

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: P197046

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197046  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
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-SL2-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18987 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

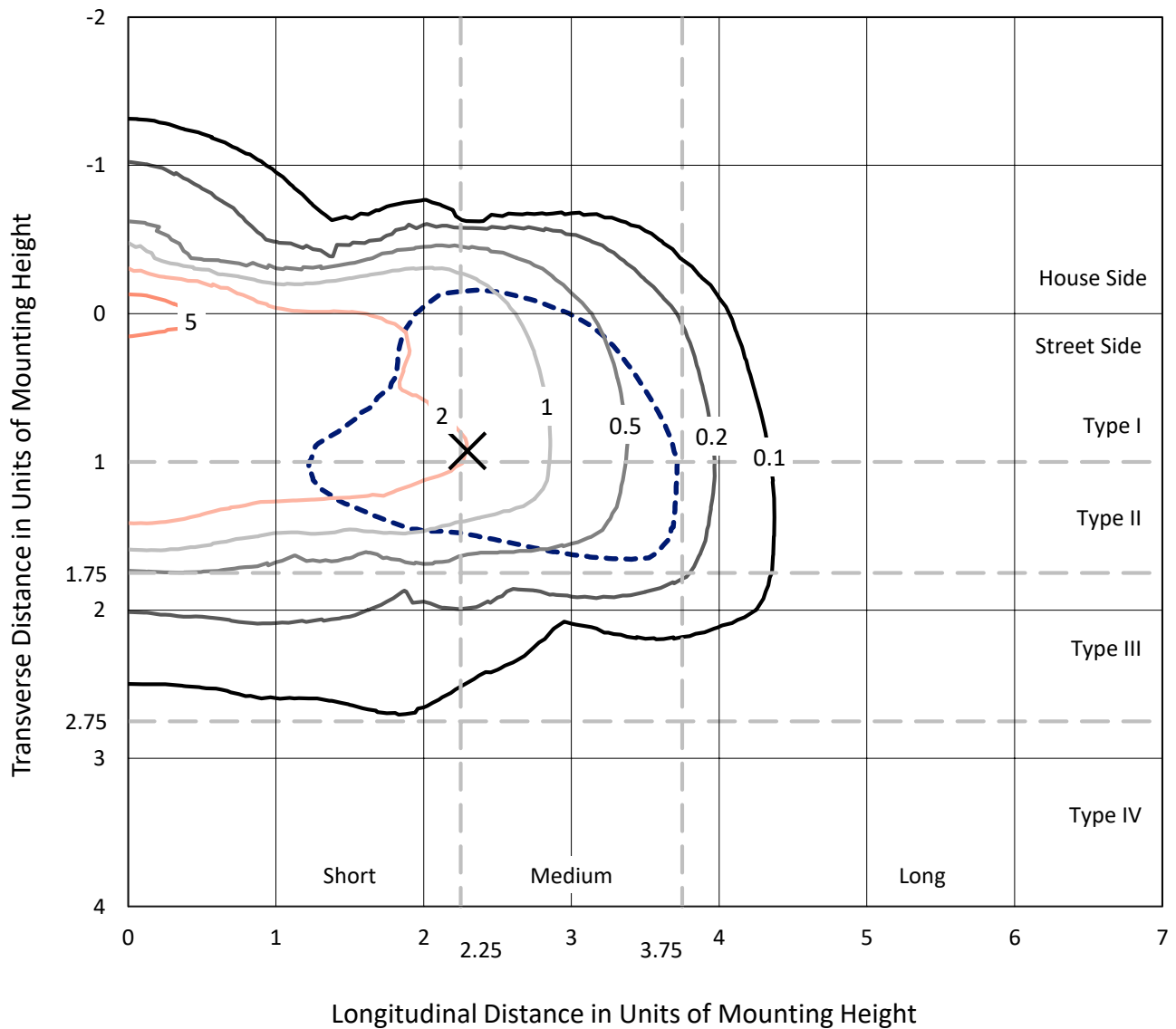
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

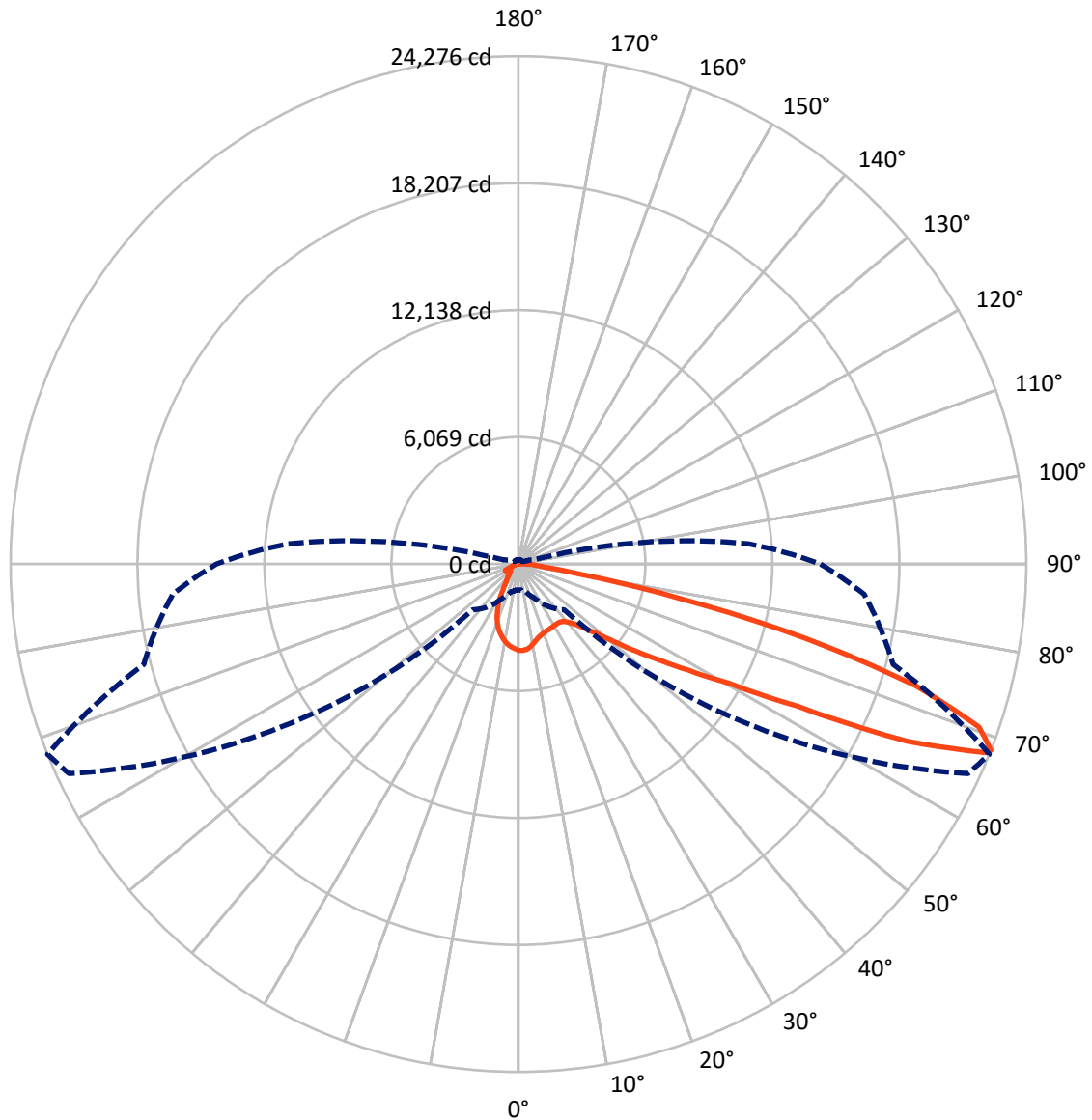
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3106.3	0.0	3106.3
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	15880.7	0.0	15880.7
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	18987.0	0.0	18987.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	354.0	1.9
10°-20°	821.0	4.3
20°-30°	1110.4	5.8
30°-40°	1565.6	8.2
40°-50°	2574.5	13.6
50°-60°	3990.7	21.0
60°-70°	5174.2	27.3
70°-80°	2969.2	15.6
80°-90°	427.2	2.3
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°	18987.0	100.0
0°-180°	18987.0	100.0

**Coefficient of Utilization**



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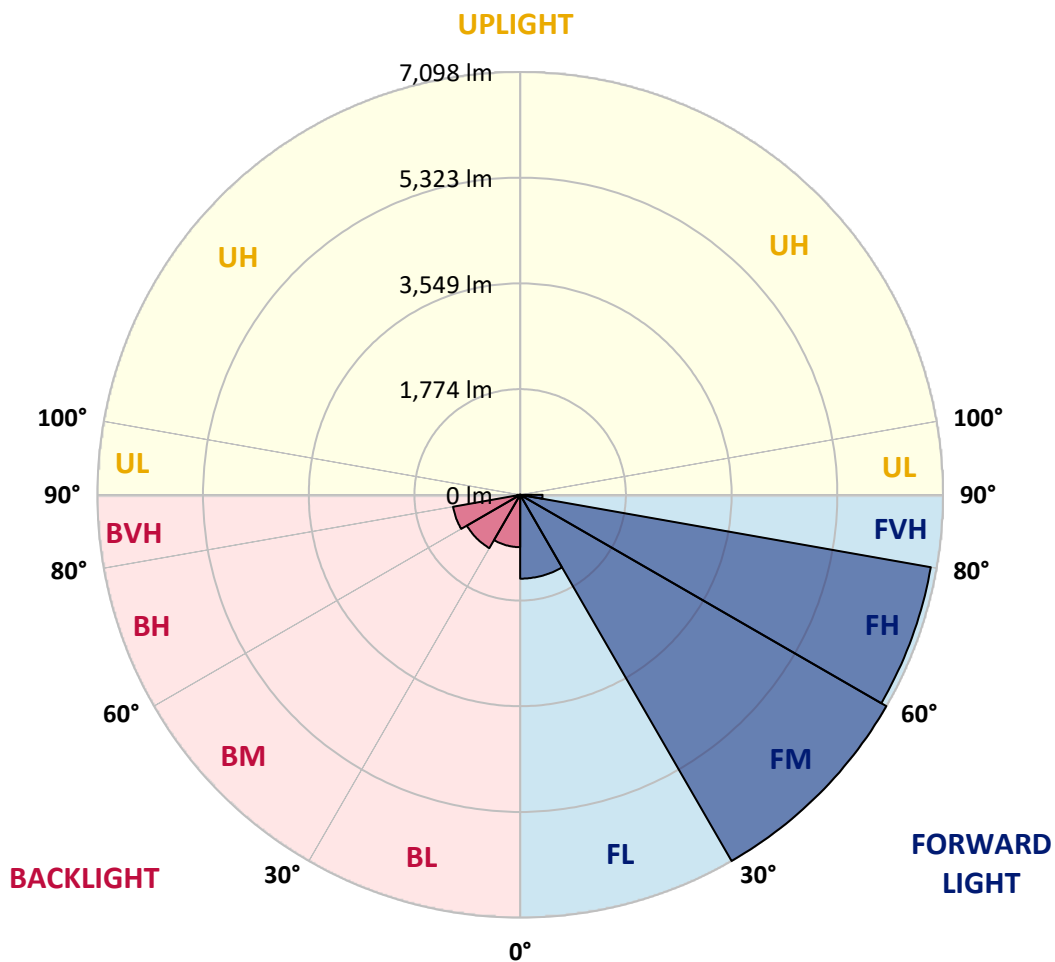
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1407.2	7.4			
FM	(30°-60°)	7097.7	37.4			
FH	(60°-80°)	6999.5	36.9			G3/7500
FVH	(80°-90°)	376.3	2.0			G3/500
BL	(0°-30°)	878.2	4.6	B2/1000		
BM	(30°-60°)	1033.2	5.4	B2/2500		
BH	(60°-80°)	1144.0	6.0	B3/2500		G3/2500
BVH	(80°-90°)	50.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4
2.5°	4021.0	4053.3	4053.3	4076.8	4097.9	4115.3	4130.2	4130.2	4130.2	4120.2	4111.6
5°	3598.1	3641.5	3647.7	3707.2	3785.4	3880.9	3987.5	4081.8	4100.4	4135.1	4148.8
7.5°	3304.1	3317.8	3341.3	3382.3	3461.6	3579.5	3746.9	3957.8	4008.6	4117.8	4174.8
10°	3095.8	3106.9	3126.8	3167.7	3239.6	3346.3	3511.3	3785.4	3869.7	4063.2	4176.1
12.5°	2943.2	2951.9	2970.5	3007.7	3080.9	3176.4	3345.1	3630.3	3734.5	4008.6	4193.4
15°	2824.1	2839.0	2853.9	2889.9	2964.3	3056.1	3227.2	3517.5	3630.3	3965.2	4225.7
17.5°	2777.0	2784.4	2786.9	2805.5	2872.5	2965.5	3136.7	3438.1	3554.7	3930.5	4250.5
20°	2806.8	2808.0	2783.2	2770.8	2809.3	2894.8	3061.0	3378.5	3497.6	3899.5	4260.4
22.5°	2937.0	2937.0	2872.5	2817.9	2791.9	2845.2	3010.2	3337.6	3466.6	3875.9	4260.4
25°	3185.1	3173.9	3073.4	2965.5	2850.2	2827.9	2977.9	3311.6	3443.0	3863.5	4244.3
27.5°	3511.3	3501.3	3373.6	3213.6	3005.2	2865.1	2966.8	3290.5	3419.5	3844.9	4209.5
30°	3908.1	3899.5	3754.4	3544.7	3237.2	2982.9	2992.8	3275.6	3400.9	3813.9	4151.2
32.5°	4303.8	4298.8	4183.5	3968.9	3557.1	3182.6	3061.0	3273.1	3390.9	3776.7	4080.5
35°	4701.9	4701.9	4631.2	4450.2	3987.5	3482.7	3203.7	3319.0	3409.6	3756.8	4019.8
37.5°	5289.8	5266.3	5134.8	4947.5	4529.5	3872.2	3434.4	3415.8	3481.5	3790.3	3999.9
40°	6200.2	6132.0	5803.3	5488.3	5121.2	4370.8	3771.7	3603.0	3642.7	3904.4	4047.1
42.5°	7152.7	7044.8	6609.5	6105.9	5732.6	4986.0	4214.5	3906.9	3905.7	4125.2	4197.1
45°	7970.1	7914.3	7443.0	6804.2	6430.9	5678.0	4773.9	4358.4	4313.7	4467.5	4486.1
47.5°	8445.1	8407.9	8123.9	7543.4	7259.4	6495.4	5483.3	4984.7	4900.4	4992.2	4963.6
50°	8313.7	8349.6	8267.8	7971.3	8149.9	7643.9	6387.5	5843.0	5683.0	5774.8	5705.3
52.5°	7621.6	7718.3	7791.5	7848.5	8662.2	9180.6	7523.6	6914.6	6781.9	6765.8	6698.8
55°	6375.1	6528.9	6759.6	7178.8	8524.5	10414.7	9508.1	8210.7	8017.2	7915.5	7941.6
57.5°	4338.5	4571.7	5069.1	5866.6	7808.9	10940.6	12442.6	9885.1	9557.7	9195.5	9279.8
60°	2390.0	2584.8	3176.4	3980.1	6175.4	10862.4	15043.5	12606.3	11575.6	10615.6	10789.3
62.5°	1546.6	1588.8	2029.1	2718.7	3790.3	9589.9	16488.4	17154.4	14970.3	12488.5	12732.8
65°	1242.8	1272.5	1488.3	2192.8	2640.6	6169.2	16552.9	21872.5	20432.5	15033.5	15041.0
67.5°	1214.2	1227.9	1353.2	1844.3	2476.9	3358.7	14308.0	23732.9	24066.6	18037.5	16585.1
68°	1231.6	1247.7	1374.2	1787.3	2475.6	3095.8	13224.0	23704.4	24276.2	18539.8	16585.1
70°	1086.5	1106.3	1401.5	1849.3	2370.2	2661.7	9055.3	22445.5	23365.8	19694.5	15736.8
72.5°	568.1	551.9	693.3	1459.8	2667.9	2773.3	4783.8	18751.9	19826.0	18239.7	13596.0
75°	442.8	403.1	388.2	576.7	2346.6	2876.2	2778.2	13328.1	14139.3	13148.3	9087.6
77.5°	416.7	368.4	339.8	341.1	1033.2	2992.8	2247.4	7843.6	7843.6	6272.1	2899.8
80°	334.9	290.2	271.6	310.1	498.6	2758.4	2345.4	3574.5	3048.6	1621.1	798.7
82.5°	220.8	197.2	198.4	251.8	378.3	1841.8	2716.2	1764.9	1325.9	718.1	470.1
85°	140.2	120.3	134.0	176.1	282.8	821.1	2688.9	1226.6	878.1	403.1	234.4
87.5°	70.7	54.6	67.0	91.8	172.4	235.7	2213.9	1095.2	651.2	167.4	127.7
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°	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4	4131.4
2.5°	4111.6	4084.3	4070.6	4048.3	4021.0	3993.7	3975.1	3966.4	3961.5	3964.0	3962.7
5°	4141.3	4105.4	4047.1	3964.0	3878.4	3787.8	3718.4	3665.1	3631.6	3621.6	3619.2
7.5°	4163.6	4111.6	4002.4	3851.1	3704.7	3546.0	3410.8	3302.9	3229.7	3196.2	3195.0
10°	4159.9	4093.0	3920.6	3697.3	3482.7	3249.6	3037.5	2856.4	2724.9	2661.7	2659.2
12.5°	4163.6	4071.9	3820.1	3517.5	3209.9	2876.2	2561.2	2279.7	2083.7	1990.7	1986.9
15°	4178.5	4049.5	3717.1	3316.5	2891.1	2419.8	1969.6	1616.1	1437.5	1376.7	1376.7
17.5°	4177.3	4012.3	3598.1	3083.4	2512.8	1881.5	1344.5	1126.2	1108.8	1164.6	1173.3
20°	4152.5	3952.8	3444.3	2806.8	2068.8	1302.3	911.6	880.6	1019.5	1173.3	1190.7
22.5°	4114.0	3875.9	3266.9	2485.5	1551.6	848.4	703.2	750.4	938.9	1129.9	1157.2
25°	4060.7	3782.9	3063.5	2112.2	1031.9	610.2	586.7	645.0	777.7	905.4	925.3
27.5°	3982.6	3665.1	2841.5	1707.9	658.6	502.3	511.0	551.9	609.0	663.6	674.7
30°	3884.6	3527.4	2599.6	1260.1	499.8	449.0	463.9	488.7	513.5	548.2	555.6
32.5°	3785.4	3387.2	2347.9	865.7	436.6	420.5	435.3	449.0	470.1	493.6	498.6
35°	3696.1	3257.0	2088.6	604.0	409.3	401.9	409.3	418.0	439.1	462.6	465.1
37.5°	3631.6	3150.3	1818.3	477.5	393.2	385.7	389.5	393.2	418.0	452.7	456.4
40°	3622.9	3079.6	1544.2	429.1	380.8	370.8	368.4	370.8	403.1	442.8	446.5
42.5°	3707.2	3083.4	1276.3	409.3	370.8	359.7	349.8	354.7	383.2	414.3	416.7
45°	3906.9	3170.2	1044.3	400.6	362.2	353.5	338.6	341.1	354.7	370.8	373.3
47.5°	4259.2	3359.9	867.0	395.7	354.7	347.3	328.7	321.2	322.5	331.2	331.2
50°	4822.2	3677.5	759.1	390.7	348.5	334.9	313.8	298.9	295.2	300.1	301.4
52.5°	5661.9	4221.9	707.0	380.8	337.4	318.8	295.2	280.3	274.1	279.1	279.1
55°	6796.8	5091.4	682.2	367.1	323.7	298.9	277.8	265.4	260.5	264.2	264.2
57.5°	8090.4	6221.3	724.3	348.5	306.4	277.8	262.9	254.3	250.5	254.3	255.5
60°	9627.1	7699.7	1014.6	325.0	287.7	259.2	250.5	245.6	243.1	246.8	246.8
62.5°	11669.9	9666.8	1570.2	306.4	267.9	241.9	239.4	236.9	234.4	238.1	238.1
65°	13875.1	11456.5	1616.1	295.2	250.5	227.0	228.2	228.2	225.7	229.5	229.5
67.5°	14577.1	11301.5	902.9	281.5	229.5	212.1	217.1	217.1	215.8	219.5	218.3
68°	14428.3	11055.9	786.3	277.8	225.7	208.4	213.3	214.6	213.3	217.1	215.8
70°	13319.5	9706.5	517.2	256.7	209.6	196.0	203.4	204.6	203.4	208.4	207.1
72.5°	10995.2	7280.5	382.0	224.5	189.8	179.8	187.3	188.5	189.8	194.7	193.5
75°	6982.8	4021.0	301.4	191.0	169.9	161.2	168.7	172.4	174.9	182.3	178.6
77.5°	1912.5	1220.4	244.3	162.5	146.4	142.6	147.6	152.6	155.0	163.7	157.5
80°	669.8	539.5	203.4	137.7	121.5	120.3	125.3	130.2	132.7	140.2	132.7
82.5°	406.8	352.2	162.5	107.9	95.5	94.3	100.5	105.4	107.9	107.9	102.9
85°	212.1	186.0	119.1	75.7	65.7	62.0	73.2	79.4	80.6	79.4	75.7
87.5°	119.1	105.4	63.3	36.0	29.8	31.0	38.4	47.1	50.9	49.6	47.1
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)