

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: P884276

Luminaire Tested: **NAV-SB5A-735-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884276
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16622 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

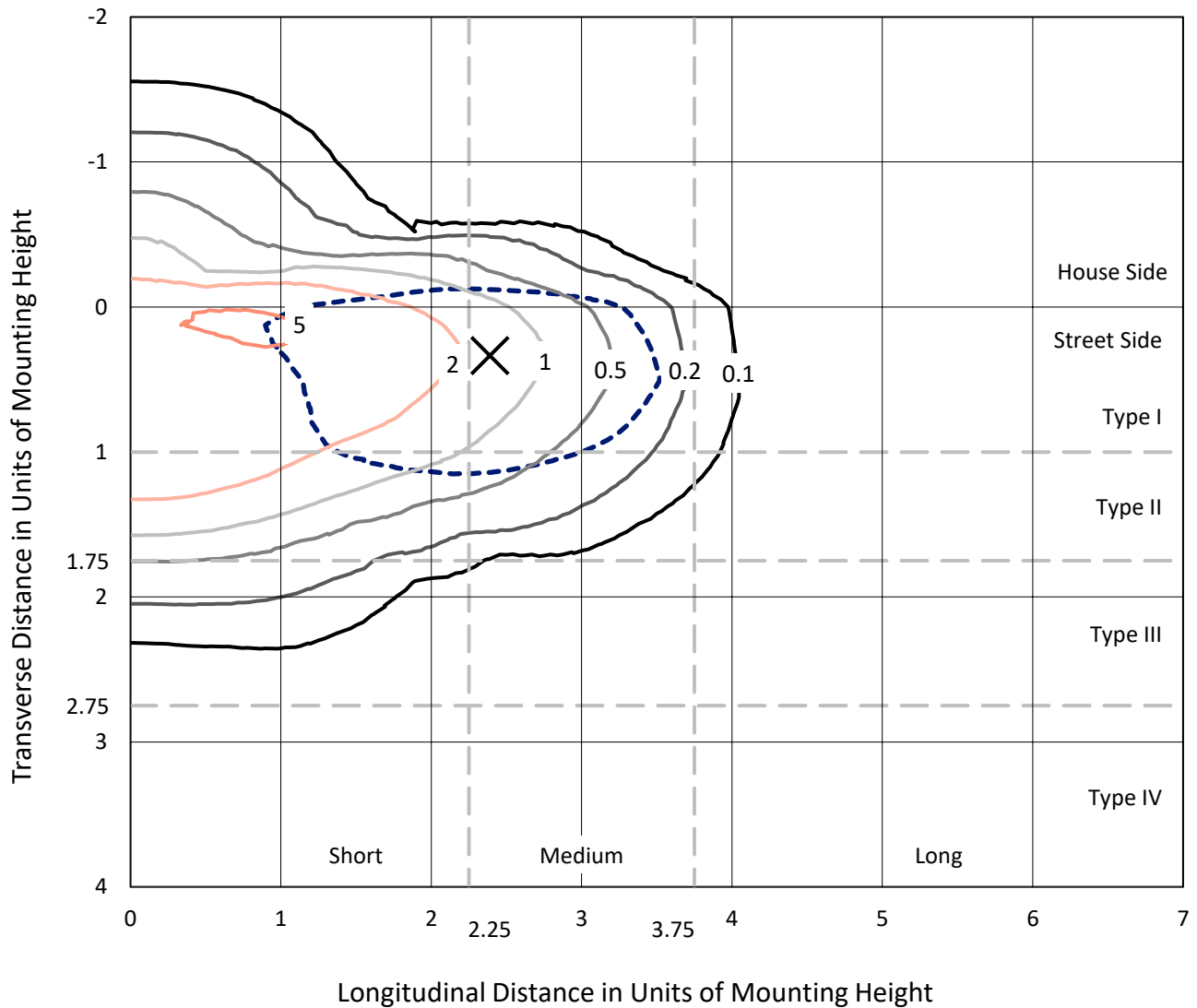
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

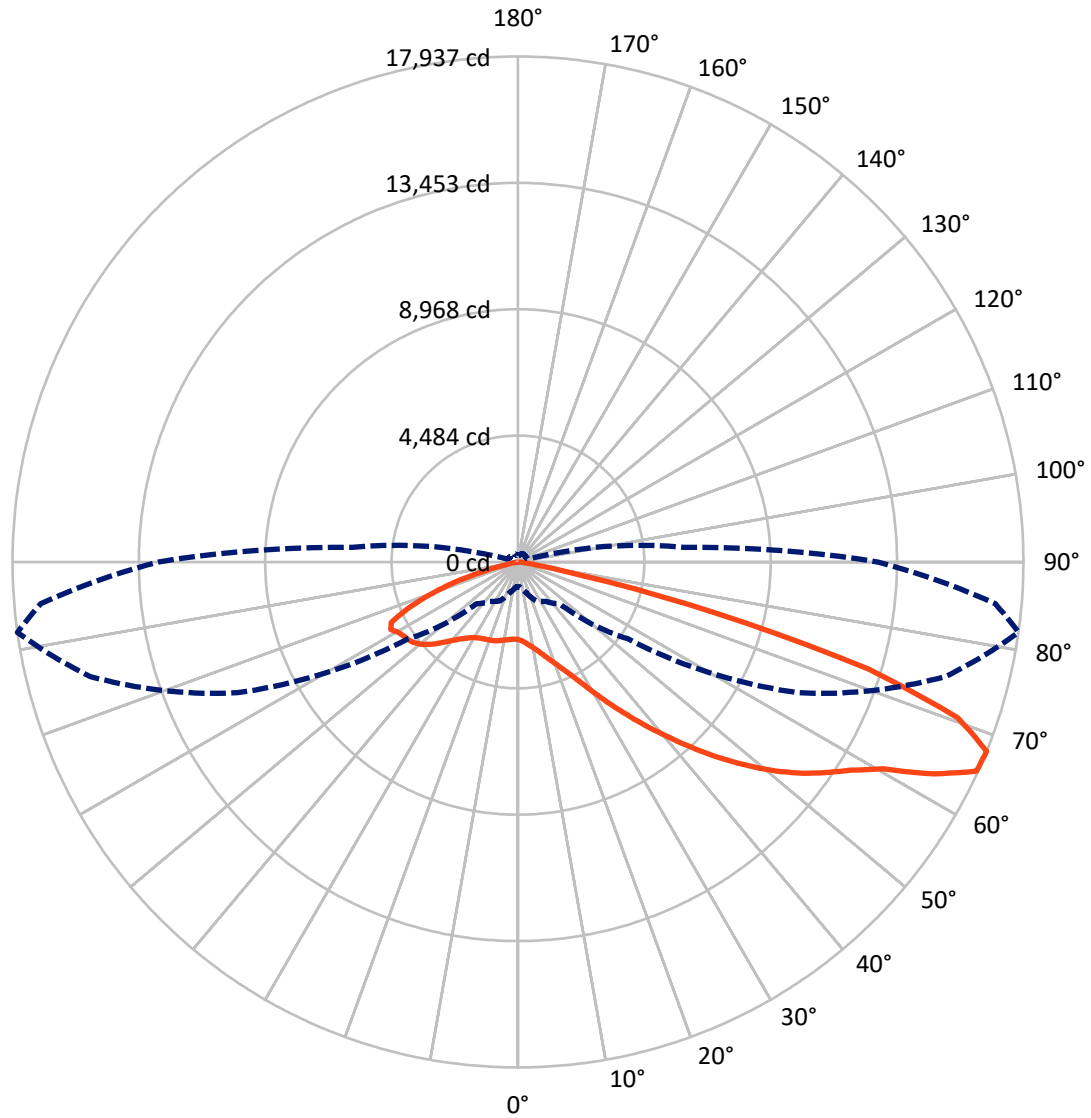
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3010.9	0.0	3010.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13611.1	0.0	13611.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	16622.0	0.0	16622.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.3	1.5
10°-20°	637.5	3.8
20°-30°	1021.1	6.1
30°-40°	1805.6	10.9
40°-50°	3163.7	19.0
50°-60°	4219.4	25.4
60°-70°	3928.1	23.6
70°-80°	1507.6	9.1
80°-90°	93.6	0.6
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°	16622.0	100.0
0°-180°	16622.0	100.0

Coefficient of Utilization



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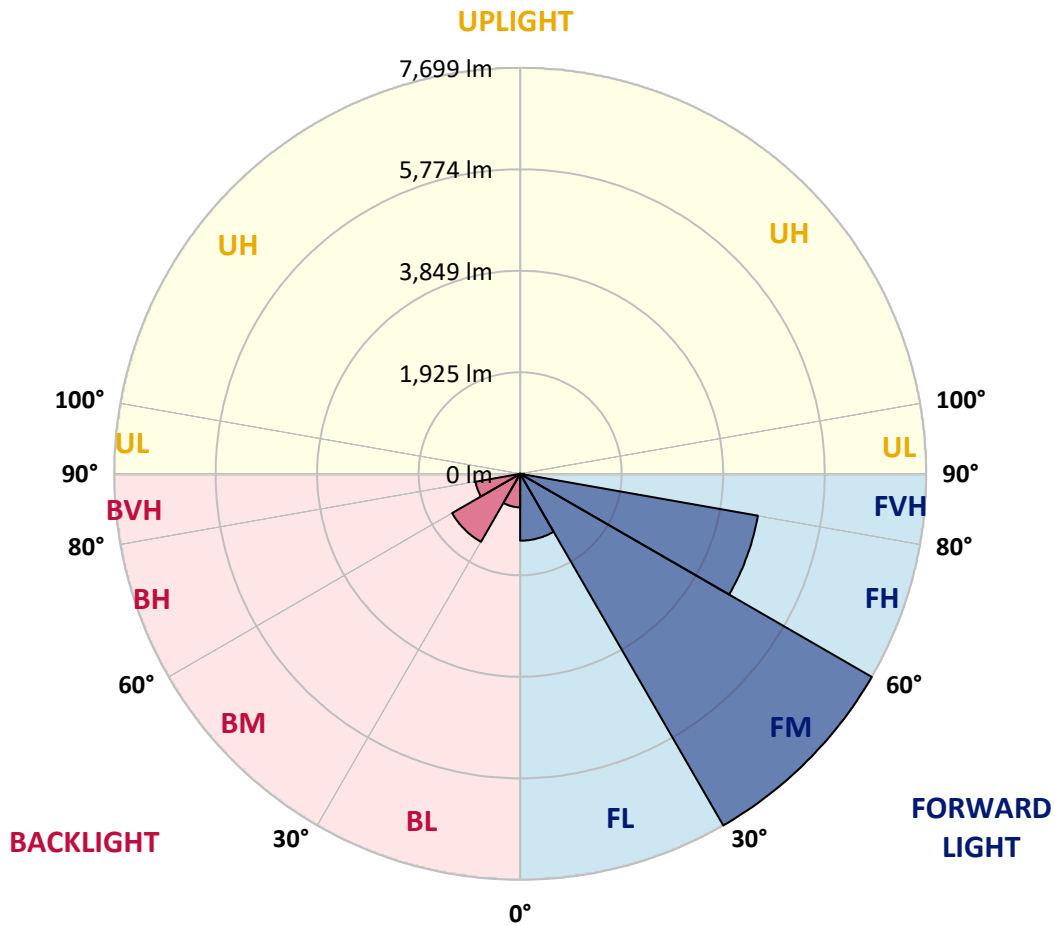
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1268.1	7.6			
FM (30°-60°)	7698.6	46.3			
FH (60°-80°)	4576.3	27.5			G2/5000
FVH (80°-90°)	68.1	0.4			G1/100
BL (0°-30°)	635.9	3.8	B2/1000		
BM (30°-60°)	1490.1	9.0	B2/2500		
BH (60°-80°)	859.4	5.2	B2/1000		G2/1000
BVH (80°-90°)	25.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7
2.5°	2910.5	2927.2	2917.7	2912.9	2904.5	2892.5	2883.0	2853.0	2821.9	2801.6	2794.4
5°	2969.1	2985.9	2984.7	2989.5	2995.4	2999.0	2996.6	2963.1	2918.9	2884.1	2863.8
7.5°	2918.9	2938.0	2953.6	2977.5	3019.4	3063.7	3085.2	3078.0	3032.5	2984.7	2959.5
10°	2776.4	2796.8	2833.9	2890.1	2978.7	3074.4	3154.6	3191.7	3163.0	3110.3	3075.6
12.5°	2515.6	2535.9	2608.9	2731.0	2879.4	3045.7	3198.9	3298.2	3305.4	3252.7	3212.1
15°	2222.3	2242.7	2320.5	2473.7	2699.8	2966.7	3222.8	3410.7	3474.1	3428.7	3379.6
17.5°	2040.4	2058.4	2117.0	2240.3	2476.1	2808.8	3214.4	3530.4	3675.2	3639.3	3580.7
20°	1985.4	2001.0	2028.5	2114.6	2310.9	2644.8	3159.4	3642.9	3891.8	3871.5	3805.6
22.5°	2044.0	2058.4	2066.8	2105.1	2228.3	2537.1	3090.0	3757.8	4143.1	4145.5	4065.3
25°	2179.3	2193.6	2184.1	2208.0	2261.8	2503.6	3063.7	3893.0	4459.1	4485.4	4394.4
27.5°	2401.9	2403.1	2380.3	2379.1	2387.5	2553.8	3091.2	4037.8	4857.6	4906.6	4794.1
30°	2848.2	2830.3	2742.9	2648.4	2605.3	2704.6	3167.8	4208.9	5327.9	5415.3	5274.0
32.5°	3536.4	3510.0	3349.7	3123.5	2896.1	2947.6	3305.4	4404.0	5840.1	5998.1	5825.7
35°	4283.1	4276.0	4108.4	3772.1	3374.8	3293.4	3529.2	4660.1	6399.0	6650.3	6445.7
37.5°	4977.2	4973.7	4877.9	4481.8	3998.3	3775.7	3888.2	4995.2	6997.3	7361.2	7119.4
40°	5611.5	5622.3	5526.6	5172.3	4685.2	4394.4	4376.5	5409.3	7662.7	8135.5	7848.2
42.5°	6159.6	6171.6	6074.7	5812.6	5363.8	5079.0	4976.1	5916.7	8312.6	8967.2	8627.3
45°	6531.8	6606.0	6591.7	6382.2	6060.3	5764.7	5696.5	6553.4	9053.4	9849.2	9450.7
47.5°	6637.1	6705.3	6813.1	6841.8	6645.5	6354.7	6436.1	7320.5	9802.5	10732.4	10278.8
50°	6377.4	6440.9	6664.7	6962.6	7099.1	7009.3	7155.3	8142.6	10569.6	11613.2	11091.4
52.5°	5865.2	5929.9	6212.3	6683.8	7240.3	7522.7	7877.0	8952.8	11312.8	12447.3	11860.9
55°	5124.4	5192.7	5555.3	6089.0	6971.0	7734.5	8478.9	9761.8	11993.7	13197.7	12555.0
57.5°	4116.8	4167.1	4544.0	5290.8	6293.7	7523.9	8922.9	10645.0	12635.2	13934.9	13243.1
60°	2683.1	2727.4	3165.4	3998.3	5171.1	6820.2	9011.5	11629.9	13487.3	14893.5	14170.6
62.5°	1784.3	1814.3	2074.0	2685.5	3641.7	5469.1	8493.3	12416.2	14736.7	16561.7	15761.1
65°	1224.3	1254.2	1513.9	1939.9	2352.8	3617.8	7003.3	12312.1	15868.8	17886.5	16939.9
67.5°	873.6	898.8	1119.0	1521.1	1703.0	2101.5	4747.5	10981.3	15706.0	17936.8	17003.3
70°	625.9	640.3	822.2	1184.8	1353.5	1262.6	2640.0	8398.7	13751.8	16562.9	15708.4
72.5°	438.0	442.8	570.8	902.3	1090.2	921.5	1256.6	5599.6	10400.9	13000.2	12178.0
75°	296.8	302.8	384.2	661.8	874.8	703.7	665.4	3002.6	6105.8	7196.0	6450.4
77.5°	181.9	184.3	247.7	452.4	654.6	536.1	428.4	1272.1	2362.4	2319.3	1977.0
80°	102.9	102.9	158.0	281.2	446.4	345.9	300.4	540.9	748.0	657.0	579.2
82.5°	57.4	58.6	114.9	174.7	295.6	204.6	165.2	250.1	323.1	286.0	248.9
85°	23.9	26.3	70.6	82.6	141.2	101.7	67.0	105.3	119.7	106.5	77.8
87.5°	2.4	3.6	21.5	15.6	16.8	20.3	9.6	20.3	16.8	16.8	12.0
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°	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7	2753.7
2.5°	2771.7	2753.7	2708.2	2655.6	2586.2	2552.7	2507.2	2476.1	2449.7	2452.1	2428.2
5°	2825.5	2780.0	2678.3	2551.5	2393.5	2281.0	2161.3	2078.7	2011.7	1997.4	1965.1
7.5°	2899.7	2827.9	2649.6	2421.0	2154.1	1951.9	1771.2	1655.1	1572.5	1546.2	1519.9
10°	2995.4	2891.3	2612.5	2257.1	1872.9	1615.6	1421.7	1330.8	1274.5	1255.4	1241.0
12.5°	3106.7	2964.3	2563.4	2057.2	1583.3	1335.6	1212.3	1166.8	1148.9	1142.9	1139.3
15°	3246.8	3055.3	2489.2	1820.2	1338.0	1164.4	1111.8	1105.8	1108.2	1105.8	1104.6
17.5°	3413.1	3154.6	2368.4	1576.1	1172.8	1077.1	1057.9	1062.7	1068.7	1067.5	1065.1
20°	3595.0	3252.7	2214.0	1359.5	1060.3	1014.8	1004.1	1008.9	1013.6	1011.2	1010.1
22.5°	3802.0	3358.1	2042.8	1190.8	984.9	957.4	945.4	946.6	946.6	941.8	939.4
25°	4049.8	3474.1	1863.3	1071.1	927.5	905.9	891.6	886.8	879.6	865.2	862.9
27.5°	4345.4	3597.4	1691.0	987.3	882.0	861.7	844.9	832.9	815.0	791.0	788.7
30°	4678.1	3747.0	1545.0	934.7	846.1	825.8	806.6	788.7	762.3	732.4	730.0
32.5°	5069.4	3907.4	1438.5	899.9	813.8	792.2	769.5	748.0	719.2	689.3	690.5
35°	5536.1	4101.2	1376.3	876.0	788.7	759.9	734.8	710.9	689.3	663.0	660.6
37.5°	6042.3	4307.1	1357.1	864.0	771.9	727.6	698.9	682.1	679.7	664.2	663.0
40°	6596.4	4551.2	1371.5	856.9	753.9	696.5	665.4	661.8	667.8	640.3	641.5
42.5°	7182.8	4840.8	1395.4	848.5	728.8	665.4	635.5	635.5	630.7	592.4	592.4
45°	7817.1	5174.7	1419.3	828.1	698.9	634.3	611.5	603.2	582.8	545.7	544.5
47.5°	8456.2	5514.6	1437.3	791.0	663.0	607.9	587.6	568.5	538.5	505.0	503.8
50°	9062.9	5819.8	1418.1	736.0	622.3	582.8	561.3	534.9	502.6	479.9	476.3
52.5°	9605.0	6084.2	1336.8	671.4	579.2	556.5	537.3	509.8	483.5	459.5	457.2
55°	10076.6	6298.5	1193.2	610.3	540.9	533.7	514.6	479.9	444.0	423.6	421.3
57.5°	10528.9	6461.2	1013.6	560.1	506.2	508.6	479.9	448.8	415.3	393.7	391.3
60°	11130.9	6679.0	831.7	513.4	469.1	476.3	445.2	422.4	380.6	353.0	349.4
62.5°	12093.1	7017.7	660.6	456.0	426.0	428.4	415.3	387.7	337.5	305.2	302.8
65°	12856.6	6893.2	520.6	393.7	377.0	380.6	380.6	350.6	296.8	259.7	256.1
67.5°	12770.4	5902.3	415.3	332.7	330.3	332.7	341.1	315.9	263.3	233.4	228.6
70°	11764.0	4694.8	332.7	276.4	287.2	281.2	305.2	288.4	237.0	207.0	203.4
72.5°	9599.1	3382.0	253.7	228.6	220.2	229.8	275.3	259.7	197.5	164.0	160.4
75°	5609.1	1804.7	189.1	180.7	159.2	191.5	244.1	221.4	150.8	120.9	117.3
77.5°	1826.2	629.5	138.8	132.8	118.5	154.4	208.2	186.7	123.3	95.7	92.1
80°	489.5	190.3	94.5	87.4	76.6	114.9	165.2	148.4	88.6	62.2	61.0
82.5°	196.3	80.2	55.1	49.1	41.9	79.0	130.4	119.7	65.8	39.5	39.5
85°	63.4	26.3	20.3	15.6	19.1	49.1	77.8	81.4	46.7	20.3	15.6
87.5°	8.4	3.6	3.6	4.8	3.6	8.4	23.9	22.7	13.2	2.4	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)