

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: P196403

Luminaire Tested: **NAV-AF-05-D-UNV-5MQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196403
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-05-D-UNV-5MQ-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25023.7 lumens
Efficiency: N/A
Efficacy: 119.2 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 - G3

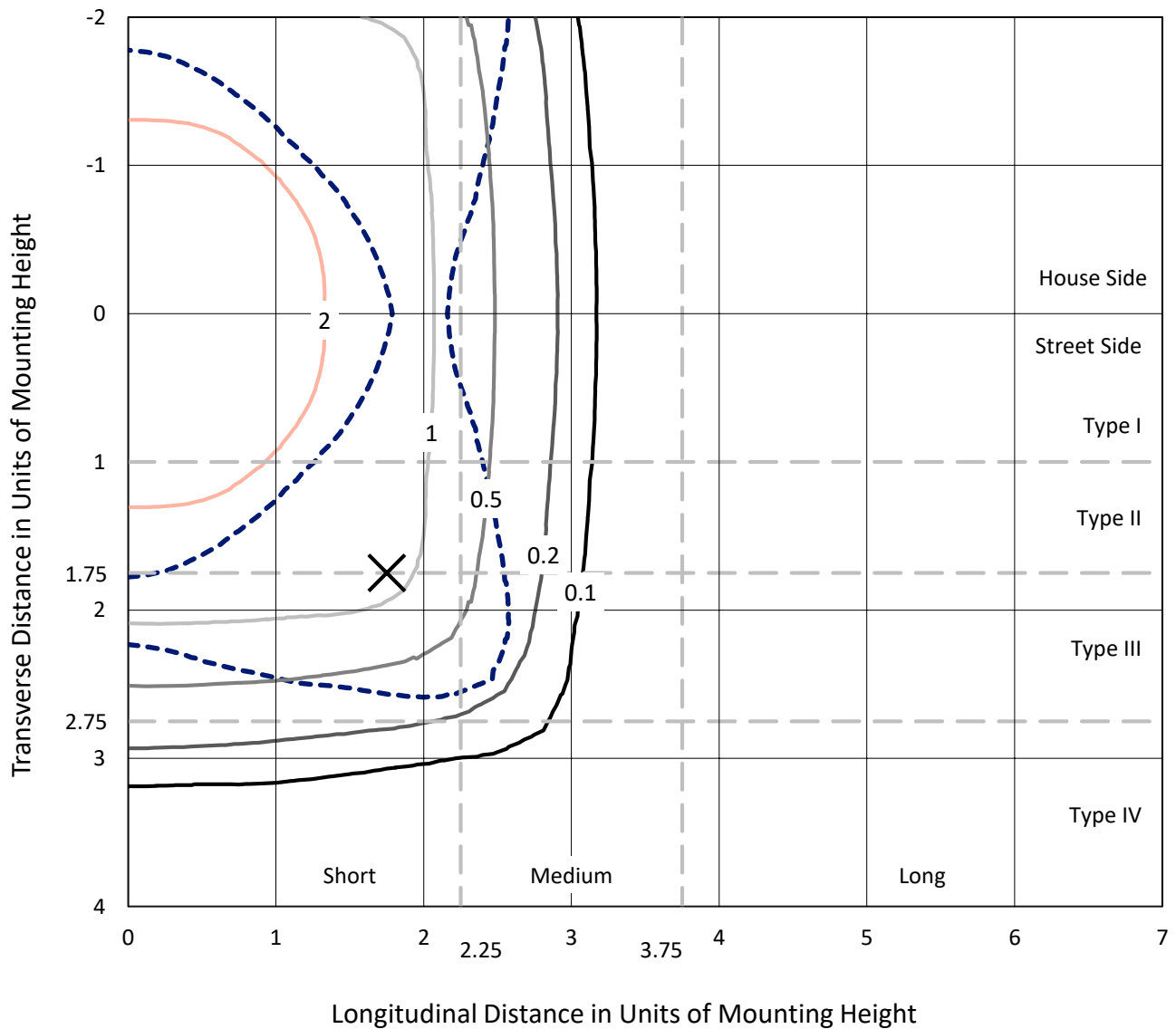
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196403
 CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

Iso-Footcandle Lines of Horizontal Illumination

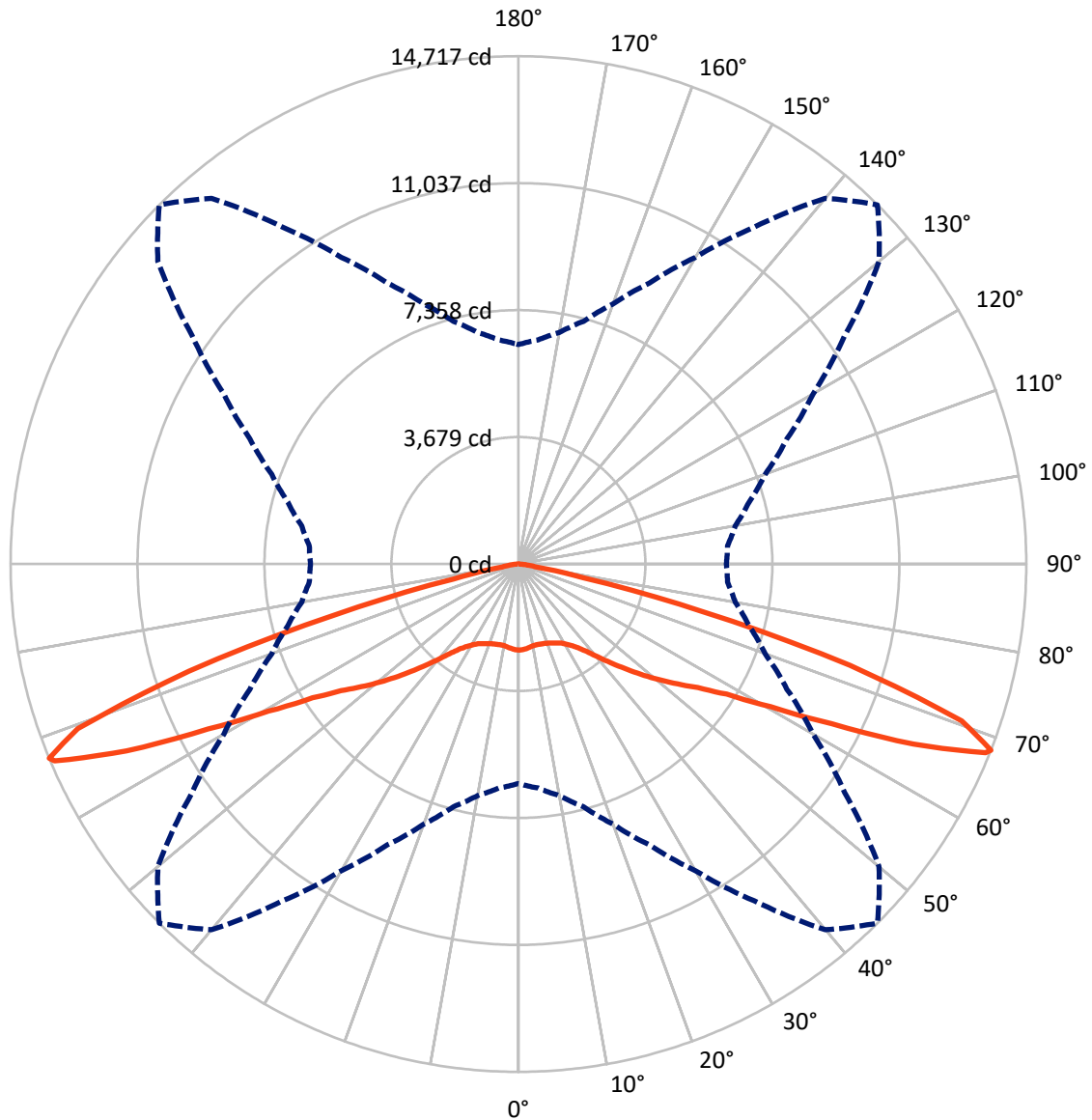
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196403
CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196403

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12511.8	0.0	12511.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12511.8	0.0	12511.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	25023.7	0.0	25023.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.6	0.9
10°-20°	677.4	2.7
20°-30°	1151.7	4.6
30°-40°	1884.7	7.5
40°-50°	3368.2	13.5
50°-60°	5688.3	22.7
60°-70°	8820.5	35.2
70°-80°	3032.7	12.1
80°-90°	166.7	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°	25023.7	100.0
0°-180°	25023.7	100.0



REPORT NUMBER: P196403

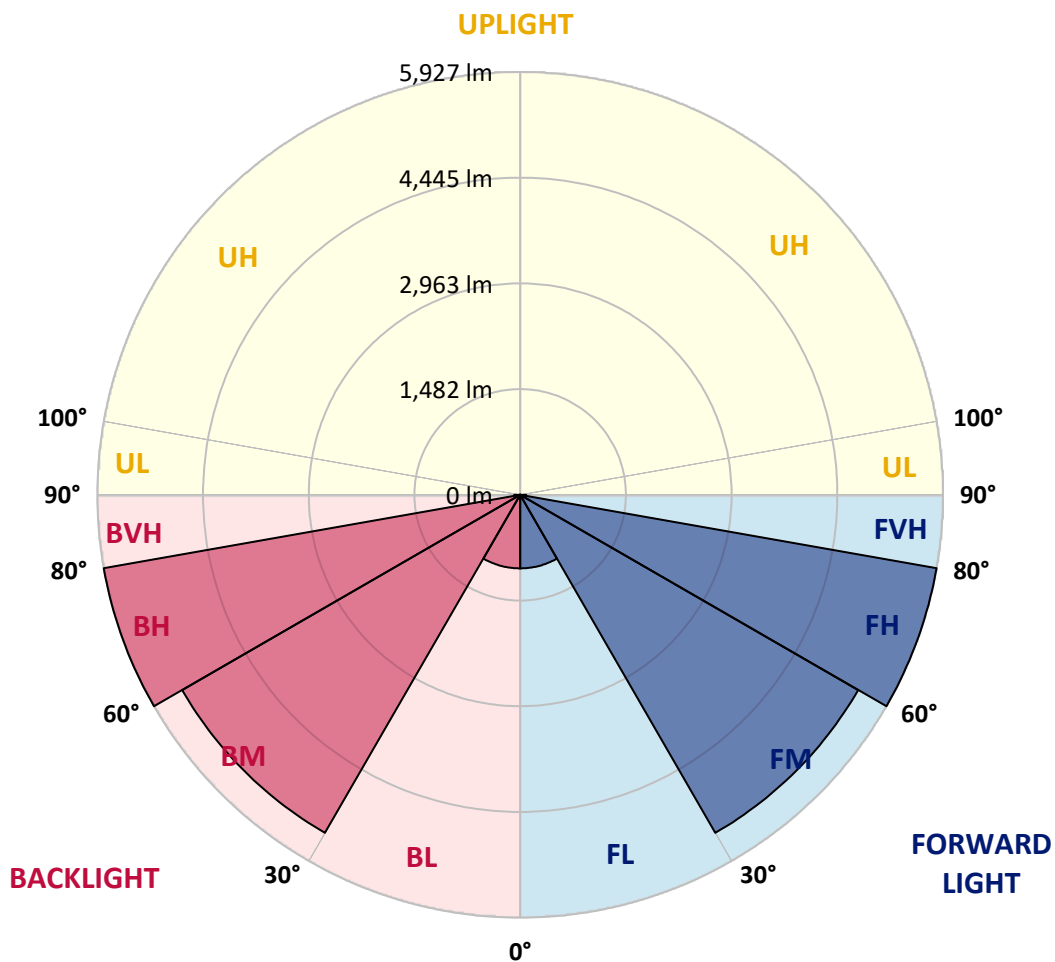
CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1031.3	4.1			
FM	(30°-60°)	5470.6	21.9			
FH	(60°-80°)	5926.6	23.7			G3/7500
FVH	(80°-90°)	83.3	0.3			G1/100
BL	(0°-30°)	1031.3	4.1	B3/2500		
BM	(30°-60°)	5470.6	21.9	B4/8500		
BH	(60°-80°)	5926.6	23.7	B5		G3/7500
BVH	(80°-90°)	83.3	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





REPORT NUMBER: P196403

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1
2.5°	2507.0	2507.0	2510.0	2508.5	2503.9	2499.2	2494.6	2490.0	2487.0	2483.9	2480.8
5°	2480.8	2480.8	2485.4	2482.4	2479.3	2474.7	2471.7	2467.1	2464.1	2460.9	2462.4
7.5°	2447.2	2450.2	2453.3	2451.8	2445.7	2444.1	2439.5	2437.9	2434.9	2430.3	2431.8
10°	2418.0	2419.5	2422.6	2421.0	2419.5	2414.9	2413.4	2411.9	2410.4	2404.2	2402.7
12.5°	2389.0	2392.0	2395.1	2396.6	2395.1	2396.6	2398.1	2399.7	2398.1	2395.1	2395.1
15°	2365.9	2369.0	2373.5	2378.2	2379.7	2389.0	2395.1	2401.2	2405.8	2407.3	2402.7
17.5°	2353.7	2358.3	2364.4	2373.5	2381.3	2392.0	2402.7	2411.9	2419.5	2421.0	2416.5
20°	2352.2	2356.7	2365.9	2376.6	2390.5	2404.2	2421.0	2434.9	2442.6	2447.2	2442.6
22.5°	2362.8	2369.0	2381.3	2395.1	2411.9	2430.3	2451.8	2467.1	2482.4	2488.5	2483.9
25°	2393.6	2399.7	2413.4	2430.3	2448.7	2471.7	2493.1	2513.1	2528.4	2536.0	2529.9
27.5°	2457.9	2459.4	2474.7	2493.1	2514.6	2534.5	2562.0	2571.3	2583.6	2591.2	2583.6
30°	2548.3	2551.3	2565.2	2594.3	2614.1	2640.2	2655.5	2664.8	2678.5	2686.2	2677.0
32.5°	2686.2	2689.3	2701.6	2729.1	2747.5	2767.4	2785.8	2791.9	2805.7	2814.9	2804.1
35°	2880.8	2886.9	2897.7	2916.0	2931.3	2946.7	2960.5	2955.9	2965.1	2977.4	2966.6
37.5°	3147.4	3145.9	3149.0	3162.7	3178.1	3187.3	3208.7	3198.0	3207.2	3217.9	3211.7
40°	3458.5	3458.5	3457.0	3481.4	3487.5	3496.9	3519.8	3506.0	3518.2	3530.5	3519.8
42.5°	3812.5	3818.6	3826.3	3846.2	3863.1	3866.1	3876.8	3870.7	3886.1	3896.7	3886.1
45°	4220.0	4229.2	4238.5	4284.4	4292.1	4298.3	4305.9	4285.9	4302.8	4312.0	4308.9
47.5°	4643.0	4659.8	4679.8	4727.3	4757.9	4771.7	4777.8	4754.9	4756.4	4770.2	4771.7
50°	5121.1	5139.4	5159.4	5213.0	5242.2	5266.7	5274.3	5248.3	5251.3	5262.0	5265.1
52.5°	5562.4	5583.8	5626.8	5698.8	5740.2	5783.1	5786.2	5753.9	5767.7	5775.5	5769.2
55°	5977.7	6005.2	6061.9	6158.5	6233.6	6317.8	6356.1	6320.8	6320.8	6314.7	6311.7
57.5°	6461.9	6492.5	6550.7	6662.6	6766.9	6887.9	6992.0	7027.3	7091.7	7113.1	7079.5
60°	7191.2	7223.4	7283.2	7430.2	7562.1	7738.3	7910.0	8049.3	8276.2	8398.8	8288.4
62.5°	7857.8	7906.9	8047.8	8305.3	8590.3	8916.6	9295.2	9564.9	9977.1	10182.4	9905.0
65°	7706.2	7805.7	8081.6	8486.0	9074.5	9782.4	10553.3	11293.4	12145.4	12582.1	12018.2
67.5°	6731.6	6815.8	7113.1	7583.5	8317.6	9293.7	10491.9	12024.3	13781.9	14600.1	13602.6
68°	6359.2	6517.1	6812.8	7280.2	8020.2	8979.5	10259.0	11913.9	13832.4	14716.5	13639.4
70°	4875.9	4932.6	5216.0	5635.9	6434.3	7375.1	8666.9	10553.3	12721.5	13631.7	12523.9
72.5°	2317.0	2350.6	2534.5	2948.3	3455.5	4221.6	5361.7	7140.7	9094.4	10041.5	8936.7
75°	849.0	856.6	899.5	997.5	1187.5	1475.6	2022.7	3129.0	4632.3	5524.0	4650.6
77.5°	458.2	459.7	476.6	501.1	534.9	573.1	655.9	879.5	1419.0	1930.7	1498.6
80°	288.1	286.6	303.4	323.3	346.4	364.7	372.3	398.4	448.9	525.6	482.7
82.5°	147.1	160.9	199.2	220.7	254.3	260.5	252.8	251.3	266.6	288.1	297.3
85°	81.2	72.0	105.8	141.0	153.2	157.9	159.4	150.1	147.1	144.0	151.7
87.5°	41.4	38.4	46.0	70.5	75.1	61.3	62.9	53.6	36.8	36.8	38.4
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: P196403

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7030-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1
2.5°	2477.8	2479.3	2476.3	2476.3	2476.3	2477.8	2476.3	2474.7
5°	2457.9	2460.9	2460.9	2462.4	2464.1	2464.1	2464.1	2464.1
7.5°	2428.8	2430.3	2433.3	2433.3	2433.3	2433.3	2433.3	2433.3
10°	2401.2	2398.1	2396.6	2393.6	2393.6	2389.0	2390.5	2392.0
12.5°	2387.5	2381.3	2378.2	2373.5	2370.5	2365.9	2365.9	2367.4
15°	2393.6	2384.4	2375.1	2372.0	2369.0	2365.9	2362.8	2364.4
17.5°	2405.8	2395.1	2384.4	2378.2	2372.0	2367.4	2365.9	2367.4
20°	2431.8	2416.5	2399.7	2389.0	2376.6	2373.5	2369.0	2373.5
22.5°	2467.1	2448.7	2427.2	2407.3	2393.6	2387.5	2381.3	2385.9
25°	2510.0	2490.0	2468.6	2445.7	2430.3	2425.7	2418.0	2418.0
27.5°	2569.8	2552.9	2534.5	2513.1	2497.6	2493.1	2480.8	2480.8
30°	2664.8	2647.9	2631.1	2612.6	2597.3	2592.7	2577.4	2577.4
32.5°	2790.4	2772.0	2761.3	2745.9	2733.6	2726.0	2707.7	2706.2
35°	2959.0	2942.2	2940.6	2929.8	2917.5	2919.1	2900.8	2897.7
37.5°	3201.1	3187.3	3191.9	3182.7	3171.9	3181.2	3170.3	3170.3
40°	3510.6	3506.0	3510.6	3504.5	3506.0	3507.6	3498.4	3501.4
42.5°	3884.5	3872.2	3899.8	3896.7	3892.2	3904.4	3883.0	3867.7
45°	4315.0	4310.5	4338.0	4342.6	4333.4	4341.1	4302.8	4301.3
47.5°	4782.4	4782.4	4807.0	4803.9	4794.8	4796.3	4750.3	4721.1
50°	5269.7	5266.7	5291.2	5285.1	5272.8	5271.2	5223.8	5194.6
52.5°	5777.0	5777.0	5812.1	5795.3	5766.1	5752.4	5694.1	5656.0
55°	6337.8	6330.2	6340.9	6285.6	6229.0	6187.6	6115.6	6086.5
57.5°	7047.2	6958.4	6881.7	6811.2	6731.6	6682.6	6598.2	6567.6
60°	8053.9	7816.5	7713.8	7572.9	7441.1	7375.1	7263.3	7203.6
62.5°	9448.4	9054.7	8775.7	8464.7	8164.3	7952.9	7782.7	7707.7
65°	11060.5	10202.3	9492.9	8826.3	8260.9	7811.9	7562.1	7483.9
67.5°	11673.4	10098.2	8873.8	7917.6	7231.1	6696.3	6397.5	6334.8
68°	11543.1	9859.1	8587.2	7608.0	6918.6	6379.1	6081.8	6025.2
70°	10182.4	8317.6	6975.2	6000.6	5357.1	4843.7	4633.8	4543.4
72.5°	6941.5	5341.8	4097.4	3277.7	2796.5	2471.7	2278.6	2212.7
75°	3195.0	2159.1	1441.9	1077.2	914.8	836.7	777.0	761.5
77.5°	931.7	677.3	582.3	539.4	507.2	479.6	459.7	458.2
80°	442.8	415.3	403.0	375.5	346.4	320.2	301.9	305.0
82.5°	297.3	289.6	289.6	262.0	216.0	185.4	153.2	137.8
85°	157.9	164.0	173.1	164.0	142.5	105.8	69.0	75.1
87.5°	53.6	61.3	64.4	62.9	56.7	42.9	32.2	32.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)