

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: P967715

Luminaire Tested: **NAV-SB5A-735-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967715  
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-SB5A-735-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

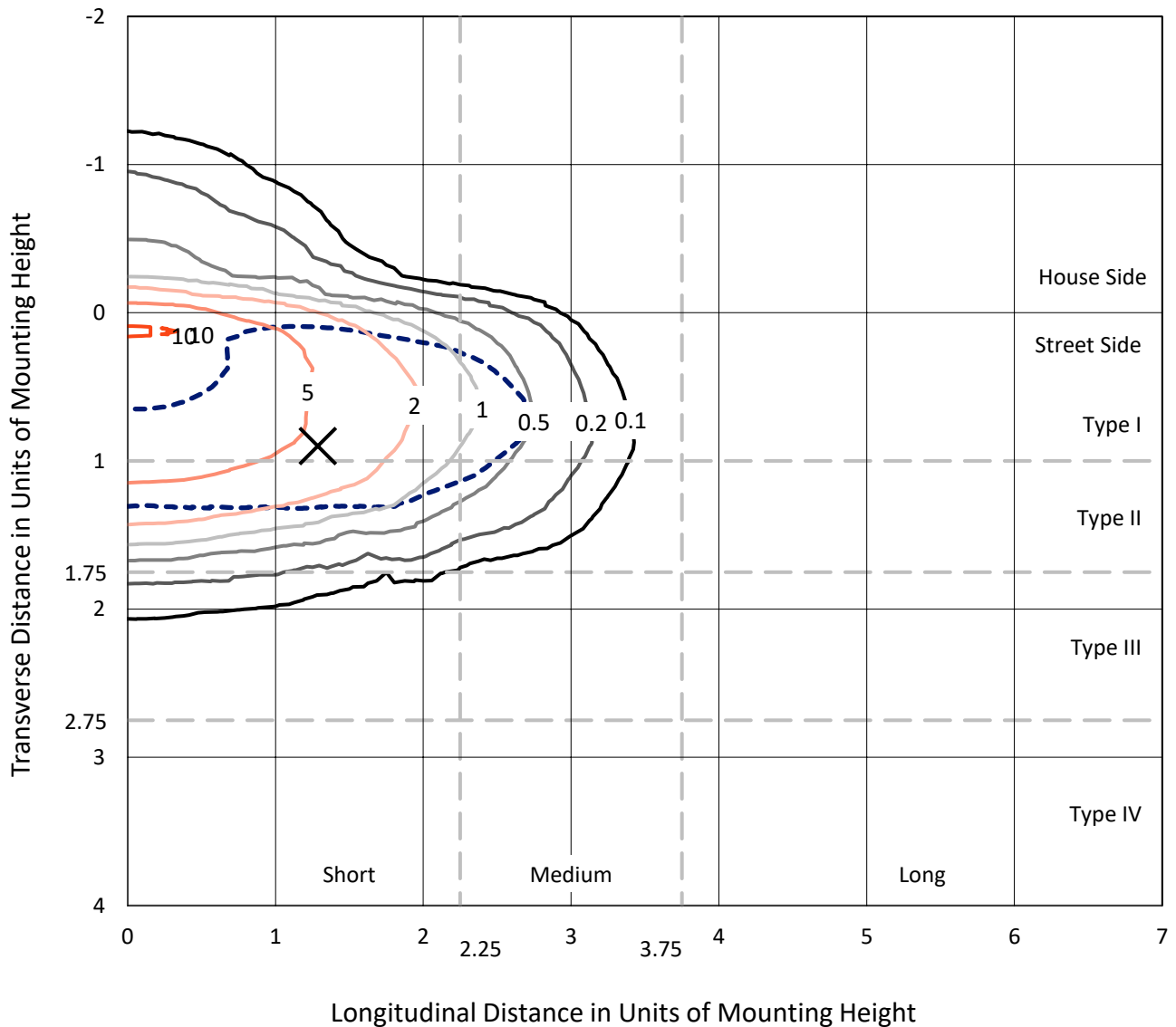
Lumens per Lamp: N/A  
Luminaire Lumens: 19803 lumens  
Efficiency: N/A  
Efficacy: 139.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 141.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

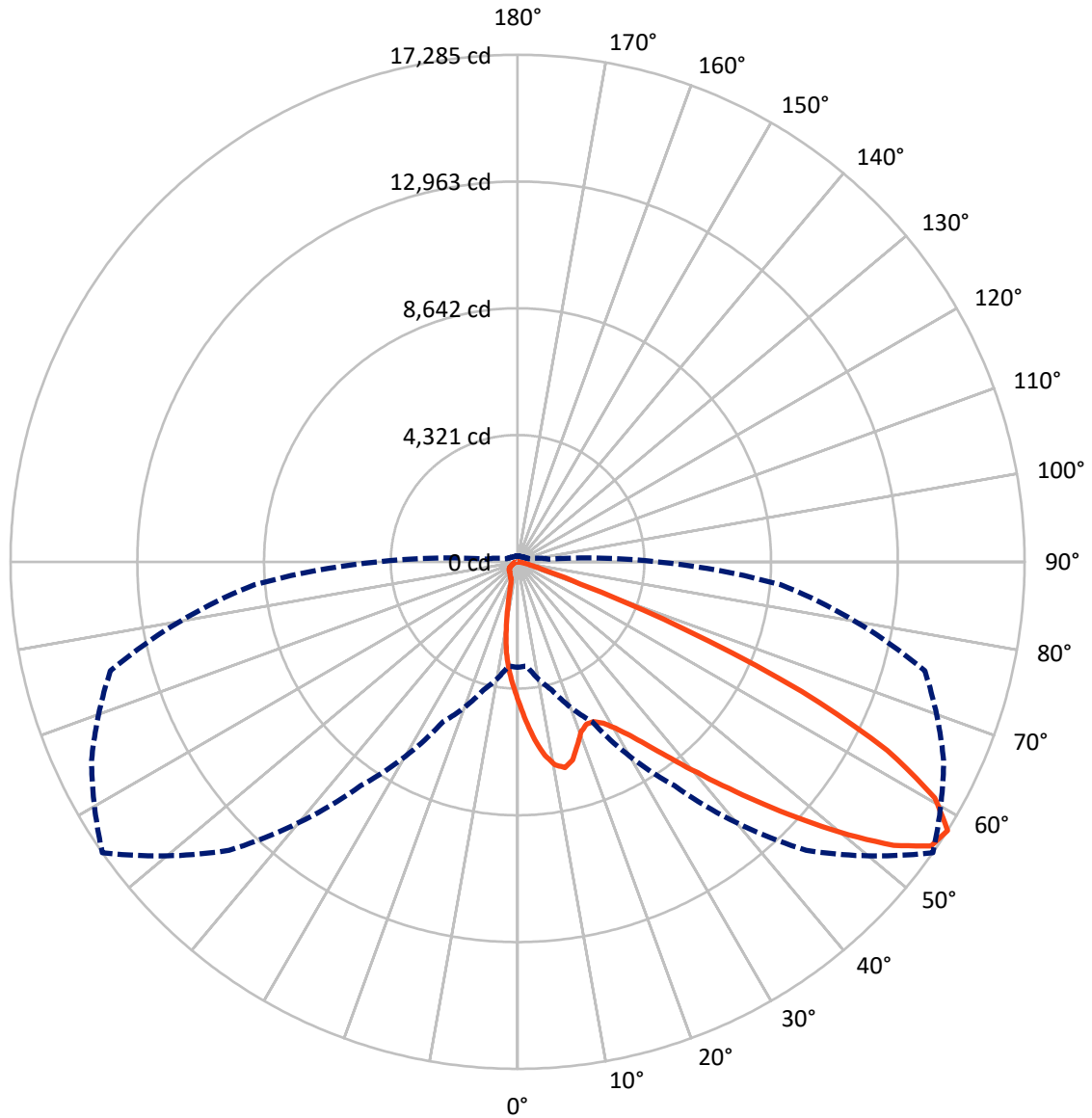
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 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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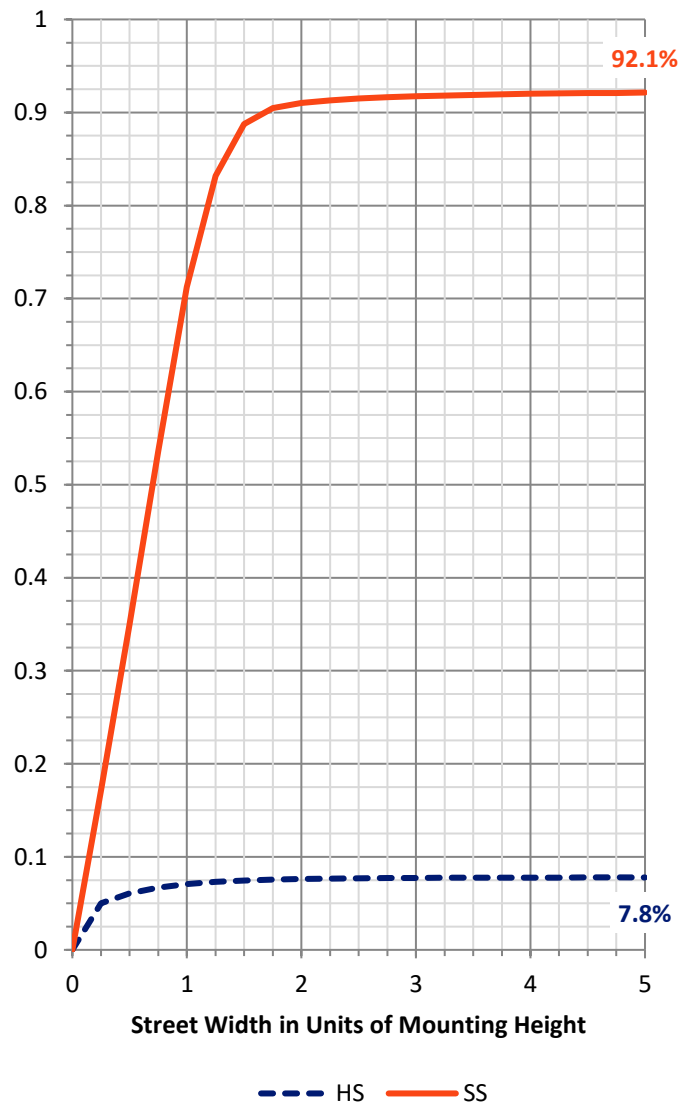
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1546.5	0.0	1546.5
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	18256.5	0.0	18256.5
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	19803.0	0.0	19803.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	444.0	2.2
10°-20°	1072.5	5.4
20°-30°	1716.0	8.7
30°-40°	2904.4	14.7
40°-50°	4768.5	24.1
50°-60°	5240.9	26.5
60°-70°	3006.2	15.2
70°-80°	614.2	3.1
80°-90°	36.2	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°	19803.0	100.0
0°-180°	19803.0	100.0

**Coefficient of Utilization**

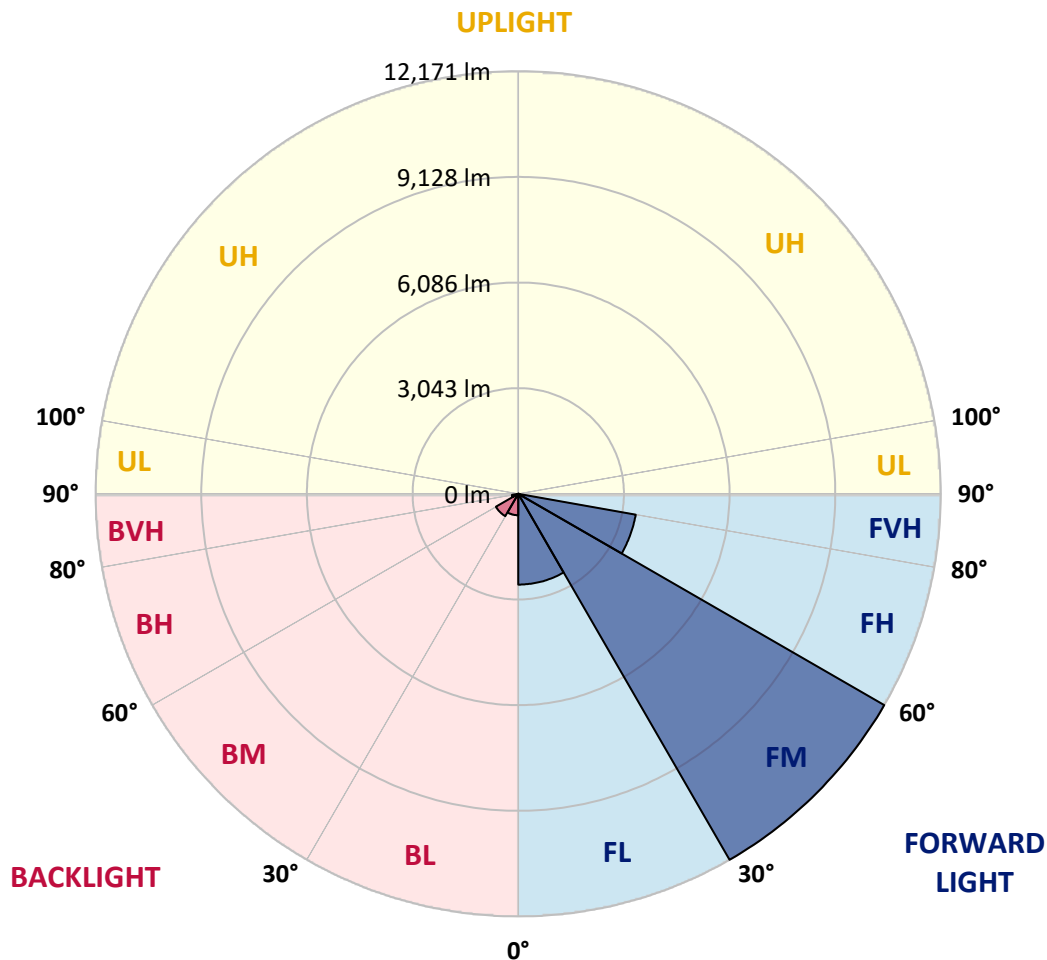


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2615.1	13.2			
FM (30°-60°)	12171.1	61.5			
FH (60°-80°)	3436.5	17.4			G2/5000
FVH (80°-90°)	33.8	0.2			G1/100
BL (0°-30°)	617.4	3.1	B2/1000		
BM (30°-60°)	742.7	3.8	B1/1000		
BH (60°-80°)	183.9	0.9	B1/500		G1/500
BVH (80°-90°)	2.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0
2.5°	5921.1	5846.6	5835.6	5821.0	5679.3	5573.0	5419.2	5250.7	5061.4	4868.5	4783.1
5°	6840.5	6781.9	6770.9	6702.6	6541.4	6360.6	6087.2	5741.5	5388.7	4973.5	4795.3
7.5°	7018.9	7007.8	7057.9	7055.5	7033.6	6890.7	6659.8	6248.3	5718.4	5103.0	4827.0
10°	6223.9	6252.0	6401.0	6531.6	6884.5	7089.7	7039.6	6700.1	6057.9	5250.7	4862.4
12.5°	5499.8	5466.8	5573.0	5720.8	6131.1	6741.6	7197.1	7077.4	6446.1	5417.9	4914.9
15°	5045.6	5032.1	5092.0	5160.4	5473.0	6088.4	7014.0	7384.0	6819.8	5615.8	4994.3
17.5°	4900.2	4889.2	4907.6	4924.7	5127.4	5603.6	6578.0	7572.0	7177.6	5841.7	5082.2
20°	5018.7	5004.0	5001.6	4988.2	5072.4	5397.2	6183.6	7585.4	7498.7	6046.9	5157.9
22.5°	5364.2	5347.2	5287.4	5233.6	5240.9	5425.3	6007.8	7451.1	7740.5	6238.6	5205.6
25°	5990.7	5962.6	5838.1	5657.3	5542.6	5620.7	6034.7	7274.0	7971.3	6388.7	5182.3
27.5°	6774.6	6738.0	6578.0	6309.4	6046.9	5951.7	6228.8	7151.9	8163.0	6503.5	5132.3
30°	7542.7	7495.1	7337.6	7128.8	6745.3	6444.9	6579.3	7205.6	8391.4	6623.2	5066.3
32.5°	8371.8	8326.7	8117.8	7859.0	7541.4	7137.3	7059.2	7468.3	8671.0	6790.5	5019.9
35°	9420.8	9349.9	9053.2	8700.3	8363.3	7954.2	7708.7	7921.2	9043.5	7045.7	5045.6
37.5°	10615.0	10519.7	10199.8	9712.6	9273.0	8815.1	8500.0	8544.0	9589.3	7387.6	5124.9
40°	11740.9	11654.1	11358.6	10899.4	10347.6	9791.9	9456.1	9358.5	10342.7	7804.0	5264.1
42.5°	12416.1	12337.9	12213.4	12019.3	11554.0	10987.4	10563.6	10352.4	11234.1	8302.2	5433.8
45°	12454.0	12385.6	12552.9	12778.8	12687.1	12309.8	11793.3	11406.2	12129.1	8769.9	5609.7
47.5°	11848.3	11801.8	12309.8	13098.7	13491.9	13650.6	13174.4	12372.2	12867.8	9105.7	5681.8
50°	10197.3	10180.3	11225.5	12673.7	13798.3	14825.3	14631.2	13270.9	13440.6	9279.1	5613.4
52.5°	8842.0	8779.6	9389.0	11313.4	13352.7	15443.2	16055.0	14152.5	13841.1	9312.0	5453.4
55°	6706.3	6651.3	7415.7	9037.3	11915.4	15223.4	17096.5	15062.2	14128.1	9227.8	5166.4
57.5°	3597.3	3563.1	4529.1	6015.1	9314.5	13904.6	17284.6	16024.4	14369.8	9004.3	4764.7
60°	1400.6	1394.5	1755.9	2918.4	5661.0	11312.2	16335.8	16602.0	14521.3	8729.6	4428.9
62.5°	847.5	865.7	924.3	1310.3	2500.8	7027.4	14148.8	15945.0	14622.6	8478.1	4151.8
65°	700.9	702.1	709.5	900.0	1197.9	2940.4	10651.6	13783.7	14372.2	8030.0	3758.6
67.5°	600.8	611.7	639.8	714.3	845.0	1289.4	6132.4	10677.2	12849.6	6987.1	3145.5
70°	473.8	488.4	523.9	587.3	652.1	807.2	2266.4	7104.3	9816.4	5266.6	2378.7
72.5°	399.3	398.1	416.4	477.4	517.7	567.8	871.9	3980.8	5704.9	2514.2	1177.1
75°	308.9	321.1	344.3	399.3	423.7	411.5	472.5	1454.4	2044.2	762.0	400.6
77.5°	241.8	251.5	272.3	326.1	350.4	291.8	272.3	520.2	656.9	273.6	180.7
80°	108.6	117.3	185.6	240.6	285.8	201.5	147.7	266.2	291.8	124.5	91.5
82.5°	19.6	33.0	108.6	127.0	146.6	130.7	77.0	138.0	142.9	50.0	31.8
85°	1.2	2.5	37.8	46.4	58.6	42.7	23.2	54.9	47.7	17.1	12.2
87.5°	0.0	0.0	0.0	1.2	1.2	6.1	7.3	9.7	7.3	6.1	4.9
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°
0°	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0	4772.0
2.5°	4695.1	4521.7	4353.2	4215.2	4134.6	3997.9	3907.5	3892.8	3855.0	3887.9
5°	4604.7	4294.5	3980.8	3699.9	3469.1	3171.1	2948.9	2854.9	2773.1	2801.2
7.5°	4562.0	4072.3	3583.9	3104.0	2610.7	2134.5	1780.3	1632.6	1520.3	1536.2
10°	4504.6	3841.6	3075.9	2343.3	1682.6	1212.6	968.3	878.0	827.9	829.1
12.5°	4460.7	3565.6	2486.1	1588.6	1024.5	774.2	698.4	676.5	661.8	663.1
15°	4438.7	3240.7	1903.7	1058.7	732.7	655.7	637.4	627.6	617.9	616.6
17.5°	4402.1	2879.3	1393.3	773.0	641.0	614.2	598.3	587.3	575.1	572.7
20°	4347.1	2469.0	1018.4	653.3	600.8	580.0	558.0	543.4	528.7	526.3
22.5°	4245.8	2035.5	782.7	604.4	571.4	548.3	521.4	504.3	489.6	487.2
25°	4057.7	1628.9	659.4	573.9	545.8	517.7	488.4	465.2	451.8	449.4
27.5°	3819.6	1279.7	598.3	545.8	512.9	487.2	454.3	432.2	420.0	417.6
30°	3538.7	985.4	562.9	514.0	473.8	451.8	422.5	404.2	396.9	396.9
32.5°	3235.9	787.6	548.3	482.4	439.6	415.1	392.0	384.7	382.2	381.0
35°	2951.4	683.8	541.0	456.7	409.1	385.9	376.1	377.3	382.2	382.2
37.5°	2698.6	650.9	537.3	438.4	382.2	361.4	367.6	378.5	373.6	373.6
40°	2470.2	654.5	534.8	425.0	360.2	348.0	360.2	351.7	339.5	338.2
42.5°	2295.7	685.0	529.9	414.0	346.8	338.2	333.3	319.9	318.7	321.1
45°	2168.7	711.9	528.7	409.1	332.1	316.2	310.2	296.7	321.1	327.3
47.5°	2018.4	711.9	528.7	392.0	307.7	301.7	291.8	277.2	301.7	307.7
50°	1824.3	666.8	508.0	372.4	288.1	284.5	267.4	249.1	244.3	247.8
52.5°	1578.9	584.9	455.5	345.5	268.7	261.3	240.6	227.1	223.4	223.4
55°	1299.3	489.6	384.7	306.5	247.8	234.4	219.8	213.7	210.0	207.6
57.5°	1056.3	401.7	308.9	272.3	228.4	211.3	206.3	199.1	192.9	189.3
60°	866.9	316.2	255.2	241.8	208.8	192.9	191.7	181.9	166.0	163.6
62.5°	669.1	232.0	214.9	210.0	189.3	175.8	173.4	153.9	129.5	124.5
65°	472.5	180.7	173.4	184.4	168.5	156.3	150.2	120.8	95.2	91.5
67.5°	332.1	151.4	136.7	161.2	146.6	130.7	127.0	102.6	79.3	77.0
70°	236.9	123.3	112.3	138.0	117.3	114.8	107.4	85.5	64.7	62.3
72.5°	167.3	94.0	86.7	119.6	80.6	98.9	87.9	65.9	48.9	46.4
75°	123.3	67.1	61.1	69.6	58.6	74.5	62.3	44.0	30.5	29.3
77.5°	90.4	42.7	36.6	34.2	34.2	46.4	34.2	18.3	13.4	12.2
80°	63.4	19.6	17.1	14.7	13.4	11.0	4.9	2.5	1.2	1.2
82.5°	37.8	8.5	8.5	6.1	3.7	0.0	0.0	0.0	0.0	0.0
85°	8.5	3.7	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	1.2	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)