

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: P270641

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
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-5MQ-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33329.2 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

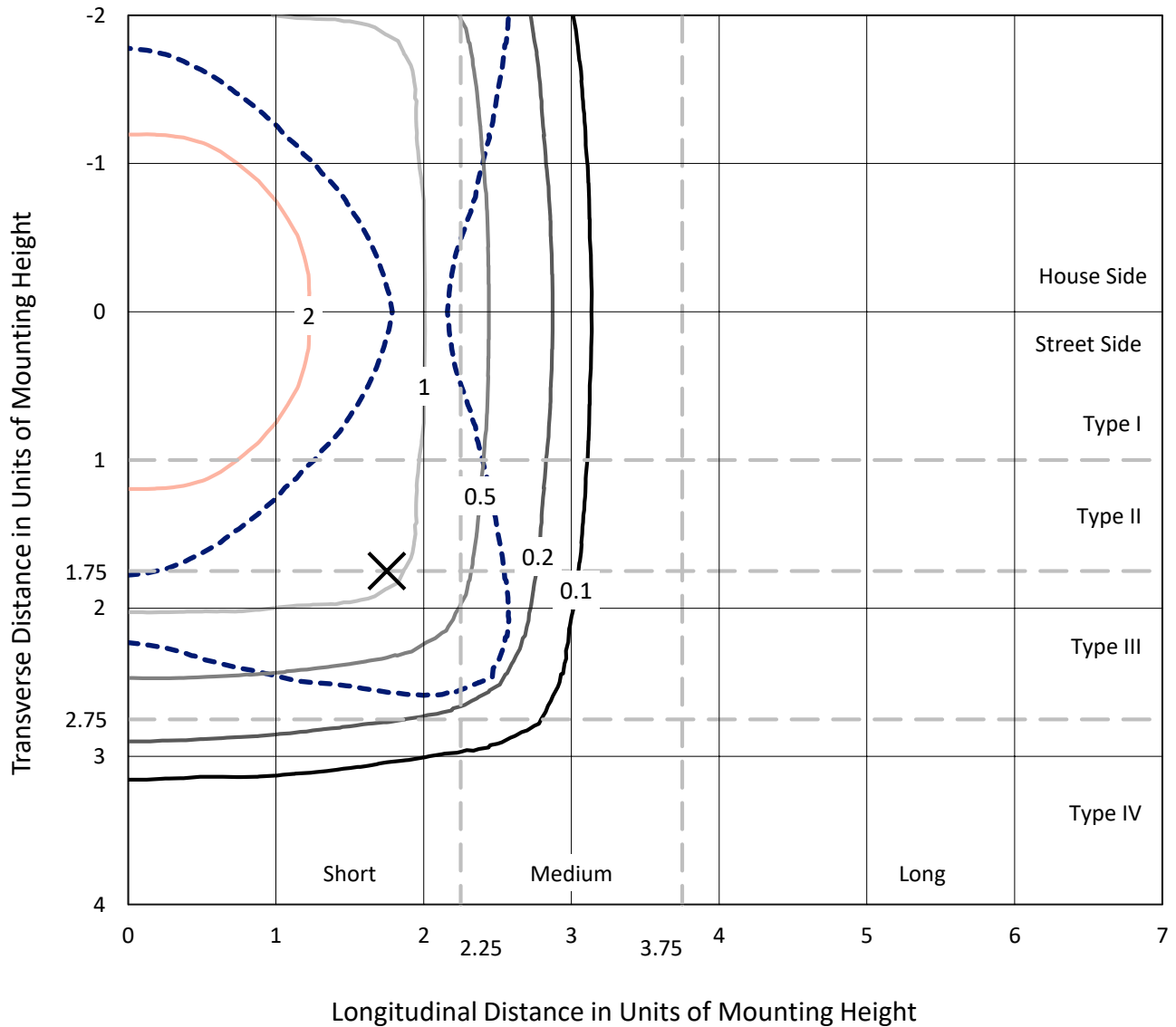
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

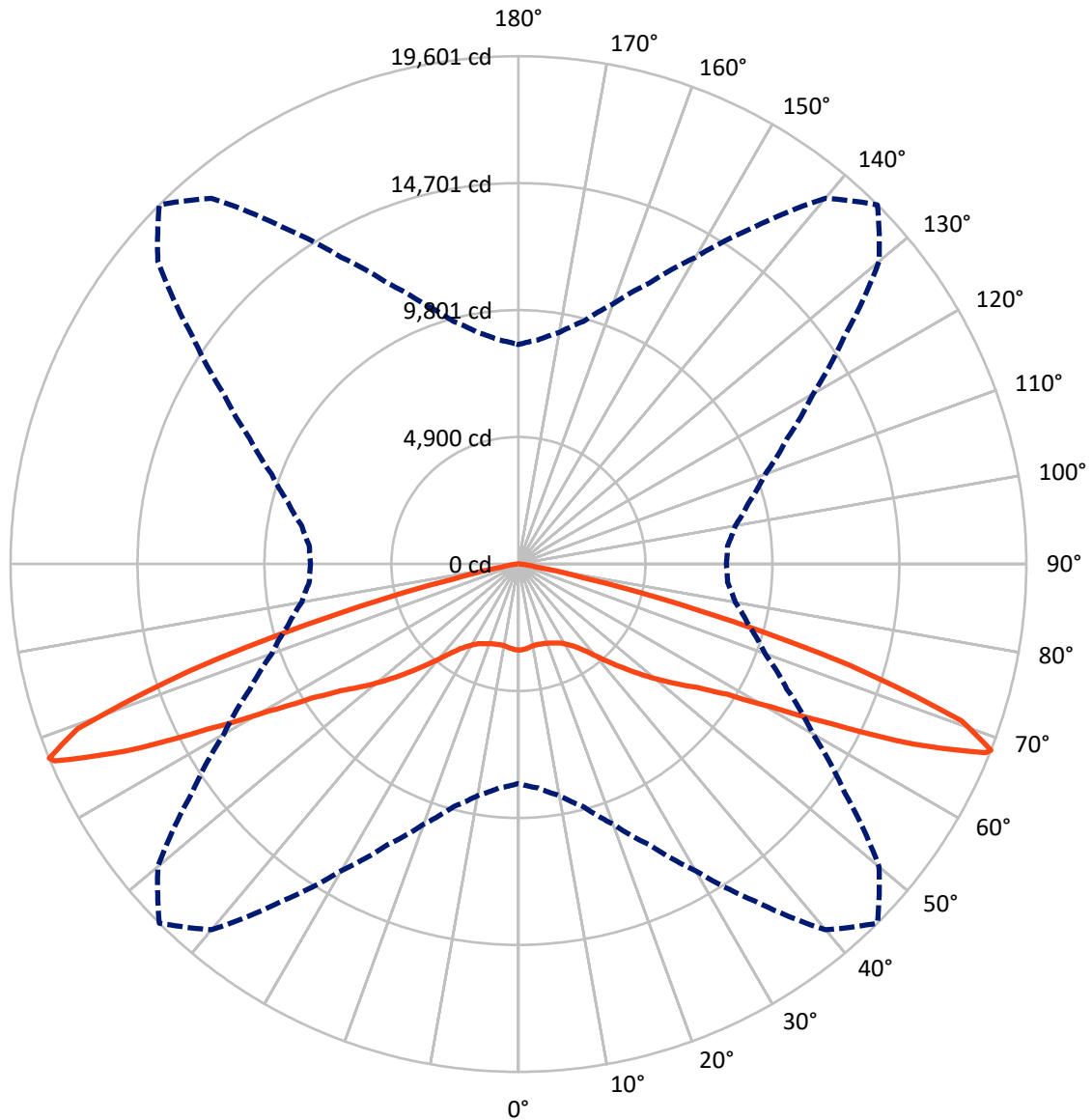
✕ Max cd  
- - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.7 fc  
Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16664.6	0.0	16664.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	16664.6	0.0	16664.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	33329.2	0.0	33329.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	311.1	0.9
10°-20°	902.3	2.7
20°-30°	1533.9	4.6
30°-40°	2510.2	7.5
40°-50°	4486.1	13.5
50°-60°	7576.3	22.7
60°-70°	11748.1	35.2
70°-80°	4039.2	12.1
80°-90°	222.0	0.7
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°	33329.2	100.0
0°-180°	33329.2	100.0



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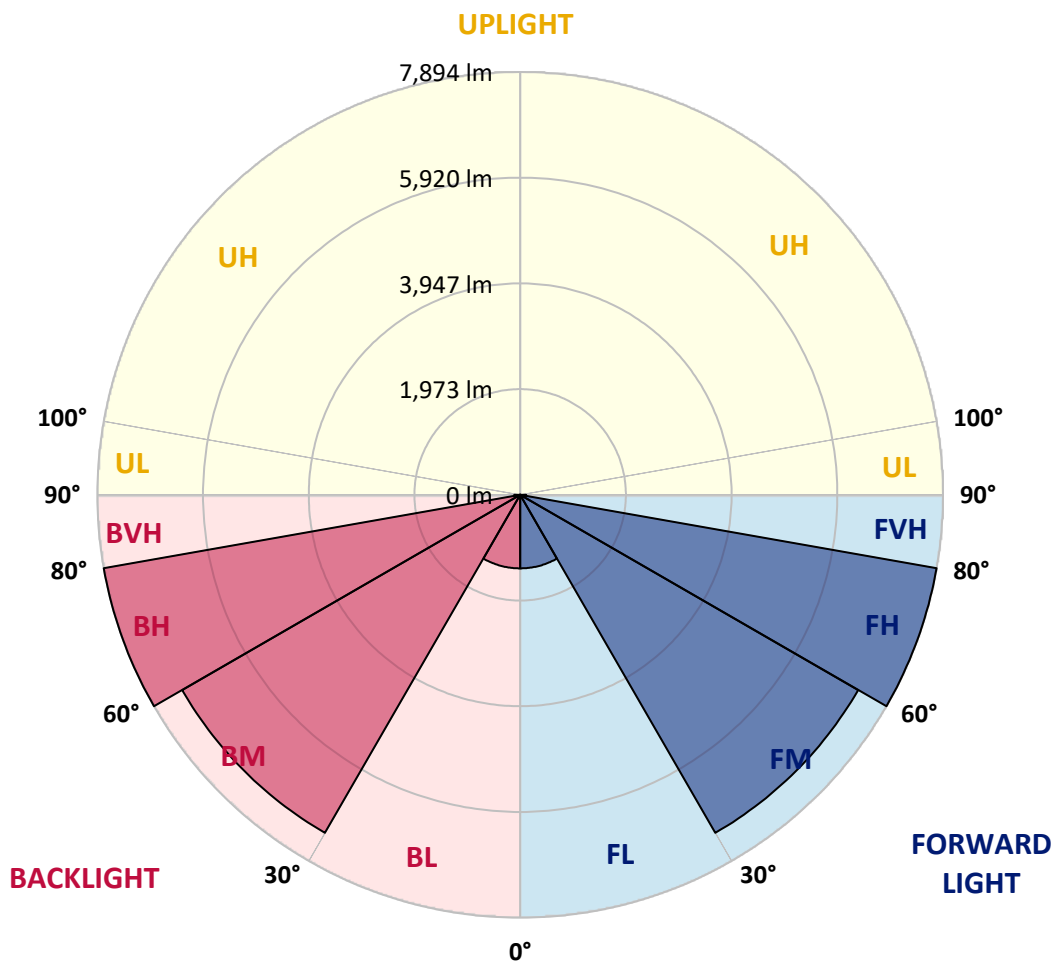
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1373.6	4.1			
FM	(30°-60°)	7286.3	21.9			
FH	(60°-80°)	7893.7	23.7			G4/12000
FVH	(80°-90°)	111.0	0.3			G2/225
BL	(0°-30°)	1373.6	4.1	B3/2500		
BM	(30°-60°)	7286.3	21.9	B4/8500		
BH	(60°-80°)	7893.7	23.7	B5		G4/12000
BVH	(80°-90°)	111.0	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6
2.5°	3339.0	3339.0	3343.0	3340.9	3334.9	3328.8	3322.7	3316.5	3312.4	3308.4	3304.2
5°	3304.2	3304.2	3310.4	3306.3	3302.2	3296.2	3292.0	3285.9	3281.8	3277.7	3279.8
7.5°	3259.4	3263.5	3267.6	3265.5	3257.3	3255.3	3249.2	3247.2	3243.1	3237.0	3239.0
10°	3220.7	3222.6	3226.7	3224.6	3222.6	3216.6	3214.4	3212.3	3210.5	3202.2	3200.2
12.5°	3181.8	3185.8	3190.1	3191.9	3190.1	3191.9	3194.1	3196.1	3194.1	3190.1	3190.1
15°	3151.3	3155.2	3161.4	3167.6	3169.6	3181.8	3190.1	3198.1	3204.3	3206.3	3200.2
17.5°	3134.8	3141.1	3149.2	3161.4	3171.6	3185.8	3200.2	3212.3	3222.6	3224.6	3218.5
20°	3132.7	3138.9	3151.3	3165.4	3183.9	3202.2	3224.6	3243.1	3253.2	3259.4	3253.2
22.5°	3147.1	3155.2	3171.6	3190.1	3212.3	3237.0	3265.5	3285.9	3306.3	3314.4	3308.4
25°	3187.9	3196.1	3214.4	3237.0	3261.3	3292.0	3320.7	3347.2	3367.6	3377.7	3369.6
27.5°	3273.7	3275.7	3296.2	3320.7	3349.2	3375.7	3412.4	3424.7	3441.0	3451.2	3441.0
30°	3394.1	3398.2	3416.6	3455.3	3481.8	3516.5	3536.9	3549.3	3567.6	3577.8	3565.6
32.5°	3577.8	3581.8	3598.3	3634.9	3659.3	3685.9	3710.4	3718.5	3736.9	3749.2	3735.0
35°	3837.0	3845.1	3859.4	3883.9	3904.4	3924.8	3943.1	3936.9	3949.2	3965.6	3951.3
37.5°	4192.1	4190.1	4194.1	4212.5	4233.0	4245.1	4273.7	4259.5	4271.7	4286.0	4277.8
40°	4606.4	4606.4	4604.4	4637.1	4645.1	4657.4	4688.1	4669.7	4686.0	4702.3	4688.1
42.5°	5077.8	5086.1	5096.3	5122.8	5145.2	5149.3	5163.5	5155.5	5175.9	5190.0	5175.9
45°	5620.8	5633.0	5645.2	5706.5	5716.6	5724.8	5735.0	5708.5	5730.9	5743.3	5739.1
47.5°	6184.0	6206.5	6233.0	6296.3	6337.2	6355.5	6363.7	6333.1	6335.0	6353.4	6355.5
50°	6820.8	6845.3	6871.9	6943.3	6982.0	7014.7	7024.8	6990.3	6994.3	7008.5	7012.7
52.5°	7408.6	7437.2	7494.3	7590.1	7645.4	7702.4	7706.6	7663.7	7682.0	7692.2	7684.1
55°	7961.7	7998.4	8074.0	8202.6	8302.6	8414.8	8465.7	8418.8	8418.8	8410.7	8406.6
57.5°	8606.7	8647.4	8725.0	8873.9	9012.8	9174.0	9312.8	9359.7	9445.5	9474.1	9429.1
60°	9578.1	9620.9	9700.5	9896.4	10071.9	10306.8	10535.3	10721.0	11023.1	11186.4	11039.5
62.5°	10466.0	10531.2	10718.9	11061.9	11441.5	11876.2	12380.4	12739.6	13288.4	13562.0	13192.6
65°	10263.9	10396.5	10763.9	11302.7	12086.4	13029.3	14055.9	15041.7	16176.5	16758.2	16007.1
67.5°	8965.9	9078.1	9474.1	10100.6	11078.2	12378.3	13974.3	16015.3	18356.1	19446.0	18117.3
68°	8469.8	8680.1	9074.0	9696.5	10682.3	11959.9	13664.1	15868.3	18423.5	19601.1	18166.3
70°	6494.2	6569.8	6947.3	7506.5	8569.9	9823.1	11543.5	14055.9	16943.8	18156.2	16680.5
72.5°	3085.9	3130.9	3375.7	3926.8	4602.2	5622.9	7141.3	9510.7	12112.9	13374.2	11902.7
75°	1130.6	1140.8	1198.0	1328.7	1581.7	1965.4	2694.0	4167.5	6169.7	7357.6	6194.3
77.5°	610.3	612.3	634.7	667.4	712.3	763.3	873.5	1171.5	1889.9	2571.6	1996.0
80°	383.7	381.7	404.1	430.6	461.3	485.8	496.0	530.7	598.0	700.0	642.8
82.5°	195.9	214.2	265.3	293.8	338.8	346.9	336.8	334.7	355.1	383.7	396.0
85°	108.2	95.8	140.9	187.7	204.1	210.3	212.3	200.1	195.9	191.9	202.1
87.5°	55.1	51.1	61.3	94.0	100.0	81.7	83.7	71.4	49.0	49.0	51.1
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6	3324.6
2.5°	3300.3	3302.2	3298.1	3298.1	3298.1	3300.3	3298.1	3296.2
5°	3273.7	3277.7	3277.7	3279.8	3281.8	3281.8	3281.8	3281.8
7.5°	3234.8	3237.0	3241.1	3241.1	3241.1	3241.1	3241.1	3241.1
10°	3198.1	3194.1	3191.9	3187.9	3187.9	3181.8	3183.9	3185.8
12.5°	3179.8	3171.6	3167.6	3161.4	3157.4	3151.3	3151.3	3153.2
15°	3187.9	3175.7	3163.4	3159.3	3155.2	3151.3	3147.1	3149.2
17.5°	3204.3	3190.1	3175.7	3167.6	3159.3	3153.2	3151.3	3153.2
20°	3239.0	3218.5	3196.1	3181.8	3165.4	3161.4	3155.2	3161.4
22.5°	3285.9	3261.3	3232.8	3206.3	3187.9	3179.8	3171.6	3177.8
25°	3343.0	3316.5	3287.9	3257.3	3237.0	3230.8	3220.7	3220.7
27.5°	3422.6	3400.3	3375.7	3347.2	3326.8	3320.7	3304.2	3304.2
30°	3549.3	3526.7	3504.3	3479.8	3459.5	3453.3	3432.9	3432.9
32.5°	3716.6	3692.0	3677.8	3657.4	3641.0	3630.8	3606.3	3604.3
35°	3941.0	3918.5	3916.5	3902.2	3886.0	3888.0	3863.5	3859.4
37.5°	4263.5	4245.1	4251.3	4239.0	4224.6	4236.9	4222.8	4222.8
40°	4675.8	4669.7	4675.8	4667.7	4669.7	4671.6	4659.5	4663.6
42.5°	5173.8	5157.4	5194.2	5190.0	5183.9	5200.3	5171.7	5151.3
45°	5747.3	5741.2	5777.9	5783.9	5771.8	5782.0	5730.9	5728.9
47.5°	6369.7	6369.7	6402.4	6398.4	6386.1	6388.1	6326.9	6288.1
50°	7018.7	7014.7	7047.4	7039.2	7022.9	7020.9	6957.6	6918.7
52.5°	7694.3	7694.3	7741.2	7718.9	7680.0	7661.6	7584.1	7533.0
55°	8441.4	8431.1	8445.3	8371.9	8296.3	8241.3	8145.4	8106.6
57.5°	9386.3	9267.9	9165.9	9072.0	8965.9	8900.4	8788.3	8747.4
60°	10727.1	10410.7	10274.0	10086.3	9910.8	9823.1	9674.0	9594.4
62.5°	12584.4	12059.8	11688.4	11274.1	10874.2	10592.5	10365.9	10265.9
65°	14731.5	13588.5	12643.6	11755.8	11002.7	10404.7	10071.9	9968.0
67.5°	15547.9	13449.8	11819.1	10545.6	9631.2	8918.9	8521.0	8437.2
68°	15374.3	13131.3	11437.4	10133.2	9214.9	8496.3	8100.5	8025.0
70°	13562.0	11078.2	9290.4	7992.3	7135.1	6451.4	6171.7	6051.3
72.5°	9245.4	7114.7	5457.5	4365.6	3724.7	3292.0	3034.8	2947.1
75°	4255.4	2875.7	1920.5	1434.8	1218.5	1114.3	1034.8	1014.4
77.5°	1240.9	902.1	775.5	718.5	675.5	638.9	612.3	610.3
80°	589.8	553.0	536.7	500.0	461.3	426.5	402.1	406.2
82.5°	396.0	385.7	385.7	349.0	287.7	246.9	204.1	183.7
85°	210.3	218.4	230.7	218.4	189.8	140.9	91.8	100.0
87.5°	71.4	81.7	85.7	83.7	75.5	57.1	42.8	42.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)