

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: P270662

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270662
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-06-D-UNV-RW-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21070.5 lumens
Efficiency: N/A
Efficacy: 109.2 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): 193
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

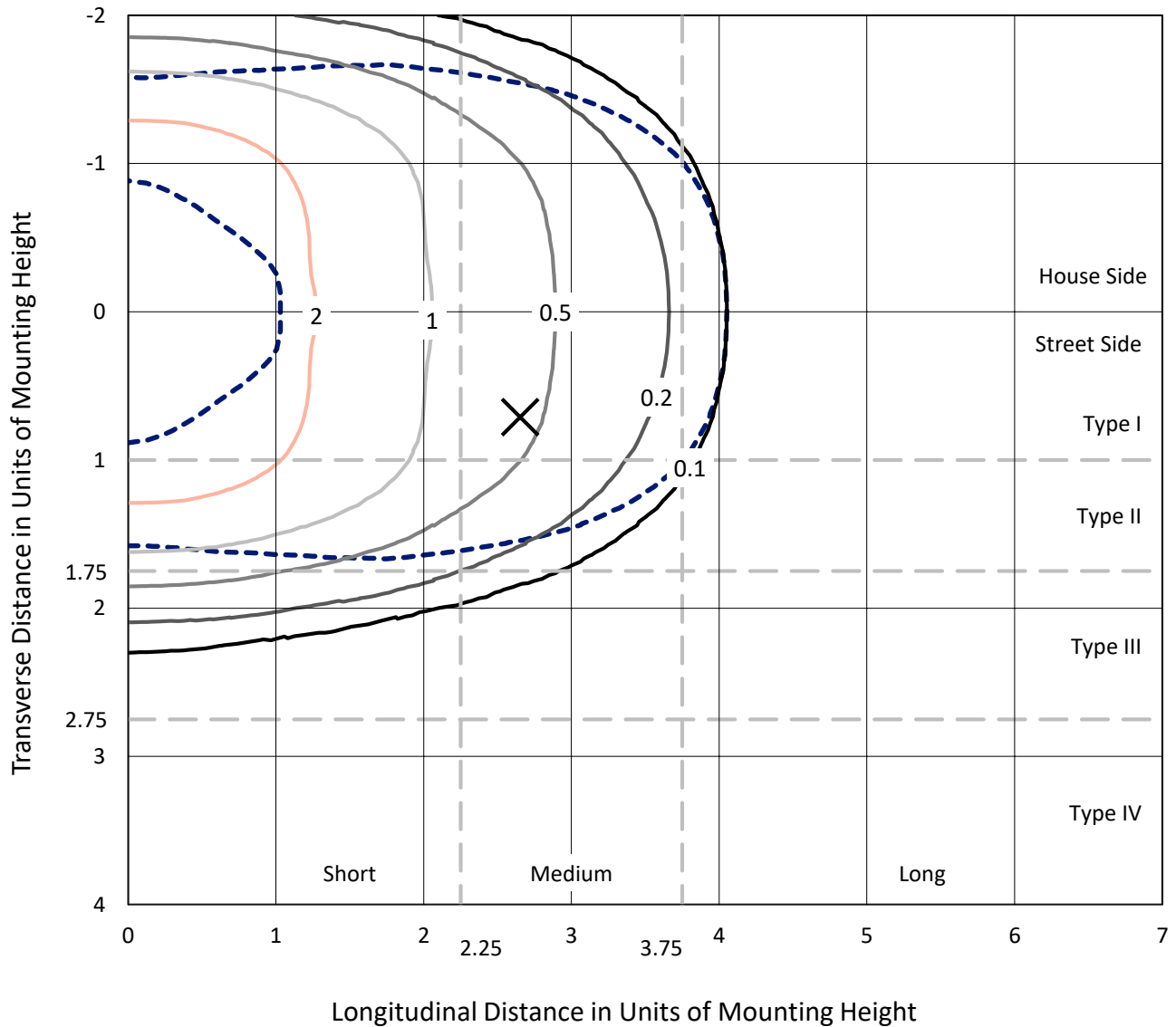


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Iso-Footcandle Lines of Horizontal Illumination

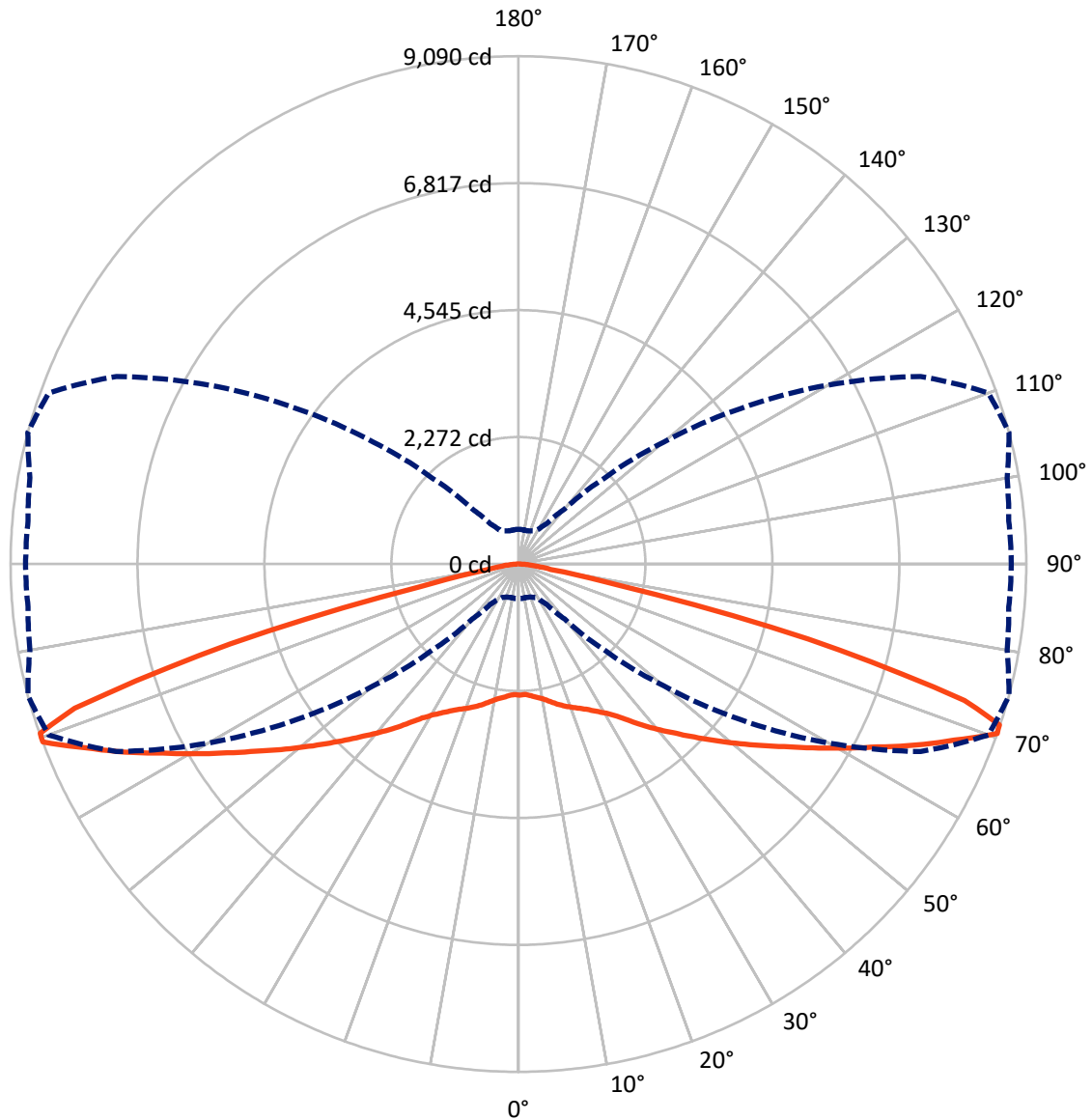
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 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
House Side	Lumens	10535.2	0.0	10535.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10535.2	0.0	10535.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	21070.5	0.0	21070.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.1	1.1
10°-20°	698.0	3.3
20°-30°	1311.0	6.2
30°-40°	2309.3	11.0
40°-50°	3827.2	18.2
50°-60°	5324.2	25.3
60°-70°	5026.2	23.9
70°-80°	2146.7	10.2
80°-90°	202.9	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°	21070.5	100.0
0°-180°	21070.5	100.0

Coefficient of Utilization



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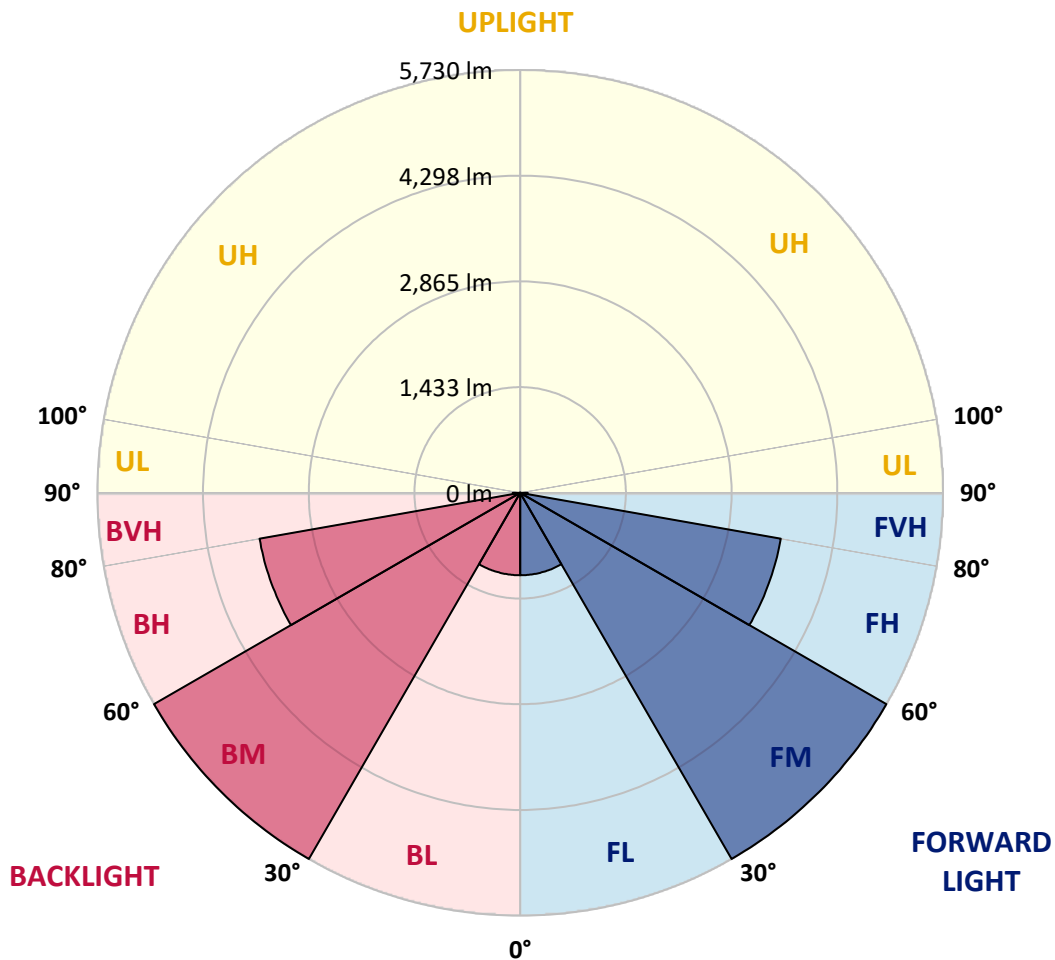
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1117.0	5.3			
FM	(30°-60°)	5730.3	27.2			
FH	(60°-80°)	3586.4	17.0			G2/5000
FVH	(80°-90°)	101.4	0.5			G2/225
BL	(0°-30°)	1117.0	5.3	B3/2500		
BM	(30°-60°)	5730.3	27.2	B4/8500		
BH	(60°-80°)	3586.4	17.0	B4/5000		G4/5000
BVH	(80°-90°)	101.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5
2.5°	2360.9	2359.6	2360.9	2357.0	2358.3	2357.0	2357.0	2351.8	2351.8	2349.1	2345.0
5°	2334.5	2337.2	2337.2	2337.2	2341.2	2341.2	2346.5	2347.7	2351.8	2355.6	2358.3
7.5°	2290.9	2292.3	2296.2	2298.9	2306.8	2317.4	2327.9	2339.7	2350.3	2363.6	2378.2
10°	2253.9	2256.6	2263.2	2269.7	2284.3	2297.5	2316.0	2334.5	2353.0	2375.5	2397.8
12.5°	2234.2	2238.1	2248.6	2259.2	2281.7	2298.9	2323.9	2353.0	2378.2	2399.3	2424.3
15°	2236.8	2238.1	2252.7	2267.2	2298.9	2322.7	2358.3	2392.6	2423.0	2446.8	2475.8
17.5°	2275.0	2277.7	2292.3	2313.3	2343.8	2374.1	2412.4	2448.2	2489.1	2516.7	2551.0
20°	2350.3	2354.3	2370.2	2392.6	2425.7	2457.4	2496.8	2533.8	2576.2	2609.1	2643.5
22.5°	2448.2	2454.7	2471.9	2499.5	2532.6	2570.9	2611.8	2650.1	2689.7	2722.8	2751.8
25°	2578.9	2586.7	2605.3	2632.9	2665.9	2706.9	2749.2	2788.8	2829.8	2854.8	2878.4
27.5°	2754.5	2767.6	2787.4	2809.9	2839.0	2882.5	2922.0	2955.2	2994.7	3022.4	3038.2
30°	2990.7	3009.2	3025.1	3048.8	3070.0	3116.2	3147.9	3174.3	3204.7	3220.6	3224.5
32.5°	3279.9	3297.0	3312.9	3330.1	3359.1	3401.4	3431.7	3446.3	3462.2	3459.6	3445.0
35°	3606.1	3619.4	3628.6	3658.8	3706.4	3734.2	3756.6	3761.9	3764.5	3736.8	3709.1
37.5°	3949.4	3965.3	3973.2	4020.8	4065.5	4097.3	4107.9	4119.7	4111.8	4065.5	4015.5
40°	4320.5	4337.6	4361.5	4402.4	4455.1	4485.4	4498.7	4497.4	4490.7	4436.5	4354.8
42.5°	4684.9	4706.0	4725.9	4797.0	4840.6	4892.2	4898.7	4897.5	4882.9	4820.8	4725.9
45°	4993.9	5018.9	5059.9	5139.2	5209.1	5271.2	5296.2	5305.5	5290.9	5224.9	5116.7
47.5°	5248.6	5265.9	5317.3	5413.7	5503.6	5594.6	5644.8	5680.5	5679.2	5631.7	5516.8
50°	5423.0	5442.8	5506.3	5614.4	5726.6	5833.7	5932.6	6013.3	6051.5	6017.1	5910.2
52.5°	5473.2	5498.3	5581.4	5710.9	5841.6	5985.4	6133.4	6276.0	6361.8	6382.9	6299.8
55°	5261.9	5289.6	5411.1	5590.7	5805.9	6018.6	6243.0	6446.3	6623.3	6705.0	6672.2
57.5°	4646.7	4666.3	4820.8	5053.2	5360.9	5734.6	6112.2	6484.7	6788.3	7000.9	7038.0
60°	3674.7	3699.8	3868.8	4114.4	4464.3	4937.1	5465.3	6075.2	6670.9	7158.1	7399.7
62.5°	2479.9	2496.8	2659.3	2883.7	3266.7	3722.2	4311.1	5083.7	5932.6	6802.9	7484.1
65°	1302.0	1302.0	1411.5	1568.7	1873.7	2281.7	2885.1	3677.4	4687.5	5774.2	6913.7
67.5°	755.2	753.9	779.1	814.8	911.2	1076.2	1408.9	1991.3	2947.2	4212.2	5508.9
70°	623.2	619.3	615.2	615.2	629.8	655.0	718.4	878.2	1284.8	2172.1	3389.6
71°	595.4	592.9	582.3	578.4	584.9	598.1	625.8	699.8	912.4	1481.6	2531.2
72.5°	562.5	556.0	540.1	533.5	534.9	540.1	548.0	577.0	641.7	842.4	1443.2
75°	512.4	496.5	476.7	467.5	463.4	462.2	462.2	470.1	484.5	508.4	591.5
77.5°	454.3	431.7	410.6	401.5	394.9	390.9	388.2	382.9	380.3	390.9	421.2
80°	384.2	360.5	343.3	338.0	334.1	326.2	315.6	305.1	298.3	303.6	322.2
82.5°	297.1	273.4	276.0	277.2	270.7	257.5	246.9	235.0	223.1	220.5	229.7
85°	236.3	224.4	216.5	233.6	219.1	203.3	188.9	169.1	141.4	116.2	126.8
87.5°	101.7	102.9	148.0	223.1	195.4	157.2	130.8	105.6	67.4	50.1	51.6
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°	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5	2346.5
2.5°	2343.8	2343.8	2339.7	2337.2	2337.2	2337.2	2334.5	2335.9
5°	2359.6	2362.3	2364.9	2363.6	2367.6	2371.4	2370.2	2368.8
7.5°	2386.0	2394.0	2401.9	2405.8	2411.1	2416.4	2417.7	2413.7
10°	2412.4	2428.3	2440.2	2450.8	2457.4	2462.7	2466.6	2465.3
12.5°	2445.5	2467.9	2489.1	2510.1	2524.6	2532.6	2540.4	2537.8
15°	2499.5	2524.6	2551.0	2578.9	2601.2	2613.1	2624.9	2622.3
17.5°	2573.6	2595.9	2617.1	2644.8	2672.5	2685.8	2699.0	2697.6
20°	2665.9	2683.1	2694.9	2710.8	2737.2	2751.8	2763.6	2759.8
22.5°	2771.6	2776.9	2778.2	2783.5	2804.6	2821.8	2837.6	2841.6
25°	2886.4	2882.5	2874.5	2870.7	2885.1	2903.6	2923.4	2928.7
27.5°	3029.1	3015.9	2996.0	2980.1	2984.2	3008.0	3030.4	3035.6
30°	3208.7	3178.3	3136.1	3105.6	3100.4	3125.5	3149.2	3157.2
32.5°	3413.3	3372.3	3314.2	3268.0	3248.2	3270.6	3291.7	3303.6
35°	3656.2	3611.4	3541.4	3482.0	3450.3	3464.9	3501.8	3515.0
37.5°	3944.1	3882.0	3804.1	3728.9	3676.0	3678.6	3718.4	3734.2
40°	4262.4	4172.5	4073.5	3979.9	3903.1	3897.8	3933.6	3945.4
42.5°	4593.8	4478.9	4362.7	4239.9	4144.8	4127.6	4173.9	4175.2
45°	4950.3	4802.3	4658.5	4515.9	4416.8	4386.5	4431.3	4436.5
47.5°	5330.5	5145.8	4975.4	4820.8	4713.9	4666.3	4710.0	4717.9
50°	5726.6	5535.3	5337.2	5165.6	5040.1	4982.0	5033.5	5038.8
52.5°	6118.9	5937.9	5741.2	5544.5	5392.6	5326.6	5387.3	5405.8
55°	6513.7	6339.3	6154.5	5957.7	5766.3	5708.2	5774.2	5794.1
57.5°	6924.3	6756.6	6589.0	6390.9	6204.8	6116.2	6187.5	6215.3
60°	7377.2	7229.3	7070.9	6871.6	6688.1	6584.9	6645.8	6677.5
62.5°	7822.3	7791.9	7647.9	7440.7	7208.2	7105.2	7156.6	7179.2
65°	7859.2	8351.7	8345.2	8139.2	7814.3	7641.3	7655.9	7666.5
67.5°	6859.5	7990.0	8712.2	8776.9	8415.1	8144.5	8112.8	8119.3
70°	4856.5	6408.0	7941.0	8947.2	9089.8	8879.8	8811.3	8821.7
71°	3891.3	5498.3	7185.7	8539.2	9079.3	9018.5	8980.3	9007.9
72.5°	2483.8	4051.0	5693.6	7312.6	8349.0	8646.1	8689.8	8706.9
75°	901.9	1743.0	2949.9	4226.6	5357.0	6134.7	6562.5	6596.9
77.5°	484.5	624.5	965.1	1441.9	1811.6	2009.7	2033.5	2042.7
80°	356.4	413.3	472.7	540.1	582.3	590.2	575.8	545.4
82.5°	252.2	285.2	308.9	332.7	349.9	335.3	278.7	212.5
85°	146.6	161.1	174.4	186.2	188.9	178.3	117.5	96.4
87.5°	58.1	63.4	62.1	70.0	67.4	62.1	46.3	39.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)