

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: P196705

Luminaire Tested: **NAV-AF-01-D-UNV-SLR-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196705  
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-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 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: 3438.4 lumens  
Efficiency: N/A  
Efficacy: 101.1 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 - G1

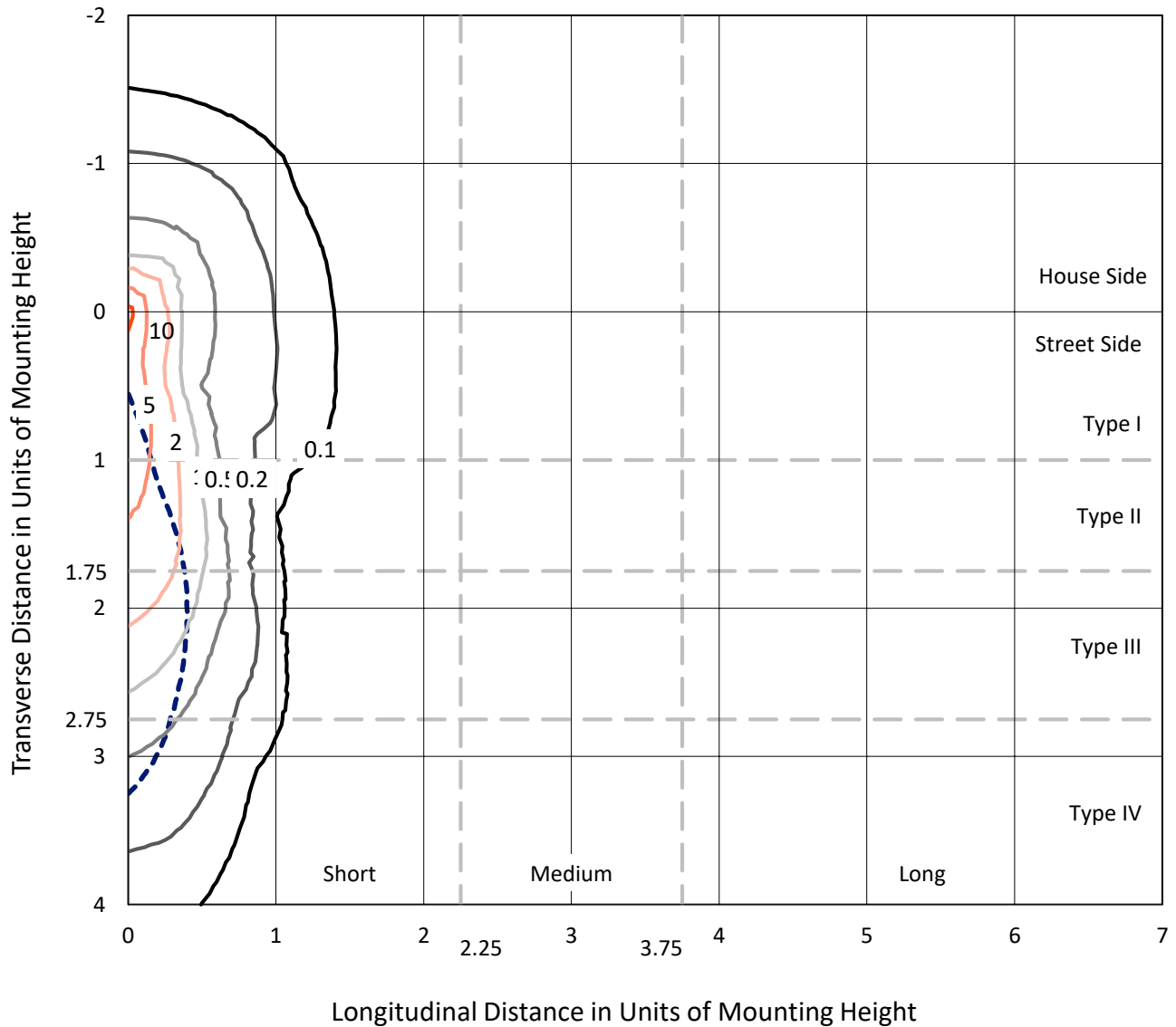
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

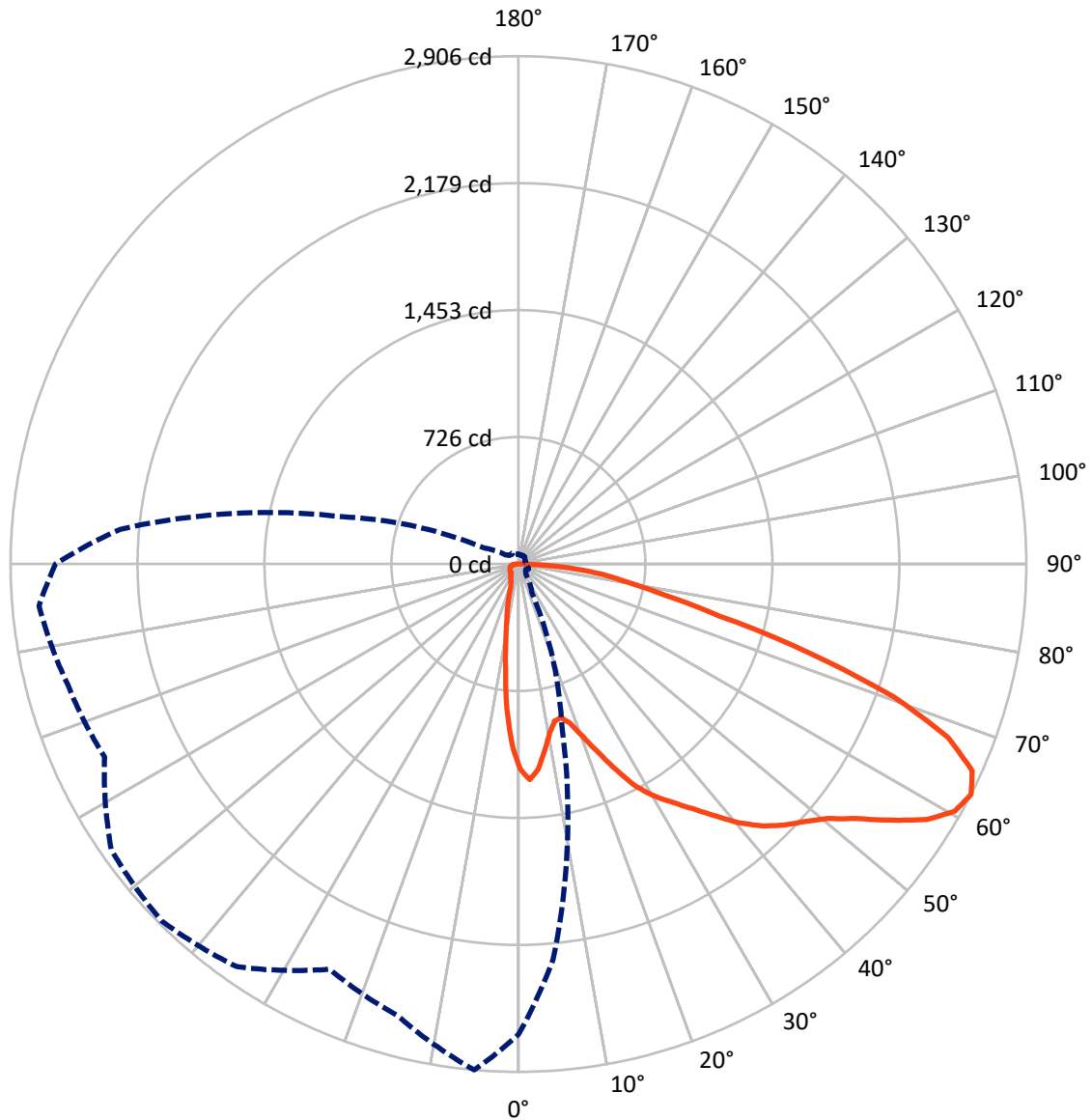
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 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	609.1	0.0	609.1
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	2829.3	0.0	2829.3
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	3438.4	0.0	3438.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.2	2.5
10°-20°	155.7	4.5
20°-30°	223.9	6.5
30°-40°	343.0	10.0
40°-50°	501.5	14.6
50°-60°	729.6	21.2
60°-70°	845.4	24.6
70°-80°	440.7	12.8
80°-90°	113.3	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°	3438.4	100.0
0°-180°	3438.4	100.0



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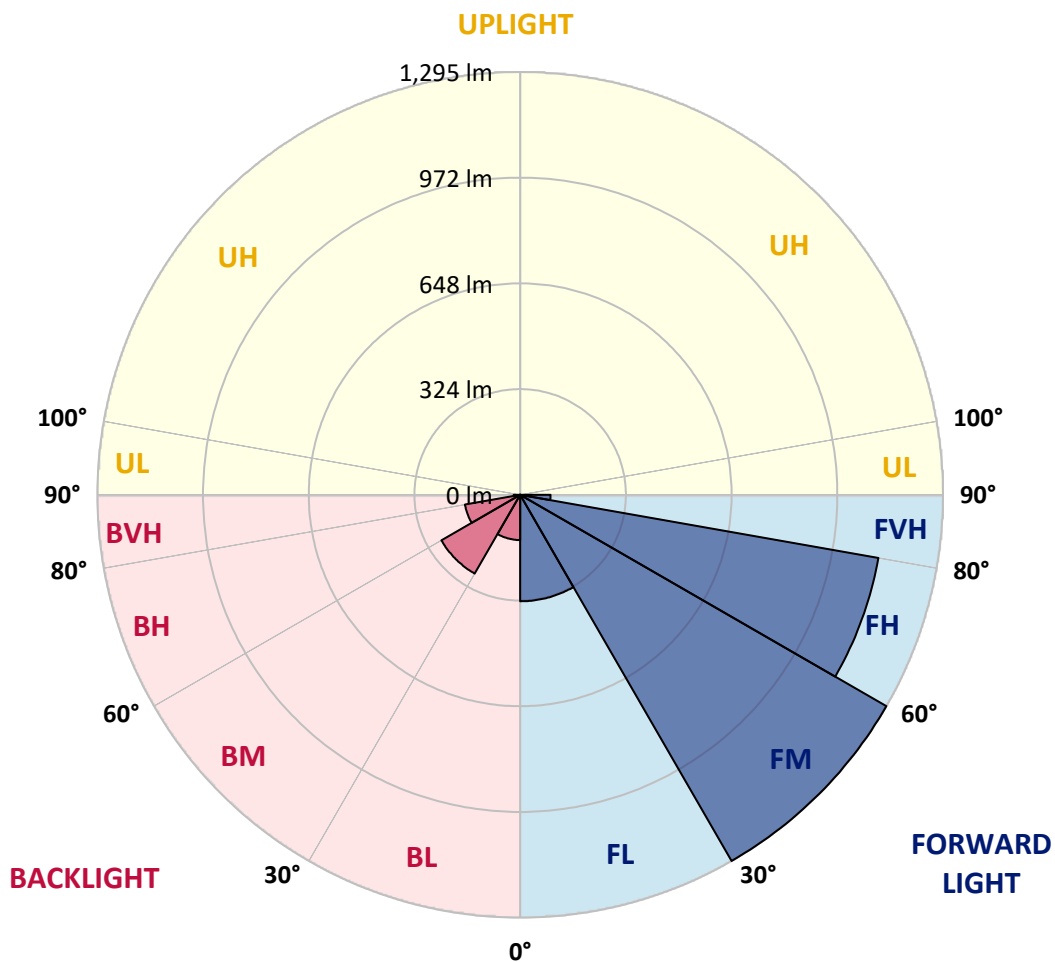
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	326.3	9.5			
FM	(30°-60°)	1295.4	37.7			
FH	(60°-80°)	1114.3	32.4			G1/1800
FVH	(80°-90°)	93.2	2.7			G1/100
BL	(0°-30°)	138.6	4.0	B1/500		
BM	(30°-60°)	278.7	8.1	B1/1000		
BH	(60°-80°)	171.8	5.0	B1/500		G1/500
BVH	(80°-90°)	20.1	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-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3
2.5°	1210.1	1193.1	1154.0	1119.6	1076.8	1044.5	1005.4	984.8	969.5	959.3	951.1
5°	1130.3	1089.5	1014.7	949.1	878.3	827.2	767.3	734.7	714.4	703.5	698.5
7.5°	1012.0	957.7	861.1	773.1	684.6	620.8	575.4	527.0	501.4	484.7	479.2
10°	908.5	847.5	731.9	632.9	564.7	519.3	480.4	436.1	403.1	374.4	363.8
12.5°	848.4	777.3	645.7	556.2	498.9	450.2	409.0	361.2	326.5	296.6	285.1
15°	835.7	756.4	609.5	507.3	437.0	378.5	329.1	277.0	243.1	218.4	210.5
17.5°	874.1	776.3	594.4	462.7	377.9	306.4	245.7	189.7	161.6	148.0	144.9
20°	953.1	820.2	587.2	422.7	320.5	235.9	169.8	128.9	114.9	110.9	110.7
22.5°	1057.1	891.5	595.1	389.6	266.7	174.0	124.4	106.0	100.2	98.0	98.0
25°	1174.4	988.0	616.2	364.5	219.4	135.4	107.2	97.2	92.6	90.2	90.4
27.5°	1318.1	1105.3	645.1	341.3	185.5	118.6	100.2	91.8	87.0	84.7	85.0
30°	1426.3	1206.3	670.1	320.1	168.0	112.0	96.4	88.5	83.2	80.0	79.8
32.5°	1527.5	1295.4	690.3	305.0	158.1	100.0	87.3	81.3	76.8	73.1	72.3
35°	1639.4	1379.2	699.8	304.4	151.6	90.2	79.8	72.5	68.1	63.8	63.1
37.5°	1766.2	1481.5	707.8	307.3	148.0	84.0	76.3	69.3	65.5	61.3	60.3
40°	1898.4	1581.8	714.0	309.9	147.6	79.8	73.5	67.3	63.6	59.1	58.1
42.5°	2011.9	1670.6	722.4	308.8	144.1	79.0	71.8	65.5	62.1	57.6	56.4
45°	2102.5	1741.1	735.7	308.6	138.9	80.8	71.3	65.1	60.8	56.0	55.0
47.5°	2187.2	1820.7	763.6	307.7	133.1	80.3	74.1	64.6	60.3	55.6	54.8
50°	2283.8	1927.6	811.2	300.1	125.1	76.8	79.0	64.0	59.1	54.8	54.1
52.5°	2418.5	2084.1	881.8	286.7	114.1	73.1	79.8	63.8	57.2	53.3	52.3
55°	2576.8	2252.0	957.7	267.2	99.8	66.5	75.8	62.9	55.0	51.2	49.6
57.5°	2699.1	2375.9	1010.8	239.3	85.5	62.9	67.5	60.5	52.6	48.6	47.4
60°	2733.5	2381.3	1020.4	206.0	78.2	60.3	58.1	66.1	50.6	46.3	45.2
62.5°	2692.4	2272.4	958.5	182.5	75.8	57.8	52.9	63.1	48.6	44.4	43.1
65°	2570.6	2088.4	820.2	178.9	78.2	55.6	50.1	50.4	46.7	42.4	41.1
67.5°	2285.8	1817.6	646.2	181.3	81.3	53.3	48.1	45.9	44.4	40.7	39.2
70°	1859.0	1463.4	509.0	185.2	84.0	50.4	45.7	42.8	41.6	37.7	36.9
72.5°	1432.0	1171.3	401.6	182.5	86.8	47.4	42.2	39.9	38.4	34.6	33.9
75°	1016.8	930.7	295.2	156.6	79.5	43.1	38.1	36.2	34.9	30.9	30.7
77.5°	732.9	697.1	205.4	117.7	62.9	37.9	33.7	31.9	31.1	26.7	26.7
80°	584.6	530.6	122.9	76.8	45.9	31.3	28.2	27.5	26.7	22.2	22.4
82.5°	420.1	367.9	78.5	47.8	33.7	23.9	22.0	21.8	20.4	16.5	16.5
85°	215.3	187.9	50.4	32.1	23.7	15.4	14.4	13.9	13.2	10.3	10.3
87.5°	41.8	57.6	28.0	15.8	11.5	5.5	5.5	4.7	5.5	3.8	4.1
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°	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3
2.5°	966.8	961.8	958.3	956.6	981.7	992.2	1004.2	1021.3	1033.1	1028.1	1044.1
5°	721.9	725.5	733.4	745.9	781.1	797.8	808.5	822.7	832.9	822.7	839.6
7.5°	493.7	498.9	515.8	541.5	583.9	602.6	606.3	606.5	604.3	587.6	599.1
10°	363.5	353.0	356.7	375.2	413.1	429.8	431.6	427.1	426.3	419.5	432.5
12.5°	281.7	267.2	258.7	261.7	290.2	303.8	306.2	308.6	318.8	322.1	338.0
15°	210.3	202.6	196.4	193.7	212.4	223.1	224.4	230.3	241.0	244.0	257.8
17.5°	147.8	149.8	153.1	154.3	167.8	174.9	172.7	172.7	174.5	173.7	181.5
20°	113.0	116.9	123.1	129.2	141.4	145.4	140.4	134.2	130.1	128.2	129.9
22.5°	99.8	102.4	106.4	114.1	124.4	126.4	119.9	114.9	111.2	109.2	109.5
25°	92.6	95.3	98.5	104.7	113.4	114.4	108.5	105.2	102.2	100.2	99.8
27.5°	86.2	88.0	90.0	94.0	102.9	103.5	99.4	97.5	95.5	94.0	93.5
30°	80.6	81.3	82.1	86.0	92.8	93.5	91.4	90.4	89.7	88.7	88.7
32.5°	73.1	74.1	75.3	78.7	85.2	86.2	85.0	84.2	83.0	82.5	81.7
35°	64.0	66.5	69.3	73.5	80.6	81.1	79.5	77.2	74.3	73.5	73.1
37.5°	60.3	60.8	64.4	69.3	76.5	77.0	75.1	71.3	69.1	69.3	69.8
40°	57.8	58.6	60.5	65.5	72.7	73.5	71.8	69.1	66.8	67.0	67.8
42.5°	55.8	56.9	58.1	61.3	68.5	70.0	69.6	67.0	64.8	65.3	66.3
45°	54.8	55.6	55.6	57.8	64.8	67.0	67.3	65.3	63.6	64.0	65.3
47.5°	54.3	54.3	53.6	55.4	62.3	64.6	65.1	64.0	63.1	63.6	64.8
50°	53.6	52.6	51.9	53.3	60.3	62.3	62.9	62.1	62.6	63.6	64.4
52.5°	51.4	50.4	50.4	51.4	58.4	60.3	60.5	60.1	61.0	62.3	63.6
55°	48.6	48.6	48.8	49.8	57.4	58.8	58.6	58.1	59.1	60.5	61.8
57.5°	46.1	45.9	47.1	48.4	56.0	57.2	56.6	56.6	57.4	58.6	59.9
60°	44.6	43.3	44.4	46.3	54.8	55.8	55.0	54.8	56.0	57.2	58.1
62.5°	43.1	41.8	42.6	44.6	53.1	53.9	53.3	53.3	54.6	55.4	56.4
65°	40.9	40.4	40.9	42.8	51.6	51.9	51.9	52.1	53.1	53.6	54.6
67.5°	38.9	38.9	39.2	41.1	50.4	49.8	49.8	51.2	51.4	51.9	52.9
70°	36.4	36.9	36.9	39.5	49.3	47.6	47.8	48.8	49.3	49.8	50.1
72.5°	33.7	33.9	34.4	37.7	47.8	45.4	45.7	46.3	46.7	47.4	47.6
75°	30.7	30.9	31.6	35.9	46.9	43.1	42.6	43.1	43.6	44.1	43.9
77.5°	27.2	27.7	28.4	34.9	43.6	42.6	38.9	39.5	39.9	39.9	39.7
80°	23.0	23.7	24.9	33.5	36.9	41.1	34.6	34.9	35.2	35.2	34.6
82.5°	17.2	18.7	20.4	27.7	29.0	35.2	29.9	30.4	29.7	29.2	29.0
85°	11.3	12.4	15.0	19.2	21.2	27.7	24.7	24.9	23.4	23.2	23.2
87.5°	4.5	4.7	6.8	9.8	12.7	17.2	17.7	18.2	16.9	16.9	17.5
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3
2.5°	1068.2	1093.1	1121.9	1151.0	1175.0	1205.9	1235.8	1267.7	1283.9	1293.4	1320.1
5°	866.1	900.2	940.8	986.5	1024.5	1089.2	1159.0	1236.9	1274.2	1311.1	1380.9
7.5°	619.5	653.0	700.3	759.4	813.2	898.7	990.8	1096.0	1147.8	1207.7	1322.0
10°	460.0	495.4	538.2	588.4	641.5	730.5	833.6	951.8	1008.9	1076.5	1206.7
12.5°	372.9	414.3	458.7	503.5	549.2	609.0	717.3	848.6	909.9	978.0	1108.4
15°	290.9	335.3	383.2	432.0	477.5	544.2	654.7	809.9	880.1	945.8	1052.6
17.5°	206.0	247.8	301.7	361.0	426.7	505.9	641.3	827.0	912.0	980.7	1052.2
20°	140.4	169.3	223.1	293.5	374.6	474.9	646.2	886.5	992.7	1068.2	1095.5
22.5°	112.2	125.8	162.2	233.9	329.9	452.5	666.6	968.2	1108.7	1200.6	1174.0
25°	101.9	109.7	128.6	184.7	290.0	437.5	706.5	1076.2	1238.6	1331.8	1268.5
27.5°	95.7	102.4	114.7	151.9	255.5	427.7	757.1	1203.4	1384.9	1461.5	1367.0
30°	91.8	98.5	109.7	136.3	229.6	413.3	801.5	1319.6	1501.8	1551.4	1420.1
32.5°	84.0	89.3	98.5	122.2	210.3	396.4	839.8	1423.5	1612.2	1628.7	1483.8
35°	76.1	81.5	90.8	110.7	198.8	383.2	860.1	1515.8	1721.7	1706.0	1547.1
37.5°	73.1	77.6	86.0	102.4	192.6	374.4	867.8	1606.5	1839.1	1791.6	1591.3
40°	71.0	75.1	82.5	97.0	190.7	366.2	866.1	1692.8	1953.0	1880.1	1626.0
42.5°	69.6	73.1	80.0	93.2	186.0	358.5	860.3	1767.3	2044.2	1956.3	1659.1
45°	68.3	72.0	79.0	95.3	177.2	350.0	856.8	1835.3	2114.2	2020.6	1703.5
47.5°	67.8	72.0	79.3	94.7	167.8	340.6	869.2	1911.0	2175.4	2074.8	1762.6
50°	67.0	71.8	84.7	90.2	154.8	328.9	911.4	2000.9	2239.5	2135.5	1839.1
52.5°	65.8	71.6	90.4	86.8	138.1	312.6	979.7	2128.1	2350.1	2253.9	1952.3
55°	64.4	72.0	86.6	81.3	120.4	291.7	1048.1	2302.3	2529.7	2444.9	2114.8
57.5°	62.6	71.3	81.7	76.3	105.7	265.3	1099.9	2445.1	2677.7	2641.9	2314.5
60°	61.3	73.1	73.5	73.3	96.2	240.1	1104.9	2435.9	2720.3	2769.7	2510.0
62.5°	59.9	74.6	67.0	71.0	91.4	216.7	1043.3	2285.0	2648.3	2753.4	2669.3
65°	57.8	65.1	63.6	69.1	91.4	204.2	900.0	2034.1	2449.1	2597.7	2755.7
67.5°	55.8	59.1	61.0	66.3	93.5	192.6	723.2	1715.7	2135.0	2346.7	2658.5
70°	53.1	55.8	58.4	63.8	92.6	184.2	569.1	1375.1	1757.1	1999.5	2389.5
72.5°	50.6	52.6	55.0	60.1	92.6	180.5	457.2	1078.7	1341.4	1545.7	1979.4
75°	46.9	48.6	50.8	56.4	90.8	165.1	343.3	864.4	981.4	1109.4	1561.9
77.5°	43.1	44.4	46.1	51.6	81.7	137.8	242.8	669.3	727.2	798.0	1217.5
80°	38.4	39.5	40.7	46.1	67.8	107.0	158.1	523.6	543.7	577.9	801.0
82.5°	32.9	34.4	34.6	39.7	54.6	77.6	94.0	358.7	358.5	408.6	565.2
85°	26.9	27.7	28.2	31.1	40.4	51.6	61.8	195.9	174.9	244.8	490.9
87.5°	20.2	19.4	20.2	21.0	26.7	30.4	33.1	36.2	21.8	44.4	285.5
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°	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3	1172.3
2.5°	1334.3	1349.1	1340.3	1329.8	1303.6	1265.2	1235.8	1210.1
5°	1429.2	1456.4	1444.4	1405.5	1337.8	1260.8	1179.7	1130.3
7.5°	1417.3	1471.1	1466.4	1401.6	1304.3	1190.9	1077.0	1012.0
10°	1321.6	1397.1	1410.1	1343.8	1240.7	1113.9	982.0	908.5
12.5°	1217.3	1280.9	1307.3	1282.1	1185.1	1056.3	921.9	848.4
15°	1130.1	1162.2	1188.4	1204.6	1144.5	1035.9	911.4	835.7
17.5°	1065.5	1059.3	1081.2	1120.1	1122.6	1063.0	958.9	874.1
20°	1034.3	985.5	998.2	1052.8	1116.6	1132.0	1053.3	953.1
22.5°	1032.6	956.3	958.9	1017.6	1133.8	1226.3	1171.3	1057.1
25°	1059.5	953.1	955.4	1013.9	1164.2	1321.3	1307.7	1174.4
27.5°	1105.3	967.1	965.6	1030.4	1204.9	1400.6	1445.2	1318.1
30°	1155.0	987.2	983.5	1056.7	1244.8	1449.5	1543.0	1426.3
32.5°	1216.8	1023.1	1010.2	1095.5	1284.2	1496.3	1626.5	1527.5
35°	1275.7	1075.7	1057.1	1150.8	1326.3	1548.4	1720.0	1639.4
37.5°	1335.8	1154.3	1143.8	1230.6	1385.9	1605.0	1827.0	1766.2
40°	1412.8	1266.0	1261.0	1346.5	1465.3	1666.9	1946.8	1898.4
42.5°	1495.8	1384.7	1380.4	1479.6	1564.1	1728.9	2049.4	2011.9
45°	1580.3	1528.4	1529.4	1621.7	1668.1	1787.5	2130.2	2102.5
47.5°	1680.1	1685.8	1721.4	1769.0	1769.4	1852.8	2201.8	2187.2
50°	1806.7	1875.8	1941.5	1949.0	1871.5	1939.1	2289.3	2283.8
52.5°	1950.1	2094.8	2171.4	2147.7	1971.2	2046.0	2418.7	2418.5
55°	2120.2	2324.0	2396.0	2355.6	2090.6	2185.4	2587.7	2576.8
57.5°	2296.8	2544.3	2602.4	2549.9	2240.0	2347.7	2757.2	2699.1
60°	2487.5	2734.1	2793.2	2714.1	2407.5	2509.4	2869.4	2733.5
62.5°	2612.4	2845.0	2887.4	2811.6	2557.5	2674.2	2905.6	2692.4
65°	2619.0	2771.3	2782.5	2755.5	2621.4	2817.4	2853.3	2570.6
67.5°	2441.0	2449.9	2464.6	2493.6	2485.0	2753.6	2651.2	2285.8
70°	2060.2	1940.6	1988.9	2016.8	2079.6	2449.1	2278.2	1859.0
72.5°	1575.3	1400.6	1455.5	1445.9	1576.6	2008.8	1742.9	1432.0
75°	1133.8	955.0	959.3	959.9	1132.8	1603.5	1188.4	1016.8
77.5°	770.6	675.9	689.9	681.1	758.1	1256.3	855.6	732.9
80°	527.0	524.6	527.5	507.1	505.6	812.1	633.4	584.6
82.5°	390.9	361.2	356.9	335.3	387.5	620.8	480.8	420.1
85°	308.4	200.0	173.7	209.7	335.5	571.1	293.2	215.3
87.5°	130.7	78.5	47.6	94.2	186.5	418.6	81.3	41.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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