

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: P270707

Luminaire Tested: **NAV-AF-06-D-UNV-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270707
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-06-D-UNV-T3-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25292.8 lumens
Efficiency: N/A
Efficacy: 101.6 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

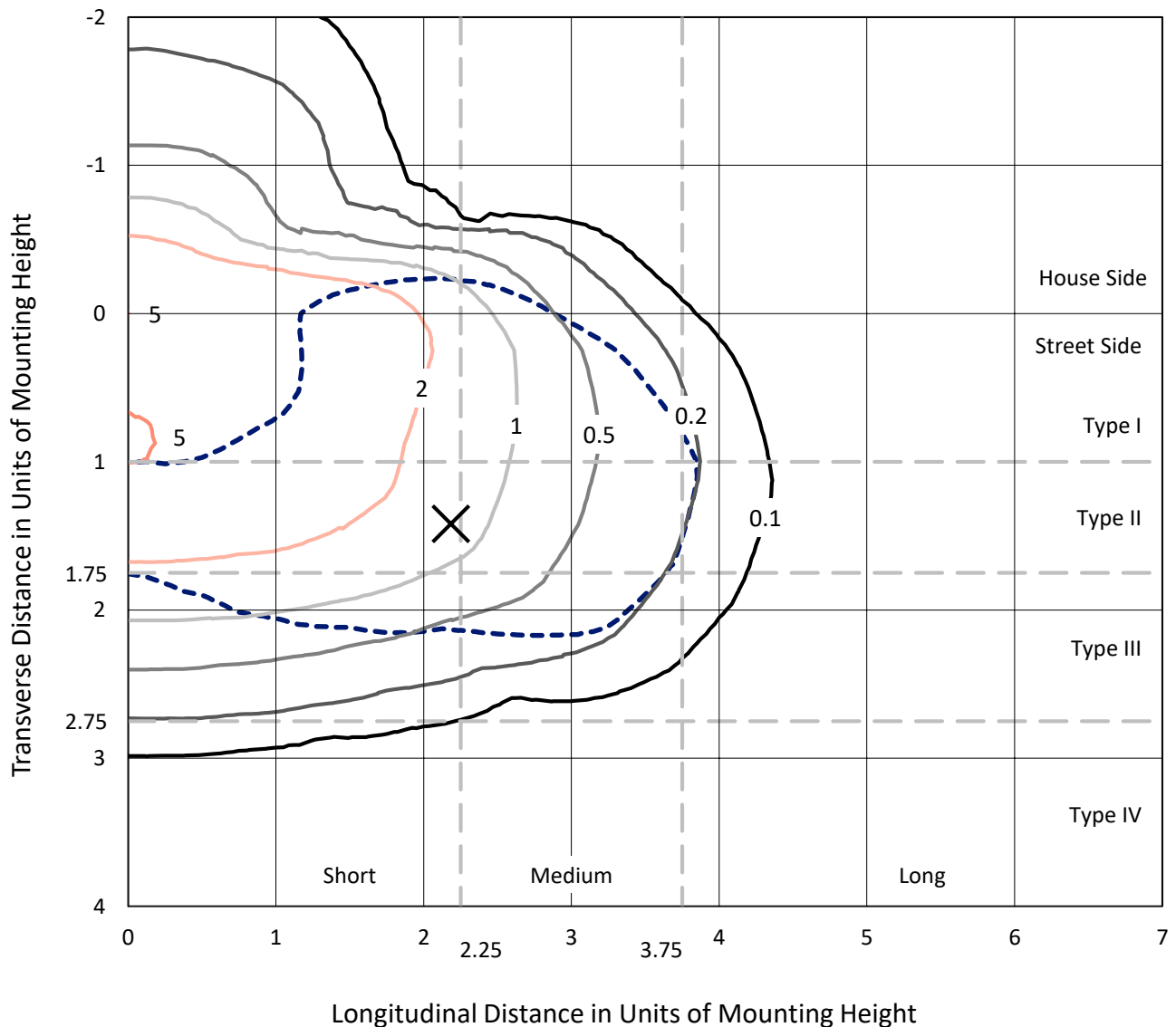
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

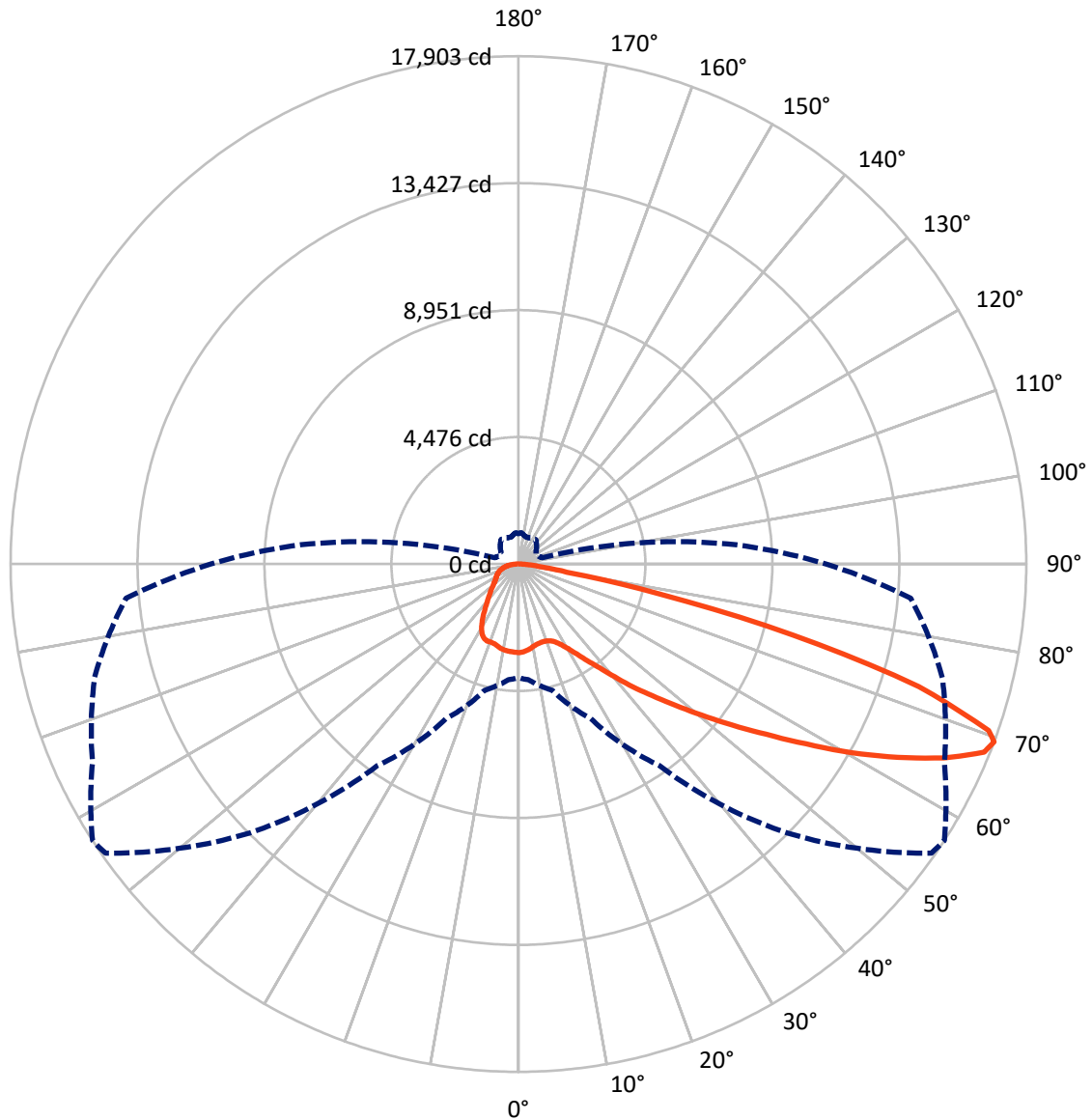
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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
House Side	Lumens	5581.2	0.0	5581.2
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	19711.6	0.0	19711.6
	% Fixture	77.9	0.0	77.9
Total	Lumens	25292.8	0.0	25292.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.6	1.2
10°-20°	831.9	3.3
20°-30°	1383.8	5.5
30°-40°	2259.7	8.9
40°-50°	3813.9	15.1
50°-60°	5932.7	23.5
60°-70°	7067.1	27.9
70°-80°	3292.3	13.0
80°-90°	418.8	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°	25292.8	100.0
0°-180°	25292.8	100.0



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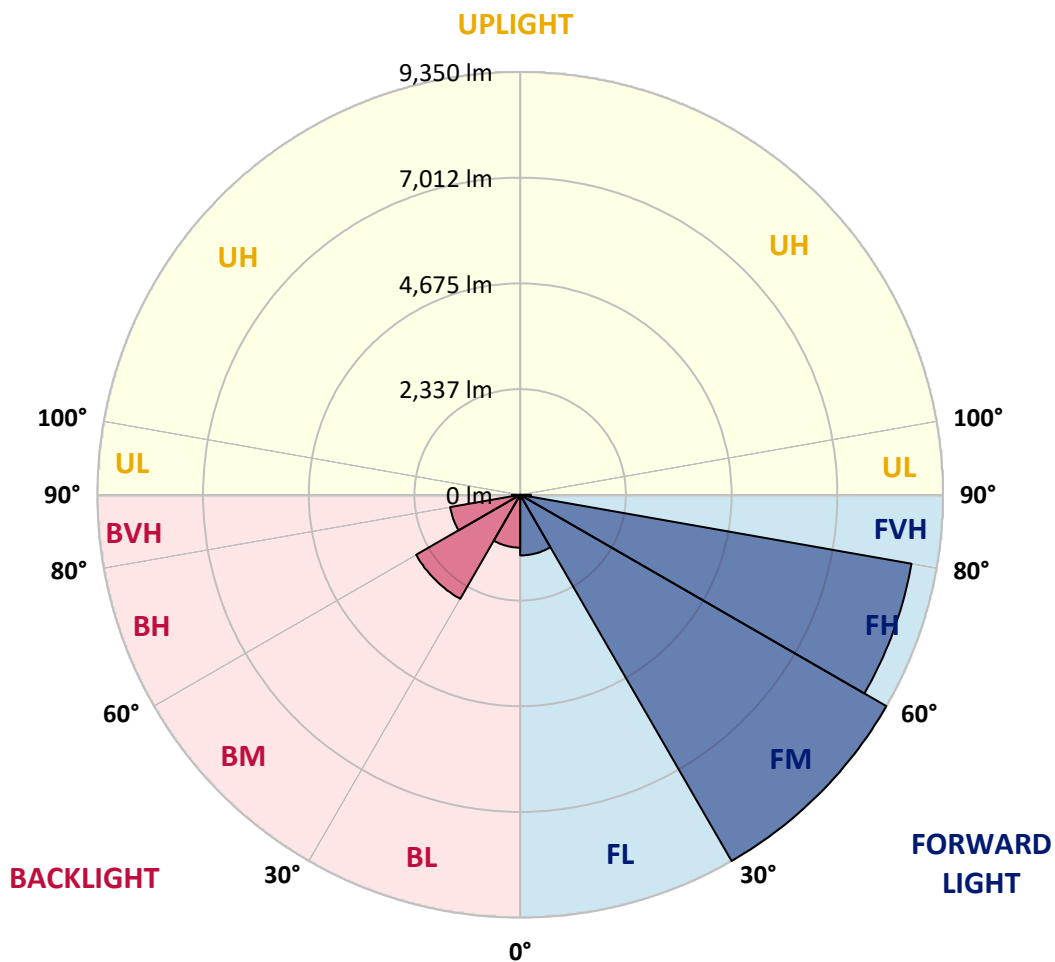
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1339.5	5.3			
FM	(30°-60°)	9350.0	37.0			
FH	(60°-80°)	8786.7	34.7			G4/12000
FVH	(80°-90°)	235.4	0.9			G3/500
BL	(0°-30°)	1168.8	4.6	B3/2500		
BM	(30°-60°)	2656.3	10.5	B3/5000		
BH	(60°-80°)	1572.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	183.4	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°	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2
2.5°	3107.3	3107.3	3115.4	3115.4	3115.4	3112.2	3102.4	3105.7	3099.2	3094.4	3086.2
5°	3044.1	3047.4	3057.1	3060.3	3065.2	3066.9	3066.9	3065.2	3066.9	3066.9	3062.1
7.5°	2956.9	2960.1	2971.4	2977.8	2992.4	3005.3	3011.7	3011.7	3019.9	3026.4	3027.9
10°	2903.3	2903.3	2909.8	2909.8	2921.2	2927.7	2948.6	2947.1	2969.7	2990.7	3000.5
12.5°	2896.9	2896.9	2893.6	2882.3	2875.8	2874.1	2895.2	2898.6	2932.4	2969.7	2987.6
15°	2918.0	2918.0	2908.3	2885.5	2861.2	2850.0	2871.0	2877.5	2914.7	2958.4	2986.0
17.5°	2986.0	2984.3	2963.2	2918.0	2875.8	2858.0	2864.4	2871.0	2904.9	2955.2	2989.2
20°	3136.5	3136.5	3091.2	3008.6	2935.8	2893.6	2883.9	2888.8	2913.1	2960.1	3003.8
22.5°	3400.4	3405.4	3324.4	3188.4	3063.6	2974.6	2935.8	2940.6	2951.9	2997.3	3045.9
25°	3789.1	3776.1	3661.1	3468.4	3274.1	3121.9	3042.6	3047.4	3047.4	3089.5	3139.8
27.5°	4200.4	4203.6	4038.4	3831.2	3575.3	3348.6	3222.3	3220.8	3219.0	3259.6	3312.9
30°	4665.1	4666.8	4475.6	4236.0	3942.9	3653.0	3463.5	3462.0	3447.3	3497.6	3567.2
32.5°	5173.5	5171.9	4950.1	4679.7	4354.2	4025.5	3779.3	3777.7	3766.5	3834.4	3918.5
35°	5737.0	5737.0	5516.9	5183.2	4831.9	4466.0	4180.9	4179.4	4185.8	4278.1	4357.4
37.5°	6415.5	6430.1	6164.4	5759.8	5375.9	4985.8	4653.8	4644.1	4595.5	4750.9	4882.1
40°	7123.1	7163.7	6888.4	6415.5	6000.9	5597.8	5231.8	5225.4	5183.2	5348.4	5560.6
42.5°	7889.0	7981.4	7675.3	7192.8	6741.1	6305.5	5937.8	5920.0	5758.0	6015.5	6347.6
45°	8893.0	8952.9	8509.3	8072.0	7646.2	7149.0	6711.9	6616.2	6454.3	6784.7	7215.5
47.5°	9576.3	9547.1	9270.2	8977.2	8703.5	8227.4	7555.5	7434.1	7236.4	7673.7	8148.0
50°	10000.6	10021.6	9866.2	9851.5	9837.0	9505.1	8507.6	8361.9	8133.6	8651.7	9205.6
52.5°	10280.7	10185.2	10212.7	10543.0	10943.0	10784.2	9584.3	9422.4	9187.7	9705.8	10330.9
55°	10164.1	10037.8	10292.1	10943.0	11883.8	11919.4	10766.5	10599.7	10398.9	10826.4	11684.6
57.5°	9681.6	9744.8	10146.3	11051.5	12526.5	12936.2	12125.1	11955.1	11559.8	11993.8	12970.3
60°	9003.1	9131.0	9744.8	10879.8	12976.7	13728.1	13616.4	13503.1	12822.9	13130.5	14320.7
62.5°	8274.4	8400.7	9155.3	10586.7	12774.3	14429.2	15080.1	15010.5	14217.0	14225.2	15177.4
65°	7197.6	7249.4	8020.2	9786.9	12212.5	15062.3	16545.6	16484.1	15549.8	15159.4	15416.9
67.5°	5435.9	5500.6	6133.7	7725.5	10502.5	14719.1	17716.4	17706.6	16351.3	15506.1	14846.9
69°	4014.2	4093.4	4610.0	5997.8	8684.0	13410.6	17771.3	17902.5	16568.2	15470.4	13883.6
70°	2937.4	3027.9	3505.6	4760.6	7233.2	11966.3	17300.2	17581.8	16485.7	15245.3	13132.2
72.5°	1248.5	1279.2	1514.1	2148.7	3669.2	7215.5	14170.1	14762.7	14889.0	13660.0	10259.6
75°	782.2	791.9	884.1	1102.7	1632.2	2984.3	9176.4	9984.3	11116.3	10598.1	6868.9
77.5°	589.4	597.6	650.9	759.4	1013.6	1114.1	4257.1	5076.4	6366.9	6234.1	3418.3
80°	451.8	456.6	492.2	552.2	714.2	698.0	1381.2	1735.9	2657.1	2344.7	1209.6
82.5°	354.7	356.3	387.0	398.4	498.6	469.5	693.0	772.5	1073.6	892.1	591.1
85°	314.1	319.0	349.8	291.5	319.0	283.3	380.5	413.0	570.0	537.5	223.5
87.5°	160.3	168.4	293.0	249.4	160.3	134.3	166.7	179.8	231.6	250.9	108.4
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°	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2	3125.2
2.5°	3088.0	3089.5	3094.4	3102.4	3115.4	3131.6	3151.1	3170.5	3181.8	3189.9	3186.6
5°	3062.1	3063.6	3073.3	3088.0	3104.2	3128.3	3160.7	3185.1	3202.8	3214.2	3212.6
7.5°	3029.7	3034.5	3053.9	3070.0	3092.8	3112.2	3138.0	3160.7	3178.7	3189.9	3188.4
10°	3005.3	3010.2	3034.5	3055.6	3075.0	3078.2	3073.3	3066.9	3065.2	3073.3	3070.0
12.5°	2994.1	3003.8	3026.4	3040.9	3032.9	3002.0	2966.6	2951.9	2947.1	2963.2	2964.9
15°	2997.3	3005.3	3024.8	3015.0	2971.4	2919.5	2900.1	2911.4	2921.2	2930.9	2932.4
17.5°	3005.3	3010.2	3015.0	2979.5	2918.0	2883.9	2877.5	2866.1	2836.9	2820.8	2819.2
20°	3019.9	3026.4	3018.2	2961.6	2906.6	2861.2	2783.5	2713.9	2647.5	2611.8	2597.3
22.5°	3070.0	3075.0	3050.6	2995.6	2911.4	2764.1	2607.1	2487.1	2385.2	2330.2	2309.1
25°	3169.0	3176.9	3143.0	3073.3	2853.1	2595.7	2373.9	2211.8	2084.0	2017.7	1999.7
27.5°	3342.1	3350.3	3312.9	3131.6	2717.2	2370.5	2101.9	1941.4	1831.4	1774.7	1766.5
30°	3601.2	3612.5	3578.6	3130.1	2509.9	2084.0	1836.2	1742.4	1679.2	1640.3	1638.7
32.5°	3960.6	4002.8	3863.5	3075.0	2253.9	1794.2	1635.5	1603.0	1572.4	1546.4	1546.4
35°	4417.3	4516.0	4145.3	2960.1	1972.3	1596.6	1523.7	1493.0	1454.0	1426.6	1423.4
37.5°	4963.0	5116.8	4346.1	2756.0	1729.3	1501.1	1455.8	1405.5	1344.0	1290.5	1277.6
40°	5712.7	5748.3	4444.9	2424.0	1548.0	1449.2	1392.6	1329.4	1251.7	1191.8	1185.4
42.5°	6465.7	6349.1	4425.4	2067.8	1444.4	1402.3	1327.8	1258.2	1188.5	1138.3	1138.3
45°	7322.3	6873.7	4278.1	1710.0	1350.4	1348.8	1267.9	1201.6	1148.0	1110.8	1102.7
47.5°	8141.6	7344.9	4023.9	1446.0	1253.3	1295.4	1229.1	1175.6	1127.1	1091.4	1085.0
50°	9135.9	7890.6	3753.5	1261.4	1159.4	1248.5	1212.8	1185.4	1138.3	1076.8	1070.3
52.5°	10123.5	8528.7	3544.5	1122.2	1076.8	1211.3	1222.6	1225.7	1182.1	1062.2	1054.2
55°	11184.2	9210.3	3324.4	1013.6	1008.7	1193.4	1245.2	1241.9	1220.9	1065.5	1052.5
57.5°	12193.1	9895.3	2995.6	937.6	955.3	1175.6	1250.1	1198.2	1161.0	1081.6	1060.5
60°	13028.6	10462.0	2513.1	884.1	910.1	1139.9	1217.7	1139.9	1076.8	1078.4	1059.0
62.5°	13435.1	10620.8	1922.1	822.6	872.8	1081.6	1170.8	1096.2	1037.9	1085.0	1073.6
65°	13125.8	10169.0	1369.8	766.0	827.5	1013.6	1143.3	1059.0	1018.5	1117.3	1104.3
67.5°	12014.9	8938.3	994.2	715.7	783.7	943.9	1091.4	1025.0	999.0	1141.6	1112.5
69°	10834.5	7717.3	861.5	686.6	753.0	906.7	1057.3	1007.2	984.5	1107.6	1065.5
70°	9853.1	6776.6	795.1	668.8	727.1	885.6	1031.4	995.9	969.9	1067.0	1016.9
72.5°	7064.8	4380.0	668.8	615.2	659.0	838.7	974.8	953.7	914.8	963.4	931.1
75°	4268.3	2286.4	568.4	560.3	587.9	774.0	908.4	882.5	843.7	848.4	832.3
77.5°	1960.9	1055.8	476.0	495.4	513.3	693.0	827.5	798.4	762.8	749.7	751.3
80°	859.8	617.0	398.4	422.7	432.4	623.5	740.1	707.7	668.8	738.3	685.0
82.5°	464.8	357.9	311.0	327.2	354.7	542.4	642.8	600.7	563.4	655.9	529.6
85°	187.8	183.0	210.6	226.7	246.1	390.3	537.5	493.9	448.6	401.6	391.9
87.5°	80.9	87.5	103.7	110.1	131.2	242.9	361.1	315.8	317.5	272.0	267.2
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)