

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: P197003

Luminaire Tested: **NAV-AF-05-D-UNV-RW-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197003  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-05-D-UNV-RW-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20258 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

Input Watts (W): 210  
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

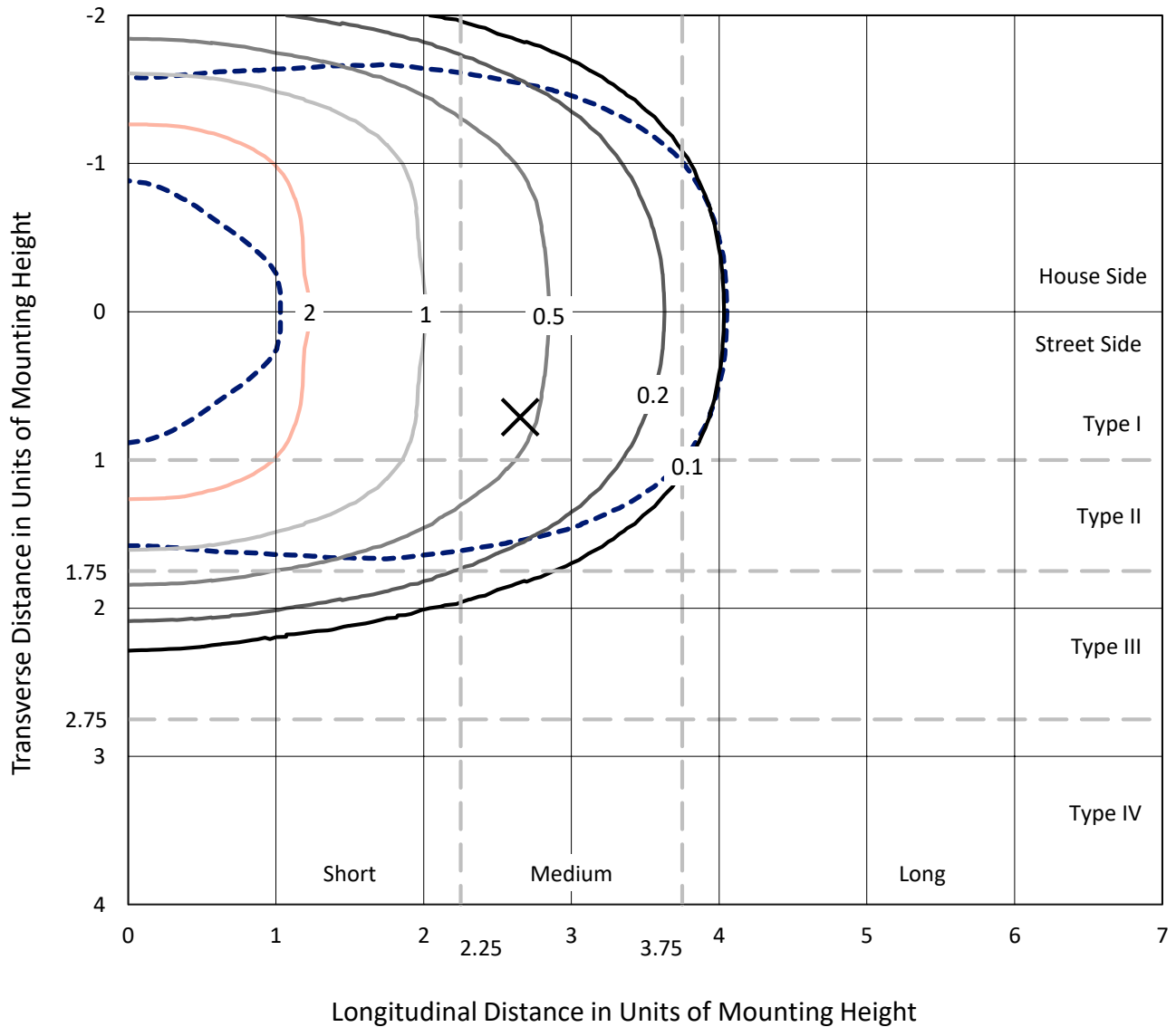


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### Iso-Footcandle Lines of Horizontal Illumination

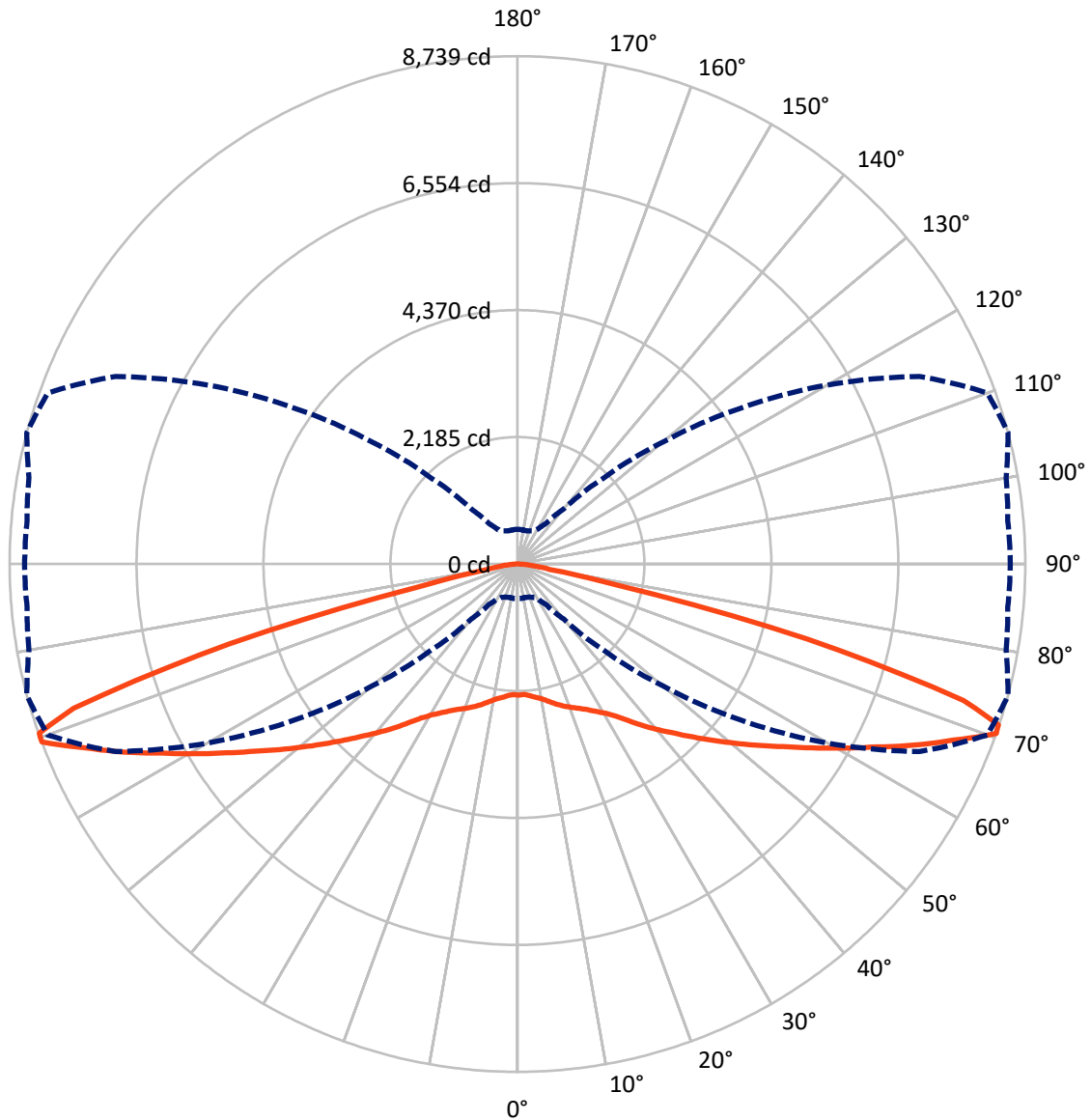
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10129.0	0.0	10129.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10129.0	0.0	10129.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20258.0	0.0	20258.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.4	1.1
10°-20°	671.1	3.3
20°-30°	1260.4	6.2
30°-40°	2220.2	11.0
40°-50°	3679.6	18.2
50°-60°	5118.9	25.3
60°-70°	4832.4	23.9
70°-80°	2063.9	10.2
80°-90°	195.0	1.0
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°	20258.0	100.0
0°-180°	20258.0	100.0

**Coefficient of Utilization**



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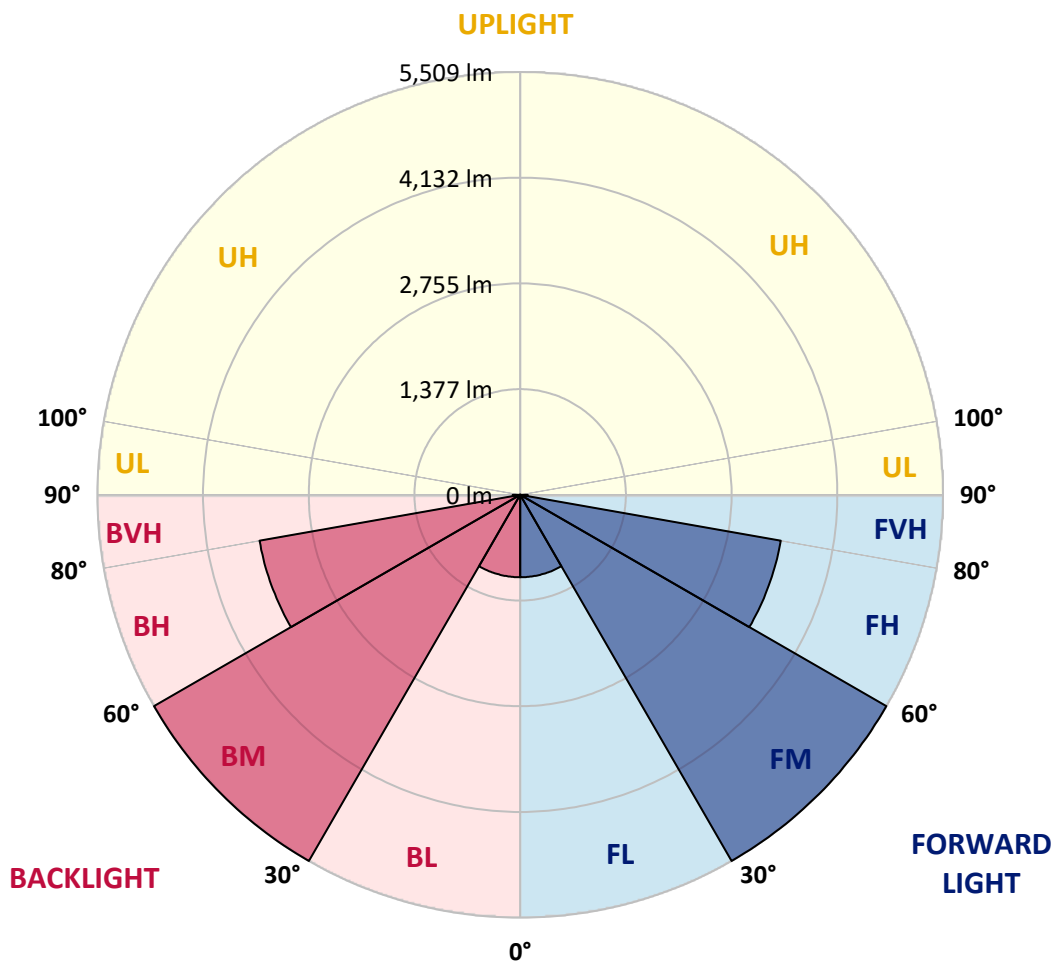
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1073.9	5.3			
FM	(30°-60°)	5509.4	27.2			
FH	(60°-80°)	3448.2	17.0			G2/5000
FVH	(80°-90°)	97.5	0.5			G1/100
BL	(0°-30°)	1073.9	5.3	B3/2500		
BM	(30°-60°)	5509.4	27.2	B4/8500		
BH	(60°-80°)	3448.2	17.0	B4/5000		G4/5000
BVH	(80°-90°)	97.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9
2.5°	2269.9	2268.6	2269.9	2266.1	2267.4	2266.1	2266.1	2261.0	2261.0	2258.5	2254.7
5°	2244.5	2247.0	2247.0	2247.0	2250.8	2250.8	2255.9	2257.2	2261.0	2264.8	2267.4
7.5°	2202.6	2203.9	2207.7	2210.2	2217.8	2228.0	2238.2	2249.6	2259.7	2272.4	2286.4
10°	2167.1	2169.6	2175.9	2182.3	2196.3	2209.0	2226.7	2244.5	2262.3	2283.9	2305.4
12.5°	2148.0	2151.8	2162.0	2172.1	2193.7	2210.2	2234.3	2262.3	2286.4	2306.7	2330.8
15°	2150.6	2151.8	2165.8	2179.8	2210.2	2233.1	2267.4	2300.4	2329.6	2352.4	2380.3
17.5°	2187.4	2189.9	2203.9	2224.2	2253.4	2282.6	2319.4	2353.7	2393.0	2419.7	2452.7
20°	2259.7	2263.5	2278.8	2300.4	2332.1	2362.6	2400.7	2436.2	2476.8	2508.6	2541.6
22.5°	2353.7	2360.0	2376.5	2403.2	2434.9	2471.7	2511.1	2547.9	2586.0	2617.7	2645.7
25°	2479.4	2487.0	2504.8	2531.4	2563.1	2602.5	2643.1	2681.2	2720.6	2744.7	2767.5
27.5°	2648.2	2660.9	2679.9	2701.5	2729.5	2771.3	2809.4	2841.2	2879.3	2905.9	2921.2
30°	2875.4	2893.2	2908.5	2931.3	2951.6	2996.1	3026.5	3051.9	3081.1	3096.3	3100.2
32.5°	3153.5	3170.0	3185.2	3201.7	3229.6	3270.3	3299.5	3313.4	3328.7	3326.1	3312.2
35°	3467.0	3479.7	3488.6	3517.8	3563.5	3590.2	3611.8	3616.8	3619.4	3592.7	3566.1
37.5°	3797.1	3812.3	3820.0	3865.7	3908.8	3939.3	3949.5	3960.9	3953.3	3908.8	3860.6
40°	4153.8	4170.4	4193.2	4232.6	4283.3	4312.5	4325.2	4324.0	4317.6	4265.6	4186.9
42.5°	4504.2	4524.5	4543.6	4612.1	4654.0	4703.5	4709.9	4708.6	4694.7	4635.0	4543.6
45°	4801.3	4825.4	4864.8	4940.9	5008.2	5067.9	5092.0	5100.9	5086.9	5023.5	4919.4
47.5°	5046.3	5062.8	5112.3	5205.0	5291.3	5378.9	5427.2	5461.4	5460.2	5414.5	5304.0
50°	5213.9	5232.9	5293.9	5398.0	5505.9	5608.7	5703.9	5781.4	5818.2	5785.2	5682.3
52.5°	5262.1	5286.3	5366.2	5490.6	5616.3	5754.7	5896.9	6034.0	6116.5	6136.8	6056.8
55°	5059.0	5085.7	5202.5	5375.1	5582.1	5786.4	6002.3	6197.8	6367.9	6446.6	6414.9
57.5°	4467.4	4486.5	4635.0	4858.4	5154.2	5513.5	5876.6	6234.6	6526.6	6731.0	6766.5
60°	3533.1	3557.2	3719.7	3955.8	4292.2	4746.7	5254.5	5841.0	6413.6	6882.0	7114.4
62.5°	2384.1	2400.7	2556.8	2772.6	3140.8	3578.8	4145.0	4887.6	5703.9	6540.5	7195.6
65°	1251.7	1251.7	1357.1	1508.2	1801.4	2193.7	2773.9	3535.6	4506.8	5551.6	6647.2
67.5°	726.2	724.9	749.0	783.3	876.0	1034.7	1354.6	1914.4	2833.6	4049.7	5296.4
70°	599.2	595.4	591.6	591.6	605.6	629.7	690.6	844.2	1235.2	2088.4	3258.8
71°	572.6	570.0	559.9	556.0	562.4	575.1	601.7	672.8	877.2	1424.4	2433.7
72.5°	540.8	534.5	519.2	512.9	514.2	519.2	526.8	554.8	617.0	809.9	1387.6
75°	492.6	477.3	458.3	449.4	445.6	444.3	444.3	451.9	465.9	488.8	568.7
77.5°	436.7	415.1	394.8	385.9	379.6	375.8	373.2	368.2	365.6	375.8	405.0
80°	369.4	346.6	330.1	325.0	321.2	313.6	303.4	293.3	286.9	292.0	309.8
82.5°	285.6	262.8	265.3	266.6	260.3	247.6	237.4	226.0	214.5	212.0	220.9
85°	227.2	215.8	208.2	224.7	210.7	195.5	181.5	162.5	135.8	111.7	121.9
87.5°	97.8	99.0	142.2	214.5	187.9	151.1	125.7	101.6	64.7	48.2	49.5
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°	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9
2.5°	2253.4	2253.4	2249.6	2247.0	2247.0	2247.0	2244.5	2245.8
5°	2268.6	2271.2	2273.7	2272.4	2276.2	2280.0	2278.8	2277.5
7.5°	2294.0	2301.6	2309.2	2313.1	2318.1	2323.2	2324.5	2320.7
10°	2319.4	2334.6	2346.1	2356.2	2362.6	2367.6	2371.5	2370.2
12.5°	2351.1	2372.7	2393.0	2413.3	2427.3	2434.9	2442.5	2440.0
15°	2403.2	2427.3	2452.7	2479.4	2500.9	2512.4	2523.8	2521.3
17.5°	2474.3	2495.9	2516.2	2542.8	2569.5	2582.2	2594.9	2593.6
20°	2563.1	2579.7	2591.1	2606.3	2631.7	2645.7	2657.1	2653.3
22.5°	2664.7	2669.8	2671.1	2676.1	2696.4	2713.0	2728.2	2732.0
25°	2775.2	2771.3	2763.7	2759.9	2773.9	2791.7	2810.7	2815.8
27.5°	2912.3	2899.6	2880.5	2865.3	2869.1	2892.0	2913.5	2918.6
30°	3084.9	3055.7	3015.1	2985.9	2980.8	3004.9	3027.8	3035.4
32.5°	3281.7	3242.3	3186.5	3142.0	3123.0	3144.6	3164.9	3176.3
35°	3515.3	3472.1	3404.8	3347.7	3317.2	3331.2	3366.8	3379.4
37.5°	3792.0	3732.4	3657.5	3585.1	3534.3	3536.9	3575.0	3590.2
40°	4098.0	4011.7	3916.4	3826.3	3752.7	3747.6	3781.9	3793.3
42.5°	4416.6	4306.2	4194.5	4076.4	3985.0	3968.5	4012.9	4014.2
45°	4759.4	4617.2	4478.8	4341.7	4246.5	4217.3	4260.5	4265.6
47.5°	5125.0	4947.3	4783.5	4635.0	4532.2	4486.5	4528.4	4536.0
50°	5505.9	5321.8	5131.4	4966.3	4845.7	4789.9	4839.4	4844.5
52.5°	5882.9	5709.0	5519.8	5330.7	5184.7	5121.2	5179.6	5197.4
55°	6262.5	6094.9	5917.2	5728.0	5544.0	5488.1	5551.6	5570.6
57.5°	6657.3	6496.1	6334.9	6144.4	5965.4	5880.4	5948.9	5975.6
60°	7092.8	6950.6	6798.2	6606.5	6430.1	6331.1	6389.5	6419.9
62.5°	7520.6	7491.4	7353.0	7153.7	6930.3	6831.3	6880.8	6902.3
65°	7556.1	8029.7	8023.3	7825.3	7513.0	7346.7	7360.6	7370.8
67.5°	6595.1	7681.8	8376.3	8438.5	8090.6	7830.4	7799.9	7806.2
70°	4669.3	6161.0	7634.9	8602.2	8739.3	8537.5	8471.5	8481.6
71°	3741.3	5286.3	6908.7	8209.9	8729.2	8670.8	8634.0	8660.6
72.5°	2388.0	3894.9	5474.1	7030.6	8027.1	8312.8	8354.7	8371.2
75°	867.1	1675.8	2836.1	4063.7	5150.4	5898.2	6309.5	6342.5
77.5°	465.9	600.5	928.0	1386.3	1741.8	1932.2	1955.1	1963.9
80°	342.8	397.4	454.5	519.2	559.9	567.5	553.5	524.3
82.5°	242.5	274.2	297.1	319.9	336.4	322.5	267.9	204.4
85°	140.9	154.9	167.6	179.0	181.5	171.4	113.0	92.7
87.5°	55.9	60.9	59.7	67.3	64.7	59.7	44.4	38.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)