

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: P968380

Luminaire Tested: **NAV-SB5B-827-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968380
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18513.5 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 182.7
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

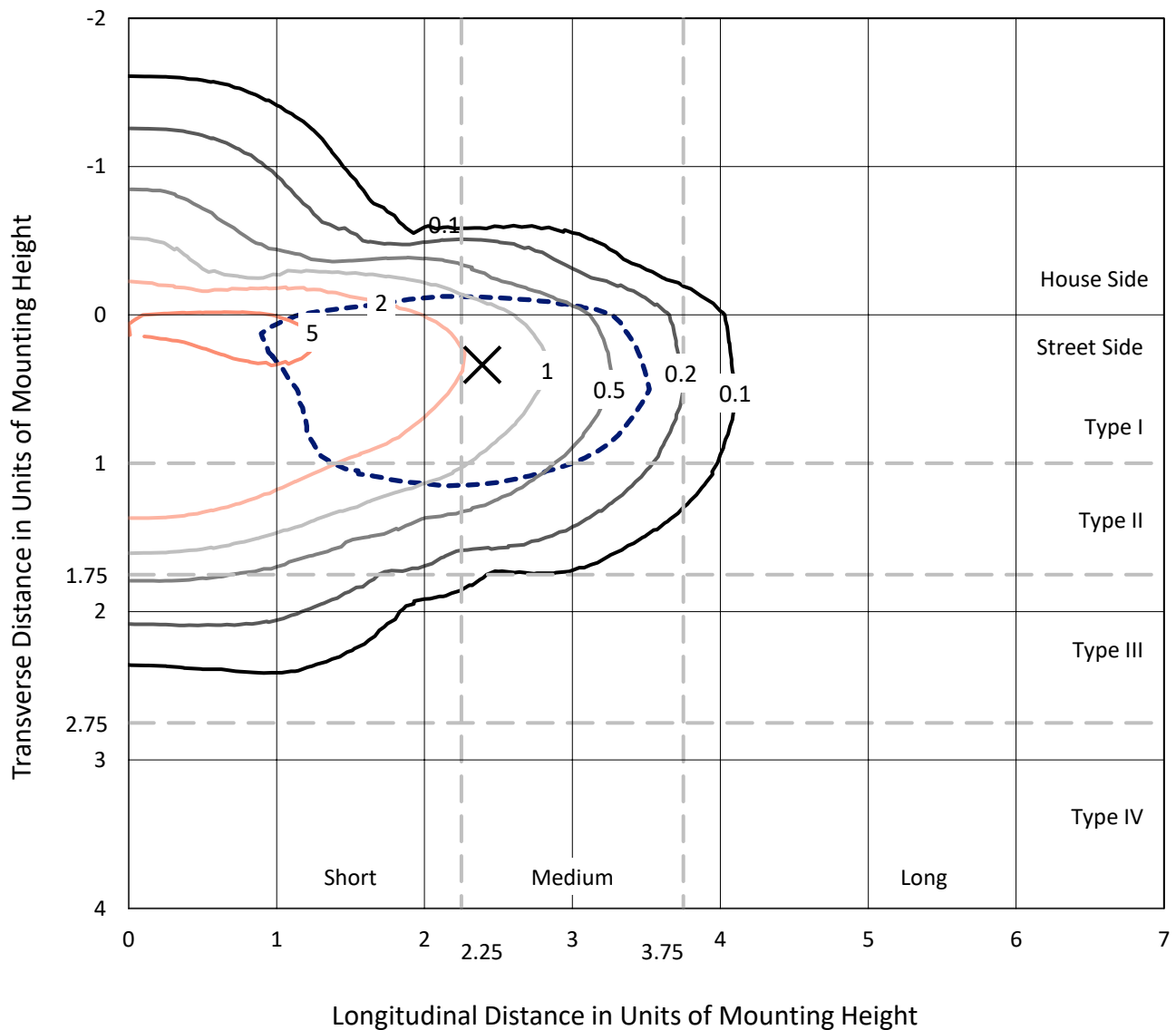


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Iso-Footcandle Lines of Horizontal Illumination

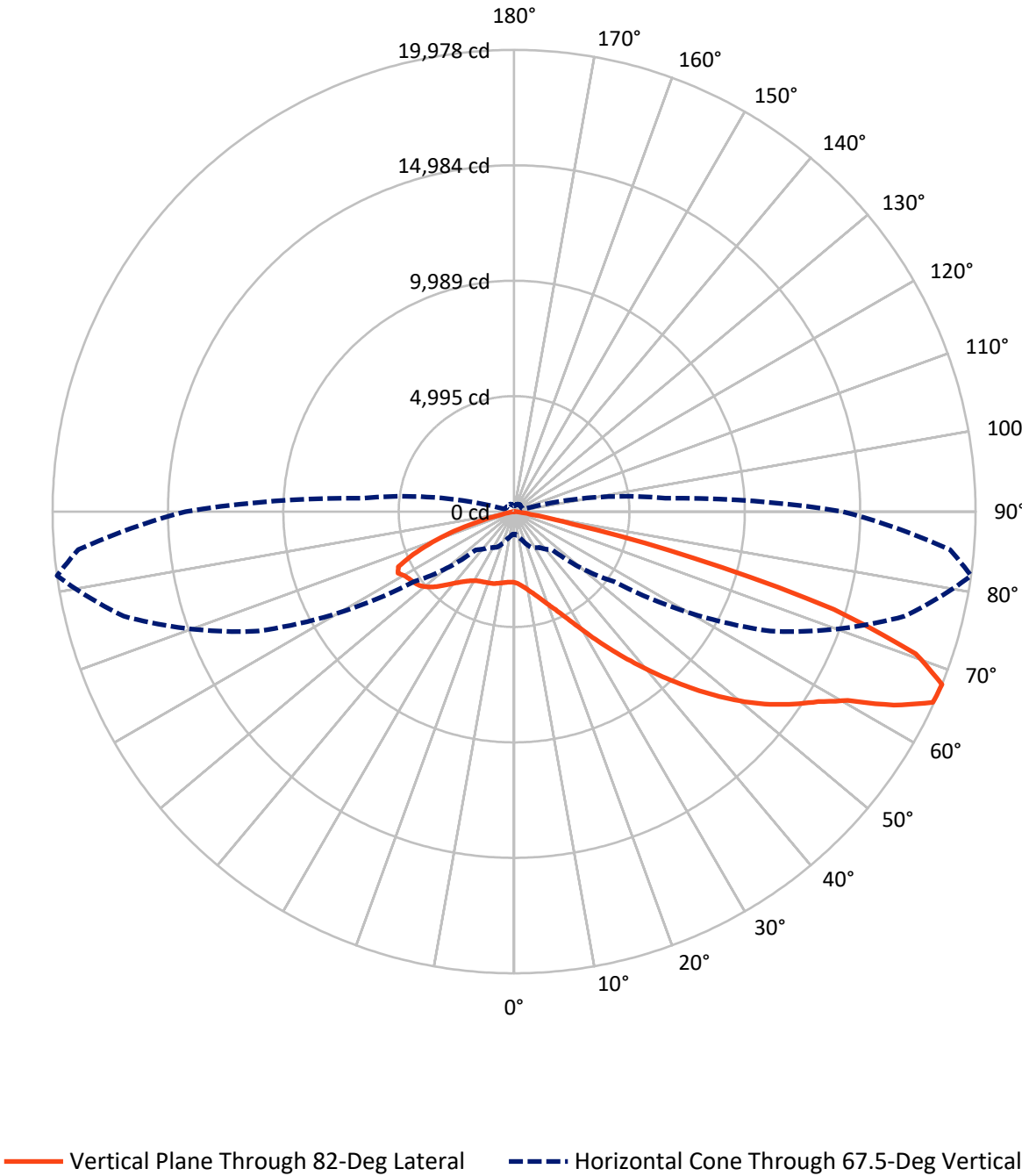
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3353.5	0.0	3353.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15160.0	0.0	15160.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	18513.5	0.0	18513.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.3	1.5
10°-20°	710.1	3.8
20°-30°	1137.3	6.1
30°-40°	2011.1	10.9
40°-50°	3523.7	19.0
50°-60°	4699.6	25.4
60°-70°	4375.1	23.6
70°-80°	1679.2	9.1
80°-90°	104.3	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°	18513.5	100.0
0°-180°	18513.5	100.0

Coefficient of Utilization



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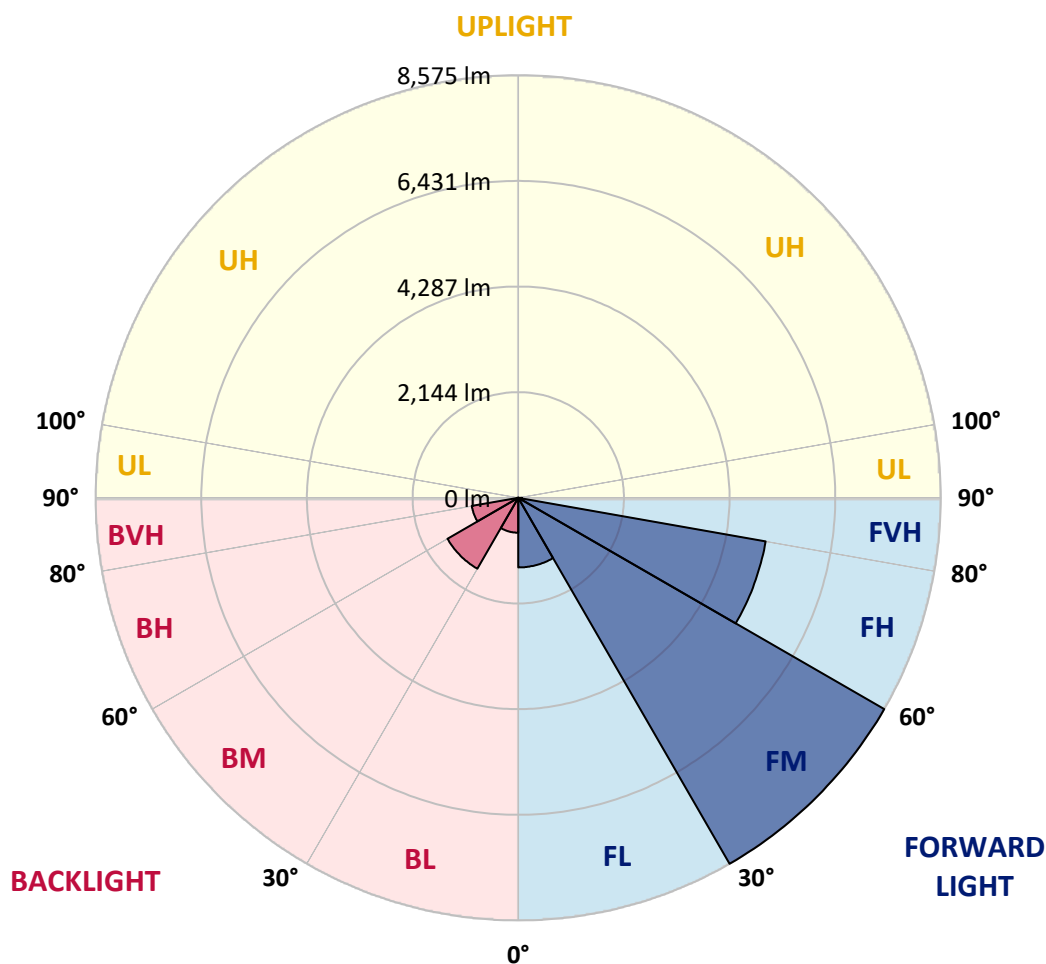
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1412.4	7.6			
FM	(30°-60°)	8574.7	46.3			
FH	(60°-80°)	5097.1	27.5			G3/7500
FVH	(80°-90°)	75.8	0.4			G1/100
BL	(0°-30°)	708.3	3.8	B2/1000		
BM	(30°-60°)	1659.7	9.0	B2/2500		
BH	(60°-80°)	957.2	5.2	B2/1000		G2/1000
BVH	(80°-90°)	28.5	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-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1
2.5°	3241.7	3260.3	3249.7	3244.3	3235.0	3221.7	3211.0	3177.7	3143.1	3120.4	3112.4
5°	3307.0	3325.6	3324.3	3329.6	3336.3	3340.3	3337.6	3300.3	3251.0	3212.4	3189.7
7.5°	3251.0	3272.3	3289.6	3316.3	3363.0	3412.3	3436.3	3428.3	3377.7	3324.3	3296.3
10°	3092.4	3115.1	3156.4	3219.0	3317.6	3424.3	3513.6	3554.9	3522.9	3464.3	3425.7
12.5°	2801.8	2824.5	2905.8	3041.8	3207.0	3392.3	3562.9	3673.6	3681.6	3622.9	3577.6
15°	2475.3	2497.9	2584.5	2755.2	3007.0	3304.3	3589.6	3798.9	3869.5	3818.8	3764.2
17.5°	2272.6	2292.6	2357.9	2495.3	2757.9	3128.4	3580.2	3932.1	4093.4	4053.5	3988.2
20°	2211.3	2228.7	2259.3	2355.2	2573.9	2945.7	3518.9	4057.5	4334.7	4312.1	4238.7
22.5°	2276.6	2292.6	2301.9	2344.6	2481.9	2825.8	3441.6	4185.4	4614.5	4617.2	4527.9
25°	2427.3	2443.3	2432.6	2459.3	2519.2	2788.5	3412.3	4336.1	4966.5	4995.8	4894.5
27.5°	2675.1	2676.5	2651.2	2649.8	2659.2	2844.5	3443.0	4497.3	5410.4	5465.0	5339.7
30°	3172.4	3152.4	3055.1	2949.7	2901.8	3012.4	3528.3	4687.9	5934.2	6031.5	5874.2
32.5°	3938.8	3909.5	3730.9	3479.0	3225.7	3283.0	3681.6	4905.1	6504.6	6680.6	6488.7
35°	4770.6	4762.6	4575.9	4201.4	3758.9	3668.3	3930.8	5190.4	7127.1	7407.1	7179.2
37.5°	5543.6	5539.6	5433.0	4991.9	4453.3	4205.4	4330.7	5563.6	7793.6	8198.9	7929.6
40°	6250.1	6262.1	6155.4	5760.9	5218.4	4894.5	4874.5	6024.8	8534.8	9061.2	8741.3
42.5°	6860.6	6874.0	6765.9	6474.0	5974.2	5657.0	5542.3	6590.0	9258.5	9987.6	9609.1
45°	7275.1	7357.8	7341.8	7108.5	6749.9	6420.7	6344.7	7299.1	10083.6	10970.0	10526.1
47.5°	7392.4	7468.4	7588.4	7620.4	7401.7	7077.8	7168.4	8153.6	10918.0	11953.7	11448.5
50°	7103.1	7173.9	7423.0	7754.9	7907.0	7806.9	7969.6	9069.2	11772.4	12934.8	12353.6
52.5°	6532.6	6604.7	6919.3	7444.4	8064.2	8378.8	8773.4	9971.6	12600.2	13863.7	13210.6
55°	5707.6	5783.6	6187.4	6781.9	7764.3	8614.7	9443.8	10872.7	13358.6	14699.5	13983.8
57.5°	4585.2	4641.3	5061.1	5892.8	7009.9	8380.1	9938.3	11856.4	14073.0	15520.7	14750.2
60°	2988.4	3037.8	3525.6	4453.3	5759.6	7596.4	10036.9	12953.4	15022.1	16588.3	15783.3
62.5°	1987.4	2020.7	2309.9	2991.1	4056.1	6091.5	9459.8	13829.1	16413.6	18446.4	17554.7
65°	1363.6	1396.9	1686.1	2160.7	2620.5	4029.5	7800.2	13713.2	17674.6	19921.9	18867.6
67.5°	973.0	1001.0	1246.3	1694.1	1896.8	2340.6	5287.8	12230.9	17493.4	19978.0	18938.2
70°	697.1	713.1	915.7	1319.6	1507.6	1406.2	2940.4	9354.5	15316.7	18447.7	17496.0
72.5°	487.9	493.2	635.8	1005.0	1214.3	1026.3	1399.5	6236.8	11584.4	14479.6	13563.9
75°	330.6	337.2	427.8	737.1	974.4	783.7	741.1	3344.3	6800.6	8014.9	7184.5
77.5°	202.6	205.3	275.9	503.9	729.1	597.2	477.1	1416.9	2631.2	2583.2	2202.0
80°	114.6	114.6	176.0	313.2	497.2	385.2	334.6	602.5	833.1	731.7	645.1
82.5°	64.0	65.3	127.9	194.6	329.2	228.0	184.0	278.6	359.9	318.6	277.3
85°	26.6	29.3	78.6	91.9	157.2	113.3	74.6	117.3	133.2	118.6	86.6
87.5°	2.7	4.0	24.0	17.3	18.7	22.7	10.7	22.7	18.7	18.7	13.3
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°	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1	3067.1
2.5°	3087.1	3067.1	3016.4	2957.7	2880.5	2843.1	2792.5	2757.9	2728.5	2731.2	2704.5
5°	3147.1	3096.4	2983.1	2841.8	2665.8	2540.6	2407.3	2315.3	2240.6	2224.7	2188.7
7.5°	3229.7	3149.7	2951.1	2696.5	2399.3	2174.0	1972.7	1843.5	1751.4	1722.1	1692.8
10°	3336.3	3220.3	2909.8	2513.9	2086.1	1799.5	1583.5	1482.3	1419.5	1398.2	1382.2
12.5°	3460.3	3301.6	2855.1	2291.3	1763.5	1487.6	1350.2	1299.6	1279.6	1272.9	1268.9
15°	3616.2	3403.0	2772.5	2027.3	1490.2	1296.9	1238.3	1231.6	1234.3	1231.6	1230.3
17.5°	3801.5	3513.6	2637.8	1755.5	1306.3	1199.7	1178.3	1183.7	1190.3	1189.0	1186.3
20°	4004.2	3622.9	2465.9	1514.2	1181.0	1130.4	1118.4	1123.7	1129.0	1126.4	1125.0
22.5°	4234.7	3740.2	2275.3	1326.2	1097.0	1066.3	1053.0	1054.3	1054.3	1049.0	1046.3
25°	4510.6	3869.5	2075.4	1193.0	1033.0	1009.0	993.0	987.7	979.7	963.7	961.0
27.5°	4839.8	4006.8	1883.4	1099.6	982.4	959.7	941.1	927.7	907.7	881.1	878.4
30°	5210.4	4173.4	1720.8	1041.0	942.4	919.7	898.4	878.4	849.1	815.8	813.1
32.5°	5646.3	4352.0	1602.2	1002.3	906.4	882.4	857.1	833.1	801.1	767.7	769.1
35°	6166.1	4567.9	1532.9	975.7	878.4	846.4	818.5	791.7	767.7	738.4	735.7
37.5°	6729.9	4797.2	1511.6	962.4	859.8	810.5	778.4	759.7	757.1	739.7	738.4
40°	7347.1	5069.1	1527.6	954.4	839.8	775.7	741.1	737.1	743.7	713.1	714.4
42.5°	8000.2	5391.7	1554.2	945.0	811.8	741.1	707.8	707.8	702.4	659.8	659.8
45°	8706.7	5763.6	1580.9	922.4	778.4	706.4	681.1	671.8	649.1	607.8	606.5
47.5°	9418.5	6142.1	1600.8	881.1	738.4	677.1	654.5	633.1	599.8	562.5	561.2
50°	10094.3	6482.0	1579.5	819.8	693.1	649.1	625.1	595.8	559.9	534.5	530.5
52.5°	10698.1	6776.6	1488.9	747.7	645.1	619.8	598.5	567.8	538.5	511.9	509.2
55°	11223.2	7015.2	1328.9	679.8	602.5	594.5	573.2	534.5	494.6	471.8	469.1
57.5°	11727.1	7196.5	1129.0	623.8	563.9	566.5	534.5	499.9	462.5	438.5	435.8
60°	12397.6	7439.0	926.4	571.8	522.5	530.5	495.9	470.5	423.8	393.2	389.2
62.5°	13469.2	7816.3	735.7	507.9	474.5	477.1	462.5	431.8	375.9	339.9	337.2
65°	14319.7	7677.7	579.8	438.5	419.8	423.8	423.8	390.5	330.6	289.3	285.3
67.5°	14223.7	6574.0	462.5	370.5	367.9	370.5	379.9	351.9	293.3	259.9	254.6
70°	13102.7	5229.0	370.5	307.9	319.9	313.2	339.9	321.2	263.9	230.6	226.6
72.5°	10691.5	3766.9	282.6	254.6	245.3	255.9	306.6	289.3	220.0	182.7	178.7
75°	6247.5	2010.0	210.6	201.3	177.3	213.3	271.9	246.6	168.0	134.6	130.6
77.5°	2034.0	701.1	154.6	147.9	131.9	172.0	232.0	208.0	137.2	106.6	102.6
80°	545.2	212.0	105.3	97.3	85.3	127.9	184.0	165.3	98.6	69.3	68.0
82.5°	218.6	89.3	61.3	54.6	46.6	87.9	145.2	133.2	73.3	44.0	44.0
85°	70.6	29.3	22.7	17.3	21.3	54.6	86.6	90.6	52.0	22.7	17.3
87.5°	9.3	4.0	4.0	5.3	4.0	9.3	26.6	25.3	14.7	2.7	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)