

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: P270625

Luminaire Tested: **NAV-AF-05-D-UNV-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270625  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-05-D-UNV-T3-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26131.9 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 279  
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: 25 FT

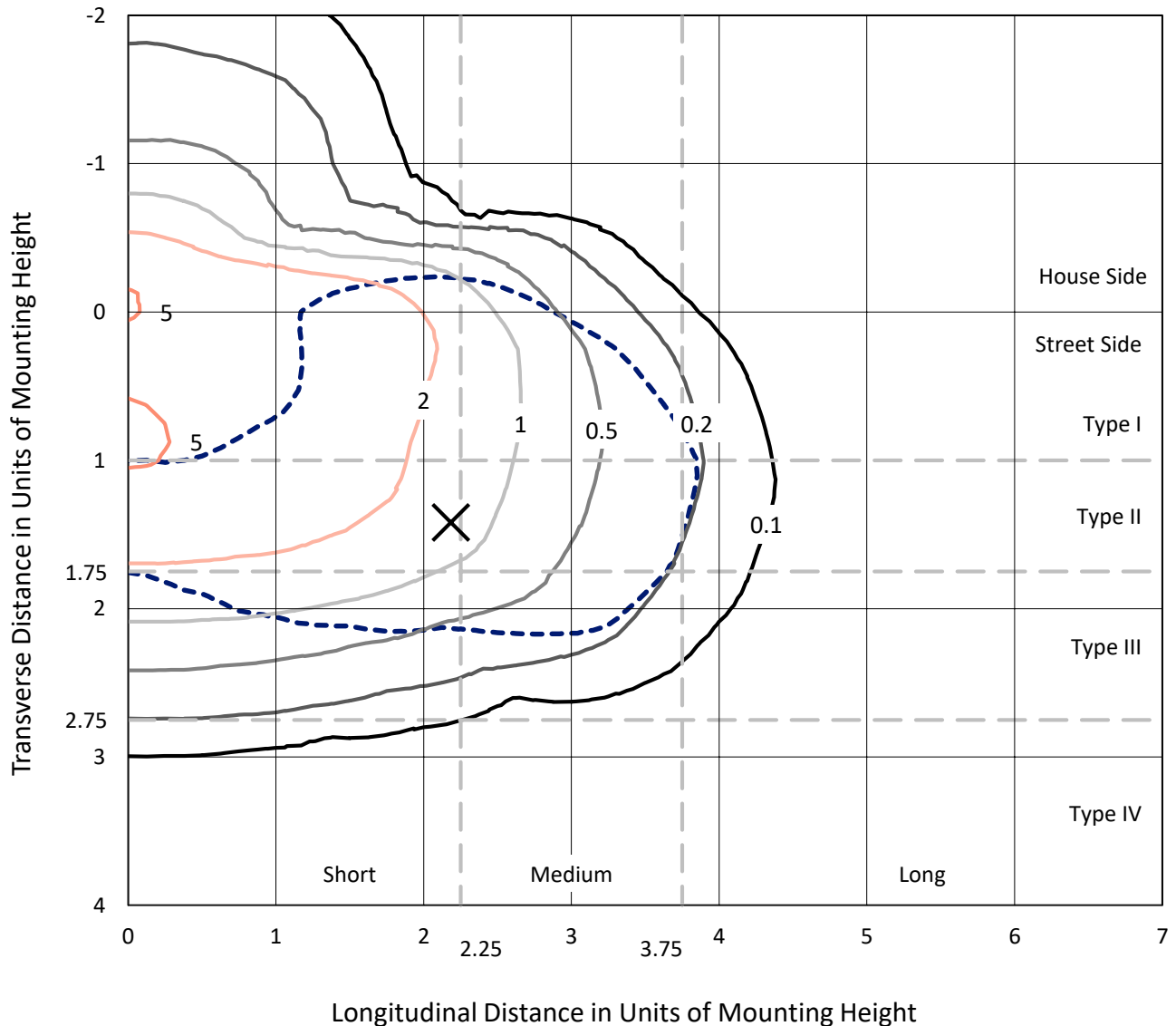


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### Iso-Footcandle Lines of Horizontal Illumination

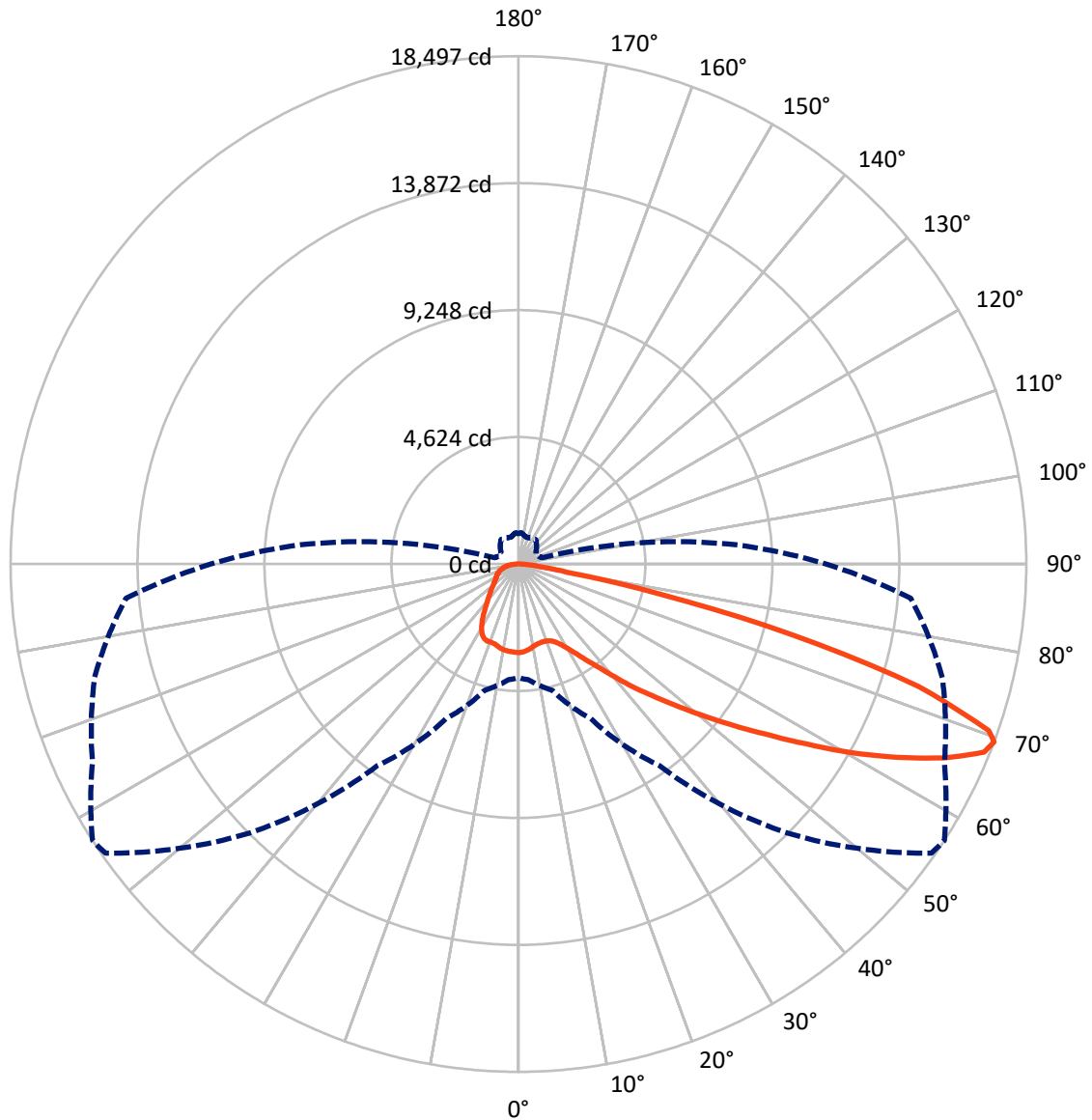
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5766.4	0.0	5766.4
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	20365.5	0.0	20365.5
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	26131.9	0.0	26131.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.3	1.2
10°-20°	859.5	3.3
20°-30°	1429.7	5.5
30°-40°	2334.7	8.9
40°-50°	3940.4	15.1
50°-60°	6129.5	23.5
60°-70°	7301.6	27.9
70°-80°	3401.5	13.0
80°-90°	432.6	1.7
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°	26131.9	100.0
0°-180°	26131.9	100.0



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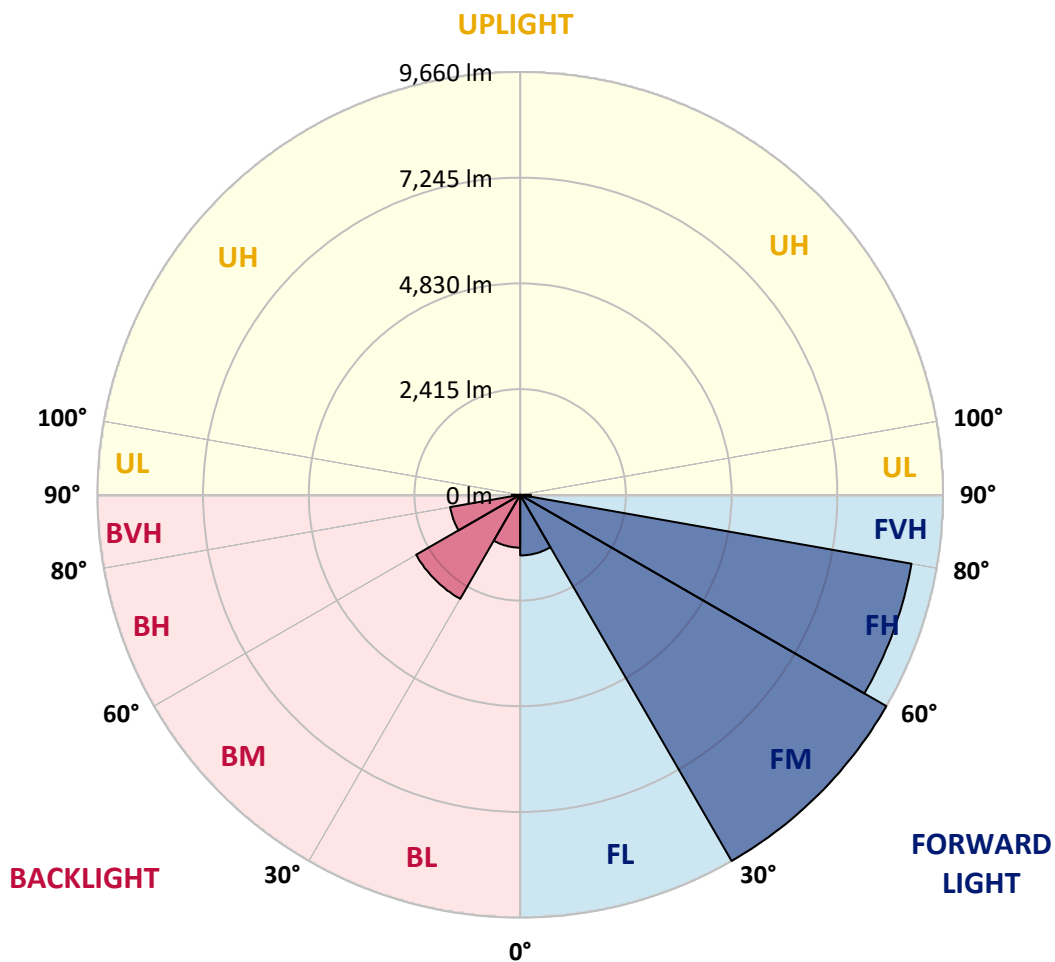
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1383.9	5.3			
FM	(30°-60°)	9660.2	37.0			
FH	(60°-80°)	9078.3	34.7			G4/12000
FVH	(80°-90°)	243.2	0.9			G3/500
BL	(0°-30°)	1207.6	4.6	B3/2500		
BM	(30°-60°)	2744.5	10.5	B3/5000		
BH	(60°-80°)	1624.9	6.2	B3/2500		G3/2500
BVH	(80°-90°)	189.4	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9
2.5°	3210.5	3210.5	3218.8	3218.8	3218.8	3215.5	3205.4	3208.7	3202.1	3197.1	3188.8
5°	3145.2	3148.6	3158.6	3161.9	3167.0	3168.6	3168.6	3167.0	3168.6	3168.6	3163.7
7.5°	3054.9	3058.2	3069.9	3076.7	3091.6	3105.0	3111.8	3111.8	3120.2	3126.8	3128.4
10°	2999.7	2999.7	3006.4	3006.4	3018.0	3024.8	3046.5	3044.9	3068.3	3090.0	3100.1
12.5°	2993.0	2993.0	2989.6	2977.9	2971.2	2969.5	2991.3	2994.6	3029.8	3068.3	3086.7
15°	3014.7	3014.7	3004.7	2981.2	2956.1	2944.5	2966.3	2972.9	3011.4	3056.6	3085.0
17.5°	3085.0	3083.3	3061.6	3014.7	2971.2	2952.8	2959.5	2966.3	3001.3	3053.2	3088.4
20°	3240.5	3240.5	3193.7	3108.4	3033.0	2989.6	2979.6	2984.6	3009.7	3058.2	3103.4
22.5°	3513.4	3518.3	3434.6	3294.2	3165.3	3073.3	3033.0	3038.2	3049.8	3096.6	3146.9
25°	3914.8	3901.3	3782.7	3583.5	3382.7	3225.5	3143.4	3148.6	3148.6	3192.0	3243.9
27.5°	4339.7	4343.0	4172.4	3958.3	3693.9	3459.7	3329.3	3327.5	3325.9	3367.7	3422.9
30°	4819.9	4821.6	4624.1	4376.5	4073.8	3774.3	3578.5	3576.8	3561.8	3613.6	3685.6
32.5°	5345.2	5343.5	5114.3	4834.9	4498.6	4159.1	3904.8	3903.0	3891.4	3961.6	4048.7
35°	5927.3	5927.3	5699.8	5355.2	4992.2	4614.1	4319.6	4318.0	4324.7	4420.0	4501.9
37.5°	6628.4	6643.4	6369.1	5950.8	5554.3	5151.2	4808.2	4798.0	4747.9	4908.5	5044.1
40°	7359.5	7401.2	7116.8	6628.4	6200.1	5783.5	5405.5	5398.8	5355.2	5525.8	5745.0
42.5°	8150.9	8246.1	7930.0	7431.4	6964.6	6514.6	6134.9	6116.4	5949.1	6215.2	6558.0
45°	9188.0	9249.8	8791.5	8339.9	7899.9	7386.3	6934.6	6835.8	6668.5	7009.8	7454.9
47.5°	9894.0	9863.8	9577.8	9275.0	8992.3	8500.4	7806.1	7680.7	7476.6	7928.4	8418.5
50°	10332.3	10354.0	10193.4	10178.4	10163.3	9820.5	8789.8	8639.3	8403.4	8938.8	9511.0
52.5°	10621.7	10523.0	10551.5	10892.8	11306.0	11142.0	9902.3	9735.1	9492.5	10027.9	10673.7
55°	10501.4	10370.8	10633.4	11306.0	12278.0	12314.9	11123.6	10951.3	10743.9	11185.5	12072.2
57.5°	10002.7	10068.1	10483.0	11418.0	12942.2	13365.4	12527.4	12351.7	11943.4	12391.8	13400.6
60°	9301.8	9433.9	10068.1	11240.9	13407.4	14183.6	14068.0	13950.9	13248.4	13566.3	14795.9
62.5°	8548.9	8679.5	9459.1	10937.9	13198.2	14907.9	15580.6	15508.6	14688.7	14697.2	15680.9
65°	7436.3	7490.0	8286.2	10111.5	12617.7	15562.1	17094.6	17031.0	16065.6	15662.5	15928.4
67.5°	5616.3	5683.1	6337.3	7981.8	10850.9	15207.3	18304.1	18294.1	16893.7	16020.6	15339.5
69°	4147.4	4229.3	4763.0	6196.7	8972.2	13855.6	18360.9	18496.6	17117.9	15983.7	14344.1
70°	3034.8	3128.4	3622.0	4918.6	7473.2	12363.4	17874.1	18165.3	17032.7	15751.2	13567.9
72.5°	1289.8	1321.6	1564.3	2220.0	3790.9	7454.9	14640.2	15252.6	15383.0	14113.4	10600.0
75°	808.0	818.0	913.4	1139.3	1686.4	3083.3	9480.8	10315.5	11485.0	10949.7	7096.8
77.5°	609.1	617.3	672.6	784.6	1047.2	1151.0	4398.3	5244.8	6578.2	6440.9	3531.6
80°	466.8	471.8	508.6	570.6	737.8	721.1	1427.0	1793.5	2745.4	2422.5	1249.7
82.5°	366.4	368.0	399.8	411.6	515.3	485.2	715.9	798.1	1109.1	921.8	610.7
85°	324.6	329.6	361.4	301.1	329.6	292.8	393.2	426.6	588.8	555.4	230.9
87.5°	165.6	174.0	302.8	257.6	165.6	138.9	172.4	185.7	239.3	259.3	112.1
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°	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9	3228.9
2.5°	3190.4	3192.0	3197.1	3205.4	3218.8	3235.5	3255.6	3275.7	3287.3	3295.8	3292.5
5°	3163.7	3165.3	3175.2	3190.4	3207.0	3232.2	3265.7	3290.8	3309.1	3320.9	3319.1
7.5°	3130.1	3135.2	3155.2	3171.9	3195.5	3215.5	3242.3	3265.7	3284.1	3295.8	3294.2
10°	3105.0	3110.1	3135.2	3157.0	3176.9	3180.3	3175.2	3168.6	3167.0	3175.2	3171.9
12.5°	3093.4	3103.4	3126.8	3141.8	3133.5	3101.7	3064.8	3049.8	3044.9	3061.6	3063.2
15°	3096.6	3105.0	3125.2	3115.1	3069.9	3016.4	2996.2	3008.1	3018.0	3028.0	3029.8
17.5°	3105.0	3110.1	3115.1	3078.3	3014.7	2979.6	2972.9	2961.3	2931.1	2914.3	2912.7
20°	3120.2	3126.8	3118.5	3059.8	3003.0	2956.1	2875.8	2803.9	2735.2	2698.5	2683.4
22.5°	3171.9	3176.9	3152.0	3095.0	3008.1	2855.8	2693.5	2569.7	2464.3	2407.4	2385.7
25°	3274.1	3282.3	3247.3	3175.2	2947.8	2681.8	2452.6	2285.3	2153.1	2084.5	2066.1
27.5°	3453.1	3461.3	3422.9	3235.5	2807.3	2449.3	2171.6	2005.9	1892.1	1833.6	1825.3
30°	3720.7	3732.4	3697.3	3233.9	2593.0	2153.1	1897.2	1800.2	1734.8	1694.7	1693.0
32.5°	4092.0	4135.5	3991.8	3176.9	2328.8	1853.7	1689.7	1656.2	1624.5	1597.6	1597.6
35°	4563.8	4665.9	4282.8	3058.2	2037.6	1649.6	1574.3	1542.5	1502.3	1473.8	1470.5
37.5°	5127.6	5286.6	4490.3	2847.4	1786.8	1550.8	1504.0	1452.1	1388.6	1333.4	1320.0
40°	5902.3	5939.1	4592.3	2504.5	1599.3	1497.4	1438.7	1373.5	1293.2	1231.2	1224.6
42.5°	6680.2	6559.8	4572.3	2136.3	1492.4	1448.7	1371.8	1299.8	1228.0	1176.2	1176.2
45°	7565.3	7101.8	4420.0	1766.6	1395.2	1393.6	1310.0	1241.4	1186.1	1147.7	1139.3
47.5°	8411.8	7588.6	4157.4	1494.1	1294.8	1338.4	1269.8	1214.6	1164.5	1127.6	1120.8
50°	9439.0	8152.5	3878.0	1303.3	1197.9	1289.8	1253.0	1224.6	1176.2	1112.6	1105.9
52.5°	10459.4	8811.7	3662.2	1159.4	1112.6	1251.3	1263.0	1266.4	1221.2	1097.5	1089.1
55°	11555.3	9515.9	3434.6	1047.2	1042.3	1233.1	1286.6	1283.1	1261.4	1100.9	1087.5
57.5°	12597.6	10223.6	3095.0	968.6	987.1	1214.6	1291.6	1238.0	1199.5	1117.5	1095.8
60°	13460.8	10809.1	2596.6	913.4	940.3	1177.8	1258.0	1177.8	1112.6	1114.2	1094.1
62.5°	13880.7	10973.1	1985.9	849.8	901.8	1117.5	1209.6	1132.7	1072.3	1120.8	1109.1
65°	13561.3	10506.3	1415.3	791.3	854.8	1047.2	1181.1	1094.1	1052.4	1154.3	1140.9
67.5°	12413.5	9234.8	1027.2	739.5	809.7	975.4	1127.6	1059.0	1032.2	1179.5	1149.3
69°	11193.9	7973.4	890.0	709.3	777.9	936.8	1092.5	1040.5	1017.2	1144.4	1100.9
70°	10180.1	7001.4	821.4	690.9	751.2	915.2	1065.7	1028.9	1002.1	1102.5	1050.7
72.5°	7299.2	4525.4	690.9	635.7	680.9	866.7	1007.1	985.4	945.2	995.4	961.9
75°	4410.0	2362.3	587.2	578.9	607.3	799.8	938.5	911.8	871.6	876.7	859.9
77.5°	2025.9	1090.8	491.8	511.9	530.3	715.9	854.8	824.7	788.0	774.6	776.2
80°	888.3	637.3	411.6	436.7	446.6	644.2	764.5	731.1	690.9	762.9	707.7
82.5°	480.1	369.7	321.2	337.9	366.4	560.5	664.1	620.6	582.2	677.5	547.1
85°	194.0	189.1	217.5	234.2	254.3	403.2	555.4	510.2	463.4	414.8	404.9
87.5°	83.6	90.3	107.1	113.7	135.6	250.9	373.1	326.3	327.9	281.1	276.0
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)