

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: P884506

Luminaire Tested: **NAV-SB5B-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884506
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-SB5B-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA 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: 17605 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

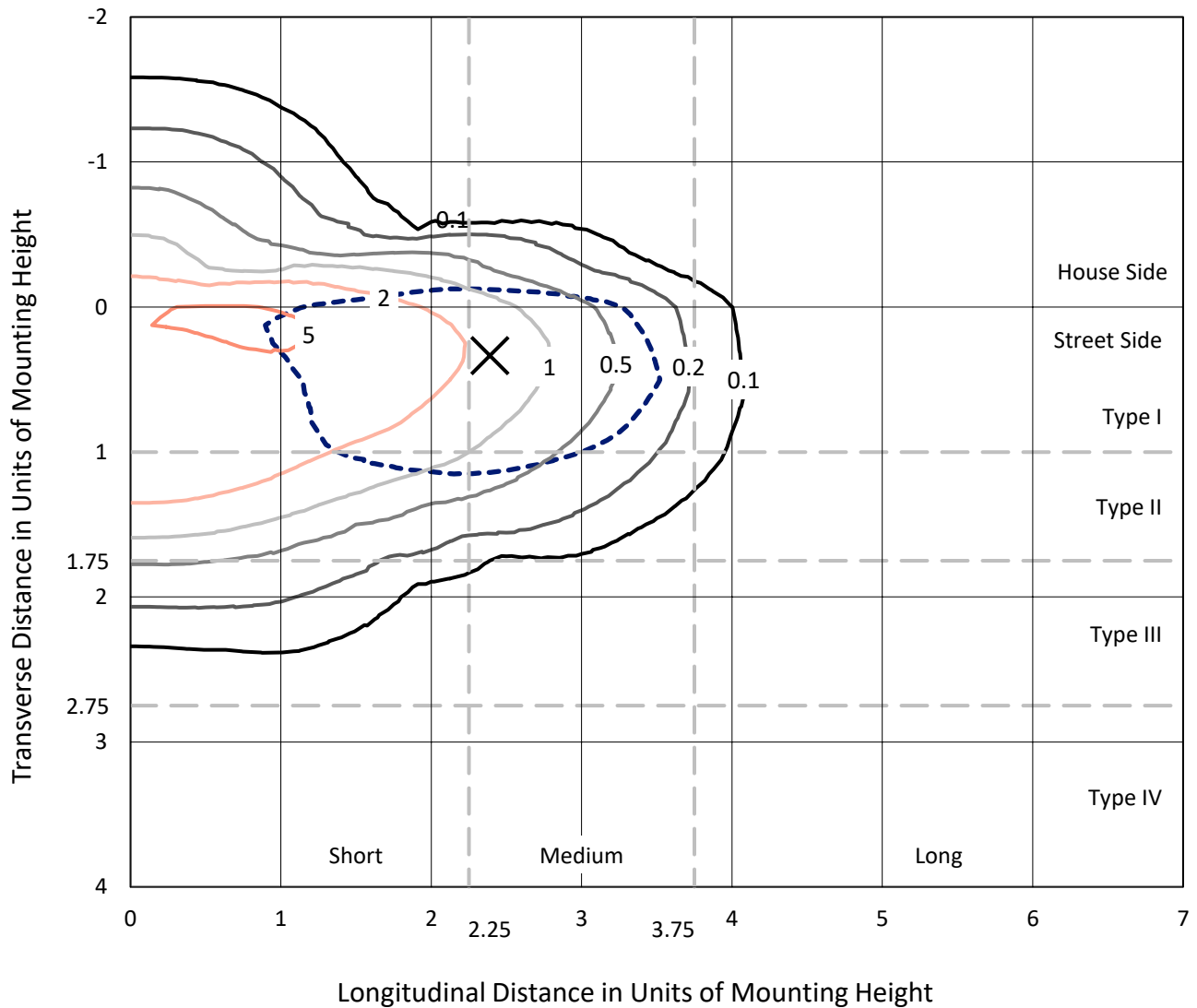
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

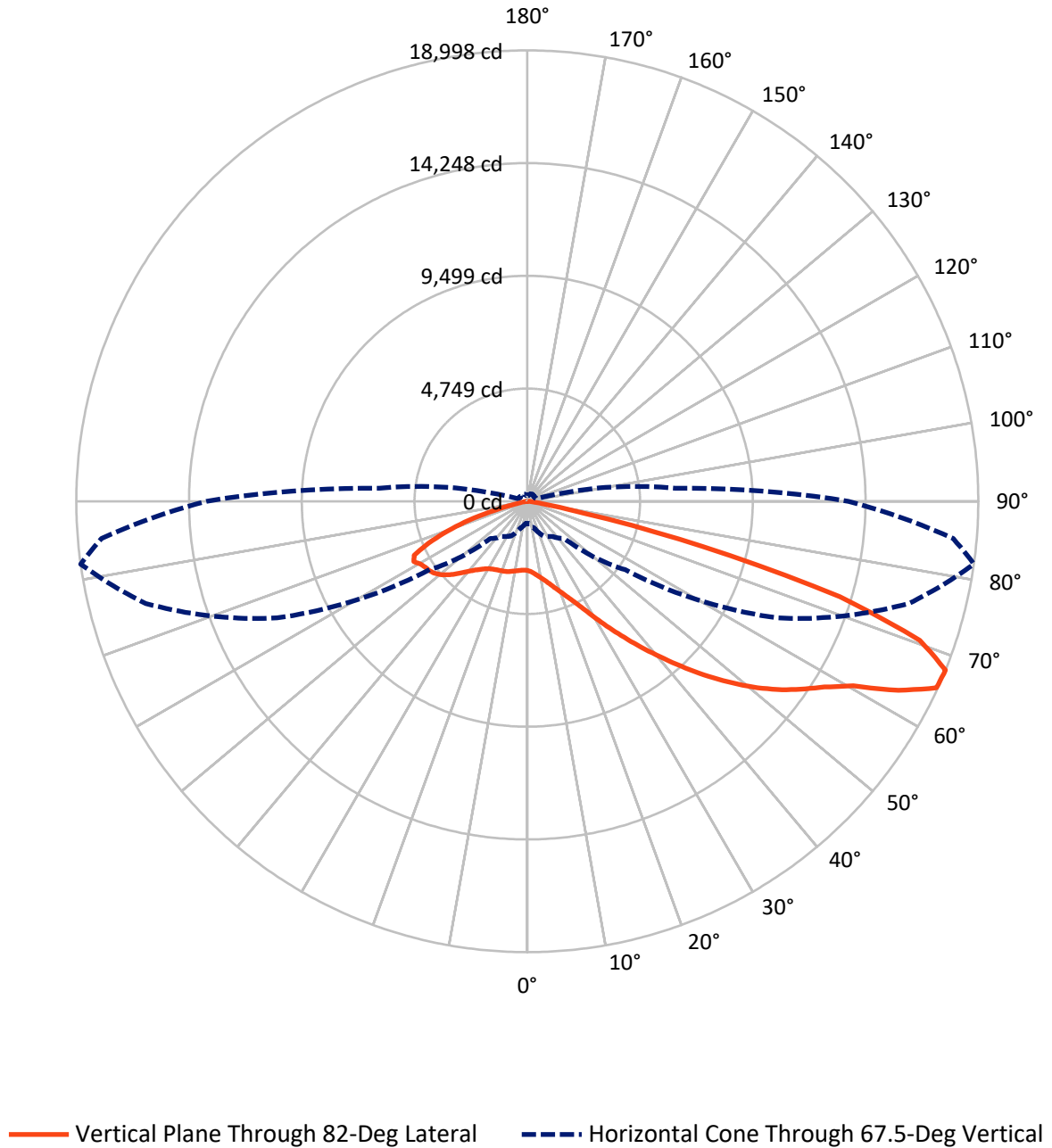
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 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	3189.0	0.0	3189.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14416.0	0.0	14416.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	17605.0	0.0	17605.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.8	1.5
10°-20°	675.2	3.8
20°-30°	1081.5	6.1
30°-40°	1912.4	10.9
40°-50°	3350.8	19.0
50°-60°	4469.0	25.4
60°-70°	4160.4	23.6
70°-80°	1596.7	9.1
80°-90°	99.2	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°	17605.0	100.0
0°-180°	17605.0	100.0

Coefficient of Utilization



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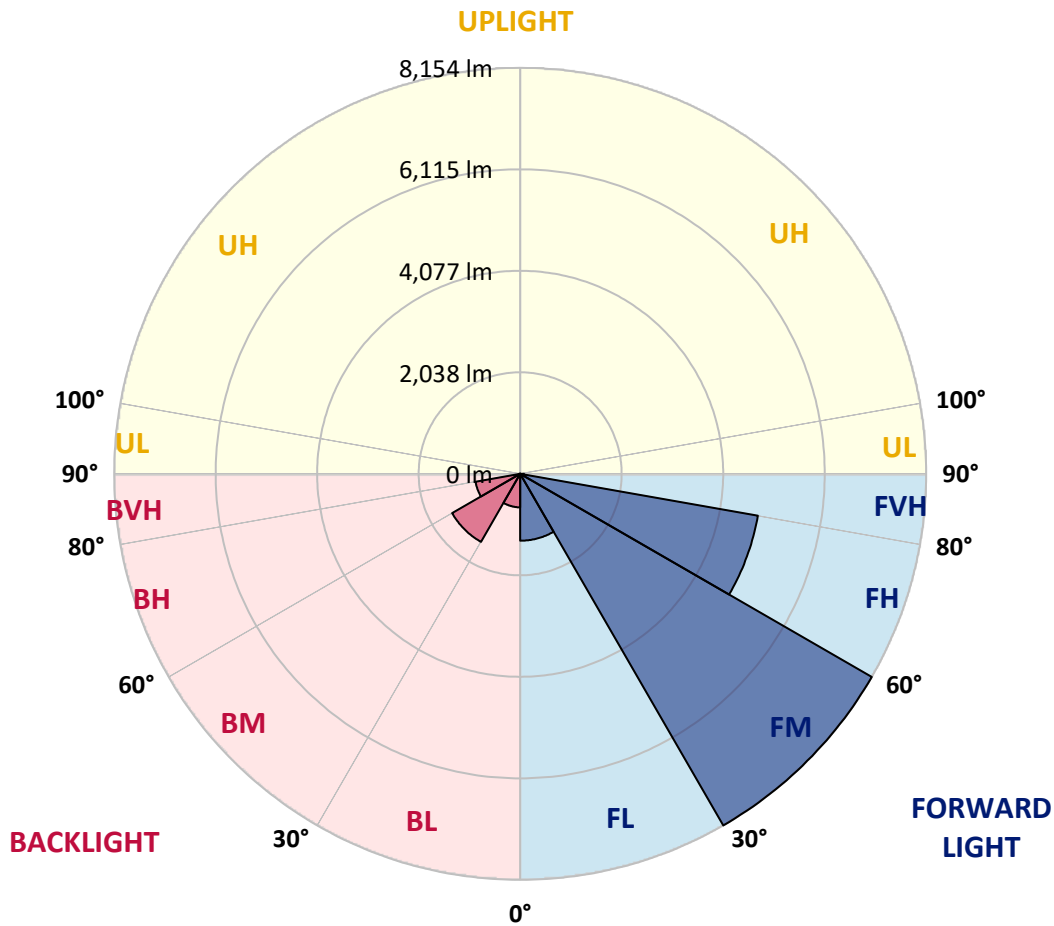
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1343.1	7.6			
FM (30°-60°)	8153.9	46.3			
FH (60°-80°)	4846.9	27.5			G2/5000
FVH (80°-90°)	72.1	0.4			G1/100
BL (0°-30°)	673.5	3.8	B2/1000		
BM (30°-60°)	1578.2	9.0	B2/2500		
BH (60°-80°)	910.2	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.1	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°	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6
2.5°	3082.6	3100.3	3090.2	3085.1	3076.3	3063.6	3053.4	3021.8	2988.8	2967.3	2959.6
5°	3144.7	3162.5	3161.2	3166.3	3172.6	3176.4	3173.9	3138.4	3091.5	3054.7	3033.2
7.5°	3091.5	3111.8	3128.2	3153.6	3197.9	3244.8	3267.7	3260.0	3211.9	3161.2	3134.6
10°	2940.6	2962.2	3001.5	3061.0	3154.8	3256.2	3341.2	3380.5	3350.0	3294.3	3257.5
12.5°	2664.3	2685.9	2763.2	2892.5	3049.6	3225.8	3388.1	3493.3	3500.9	3445.1	3402.0
15°	2353.8	2375.3	2457.7	2620.0	2859.5	3142.2	3413.4	3612.4	3679.6	3631.4	3579.5
17.5°	2161.1	2180.1	2242.2	2372.8	2622.5	2974.9	3404.5	3739.2	3892.5	3854.5	3792.4
20°	2102.8	2119.3	2148.4	2239.7	2447.6	2801.2	3346.2	3858.3	4122.0	4100.4	4030.7
22.5°	2164.9	2180.1	2189.0	2229.6	2360.1	2687.1	3272.7	3980.0	4388.1	4390.7	4305.7
25°	2308.1	2323.4	2313.2	2338.6	2395.6	2651.6	3244.8	4123.2	4722.8	4750.6	4654.3
27.5°	2543.9	2545.2	2521.1	2519.8	2528.7	2704.9	3274.0	4276.6	5144.8	5196.8	5077.7
30°	3016.7	2997.7	2905.1	2805.0	2759.4	2864.6	3355.1	4457.9	5643.0	5735.5	5585.9
32.5°	3745.5	3717.6	3547.8	3308.2	3067.4	3121.9	3500.9	4664.5	6185.5	6352.8	6170.3
35°	4536.4	4528.8	4351.4	3995.2	3574.4	3488.2	3737.9	4935.7	6777.4	7043.6	6826.8
37.5°	5271.6	5267.8	5166.4	4746.8	4234.8	3999.0	4118.2	5290.6	7411.2	7796.5	7540.4
40°	5943.4	5954.8	5853.4	5478.2	4962.3	4654.3	4635.3	5729.2	8115.9	8616.6	8312.4
42.5°	6523.9	6536.6	6433.9	6156.3	5681.0	5379.3	5270.3	6266.6	8804.2	9497.5	9137.5
45°	6918.1	6996.7	6981.5	6759.7	6418.7	6105.6	6033.4	6940.9	9588.8	10431.7	10009.6
47.5°	7029.6	7101.9	7216.0	7246.4	7038.5	6730.5	6816.7	7753.4	10382.2	11367.1	10886.7
50°	6754.6	6821.8	7058.8	7374.4	7518.9	7423.8	7578.5	8624.2	11194.7	12300.0	11747.3
52.5°	6212.1	6280.5	6579.7	7079.1	7668.5	7967.6	8342.8	9482.3	11981.8	13183.4	12562.3
55°	5427.5	5499.7	5883.8	6449.1	7383.3	8192.0	8980.3	10339.1	12703.0	13978.2	13297.5
57.5°	4360.3	4413.5	4812.8	5603.7	6665.9	7968.9	9450.6	11274.5	13382.4	14758.9	14026.3
60°	2841.8	2888.7	3352.6	4234.8	5476.9	7223.6	9544.4	12317.7	14284.9	15774.2	15008.6
62.5°	1889.9	1921.6	2196.6	2844.3	3857.0	5792.5	8995.6	13150.5	15608.2	17541.1	16693.2
65°	1296.7	1328.4	1603.4	2054.6	2491.9	3831.7	7417.5	13040.2	16807.3	18944.3	17941.7
67.5°	925.3	951.9	1185.1	1611.0	1803.7	2225.8	5028.2	11630.7	16634.9	18997.5	18008.9
70°	662.9	678.1	870.8	1254.8	1433.6	1337.2	2796.1	8895.4	14565.0	17542.4	16637.4
72.5°	463.9	469.0	604.6	955.7	1154.7	976.0	1330.9	5930.7	11016.0	13769.0	12898.2
75°	314.3	320.7	406.9	700.9	926.6	745.3	704.7	3180.2	6466.9	7621.6	6831.9
77.5°	192.7	195.2	262.4	479.1	693.3	567.8	453.8	1347.4	2502.1	2456.4	2093.9
80°	109.0	109.0	167.3	297.9	472.8	366.3	318.1	572.9	792.2	695.9	613.5
82.5°	60.8	62.1	121.7	185.1	313.1	216.7	174.9	264.9	342.2	302.9	263.6
85°	25.4	27.9	74.8	87.5	149.6	107.7	71.0	111.5	126.8	112.8	82.4
87.5°	2.5	3.8	22.8	16.5	17.7	21.5	10.1	21.5	17.7	17.7	12.7
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°	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6	2916.6
2.5°	2935.6	2916.6	2868.4	2812.6	2739.1	2703.6	2655.4	2622.5	2594.6	2597.1	2571.8
5°	2992.6	2944.4	2836.7	2702.3	2535.0	2415.9	2289.1	2201.7	2130.7	2115.5	2081.3
7.5°	3071.2	2995.1	2806.3	2564.2	2281.5	2067.3	1875.9	1753.0	1665.5	1637.6	1609.7
10°	3172.6	3062.3	2767.0	2390.5	1983.7	1711.1	1505.8	1409.5	1349.9	1329.6	1314.4
12.5°	3290.5	3139.6	2715.0	2178.9	1676.9	1414.5	1284.0	1235.8	1216.8	1210.5	1206.7
15°	3438.8	3236.0	2636.4	1927.9	1417.1	1233.3	1177.5	1171.2	1173.7	1171.2	1169.9
17.5°	3615.0	3341.2	2508.4	1669.3	1242.2	1140.8	1120.5	1125.6	1131.9	1130.6	1128.1
20°	3807.6	3445.1	2344.9	1439.9	1123.0	1074.9	1063.4	1068.5	1073.6	1071.1	1069.8
22.5°	4026.9	3556.6	2163.6	1261.2	1043.2	1014.0	1001.3	1002.6	1002.6	997.5	995.0
25°	4289.3	3679.6	1973.5	1134.4	982.3	959.5	944.3	939.2	931.6	916.4	913.9
27.5°	4602.3	3810.2	1791.0	1045.7	934.2	912.6	894.9	882.2	863.2	837.8	835.3
30°	4954.7	3968.6	1636.4	989.9	896.1	874.6	854.3	835.3	807.4	775.7	773.2
32.5°	5369.2	4138.4	1523.6	953.2	861.9	839.1	815.0	792.2	761.8	730.1	731.4
35°	5863.5	4343.8	1457.6	927.8	835.3	804.9	778.3	752.9	730.1	702.2	699.7
37.5°	6399.7	4561.8	1437.4	915.1	817.5	770.6	740.2	722.5	719.9	703.5	702.2
40°	6986.5	4820.4	1452.6	907.5	798.5	737.7	704.7	700.9	707.3	678.1	679.4
42.5°	7607.6	5127.1	1477.9	898.7	771.9	704.7	673.1	673.1	668.0	627.4	627.4
45°	8279.4	5480.7	1503.3	877.1	740.2	671.8	647.7	638.8	617.3	578.0	576.7
47.5°	8956.3	5840.7	1522.3	837.8	702.2	643.9	622.4	602.1	570.4	534.9	533.6
50°	9598.9	6163.9	1502.0	779.5	659.1	617.3	594.5	566.6	532.4	508.3	504.5
52.5°	10173.1	6444.0	1415.8	711.1	613.5	589.4	569.1	540.0	512.1	486.7	484.2
55°	10672.5	6670.9	1263.7	646.4	572.9	565.3	545.0	508.3	470.2	448.7	446.2
57.5°	11151.6	6843.3	1073.6	593.2	536.2	538.7	508.3	475.3	439.8	417.0	414.5
60°	11789.2	7074.0	880.9	543.8	496.9	504.5	471.5	447.4	403.1	373.9	370.1
62.5°	12808.2	7432.7	699.7	482.9	451.2	453.8	439.8	410.7	357.4	323.2	320.7
65°	13616.9	7300.9	551.4	417.0	399.3	403.1	403.1	371.4	314.3	275.1	271.2
67.5°	13525.7	6251.4	439.8	352.4	349.8	352.4	361.2	334.6	278.9	247.2	242.1
70°	12459.7	4972.5	352.4	292.8	304.2	297.9	323.2	305.5	251.0	219.3	215.5
72.5°	10166.7	3582.0	268.7	242.1	233.2	243.4	291.5	275.1	209.1	173.6	169.8
75°	5940.8	1911.4	200.3	191.4	168.6	202.8	258.6	234.5	159.7	128.0	124.2
77.5°	1934.2	666.7	147.0	140.7	125.5	163.5	220.5	197.7	130.6	101.4	97.6
80°	518.4	201.5	100.1	92.5	81.1	121.7	174.9	157.2	93.8	65.9	64.6
82.5°	207.9	84.9	58.3	52.0	44.4	83.7	138.2	126.8	69.7	41.8	41.8
85°	67.2	27.9	21.5	16.5	20.3	52.0	82.4	86.2	49.4	21.5	16.5
87.5°	8.9	3.8	3.8	5.1	3.8	8.9	25.4	24.1	13.9	2.5	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)