

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: P196432

Luminaire Tested: **NAV-AF-04-D-UNV-5NQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196432  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-04-D-UNV-5NQ-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24256.7 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

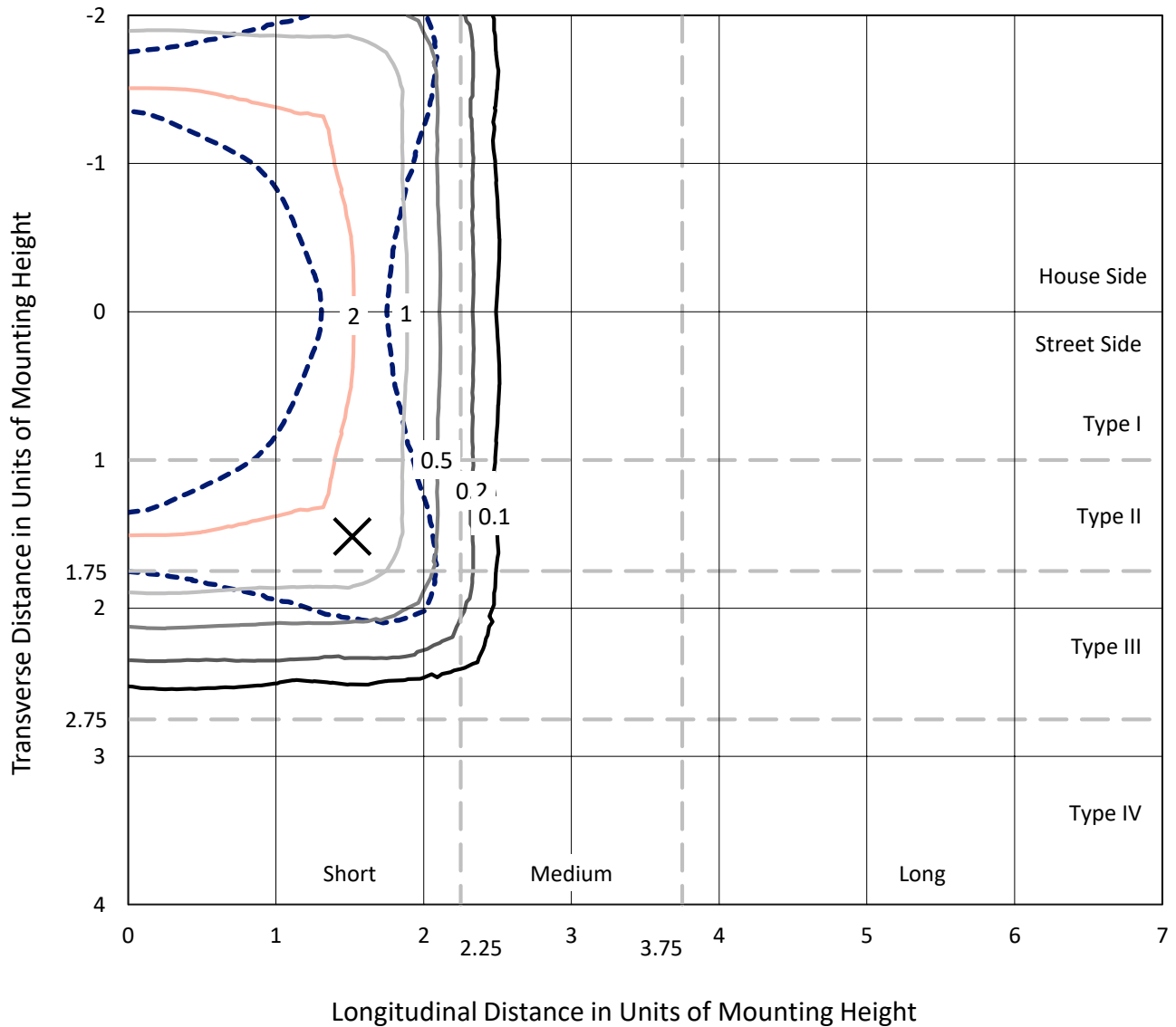
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196432  
 CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

### Iso-Footcandle Lines of Horizontal Illumination

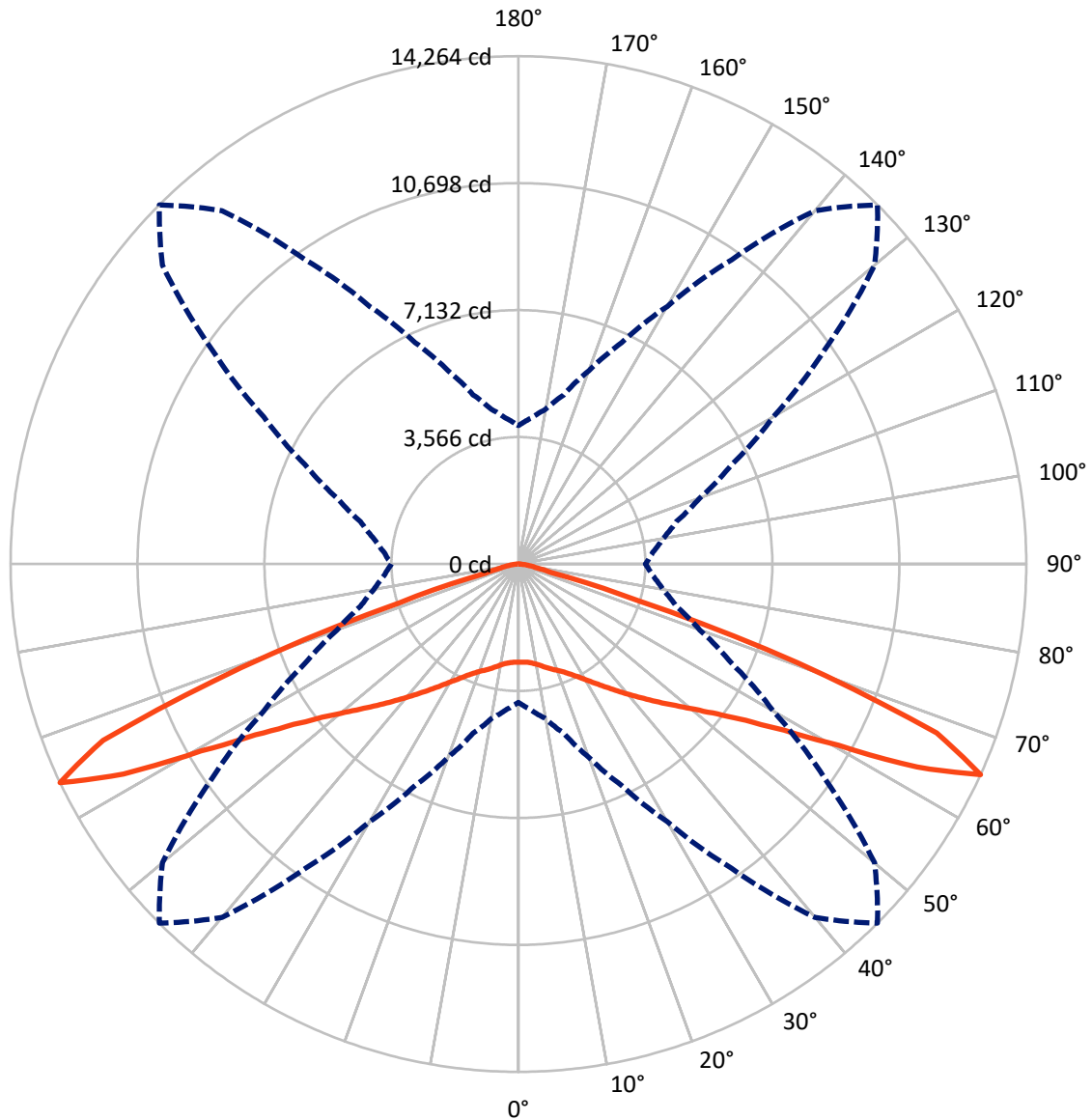
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P196432  
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P196432

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12128.3	0.0	12128.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12128.3	0.0	12128.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24256.7	0.0	24256.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.7	1.1
10°-20°	861.2	3.6
20°-30°	1606.5	6.6
30°-40°	2708.8	11.2
40°-50°	4399.8	18.1
50°-60°	6893.8	28.4
60°-70°	6507.4	26.8
70°-80°	877.0	3.6
80°-90°	133.6	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°	24256.7	100.0
0°-180°	24256.7	100.0

**Coefficient of Utilization**



REPORT NUMBER: P196432

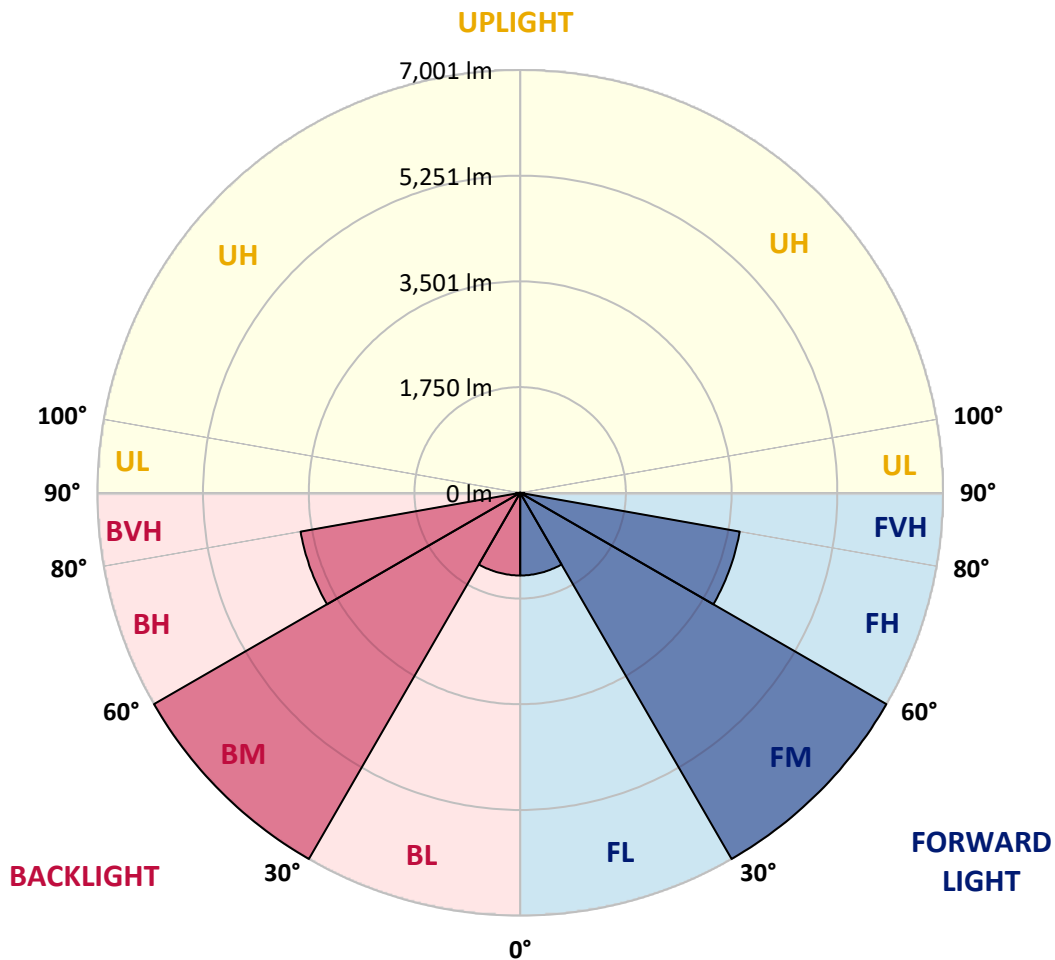
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1368.2	5.6			
FM	(30°-60°)	7001.2	28.9			
FH	(60°-80°)	3692.2	15.2			G2/5000
FVH	(80°-90°)	66.8	0.3			G1/100
BL	(0°-30°)	1368.2	5.6	B3/2500		
BM	(30°-60°)	7001.2	28.9	B4/8500		
BH	(60°-80°)	3692.2	15.2	B4/5000		G2/5000
BVH	(80°-90°)	66.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short



REPORT NUMBER: P196432

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2
2.5°	2781.8	2781.8	2786.3	2784.8	2778.8	2774.3	2769.7	2763.7	2760.7	2757.7	2756.2
5°	2796.9	2796.9	2801.5	2800.0	2795.4	2789.4	2786.3	2781.8	2777.3	2774.3	2775.8
7.5°	2834.7	2836.3	2837.8	2836.3	2831.7	2827.2	2821.1	2819.7	2813.5	2809.0	2812.0
10°	2892.1	2892.1	2893.6	2895.2	2892.1	2881.6	2881.6	2878.6	2872.5	2866.4	2867.9
12.5°	2955.6	2955.6	2957.1	2957.1	2957.1	2951.1	2952.6	2951.1	2943.6	2940.5	2943.6
15°	3017.5	3019.1	3019.1	3022.1	3022.1	3023.6	3029.6	3029.6	3026.6	3025.1	3025.1
17.5°	3090.1	3093.1	3094.7	3099.1	3100.7	3103.7	3109.7	3111.2	3112.8	3108.2	3109.7
20°	3186.8	3188.3	3192.9	3194.3	3200.4	3200.4	3203.4	3202.0	3198.9	3192.9	3192.9
22.5°	3295.6	3298.6	3307.8	3307.8	3315.3	3310.7	3312.2	3307.8	3300.0	3297.1	3294.0
25°	3437.7	3442.1	3449.8	3446.7	3449.8	3442.1	3442.1	3442.1	3437.7	3433.2	3431.7
27.5°	3617.5	3609.9	3617.5	3611.3	3609.9	3603.8	3605.3	3602.3	3597.8	3596.3	3590.3
30°	3804.9	3795.7	3800.2	3801.7	3798.7	3797.3	3791.2	3786.7	3779.2	3780.6	3776.1
32.5°	4019.3	4010.4	4014.8	4016.4	4013.3	4016.4	4014.8	4004.3	3995.2	4001.3	4001.3
35°	4274.8	4268.6	4280.8	4285.3	4276.3	4271.7	4265.7	4253.6	4240.1	4249.1	4250.5
37.5°	4581.5	4573.9	4583.0	4595.1	4578.5	4569.4	4545.1	4527.0	4518.0	4522.6	4528.6
40°	4900.3	4901.8	4927.5	4930.6	4912.4	4901.8	4877.7	4850.4	4824.8	4824.8	4832.3
42.5°	5235.8	5240.3	5270.5	5281.0	5275.0	5255.4	5222.1	5188.9	5155.7	5161.7	5170.8
45°	5615.1	5609.1	5640.7	5666.4	5662.0	5655.8	5624.1	5563.7	5533.4	5531.9	5547.1
47.5°	6013.9	6026.0	6059.3	6103.1	6101.6	6086.5	6045.7	5989.8	5933.9	5938.3	5956.5
50°	6479.4	6496.0	6551.8	6595.7	6601.8	6597.2	6548.9	6483.9	6405.4	6409.8	6434.1
52.5°	6896.5	6920.6	6985.6	7076.1	7132.1	7157.8	7126.1	7065.7	6985.6	6990.1	7015.7
55°	7274.2	7311.9	7408.7	7532.6	7644.4	7748.6	7795.4	7794.0	7735.0	7748.6	7781.9
57.5°	7511.3	7564.2	7710.9	7910.3	8132.3	8342.5	8523.8	8694.6	8732.3	8803.3	8803.3
60°	7192.5	7316.4	7511.3	7852.9	8289.6	8761.1	9271.7	9768.9	10089.2	10341.6	10205.6
62.5°	6006.4	6189.2	6462.6	6913.1	7593.0	8434.6	9460.6	10616.6	11822.4	12559.8	12018.8
65°	3886.4	4116.2	4413.7	4920.0	5776.7	6860.2	8354.5	10432.3	12955.6	14264.3	13055.4
67.5°	1539.8	1695.3	1876.7	2236.3	2979.8	4043.5	5720.9	8283.5	11440.1	12674.6	11319.3
70°	735.9	761.5	796.3	873.4	1059.3	1429.4	2298.3	4081.4	7015.7	8316.9	6848.1
72.5°	531.9	536.5	553.1	578.7	633.1	708.6	861.3	1248.1	2419.2	3517.7	2422.2
75°	403.5	409.5	418.6	432.1	460.8	497.1	554.6	664.9	828.0	954.9	826.5
77.5°	306.7	312.8	320.3	333.9	349.1	374.8	395.8	439.7	509.2	536.5	533.4
80°	223.7	234.3	246.3	258.4	269.0	281.1	282.6	303.7	343.0	368.6	361.1
82.5°	142.0	151.1	182.8	196.4	198.0	200.9	199.5	200.9	222.2	240.3	234.3
85°	90.6	96.7	113.3	128.5	125.4	131.4	131.4	128.5	119.4	102.7	122.4
87.5°	45.4	46.9	54.4	68.0	65.0	57.5	55.9	55.9	40.8	34.8	37.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196432

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2	2759.2
2.5°	2751.5	2754.7	2750.0	2750.0	2748.6	2751.5	2747.1	2747.1
5°	2772.8	2777.3	2775.8	2775.8	2778.8	2781.8	2780.3	2778.8
7.5°	2810.5	2813.5	2816.6	2818.2	2821.1	2819.7	2822.6	2821.1
10°	2867.9	2864.9	2869.4	2864.9	2866.4	2863.4	2864.9	2864.9
12.5°	2940.5	2935.9	2932.9	2929.9	2929.9	2923.9	2923.9	2925.4
15°	3023.6	3016.0	3010.0	3007.0	3004.0	3004.0	2999.3	3002.5
17.5°	3105.1	3097.6	3087.0	3087.0	3082.5	3079.5	3076.5	3084.1
20°	3191.4	3183.9	3177.7	3176.1	3167.1	3164.1	3165.7	3174.7
22.5°	3291.0	3286.5	3286.5	3283.5	3277.4	3273.0	3273.0	3283.5
25°	3425.5	3416.4	3417.9	3419.5	3416.4	3416.4	3413.5	3421.0
27.5°	3590.3	3582.7	3587.2	3590.3	3587.2	3591.8	3587.2	3593.2
30°	3783.6	3779.2	3783.6	3788.2	3780.6	3780.6	3777.6	3782.1
32.5°	4014.8	4008.8	4011.8	4011.8	4001.3	3992.3	3980.1	3989.2
35°	4268.6	4261.1	4267.2	4271.7	4259.6	4250.5	4232.4	4240.1
37.5°	4548.3	4551.3	4558.9	4578.5	4575.4	4560.4	4546.8	4552.8
40°	4861.1	4876.1	4909.3	4923.0	4920.0	4904.8	4886.7	4889.8
42.5°	5214.6	5234.3	5269.0	5291.7	5281.0	5260.0	5237.3	5246.3
45°	5600.0	5630.1	5675.5	5698.2	5684.5	5662.0	5630.1	5646.7
47.5°	6007.9	6068.4	6128.8	6159.1	6154.5	6122.8	6081.9	6086.5
50°	6496.0	6576.1	6653.2	6683.4	6660.7	6612.4	6554.9	6553.4
52.5°	7103.4	7189.6	7252.9	7245.4	7189.6	7114.0	7049.0	7046.0
55°	7862.0	7890.7	7881.6	7816.6	7718.4	7600.5	7517.5	7503.8
57.5°	8779.2	8682.5	8540.5	8344.0	8123.3	7899.8	7748.6	7692.7
60°	9900.3	9463.7	8956.0	8421.0	7933.0	7567.3	7336.1	7195.6
62.5°	10826.6	9562.0	8427.0	7497.8	6737.7	6285.9	5970.2	5775.2
65°	10509.3	8260.9	6616.8	5418.6	4589.0	4122.2	3788.2	3566.1
67.5°	8118.8	5519.9	3841.1	2662.4	2018.8	1709.1	1492.9	1352.4
70°	4093.4	2117.0	1282.9	905.1	773.7	719.3	683.0	661.8
72.5°	1201.3	802.4	666.4	589.4	542.5	509.2	488.1	477.5
75°	664.9	542.5	479.0	435.2	405.0	382.3	368.6	359.7
77.5°	457.8	394.4	362.6	333.9	309.8	293.2	282.6	273.4
80°	320.3	288.7	275.0	259.9	241.8	228.2	213.0	207.0
82.5°	213.0	199.5	196.4	184.3	173.7	158.7	131.4	122.4
85°	125.4	123.9	123.9	119.4	111.8	98.3	78.5	78.5
87.5°	43.8	45.4	46.9	49.8	48.4	40.8	33.3	31.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)