

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: P884471

Luminaire Tested: **NAV-SB5B-750-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884471  
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-SB5B-750-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 5000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

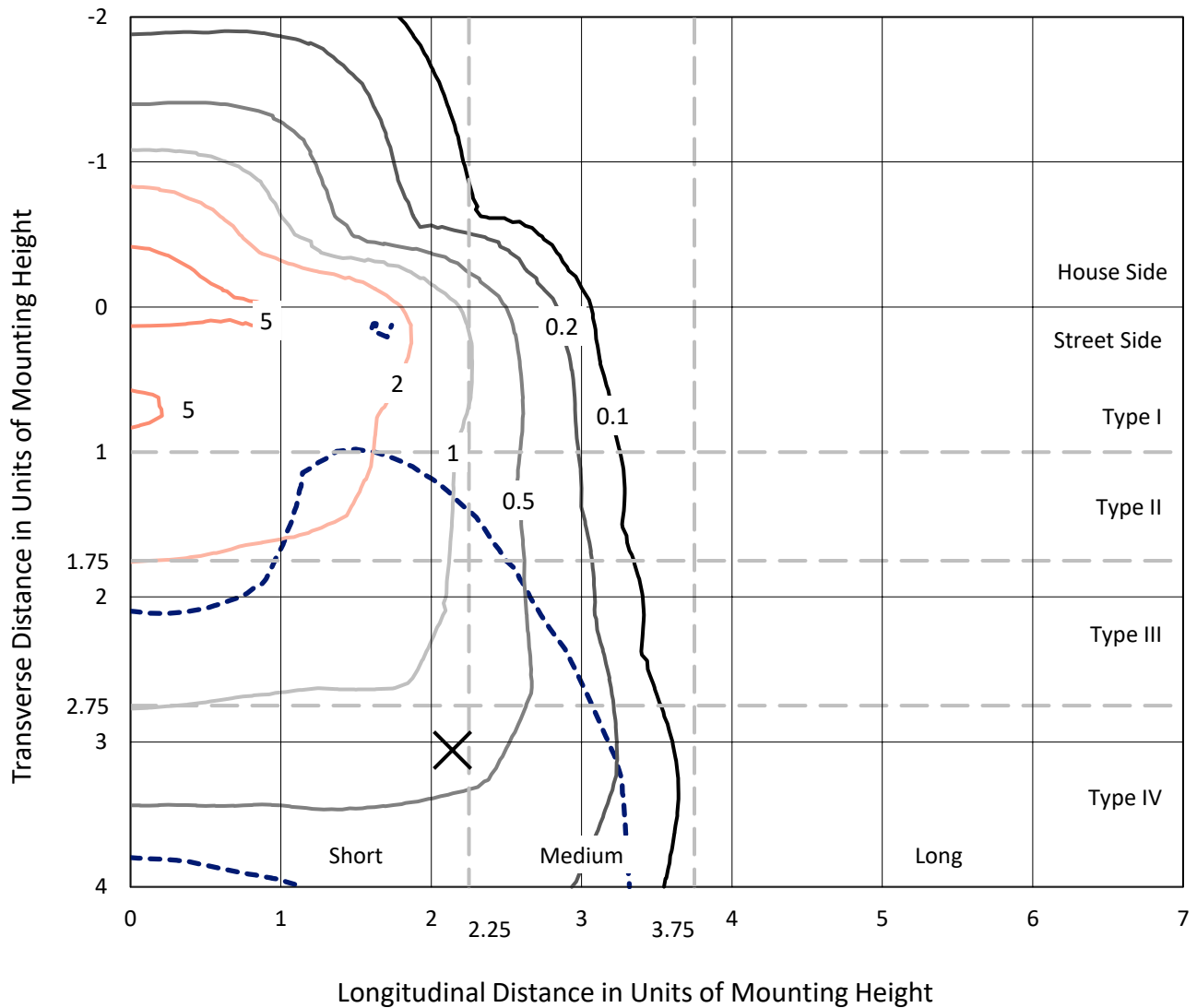
Lumens per Lamp: N/A  
Luminaire Lumens: 30448 lumens  
Efficiency: N/A  
Efficacy: 166.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

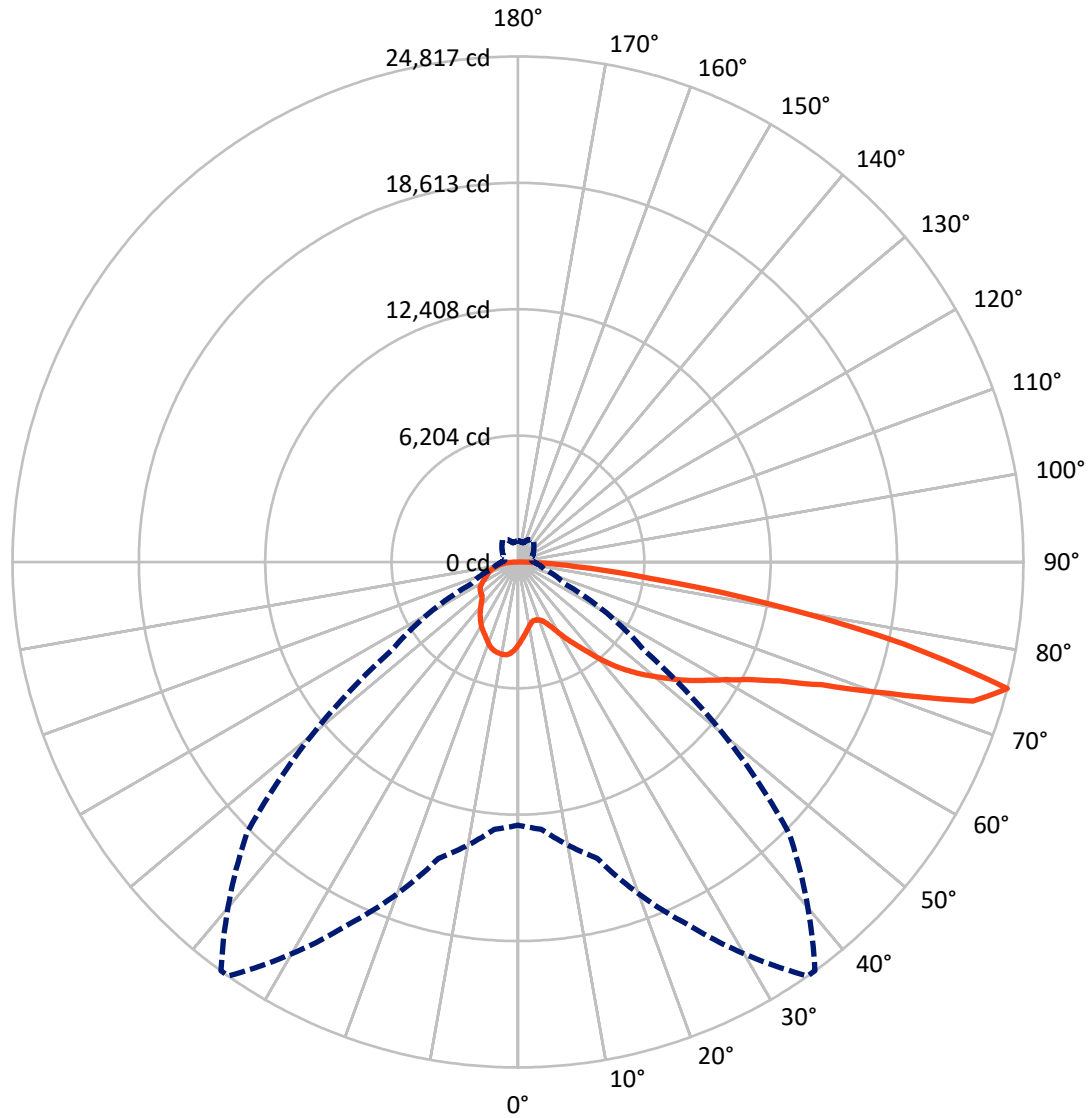
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7245.9	0.0	7245.9
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	23202.1	0.0	23202.1
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	30448.0	0.0	30448.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	384.2	1.3
10°-20°	1108.1	3.6
20°-30°	1860.7	6.1
30°-40°	2891.8	9.5
40°-50°	4292.3	14.1
50°-60°	5925.7	19.5
60°-70°	7189.3	23.6
70°-80°	5941.4	19.5
80°-90°	854.6	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°	30448.0	100.0
0°-180°	30448.0	100.0



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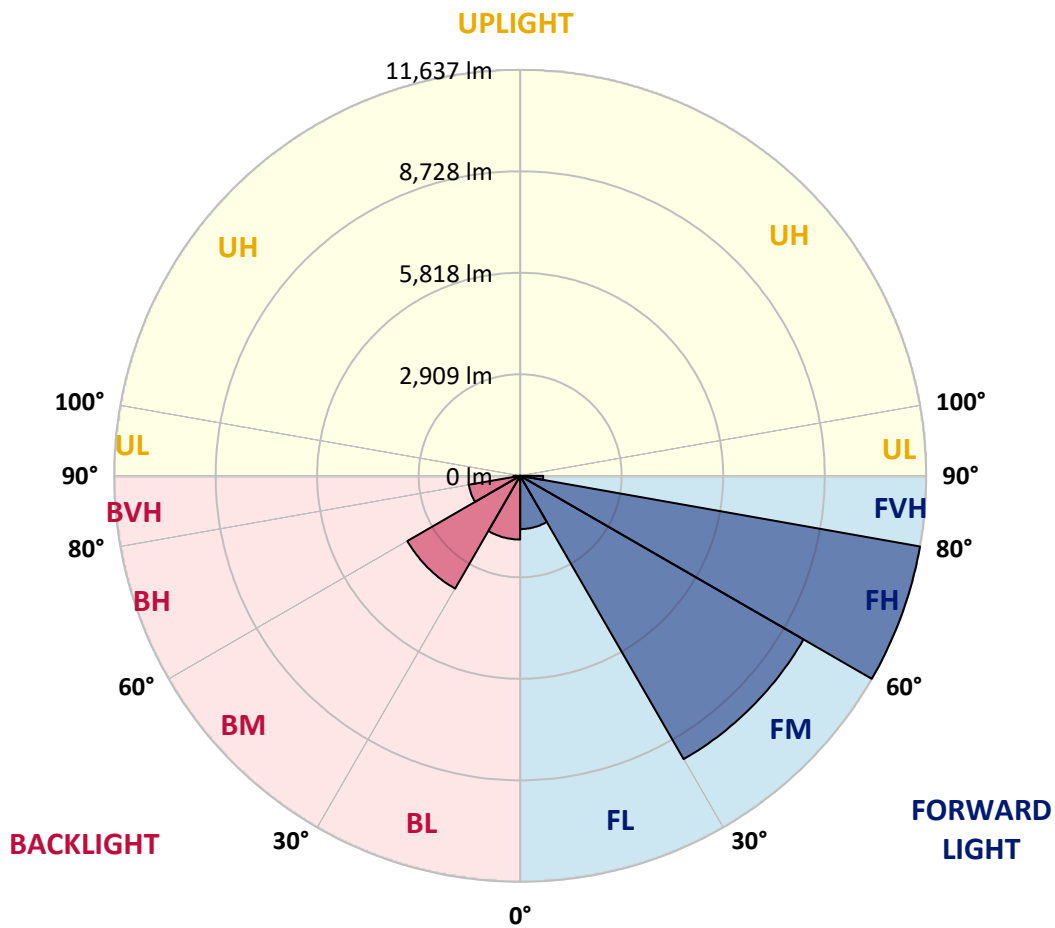
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1526.9	5.0			
FM (30°-60°)	9376.3	30.8			
FH (60°-80°)	11636.8	38.2			G4/12000
FVH (80°-90°)	662.1	2.2			G4/750
BL (0°-30°)	1826.1	6.0	B3/2500		
BM (30°-60°)	3733.5	12.3	B3/5000		
BH (60°-80°)	1493.9	4.9	B3/2500		G3/2500
BVH (80°-90°)	192.4	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°	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4
2.5°	3741.4	3764.4	3774.3	3769.4	3794.0	3790.7	3825.3	3868.1	3927.4	3985.0	4068.9
5°	3453.3	3478.0	3499.4	3519.2	3566.9	3581.7	3636.0	3718.3	3827.0	3937.2	4075.5
7.5°	3185.0	3206.4	3239.3	3275.5	3356.2	3371.0	3461.5	3589.9	3741.4	3902.7	4093.6
10°	2966.1	2987.5	3022.1	3063.2	3163.6	3181.7	3296.9	3468.1	3665.7	3869.8	4113.4
12.5°	2872.3	2878.9	2898.6	2939.8	3027.0	3038.5	3165.3	3361.1	3591.6	3845.1	4143.0
15°	2867.3	2880.5	2882.2	2903.6	2976.0	2980.9	3097.8	3292.0	3545.5	3840.1	4187.4
17.5°	2916.7	2926.6	2911.8	2925.0	2985.9	2994.1	3086.3	3259.1	3530.7	3861.5	4263.2
20°	3048.4	3056.6	3012.2	2994.1	3038.5	3045.1	3135.6	3280.5	3545.5	3906.0	4366.9
22.5°	3328.2	3333.2	3224.5	3150.5	3153.7	3157.0	3236.0	3367.7	3603.1	3986.6	4498.5
25°	3764.4	3761.1	3588.3	3445.1	3362.8	3344.7	3397.4	3509.3	3700.2	4093.6	4668.1
27.5°	4274.7	4250.0	4077.2	3863.2	3683.8	3657.4	3645.9	3693.6	3838.5	4235.2	4875.5
30°	4850.8	4827.7	4641.7	4361.9	4113.4	4070.6	3961.9	3937.2	4044.2	4427.8	5163.5
32.5°	5482.8	5468.0	5245.8	4906.7	4574.2	4524.9	4342.2	4276.3	4360.3	4719.1	5565.1
35°	6012.9	5999.7	5815.3	5466.4	5059.8	4998.9	4812.9	4738.8	4781.6	5092.7	6090.2
37.5°	6491.8	6485.3	6327.2	6052.4	5632.6	5558.6	5349.5	5324.8	5316.6	5584.9	6727.2
40°	6936.3	6919.8	6755.2	6610.4	6299.3	6231.8	6047.4	6026.0	5963.5	6190.6	7448.2
42.5°	7428.4	7385.6	7147.0	7079.5	6995.5	6939.6	6829.3	6832.6	6694.3	6873.7	8211.9
45°	7830.0	7805.4	7560.1	7520.6	7611.1	7588.1	7683.6	7708.2	7439.9	7589.7	9005.3
47.5°	8261.3	8238.3	8030.9	8002.9	8248.1	8254.7	8592.1	8600.4	8167.5	8333.7	9800.3
50°	8793.0	8760.0	8554.3	8588.9	8863.7	8888.4	9505.7	9449.7	8837.4	9089.2	10588.7
52.5°	9143.6	9163.3	9118.9	9174.8	9550.1	9573.2	10404.4	10261.2	9500.7	9834.9	11362.4
55°	9402.0	9441.5	9579.7	9708.1	10274.4	10297.4	11252.1	11033.2	10050.5	10526.2	12089.9
57.5°	9734.5	9678.5	9936.9	10187.1	10962.4	11023.3	12076.7	11777.2	10537.7	11122.1	12588.6
60°	10211.8	10172.3	10373.1	10743.5	11732.7	11829.8	12949.1	12447.1	10894.9	11594.5	12685.8
62.5°	11179.7	11080.9	11112.2	11439.7	12703.9	12832.3	13933.4	13031.4	11072.7	11778.8	12165.6
65°	12626.5	12457.0	12298.9	12526.1	14071.7	14198.4	15044.5	13490.7	11006.8	11421.6	10784.6
67.5°	14448.6	14280.7	14086.5	14300.5	16086.4	16186.8	16415.6	13749.1	10488.3	10045.6	8343.6
70°	15951.4	15888.9	16121.0	17001.6	19304.3	19307.6	18173.5	13535.1	9067.8	7122.3	4827.7
72.5°	15752.3	15714.4	16937.4	19659.9	23360.1	23272.9	19837.7	11915.4	6108.3	3213.0	1809.0
75°	12922.8	13168.0	15062.6	19612.1	24816.8	24805.3	18818.8	7574.9	2526.6	1331.6	934.9
77.5°	6929.7	7318.1	9778.9	14479.9	19373.5	19664.8	13230.6	2650.1	1084.7	852.6	646.9
80°	2260.0	2599.0	3897.7	7372.5	12588.6	12534.3	5670.5	1040.3	742.3	604.1	447.7
82.5°	959.6	999.1	1741.5	3481.3	6460.6	6360.2	1805.7	597.5	521.8	413.1	276.5
85°	375.3	419.7	768.7	1609.8	2798.2	2737.3	651.8	296.3	334.1	269.9	164.6
87.5°	123.5	149.8	274.9	551.4	870.7	839.5	159.7	102.1	144.8	123.5	59.3
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°	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4	4057.4
2.5°	4092.0	4118.3	4149.6	4195.7	4235.2	4268.1	4302.7	4324.1	4332.3	4357.0	4355.3
5°	4121.6	4179.2	4256.6	4332.3	4406.4	4450.8	4490.3	4510.1	4528.2	4541.3	4544.6
7.5°	4171.0	4245.0	4366.9	4465.6	4528.2	4564.4	4590.7	4584.1	4590.7	4594.0	4598.9
10°	4213.8	4317.5	4462.3	4556.1	4603.9	4605.5	4598.9	4575.9	4564.4	4566.0	4569.3
12.5°	4264.8	4380.0	4536.4	4615.4	4628.6	4592.4	4564.4	4524.9	4510.1	4503.5	4500.2
15°	4333.9	4465.6	4617.0	4646.7	4613.8	4567.7	4519.9	4455.7	4422.8	4396.5	4404.7
17.5°	4417.9	4562.7	4679.6	4658.2	4587.4	4511.7	4434.3	4337.2	4269.7	4241.8	4243.4
20°	4534.7	4664.8	4727.3	4633.5	4526.5	4411.3	4279.6	4161.1	4098.6	4070.6	4067.3
22.5°	4676.3	4801.4	4773.4	4590.7	4439.3	4254.9	4090.3	4003.1	3971.8	3952.1	3955.3
25°	4845.8	4952.8	4806.3	4528.2	4296.1	4047.5	3920.8	3892.8	3878.0	3863.2	3863.2
27.5°	5066.4	5124.0	4831.0	4436.0	4072.2	3827.0	3780.9	3785.8	3780.9	3756.2	3761.1
30°	5357.7	5346.2	4854.1	4286.2	3815.4	3627.8	3631.1	3652.5	3655.8	3639.3	3647.5
32.5°	5741.3	5624.4	4865.6	4092.0	3570.2	3453.3	3456.6	3479.7	3496.1	3468.1	3481.3
35°	6205.4	5948.7	4847.5	3848.4	3380.9	3287.1	3262.4	3269.0	3273.9	3247.6	3265.7
37.5°	6747.0	6312.4	4766.8	3578.4	3224.5	3124.1	3071.4	3027.0	3000.7	2976.0	2992.4
40°	7341.2	6709.1	4618.7	3315.1	3050.0	2951.3	2872.3	2788.3	2699.4	2666.5	2681.3
42.5°	7963.4	7117.3	4439.3	3063.2	2849.2	2768.6	2684.6	2562.8	2429.5	2362.0	2370.2
45°	8608.6	7535.4	4263.2	2814.7	2643.5	2608.9	2511.8	2365.3	2220.5	2134.9	2128.3
47.5°	9240.7	7930.5	4004.7	2564.5	2450.9	2488.8	2413.0	2278.1	2116.8	1981.8	1967.0
50°	9844.8	8300.8	3581.7	2311.0	2294.5	2452.5	2380.1	2185.9	2001.5	1828.7	1813.9
52.5°	10443.9	8600.4	3040.2	2080.6	2210.6	2442.7	2337.3	2123.3	1897.8	1716.8	1697.0
55°	10952.5	8755.1	2518.4	1883.0	2088.8	2358.7	2286.3	2049.3	1751.3	1558.8	1542.3
57.5°	11242.2	8630.0	2083.8	1688.8	1920.9	2220.5	2199.1	1891.3	1576.9	1428.7	1409.0
60°	11117.1	8123.0	1728.3	1519.3	1761.2	2070.7	2047.6	1734.9	1443.5	1303.6	1283.9
62.5°	10427.4	7156.8	1446.8	1371.1	1616.4	1917.6	1896.2	1614.7	1341.5	1206.5	1185.1
65°	9038.2	5821.9	1227.9	1247.7	1469.9	1733.2	1764.5	1514.3	1260.8	1129.2	1107.8
67.5°	6893.5	4217.1	1056.7	1140.7	1326.7	1552.2	1642.7	1441.9	1193.4	1068.3	1048.5
70°	3929.0	2394.9	911.9	1037.0	1199.9	1384.3	1548.9	1384.3	1120.9	1017.2	1004.1
72.5°	1489.6	1099.5	788.4	933.3	1078.1	1242.7	1445.2	1293.8	1037.0	959.6	946.5
75°	795.0	669.9	663.3	811.5	938.2	1104.5	1315.2	1204.9	974.4	1013.9	1046.9
77.5°	541.5	474.0	554.7	694.6	785.1	951.4	1176.9	1069.9	844.4	841.1	775.3
80°	375.3	335.8	451.0	559.6	607.4	800.0	1027.1	918.5	688.0	641.9	614.0
82.5°	225.5	218.9	337.4	418.1	429.6	617.3	851.0	770.3	562.9	490.5	493.8
85°	123.5	130.0	215.6	245.3	250.2	431.3	666.6	595.9	432.9	363.8	367.1
87.5°	34.6	44.4	79.0	97.1	120.2	223.9	396.7	353.9	217.3	151.4	151.4
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)