407.3	2850.5	2838.5
57.5°	2530.0	2802.7	2866.8	2808.8	2467.5	2586.1	3037.3	2973.3
60°	2740.1	3011.7	3076.9	2989.7	2651.9	2764.3	3160.9	3011.2
62.5°	2877.7	3133.9	3180.5	3097.1	2817.3	2945.8	3200.7	2965.8
65°	2884.8	3052.6	3064.9	3035.4	2887.6	3103.5	3143.0	2831.5
67.5°	2688.7	2698.7	2714.9	2746.7	2737.3	3033.1	2920.6	2517.9
70°	2269.5	2137.5	2190.8	2221.7	2290.9	2697.8	2509.4	2047.9
72.5°	1735.3	1542.7	1603.2	1592.8	1736.7	2212.9	1919.9	1577.5
75°	1249.0	1052.0	1056.8	1057.2	1247.8	1766.3	1309.1	1120.1
77.5°	848.9	744.4	759.8	750.3	835.2	1383.7	942.5	807.3
80°	580.6	577.8	581.2	558.6	556.9	894.4	697.9	643.9
82.5°	430.6	397.9	393.3	369.4	426.8	683.8	529.7	462.7
85°	339.6	220.3	191.3	231.0	369.7	629.2	322.9	237.2
87.5°	143.9	86.4	52.5	103.8	205.4	461.1	89.6	46.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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