

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: P270293

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270293  
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  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA 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: 4688.5 lumens  
Efficiency: N/A  
Efficacy: 79.5 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

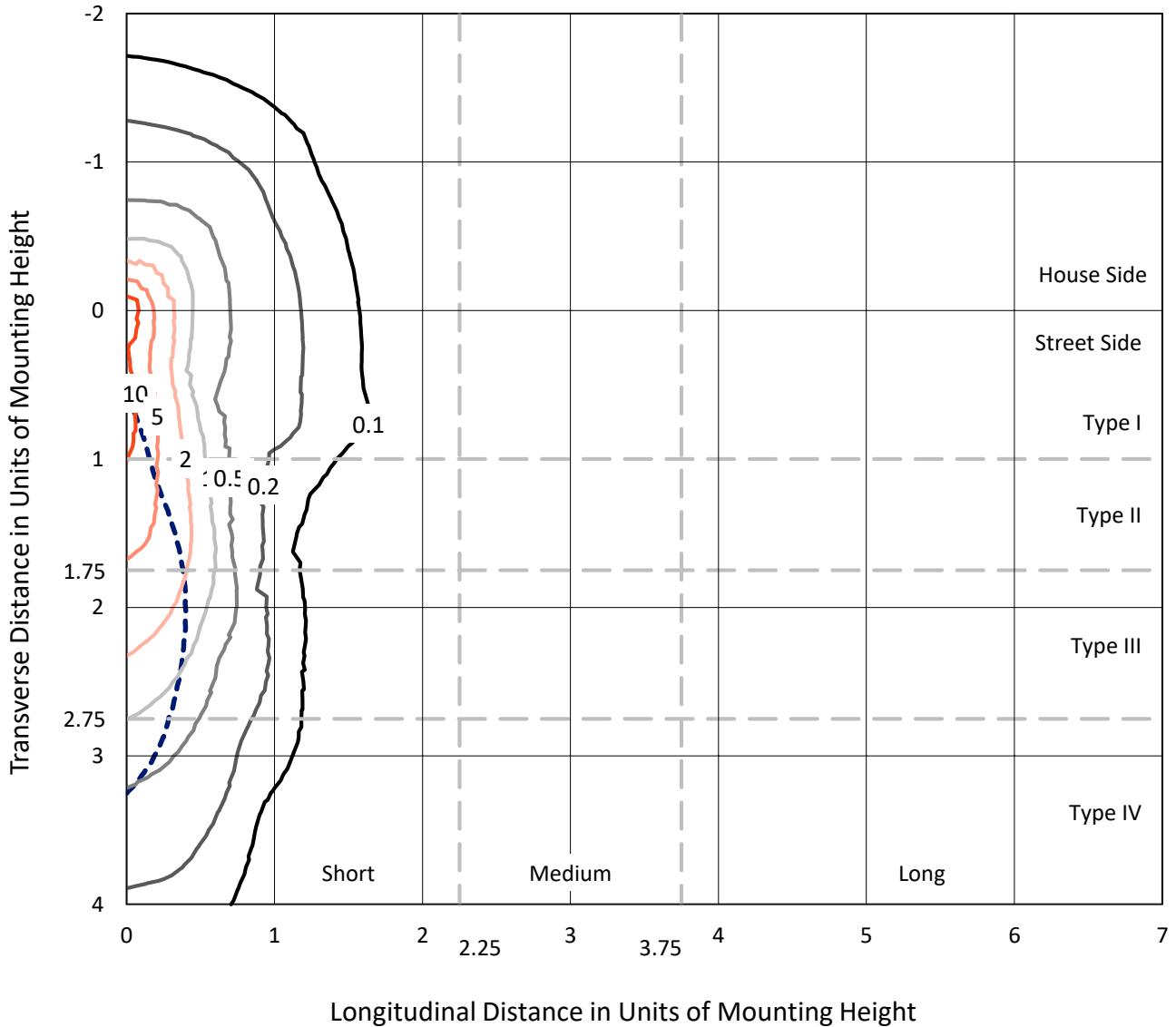
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

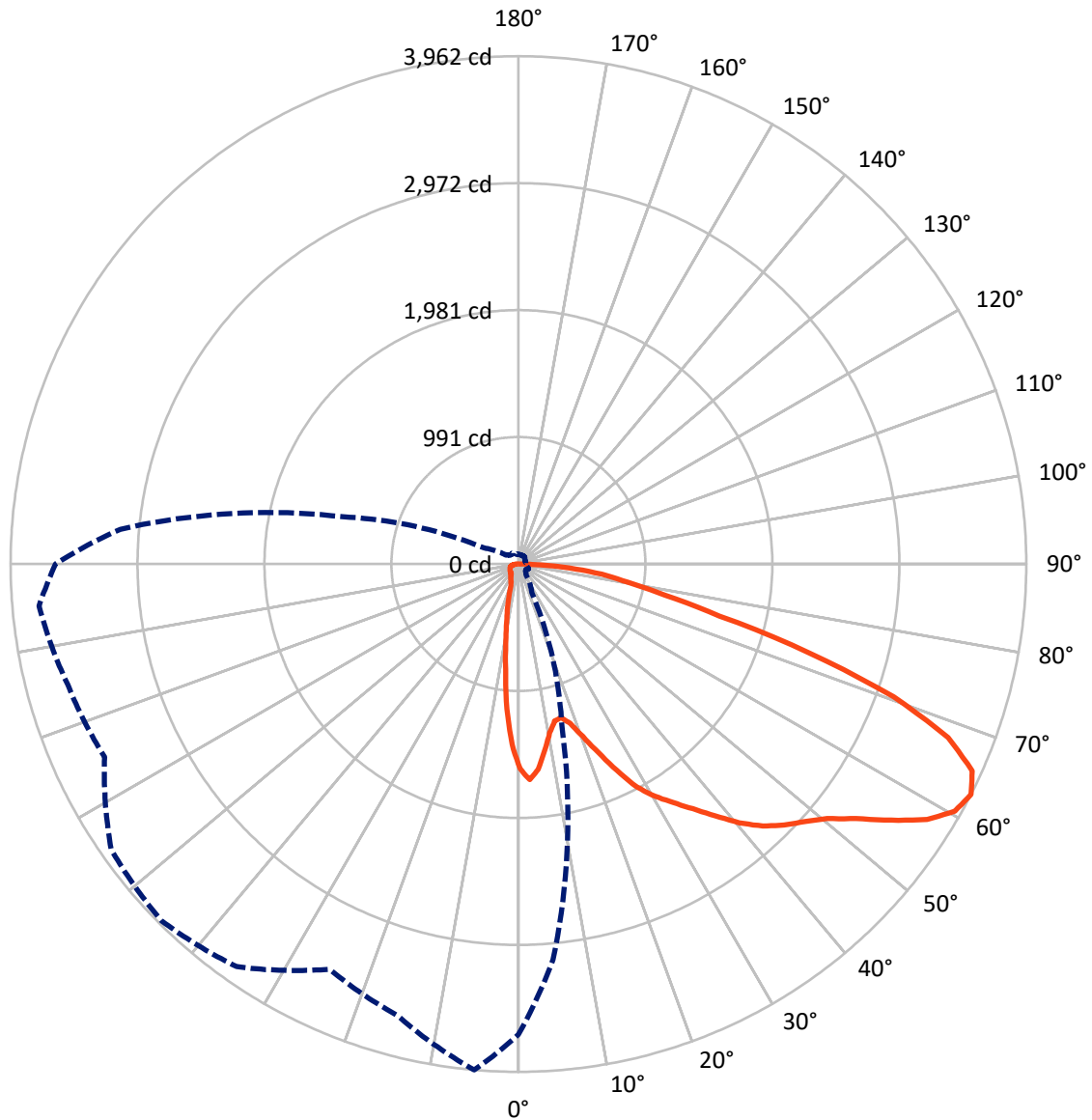
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16 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	830.6	0.0	830.6
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	3857.9	0.0	3857.9
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	4688.5	0.0	4688.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.2	2.5
10°-20°	212.3	4.5
20°-30°	305.4	6.5
30°-40°	467.7	10.0
40°-50°	683.8	14.6
50°-60°	994.9	21.2
60°-70°	1152.8	24.6
70°-80°	600.9	12.8
80°-90°	154.5	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°	4688.5	100.0
0°-180°	4688.5	100.0

**Coefficient of Utilization**



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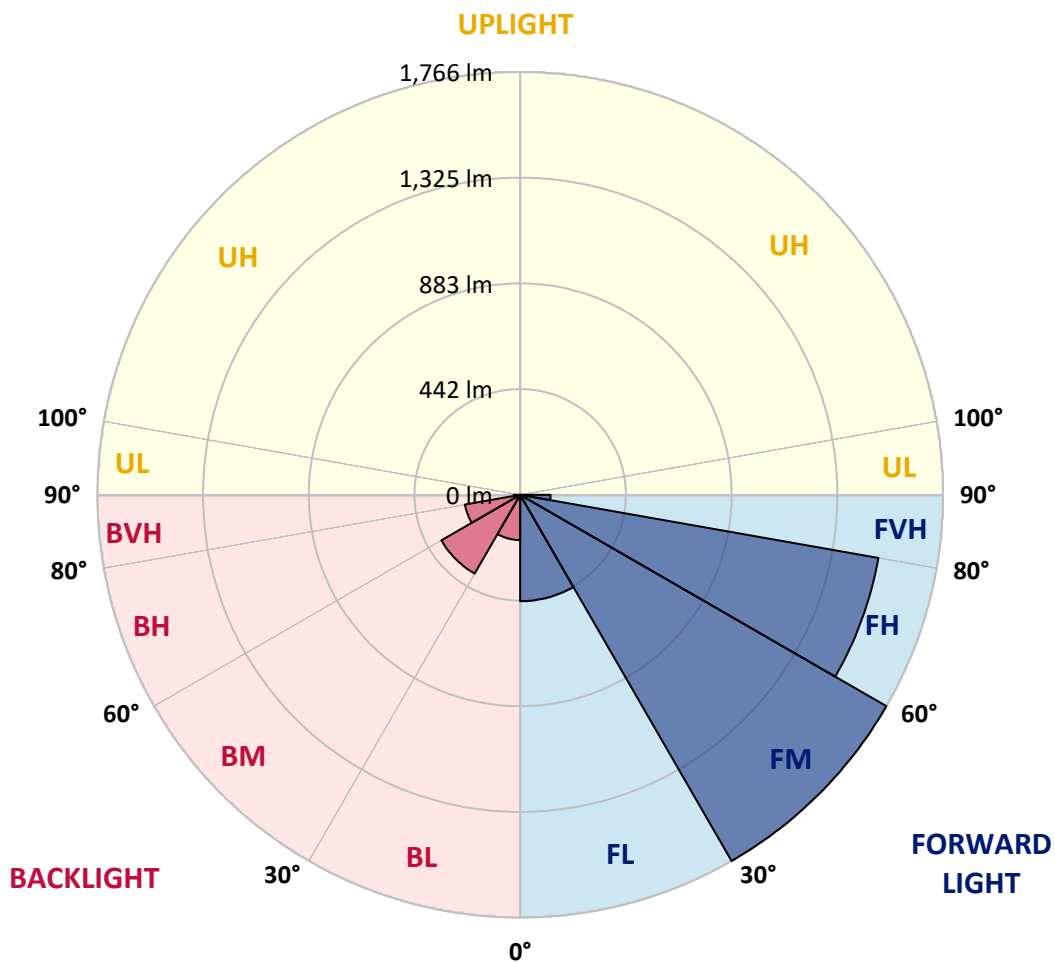
CATALOG NUMBER: NAV-AF-01-D-UNV-SLR-7027

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	445.0	9.5			
FM (30°-60°)	1766.4	37.7			
FH (60°-80°)	1519.5	32.4			G1/1800
FVH (80°-90°)	127.1	2.7			G2/225
BL (0°-30°)	189.0	4.0	B1/500		
BM (30°-60°)	380.0	8.1	B1/1000		
BH (60°-80°)	234.2	5.0	B1/500		G1/500
BVH (80°-90°)	27.4	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°	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4
2.5°	1650.0	1627.0	1573.7	1526.7	1468.2	1424.4	1371.1	1342.7	1322.0	1308.1	1297.0
5°	1541.3	1485.5	1383.6	1294.2	1197.6	1127.9	1046.3	1001.8	974.3	959.3	952.6
7.5°	1379.8	1306.0	1174.2	1054.3	933.5	846.5	784.6	718.6	683.6	660.9	653.3
10°	1238.8	1155.5	998.0	863.1	769.9	708.1	655.0	594.6	549.8	510.5	496.0
12.5°	1156.8	1059.9	880.5	758.3	680.2	613.9	557.8	492.6	445.3	404.5	388.8
15°	1139.5	1031.3	831.1	691.8	595.9	516.0	448.8	377.6	331.5	297.8	286.9
17.5°	1191.8	1058.7	810.5	630.9	515.4	417.8	334.9	258.7	220.3	201.8	197.4
20°	1299.6	1118.4	800.6	576.3	437.1	321.7	231.6	175.8	156.8	151.3	150.9
22.5°	1441.4	1215.6	811.4	531.3	363.8	237.3	169.6	144.4	136.6	133.6	133.6
25°	1601.5	1347.2	840.4	497.0	299.1	184.6	146.2	132.6	126.1	123.1	123.3
27.5°	1797.2	1507.4	879.8	465.4	253.0	161.9	136.6	125.1	118.7	115.6	115.9
30°	1944.8	1644.9	913.8	436.4	229.1	152.6	131.5	120.7	113.5	109.1	108.8
32.5°	2082.8	1766.3	941.3	415.7	215.6	136.4	118.9	110.9	104.7	99.6	98.5
35°	2235.4	1880.6	954.2	415.0	206.7	123.1	108.8	99.0	92.9	87.0	86.0
37.5°	2408.4	2020.3	965.0	419.1	201.8	114.5	104.1	94.5	89.4	83.6	82.3
40°	2588.6	2156.9	973.7	422.6	201.2	108.8	100.3	91.7	86.6	80.6	79.2
42.5°	2743.3	2277.9	985.1	421.1	196.5	107.7	97.9	89.4	84.6	78.5	76.8
45°	2867.1	2374.2	1003.1	420.9	189.4	110.1	97.2	88.8	83.0	76.4	75.1
47.5°	2982.4	2482.6	1041.2	419.5	181.5	109.5	101.0	88.0	82.3	75.7	74.7
50°	3114.2	2628.4	1106.2	409.3	170.7	104.7	107.7	87.3	80.6	74.7	73.8
52.5°	3297.8	2842.0	1202.4	390.9	155.6	99.6	108.8	87.0	77.9	72.8	71.3
55°	3513.7	3070.8	1306.0	364.4	136.0	90.8	103.3	85.7	75.1	69.7	67.6
57.5°	3680.5	3239.6	1378.4	326.4	116.6	85.7	92.2	82.6	71.8	66.3	64.6
60°	3727.4	3247.2	1391.4	280.8	106.8	82.3	79.2	90.1	69.0	63.2	61.5
62.5°	3671.5	3098.7	1307.0	248.8	103.3	79.0	72.0	86.0	66.3	60.5	58.7
65°	3505.1	2847.6	1118.4	244.1	106.8	75.7	68.4	68.7	63.6	57.9	56.1
67.5°	3116.9	2478.6	881.1	247.2	110.9	72.8	65.5	62.5	60.5	55.4	53.4
70°	2534.9	1995.4	694.2	252.6	114.5	68.7	62.3	58.5	56.8	51.4	50.3
72.5°	1952.6	1597.0	547.6	248.8	118.2	64.6	57.4	54.3	52.3	47.3	46.3
75°	1386.7	1269.0	402.5	213.4	108.4	58.7	52.0	49.2	47.6	42.1	41.9
77.5°	999.5	950.4	280.1	160.4	85.7	51.7	46.0	43.5	42.5	36.4	36.4
80°	797.2	723.3	167.7	104.7	62.5	42.8	38.4	37.4	36.4	30.3	30.6
82.5°	572.8	501.8	107.1	65.2	46.0	32.7	30.0	29.6	27.8	22.5	22.5
85°	293.7	256.3	68.7	43.8	32.2	21.1	19.8	19.0	18.1	14.0	14.0
87.5°	57.1	78.5	38.1	21.4	15.6	7.5	7.5	6.5	7.5	5.1	5.4
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°	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4
2.5°	1318.4	1311.4	1306.8	1304.3	1338.7	1352.9	1369.2	1392.7	1408.7	1402.0	1423.6
5°	984.5	989.3	1000.2	1017.2	1065.0	1087.8	1102.4	1121.9	1135.7	1121.9	1144.9
7.5°	673.1	680.2	703.4	738.3	796.2	821.6	826.7	827.1	824.0	801.3	816.9
10°	495.7	481.3	486.4	511.7	563.2	586.1	588.4	582.3	581.4	572.1	589.7
12.5°	384.1	364.4	352.9	356.9	395.8	414.4	417.4	420.9	434.8	439.2	461.0
15°	286.6	276.4	267.9	264.1	289.7	304.3	306.0	314.0	328.7	332.8	351.4
17.5°	201.6	204.4	208.8	210.5	228.8	238.3	235.5	235.5	238.1	237.0	247.5
20°	154.0	159.4	168.0	176.1	192.7	198.2	191.3	182.8	177.4	174.7	177.1
22.5°	136.0	139.7	145.2	155.6	169.6	172.4	163.5	156.8	151.6	148.8	149.3
25°	126.1	129.8	134.2	142.8	154.7	156.0	148.0	143.5	139.3	136.6	136.0
27.5°	117.6	120.1	122.7	128.2	140.3	141.0	135.6	132.9	130.3	128.2	127.5
30°	109.9	110.9	111.8	117.3	126.4	127.5	124.8	123.3	122.3	121.0	121.0
32.5°	99.6	101.0	102.6	107.3	116.3	117.6	115.9	115.0	113.1	112.5	111.5
35°	87.3	90.8	94.5	100.3	109.9	110.5	108.4	105.5	101.2	100.3	99.6
37.5°	82.3	83.0	87.8	94.5	104.4	105.0	102.3	97.2	94.1	94.5	95.2
40°	79.0	79.9	82.6	89.4	99.3	100.3	97.9	94.1	91.1	91.4	92.4
42.5°	76.1	77.6	79.2	83.6	93.5	95.5	94.9	91.4	88.5	89.0	90.4
45°	74.7	75.7	75.7	79.0	88.5	91.4	91.7	89.0	86.6	87.3	89.0
47.5°	74.1	74.1	73.1	75.5	85.0	88.0	88.8	87.3	86.0	86.6	88.5
50°	73.1	71.8	70.6	72.8	82.3	85.0	85.7	84.6	85.2	86.6	87.8
52.5°	70.0	68.7	68.7	70.0	79.5	82.3	82.6	81.9	83.4	85.0	86.6
55°	66.3	66.3	66.7	68.0	78.2	80.2	79.9	79.2	80.6	82.6	84.4
57.5°	62.9	62.5	64.3	65.9	76.4	77.9	77.2	77.2	78.2	79.9	81.6
60°	60.8	59.2	60.5	63.2	74.7	76.1	75.1	74.7	76.4	77.9	79.2
62.5°	58.7	57.1	58.1	60.8	72.5	73.4	72.8	72.8	74.5	75.5	76.8
65°	55.8	55.1	55.8	58.5	70.3	70.6	70.6	71.1	72.5	73.1	74.5
67.5°	53.0	53.0	53.4	56.1	68.7	68.0	68.0	69.7	70.0	70.6	72.0
70°	49.6	50.3	50.3	53.7	67.4	64.9	65.2	66.7	67.4	68.0	68.4
72.5°	46.0	46.3	46.9	51.4	65.2	61.9	62.3	63.2	63.6	64.6	64.9
75°	41.9	42.1	43.2	49.0	63.9	58.7	58.1	58.7	59.5	60.1	59.8
77.5°	37.1	37.6	38.7	47.6	59.5	58.1	53.0	53.7	54.3	54.3	54.1
80°	31.4	32.2	34.0	45.5	50.3	56.1	47.3	47.6	47.9	47.9	47.3
82.5°	23.4	25.5	27.8	37.6	39.4	47.9	40.9	41.5	40.5	39.7	39.4
85°	15.4	17.0	20.4	26.2	28.8	37.6	33.6	34.0	32.0	31.6	31.6
87.5°	6.1	6.5	9.3	13.2	17.3	23.4	24.2	24.9	23.1	23.1	23.7
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°	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4
2.5°	1456.6	1490.6	1529.8	1569.5	1602.1	1644.3	1685.1	1728.6	1750.6	1763.6	1800.1
5°	1180.9	1227.5	1283.0	1345.1	1396.9	1485.2	1580.4	1686.5	1737.4	1787.7	1882.9
7.5°	844.8	890.3	954.9	1035.4	1108.9	1225.5	1351.0	1494.4	1565.0	1646.8	1802.7
10°	627.1	675.4	733.9	802.2	874.7	996.0	1136.7	1298.0	1375.8	1467.9	1645.3
12.5°	508.6	564.9	625.5	686.7	748.8	830.6	978.1	1157.1	1240.7	1333.7	1511.4
15°	396.7	457.2	522.5	589.1	651.0	742.1	892.6	1104.5	1200.0	1289.7	1435.2
17.5°	280.8	337.9	411.3	492.2	582.0	689.8	874.3	1127.6	1243.6	1337.3	1435.0
20°	191.3	230.9	304.3	400.1	511.0	647.6	881.1	1208.8	1353.7	1456.6	1493.7
22.5°	153.0	171.7	221.3	318.9	449.7	617.0	909.1	1320.4	1511.8	1637.3	1600.8
25°	139.1	149.6	175.3	252.0	395.3	596.7	963.4	1467.6	1688.9	1816.0	1729.6
27.5°	130.6	139.7	156.3	207.0	348.5	583.4	1032.4	1640.9	1888.3	1992.7	1864.0
30°	125.1	134.2	149.6	185.9	313.1	563.6	1092.9	1799.3	2047.9	2115.5	1936.3
32.5°	114.5	121.7	134.2	166.5	286.6	540.5	1145.2	1941.1	2198.4	2220.9	2023.3
35°	103.7	111.2	123.7	150.9	270.8	522.5	1172.7	2066.9	2347.6	2326.3	2109.7
37.5°	99.6	105.7	117.3	139.7	262.5	510.5	1183.3	2190.5	2507.8	2442.9	2169.9
40°	96.8	102.3	112.5	132.2	260.1	499.4	1180.9	2308.3	2663.1	2563.6	2217.0
42.5°	94.9	99.6	109.1	127.1	253.6	488.9	1173.1	2409.9	2787.5	2667.5	2262.3
45°	93.2	98.3	107.7	129.8	241.7	477.3	1168.3	2502.7	2883.1	2755.2	2322.8
47.5°	92.4	98.3	108.1	129.1	228.8	464.3	1185.4	2605.7	2966.4	2829.0	2403.3
50°	91.4	97.9	115.6	123.1	211.1	448.3	1242.8	2728.4	3053.7	2911.9	2507.8
52.5°	89.7	97.6	123.3	118.2	188.4	426.2	1336.0	2901.7	3204.7	3073.5	2662.0
55°	87.8	98.3	117.9	110.9	164.2	397.7	1429.2	3139.3	3449.4	3333.8	2883.7
57.5°	85.2	97.2	111.5	104.1	144.2	361.7	1499.8	3334.1	3651.3	3602.5	3156.0
60°	83.6	99.6	100.3	99.9	131.2	327.3	1506.6	3321.7	3709.6	3776.7	3422.5
62.5°	81.6	101.7	91.4	96.8	124.8	295.5	1422.6	3116.0	3611.2	3754.3	3639.8
65°	79.0	88.8	86.6	94.1	124.8	278.5	1227.3	2773.5	3339.5	3542.1	3757.7
67.5°	76.1	80.6	83.4	90.4	127.5	262.5	986.2	2339.5	2911.2	3199.9	3625.2
70°	72.5	76.1	79.5	87.0	126.1	251.3	776.0	1875.1	2395.9	2726.4	3258.3
72.5°	69.0	71.8	75.1	81.9	126.1	246.1	623.5	1471.0	1829.3	2107.7	2699.1
75°	63.9	66.3	69.3	76.8	123.7	225.0	468.0	1178.5	1338.4	1512.7	2129.7
77.5°	58.7	60.5	62.9	70.3	111.5	187.9	331.1	912.8	991.5	1088.1	1660.2
80°	52.3	53.7	55.4	62.9	92.4	145.9	215.6	714.0	741.5	788.1	1092.2
82.5°	44.8	46.9	47.3	54.1	74.5	105.7	128.2	489.1	488.9	557.2	770.7
85°	36.7	37.6	38.4	42.5	55.1	70.3	84.4	267.2	238.3	333.8	669.3
87.5°	27.6	26.5	27.6	28.6	36.4	41.5	45.3	49.2	29.6	60.5	389.2
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4	1598.4
2.5°	1819.3	1839.4	1827.5	1813.3	1777.6	1725.3	1685.1	1650.0
5°	1949.0	1986.0	1969.7	1916.7	1824.2	1719.0	1608.7	1541.3
7.5°	1932.6	2006.1	1999.5	1911.1	1778.6	1624.0	1468.5	1379.8
10°	1802.0	1905.0	1922.7	1832.4	1691.9	1518.9	1339.1	1238.8
12.5°	1660.0	1746.7	1782.6	1748.3	1616.1	1440.3	1257.1	1156.8
15°	1541.0	1584.8	1620.5	1642.6	1560.6	1412.5	1242.8	1139.5
17.5°	1452.9	1444.5	1474.4	1527.4	1530.7	1449.5	1307.5	1191.8
20°	1410.3	1343.9	1361.1	1435.6	1522.5	1543.6	1436.3	1299.6
22.5°	1408.1	1304.0	1307.5	1387.6	1546.1	1672.1	1597.0	1441.4
25°	1444.7	1299.6	1302.6	1382.5	1587.6	1801.7	1783.0	1601.5
27.5°	1507.4	1318.6	1316.6	1404.9	1642.9	1909.7	1970.6	1797.2
30°	1575.0	1346.2	1341.1	1441.1	1697.3	1976.5	2103.9	1944.8
32.5°	1659.3	1395.2	1377.5	1493.7	1751.1	2040.3	2217.7	2082.8
35°	1739.5	1466.8	1441.4	1569.2	1808.5	2111.3	2345.3	2235.4
37.5°	1821.5	1573.9	1559.6	1677.9	1889.8	2188.6	2491.1	2408.4
40°	1926.4	1726.3	1719.4	1836.0	1998.2	2272.8	2654.6	2588.6
42.5°	2039.6	1888.1	1882.3	2017.6	2132.8	2357.5	2794.6	2743.3
45°	2154.9	2084.2	2085.5	2211.4	2274.6	2437.5	2904.8	2867.1
47.5°	2290.9	2298.8	2347.4	2412.3	2412.6	2526.5	3002.3	2982.4
50°	2463.6	2557.7	2647.5	2657.6	2551.9	2644.2	3121.7	3114.2
52.5°	2659.1	2856.5	2961.0	2928.7	2688.0	2790.0	3298.1	3297.8
55°	2891.3	3169.0	3267.1	3212.1	2850.9	2979.9	3528.6	3513.7
57.5°	3131.9	3469.4	3548.7	3476.9	3054.3	3201.3	3759.8	3680.5
60°	3392.0	3728.1	3808.8	3700.9	3282.9	3421.9	3912.7	3727.4
62.5°	3562.3	3879.4	3937.2	3833.8	3487.5	3646.6	3962.1	3671.5
65°	3571.1	3778.8	3794.1	3757.4	3574.5	3841.7	3890.6	3505.1
67.5°	3328.4	3340.6	3360.6	3400.2	3388.5	3754.6	3615.3	3116.9
70°	2809.3	2646.0	2712.1	2750.2	2835.8	3339.5	3106.3	2534.9
72.5°	2148.0	1909.7	1984.5	1971.7	2149.9	2739.3	2376.6	1952.6
75°	1546.1	1302.4	1308.1	1308.8	1544.6	2186.6	1620.5	1386.7
77.5°	1050.7	921.7	940.6	928.7	1033.8	1713.0	1166.7	999.5
80°	718.6	715.2	719.4	691.4	689.4	1107.3	863.8	797.2
82.5°	533.1	492.6	486.8	457.2	528.3	846.5	655.8	572.8
85°	420.4	272.6	237.0	285.9	457.5	778.8	399.7	293.7
87.5°	178.1	107.1	64.9	128.5	254.3	570.8	110.9	57.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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