

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: P969250

Luminaire Tested: **NAV-SB5D-727-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969250  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-727-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 49777.1 lumens  
Efficiency: N/A  
Efficacy: 136.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G5

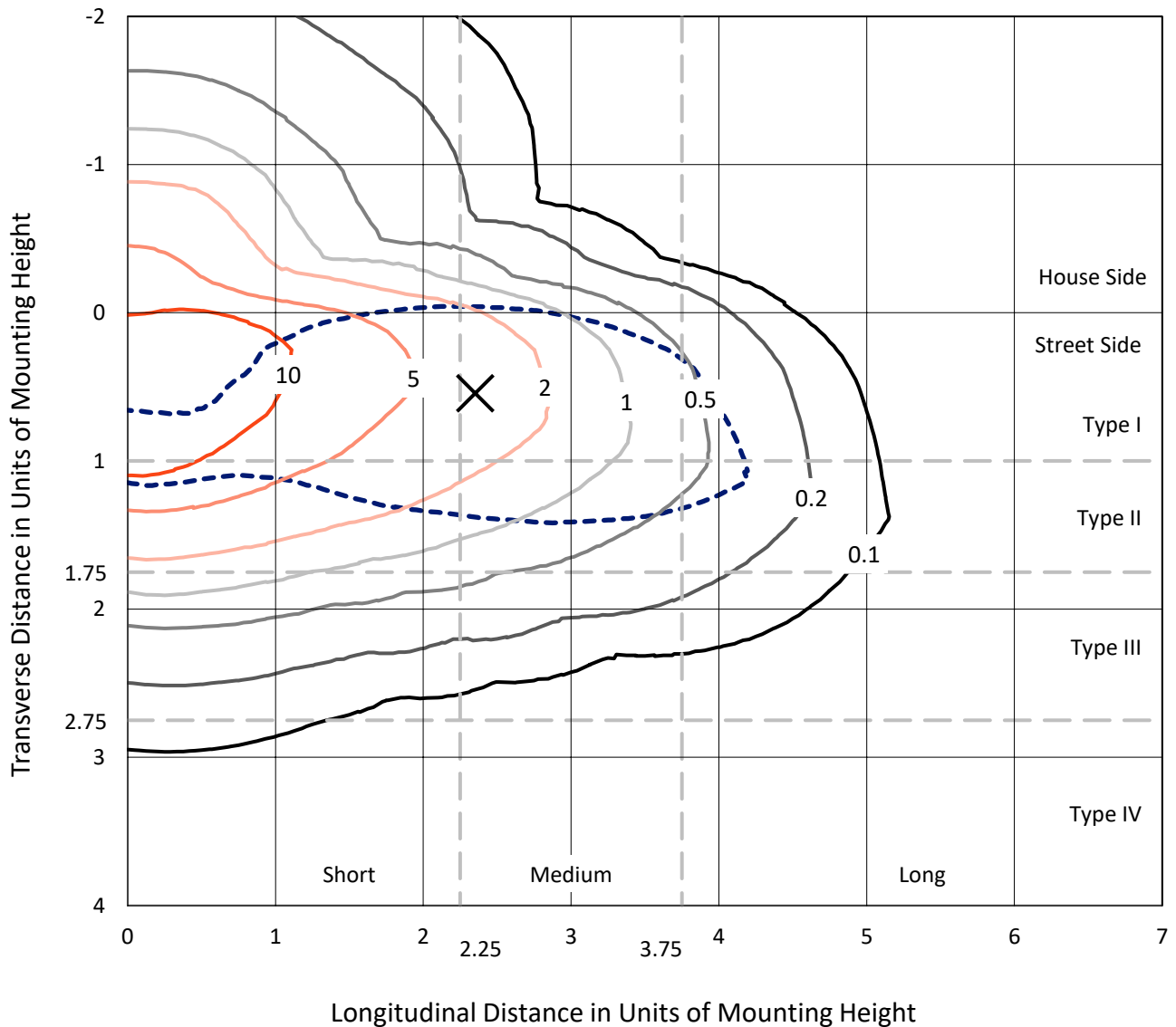
Input Watts (W): 364.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

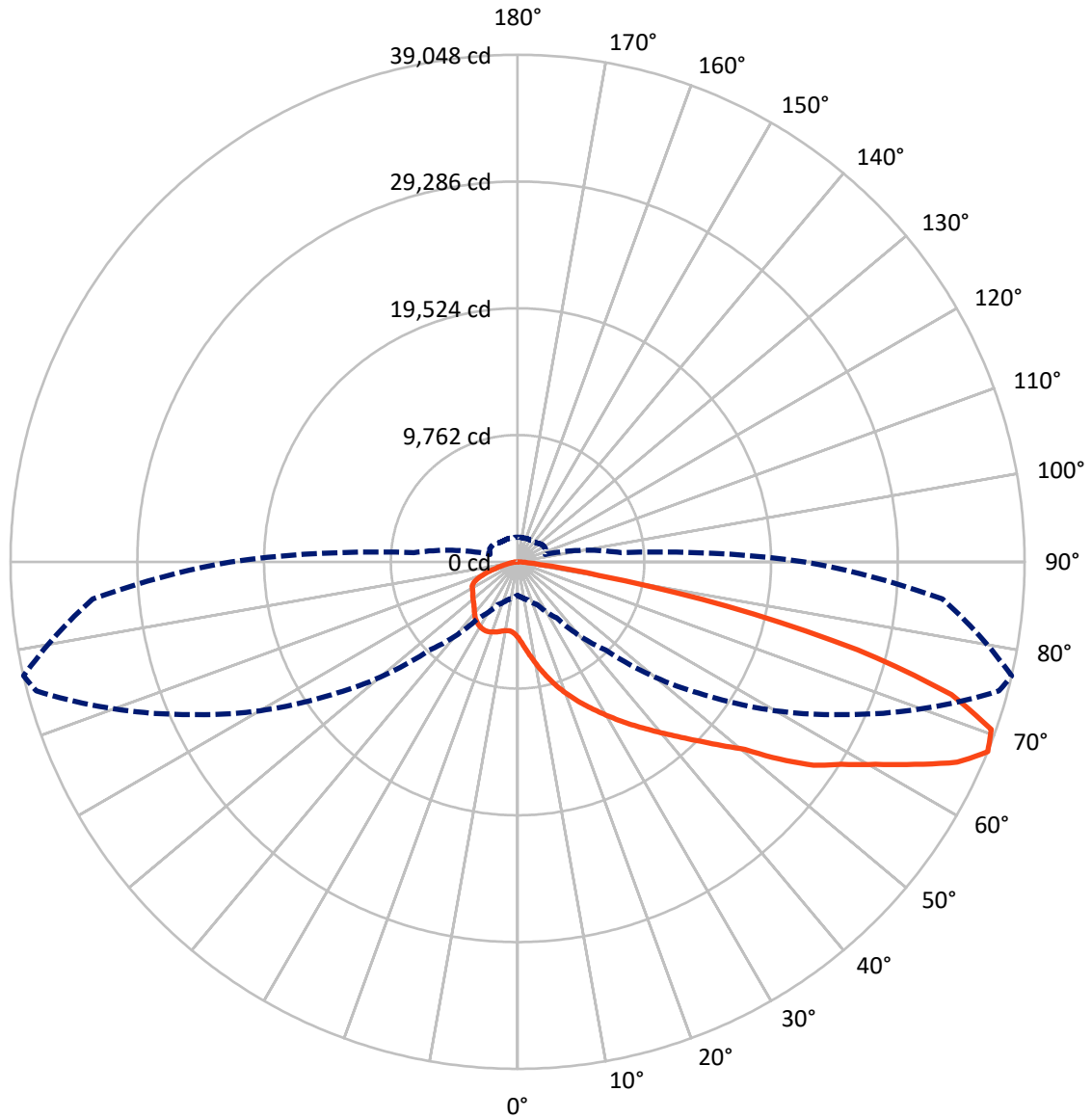
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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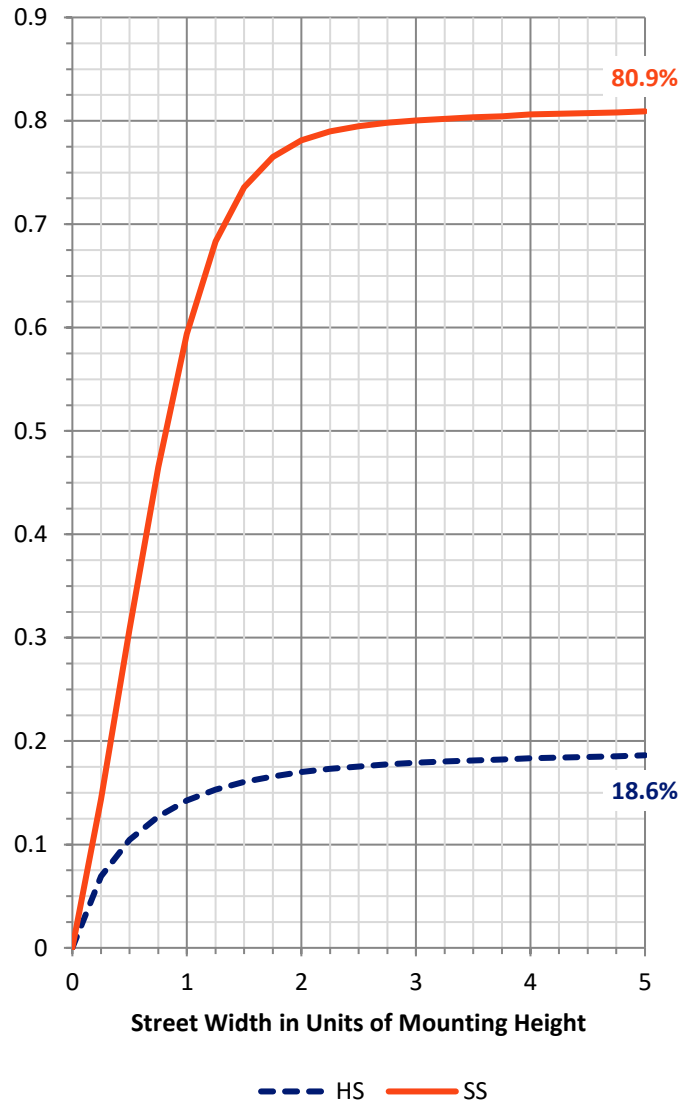
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9415.8	0.0	9415.8
	% Fixture	18.9	0.0	18.9
<b>Street Side</b>	Lumens	40361.3	0.0	40361.3
	% Fixture	81.1	0.0	81.1
<b>Total</b>	Lumens	49777.1	0.0	49777.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	626.0	1.3
10°-20°	2249.0	4.5
20°-30°	4246.3	8.5
30°-40°	6840.8	13.7
40°-50°	9357.0	18.8
50°-60°	10554.7	21.2
60°-70°	9851.5	19.8
70°-80°	5400.3	10.8
80°-90°	651.4	1.3
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°	49777.1	100.0
0°-180°	49777.1	100.0

**Coefficient of Utilization**

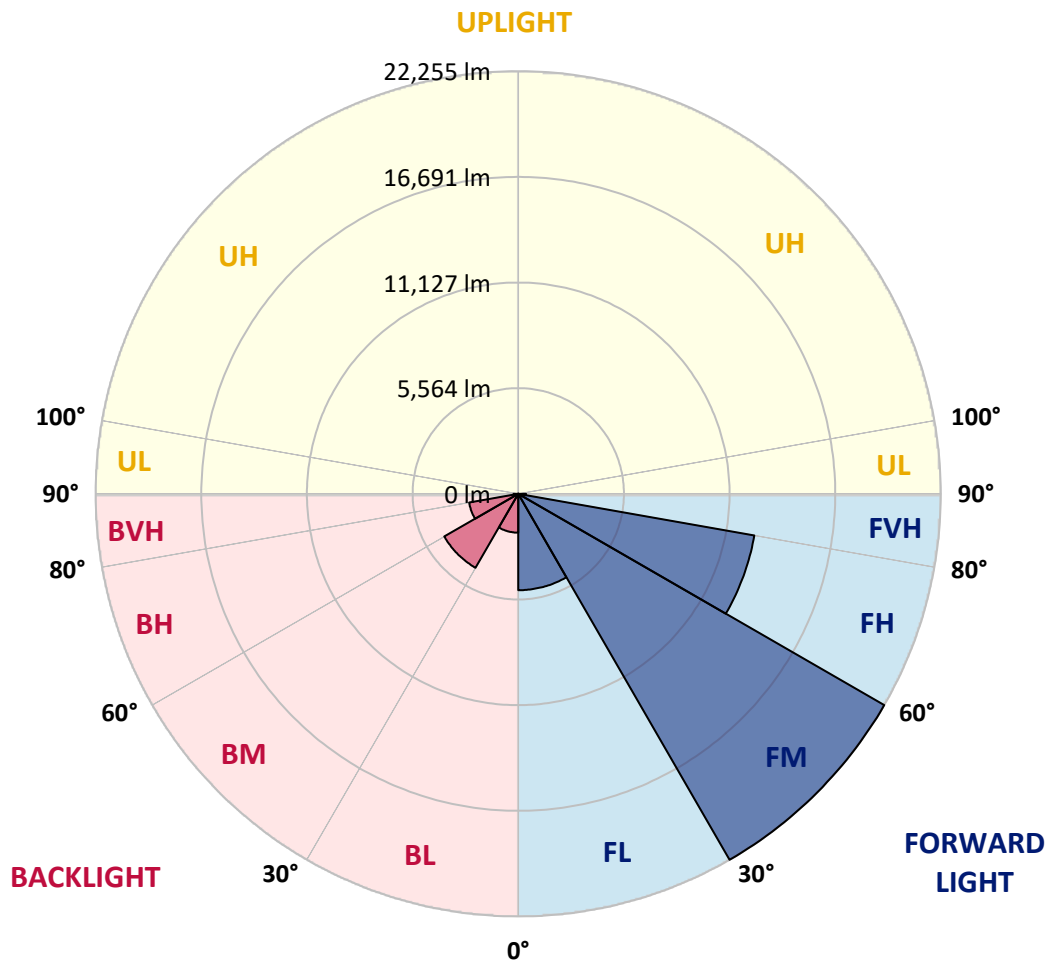


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5074.1	10.2			
FM (30°-60°)	22254.8	44.7			
FH (60°-80°)	12624.9	25.4			G5
FVH (80°-90°)	407.4	0.8			G3/500
BL (0°-30°)	2047.2	4.1	B3/2500		
BM (30°-60°)	4497.7	9.0	B3/5000		
BH (60°-80°)	2626.9	5.3	B4/5000		G4/5000
BVH (80°-90°)	244.0	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3
2.5°	7312.7	7364.1	7299.8	7299.8	7084.0	6970.9	6755.2	6590.6	6295.2	6243.8	6048.5
5°	8643.7	8707.9	8618.0	8579.5	8325.0	8091.2	7728.9	7371.8	6845.1	6791.1	6331.1
7.5°	9674.1	9756.3	9676.6	9635.5	9409.4	9147.3	8723.4	8224.9	7482.3	7376.9	6711.5
10°	10514.2	10527.1	10501.4	10516.8	10339.5	10123.7	9689.4	9108.8	8181.1	8037.3	7171.4
12.5°	10989.6	11048.7	11100.1	11192.6	11161.7	11028.2	10637.6	9943.8	8921.2	8736.2	7672.4
15°	11213.2	11315.9	11431.5	11644.8	11817.0	11850.3	11552.4	10840.6	9674.1	9450.5	8178.6
17.5°	11292.8	11390.4	11572.9	11881.2	12251.2	12500.5	12366.8	11711.6	10419.2	10162.3	8710.4
20°	11696.2	11724.5	11835.0	12127.9	12528.7	12942.4	13042.6	12549.3	11156.6	10866.2	9260.4
22.5°	12559.5	12503.1	12533.9	12667.5	12955.3	13356.1	13584.7	13289.3	11914.6	11580.6	9815.4
25°	13985.6	13821.2	13656.7	13502.5	13649.0	13875.1	14134.6	14029.3	12708.6	12284.6	10375.5
27.5°	15786.8	15586.4	15224.1	14717.9	14540.6	14620.3	14735.9	14715.3	13443.5	13014.3	10953.7
30°	17559.7	17325.9	16894.3	16162.0	15694.3	15483.6	15396.2	15337.2	14242.6	13785.2	11536.9
32.5°	18975.5	18790.5	18366.6	17546.9	16868.5	16508.9	16218.5	16007.7	15077.6	14620.3	12153.5
35°	20214.0	20041.8	19556.2	18662.1	17924.6	17541.7	17161.5	16711.8	15946.1	15483.6	12816.5
37.5°	21344.6	21172.4	20506.9	19576.8	18834.2	18569.5	18230.3	17467.2	16817.2	16380.3	13518.0
40°	22058.8	22020.3	21398.5	20345.0	19574.2	19443.1	19330.1	18343.4	17783.2	17377.3	14288.8
42.5°	22241.3	22326.1	21832.8	20966.9	20232.0	20126.6	20391.2	19335.2	18867.6	18479.6	15162.4
45°	21802.0	22046.0	21722.3	21133.9	20699.7	20643.1	21331.7	20419.5	20067.6	19712.9	16215.9
47.5°	20689.3	21103.0	20969.4	20887.1	20825.5	21069.6	22159.1	21570.7	21426.8	21118.5	17418.4
50°	18443.6	19227.4	19461.2	19980.2	20576.3	21401.1	22911.9	22827.2	23014.7	22703.9	18883.0
52.5°	14561.2	15640.4	16997.1	18297.2	19810.6	21290.6	23739.3	24631.0	25422.3	25252.7	21210.9
55°	12020.0	12505.6	13548.8	15933.2	18325.5	20825.5	24111.9	26087.8	27811.9	27660.3	22976.2
57.5°	10067.1	10501.4	11143.8	13135.1	16079.7	19769.5	24343.1	26976.9	29448.7	29433.3	24718.3
60°	7973.1	8433.0	9090.7	10501.4	13456.3	17945.2	24291.8	27989.2	31537.6	31666.1	26843.2
62.5°	5609.1	6115.4	6845.1	8160.6	10776.3	15581.2	23243.4	28721.5	33996.6	34346.0	29399.9
65°	3687.2	4021.2	4571.1	5706.8	8029.5	12541.6	21241.8	28816.5	36627.8	37218.7	31799.7
67.5°	2584.8	2713.4	3037.1	3653.8	5293.1	9617.5	18053.1	27832.4	38382.7	39048.2	32840.4
70°	2017.0	2081.3	2245.7	2492.4	3324.9	6467.3	13834.0	25273.3	38007.5	38701.3	31753.5
72.5°	1742.1	1803.8	1865.4	1896.2	2230.3	3993.0	9370.9	21131.3	34474.5	34944.7	27608.9
75°	1580.2	1595.6	1647.1	1636.7	1701.0	2590.1	5408.7	15396.2	27200.3	27038.5	20381.0
77.5°	1328.4	1349.0	1433.8	1421.0	1510.8	1770.4	2808.4	9936.1	17634.2	16534.5	11344.2
80°	1125.4	1135.7	1228.2	1212.8	1313.0	1282.2	1433.8	5064.4	7479.7	6336.3	3271.0
82.5°	390.5	483.1	937.9	966.2	1002.1	776.0	827.4	2065.9	2284.2	1749.8	686.0
85°	190.1	203.0	478.0	678.3	675.8	390.5	403.4	737.5	719.4	565.3	228.7
87.5°	30.9	38.5	56.5	264.7	210.7	102.8	138.8	143.9	149.0	128.4	51.4
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°	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3	5840.3
2.5°	5904.6	5776.2	5506.4	5257.1	5061.9	4874.3	4768.9	4679.0	4627.6	4617.3	4617.3
5°	6063.9	5799.2	5308.5	4894.8	4625.0	4424.6	4319.2	4252.4	4219.1	4198.5	4195.9
7.5°	6292.6	5904.6	5205.8	4735.5	4452.9	4309.0	4255.1	4244.7	4242.2	4244.7	4252.4
10°	6608.7	6076.8	5195.4	4697.0	4460.6	4381.0	4378.4	4381.0	4391.2	4393.8	4396.3
12.5°	6950.4	6254.0	5236.6	4730.4	4558.3	4514.5	4506.8	4504.3	4511.9	4517.1	4519.7
15°	7323.0	6487.9	5305.9	4802.3	4666.1	4619.9	4612.2	4596.8	4594.3	4591.6	4589.0
17.5°	7705.8	6719.2	5383.0	4879.4	4735.5	4671.3	4643.0	4607.1	4578.8	4571.1	4578.8
20°	8093.8	6947.9	5437.0	4918.0	4740.6	4650.7	4594.3	4532.5	4483.8	4455.5	4465.7
22.5°	8507.5	7186.8	5470.4	4907.7	4694.4	4571.1	4468.3	4396.3	4321.8	4273.0	4275.6
25°	8910.9	7395.0	5467.9	4853.7	4604.5	4447.8	4316.7	4224.2	4121.4	4070.1	4070.1
27.5°	9298.9	7582.5	5403.6	4758.7	4476.0	4301.3	4144.6	4034.1	3933.8	3885.1	3882.5
30°	9699.8	7739.3	5303.3	4619.9	4324.4	4131.7	3959.6	3864.5	3774.6	3728.3	3725.8
32.5°	10098.0	7883.2	5162.1	4447.8	4149.7	3964.7	3795.1	3707.7	3653.8	3653.8	3656.4
35°	10519.4	7983.3	4974.5	4247.3	3964.7	3787.4	3653.8	3602.4	3597.2	3566.4	3558.7
37.5°	10963.9	8047.6	4745.9	4041.8	3782.2	3615.3	3574.2	3512.5	3461.1	3394.3	3384.0
40°	11431.5	8111.8	4470.8	3828.5	3589.6	3497.1	3479.1	3396.8	3250.4	3086.0	3062.8
42.5°	11999.4	8155.5	4185.7	3615.3	3386.6	3355.7	3381.4	3240.1	3006.3	2882.9	2885.5
45°	12657.2	8227.5	3923.6	3404.5	3178.4	3178.4	3286.4	3101.3	2908.6	2831.6	2844.4
47.5°	13510.2	8394.4	3679.4	3173.3	2985.7	3037.1	3075.6	2934.4	2826.4	2731.3	2728.8
50°	14743.6	8795.3	3427.7	2939.5	2839.2	2942.1	2888.0	2805.8	2680.0	2602.9	2595.2
52.5°	16275.0	9031.7	3204.1	2728.8	2713.4	2816.1	2739.0	2661.9	2566.9	2464.1	2443.6
55°	17318.2	9075.3	3016.6	2574.6	2628.6	2618.3	2590.1	2520.7	2469.2	2333.1	2335.7
57.5°	18484.7	9162.7	2862.4	2482.1	2574.6	2461.5	2451.3	2392.1	2325.4	2232.9	2202.0
60°	19880.0	9298.9	2728.8	2446.2	2528.4	2358.7	2307.4	2284.2	2217.5	2171.2	2184.1
62.5°	21401.1	9422.2	2592.6	2451.3	2474.4	2258.6	2181.5	2173.7	2132.6	2117.2	2117.2
65°	22439.2	9085.6	2423.0	2446.2	2389.6	2155.8	2058.1	2055.5	2022.1	2017.0	2014.4
67.5°	22076.9	8019.3	2194.3	2374.2	2302.3	2053.0	1945.0	1934.8	1891.1	1893.7	1893.7
70°	20262.8	6498.2	1878.3	2196.9	2194.3	1960.5	1826.9	1793.4	1734.4	1744.7	1754.9
72.5°	16860.8	4815.1	1454.3	1901.4	2022.1	1875.7	1690.7	1636.7	1562.2	1572.6	1570.0
75°	12176.7	3273.5	1058.6	1446.6	1760.1	1775.5	1557.1	1464.6	1374.6	1390.1	1395.2
77.5°	6231.0	1855.1	778.6	996.9	1382.4	1613.7	1436.3	1313.0	1292.4	1436.3	1415.7
80°	2032.5	930.2	539.6	698.8	907.0	1320.7	1259.0	1117.8	1112.5	1145.9	984.1
82.5°	606.4	393.1	346.9	459.9	501.0	1012.4	1086.9	845.3	727.1	765.7	791.4
85°	208.2	190.1	197.8	228.7	238.9	593.6	760.6	560.2	529.3	583.2	575.5
87.5°	48.8	66.8	56.5	51.4	51.4	143.9	295.5	233.8	323.8	215.9	208.2
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)