

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: P884110

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
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: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31225 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

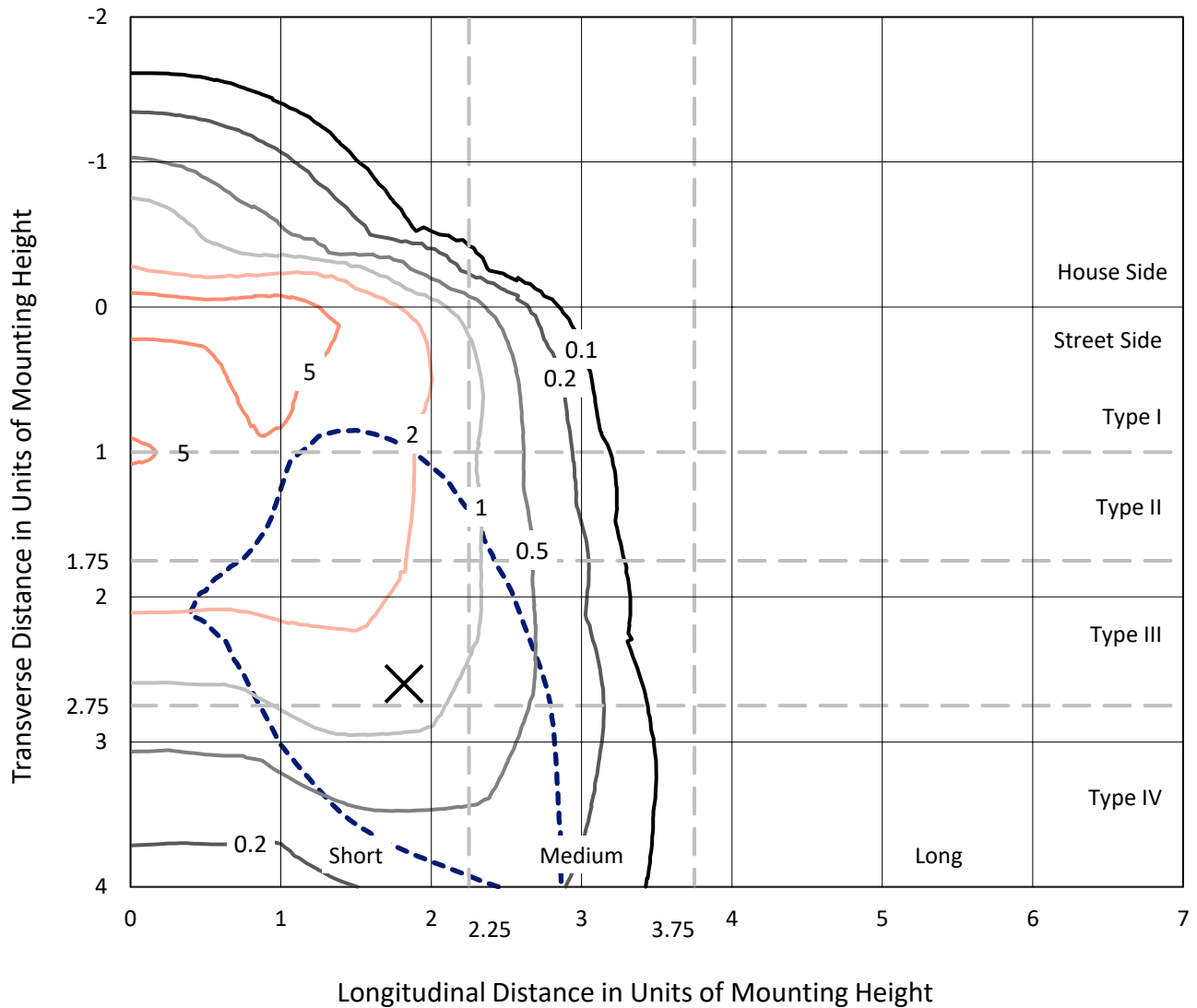
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884110
 CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

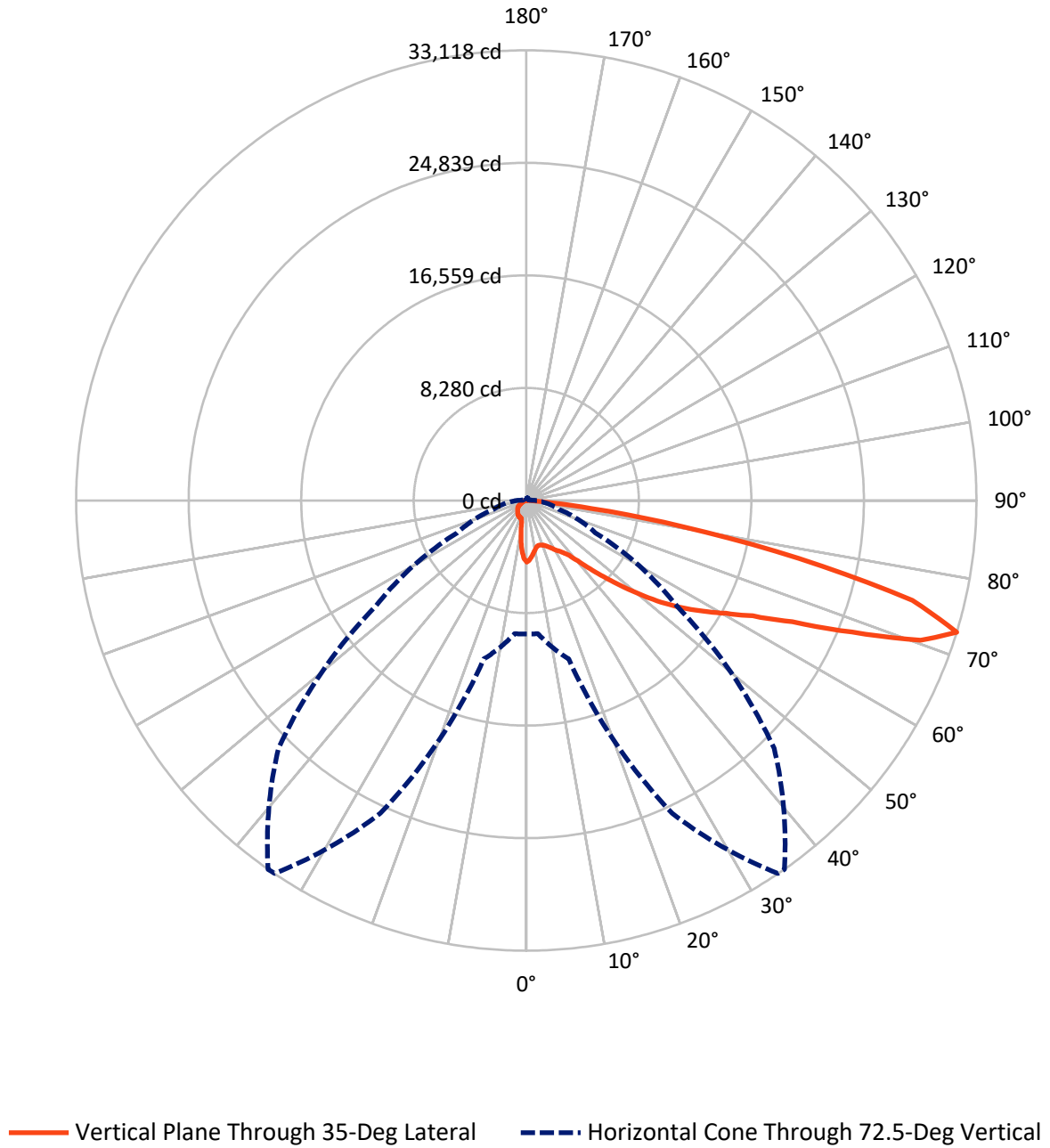
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P884110
CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P884110
 CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3514.2	0.0	3514.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	27710.8	0.0	27710.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	31225.0	0.0	31225.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.9	1.2
10°-20°	870.0	2.8
20°-30°	1413.2	4.5
30°-40°	2358.0	7.6
40°-50°	4461.4	14.3
50°-60°	7089.1	22.7
60°-70°	8769.7	28.1
70°-80°	5451.3	17.5
80°-90°	440.6	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°	31225.0	100.0
0°-180°	31225.0	100.0

Coefficient of Utilization



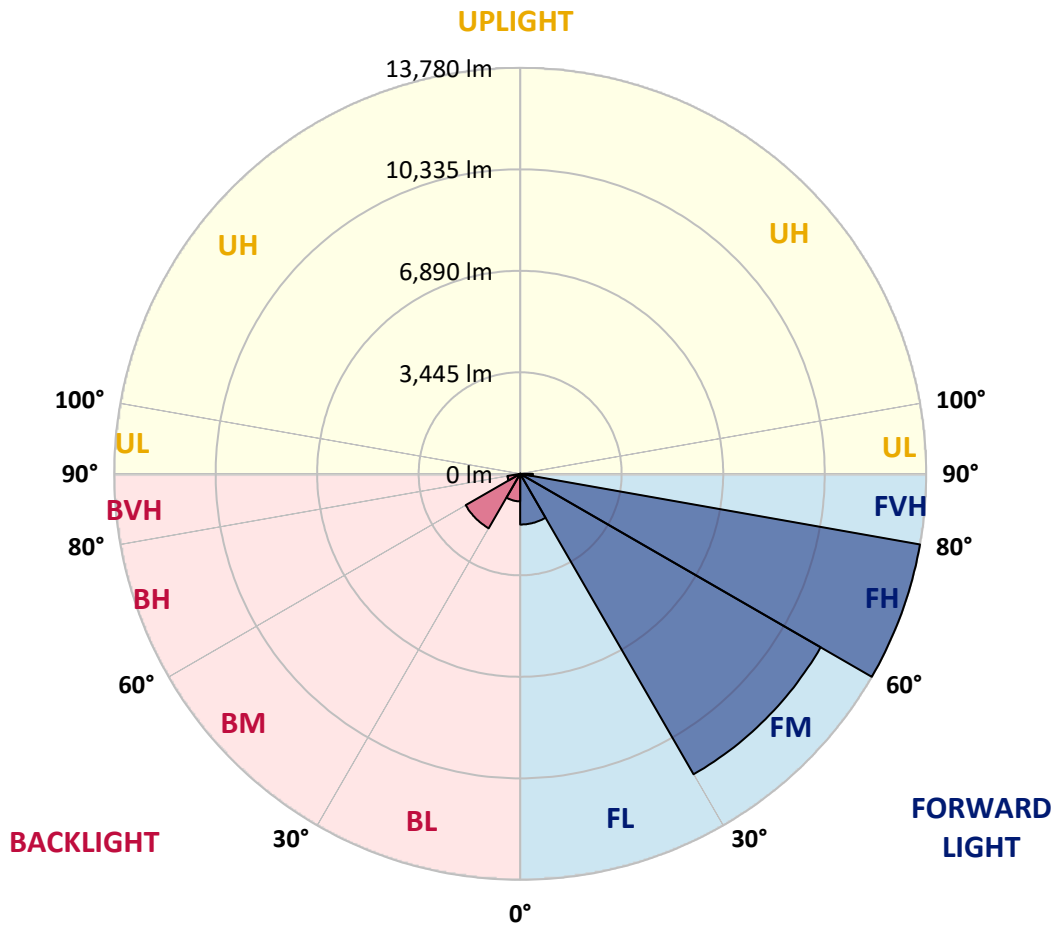
REPORT NUMBER: P884110
 CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1721.3	5.5			
FM (30°-60°)	11774.9	37.7			
FH (60°-80°)	13780.0	44.1			G5
FVH (80°-90°)	434.6	1.4			G3/500
BL (0°-30°)	933.8	3.0	B2/1000		
BM (30°-60°)	2133.5	6.8	B2/2500		
BH (60°-80°)	441.0	1.4	B1/500		G1/500
BVH (80°-90°)	6.0	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-G5

Type IV Short



REPORT NUMBER: P884110
 CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5
2.5°	4324.2	4360.8	4367.7	4379.1	4379.1	4392.8	4415.7	4447.8	4500.4	4527.8	4546.1
5°	3985.6	4013.1	4047.4	4074.8	4127.4	4134.3	4223.5	4310.5	4431.7	4523.3	4587.3
7.5°	3644.7	3676.7	3722.5	3788.8	3857.5	3878.1	4013.1	4159.5	4351.7	4523.3	4630.8
10°	3404.5	3406.7	3447.9	3514.3	3624.1	3649.3	3814.0	4022.2	4262.4	4495.8	4672.0
12.5°	3269.5	3285.5	3303.8	3354.1	3459.4	3475.4	3651.6	3896.4	4173.2	4479.8	4720.0
15°	3269.5	3280.9	3292.3	3317.5	3402.2	3415.9	3571.5	3816.3	4127.4	4486.7	4797.8
17.5°	3303.8	3322.1	3312.9	3342.7	3431.9	3441.1	3578.3	3793.4	4125.2	4530.1	4916.8
20°	3386.2	3399.9	3381.6	3399.9	3489.1	3507.4	3649.3	3836.9	4164.1	4605.6	5065.5
22.5°	3516.6	3523.4	3480.0	3493.7	3585.2	3608.1	3772.8	3960.4	4257.9	4726.9	5264.6
25°	3681.3	3695.0	3628.7	3644.7	3731.6	3759.1	3949.0	4145.8	4406.6	4893.9	5518.5
27.5°	3871.2	3878.1	3820.9	3818.6	3930.7	3969.6	4161.8	4374.5	4605.6	5104.4	5838.8
30°	4088.6	4109.1	4054.2	4045.1	4186.9	4219.0	4408.9	4656.0	4898.5	5420.1	6294.1
32.5°	4260.1	4276.2	4244.1	4267.0	4411.2	4436.3	4708.6	5054.1	5358.4	5868.6	6914.2
35°	4507.2	4516.4	4443.2	4484.4	4649.1	4713.2	5118.1	5612.3	5937.2	6431.4	7724.1
37.5°	5401.8	5401.8	5090.7	4887.0	5044.9	5102.1	5678.7	6314.7	6651.0	7186.4	8744.5
40°	6639.6	6619.0	6163.7	5747.3	5726.7	5838.8	6477.2	7200.2	7573.1	8092.5	9893.1
42.5°	7959.8	7927.7	7307.7	6895.9	6827.2	6866.1	7399.2	8291.5	8671.3	9197.5	11128.6
45°	9131.2	9122.0	8554.6	8000.9	7877.4	8000.9	8550.0	9568.2	9840.4	10394.1	12361.8
47.5°	10112.7	10112.7	9698.6	9337.1	9273.0	9346.2	10108.1	10984.4	10959.2	11668.5	13562.9
50°	11242.9	11233.8	10840.3	10684.7	10751.0	10854.0	11901.9	12476.1	12116.9	12920.0	14636.0
52.5°	12034.6	12089.5	11954.5	11929.3	12267.9	12446.4	13723.1	13935.9	13153.4	14107.5	15439.0
55°	12661.5	12725.5	12881.1	13057.3	13709.3	13942.7	15487.1	15320.1	14020.5	15137.0	15901.2
57.5°	13549.2	13457.7	13697.9	14045.7	15100.4	15381.8	17196.2	16626.5	14718.3	15972.1	15951.5
60°	14626.8	14640.5	14681.7	15121.0	16489.2	16850.7	18880.1	17862.0	15166.8	16484.6	15393.3
62.5°	15921.8	15942.4	16027.0	16702.0	18353.9	18694.8	20673.8	18873.2	15372.7	16340.5	13951.9
65°	15832.6	15919.5	16864.4	19173.0	21188.6	21525.0	22767.3	19582.5	15061.5	15022.6	11359.6
67.5°	14423.2	14565.0	16146.0	22124.4	25462.5	25837.7	25297.8	19722.1	13718.5	11682.2	7410.6
70°	12574.5	12624.9	14526.1	24778.4	30411.3	30791.1	27562.8	18186.9	10410.1	6516.1	3319.8
72.5°	9819.8	9831.3	12062.0	25393.9	33097.4	33118.0	25785.1	13501.1	5598.6	2503.0	1153.1
75°	7014.8	6946.2	8078.7	20593.8	29118.6	29352.0	19330.8	6333.0	2139.2	1182.9	574.3
77.5°	3761.4	3836.9	4571.3	12213.0	20115.6	20513.7	10547.4	1825.8	1089.1	805.4	379.8
80°	1162.3	1226.3	1873.8	5591.7	11394.0	11634.2	3910.1	812.2	759.6	574.3	249.4
82.5°	366.1	379.8	874.0	2349.7	4729.2	4839.0	1132.5	459.9	519.4	379.8	146.4
85°	105.2	107.5	389.0	876.3	1169.1	1192.0	318.0	178.5	297.4	235.7	75.5
87.5°	11.4	36.6	146.4	146.4	103.0	100.7	34.3	38.9	84.7	29.7	13.7
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: P884110
 CATALOG NUMBER: NAV-SB4D-735-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5	4525.5
2.5°	4534.7	4537.0	4507.2	4456.9	4402.0	4356.2	4299.0	4253.3	4221.3	4212.1	4228.1
5°	4566.7	4550.7	4466.1	4312.8	4129.7	3971.9	3795.7	3656.1	3564.6	3525.7	3539.4
7.5°	4614.8	4569.0	4383.7	4081.7	3731.6	3420.5	3104.7	2859.9	2704.3	2626.6	2638.0
10°	4656.0	4564.4	4246.4	3747.6	3212.3	2741.0	2315.4	2020.3	1855.5	1777.7	1780.0
12.5°	4694.9	4562.2	4068.0	3351.8	2626.6	2050.0	1654.2	1507.8	1462.0	1446.0	1441.4
15°	4768.1	4569.0	3843.7	2898.8	2043.1	1548.9	1404.8	1402.5	1411.7	1407.1	1404.8
17.5°	4868.7	4575.9	3589.8	2418.4	1576.4	1365.9	1359.0	1379.6	1393.4	1386.5	1384.2
20°	4999.2	4603.3	3319.8	1942.5	1354.5	1320.1	1336.2	1354.5	1365.9	1354.5	1352.2
22.5°	5182.2	4651.4	3024.7	1560.4	1283.5	1292.7	1306.4	1327.0	1338.4	1322.4	1320.1
25°	5406.4	4726.9	2734.1	1356.7	1249.2	1260.7	1281.2	1304.1	1317.9	1301.8	1299.6
27.5°	5697.0	4848.1	2466.4	1311.0	1214.9	1221.8	1251.5	1285.8	1304.1	1283.5	1283.5
30°	6118.0	5047.2	2235.3	1331.6	1194.3	1178.3	1219.5	1267.5	1288.1	1269.8	1267.5
32.5°	6676.2	5328.6	2093.5	1363.6	1185.2	1128.0	1166.9	1228.6	1262.9	1251.5	1251.5
35°	7408.4	5756.5	2038.6	1400.2	1178.3	1075.3	1102.8	1169.1	1228.6	1240.1	1240.1
37.5°	8296.1	6351.3	2054.6	1416.2	1157.7	1031.9	1045.6	1102.8	1180.6	1217.2	1226.3
40°	9305.1	7044.6	2146.1	1400.2	1134.8	995.3	997.5	1041.0	1109.7	1164.6	1182.9
42.5°	10346.1	7854.5	2315.4	1340.7	1114.2	963.2	956.4	986.1	1031.9	1070.8	1086.8
45°	11336.8	8687.3	2482.4	1258.4	1089.1	931.2	915.2	926.6	935.8	951.8	960.9
47.5°	12201.6	9273.0	2434.4	1182.9	1054.7	894.6	867.1	862.6	835.1	832.8	830.5
50°	12798.7	9401.2	2162.1	1107.4	1004.4	853.4	809.9	782.5	734.4	711.5	713.8
52.5°	12988.6	8895.5	1766.3	1031.9	922.0	798.5	736.7	693.2	633.8	613.2	610.9
55°	12737.0	7904.8	1411.7	940.3	807.6	725.3	656.6	599.4	551.4	526.2	526.2
57.5°	12121.5	6644.2	1116.5	832.8	686.4	642.9	574.3	517.1	475.9	450.7	446.1
60°	11101.1	5276.0	883.1	704.7	585.7	553.7	482.8	446.1	409.5	379.8	372.9
62.5°	9552.2	3766.0	693.2	558.3	489.6	453.0	411.8	384.4	340.9	299.7	292.9
65°	7454.1	2304.0	535.4	409.5	393.5	375.2	350.1	324.9	272.3	231.1	224.2
67.5°	4701.7	1091.3	382.1	308.9	311.2	302.0	290.6	270.0	231.1	194.5	189.9
70°	2070.6	528.5	251.7	235.7	231.1	231.1	240.2	233.4	196.8	162.4	155.6
72.5°	704.7	283.7	187.6	178.5	167.0	164.7	201.3	194.5	157.9	125.8	119.0
75°	368.4	189.9	137.3	128.1	100.7	121.3	160.2	151.0	112.1	82.4	75.5
77.5°	240.2	135.0	93.8	82.4	57.2	80.1	119.0	105.2	66.4	41.2	36.6
80°	151.0	89.2	54.9	38.9	27.5	43.5	64.1	45.8	25.2	9.2	6.9
82.5°	80.1	45.8	20.6	13.7	11.4	13.7	16.0	11.4	4.6	0.0	0.0
85°	32.0	16.0	6.9	4.6	2.3	0.0	4.6	2.3	0.0	0.0	0.0
87.5°	11.4	2.3	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)