

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: P969214

Luminaire Tested: **NAV-SB5D-722-U-SLR-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969214  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-722-U-SLR-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

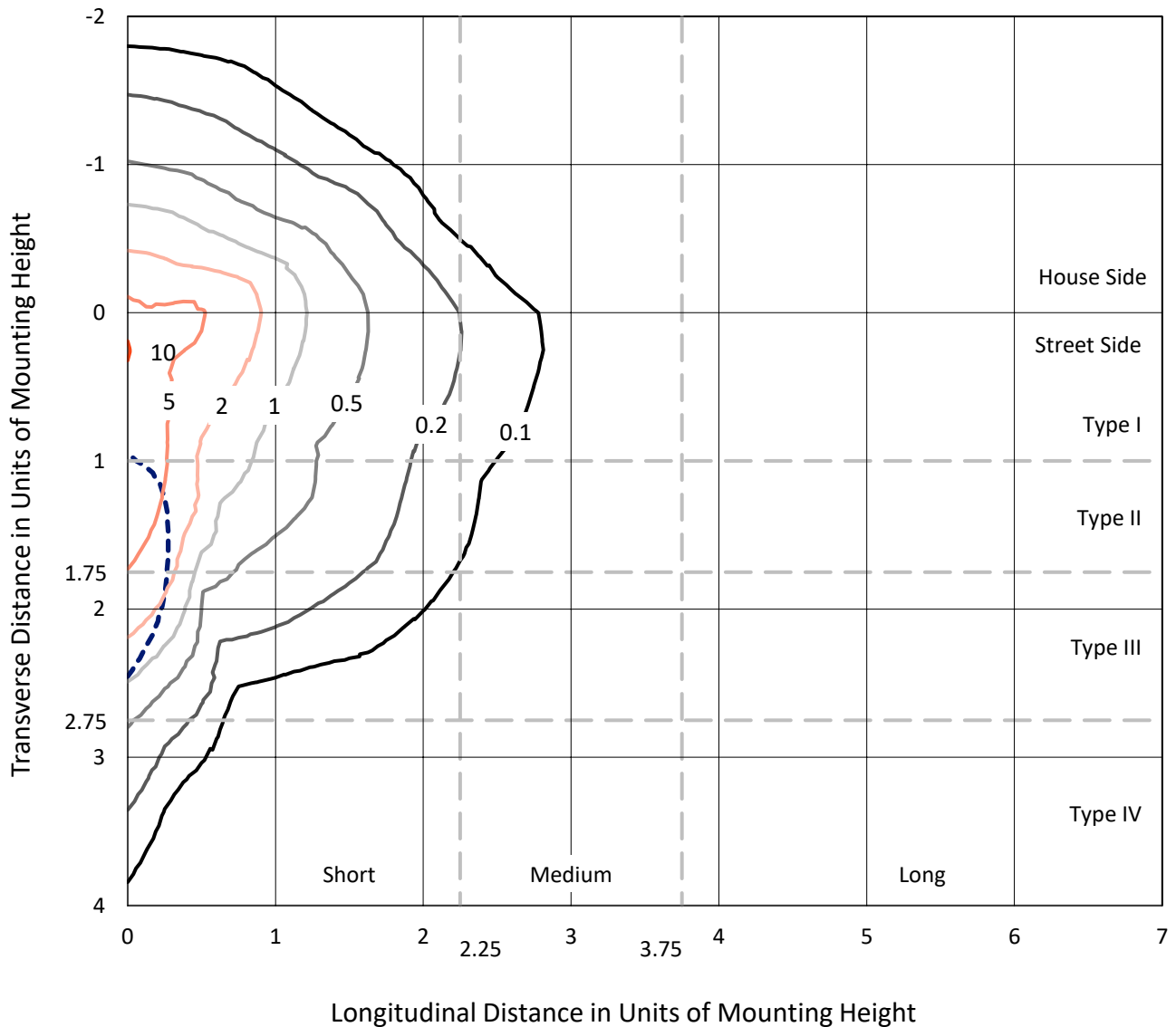
Lumens per Lamp: N/A  
Luminaire Lumens: 33218.2 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

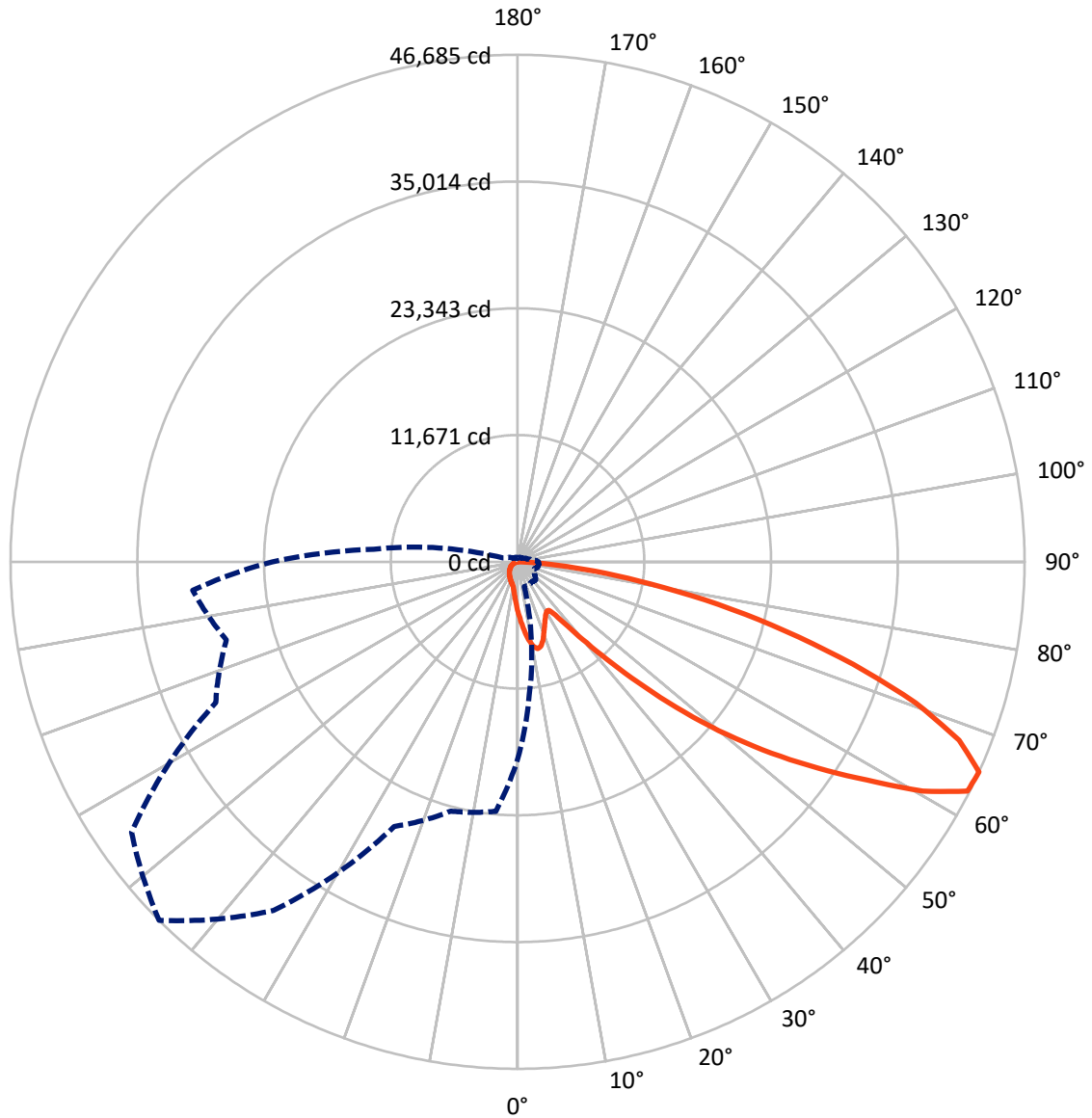
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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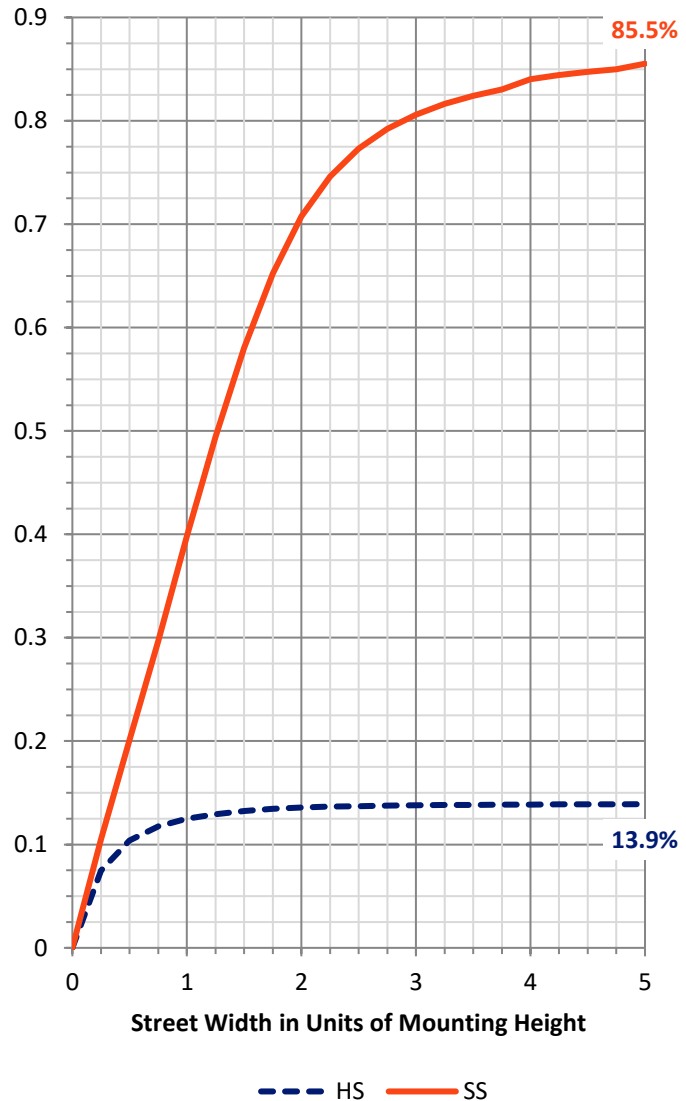
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4652.0	0.0	4652.0
	% Fixture	14.0	0.0	14.0
<b>Street Side</b>	Lumens	28566.2	0.0	28566.2
	% Fixture	86.0	0.0	86.0
<b>Total</b>	Lumens	33218.2	0.0	33218.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	452.9	1.4
10°-20°	1357.5	4.1
20°-30°	1999.9	6.0
30°-40°	2569.3	7.7
40°-50°	4155.4	12.5
50°-60°	7286.8	21.9
60°-70°	9117.8	27.4
70°-80°	5328.0	16.0
80°-90°	950.6	2.9
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°	33218.2	100.0
0°-180°	33218.2	100.0

**Coefficient of Utilization**



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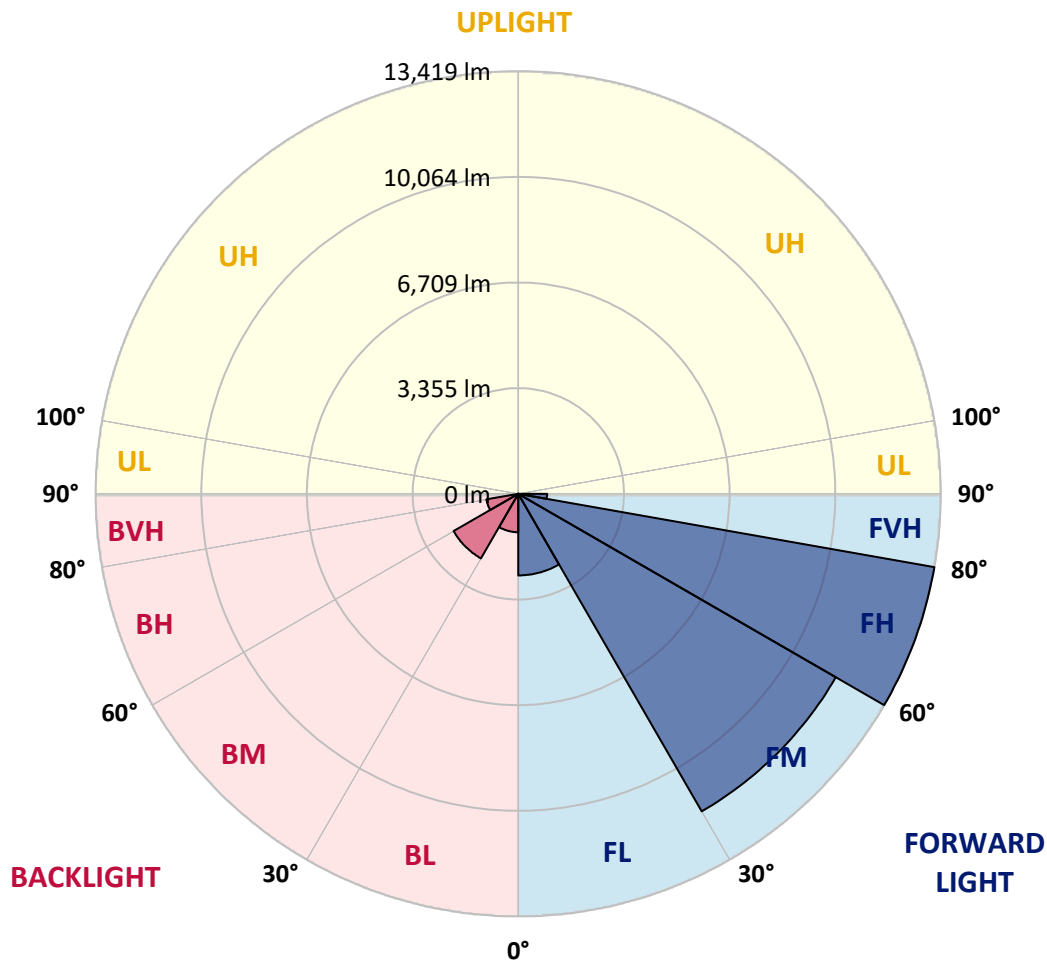
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2590.9	7.8			
FM (30°-60°)	11642.6	35.0			
FH (60°-80°)	13418.6	40.4			G5
FVH (80°-90°)	914.1	2.8			G5
BL (0°-30°)	1219.4	3.7	B3/2500		
BM (30°-60°)	2368.9	7.1	B2/2500		
BH (60°-80°)	1027.2	3.1	B3/2500		G3/2500
BVH (80°-90°)	36.5	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7
2.5°	5197.0	5107.7	5055.1	4924.6	4794.1	4688.9	4547.0	4453.2	4341.1	4233.6	4137.4
5°	5791.9	5647.7	5473.8	5235.8	5018.4	4796.5	4581.3	4368.5	4144.3	3938.4	3812.5
7.5°	6295.3	6087.1	5780.5	5464.7	5187.7	4920.0	4668.3	4386.8	4114.6	3791.9	3620.2
10°	6679.8	6414.3	6011.6	5597.4	5279.3	5009.3	4764.4	4526.4	4251.8	3862.8	3647.7
12.5°	6913.2	6629.5	6151.2	5666.0	5302.2	5000.2	4810.2	4705.0	4597.3	4210.6	3959.0
15°	7084.8	6778.2	6249.6	5714.1	5249.5	4878.8	4739.3	4844.6	4968.1	4720.9	4430.4
17.5°	7263.4	6940.7	6377.8	5734.7	5107.7	4643.1	4583.6	4855.9	5142.0	5130.5	4842.2
20°	7432.7	7112.3	6489.9	5720.9	4878.8	4357.1	4409.8	4757.5	5089.3	5228.9	5073.3
22.5°	7627.2	7288.5	6597.4	5668.4	4581.3	4089.3	4254.2	4601.9	4892.5	5057.3	5009.3
25°	7865.2	7510.5	6748.5	5590.6	4261.0	3867.3	4096.2	4421.1	4656.9	4771.3	4769.0
27.5°	8121.5	7776.0	6949.8	5549.3	4002.4	3709.5	3917.8	4206.1	4416.6	4496.7	4496.7
30°	8439.5	8084.9	7187.8	5503.5	3833.1	3617.9	3732.3	3956.6	4162.5	4242.7	4242.7
32.5°	8787.4	8428.2	7416.7	5393.8	3730.1	3549.3	3551.6	3693.5	3881.1	3977.2	3990.9
35°	9222.2	8840.0	7661.6	5153.5	3647.7	3469.2	3375.3	3444.0	3599.6	3714.1	3743.8
37.5°	9842.4	9380.1	7961.3	4810.2	3526.4	3345.6	3190.0	3206.0	3325.0	3450.9	3496.7
40°	10698.2	10105.5	8313.7	4453.2	3352.5	3171.7	2986.3	2979.5	3066.4	3190.0	3240.3
42.5°	11856.2	11064.4	8737.1	4112.2	3185.4	2961.1	2771.2	2759.8	2828.5	2936.0	2988.6
45°	13384.8	12290.9	9256.6	3819.4	3055.0	2755.2	2567.5	2563.0	2620.2	2714.0	2768.9
47.5°	15341.4	13995.8	9776.0	3620.2	2986.3	2592.7	2400.5	2409.7	2460.0	2544.7	2583.6
50°	17874.6	16217.8	9933.9	3519.5	2986.3	2505.8	2251.8	2297.5	2338.7	2402.8	2425.7
52.5°	20911.2	18350.6	9412.2	3428.0	3004.7	2517.2	2126.0	2224.4	2254.1	2309.0	2318.1
55°	23726.0	19396.4	8091.8	3302.1	3009.2	2588.1	2018.3	2164.8	2219.7	2240.3	2238.1
57.5°	25359.9	19037.1	6542.5	3089.4	2991.0	2636.2	1949.8	2091.6	2196.9	2210.6	2190.0
60°	25048.6	17776.2	4817.1	2926.9	2856.0	2618.0	1929.2	1979.5	2146.6	2167.1	2139.7
62.5°	22650.4	15661.7	3343.3	2801.0	2558.4	2537.8	1922.3	1803.3	2036.7	2087.0	2048.2
65°	18206.4	12329.8	2361.6	2411.9	2242.6	2363.9	1885.6	1620.2	1903.9	1972.6	1913.1
67.5°	13208.6	8343.5	1704.9	1954.3	2032.1	2082.4	1803.3	1487.5	1753.0	1844.5	1766.6
70°	8476.1	4505.8	1196.8	1290.7	1711.7	1768.9	1661.3	1368.5	1599.6	1704.9	1620.2
72.5°	6025.4	2661.4	860.4	903.9	1375.3	1473.7	1462.3	1235.7	1421.1	1549.3	1448.5
75°	4158.0	1466.9	581.3	645.3	997.7	1196.8	1128.2	1061.8	1203.7	1334.1	1235.7
77.5°	2606.5	656.7	347.9	448.5	654.5	940.5	773.5	821.5	938.3	1059.5	956.5
80°	1450.9	254.0	194.5	297.5	357.0	684.2	427.9	528.6	691.1	778.1	695.7
82.5°	315.8	32.1	86.9	128.1	139.6	398.2	226.5	306.7	434.8	427.9	370.7
85°	0.0	0.0	16.0	18.3	9.1	171.6	82.4	100.7	141.9	132.7	100.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0
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°	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7
2.5°	4119.1	4006.9	3924.6	3883.4	3849.1	3881.1	3899.4	3899.4	3977.2	4023.0	4041.3
5°	3732.3	3531.0	3377.7	3274.7	3212.9	3233.5	3256.4	3281.5	3379.9	3446.4	3489.8
7.5°	3464.6	3155.7	2922.3	2778.1	2702.6	2714.0	2730.1	2750.7	2846.7	2913.2	2970.3
10°	3414.3	2970.3	2640.8	2450.9	2359.3	2343.4	2334.1	2327.3	2384.5	2434.9	2480.6
12.5°	3620.2	2979.5	2519.6	2288.4	2176.3	2128.2	2073.3	2029.8	2038.9	2071.0	2128.2
15°	3988.7	3096.2	2480.6	2203.8	2064.1	1984.0	1919.9	1867.3	1855.9	1867.3	1876.5
17.5°	4409.8	3254.1	2476.0	2130.5	1956.5	1874.2	1821.5	1773.5	1757.5	1759.7	1771.2
20°	4688.9	3379.9	2462.3	2048.2	1853.6	1780.3	1734.6	1686.5	1670.5	1675.1	1677.4
22.5°	4716.3	3446.4	2441.8	1956.5	1750.6	1688.8	1643.1	1599.6	1597.3	1597.3	1611.0
25°	4567.6	3446.4	2398.2	1874.2	1652.2	1597.3	1556.1	1503.5	1512.6	1517.2	1535.6
27.5°	4336.5	3363.9	2315.9	1807.8	1567.5	1510.3	1469.1	1421.1	1432.5	1439.4	1460.0
30°	4107.7	3258.7	2217.5	1732.4	1487.5	1421.1	1391.3	1350.1	1354.7	1363.9	1386.7
32.5°	3894.8	3146.5	2100.7	1670.5	1407.3	1341.0	1318.1	1272.3	1279.2	1288.3	1313.5
35°	3684.3	3022.9	1963.4	1597.3	1334.1	1267.7	1249.5	1196.8	1201.4	1215.1	1242.6
37.5°	3457.7	2892.5	1851.4	1524.1	1263.2	1194.5	1176.2	1121.4	1125.9	1142.0	1173.9
40°	3219.7	2764.3	1741.5	1446.3	1187.7	1119.0	1103.0	1043.6	1048.1	1066.4	1100.7
42.5°	2979.5	2624.8	1656.8	1345.6	1109.9	1036.7	1020.6	965.7	972.5	993.1	1027.5
45°	2757.6	2457.7	1601.9	1233.5	1036.7	954.3	938.3	887.9	901.6	924.6	958.8
47.5°	2567.5	2286.1	1579.0	1139.6	958.8	869.6	855.9	814.7	837.5	862.7	890.2
50°	2405.1	2121.3	1549.3	1043.6	885.6	796.3	782.6	755.1	784.9	810.1	835.3
52.5°	2288.4	1933.7	1485.1	956.5	821.5	734.6	730.0	716.3	743.7	766.6	789.5
55°	2187.7	1739.2	1382.2	881.0	764.3	681.9	686.5	679.7	702.5	720.9	741.5
57.5°	2096.1	1569.8	1251.7	821.5	702.5	636.2	650.0	640.7	652.2	663.6	688.8
60°	1986.3	1398.2	1096.1	755.1	629.3	590.4	606.4	581.3	578.9	583.5	590.4
62.5°	1823.9	1167.1	933.7	672.8	565.2	540.1	546.9	498.9	462.3	462.3	469.1
65°	1597.3	938.3	782.6	581.3	492.0	471.4	466.8	398.2	347.9	343.3	363.9
67.5°	1334.1	771.2	650.0	489.7	409.6	395.9	400.5	350.1	299.8	295.2	318.1
70°	1087.0	638.5	524.1	391.3	315.8	329.5	350.1	299.8	251.7	244.9	265.5
72.5°	883.3	508.0	409.6	299.8	233.4	272.3	297.5	244.9	199.1	194.5	212.8
75°	681.9	373.0	292.9	203.7	169.3	210.5	233.4	178.5	141.9	135.0	151.0
77.5°	455.4	231.1	164.7	128.1	100.7	144.2	155.6	93.8	82.4	80.1	91.5
80°	276.9	107.5	70.9	61.8	34.3	52.6	61.8	38.9	43.5	45.8	54.9
82.5°	139.6	29.7	11.5	2.3	0.0	0.0	18.3	9.1	18.3	22.9	34.3
85°	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	11.5	20.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7
2.5°	4169.4	4265.5	4357.1	4503.5	4654.6	4803.4	4954.3	5100.8	5153.5	5192.3	5279.3
5°	3688.9	3869.7	4080.2	4370.8	4682.0	5002.4	5327.3	5624.9	5759.9	5851.4	6057.3
7.5°	3192.3	3428.0	3730.1	4167.1	4654.6	5164.9	5675.2	6144.4	6361.8	6538.0	6851.4
10°	2700.3	2956.6	3338.7	3837.6	4496.7	5228.9	5933.8	6579.1	6860.6	7082.5	7508.2
12.5°	2267.8	2508.1	2908.5	3460.0	4249.5	5178.6	6082.6	6858.3	7190.1	7439.6	7906.3
15°	1963.4	2132.8	2487.5	3082.5	3956.6	5016.1	6091.7	6991.0	7354.9	7615.7	8020.8
17.5°	1794.1	1851.4	2082.4	2698.0	3631.7	4803.4	6007.0	7036.8	7425.8	7668.4	7949.9
20°	1702.5	1711.7	1775.8	2199.1	3215.2	4604.2	5927.0	7082.5	7492.1	7695.8	7780.5
22.5°	1629.3	1629.3	1645.3	1798.7	2677.4	4366.2	5901.7	7162.7	7583.7	7709.5	7535.7
25°	1562.9	1562.9	1567.5	1608.7	2121.3	4002.4	5885.8	7286.2	7709.5	7743.9	7265.6
27.5°	1494.3	1496.6	1496.6	1519.5	1709.4	3508.1	5817.1	7446.4	7860.6	7789.7	7007.0
30°	1425.7	1430.3	1430.3	1446.3	1512.6	2929.1	5682.1	7638.6	8057.4	7849.1	6750.8
32.5°	1357.0	1361.6	1361.6	1375.3	1423.4	2338.7	5512.8	7814.8	8256.5	7874.4	6512.7
35°	1286.1	1292.9	1288.3	1306.7	1357.0	1860.5	5297.6	7991.0	8471.6	7954.4	6396.0
37.5°	1215.1	1219.8	1217.4	1235.7	1292.9	1606.5	5048.2	8123.7	8764.6	8133.0	6535.6
40°	1144.2	1142.0	1142.0	1162.5	1224.3	1533.2	4734.7	8334.3	9185.5	8446.4	7144.4
42.5°	1070.9	1070.9	1066.4	1089.3	1164.8	1478.3	4434.9	8711.9	9798.9	8945.3	8224.5
45°	1004.6	1002.3	993.1	1013.7	1107.6	1382.2	4329.6	9416.7	10705.1	9753.1	9531.2
47.5°	940.5	938.3	915.3	933.7	1038.9	1295.2	4723.2	10570.1	11961.4	10940.7	10755.4
50°	883.3	885.6	842.1	858.1	970.3	1228.9	5576.8	12066.7	13629.6	12540.4	11915.6
52.5°	830.7	830.7	773.5	782.6	885.6	1169.3	6389.1	13689.1	15831.0	14771.6	13268.1
55°	778.1	773.5	709.4	714.0	800.9	1084.7	6510.5	15272.7	18833.5	18128.6	15117.1
57.5°	718.5	709.4	650.0	650.0	723.1	1023.0	5643.1	16490.1	22558.9	23062.4	17783.0
60°	645.3	638.5	599.5	588.1	661.3	1077.8	3981.8	16632.0	24961.7	29623.2	22888.5
62.5°	551.6	560.7	540.1	524.1	601.9	1119.0	2359.3	15490.1	24380.4	31710.2	29003.0
65°	434.8	471.4	466.8	455.4	661.3	942.8	1393.6	13297.8	22597.9	30025.9	27755.9
67.5°	370.7	395.9	389.0	389.0	693.4	716.3	876.5	10389.3	20144.6	28028.1	24792.4
70°	315.8	341.0	315.8	315.8	524.1	434.8	606.4	7254.2	17497.1	25817.6	22847.2
72.5°	260.9	286.1	258.6	240.3	418.8	324.9	443.9	4533.3	14984.4	23515.4	21515.4
75°	199.1	228.9	208.3	185.3	276.9	242.6	336.4	2633.9	12414.5	20119.5	19618.3
77.5°	125.9	164.7	155.6	130.5	203.7	176.2	242.6	1567.5	9579.1	15721.2	16874.6
80°	77.8	84.7	86.9	82.4	116.7	119.0	164.7	892.5	6556.2	10956.8	13183.4
82.5°	50.3	50.3	38.9	43.5	57.2	68.7	93.8	336.4	3853.7	6670.6	9176.4
85°	36.6	32.1	20.6	20.6	27.5	34.3	36.6	103.0	1562.9	2633.9	3588.2
87.5°	18.3	16.0	6.9	9.1	13.7	11.5	9.1	4.6	393.6	842.1	590.4
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°	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7	4599.7
2.5°	5325.1	5396.0	5400.6	5400.6	5338.8	5336.6	5210.7	5197.0
5°	6270.1	6315.9	6327.4	6304.5	6181.0	6089.4	5844.5	5791.9
7.5°	7135.2	7226.8	7226.8	7171.8	6970.4	6782.7	6428.1	6295.3
10°	7826.3	7931.6	7908.7	7796.6	7542.6	7284.0	6853.8	6679.8
12.5°	8162.7	8270.2	8210.8	8082.5	7835.4	7563.2	7110.0	6913.2
15°	8155.8	8126.1	8064.3	8048.3	7929.3	7723.3	7299.9	7084.8
17.5°	7865.2	7613.5	7565.4	7725.6	7876.6	7826.3	7464.8	7263.4
20°	7405.2	6965.9	6922.3	7229.0	7659.2	7878.9	7618.0	7432.7
22.5°	6920.1	6446.4	6345.7	6684.3	7332.0	7895.0	7812.6	7627.2
25°	6460.2	5984.2	5883.4	6199.2	6968.2	7867.5	8023.1	7865.2
27.5°	6075.7	5615.7	5521.9	5837.7	6618.0	7789.7	8233.6	8121.5
30°	5778.1	5352.5	5283.9	5588.2	6315.9	7693.5	8501.3	8439.5
32.5°	5604.3	5293.0	5318.2	5567.6	6153.5	7588.3	8757.7	8787.4
35°	5775.9	5789.6	6009.3	6112.3	6304.5	7572.3	9105.5	9222.2
37.5°	6629.5	7105.4	7560.8	7476.1	7043.7	7757.6	9625.0	9842.4
40°	8082.5	9059.8	9798.9	9476.2	8387.0	8325.2	10373.3	10698.2
42.5°	9858.3	11515.2	12732.6	11867.6	10119.2	9318.3	11442.0	11856.2
45°	11732.6	14542.7	16460.4	14661.7	11966.0	10709.6	13059.8	13384.8
47.5°	13707.4	18222.4	20703.1	17760.2	13677.7	12293.2	15265.8	15341.4
50°	15867.7	22256.8	25028.0	20856.4	15329.9	14107.9	17961.6	17874.6
52.5°	17924.9	26405.7	29261.6	23966.2	16780.8	16359.7	21089.8	20911.2
55°	19888.4	30552.3	33520.3	26954.9	18149.2	19334.6	24806.1	23726.0
57.5°	22165.3	34280.0	37909.4	29957.3	20062.3	23197.4	28961.8	25359.9
60°	25531.5	38515.8	42872.9	34071.8	23700.9	27257.0	30451.5	25048.6
62.5°	29829.1	42410.7	46481.7	38104.0	27355.4	28021.3	28257.0	22650.4
65°	30664.4	43397.0	46685.4	39181.8	26884.0	23769.4	23069.3	18206.4
67.5°	28449.2	41614.3	43838.6	37174.8	23780.9	18368.9	17311.6	13208.6
70°	25964.1	38216.1	38877.4	33762.9	20915.8	13510.6	11691.4	8476.1
72.5°	23417.0	33682.7	32314.4	29321.2	18382.7	9837.7	8432.7	6025.4
75°	20391.9	27721.5	25453.7	24362.2	15220.0	7721.0	6100.8	4158.0
77.5°	16329.9	19513.0	18906.6	18883.8	11437.4	5640.9	4071.0	2606.5
80°	11519.8	12664.0	12355.0	14222.3	7672.9	4091.6	2450.9	1450.9
82.5°	5576.8	7002.5	7187.8	8469.4	3732.3	2407.4	565.2	315.8
85°	2183.1	3377.7	2849.1	3215.2	1048.1	670.5	13.7	0.0
87.5°	244.9	391.3	359.3	283.7	128.1	27.5	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)