

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: P966041

Luminaire Tested: **NAV-SB4B-722-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966041
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-SB4B-722-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 16293.4 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

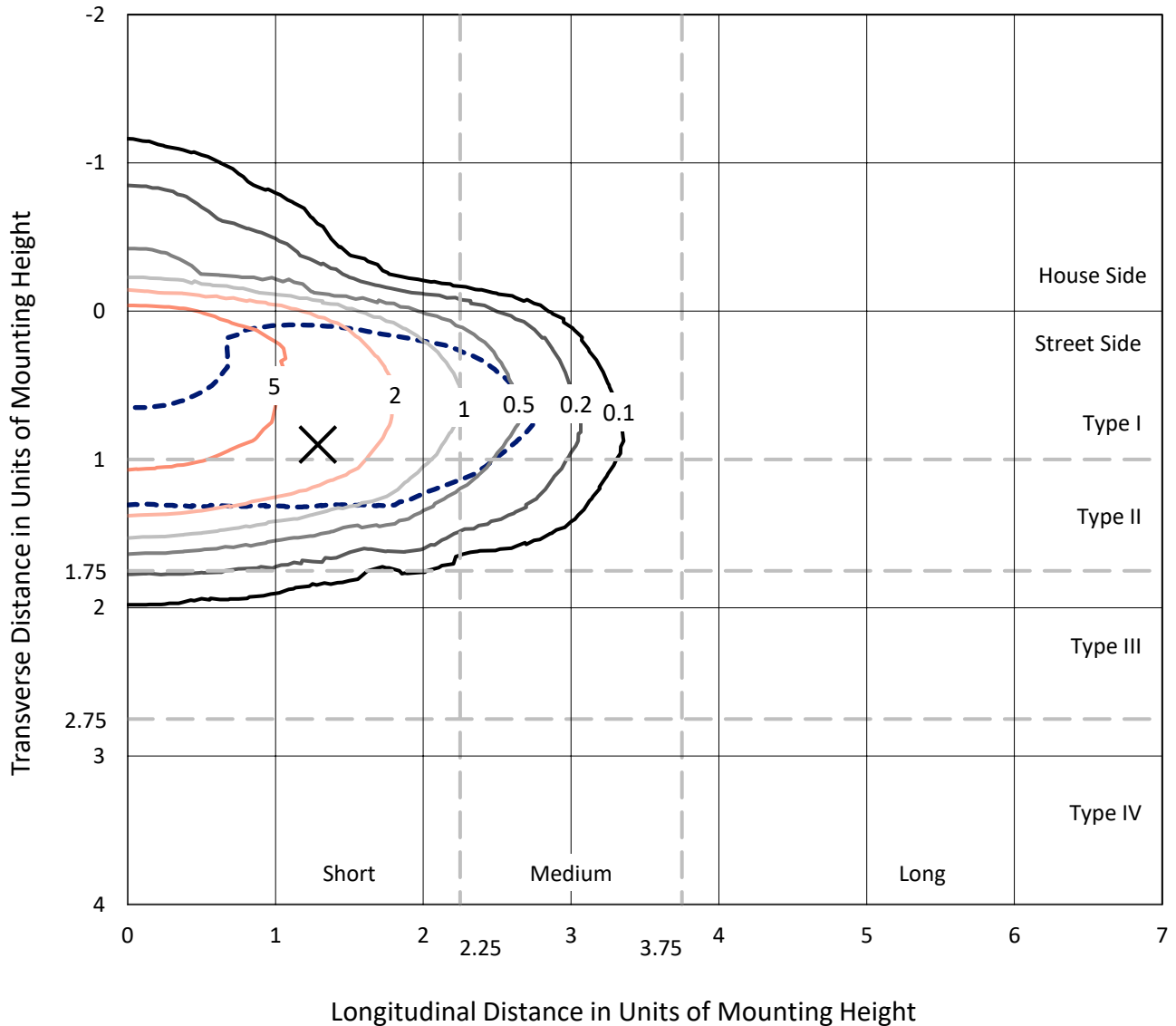
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

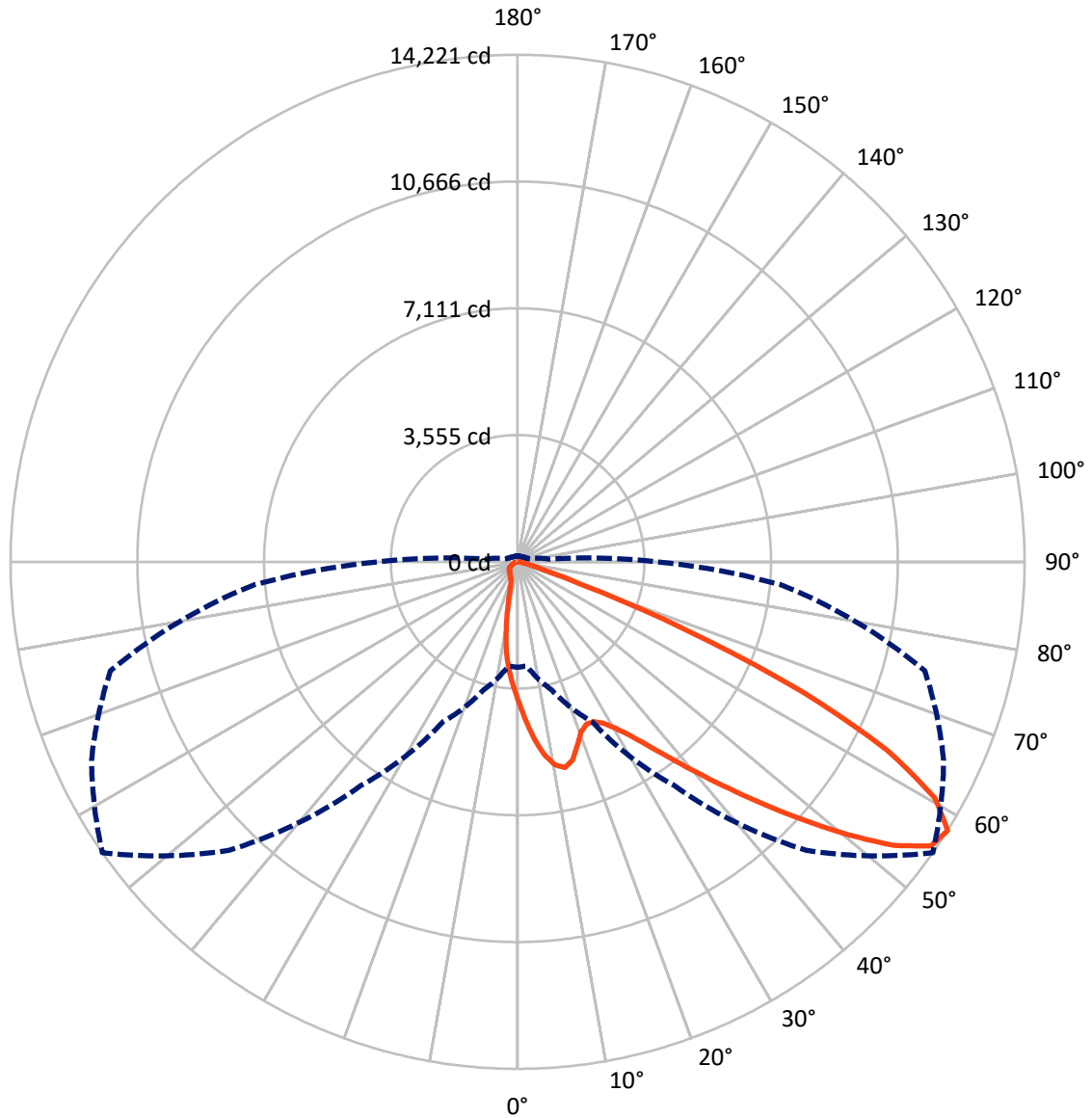
✕ Max cd
 - - - 1/2 Max cd



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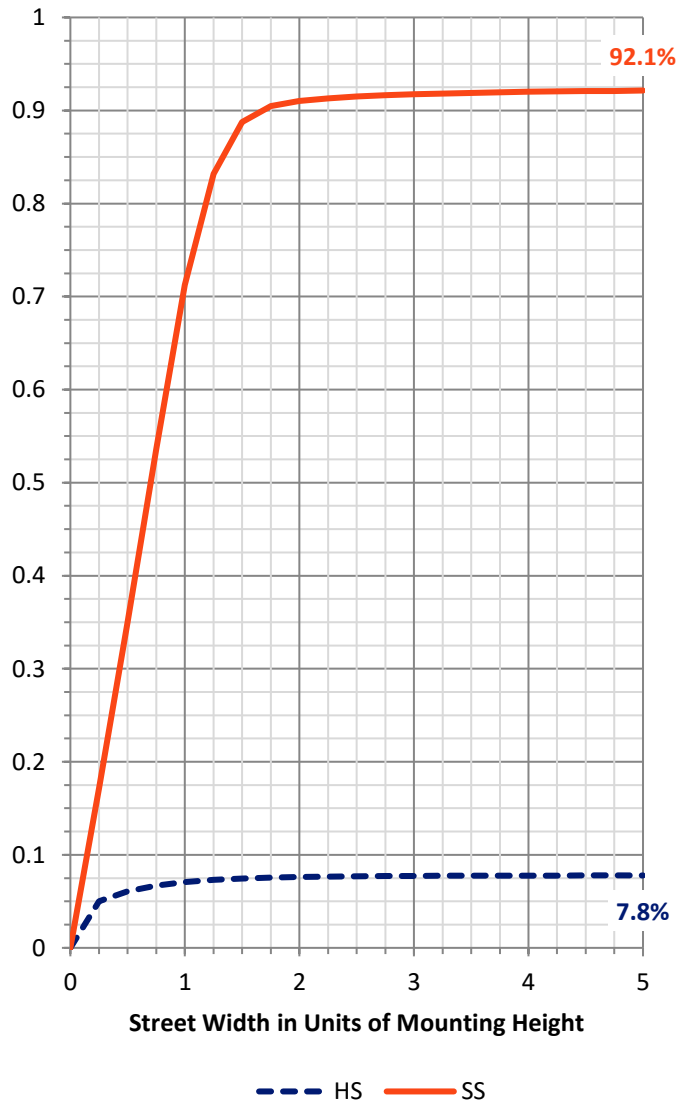
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1272.5	0.0	1272.5
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	15021.0	0.0	15021.0
	% Fixture	92.2	0.0	92.2
Total	Lumens	16293.4	0.0	16293.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.3	2.2
10°-20°	882.4	5.4
20°-30°	1411.9	8.7
30°-40°	2389.7	14.7
40°-50°	3923.4	24.1
50°-60°	4312.1	26.5
60°-70°	2473.4	15.2
70°-80°	505.4	3.1
80°-90°	29.8	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°	16293.4	100.0
0°-180°	16293.4	100.0

Coefficient of Utilization



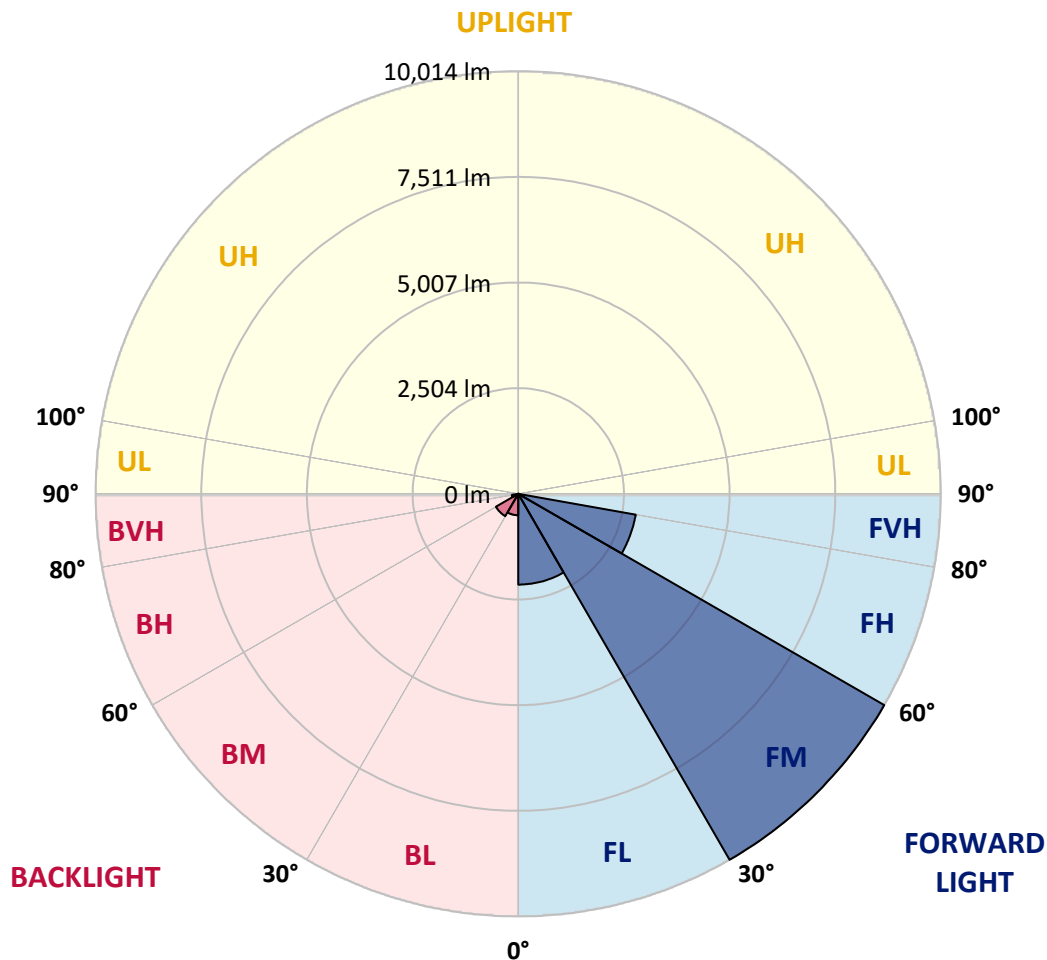
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2151.6	13.2			
FM (30°-60°)	10014.0	61.5			
FH (60°-80°)	2827.5	17.4			G2/5000
FVH (80°-90°)	27.8	0.2			G1/100
BL (0°-30°)	508.0	3.1	B2/1000		
BM (30°-60°)	611.1	3.8	B1/1000		
BH (60°-80°)	151.3	0.9	B1/500		G1/500
BVH (80°-90°)	2.0	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°	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3
2.5°	4871.7	4810.4	4801.4	4789.3	4672.8	4585.3	4458.8	4320.2	4164.4	4005.7	3935.4
5°	5628.3	5580.0	5571.0	5514.7	5382.1	5233.4	5008.4	4724.0	4433.6	4092.1	3945.4
7.5°	5775.0	5765.9	5807.0	5805.1	5786.9	5669.5	5479.5	5141.0	4705.0	4198.6	3971.6
10°	5120.9	5144.0	5266.6	5374.1	5664.5	5833.2	5792.0	5512.7	4984.3	4320.2	4000.7
12.5°	4525.1	4498.0	4585.3	4706.9	5044.5	5546.9	5921.6	5823.1	5303.8	4457.8	4043.8
15°	4151.4	4140.3	4189.6	4245.8	4503.0	5009.4	5771.0	6075.3	5611.2	4620.5	4109.1
17.5°	4031.8	4022.7	4037.8	4051.9	4218.7	4610.4	5412.2	6230.1	5905.5	4806.4	4181.5
20°	4129.2	4117.2	4115.2	4104.1	4173.5	4440.7	5087.7	6241.1	6169.8	4975.2	4243.8
22.5°	4413.5	4399.5	4350.3	4306.1	4312.1	4463.8	4943.1	6130.6	6368.7	5132.9	4283.0
25°	4929.0	4905.9	4803.4	4654.7	4560.2	4624.6	4965.2	5984.9	6558.6	5256.5	4263.9
27.5°	5574.0	5543.8	5412.2	5191.2	4975.2	4896.8	5124.9	5884.4	6716.3	5350.9	4222.7
30°	6206.0	6166.7	6037.1	5865.4	5549.9	5302.7	5413.2	5928.6	6904.2	5449.4	4168.5
32.5°	6888.1	6850.9	6679.1	6466.1	6204.9	5872.4	5808.1	6144.7	7134.3	5587.1	4130.2
35°	7751.2	7692.8	7448.8	7158.4	6881.1	6544.5	6342.6	6517.4	7440.7	5797.0	4151.4
37.5°	8733.7	8655.4	8392.1	7991.3	7629.6	7252.8	6993.6	7029.8	7889.8	6078.4	4216.6
40°	9660.0	9588.7	9345.5	8967.8	8513.6	8056.6	7780.3	7699.9	8509.7	6420.9	4331.2
42.5°	10215.7	10151.3	10048.9	9889.1	9506.4	9040.2	8691.5	8517.8	9243.1	6830.8	4470.8
45°	10246.8	10190.6	10328.2	10514.0	10438.7	10128.2	9703.3	9384.8	9979.5	7215.7	4615.5
47.5°	9748.5	9710.2	10128.2	10777.3	11100.7	11231.3	10839.6	10179.5	10587.3	7491.9	4674.8
50°	8390.1	8376.1	9236.1	10427.6	11352.9	12197.9	12038.1	10918.9	11058.5	7634.6	4618.5
52.5°	7274.9	7223.7	7725.0	9308.4	10986.3	12706.2	13209.6	11644.3	11388.1	7661.8	4486.9
55°	5517.7	5472.5	6101.4	7435.7	9803.7	12525.4	14066.6	12392.8	11624.2	7592.4	4250.8
57.5°	2959.8	2931.7	3726.4	4949.1	7663.7	11440.3	14221.4	13184.5	11823.2	7408.5	3920.3
60°	1152.4	1147.4	1444.7	2401.2	4657.7	9307.4	13440.7	13659.7	11947.7	7182.5	3644.0
62.5°	697.2	712.3	760.6	1078.0	2057.6	5781.9	11641.2	13119.2	12031.1	6975.5	3415.9
65°	576.7	577.7	583.7	740.5	985.6	2419.3	8763.9	11340.9	11825.1	6606.8	3092.4
67.5°	494.3	503.4	526.4	587.7	695.3	1061.0	5045.6	8785.0	10572.3	5748.8	2588.0
70°	389.8	401.9	431.0	483.3	536.5	664.1	1864.7	5845.3	8076.7	4333.2	1957.1
72.5°	328.5	327.5	342.6	392.9	426.0	467.2	717.3	3275.3	4693.9	2068.7	968.5
75°	254.2	264.2	283.3	328.5	348.6	338.6	388.8	1196.6	1681.8	626.9	329.5
77.5°	199.0	206.9	224.1	268.2	288.3	240.2	224.1	428.0	540.5	225.1	148.7
80°	89.4	96.5	152.7	197.9	235.1	165.7	121.6	219.0	240.2	102.5	75.3
82.5°	16.1	27.2	89.4	104.4	120.5	107.5	63.3	113.6	117.6	41.2	26.1
85°	1.0	2.0	31.2	38.1	48.2	35.2	19.1	45.2	39.2	14.0	10.0
87.5°	0.0	0.0	0.0	1.0	1.0	5.0	6.0	8.0	6.0	5.0	4.0
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°
0°	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3	3926.3
2.5°	3863.0	3720.3	3581.7	3468.2	3401.9	3289.3	3215.0	3202.9	3171.8	3198.9
5°	3788.7	3533.5	3275.3	3044.1	2854.3	2609.1	2426.3	2349.0	2281.6	2304.7
7.5°	3753.6	3350.6	2948.7	2553.9	2148.0	1756.2	1464.8	1343.3	1250.8	1263.9
10°	3706.3	3160.7	2530.8	1928.0	1384.5	997.6	796.7	722.3	681.2	682.1
12.5°	3670.1	2933.7	2045.5	1307.1	843.0	636.9	574.7	556.6	544.6	545.5
15°	3652.1	2666.4	1566.3	871.0	602.8	539.6	524.5	516.4	508.4	507.4
17.5°	3621.8	2369.1	1146.4	636.0	527.5	505.3	492.3	483.3	473.2	471.2
20°	3576.6	2031.4	837.9	537.5	494.3	477.2	459.1	447.1	435.0	433.1
22.5°	3493.3	1674.8	644.0	497.3	470.2	451.1	429.0	414.9	402.9	400.9
25°	3338.5	1340.3	542.5	472.2	449.1	426.0	401.9	382.7	371.8	369.7
27.5°	3142.6	1052.9	492.3	449.1	422.0	400.9	373.7	355.7	345.6	343.6
30°	2911.6	810.8	463.2	423.0	389.8	371.8	347.6	332.5	326.6	326.6
32.5°	2662.4	648.0	451.1	396.9	361.7	341.6	322.5	316.5	314.5	313.4
35°	2428.3	562.6	445.1	375.8	336.6	317.4	309.4	310.5	314.5	314.5
37.5°	2220.4	535.5	442.1	360.7	314.5	297.4	302.4	311.5	307.4	307.4
40°	2032.5	538.5	440.0	349.6	296.4	286.4	296.4	289.4	279.3	278.3
42.5°	1888.8	563.6	436.0	340.6	285.4	278.3	274.3	263.2	262.2	264.2
45°	1784.3	585.7	435.0	336.6	273.3	260.2	255.2	244.2	264.2	269.3
47.5°	1660.7	585.7	435.0	322.5	253.2	248.2	240.2	228.1	248.2	253.2
50°	1501.0	548.6	418.0	306.5	237.1	234.1	220.1	205.0	200.9	204.0
52.5°	1299.1	481.2	374.7	284.3	221.0	215.0	197.9	186.9	183.9	183.9
55°	1069.0	402.9	316.5	252.2	204.0	192.9	180.8	175.8	172.8	170.8
57.5°	869.1	330.6	254.2	224.1	187.9	173.8	169.8	163.8	158.8	155.7
60°	713.3	260.2	210.0	199.0	171.8	158.8	157.7	149.6	136.6	134.6
62.5°	550.5	190.9	176.8	172.8	155.7	144.6	142.7	126.6	106.5	102.5
65°	388.8	148.7	142.7	151.7	138.7	128.6	123.6	99.4	78.4	75.3
67.5°	273.3	124.5	112.5	132.6	120.5	107.5	104.4	84.4	65.3	63.3
70°	195.0	101.5	92.5	113.6	96.5	94.4	88.5	70.3	53.2	51.2
72.5°	137.7	77.4	71.3	98.5	66.3	81.4	72.4	54.2	40.2	38.1
75°	101.5	55.2	50.2	57.3	48.2	61.3	51.2	36.2	25.1	24.1
77.5°	74.3	35.2	30.1	28.1	28.1	38.1	28.1	15.1	11.1	10.0
80°	52.3	16.1	14.0	12.1	11.1	9.0	4.0	2.0	1.0	1.0
82.5°	31.2	7.1	7.1	5.0	3.0	0.0	0.0	0.0	0.0	0.0
85°	7.1	3.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	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)