

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: P964998

Luminaire Tested: **NAV-SB3D-722-U-SLR-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P964998  
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-SB3D-722-U-SLR-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 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: 19730.2 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

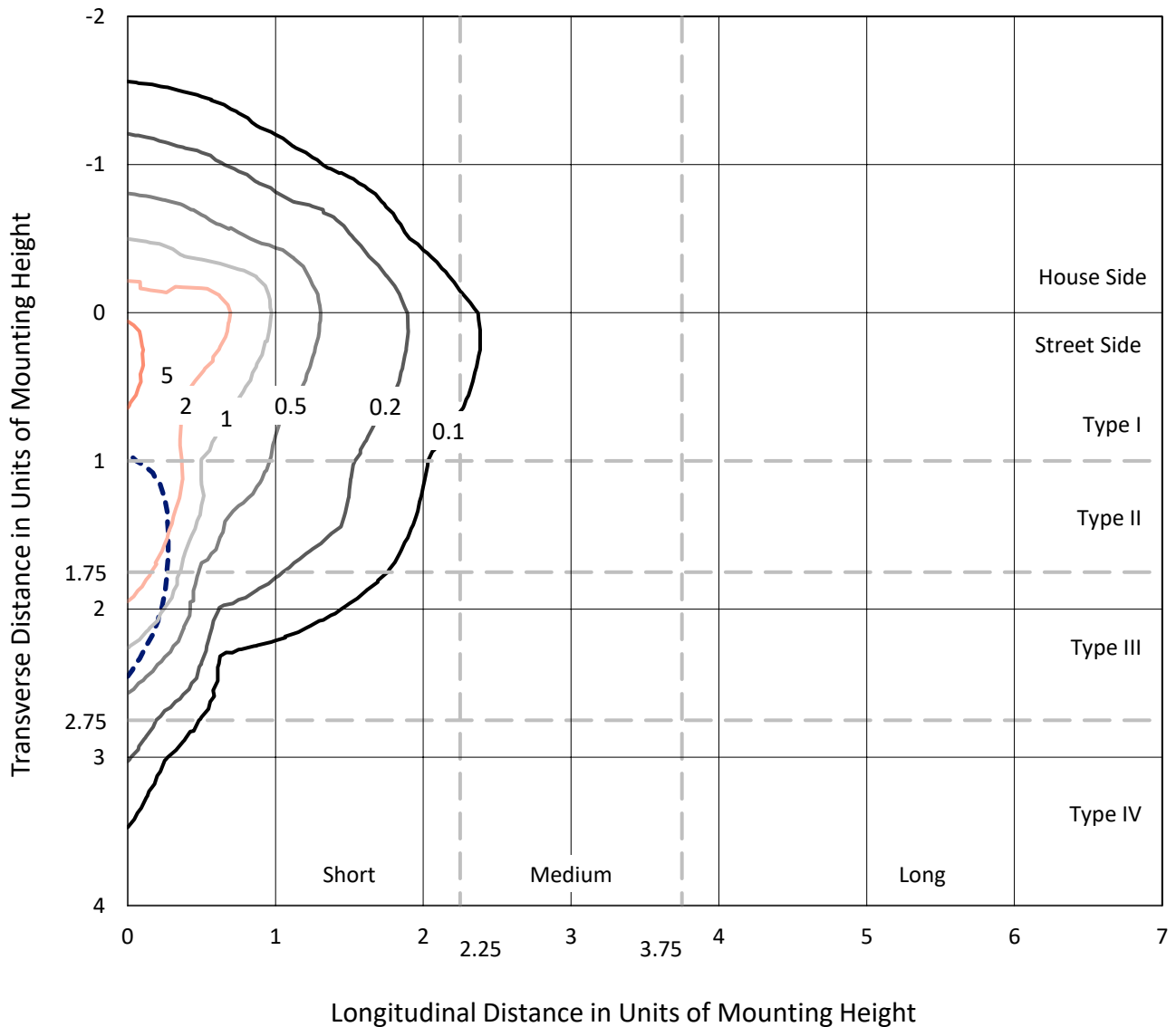
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

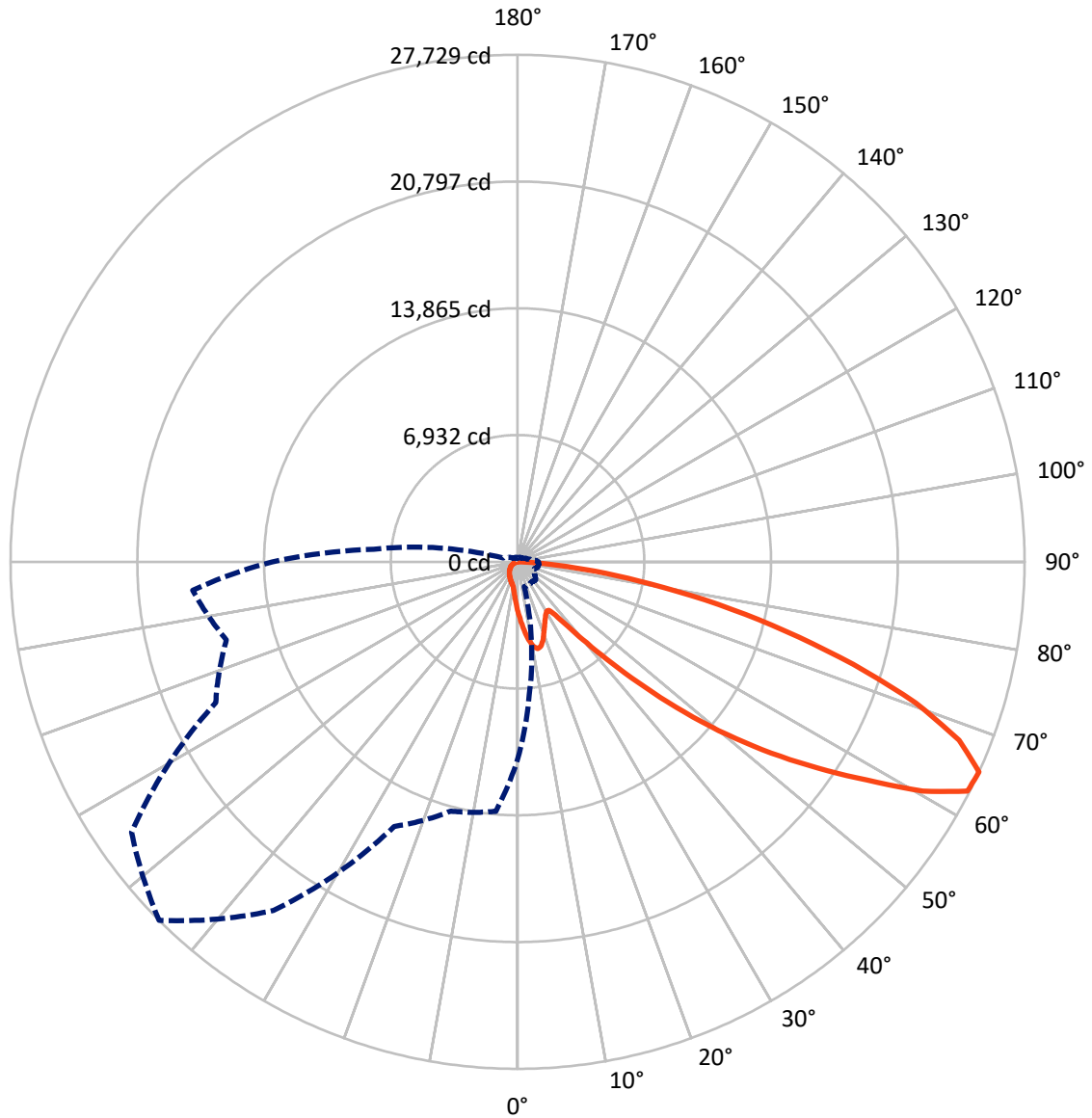
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 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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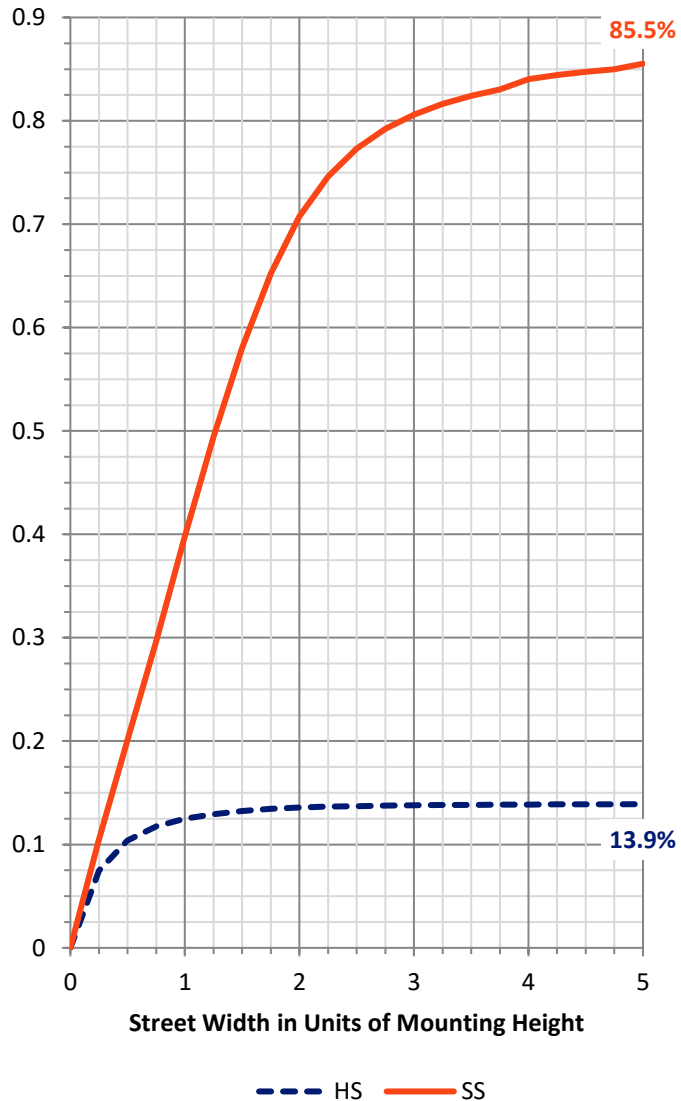
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2763.1	0.0	2763.1
	% Fixture	14.0	0.0	14.0
<b>Street Side</b>	Lumens	16967.2	0.0	16967.2
	% Fixture	86.0	0.0	86.0
<b>Total</b>	Lumens	19730.2	0.0	19730.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.0	1.4
10°-20°	806.3	4.1
20°-30°	1187.9	6.0
30°-40°	1526.1	7.7
40°-50°	2468.1	12.5
50°-60°	4328.1	21.9
60°-70°	5415.6	27.4
70°-80°	3164.6	16.0
80°-90°	564.6	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°	19730.2	100.0
0°-180°	19730.2	100.0

**Coefficient of Utilization**

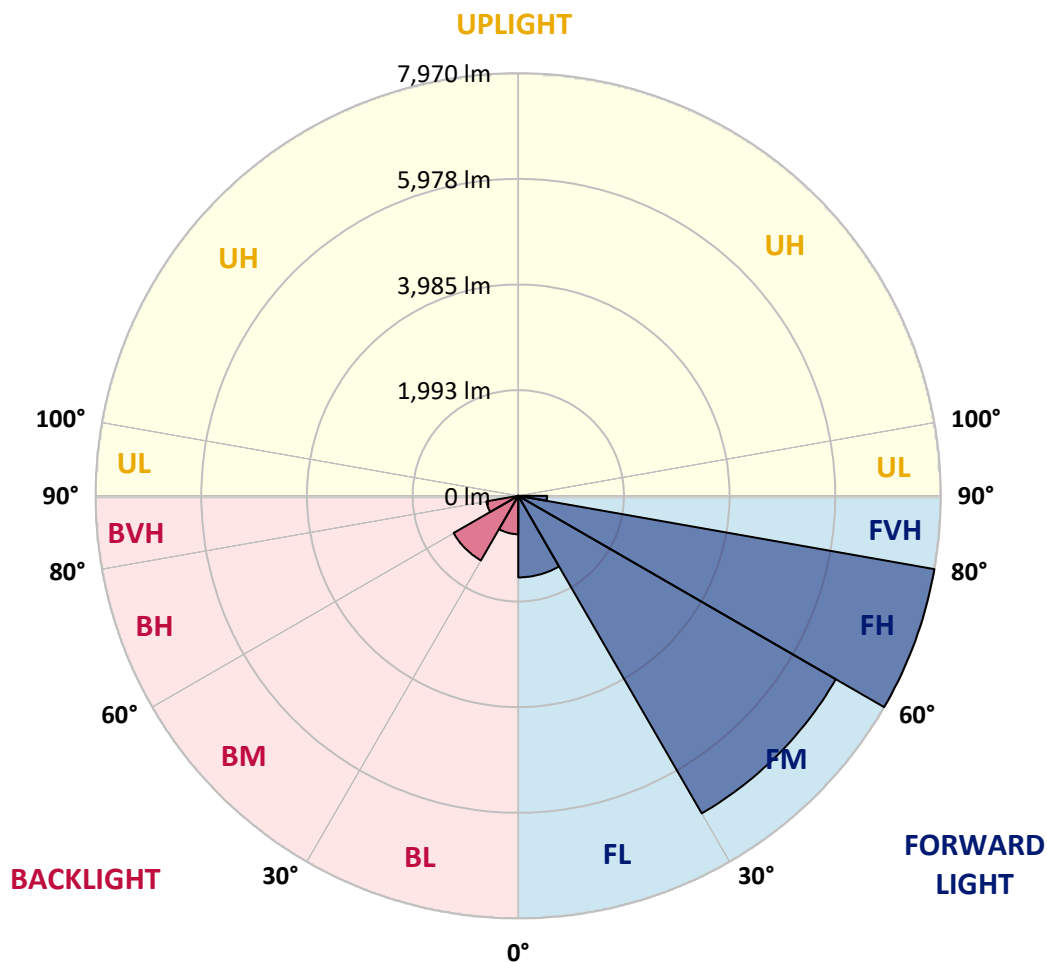


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1538.9	7.8			
FM	(30°-60°)	6915.2	35.0			
FH	(60°-80°)	7970.1	40.4			G4/12000
FVH	(80°-90°)	542.9	2.8			G4/750
BL	(0°-30°)	724.2	3.7	B2/1000		
BM	(30°-60°)	1407.0	7.1	B2/2500		
BH	(60°-80°)	610.1	3.1	B2/1000		G2/1000
BVH	(80°-90°)	21.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0
2.5°	3086.8	3033.8	3002.5	2925.0	2847.6	2785.0	2700.8	2645.0	2578.4	2514.5	2457.4
5°	3440.1	3354.5	3251.2	3109.8	2980.7	2848.9	2721.2	2594.7	2461.5	2339.2	2264.4
7.5°	3739.2	3615.5	3433.3	3245.8	3081.4	2922.3	2772.8	2605.5	2443.8	2252.2	2150.2
10°	3967.6	3809.8	3570.6	3324.6	3135.7	2975.3	2829.8	2688.5	2525.4	2294.4	2166.5
12.5°	4106.2	3937.6	3653.5	3365.4	3149.3	2969.8	2857.1	2794.6	2730.6	2500.9	2351.5
15°	4208.1	4026.0	3712.0	3394.0	3118.0	2897.8	2815.0	2877.5	2950.9	2804.1	2631.4
17.5°	4314.1	4122.4	3788.1	3406.2	3033.8	2757.9	2722.5	2884.2	3054.1	3047.3	2876.0
20°	4414.7	4224.4	3854.7	3398.0	2897.8	2587.9	2619.2	2825.8	3022.8	3105.7	3013.4
22.5°	4530.2	4329.1	3918.6	3366.7	2721.2	2428.9	2526.7	2733.4	2906.0	3003.9	2975.3
25°	4671.6	4460.9	4008.3	3320.6	2530.8	2297.0	2432.9	2625.9	2766.0	2833.9	2832.6
27.5°	4823.9	4618.5	4127.9	3296.1	2377.3	2203.2	2327.0	2498.2	2623.3	2670.8	2670.8
30°	5012.8	4802.1	4269.2	3268.9	2276.6	2148.9	2216.9	2350.0	2472.4	2520.0	2520.0
32.5°	5219.4	5006.0	4405.1	3203.6	2215.5	2108.1	2109.4	2193.8	2305.2	2362.3	2370.4
35°	5477.6	5250.7	4550.6	3061.0	2166.5	2060.6	2004.8	2045.6	2138.0	2206.0	2223.6
37.5°	5846.0	5571.4	4728.6	2857.1	2094.6	1987.2	1894.7	1904.2	1975.0	2049.7	2076.9
40°	6354.3	6002.3	4938.0	2645.0	1991.3	1883.8	1773.8	1769.7	1821.3	1894.7	1924.6
42.5°	7042.1	6571.8	5189.5	2442.5	1892.0	1758.8	1646.0	1639.2	1680.0	1743.8	1775.1
45°	7950.0	7300.3	5498.0	2268.5	1814.6	1636.5	1525.0	1522.3	1556.3	1612.0	1644.6
47.5°	9112.1	8313.0	5806.5	2150.2	1773.8	1540.0	1425.8	1431.2	1461.1	1511.5	1534.5
50°	10616.7	9632.7	5900.3	2090.5	1773.8	1488.3	1337.4	1364.7	1389.1	1427.2	1440.7
52.5°	12420.4	10899.4	5590.5	2036.1	1784.6	1495.2	1262.7	1321.1	1338.9	1371.4	1376.9
55°	14092.2	11520.6	4806.1	1961.3	1787.4	1537.3	1198.8	1285.8	1318.5	1330.7	1329.3
57.5°	15062.7	11307.3	3886.0	1835.0	1776.5	1565.8	1158.0	1242.3	1304.8	1313.0	1300.7
60°	14877.9	10558.3	2861.1	1738.4	1696.3	1554.9	1145.8	1175.7	1274.9	1287.2	1270.9
62.5°	13453.4	9302.4	1985.8	1663.7	1519.6	1507.4	1141.7	1071.0	1209.7	1239.6	1216.5
65°	10813.9	7323.4	1402.7	1432.6	1332.0	1404.0	1120.0	962.3	1130.9	1171.7	1136.3
67.5°	7845.4	4955.7	1012.6	1160.8	1206.9	1236.9	1071.0	883.4	1041.2	1095.5	1049.3
70°	5034.5	2676.3	710.8	766.6	1016.7	1050.6	986.8	812.8	950.1	1012.6	962.3
72.5°	3578.8	1580.8	511.1	536.9	816.9	875.4	868.5	734.0	844.1	920.1	860.4
75°	2469.6	871.2	345.2	383.2	592.7	710.8	670.0	630.7	714.9	792.4	734.0
77.5°	1548.2	390.1	206.6	266.4	388.8	558.6	459.4	488.0	557.3	629.3	568.2
80°	861.7	150.9	115.5	176.7	212.1	406.4	254.2	314.0	410.5	462.2	413.2
82.5°	187.6	19.1	51.7	76.2	82.9	236.5	134.6	182.1	258.3	254.2	220.2
85°	0.0	0.0	9.5	10.9	5.4	102.0	48.9	59.8	84.3	78.8	59.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	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°	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0
2.5°	2446.6	2379.9	2331.1	2306.6	2286.2	2305.2	2316.1	2316.1	2362.3	2389.5	2400.3
5°	2216.9	2097.3	2006.2	1945.0	1908.3	1920.5	1934.2	1949.1	2007.6	2046.9	2072.8
7.5°	2057.8	1874.3	1735.7	1650.0	1605.3	1612.0	1621.6	1633.7	1690.8	1730.3	1764.2
10°	2028.0	1764.2	1568.6	1455.7	1401.4	1391.8	1386.4	1382.3	1416.2	1446.2	1473.3
12.5°	2150.2	1769.7	1496.5	1359.3	1292.6	1264.0	1231.4	1205.6	1211.0	1230.1	1264.0
15°	2369.1	1839.1	1473.3	1308.9	1226.0	1178.4	1140.4	1109.2	1102.3	1109.2	1114.6
17.5°	2619.2	1932.8	1470.7	1265.5	1162.1	1113.1	1081.9	1053.4	1043.9	1045.2	1052.1
20°	2785.0	2007.6	1462.5	1216.5	1101.0	1057.5	1030.2	1001.7	992.2	995.0	996.3
22.5°	2801.3	2046.9	1450.3	1162.1	1039.8	1003.1	975.9	950.1	948.7	948.7	956.8
25°	2713.0	2046.9	1424.4	1113.1	981.3	948.7	924.2	893.0	898.4	901.2	912.0
27.5°	2575.7	1998.0	1375.6	1073.8	931.0	897.1	872.6	844.1	850.9	855.0	867.2
30°	2439.8	1935.5	1317.0	1028.9	883.4	844.1	826.4	802.0	804.6	810.1	823.7
32.5°	2313.3	1868.9	1247.7	992.2	835.9	796.5	782.9	755.7	759.8	765.3	780.2
35°	2188.3	1795.5	1166.2	948.7	792.4	753.0	742.1	710.8	713.6	721.7	738.0
37.5°	2053.8	1718.0	1099.6	905.3	750.3	709.5	698.6	666.0	668.7	678.2	697.3
40°	1912.4	1641.9	1034.3	859.1	705.4	664.6	655.2	619.8	622.5	633.3	653.7
42.5°	1769.7	1559.0	984.1	799.2	659.2	615.7	606.2	573.6	577.7	589.9	610.3
45°	1637.8	1459.8	951.4	732.6	615.7	566.8	557.3	527.4	535.6	549.1	569.5
47.5°	1525.0	1357.8	937.9	676.9	569.5	516.5	508.3	483.9	497.4	512.4	528.7
50°	1428.5	1260.0	920.1	619.8	526.0	473.0	464.8	448.5	466.2	481.1	496.1
52.5°	1359.3	1148.5	882.1	568.2	488.0	436.3	433.6	425.5	441.8	455.3	468.9
55°	1299.4	1033.0	820.9	523.3	454.0	405.1	407.7	403.6	417.3	428.1	440.3
57.5°	1245.1	932.4	743.5	488.0	417.3	377.8	386.0	380.6	387.3	394.2	409.1
60°	1179.8	830.5	651.1	448.5	373.8	350.7	360.2	345.2	343.9	346.6	350.7
62.5°	1083.3	693.2	554.5	399.6	335.7	320.7	324.8	296.3	274.6	274.6	278.6
65°	948.7	557.3	464.8	345.2	292.2	280.0	277.3	236.5	206.6	203.9	216.1
67.5°	792.4	458.1	386.0	290.9	243.3	235.1	237.9	208.0	178.0	175.4	188.9
70°	645.6	379.2	311.3	232.5	187.6	195.8	208.0	178.0	149.5	145.4	157.6
72.5°	524.7	301.8	243.3	178.0	138.7	161.7	176.7	145.4	118.3	115.5	126.4
75°	405.1	221.5	173.9	121.0	100.6	125.0	138.7	106.0	84.3	80.2	89.7
77.5°	270.5	137.2	97.9	76.2	59.8	85.6	92.5	55.8	48.9	47.6	54.3
80°	164.5	63.9	42.1	36.7	20.4	31.3	36.7	23.1	25.8	27.2	32.6
82.5°	82.9	17.6	6.8	1.3	0.0	0.0	10.9	5.4	10.9	13.6	20.4
85°	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	6.8	12.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0
2.5°	2476.5	2533.6	2587.9	2674.9	2764.6	2853.0	2942.7	3029.7	3061.0	3084.0	3135.7
5°	2191.0	2298.5	2423.5	2596.1	2780.9	2971.3	3164.3	3340.9	3421.1	3475.5	3597.9
7.5°	1896.0	2036.1	2215.5	2475.1	2764.6	3067.7	3370.8	3649.5	3778.6	3883.2	4069.5
10°	1603.8	1756.1	1983.1	2279.4	2670.8	3105.7	3524.5	3907.7	4074.9	4206.7	4459.6
12.5°	1347.0	1489.7	1727.5	2055.1	2524.1	3075.9	3612.8	4073.6	4270.7	4418.8	4696.0
15°	1166.2	1266.8	1477.4	1830.9	2350.0	2979.4	3618.2	4152.4	4368.4	4523.4	4764.0
17.5°	1065.6	1099.6	1236.9	1602.5	2157.0	2853.0	3567.9	4179.5	4410.6	4554.7	4721.9
20°	1011.3	1016.7	1054.7	1306.2	1909.7	2734.7	3520.4	4206.7	4450.0	4571.0	4621.3
22.5°	967.8	967.8	977.2	1068.4	1590.3	2593.4	3505.4	4254.4	4504.4	4579.2	4475.9
25°	928.3	928.3	931.0	955.5	1260.0	2377.3	3495.9	4327.8	4579.2	4599.6	4315.5
27.5°	887.5	888.9	888.9	902.5	1015.4	2083.6	3455.1	4422.9	4668.9	4626.7	4161.9
30°	846.8	849.5	849.5	859.1	898.4	1739.8	3374.9	4537.1	4785.7	4662.1	4009.7
32.5°	806.1	808.7	808.7	816.9	845.4	1389.1	3274.4	4641.7	4904.0	4677.1	3868.3
35°	763.8	767.9	765.3	776.1	806.1	1105.1	3146.5	4746.4	5031.8	4724.6	3799.0
37.5°	721.7	724.5	723.1	734.0	767.9	954.2	2998.4	4825.2	5205.8	4830.6	3881.9
40°	679.6	678.2	678.2	690.4	727.1	910.7	2812.2	4950.2	5455.9	5016.9	4243.4
42.5°	636.1	636.1	633.3	647.0	691.9	878.0	2634.1	5174.5	5820.2	5313.1	4884.9
45°	596.7	595.3	589.9	602.1	657.8	820.9	2571.6	5593.1	6358.4	5792.9	5661.1
47.5°	558.6	557.3	543.7	554.5	617.0	769.3	2805.4	6278.1	7104.6	6498.4	6388.3
50°	524.7	526.0	500.2	509.7	576.3	729.9	3312.4	7167.1	8095.4	7448.5	7077.4
52.5°	493.4	493.4	459.4	464.8	526.0	694.5	3794.9	8130.8	9402.9	8773.7	7880.7
55°	462.2	459.4	421.4	424.0	475.7	644.3	3866.9	9071.4	11186.2	10767.6	8978.9
57.5°	426.8	421.4	386.0	386.0	429.5	607.5	3351.9	9794.5	13399.1	13698.1	10562.4
60°	383.2	379.2	356.1	349.3	392.8	640.2	2365.0	9878.7	14826.2	17594.9	13594.8
62.5°	327.6	333.0	320.7	311.3	357.5	664.6	1401.4	9200.5	14481.0	18834.5	17226.6
65°	258.3	280.0	277.3	270.5	392.8	560.0	827.8	7898.3	13422.2	17834.2	16485.8
67.5°	220.2	235.1	231.0	231.0	411.8	425.5	520.6	6170.8	11965.1	16647.5	14725.7
70°	187.6	202.5	187.6	187.6	311.3	258.3	360.2	4308.7	10392.5	15334.6	13570.3
72.5°	155.0	169.9	153.5	142.7	248.8	193.0	263.7	2692.6	8900.1	13967.2	12779.3
75°	118.3	135.9	123.7	110.1	164.5	144.1	199.8	1564.5	7373.6	11950.2	11652.5
77.5°	74.7	97.9	92.5	77.5	121.0	104.7	144.1	931.0	5689.7	9337.8	10022.8
80°	46.2	50.3	51.7	48.9	69.3	70.7	97.9	530.1	3894.1	6507.9	7830.4
82.5°	29.9	29.9	23.1	25.8	34.0	40.8	55.8	199.8	2288.9	3962.1	5450.4
85°	21.7	19.1	12.2	12.2	16.3	20.4	21.7	61.2	928.3	1564.5	2131.3
87.5°	10.9	9.5	4.1	5.4	8.2	6.8	5.4	2.8	233.8	500.2	350.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P964998  
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**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0	2732.0
2.5°	3162.8	3205.0	3207.7	3207.7	3171.0	3169.7	3094.9	3086.8
5°	3724.2	3751.4	3758.2	3744.6	3671.2	3616.8	3471.4	3440.1
7.5°	4238.0	4292.4	4292.4	4259.8	4140.2	4028.7	3818.0	3739.2
10°	4648.5	4711.0	4697.4	4630.8	4480.0	4326.3	4070.8	3967.6
12.5°	4848.2	4912.2	4876.8	4800.7	4653.9	4492.2	4223.1	4106.2
15°	4844.3	4826.5	4789.8	4780.3	4709.7	4587.3	4335.9	4208.1
17.5°	4671.6	4522.1	4493.5	4588.7	4678.4	4648.5	4433.7	4314.1
20°	4398.4	4137.4	4111.6	4293.7	4549.3	4679.7	4524.8	4414.7
22.5°	4110.2	3828.9	3769.1	3970.2	4354.9	4689.3	4640.4	4530.2
25°	3837.1	3554.3	3494.5	3682.1	4138.7	4673.0	4765.3	4671.6
27.5°	3608.7	3335.5	3279.8	3467.4	3930.9	4626.7	4890.4	4823.9
30°	3432.0	3179.1	3138.4	3319.2	3751.4	4569.7	5049.5	5012.8
32.5°	3328.7	3143.9	3158.8	3307.0	3654.9	4507.1	5201.7	5219.4
35°	3430.7	3438.8	3569.3	3630.4	3744.6	4497.6	5408.3	5477.6
37.5°	3937.6	4220.3	4490.8	4440.5	4183.6	4607.7	5716.8	5846.0
40°	4800.7	5381.1	5820.2	5628.5	4981.5	4944.8	6161.3	6354.3
42.5°	5855.4	6839.5	7562.7	7048.8	6010.4	5534.7	6796.1	7042.1
45°	6968.7	8637.8	9776.8	8708.4	7107.2	6361.0	7757.0	7950.0
47.5°	8141.7	10823.4	12296.7	10548.8	8123.9	7301.7	9067.3	9112.1
50°	9424.8	13219.6	14865.7	12387.8	9105.3	8379.5	10668.4	10616.7
52.5°	10646.7	15683.8	17380.2	14235.0	9967.1	9717.0	12526.4	12420.4
55°	11812.8	18146.8	19909.7	16010.1	10779.8	11483.9	14733.8	14092.2
57.5°	13165.3	20360.9	22516.6	17793.4	11916.1	13778.3	17202.2	15062.7
60°	15164.7	22876.8	25464.7	20237.2	14077.4	16189.5	18086.9	14877.9
62.5°	17717.2	25190.2	27608.2	22632.1	16248.0	16643.4	16783.5	13453.4
65°	18213.3	25776.0	27729.1	23272.3	15968.0	14118.0	13702.2	10813.9
67.5°	16897.6	24717.2	26038.3	22080.3	14124.9	10910.3	10282.4	7845.4
70°	15421.5	22698.7	23091.5	20053.7	12423.1	8024.7	6944.2	5034.5
72.5°	13908.7	20006.2	19193.3	17415.5	10918.5	5843.2	5008.7	3578.8
75°	12111.9	16465.4	15118.4	14470.1	9040.1	4586.0	3623.7	2469.6
77.5°	9699.3	11590.0	11229.8	11216.2	6793.3	3350.4	2418.1	1548.2
80°	6842.3	7521.9	7338.4	8447.4	4557.5	2430.3	1455.7	861.7
82.5°	3312.4	4159.1	4269.2	5030.4	2216.9	1429.9	335.7	187.6
85°	1296.7	2006.2	1692.2	1909.7	622.5	398.2	8.2	0.0
87.5°	145.4	232.5	213.4	168.5	76.2	16.3	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)