

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: P270484

Luminaire Tested: **NAV-AF-04-D-UNV-5MQ-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270484  
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-04-D-UNV-5MQ-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24762.8 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 258  
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

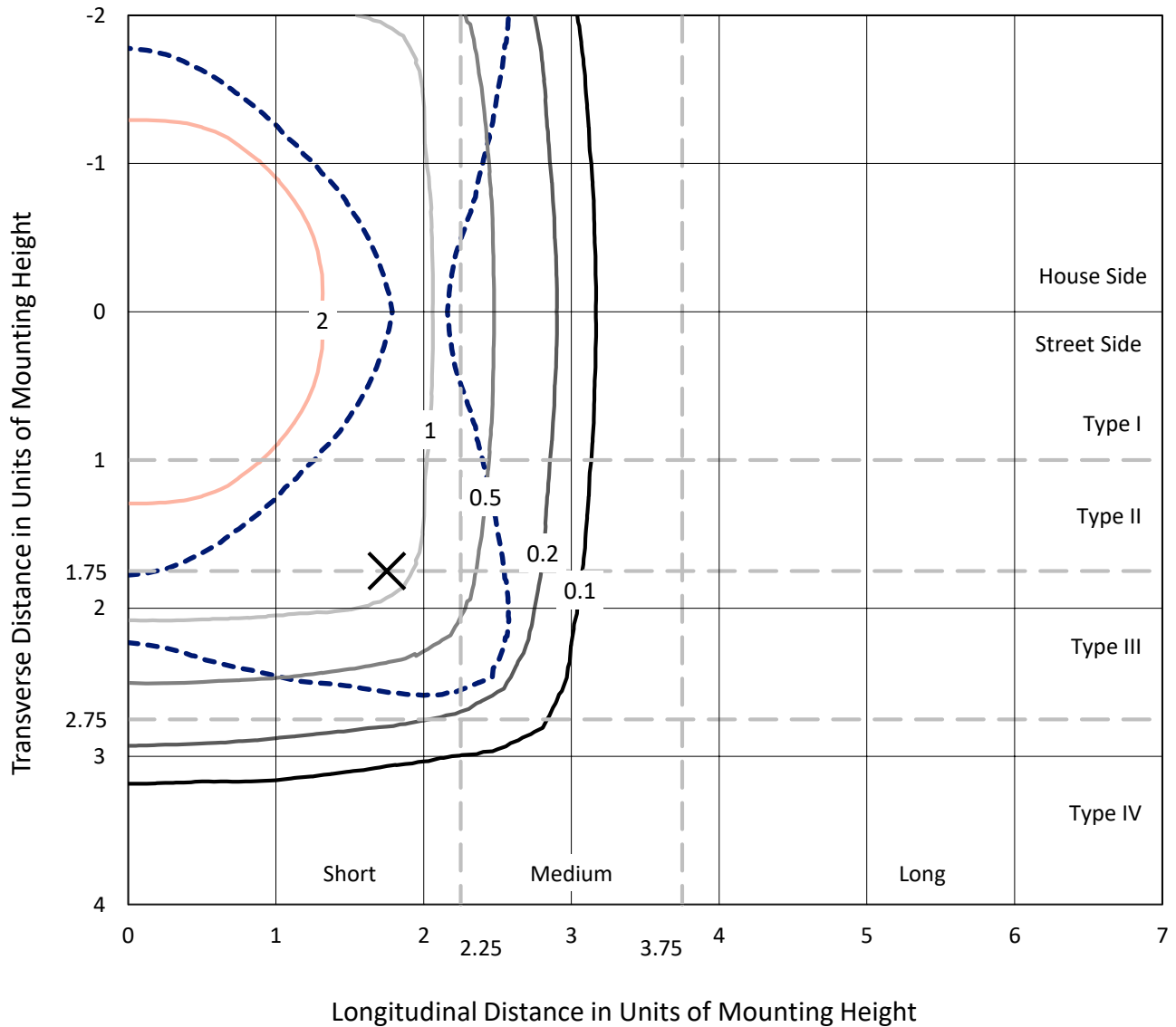


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### Iso-Footcandle Lines of Horizontal Illumination

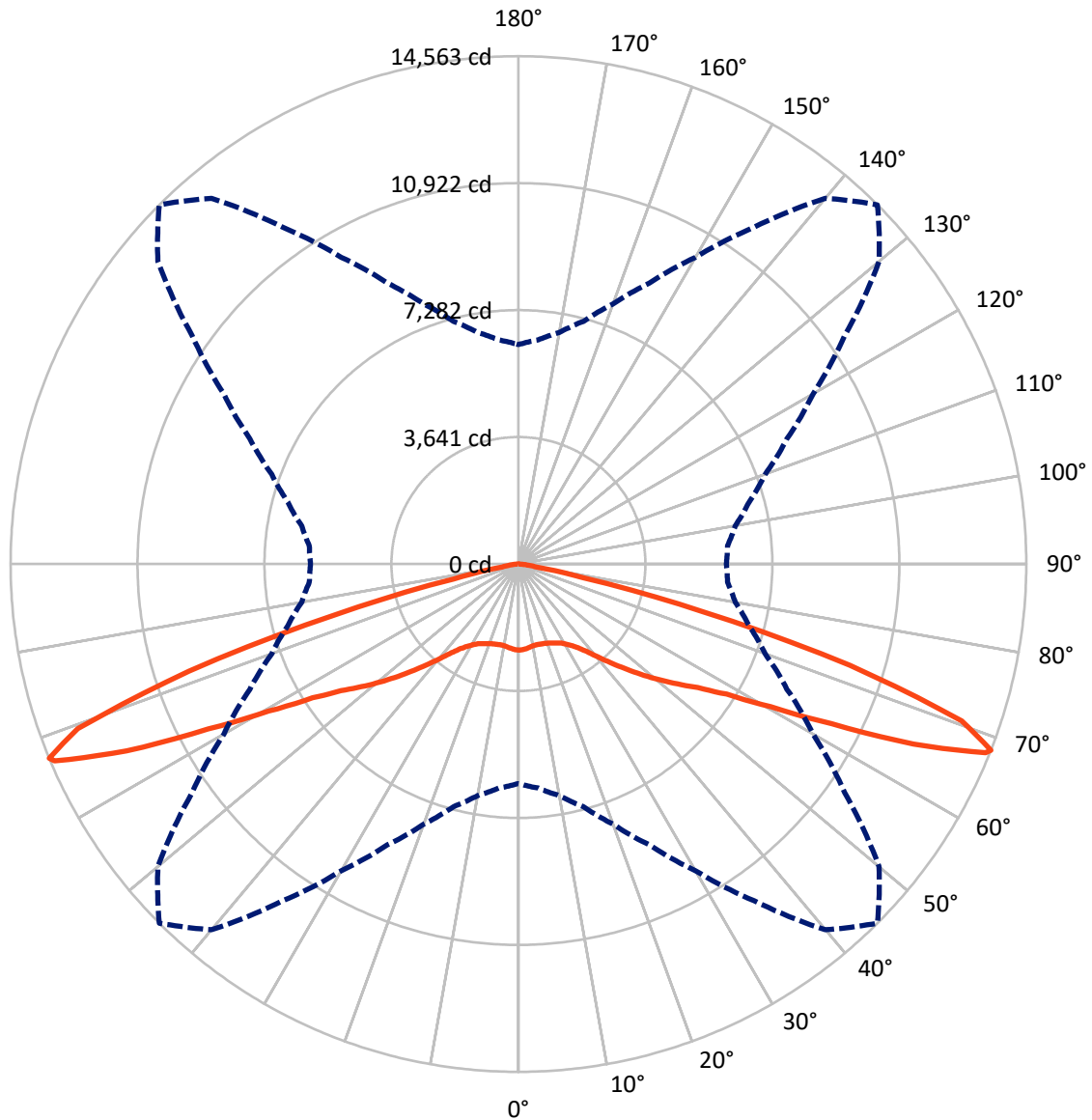
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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	12381.4	0.0	12381.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12381.4	0.0	12381.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24762.8	0.0	24762.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.1	0.9
10°-20°	670.4	2.7
20°-30°	1139.7	4.6
30°-40°	1865.0	7.5
40°-50°	3333.1	13.5
50°-60°	5629.0	22.7
60°-70°	8728.5	35.2
70°-80°	3001.1	12.1
80°-90°	164.9	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°	24762.8	100.0
0°-180°	24762.8	100.0



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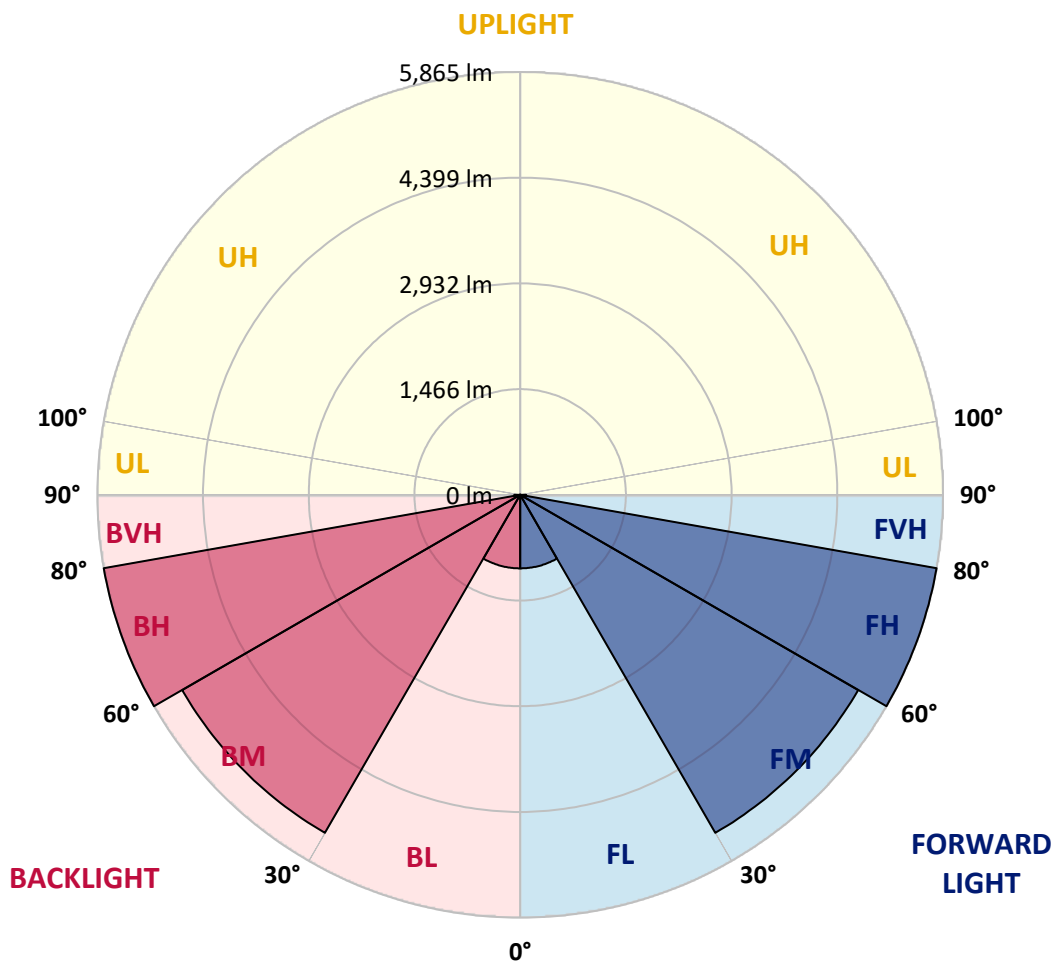
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1020.6	4.1			
FM	(30°-60°)	5413.6	21.9			
FH	(60°-80°)	5864.8	23.7			G3/7500
FVH	(80°-90°)	82.5	0.3			G1/100
BL	(0°-30°)	1020.6	4.1	B3/2500		
BM	(30°-60°)	5413.6	21.9	B4/8500		
BH	(60°-80°)	5864.8	23.7	B5		G3/7500
BVH	(80°-90°)	82.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2
2.5°	2480.8	2480.8	2483.9	2482.2	2477.7	2473.3	2468.6	2464.1	2461.0	2458.0	2455.0
5°	2455.0	2455.0	2459.6	2456.5	2453.5	2448.9	2445.8	2441.4	2438.3	2435.2	2436.8
7.5°	2421.7	2424.6	2427.7	2426.2	2420.2	2418.5	2414.0	2412.6	2409.6	2404.9	2406.5
10°	2392.8	2394.3	2397.3	2395.9	2394.3	2389.9	2388.2	2386.7	2385.2	2379.3	2377.6
12.5°	2364.0	2367.0	2370.1	2371.5	2370.1	2371.5	2373.1	2374.6	2373.1	2370.1	2370.1
15°	2341.3	2344.2	2348.9	2353.4	2354.8	2364.0	2370.1	2376.1	2380.7	2382.2	2377.6
17.5°	2329.1	2333.6	2339.7	2348.9	2356.4	2367.0	2377.6	2386.7	2394.3	2395.9	2391.3
20°	2327.6	2332.2	2341.3	2351.9	2365.5	2379.3	2395.9	2409.6	2417.1	2421.7	2417.1
22.5°	2338.3	2344.2	2356.4	2370.1	2386.7	2404.9	2426.2	2441.4	2456.5	2462.6	2458.0
25°	2368.7	2374.6	2388.2	2404.9	2423.2	2445.8	2467.1	2486.9	2502.0	2509.5	2503.5
27.5°	2432.3	2433.8	2448.9	2467.1	2488.3	2508.1	2535.3	2544.4	2556.5	2564.2	2556.5
30°	2521.7	2524.7	2538.4	2567.1	2586.8	2612.7	2627.8	2637.0	2650.5	2658.2	2649.1
32.5°	2658.2	2661.1	2673.4	2700.7	2718.8	2738.6	2756.8	2762.7	2776.5	2785.6	2775.0
35°	2850.9	2856.8	2867.5	2885.6	2900.7	2916.0	2929.6	2925.2	2934.1	2946.4	2935.8
37.5°	3114.7	3113.0	3116.1	3129.8	3145.0	3154.0	3175.2	3164.6	3173.7	3184.4	3178.4
40°	3422.5	3422.5	3420.9	3445.2	3451.3	3460.4	3483.1	3469.4	3481.7	3493.7	3483.1
42.5°	3772.7	3778.8	3786.4	3806.1	3822.7	3825.8	3836.4	3830.4	3845.6	3856.2	3845.6
45°	4176.1	4185.2	4194.2	4239.8	4247.4	4253.5	4261.0	4241.3	4258.0	4267.0	4264.1
47.5°	4594.7	4611.3	4631.0	4678.1	4708.3	4722.0	4728.0	4705.3	4706.8	4720.5	4722.0
50°	5067.7	5085.9	5105.5	5158.6	5187.5	5211.7	5219.3	5193.6	5196.5	5207.3	5210.2
52.5°	5504.5	5525.7	5568.1	5639.4	5680.3	5722.7	5725.7	5693.9	5707.7	5715.1	5709.1
55°	5915.3	5942.6	5998.7	6094.3	6168.7	6251.9	6289.9	6255.0	6255.0	6249.0	6245.9
57.5°	6394.6	6424.9	6482.4	6593.2	6696.2	6816.1	6919.1	6954.0	7017.7	7038.9	7005.6
60°	7116.4	7148.2	7207.3	7352.8	7483.3	7657.6	7827.6	7965.5	8189.8	8311.2	8202.1
62.5°	7775.9	7824.4	7964.0	8218.8	8500.8	8823.7	9198.3	9465.1	9873.0	10076.3	9801.8
65°	7625.8	7724.3	7997.3	8397.6	8979.9	9680.5	10443.2	11175.6	12018.8	12450.9	11892.9
67.5°	6661.4	6744.8	7038.9	7504.5	8230.8	9196.8	10382.6	11898.9	13638.2	14447.9	13460.8
68°	6292.9	6449.1	6741.8	7204.2	7936.6	8885.9	10152.0	11789.7	13688.3	14563.2	13497.2
70°	4825.1	4881.2	5161.8	5577.1	6367.2	7298.3	8576.6	10443.2	12588.8	13489.6	12393.2
72.5°	2292.7	2326.2	2508.1	2917.4	3419.4	4177.6	5305.7	7066.2	8999.6	9936.7	8843.5
75°	840.0	847.6	890.1	987.1	1175.3	1460.3	2001.7	3096.4	4584.1	5466.5	4602.1
77.5°	453.4	454.9	471.6	495.9	529.2	567.1	649.0	870.4	1404.1	1910.7	1483.0
80°	285.1	283.5	300.3	319.9	342.8	360.8	368.5	394.3	444.3	520.1	477.7
82.5°	145.5	159.2	197.1	218.4	251.7	257.8	250.2	248.7	263.8	285.1	294.1
85°	80.4	71.2	104.7	139.4	151.6	156.1	157.7	148.6	145.5	142.6	150.1
87.5°	41.0	37.9	45.5	69.8	74.3	60.6	62.2	53.1	36.4	36.4	37.9
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°	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2	2470.2
2.5°	2452.0	2453.5	2450.4	2450.4	2450.4	2452.0	2450.4	2448.9
5°	2432.3	2435.2	2435.2	2436.8	2438.3	2438.3	2438.3	2438.3
7.5°	2403.4	2404.9	2407.9	2407.9	2407.9	2407.9	2407.9	2407.9
10°	2376.1	2373.1	2371.5	2368.7	2368.7	2364.0	2365.5	2367.0
12.5°	2362.5	2356.4	2353.4	2348.9	2345.8	2341.3	2341.3	2342.8
15°	2368.7	2359.5	2350.3	2347.4	2344.2	2341.3	2338.3	2339.7
17.5°	2380.7	2370.1	2359.5	2353.4	2347.4	2342.8	2341.3	2342.8
20°	2406.5	2391.3	2374.6	2364.0	2351.9	2348.9	2344.2	2348.9
22.5°	2441.4	2423.2	2401.9	2382.2	2368.7	2362.5	2356.4	2360.9
25°	2483.9	2464.1	2442.9	2420.2	2404.9	2400.5	2392.8	2392.8
27.5°	2542.9	2526.3	2508.1	2486.9	2471.6	2467.1	2455.0	2455.0
30°	2637.0	2620.3	2603.6	2585.4	2570.2	2565.6	2550.6	2550.6
32.5°	2761.3	2743.2	2732.5	2717.4	2705.2	2697.6	2679.5	2677.8
35°	2928.1	2911.4	2909.9	2899.3	2887.2	2888.7	2870.4	2867.5
37.5°	3167.8	3154.0	3158.6	3149.5	3138.9	3148.0	3137.4	3137.4
40°	3473.9	3469.4	3473.9	3467.9	3469.4	3471.1	3461.9	3464.9
42.5°	3843.9	3831.9	3859.2	3856.2	3851.6	3863.7	3842.5	3827.3
45°	4270.2	4265.5	4292.8	4297.4	4288.2	4295.9	4258.0	4256.4
47.5°	4732.6	4732.6	4756.9	4753.8	4744.7	4746.3	4700.7	4671.9
50°	5214.8	5211.7	5236.0	5229.9	5217.9	5216.3	5169.2	5140.6
52.5°	5716.8	5716.8	5751.6	5734.9	5706.0	5692.4	5634.8	5596.9
55°	6271.6	6264.2	6274.8	6220.1	6164.0	6123.0	6051.8	6023.0
57.5°	6973.7	6885.8	6810.1	6740.3	6661.4	6612.9	6529.5	6499.1
60°	7970.0	7734.9	7633.3	7493.9	7363.4	7298.3	7187.6	7128.4
62.5°	9349.9	8960.2	8684.3	8376.4	8079.1	7870.0	7701.6	7627.2
65°	10945.0	10096.1	9393.8	8734.3	8174.8	7730.5	7483.3	7405.9
67.5°	11551.7	9992.8	8781.3	7835.0	7155.7	6626.4	6330.9	6268.6
68°	11422.8	9756.3	8497.7	7528.8	6846.4	6312.6	6018.5	5962.3
70°	10076.3	8230.8	6902.4	5938.1	5301.2	4793.3	4585.5	4496.0
72.5°	6869.1	5286.0	4054.8	3243.5	2767.4	2445.8	2254.8	2189.6
75°	3161.7	2136.6	1426.9	1066.0	905.3	828.0	768.8	753.7
77.5°	921.9	670.2	576.3	533.8	502.0	474.7	454.9	453.4
80°	438.3	411.0	398.8	371.4	342.8	316.9	298.7	301.8
82.5°	294.1	286.6	286.6	259.3	213.7	183.4	151.6	136.5
85°	156.1	162.2	171.3	162.2	141.0	104.7	68.2	74.3
87.5°	53.1	60.6	63.7	62.2	56.1	42.5	31.8	31.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)