

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: P883941

Luminaire Tested: **NAV-SB4C-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29998 lumens
Efficiency: N/A
Efficacy: 149.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

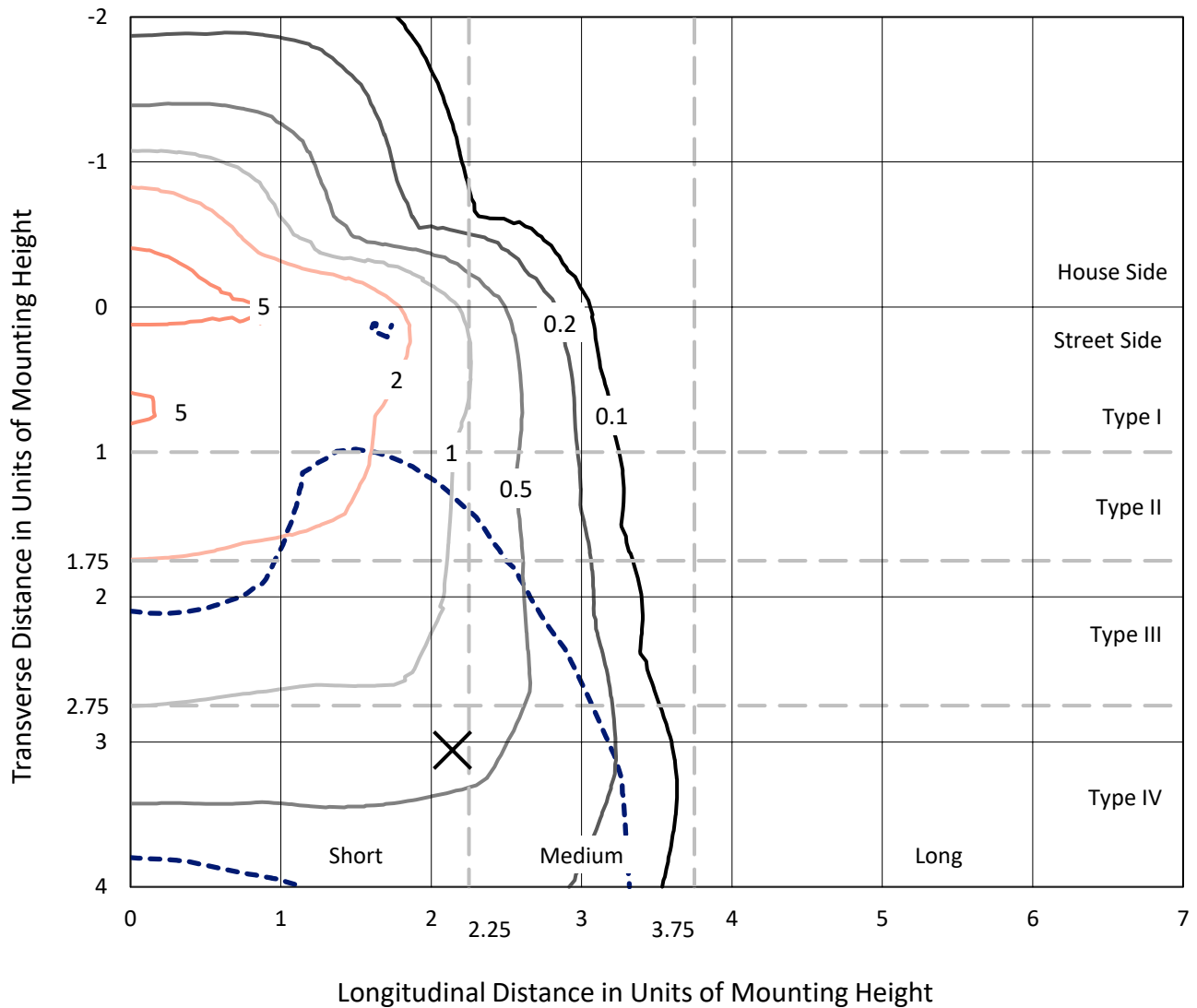
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

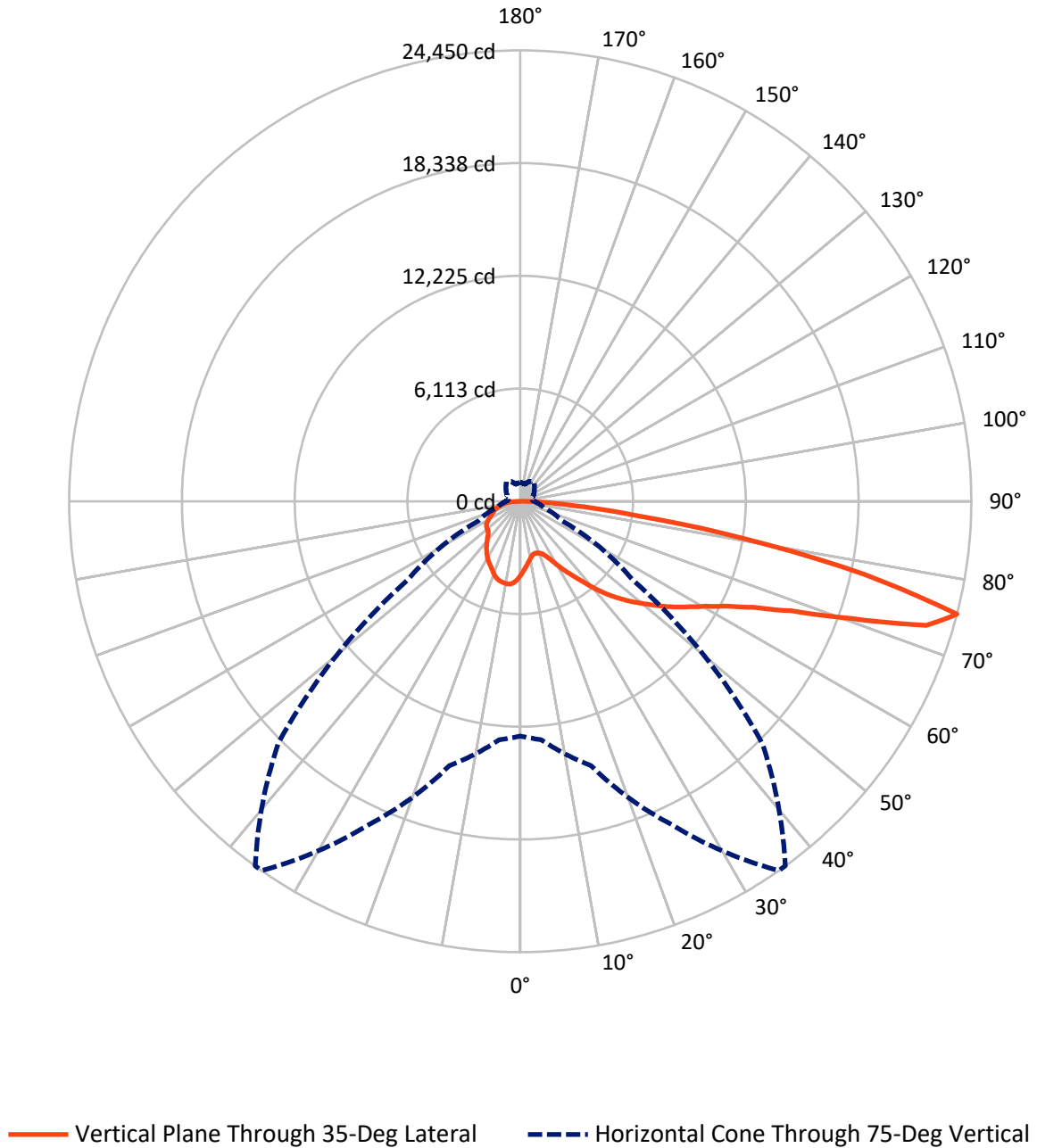
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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	7138.8	0.0	7138.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	22859.2	0.0	22859.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	29998.0	0.0	29998.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.5	1.3
10°-20°	1091.7	3.6
20°-30°	1833.2	6.1
30°-40°	2849.1	9.5
40°-50°	4228.8	14.1
50°-60°	5838.2	19.5
60°-70°	7083.0	23.6
70°-80°	5853.6	19.5
80°-90°	841.9	2.8
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°	29998.0	100.0
0°-180°	29998.0	100.0

Coefficient of Utilization



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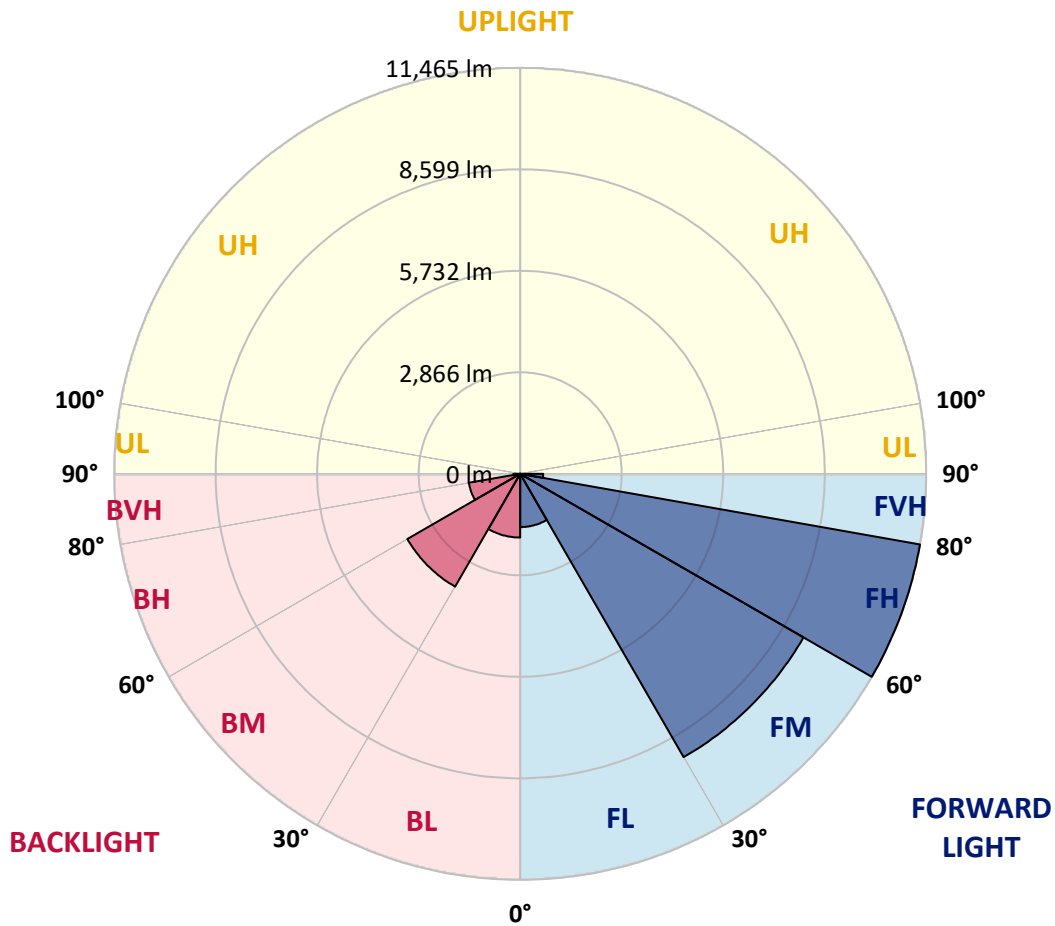
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1504.3	5.0			
FM (30°-60°)	9237.8	30.8			
FH (60°-80°)	11464.8	38.2			G4/12000
FVH (80°-90°)	652.3	2.2			G4/750
BL (0°-30°)	1799.1	6.0	B3/2500		
BM (30°-60°)	3678.3	12.3	B3/5000		
BH (60°-80°)	1471.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	189.6	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4
2.5°	3686.1	3708.8	3718.5	3713.6	3738.0	3734.7	3768.8	3810.9	3869.3	3926.1	4008.8
5°	3402.3	3426.6	3447.7	3467.1	3514.2	3528.8	3582.3	3663.4	3770.4	3879.1	4015.3
7.5°	3137.9	3159.0	3191.5	3227.1	3306.6	3321.2	3410.4	3536.9	3686.1	3845.0	4033.1
10°	2922.3	2943.3	2977.4	3017.9	3116.9	3134.7	3248.2	3416.9	3611.5	3812.6	4052.6
12.5°	2829.8	2836.3	2855.8	2896.3	2982.3	2993.6	3118.5	3311.5	3538.5	3788.2	4081.8
15°	2825.0	2837.9	2839.6	2860.6	2932.0	2936.9	3052.0	3243.4	3493.1	3783.4	4125.5
17.5°	2873.6	2883.3	2868.7	2881.7	2941.7	2949.8	3040.6	3210.9	3478.5	3804.5	4200.1
20°	3003.3	3011.5	2967.7	2949.8	2993.6	3000.1	3089.3	3232.0	3493.1	3848.2	4302.3
22.5°	3279.0	3283.9	3176.9	3103.9	3107.1	3110.4	3188.2	3318.0	3549.9	3927.7	4432.0
25°	3708.8	3705.5	3535.3	3394.2	3313.1	3295.2	3347.1	3457.4	3645.5	4033.1	4599.1
27.5°	4211.5	4187.2	4016.9	3806.1	3629.3	3603.4	3592.0	3639.0	3781.8	4172.6	4803.4
30°	4779.1	4756.4	4573.1	4297.4	4052.6	4010.4	3903.4	3879.1	3984.5	4362.3	5087.2
32.5°	5401.8	5387.2	5168.3	4834.2	4506.6	4458.0	4278.0	4213.1	4295.8	4649.4	5482.9
35°	5924.0	5911.0	5729.4	5385.6	4985.0	4925.0	4741.8	4668.8	4711.0	5017.5	6000.2
37.5°	6395.9	6389.4	6233.7	5962.9	5549.4	5476.4	5270.5	5246.1	5238.0	5502.4	6627.8
40°	6833.8	6817.5	6655.4	6512.7	6206.2	6139.7	5958.0	5937.0	5875.3	6099.1	7338.1
42.5°	7318.6	7276.5	7041.3	6974.8	6892.1	6837.0	6728.3	6731.6	6595.4	6772.1	8090.6
45°	7714.3	7690.0	7448.4	7409.4	7498.6	7475.9	7570.0	7594.3	7330.0	7477.6	8872.2
47.5°	8139.2	8116.5	7912.2	7884.6	8126.2	8132.7	8465.2	8473.3	8046.8	8210.6	9655.5
50°	8663.0	8630.6	8427.9	8461.9	8732.7	8757.1	9365.2	9310.1	8706.8	8954.9	10432.3
52.5°	9008.4	9027.9	8984.1	9039.2	9409.0	9431.7	10250.6	10109.5	9360.3	9689.5	11194.4
55°	9263.0	9301.9	9438.2	9564.7	10122.5	10145.2	11085.8	10870.1	9902.0	10370.6	11911.2
57.5°	9590.6	9535.5	9790.1	10036.6	10800.4	10860.4	11898.3	11603.1	10382.0	10957.7	12402.6
60°	10060.9	10022.0	10219.8	10584.7	11559.3	11655.0	12757.7	12263.1	10733.9	11423.1	12498.3
62.5°	11014.4	10917.1	10947.9	11270.7	12516.1	12642.6	13727.5	12838.8	10909.0	11604.7	11985.8
65°	12439.9	12272.9	12117.2	12341.0	13863.7	13988.6	14822.1	13291.3	10844.2	11252.8	10625.2
67.5°	14235.1	14069.7	13878.3	14089.1	15848.7	15947.6	16173.0	13545.9	10333.3	9897.1	8220.3
70°	15715.7	15654.1	15882.7	16750.3	19019.0	19022.3	17904.9	13335.1	8933.8	7017.0	4756.4
72.5°	15519.5	15482.2	16687.1	19369.3	23014.9	22928.9	19544.5	11739.3	6018.0	3165.5	1782.2
75°	12731.8	12973.4	14840.0	19322.3	24450.0	24438.7	18540.6	7463.0	2489.3	1311.9	921.1
77.5°	6827.3	7210.0	9634.4	14265.9	19087.2	19374.2	13035.0	2610.9	1068.7	840.0	637.3
80°	2226.6	2560.6	3840.1	7263.5	12402.6	12349.1	5586.7	1024.9	731.4	595.2	441.1
82.5°	945.4	984.4	1715.7	3429.8	6365.1	6266.2	1779.0	588.7	514.1	407.0	272.4
85°	369.7	413.5	757.3	1586.0	2756.9	2696.9	642.2	291.9	329.2	266.0	162.2
87.5°	121.6	147.6	270.8	543.3	857.9	827.1	157.3	100.5	142.7	121.6	58.4
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°	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4	3997.4
2.5°	4031.5	4057.4	4088.3	4133.7	4172.6	4205.0	4239.1	4260.1	4268.3	4292.6	4291.0
5°	4060.7	4117.4	4193.7	4268.3	4341.2	4385.0	4423.9	4443.4	4461.2	4474.2	4477.5
7.5°	4109.3	4182.3	4302.3	4399.6	4461.2	4496.9	4522.9	4516.4	4522.9	4526.1	4531.0
10°	4151.5	4253.7	4396.4	4488.8	4535.8	4537.5	4531.0	4508.3	4496.9	4498.5	4501.8
12.5°	4201.8	4315.3	4469.3	4547.2	4560.2	4524.5	4496.9	4458.0	4443.4	4436.9	4433.7
15°	4269.9	4399.6	4548.8	4578.0	4545.6	4500.2	4453.1	4389.9	4357.4	4331.5	4339.6
17.5°	4352.6	4495.3	4610.4	4589.3	4519.6	4445.0	4368.8	4273.1	4206.6	4179.1	4180.7
20°	4467.7	4595.8	4657.5	4565.0	4459.6	4346.1	4216.4	4099.6	4038.0	4010.4	4007.2
22.5°	4607.2	4730.4	4702.9	4522.9	4373.7	4192.0	4029.9	3943.9	3913.1	3893.6	3896.9
25°	4774.2	4879.6	4735.3	4461.2	4232.6	3987.7	3862.8	3835.3	3820.7	3806.1	3806.1
27.5°	4991.5	5048.3	4759.6	4370.4	4012.0	3770.4	3725.0	3729.9	3725.0	3700.7	3705.5
30°	5278.6	5267.2	4782.3	4222.8	3759.0	3574.2	3577.4	3598.5	3601.7	3585.5	3593.6
32.5°	5656.4	5541.3	4793.7	4031.5	3517.4	3402.3	3405.5	3428.2	3444.4	3416.9	3429.8
35°	6113.7	5860.7	4775.8	3791.5	3330.9	3238.5	3214.2	3220.7	3225.5	3199.6	3217.4
37.5°	6647.3	6219.1	4696.4	3525.5	3176.9	3077.9	3026.1	2982.3	2956.3	2932.0	2948.2
40°	7232.7	6610.0	4550.4	3266.1	3005.0	2907.7	2829.8	2747.1	2659.6	2627.1	2641.7
42.5°	7845.7	7012.1	4373.7	3017.9	2807.1	2727.7	2645.0	2525.0	2393.6	2327.1	2335.2
45°	8481.4	7424.0	4200.1	2773.1	2604.4	2570.4	2474.7	2330.4	2187.6	2103.3	2096.8
47.5°	9104.1	7813.2	3945.5	2526.6	2414.7	2452.0	2377.4	2244.4	2085.5	1952.5	1937.9
50°	9699.3	8178.1	3528.8	2276.8	2260.6	2416.3	2344.9	2153.6	1972.0	1801.7	1787.1
52.5°	10289.5	8473.3	2995.2	2049.8	2177.9	2406.6	2302.8	2092.0	1869.8	1691.4	1672.0
55°	10790.6	8625.7	2481.2	1855.2	2057.9	2323.9	2252.5	2019.0	1725.5	1535.7	1519.5
57.5°	11076.1	8502.5	2053.0	1663.8	1892.5	2187.6	2166.6	1863.3	1553.6	1407.6	1388.2
60°	10952.8	8003.0	1702.8	1496.8	1735.2	2040.1	2017.4	1709.2	1422.2	1284.4	1264.9
62.5°	10273.3	7051.1	1425.5	1350.9	1592.5	1889.3	1868.2	1590.9	1321.7	1188.7	1167.6
65°	8904.6	5735.9	1209.8	1229.2	1448.2	1707.6	1738.4	1491.9	1242.2	1112.5	1091.4
67.5°	6791.6	4154.7	1041.1	1123.8	1307.1	1529.2	1618.4	1420.6	1175.7	1052.5	1033.0
70°	3870.9	2359.5	898.4	1021.7	1182.2	1363.8	1526.0	1363.8	1104.4	1002.2	989.2
72.5°	1467.6	1083.3	776.8	919.5	1062.2	1224.4	1423.8	1274.6	1021.7	945.4	932.5
75°	783.3	660.0	653.5	799.5	924.4	1088.1	1295.7	1187.1	960.0	999.0	1031.4
77.5°	533.5	467.0	546.5	684.3	773.5	937.3	1159.5	1054.1	831.9	828.7	763.8
80°	369.7	330.8	444.3	551.4	598.4	788.1	1011.9	904.9	677.9	632.5	604.9
82.5°	222.2	215.7	332.4	411.9	423.3	608.1	838.4	758.9	554.6	483.3	486.5
85°	121.6	128.1	212.4	241.6	246.5	424.9	656.8	587.0	426.5	358.4	361.6
87.5°	34.1	43.8	77.8	95.7	118.4	220.5	390.8	348.7	214.1	149.2	149.2
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)