

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: P883766

Luminaire Tested: **NAV-SB4B-735-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883766
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-SB4B-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 16664 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

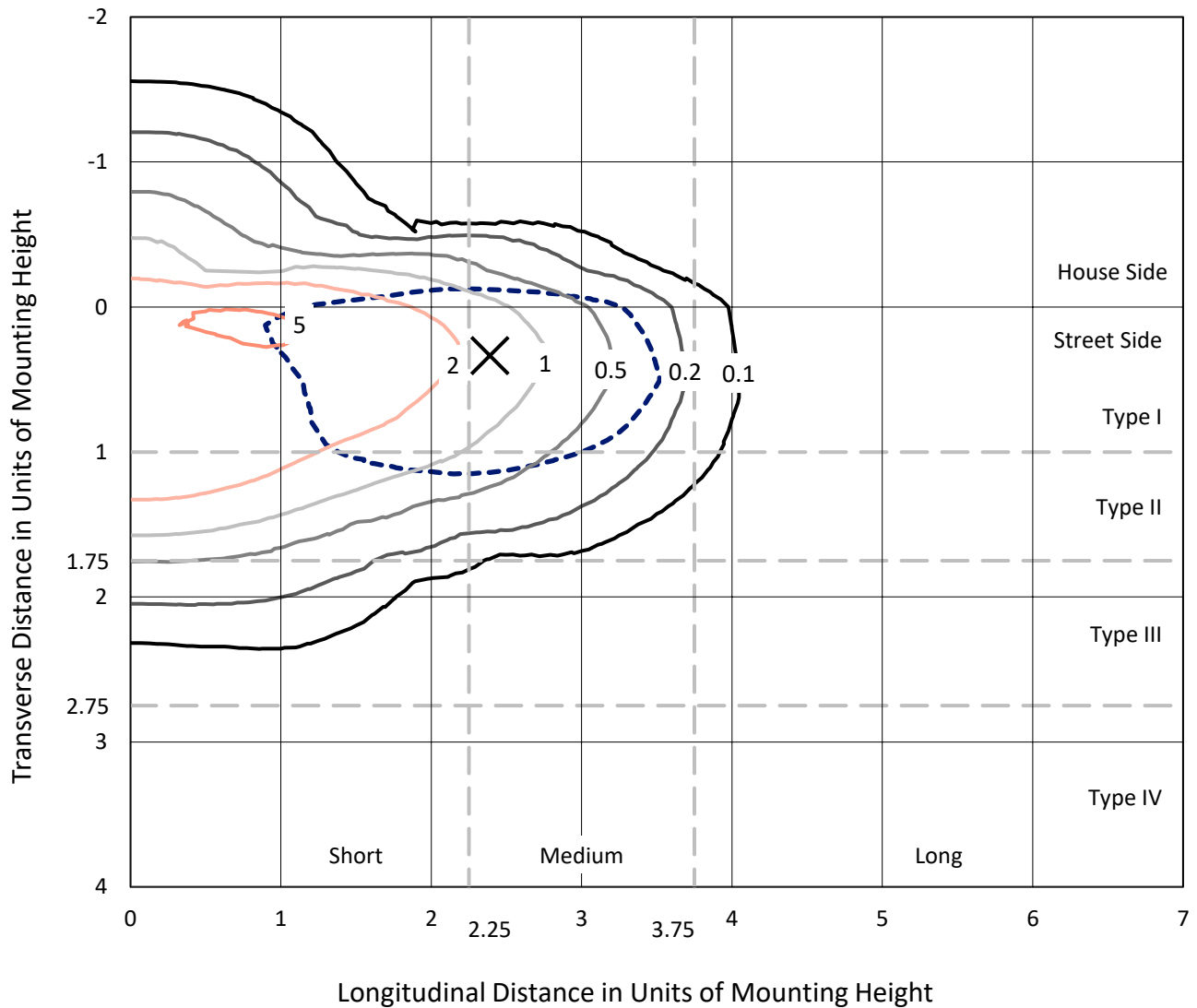
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

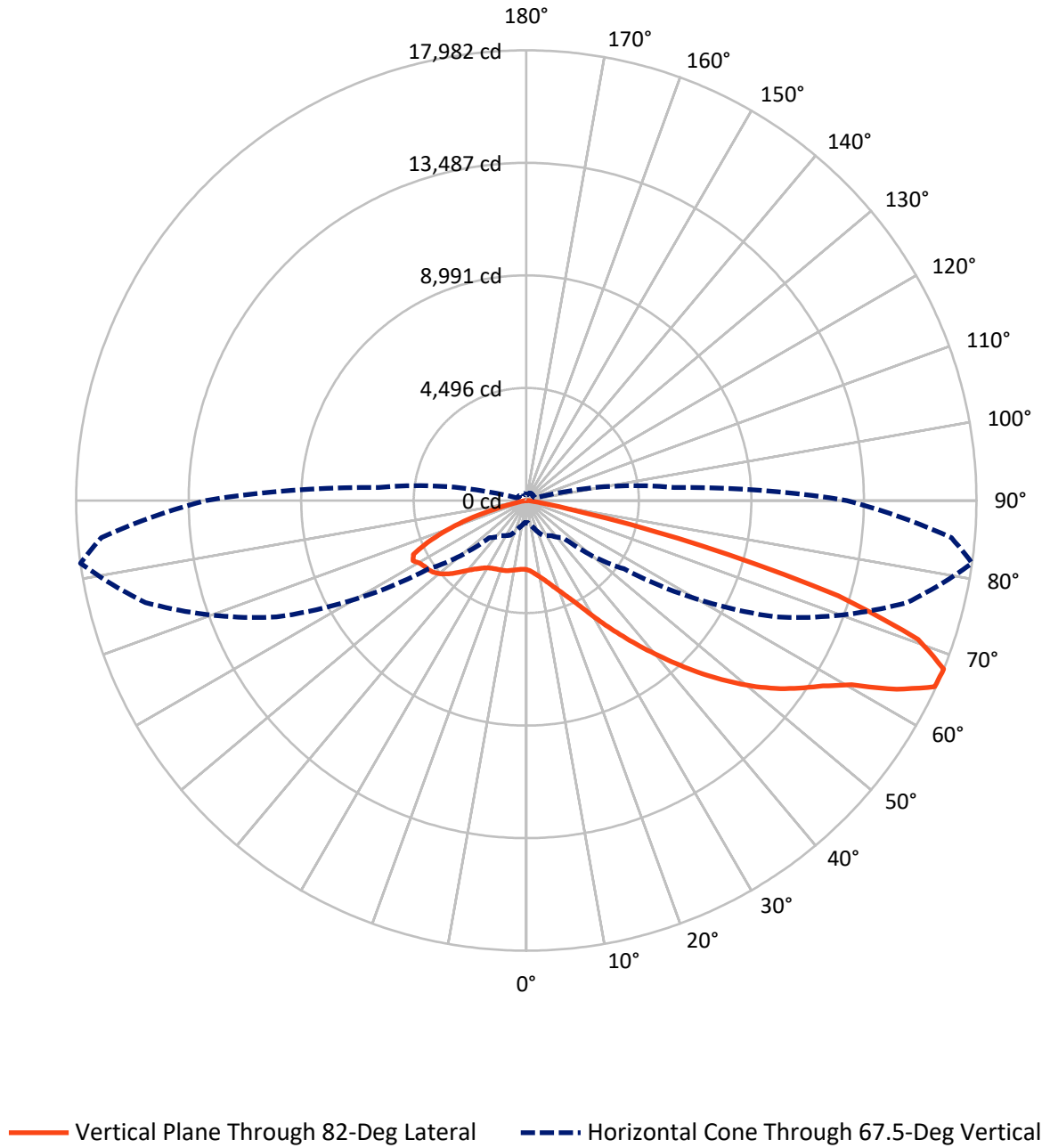
✕ Max cd
 - - - 1/2 Max cd



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



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3018.5	0.0	3018.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13645.5	0.0	13645.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	16664.0	0.0	16664.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	1.5
10°-20°	639.1	3.8
20°-30°	1023.7	6.1
30°-40°	1810.2	10.9
40°-50°	3171.7	19.0
50°-60°	4230.1	25.4
60°-70°	3938.0	23.6
70°-80°	1511.4	9.1
80°-90°	93.9	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°	16664.0	100.0
0°-180°	16664.0	100.0

Coefficient of Utilization



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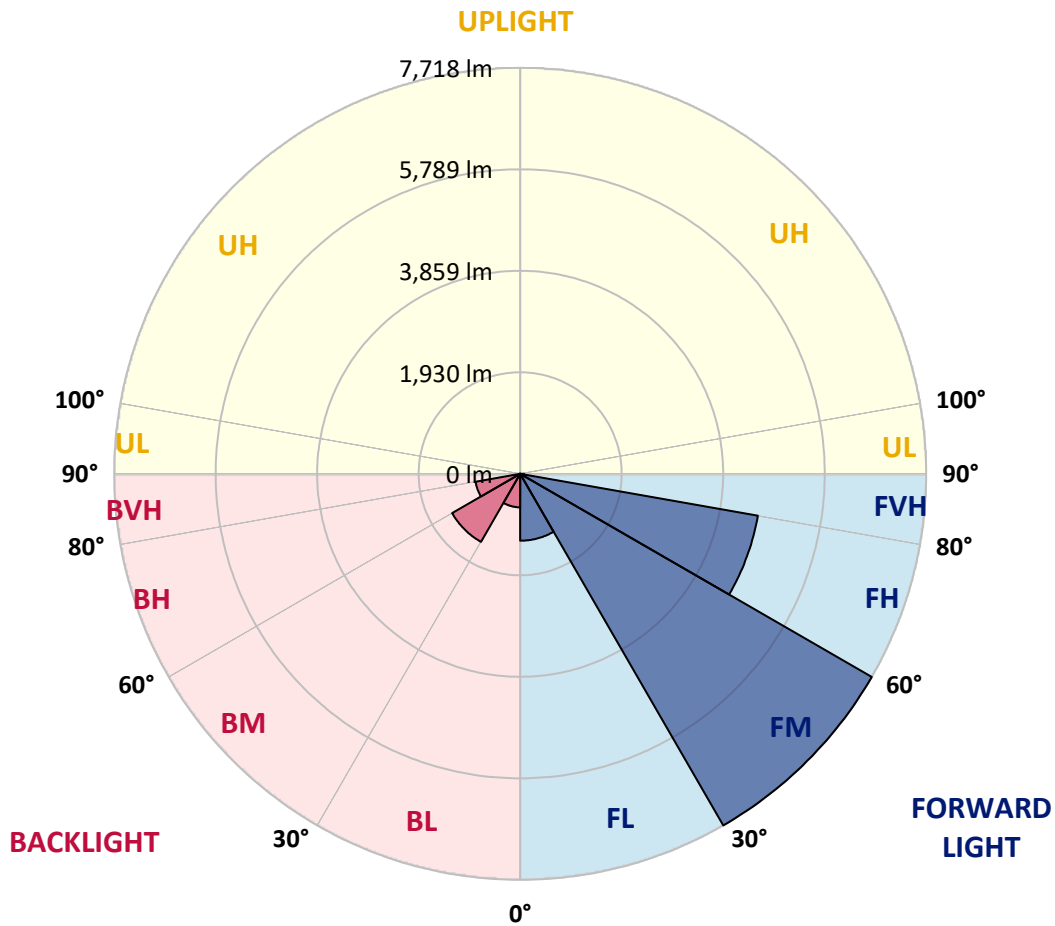
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1271.3	7.6			
FM (30°-60°)	7718.1	46.3			
FH (60°-80°)	4587.9	27.5			G2/5000
FVH (80°-90°)	68.3	0.4			G1/100
BL (0°-30°)	637.5	3.8	B2/1000		
BM (30°-60°)	1493.9	9.0	B2/2500		
BH (60°-80°)	861.5	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°	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7
2.5°	2917.8	2934.6	2925.0	2920.2	2911.8	2899.8	2890.2	2860.2	2829.0	2808.7	2801.5
5°	2976.6	2993.4	2992.2	2997.0	3003.0	3006.6	3004.2	2970.6	2926.2	2891.4	2871.0
7.5°	2926.2	2945.4	2961.0	2985.0	3027.0	3071.4	3093.0	3085.8	3040.2	2992.2	2967.0
10°	2783.5	2803.9	2841.0	2897.4	2986.2	3082.2	3162.6	3199.8	3171.0	3118.2	3083.4
12.5°	2521.9	2542.3	2615.5	2737.9	2886.6	3053.4	3207.0	3306.6	3313.8	3261.0	3220.2
15°	2228.0	2248.4	2326.3	2479.9	2706.7	2974.2	3231.0	3419.3	3482.9	3437.3	3388.1
17.5°	2045.6	2063.6	2122.4	2246.0	2482.3	2815.9	3222.6	3539.3	3684.5	3648.5	3589.7
20°	1990.4	2006.0	2033.6	2120.0	2316.7	2651.5	3167.4	3652.1	3901.6	3881.2	3815.3
22.5°	2049.2	2063.6	2072.0	2110.4	2234.0	2543.5	3097.8	3767.3	4153.6	4156.0	4075.6
25°	2184.8	2199.2	2189.6	2213.6	2267.6	2509.9	3071.4	3902.8	4470.3	4496.7	4405.5
27.5°	2407.9	2409.1	2386.3	2385.1	2393.5	2560.3	3099.0	4048.0	4869.8	4919.0	4806.3
30°	2855.4	2837.4	2749.9	2655.1	2611.9	2711.5	3175.8	4219.6	5341.4	5428.9	5287.4
32.5°	3545.3	3518.9	3358.1	3131.4	2903.4	2955.0	3313.8	4415.1	5854.9	6013.2	5840.5
35°	4294.0	4286.8	4118.8	3781.7	3383.3	3301.8	3538.1	4671.9	6415.1	6667.1	6461.9
37.5°	4989.8	4986.2	4890.2	4493.1	4008.4	3785.3	3898.0	5007.8	7015.0	7379.8	7137.4
40°	5625.7	5636.5	5540.5	5185.4	4697.1	4405.5	4387.5	5422.9	7682.1	8156.0	7868.1
42.5°	6175.2	6187.2	6090.0	5827.3	5377.3	5091.8	4988.6	5931.6	8333.6	8989.8	8649.1
45°	6548.3	6622.7	6608.3	6398.4	6075.6	5779.3	5710.9	6569.9	9076.2	9874.1	9474.5
47.5°	6653.9	6722.3	6830.3	6859.1	6662.3	6370.8	6452.3	7339.0	9827.3	10759.5	10304.8
50°	6393.6	6457.1	6681.5	6980.2	7117.0	7027.0	7173.4	8163.2	10596.3	11642.5	11119.4
52.5°	5880.1	5944.8	6228.0	6700.7	7258.6	7541.7	7896.9	8975.4	11341.4	12478.8	11890.9
55°	5137.4	5205.8	5569.3	6104.4	6988.6	7754.1	8500.3	9786.5	12024.1	13231.0	12586.7
57.5°	4127.2	4177.6	4555.5	5304.2	6309.6	7542.9	8945.5	10671.9	12667.1	13970.1	13276.6
60°	2689.9	2734.3	3173.4	4008.4	5184.2	6837.5	9034.2	11659.3	13521.4	14931.1	14206.4
62.5°	1788.9	1818.8	2079.2	2692.3	3650.9	5482.9	8514.7	12447.6	14773.9	16603.6	15800.9
65°	1227.4	1257.4	1517.7	1944.8	2358.7	3626.9	7021.0	12343.2	15908.9	17931.7	16982.7
67.5°	875.8	901.0	1121.8	1524.9	1707.3	2106.8	4759.5	11009.1	15745.7	17982.1	17046.3
70°	627.5	641.9	824.2	1187.8	1356.9	1265.8	2646.7	8420.0	13786.5	16604.8	15748.1
72.5°	439.1	443.9	572.3	904.6	1093.0	923.8	1259.8	5613.7	10427.2	13033.1	12208.8
75°	297.5	303.5	385.1	663.5	877.0	705.5	667.1	3010.2	6121.2	7214.2	6466.7
77.5°	182.4	184.8	248.4	453.5	656.3	537.5	429.5	1275.4	2368.3	2325.1	1982.0
80°	103.2	103.2	158.4	281.9	447.5	346.7	301.1	542.3	749.9	658.7	580.7
82.5°	57.6	58.8	115.2	175.2	296.3	205.2	165.6	250.8	323.9	286.7	249.6
85°	24.0	26.4	70.8	82.8	141.6	102.0	67.2	105.6	120.0	106.8	78.0
87.5°	2.4	3.6	21.6	15.6	16.8	20.4	9.6	20.4	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°	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7	2760.7
2.5°	2778.7	2760.7	2715.1	2662.3	2592.7	2559.1	2513.5	2482.3	2455.9	2458.3	2434.3
5°	2832.6	2787.1	2685.1	2557.9	2399.5	2286.8	2166.8	2084.0	2016.8	2002.4	1970.0
7.5°	2907.0	2835.0	2656.3	2427.1	2159.6	1956.8	1775.7	1659.3	1576.5	1550.1	1523.7
10°	3003.0	2898.6	2619.1	2262.8	1877.6	1619.7	1425.3	1334.1	1277.8	1258.6	1244.2
12.5°	3114.6	2971.8	2569.9	2062.4	1587.3	1338.9	1215.4	1169.8	1151.8	1145.8	1142.2
15°	3255.0	3063.0	2495.5	1824.8	1341.3	1167.4	1114.6	1108.6	1111.0	1108.6	1107.4
17.5°	3421.7	3162.6	2374.3	1580.1	1175.8	1079.8	1060.6	1065.4	1071.4	1070.2	1067.8
20°	3604.1	3261.0	2219.6	1362.9	1063.0	1017.4	1006.6	1011.4	1016.2	1013.8	1012.6
22.5°	3811.7	3366.5	2048.0	1193.8	987.4	959.8	947.8	949.0	949.0	944.2	941.8
25°	4060.0	3482.9	1868.0	1073.8	929.8	908.2	893.8	889.0	881.8	867.4	865.0
27.5°	4356.3	3606.5	1695.3	989.8	884.2	863.8	847.0	835.0	817.0	793.0	790.6
30°	4689.9	3756.5	1548.9	937.0	848.2	827.8	808.6	790.6	764.3	734.3	731.9
32.5°	5082.2	3917.2	1442.1	902.2	815.8	794.2	771.4	749.9	721.1	691.1	692.3
35°	5550.1	4111.6	1379.7	878.2	790.6	761.9	736.7	712.7	691.1	664.7	662.3
37.5°	6057.6	4318.0	1360.5	866.2	773.8	729.5	700.7	683.9	681.5	665.9	664.7
40°	6613.1	4562.7	1374.9	859.0	755.9	698.3	667.1	663.5	669.5	641.9	643.1
42.5°	7201.0	4853.1	1398.9	850.6	730.7	667.1	637.1	637.1	632.3	593.9	593.9
45°	7836.9	5187.8	1422.9	830.2	700.7	635.9	613.1	604.7	584.3	547.1	545.9
47.5°	8477.5	5528.5	1440.9	793.0	664.7	609.5	589.1	569.9	539.9	506.3	505.1
50°	9085.8	5834.5	1421.7	737.9	623.9	584.3	562.7	536.3	503.9	481.1	477.5
52.5°	9629.3	6099.6	1340.1	673.1	580.7	557.9	538.7	511.1	484.7	460.7	458.3
55°	10102.0	6314.4	1196.2	611.9	542.3	535.1	515.9	481.1	445.1	424.7	422.3
57.5°	10555.5	6477.5	1016.2	561.5	507.5	509.9	481.1	449.9	416.3	394.7	392.3
60°	11159.0	6695.9	833.8	514.7	470.3	477.5	446.3	423.5	381.5	353.9	350.3
62.5°	12123.6	7035.4	662.3	457.1	427.1	429.5	416.3	388.7	338.3	305.9	303.5
65°	12889.1	6910.7	521.9	394.7	377.9	381.5	381.5	351.5	297.5	260.3	256.7
67.5°	12802.7	5917.2	416.3	333.5	331.1	333.5	341.9	316.7	263.9	234.0	229.2
70°	11793.7	4706.7	333.5	277.1	287.9	281.9	305.9	289.1	237.6	207.6	204.0
72.5°	9623.3	3390.5	254.4	229.2	220.8	230.4	275.9	260.3	198.0	164.4	160.8
75°	5623.3	1809.2	189.6	181.2	159.6	192.0	244.8	222.0	151.2	121.2	117.6
77.5°	1830.8	631.1	139.2	133.2	118.8	154.8	208.8	187.2	123.6	96.0	92.4
80°	490.7	190.8	94.8	87.6	76.8	115.2	165.6	148.8	88.8	62.4	61.2
82.5°	196.8	80.4	55.2	49.2	42.0	79.2	130.8	120.0	66.0	39.6	39.6
85°	63.6	26.4	20.4	15.6	19.2	49.2	78.0	81.6	46.8	20.4	15.6
87.5°	8.4	3.6	3.6	4.8	3.6	8.4	24.0	22.8	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)