

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: P967212

Luminaire Tested: **NAV-SB4D-735-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967212
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31651 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

Input Watts (W): 293.6
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



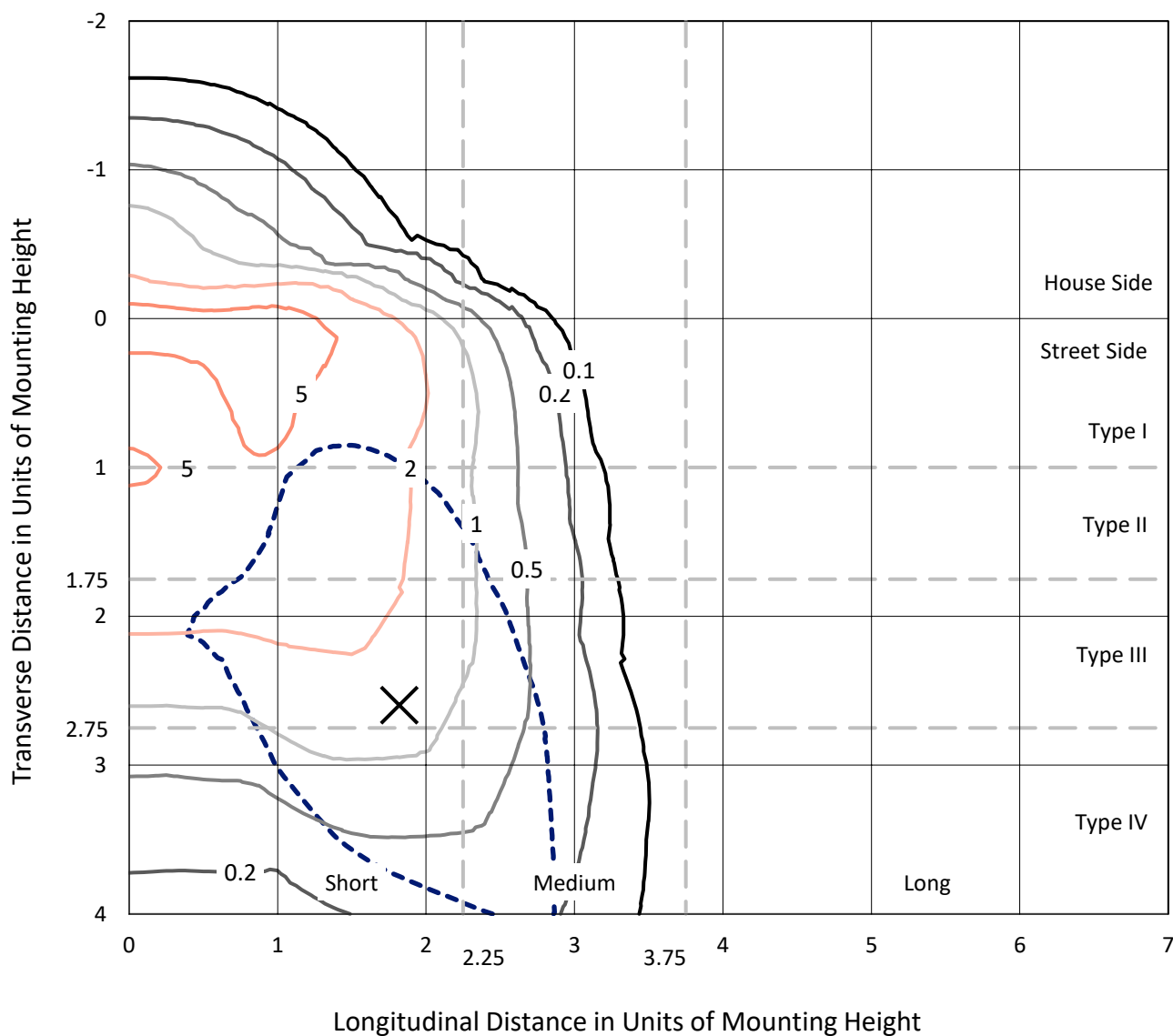
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

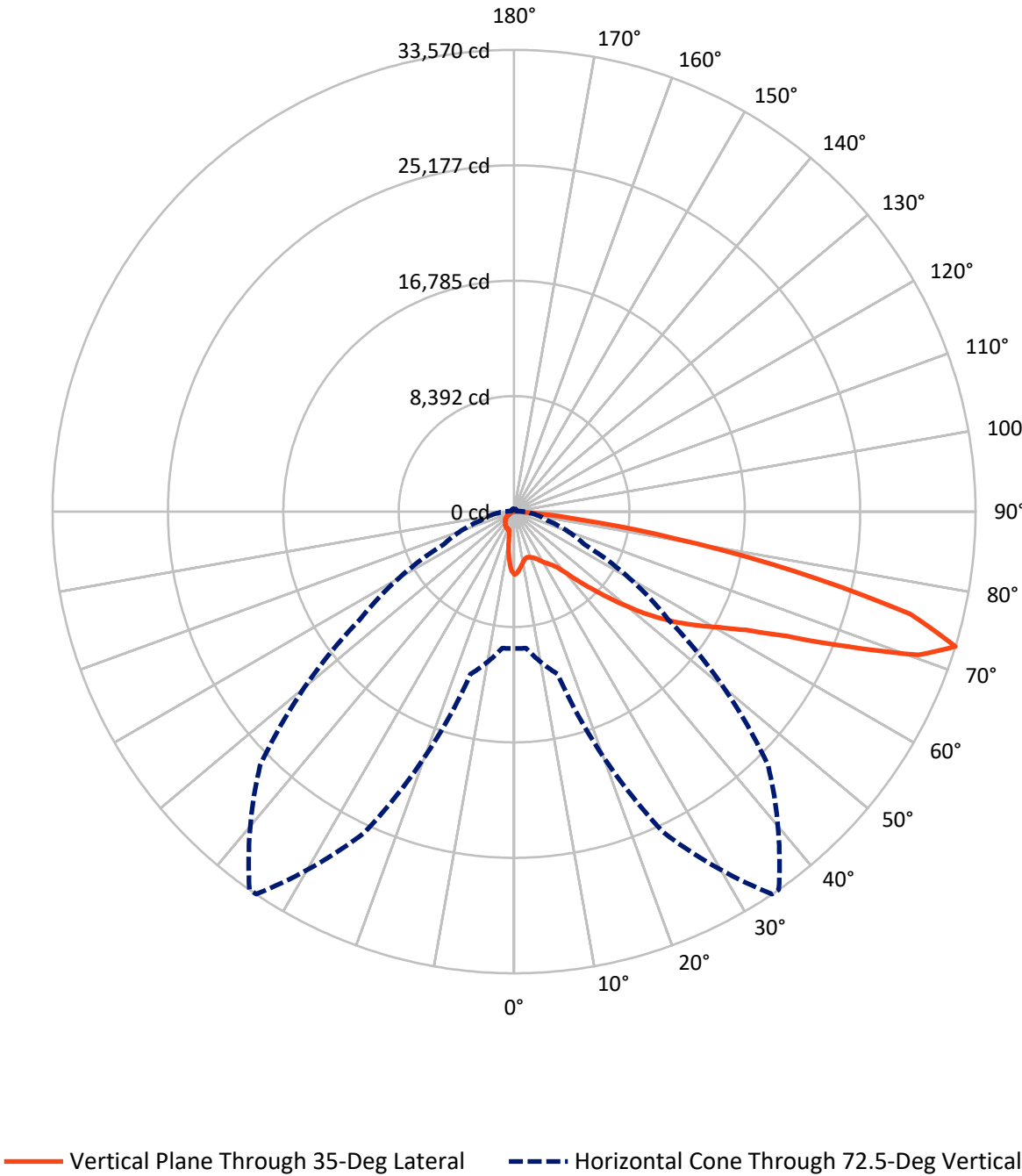


Based on 25 foot mounting height. Maximum calculated value = 7.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3562.2	0.0	3562.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	28088.8	0.0	28088.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	31651.0	0.0	31651.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.0	1.2
10°-20°	881.8	2.8
20°-30°	1432.5	4.5
30°-40°	2390.1	7.6
40°-50°	4522.2	14.3
50°-60°	7185.8	22.7
60°-70°	8889.3	28.1
70°-80°	5525.7	17.5
80°-90°	446.6	1.4
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°	31651.0	100.0
0°-180°	31651.0	100.0

Coefficient of Utilization



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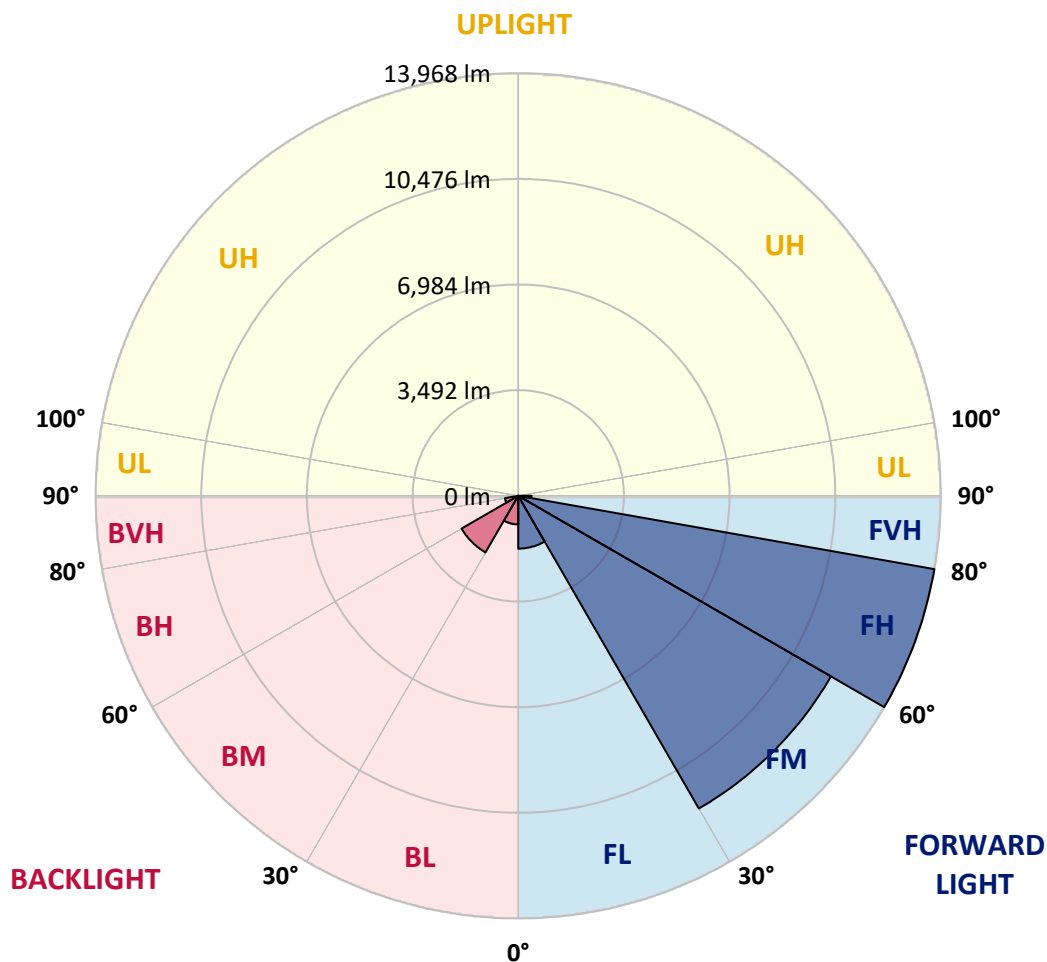
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1744.8	5.5			
FM	(30°-60°)	11935.6	37.7			
FH	(60°-80°)	13968.0	44.1			G5
FVH	(80°-90°)	440.5	1.4			G3/500
BL	(0°-30°)	946.5	3.0	B2/1000		
BM	(30°-60°)	2162.5	6.8	B2/2500		
BH	(60°-80°)	447.0	1.4	B1/500		G1/500
BVH	(80°-90°)	6.1	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3
2.5°	4383.2	4420.3	4427.3	4438.9	4438.9	4452.8	4476.0	4508.5	4561.8	4589.6	4608.2
5°	4039.9	4067.8	4102.6	4130.4	4183.7	4190.7	4281.1	4369.3	4492.2	4584.9	4649.9
7.5°	3694.4	3726.9	3773.2	3840.5	3910.1	3931.0	4067.8	4216.2	4411.0	4584.9	4694.0
10°	3450.9	3453.2	3494.9	3562.2	3673.5	3699.0	3866.0	4077.0	4320.6	4557.2	4735.7
12.5°	3314.0	3330.3	3348.9	3399.9	3506.5	3522.8	3701.4	3949.5	4230.2	4541.0	4784.4
15°	3314.0	3325.7	3337.3	3362.8	3448.6	3462.4	3620.2	3868.3	4183.7	4547.8	4863.3
17.5°	3348.9	3367.4	3358.1	3388.2	3478.7	3488.0	3627.2	3845.2	4181.4	4591.9	4983.9
20°	3432.3	3446.3	3427.7	3446.3	3536.7	3555.2	3699.0	3889.3	4220.8	4668.5	5134.6
22.5°	3564.5	3571.5	3527.4	3541.4	3634.1	3657.3	3824.3	4014.4	4316.0	4791.4	5336.4
25°	3731.5	3745.5	3678.2	3694.4	3782.6	3810.3	4002.8	4202.3	4466.6	4960.7	5593.8
27.5°	3924.0	3931.0	3873.0	3870.7	3984.3	4023.7	4218.6	4434.3	4668.5	5174.0	5918.5
30°	4144.3	4165.2	4109.5	4100.3	4244.0	4276.5	4469.0	4719.5	4965.3	5494.1	6380.0
32.5°	4318.2	4334.5	4302.0	4325.2	4471.4	4496.9	4772.8	5123.1	5431.5	5948.6	7008.4
35°	4568.7	4578.1	4503.7	4545.6	4712.5	4777.4	5187.9	5688.9	6018.2	6519.1	7829.5
37.5°	5475.5	5475.5	5160.2	4953.7	5113.7	5171.7	5756.1	6400.8	6741.7	7284.5	8863.8
40°	6730.2	6709.3	6247.8	5825.7	5804.9	5918.5	6565.5	7298.4	7676.4	8202.9	10028.0
42.5°	8068.3	8035.9	7407.4	6989.9	6920.4	6959.7	7500.1	8404.6	8789.6	9323.0	11280.3
45°	9255.8	9246.4	8671.3	8110.1	7984.9	8110.1	8666.7	9698.8	9974.7	10535.9	12530.4
47.5°	10250.6	10250.6	9830.9	9464.4	9399.6	9473.8	10246.0	11134.3	11108.7	11827.7	13747.9
50°	11396.4	11387.0	10988.1	10830.5	10897.7	11002.0	12064.2	12646.3	12282.3	13096.2	14835.6
52.5°	12198.7	12254.4	12117.6	12092.0	12435.3	12616.2	13910.3	14125.9	13332.8	14299.9	15649.7
55°	12834.2	12899.1	13056.9	13235.4	13896.3	14132.9	15698.4	15529.1	14211.7	15343.5	16118.1
57.5°	13734.1	13641.3	13884.8	14237.2	15306.4	15591.7	17430.7	16853.3	14919.1	16190.0	16169.2
60°	14826.3	14840.3	14882.0	15327.3	16714.2	17080.6	19137.7	18105.6	15373.7	16709.6	15603.3
62.5°	16139.0	16159.8	16245.6	16929.8	18604.3	18949.8	20955.9	19130.7	15582.4	16563.4	14142.2
65°	16048.5	16136.7	17094.4	19434.5	21477.6	21818.6	23077.9	19849.6	15267.0	15227.6	11514.6
67.5°	14620.0	14763.7	16366.3	22426.2	25809.9	26190.2	25642.9	19991.1	13905.7	11841.6	7511.7
70°	12746.1	12797.1	14724.3	25116.4	30826.2	31211.1	27938.8	18434.9	10552.2	6605.0	3365.1
72.5°	9953.8	9965.4	12226.6	25740.3	33548.9	33569.8	26136.9	13685.3	5675.0	2537.2	1168.8
75°	7110.5	7040.9	8188.9	20874.7	29515.9	29752.5	19594.5	6419.4	2168.4	1199.0	582.1
77.5°	3812.7	3889.3	4633.7	12379.6	20390.0	20793.6	10691.3	1850.6	1103.9	816.3	385.0
80°	1178.1	1243.0	1899.4	5668.0	11549.4	11792.9	3963.5	823.3	770.0	582.1	252.8
82.5°	371.0	385.0	885.9	2381.8	4793.7	4905.0	1148.0	466.2	526.4	385.0	148.4
85°	106.7	109.0	394.2	888.3	1185.1	1208.3	322.4	180.9	301.5	238.8	76.6
87.5°	11.6	37.1	148.4	148.4	104.3	102.1	34.7	39.5	85.8	30.1	13.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3	4587.3
2.5°	4596.6	4598.9	4568.7	4517.7	4462.0	4415.7	4357.7	4311.4	4278.9	4269.5	4285.8
5°	4629.0	4612.8	4527.0	4371.6	4186.1	4026.1	3847.4	3706.0	3613.2	3573.9	3587.7
7.5°	4677.7	4631.4	4443.5	4137.4	3782.6	3467.2	3147.1	2898.9	2741.3	2662.4	2674.0
10°	4719.5	4626.7	4304.4	3798.8	3256.1	2778.4	2346.9	2047.8	1880.9	1802.0	1804.3
12.5°	4758.9	4624.4	4123.5	3397.6	2662.4	2078.0	1676.8	1528.3	1481.9	1465.7	1461.0
15°	4833.1	4631.4	3896.2	2938.4	2071.0	1570.1	1423.9	1421.7	1430.9	1426.3	1423.9
17.5°	4935.2	4638.3	3638.7	2451.4	1597.9	1384.6	1377.6	1398.4	1412.3	1405.4	1403.1
20°	5067.4	4666.1	3365.1	1968.9	1373.0	1338.1	1354.4	1373.0	1384.6	1373.0	1370.6
22.5°	5252.9	4714.8	3065.9	1581.7	1301.0	1310.4	1324.2	1345.1	1356.7	1340.5	1338.1
25°	5480.2	4791.4	2771.4	1375.2	1266.3	1277.9	1298.8	1321.9	1335.9	1319.6	1317.3
27.5°	5774.6	4914.3	2500.1	1328.9	1231.4	1238.4	1268.5	1303.4	1321.9	1301.0	1301.0
30°	6201.5	5116.1	2265.9	1349.7	1210.6	1194.3	1236.1	1284.8	1305.6	1287.1	1284.8
32.5°	6767.3	5401.3	2122.1	1382.2	1201.3	1143.4	1182.7	1245.4	1280.1	1268.5	1268.5
35°	7509.5	5835.0	2066.4	1419.3	1194.3	1090.0	1117.9	1185.1	1245.4	1257.0	1257.0
37.5°	8409.3	6437.9	2082.6	1435.5	1173.5	1045.9	1059.8	1117.9	1196.7	1233.8	1243.0
40°	9432.0	7140.7	2175.4	1419.3	1150.3	1008.8	1011.2	1055.2	1124.8	1180.5	1199.0
42.5°	10487.2	7961.7	2346.9	1359.0	1129.4	976.4	969.4	999.6	1045.9	1085.4	1101.6
45°	11491.4	8805.9	2516.3	1275.5	1103.9	943.9	927.6	939.2	948.5	964.7	974.1
47.5°	12368.1	9399.6	2467.6	1199.0	1069.2	906.8	878.9	874.3	846.4	844.2	841.8
50°	12973.3	9529.4	2191.6	1122.5	1018.1	865.0	821.0	793.1	744.5	721.3	723.5
52.5°	13165.8	9016.8	1790.4	1045.9	934.6	809.3	746.8	702.7	642.4	621.6	619.2
55°	12910.7	8012.6	1430.9	953.1	818.7	735.1	665.6	607.6	558.9	533.4	533.4
57.5°	12286.9	6734.9	1131.7	844.2	695.8	651.7	582.1	524.1	482.4	456.8	452.2
60°	11252.6	5347.9	895.2	714.3	593.7	561.2	489.3	452.2	415.1	385.0	378.0
62.5°	9682.5	3817.3	702.7	565.9	496.3	459.2	417.5	389.6	345.5	303.8	296.8
65°	7555.8	2335.4	542.6	415.1	398.9	380.4	354.9	329.3	275.9	234.2	227.2
67.5°	4765.8	1106.3	387.3	313.0	315.4	306.2	294.5	273.7	234.2	197.1	192.5
70°	2098.8	535.8	255.1	238.8	234.2	234.2	243.5	236.6	199.5	164.6	157.7
72.5°	714.3	287.6	190.1	180.9	169.3	167.0	204.1	197.1	160.0	127.5	120.6
75°	373.4	192.5	139.2	129.9	102.1	122.9	162.4	153.0	113.7	83.5	76.6
77.5°	243.5	136.8	95.1	83.5	58.0	81.2	120.6	106.7	67.2	41.7	37.1
80°	153.0	90.4	55.7	39.5	27.9	44.1	65.0	46.4	25.5	9.3	7.0
82.5°	81.2	46.4	20.9	13.9	11.6	13.9	16.2	11.6	4.6	0.0	0.0
85°	32.5	16.2	7.0	4.6	2.4	0.0	4.6	2.4	0.0	0.0	0.0
87.5°	11.6	2.4	0.0	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	0.0

(END OF REPORT)