

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: P884286

Luminaire Tested: **NAV-SB5A-740-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884286
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-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 17920 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

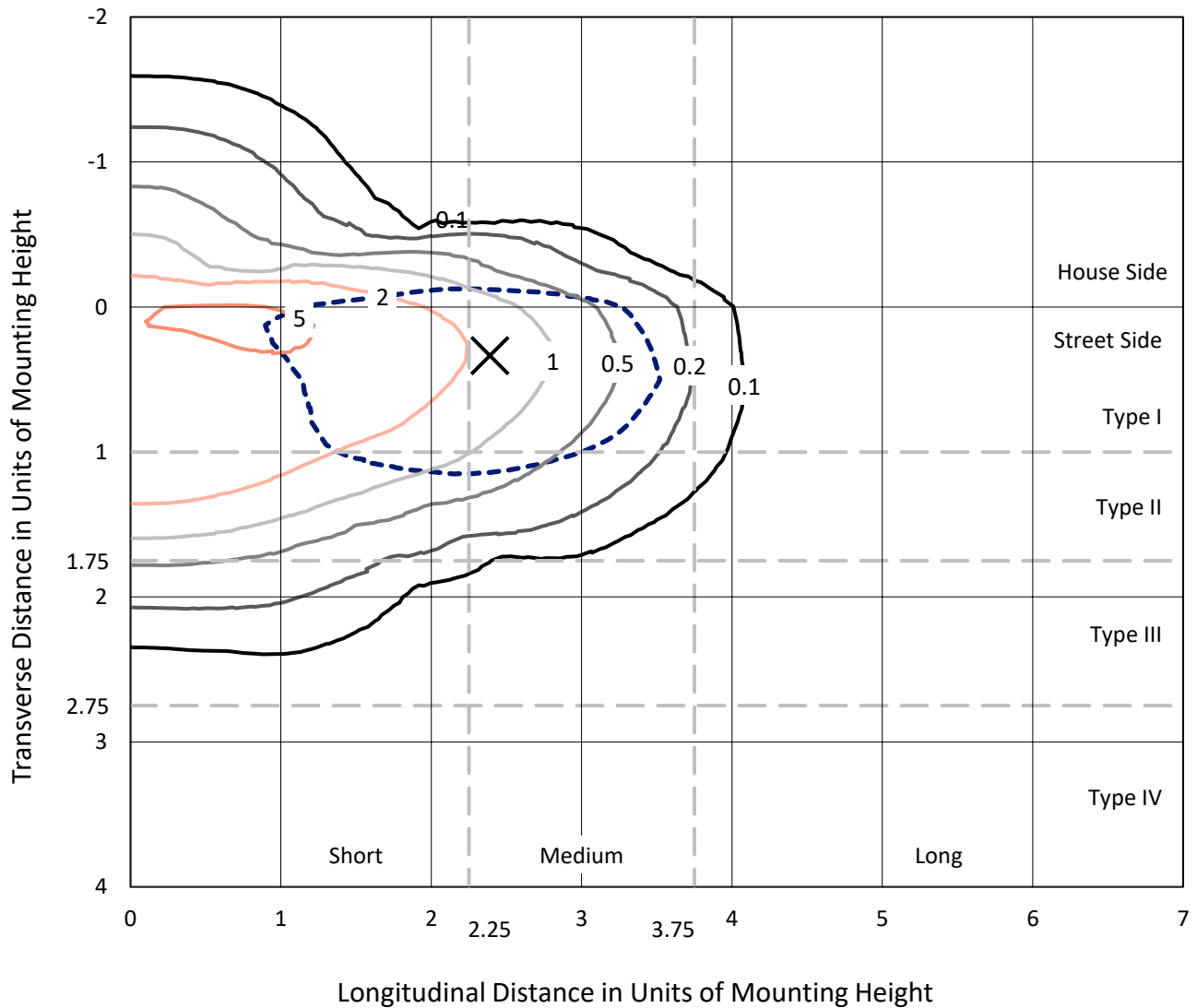
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

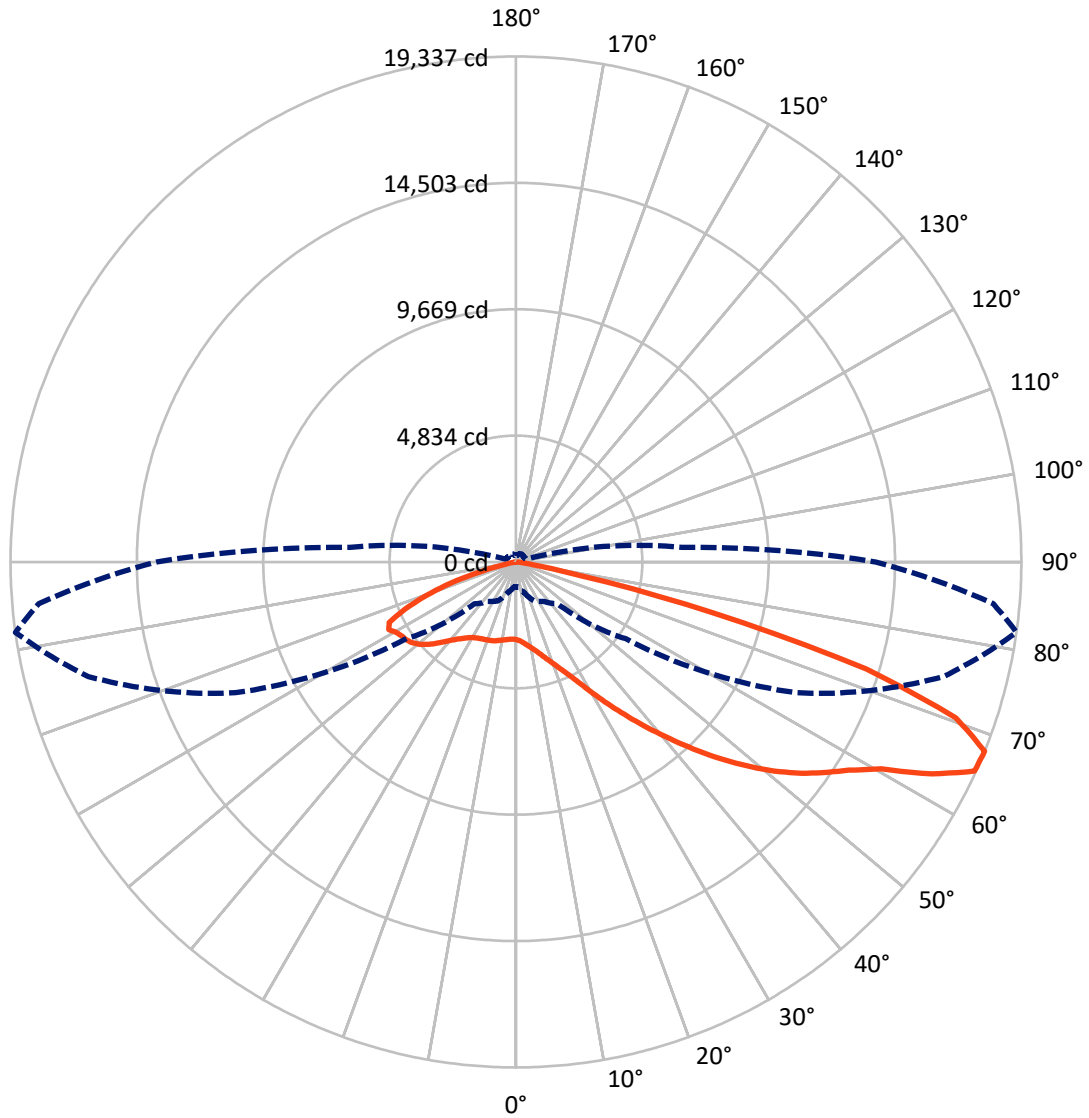
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 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	3246.0	0.0	3246.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14673.9	0.0	14673.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	17920.0	0.0	17920.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.5	1.5
10°-20°	687.3	3.8
20°-30°	1100.8	6.1
30°-40°	1946.6	10.9
40°-50°	3410.7	19.0
50°-60°	4548.9	25.4
60°-70°	4234.8	23.6
70°-80°	1625.3	9.1
80°-90°	101.0	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°	17920.0	100.0
0°-180°	17920.0	100.0

Coefficient of Utilization



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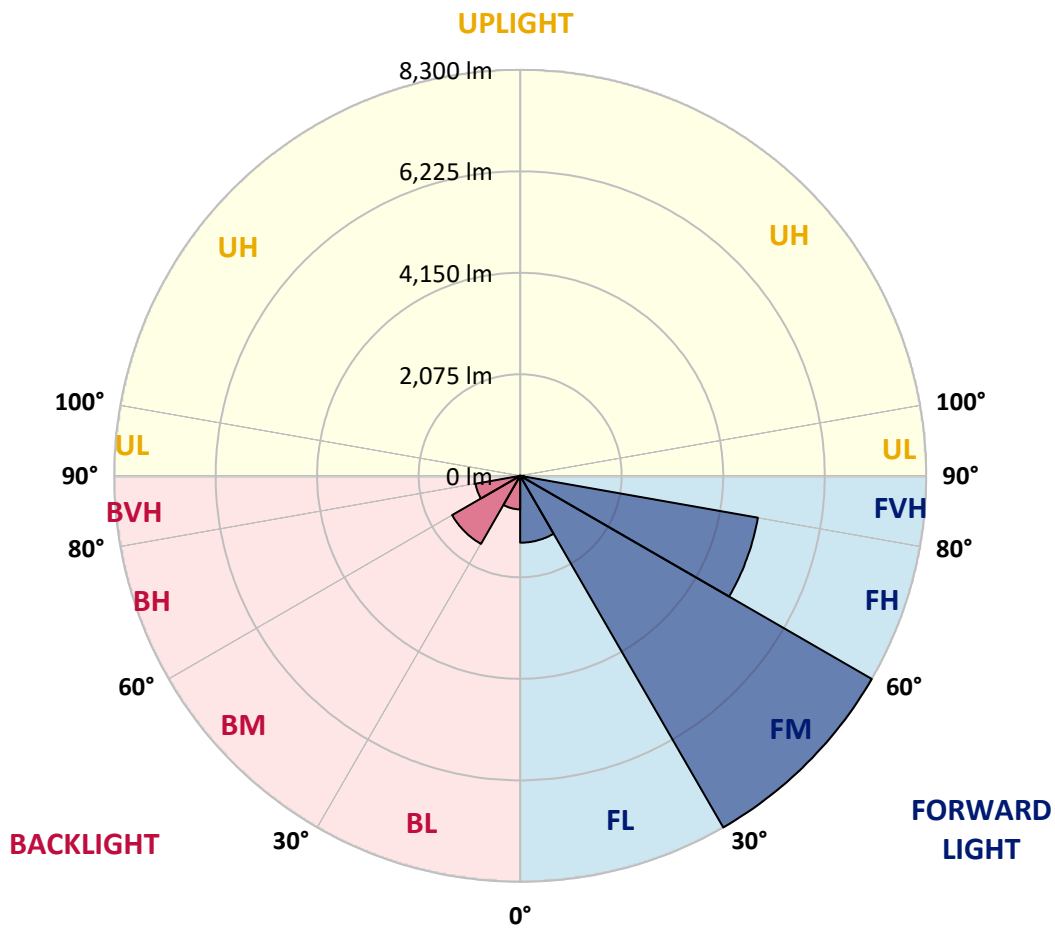
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1367.1	7.6			
FM (30°-60°)	8299.8	46.3			
FH (60°-80°)	4933.6	27.5			G2/5000
FVH (80°-90°)	73.4	0.4			G1/100
BL (0°-30°)	685.6	3.8	B2/1000		
BM (30°-60°)	1606.5	9.0	B2/2500		
BH (60°-80°)	926.5	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.6	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°	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7
2.5°	3137.8	3155.8	3145.5	3140.3	3131.3	3118.4	3108.1	3075.8	3042.3	3020.3	3012.6
5°	3201.0	3219.0	3217.7	3222.9	3229.4	3233.2	3230.6	3194.5	3146.8	3109.4	3087.4
7.5°	3146.8	3167.4	3184.2	3210.0	3255.2	3302.9	3326.1	3318.4	3269.4	3217.7	3190.7
10°	2993.3	3015.2	3055.2	3115.8	3211.3	3314.5	3401.0	3440.9	3410.0	3353.2	3315.8
12.5°	2712.0	2733.9	2812.6	2944.2	3104.2	3283.5	3448.7	3555.8	3563.5	3506.7	3462.9
15°	2395.9	2417.8	2501.7	2666.8	2910.7	3198.4	3474.5	3677.1	3745.4	3696.4	3643.5
17.5°	2199.8	2219.1	2282.4	2415.2	2669.4	3028.1	3465.5	3806.1	3962.2	3923.5	3860.3
20°	2140.4	2157.2	2186.9	2279.8	2491.4	2851.3	3406.1	3927.4	4195.7	4173.8	4102.8
22.5°	2203.7	2219.1	2228.2	2269.5	2402.3	2735.2	3331.3	4051.2	4466.7	4469.2	4382.8
25°	2349.4	2364.9	2354.6	2380.4	2438.5	2699.1	3302.9	4197.0	4807.3	4835.6	4737.6
27.5°	2589.4	2590.7	2566.2	2564.9	2573.9	2753.3	3332.6	4353.1	5236.9	5289.8	5168.5
30°	3070.7	3051.3	2957.1	2855.2	2808.8	2915.8	3415.1	4537.6	5743.9	5838.1	5685.9
32.5°	3812.5	3784.1	3611.3	3367.4	3122.3	3177.7	3563.5	4747.9	6296.1	6466.5	6280.7
35°	4617.6	4609.9	4429.2	4066.7	3638.3	3550.6	3804.8	5024.0	6898.7	7169.6	6949.0
37.5°	5365.9	5362.0	5258.8	4831.8	4310.5	4070.6	4191.8	5385.3	7543.8	7936.0	7675.4
40°	6049.7	6061.3	5958.1	5576.2	5051.1	4737.6	4718.2	5831.7	8261.1	8770.7	8461.1
42.5°	6640.6	6653.5	6549.0	6266.5	5782.7	5475.6	5364.6	6378.7	8961.7	9667.4	9301.0
45°	7041.9	7121.9	7106.4	6880.6	6533.5	6214.9	6141.3	7065.1	9760.3	10618.3	10188.7
47.5°	7155.4	7229.0	7345.1	7376.0	7164.5	6850.9	6938.7	7892.1	10568.0	11570.5	11081.5
50°	6875.4	6943.8	7185.1	7506.4	7653.4	7556.7	7714.1	8778.5	11395.0	12520.0	11957.5
52.5°	6323.2	6392.9	6697.4	7205.7	7805.7	8110.2	8492.1	9651.9	12196.2	13419.3	12787.1
55°	5524.6	5598.2	5989.1	6564.5	7515.4	8338.5	9141.0	10524.1	12930.3	14228.3	13535.4
57.5°	4438.3	4492.5	4898.9	5703.9	6785.1	8111.5	9619.7	11476.3	13621.9	15023.0	14277.3
60°	2892.6	2940.4	3412.6	4310.5	5574.9	7352.8	9715.2	12538.1	14540.5	16056.5	15277.2
62.5°	1923.7	1955.9	2235.9	2895.2	3926.1	5896.2	9156.5	13385.8	15887.5	17855.0	16991.9
65°	1319.9	1352.1	1632.1	2091.4	2536.5	3900.3	7550.2	13273.5	17108.0	19283.2	18262.7
67.5°	941.8	968.9	1206.3	1639.8	1835.9	2265.6	5118.2	11838.8	16932.5	19337.4	18331.1
70°	674.8	690.3	886.4	1277.3	1459.2	1361.2	2846.2	9054.6	14825.6	17856.3	16935.1
72.5°	472.2	477.4	615.4	972.8	1175.4	993.4	1354.7	6036.8	11213.1	14015.4	13129.0
75°	320.0	326.4	414.2	713.5	943.1	758.6	717.3	3237.1	6582.6	7757.9	6954.1
77.5°	196.1	198.7	267.1	487.7	705.7	578.0	461.9	1371.5	2546.8	2500.4	2131.4
80°	111.0	111.0	170.3	303.2	481.2	372.9	323.8	583.2	806.4	708.3	624.5
82.5°	61.9	63.2	123.9	188.4	318.7	220.6	178.0	269.7	348.4	308.4	268.4
85°	25.8	28.4	76.1	89.0	152.2	109.7	72.3	113.5	129.0	114.8	83.9
87.5°	2.6	3.9	23.2	16.8	18.1	21.9	10.3	21.9	18.1	18.1	12.9
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°	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7	2968.7
2.5°	2988.1	2968.7	2919.7	2862.9	2788.1	2752.0	2703.0	2669.4	2641.0	2643.6	2617.8
5°	3046.1	2997.1	2887.5	2750.7	2580.4	2459.1	2330.1	2241.1	2168.8	2153.3	2118.5
7.5°	3126.1	3048.7	2856.5	2610.1	2322.4	2104.3	1909.5	1784.3	1695.3	1666.9	1638.5
10°	3229.4	3117.1	2816.5	2433.3	2019.2	1741.8	1532.8	1434.7	1374.1	1353.4	1337.9
12.5°	3349.3	3195.8	2763.6	2217.8	1706.9	1439.9	1307.0	1257.9	1238.6	1232.1	1228.3
15°	3500.3	3293.9	2683.6	1962.4	1442.4	1255.4	1198.6	1192.1	1194.7	1192.1	1190.8
17.5°	3679.6	3401.0	2553.3	1699.2	1264.4	1161.2	1140.5	1145.7	1152.1	1150.9	1148.3
20°	3875.7	3506.7	2386.9	1465.7	1143.1	1094.1	1082.5	1087.6	1092.8	1090.2	1088.9
22.5°	4098.9	3620.3	2202.4	1283.7	1061.8	1032.2	1019.3	1020.5	1020.5	1015.4	1012.8
25°	4366.0	3745.4	2008.8	1154.7	999.9	976.7	961.2	956.0	948.3	932.8	930.2
27.5°	4684.7	3878.3	1823.0	1064.4	950.9	928.9	910.9	898.0	878.6	852.8	850.2
30°	5043.4	4039.6	1665.6	1007.6	912.2	890.2	869.6	850.2	821.9	789.6	787.0
32.5°	5465.3	4212.5	1550.8	970.2	877.3	854.1	829.6	806.4	775.4	743.2	744.4
35°	5968.4	4421.5	1483.7	944.4	850.2	819.3	792.2	766.4	743.2	714.8	712.2
37.5°	6514.2	4643.4	1463.1	931.5	832.2	784.4	753.5	735.4	732.8	716.1	714.8
40°	7111.6	4906.6	1478.6	923.8	812.8	750.9	717.3	713.5	719.9	690.3	691.5
42.5°	7743.7	5218.8	1504.4	914.7	785.7	717.3	685.1	685.1	679.9	638.6	638.6
45°	8427.6	5578.8	1530.2	892.8	753.5	683.8	659.3	650.3	628.3	588.3	587.0
47.5°	9116.5	5945.2	1549.5	852.8	714.8	655.4	633.5	612.8	580.6	544.5	543.2
50°	9770.6	6274.2	1528.9	793.5	670.9	628.3	605.1	576.7	541.9	517.4	513.5
52.5°	10355.1	6559.3	1441.1	723.8	624.5	599.9	579.3	549.6	521.2	495.4	492.9
55°	10863.4	6790.3	1286.3	658.0	583.2	575.4	554.8	517.4	478.7	456.7	454.1
57.5°	11351.1	6965.8	1092.8	603.8	545.8	548.3	517.4	483.8	447.7	424.5	421.9
60°	12000.1	7200.6	896.7	553.5	505.8	513.5	480.0	455.4	410.3	380.6	376.7
62.5°	13037.4	7565.7	712.2	491.6	459.3	461.9	447.7	418.0	363.8	329.0	326.4
65°	13860.6	7431.5	561.2	424.5	406.4	410.3	410.3	378.0	320.0	280.0	276.1
67.5°	13767.7	6363.2	447.7	358.7	356.1	358.7	367.7	340.6	283.8	251.6	246.4
70°	12682.6	5061.4	358.7	298.0	309.6	303.2	329.0	310.9	255.5	223.2	219.3
72.5°	10348.7	3646.1	273.5	246.4	237.4	247.7	296.7	280.0	212.9	176.8	172.9
75°	6047.1	1945.6	203.9	194.8	171.6	206.4	263.2	238.7	162.6	130.3	126.4
77.5°	1968.8	678.6	149.7	143.2	127.7	166.4	224.5	201.3	132.9	103.2	99.3
80°	527.7	205.1	101.9	94.2	82.6	123.9	178.0	160.0	95.5	67.1	65.8
82.5°	211.6	86.4	59.3	52.9	45.2	85.2	140.6	129.0	71.0	42.6	42.6
85°	68.4	28.4	21.9	16.8	20.6	52.9	83.9	87.7	50.3	21.9	16.8
87.5°	9.0	3.9	3.9	5.2	3.9	9.0	25.8	24.5	14.2	2.6	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)