

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: P270583

Luminaire Tested: **NAV-AF-05-D-UNV-RW-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270583
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-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21569 lumens
Efficiency: N/A
Efficacy: 102.7 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

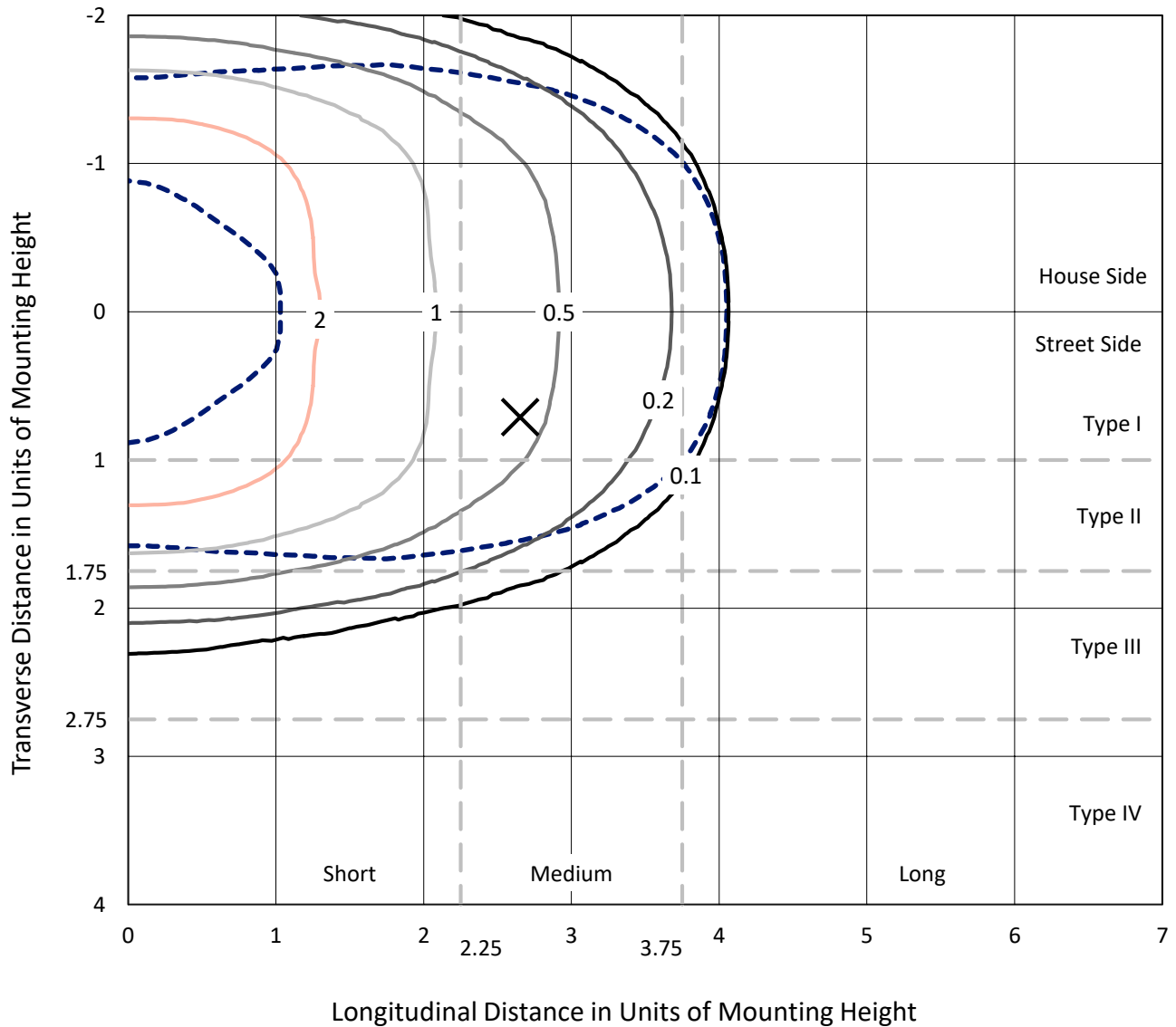


REPORT NUMBER: P270583

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

Iso-Footcandle Lines of Horizontal Illumination

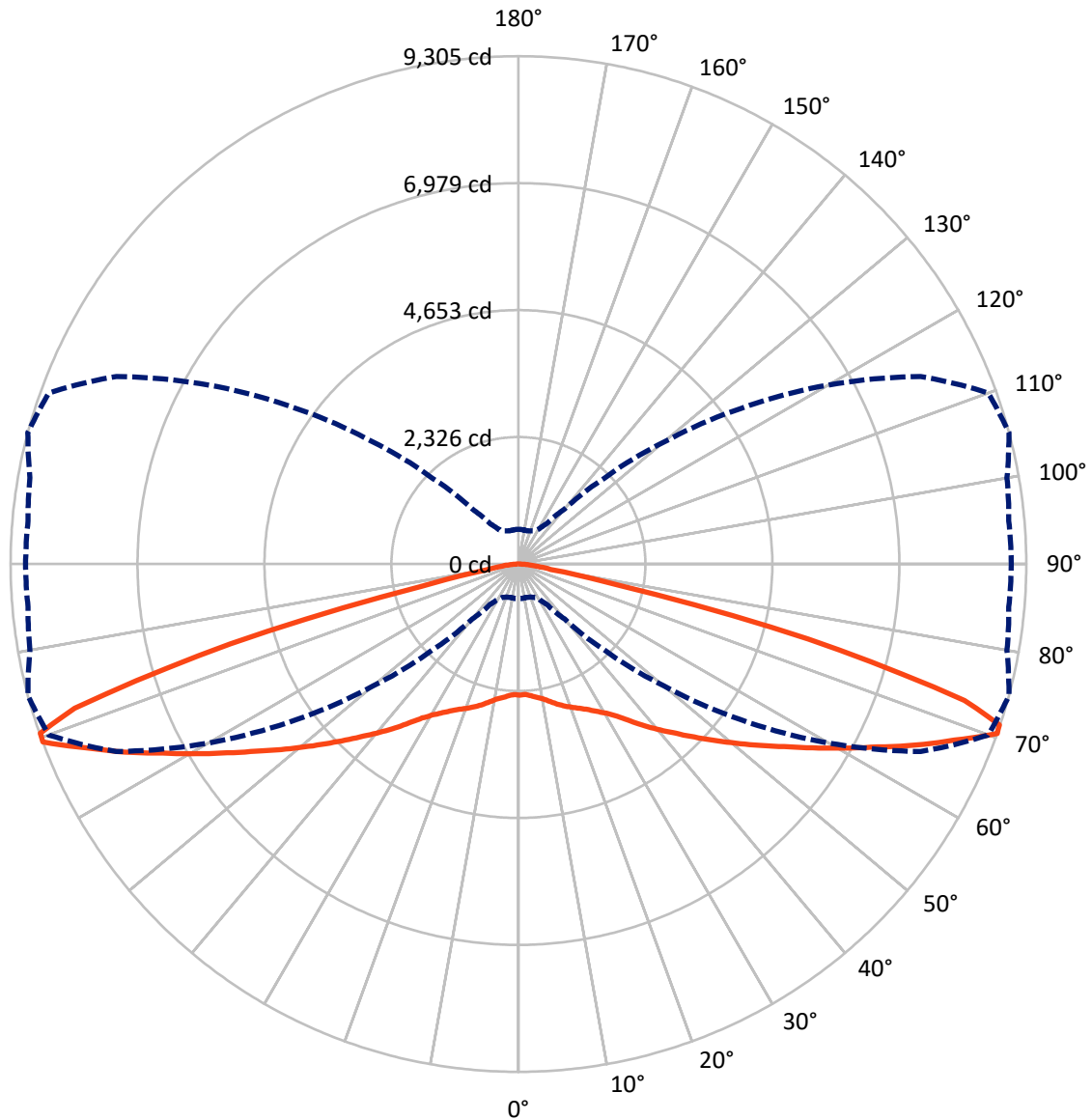
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270583
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270583

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10784.5	0.0	10784.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10784.5	0.0	10784.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	21569.0	0.0	21569.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.4	1.1
10°-20°	714.5	3.3
20°-30°	1342.0	6.2
30°-40°	2363.9	11.0
40°-50°	3917.8	18.2
50°-60°	5450.2	25.3
60°-70°	5145.1	23.9
70°-80°	2197.5	10.2
80°-90°	207.6	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°	21569.0	100.0
0°-180°	21569.0	100.0

Coefficient of Utilization



REPORT NUMBER: P270583

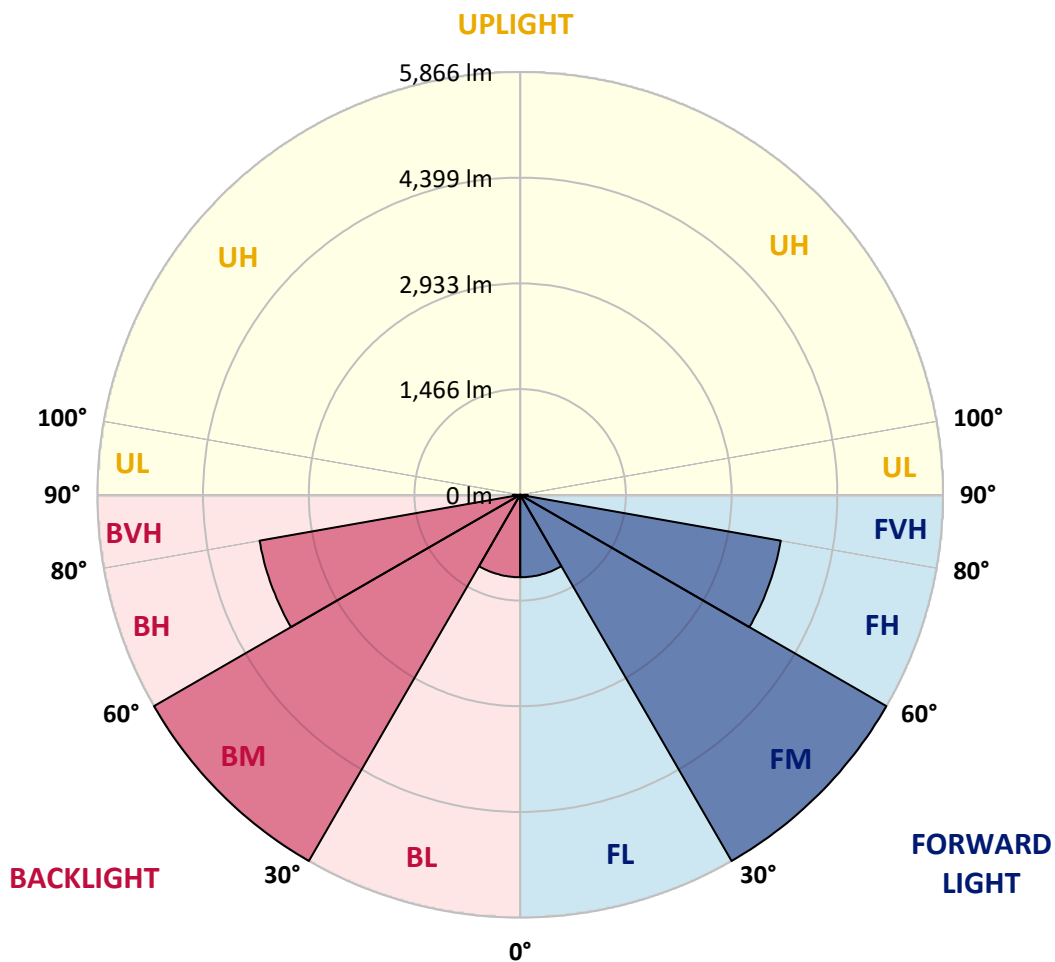
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1143.4	5.3			
FM	(30°-60°)	5866.0	27.2			
FH	(60°-80°)	3671.3	17.0			G2/5000
FVH	(80°-90°)	103.8	0.5			G2/225
BL	(0°-30°)	1143.4	5.3	B3/2500		
BM	(30°-60°)	5866.0	27.2	B4/8500		
BH	(60°-80°)	3671.3	17.0	B4/5000		G4/5000
BVH	(80°-90°)	103.8	0.5			G2/225
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





REPORT NUMBER: P270583

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9
2.5°	2416.8	2415.5	2416.8	2412.8	2414.0	2412.8	2412.8	2407.4	2407.4	2404.7	2400.6
5°	2389.8	2392.5	2392.5	2392.5	2396.5	2396.5	2401.9	2403.2	2407.4	2411.4	2414.0
7.5°	2345.1	2346.6	2350.5	2353.3	2361.4	2372.2	2383.1	2395.2	2406.0	2419.4	2434.3
10°	2307.2	2310.0	2316.8	2323.6	2338.4	2351.9	2370.8	2389.8	2408.6	2431.6	2454.7
12.5°	2287.1	2291.0	2301.8	2312.6	2335.8	2353.3	2378.9	2408.6	2434.3	2456.0	2481.7
15°	2289.7	2291.0	2305.9	2320.9	2353.3	2377.6	2414.0	2449.1	2480.3	2504.7	2534.4
17.5°	2328.9	2331.6	2346.6	2368.1	2399.3	2430.4	2469.5	2506.0	2548.0	2576.2	2611.5
20°	2406.0	2410.1	2426.2	2449.1	2483.1	2515.4	2555.9	2593.9	2637.2	2670.9	2706.1
22.5°	2506.0	2512.7	2530.3	2558.7	2592.5	2631.8	2673.6	2712.8	2753.3	2787.1	2816.8
25°	2639.8	2647.9	2666.9	2695.3	2729.1	2770.9	2814.2	2854.8	2896.7	2922.4	2946.6
27.5°	2819.6	2833.2	2853.3	2876.4	2906.0	2950.8	2991.3	3025.0	3065.6	3094.0	3110.2
30°	3061.6	3080.5	3096.6	3121.0	3142.6	3189.9	3222.4	3249.3	3280.5	3296.7	3300.8
32.5°	3357.5	3375.1	3391.3	3408.9	3438.6	3481.9	3513.0	3527.9	3544.2	3541.4	3526.6
35°	3691.4	3704.9	3714.4	3745.6	3794.1	3822.6	3845.6	3850.9	3853.5	3825.3	3796.9
37.5°	4042.8	4059.1	4067.2	4115.9	4161.8	4194.2	4205.1	4217.3	4209.1	4161.8	4110.5
40°	4422.6	4440.2	4464.5	4506.4	4560.5	4591.6	4605.2	4603.9	4597.0	4541.7	4457.7
42.5°	4795.7	4817.4	4837.6	4910.7	4955.2	5008.0	5014.7	5013.4	4998.4	4935.0	4837.6
45°	5112.1	5137.6	5179.5	5260.7	5332.3	5395.8	5421.6	5431.1	5416.2	5348.6	5237.7
47.5°	5372.9	5390.5	5443.2	5541.9	5633.8	5727.1	5778.3	5814.9	5813.6	5765.0	5647.3
50°	5551.3	5571.6	5636.4	5747.4	5862.2	5971.8	6073.1	6155.5	6194.7	6159.6	6050.1
52.5°	5602.6	5628.4	5713.5	5846.0	5979.7	6127.1	6278.6	6424.5	6512.4	6534.0	6448.8
55°	5386.3	5414.9	5539.2	5723.0	5943.2	6160.9	6390.7	6598.9	6780.0	6863.8	6830.1
57.5°	4756.5	4776.7	4935.0	5172.9	5487.7	5870.3	6256.9	6638.0	6949.0	7166.6	7204.3
60°	3761.7	3787.3	3960.4	4211.9	4569.9	5054.0	5594.6	6219.1	6828.6	7327.5	7574.8
62.5°	2538.4	2555.9	2722.3	2952.1	3344.0	3810.4	4413.3	5203.9	6073.1	6963.8	7661.3
65°	1332.7	1332.7	1445.0	1605.8	1918.1	2335.8	2953.4	3764.3	4798.4	5910.8	7077.3
67.5°	773.1	771.9	797.4	833.9	932.7	1101.6	1442.1	2038.3	3017.0	4311.9	5639.2
70°	637.9	633.9	629.9	629.9	644.8	670.5	735.4	898.8	1315.2	2223.6	3469.8
71°	609.6	607.0	596.0	592.1	598.8	612.4	640.8	716.4	934.0	1516.6	2591.2
72.5°	575.9	569.0	552.8	546.1	547.4	552.8	560.9	590.6	656.9	862.4	1477.4
75°	524.4	508.3	488.0	478.4	474.5	473.0	473.0	481.2	496.0	520.4	605.5
77.5°	465.0	442.0	420.3	411.0	404.1	400.0	397.4	392.0	389.2	400.0	431.1
80°	393.4	369.1	351.4	346.0	342.0	333.9	323.0	312.3	305.5	311.0	329.8
82.5°	304.2	279.8	282.4	283.9	277.0	263.6	252.8	240.6	228.3	225.7	235.1
85°	242.0	229.7	221.7	239.3	224.3	208.1	193.2	173.1	144.6	118.9	129.7
87.5°	104.1	105.5	151.4	228.3	200.1	160.8	133.8	108.2	68.9	51.4	52.7
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: P270583

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7027-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9	2401.9
2.5°	2399.3	2399.3	2395.2	2392.5	2392.5	2392.5	2389.8	2391.1
5°	2415.5	2418.1	2420.8	2419.4	2423.5	2427.6	2426.2	2425.0
7.5°	2442.5	2450.5	2458.8	2462.8	2468.2	2473.6	2474.9	2470.9
10°	2469.5	2485.7	2497.8	2508.6	2515.4	2520.9	2525.0	2523.6
12.5°	2503.2	2526.3	2548.0	2569.5	2584.5	2592.5	2600.7	2597.9
15°	2558.7	2584.5	2611.5	2639.8	2662.8	2675.0	2687.1	2684.4
17.5°	2634.4	2657.4	2679.0	2707.4	2735.8	2749.4	2762.7	2761.5
20°	2729.1	2746.6	2758.8	2775.0	2802.1	2816.8	2829.0	2825.0
22.5°	2837.1	2842.5	2843.9	2849.3	2871.0	2888.5	2904.8	2908.8
25°	2954.7	2950.8	2942.6	2938.5	2953.4	2972.3	2992.7	2998.1
27.5°	3100.7	3087.2	3067.0	3050.7	3054.7	3079.1	3102.0	3107.4
30°	3284.6	3253.5	3210.3	3179.1	3173.7	3199.5	3223.7	3231.8
32.5°	3494.0	3452.1	3392.7	3345.4	3325.2	3348.2	3369.7	3381.8
35°	3742.8	3696.9	3625.2	3564.4	3532.0	3546.8	3584.6	3598.2
37.5°	4037.4	3973.9	3894.2	3817.1	3763.1	3765.8	3806.3	3822.6
40°	4363.2	4271.4	4169.9	4074.0	3995.5	3990.1	4026.7	4038.8
42.5°	4702.4	4584.9	4466.0	4340.3	4243.0	4225.4	4272.7	4274.0
45°	5067.3	4916.1	4768.7	4622.7	4521.3	4490.3	4536.3	4541.7
47.5°	5456.8	5267.5	5093.1	4935.0	4825.4	4776.7	4821.5	4829.6
50°	5862.2	5666.1	5463.4	5287.8	5159.3	5099.9	5152.6	5158.0
52.5°	6263.6	6078.6	5877.2	5675.8	5520.3	5452.6	5514.9	5533.7
55°	6667.8	6489.4	6300.2	6098.8	5902.8	5843.2	5910.8	5931.1
57.5°	7088.2	6916.5	6744.8	6542.0	6351.6	6260.9	6333.9	6362.3
60°	7551.8	7400.3	7238.3	7034.1	6846.3	6740.8	6803.0	6835.5
62.5°	8007.3	7976.2	7828.9	7616.6	7378.8	7273.3	7326.0	7349.0
65°	8045.2	8549.3	8542.6	8331.7	7999.1	7822.1	7837.1	7847.9
67.5°	7022.0	8179.0	8918.4	8984.6	8614.1	8337.1	8304.7	8311.5
70°	4971.5	6559.7	8128.9	9158.8	9305.0	9089.9	9019.7	9030.5
71°	3983.4	5628.4	7355.9	8741.2	9294.1	9231.9	9192.7	9221.1
72.5°	2542.6	4146.9	5828.5	7485.5	8546.7	8850.7	8895.3	8913.0
75°	923.2	1784.3	3019.7	4326.6	5483.8	6280.0	6717.9	6753.0
77.5°	496.0	639.4	988.0	1476.1	1854.6	2057.3	2081.6	2091.1
80°	364.9	423.1	483.8	552.8	596.0	604.2	589.3	558.2
82.5°	258.2	291.9	316.4	340.5	358.2	343.3	285.2	217.6
85°	150.0	164.8	178.5	190.6	193.2	182.4	120.4	98.6
87.5°	59.5	64.9	63.5	71.7	68.9	63.5	47.3	40.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)