

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: P963933

Luminaire Tested: **NAV-SB3B-722-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P963933  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-722-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12197.5 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

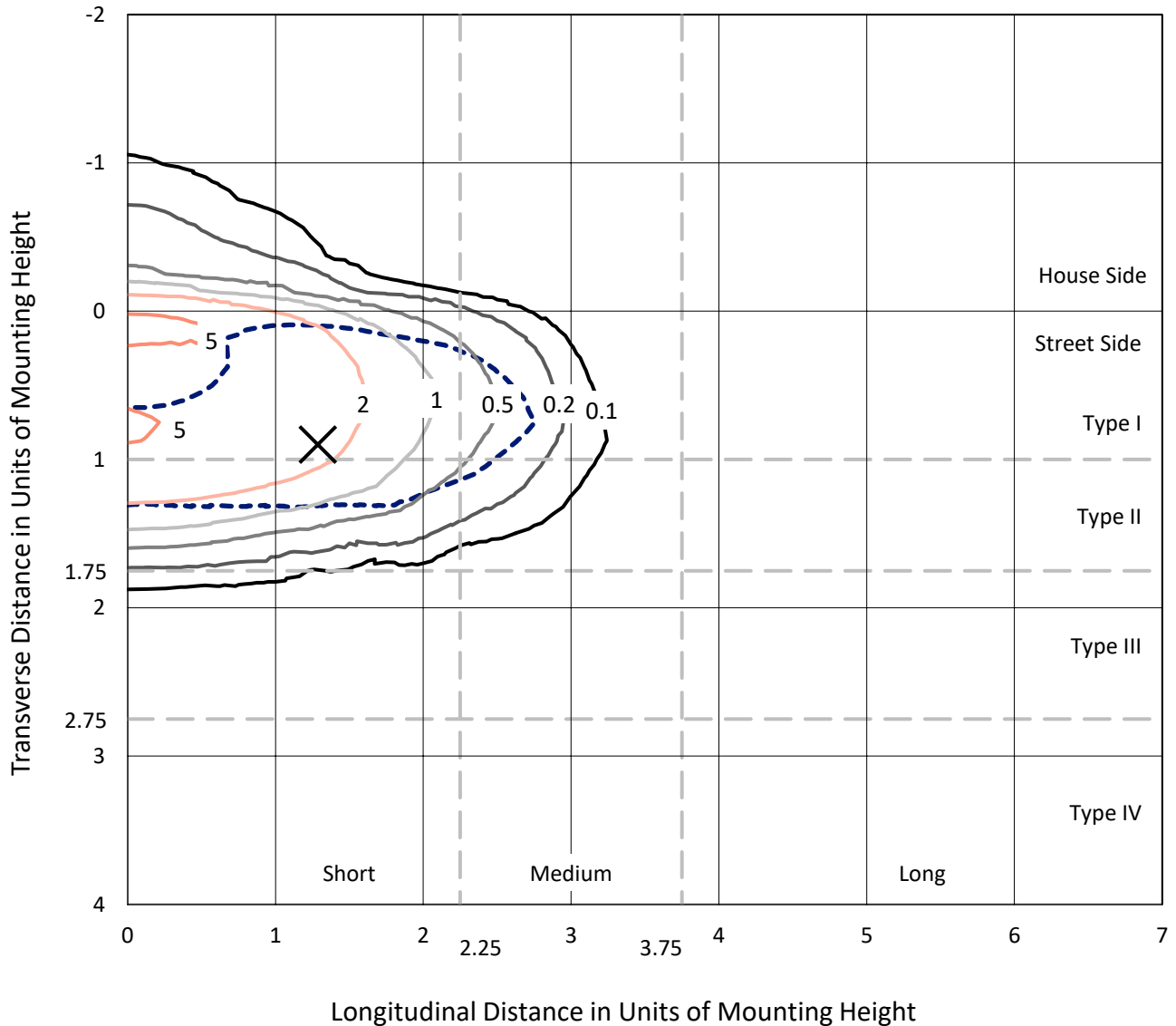
Input Watts (W): 109.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

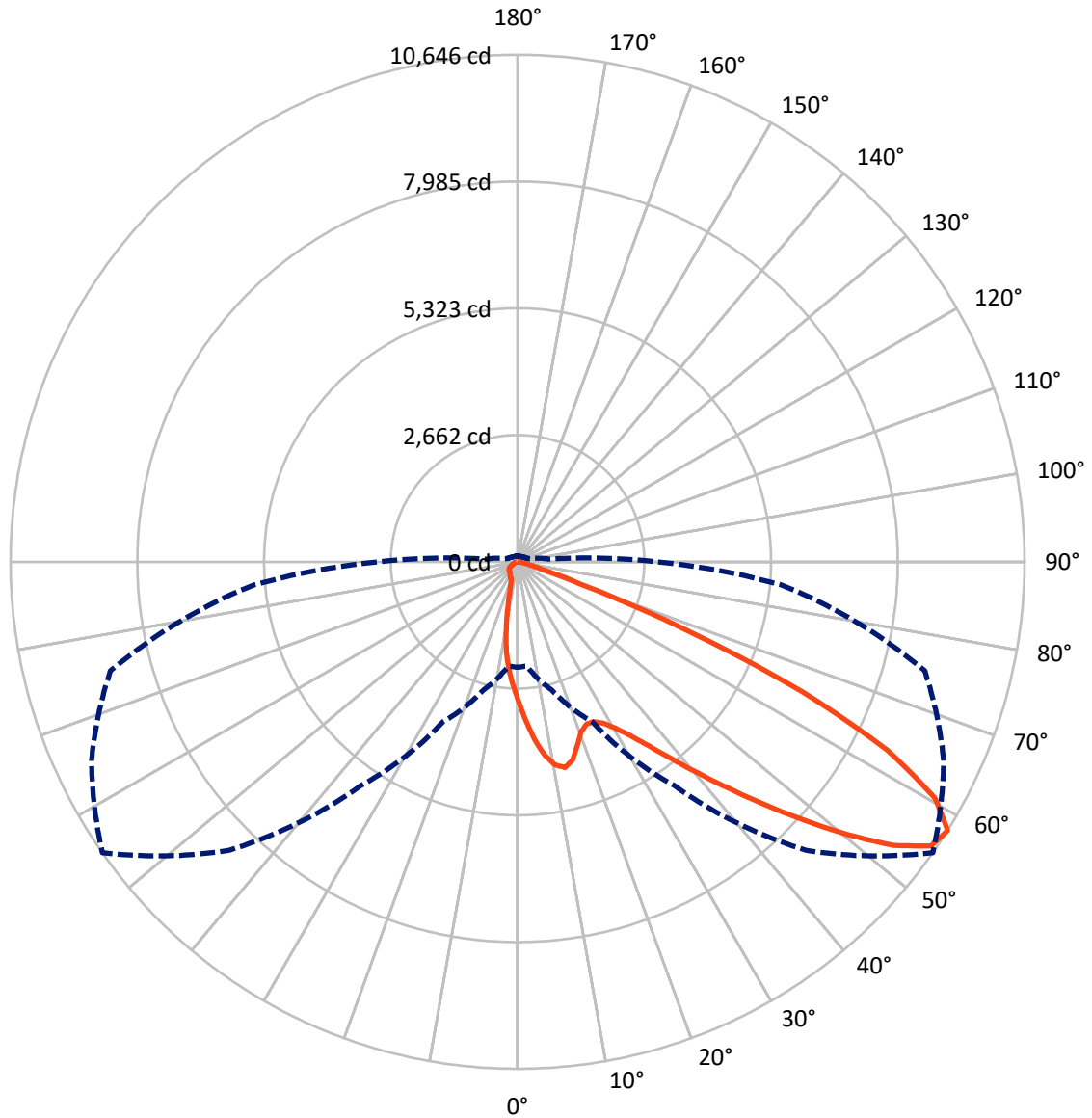
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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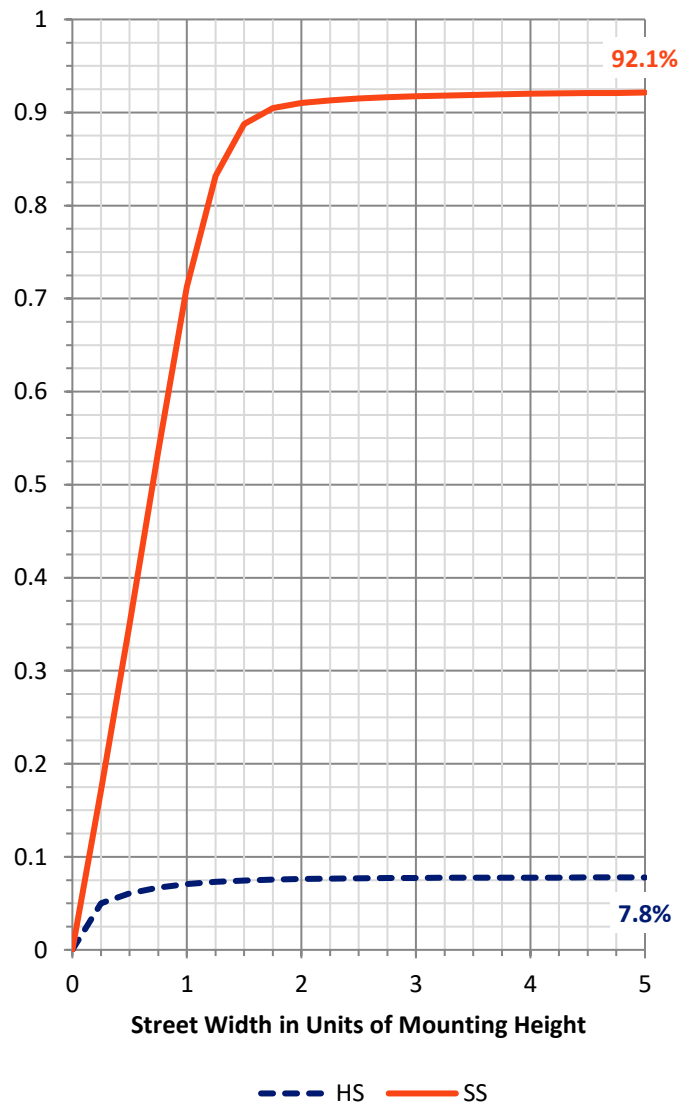
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	952.6	0.0	952.6
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	11244.9	0.0	11244.9
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	12197.5	0.0	12197.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	273.5	2.2
10°-20°	660.6	5.4
20°-30°	1057.0	8.7
30°-40°	1789.0	14.7
40°-50°	2937.1	24.1
50°-60°	3228.1	26.5
60°-70°	1851.6	15.2
70°-80°	378.3	3.1
80°-90°	22.3	0.2
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°	12197.5	100.0
0°-180°	12197.5	100.0

**Coefficient of Utilization**

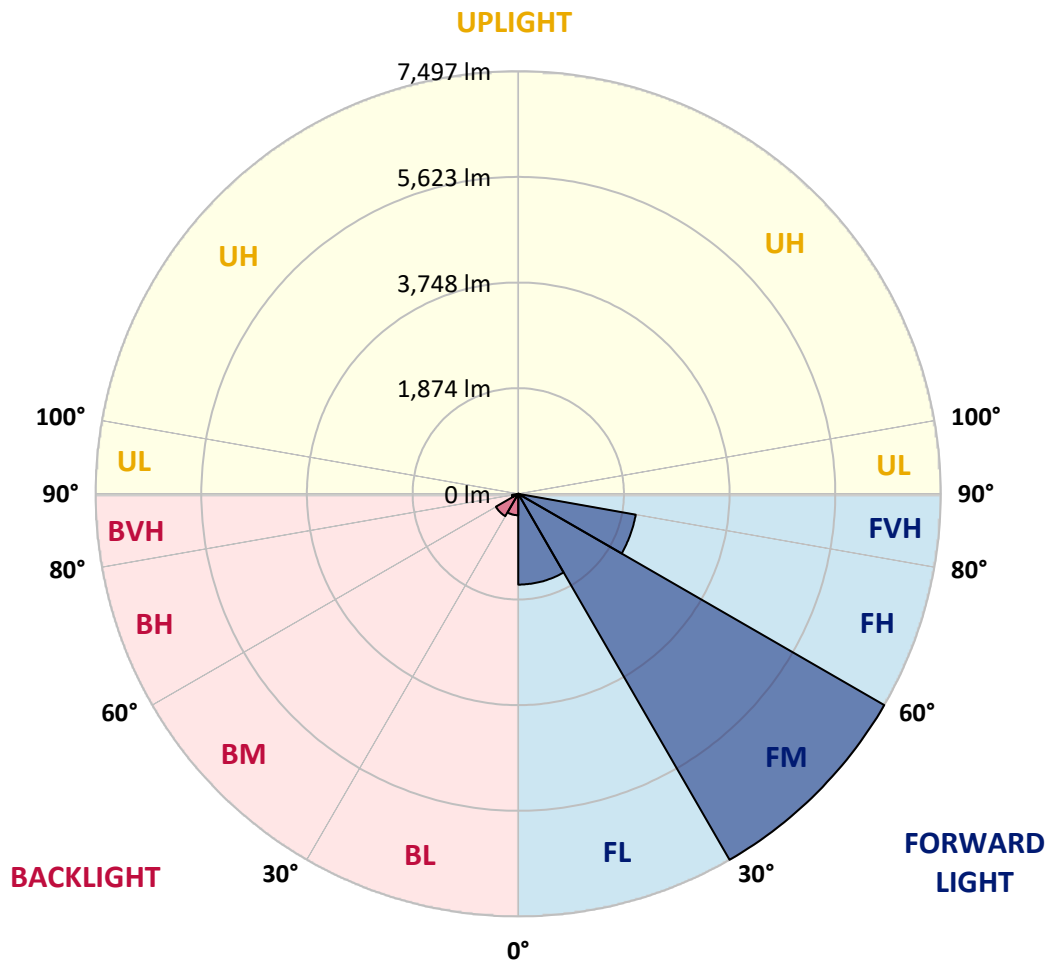


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 CATALOG NUMBER: NAV-SB3B-722-U-AFL-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1610.8	13.2			
FM (30°-60°)	7496.7	61.5			
FH (60°-80°)	2116.7	17.4			G2/5000
FVH (80°-90°)	20.8	0.2			G1/100
BL (0°-30°)	380.3	3.1	B1/500		
BM (30°-60°)	457.5	3.8	B1/1000		
BH (60°-80°)	113.3	0.9	B1/500		G1/500
BVH (80°-90°)	1.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3
2.5°	3647.1	3601.1	3594.4	3585.3	3498.1	3432.7	3337.9	3234.1	3117.5	2998.7	2946.1
5°	4213.4	4177.3	4170.5	4128.4	4029.2	3917.9	3749.3	3536.5	3319.2	3063.4	2953.5
7.5°	4323.2	4316.5	4347.2	4345.8	4332.3	4244.2	4102.0	3848.6	3522.2	3143.2	2973.1
10°	3833.6	3850.8	3942.7	4023.1	4240.4	4366.8	4336.0	4126.9	3731.3	3234.1	2994.9
12.5°	3387.5	3367.2	3432.7	3523.7	3776.4	4152.5	4433.0	4359.3	3970.4	3337.2	3027.3
15°	3107.8	3099.5	3136.4	3178.4	3371.0	3750.1	4320.2	4548.1	4200.7	3459.0	3076.2
17.5°	3018.3	3011.4	3022.8	3033.3	3158.1	3451.5	4051.7	4664.0	4421.0	3598.2	3130.4
20°	3091.2	3082.2	3080.7	3072.4	3124.3	3324.4	3808.8	4672.2	4618.8	3724.5	3177.0
22.5°	3304.1	3293.5	3256.7	3223.6	3228.1	3341.7	3700.5	4589.4	4767.7	3842.6	3206.3
25°	3689.9	3672.6	3595.9	3484.6	3413.9	3462.0	3717.0	4480.4	4909.9	3935.1	3192.1
27.5°	4172.8	4150.2	4051.7	3886.2	3724.5	3665.8	3836.6	4405.1	5027.9	4005.8	3161.2
30°	4645.9	4616.5	4519.5	4390.9	4154.7	3969.7	4052.4	4438.2	5168.6	4079.5	3120.5
32.5°	5156.6	5128.7	5000.2	4840.7	4645.1	4396.1	4348.0	4600.0	5340.9	4182.5	3092.0
35°	5802.6	5759.0	5576.2	5358.9	5151.2	4899.3	4748.1	4879.0	5570.3	4339.7	3107.8
37.5°	6538.2	6479.5	6282.5	5982.4	5711.6	5429.5	5235.5	5262.6	5906.5	4550.4	3156.7
40°	7231.7	7178.3	6996.2	6713.4	6373.4	6031.3	5824.5	5764.3	6370.5	4806.8	3242.4
42.5°	7647.6	7599.5	7522.8	7403.2	7116.6	6767.6	6506.6	6376.5	6919.6	5113.7	3346.9
45°	7670.9	7628.8	7731.8	7871.0	7814.6	7582.1	7264.0	7025.6	7470.8	5401.7	3455.3
47.5°	7297.9	7269.3	7582.1	8068.0	8310.2	8408.0	8114.6	7620.5	7925.9	5608.6	3499.7
50°	6281.0	6270.4	6914.2	7806.3	8499.0	9131.5	9011.9	8174.1	8278.6	5715.4	3457.5
52.5°	5446.1	5407.8	5783.0	6968.5	8224.5	9512.1	9888.9	8717.1	8525.3	5735.7	3359.0
55°	4130.6	4096.8	4567.6	5566.5	7339.2	9376.7	10530.4	9277.5	8702.0	5683.8	3182.2
57.5°	2215.7	2194.7	2789.6	3705.0	5737.2	8564.4	10646.3	9870.1	8851.0	5546.2	2934.8
60°	862.6	859.0	1081.6	1797.5	3486.8	6967.6	10061.9	10225.9	8944.3	5376.9	2727.9
62.5°	521.9	533.2	569.4	807.0	1540.4	4328.5	8714.9	9821.2	9006.7	5222.0	2557.2
65°	431.7	432.4	437.0	554.3	737.8	1811.1	6560.8	8490.0	8852.5	4945.9	2315.1
67.5°	370.0	376.8	394.1	440.0	520.5	794.3	3777.1	6576.6	7914.6	4303.7	1937.5
70°	291.8	300.8	322.7	361.7	401.6	497.1	1395.9	4375.8	6046.3	3243.9	1465.1
72.5°	245.9	245.2	256.5	294.1	318.9	349.7	537.0	2451.9	3513.9	1548.7	725.1
75°	190.2	197.8	212.1	245.9	261.0	253.5	291.1	895.7	1259.0	469.3	246.7
77.5°	148.9	155.0	167.7	200.8	215.9	179.8	167.7	320.4	404.7	168.5	111.3
80°	66.9	72.2	114.3	148.2	176.0	124.1	91.0	164.0	179.8	76.7	56.4
82.5°	12.0	20.3	66.9	78.2	90.3	80.5	47.4	85.0	88.0	30.9	19.6
85°	0.7	1.5	23.3	28.6	36.1	26.3	14.2	33.8	29.3	10.6	7.5
87.5°	0.0	0.0	0.0	0.7	0.7	3.8	4.5	6.0	4.5	3.8	3.0
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: P963933  
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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3	2939.3
2.5°	2891.9	2785.1	2681.3	2596.3	2546.7	2462.5	2406.8	2397.8	2374.4	2394.8
5°	2836.3	2645.2	2451.9	2278.9	2136.8	1953.2	1816.4	1758.5	1708.1	1725.4
7.5°	2809.9	2508.4	2207.4	1911.9	1608.0	1314.7	1096.5	1005.6	936.4	946.2
10°	2774.6	2366.2	1894.6	1443.3	1036.4	746.8	596.4	540.8	509.9	510.7
12.5°	2747.5	2196.2	1531.4	978.5	631.0	476.8	430.2	416.7	407.6	408.4
15°	2734.0	1996.1	1172.6	652.1	451.3	403.8	392.6	386.6	380.6	379.9
17.5°	2711.4	1773.5	858.1	476.1	394.8	378.3	368.6	361.7	354.2	352.7
20°	2677.6	1520.8	627.3	402.4	370.0	357.2	343.7	334.7	325.6	324.2
22.5°	2615.1	1253.8	482.2	372.3	352.0	337.7	321.1	310.7	301.6	300.1
25°	2499.3	1003.4	406.1	353.5	336.2	318.9	300.8	286.6	278.3	276.8
27.5°	2352.7	788.2	368.6	336.2	315.9	300.1	279.8	266.3	258.7	257.3
30°	2179.7	607.0	346.8	316.6	291.8	278.3	260.2	249.0	244.5	244.5
32.5°	1993.1	485.1	337.7	297.0	270.8	255.7	241.4	236.9	235.4	234.6
35°	1817.8	421.2	333.2	281.3	251.9	237.7	231.6	232.4	235.4	235.4
37.5°	1662.2	400.9	331.0	270.0	235.4	222.6	226.4	233.2	230.1	230.1
40°	1521.5	403.1	329.4	261.8	221.9	214.3	221.9	216.6	209.1	208.4
42.5°	1414.0	421.9	326.5	255.0	213.6	208.4	205.3	197.0	196.3	197.8
45°	1335.8	438.5	325.6	251.9	204.6	194.7	191.1	182.8	197.8	201.6
47.5°	1243.2	438.5	325.6	241.4	189.5	185.7	179.8	170.8	185.7	189.5
50°	1123.7	410.6	312.9	229.4	177.5	175.3	164.7	153.4	150.5	152.7
52.5°	972.5	360.3	280.5	212.9	165.4	160.9	148.2	139.9	137.7	137.7
55°	800.2	301.6	236.9	188.8	152.7	144.4	135.4	131.6	129.4	127.8
57.5°	650.6	247.4	190.2	167.7	140.6	130.1	127.1	122.6	118.8	116.5
60°	534.0	194.7	157.2	148.9	128.6	118.8	118.1	112.0	102.3	100.8
62.5°	412.2	142.9	132.3	129.4	116.5	108.3	106.8	94.8	79.7	76.7
65°	291.1	111.3	106.8	113.6	103.8	96.2	92.6	74.4	58.6	56.4
67.5°	204.6	93.3	84.3	99.3	90.3	80.5	78.2	63.1	48.9	47.4
70°	146.0	76.0	69.2	85.0	72.2	70.7	66.2	52.7	39.9	38.3
72.5°	103.0	57.9	53.4	73.7	49.6	60.9	54.1	40.6	30.1	28.6
75°	76.0	41.4	37.6	42.8	36.1	45.9	38.3	27.1	18.8	18.0
77.5°	55.7	26.3	22.5	21.0	21.0	28.6	21.0	11.3	8.3	7.5
80°	39.2	12.0	10.6	9.0	8.3	6.8	3.0	1.5	0.7	0.7
82.5°	23.3	5.2	5.2	3.8	2.3	0.0	0.0	0.0	0.0	0.0
85°	5.2	2.3	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)