

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: P196884

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196884  
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-06-D-UNV-5MQ-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 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: 25292 lumens  
Efficiency: N/A  
Efficacy: 101.6 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

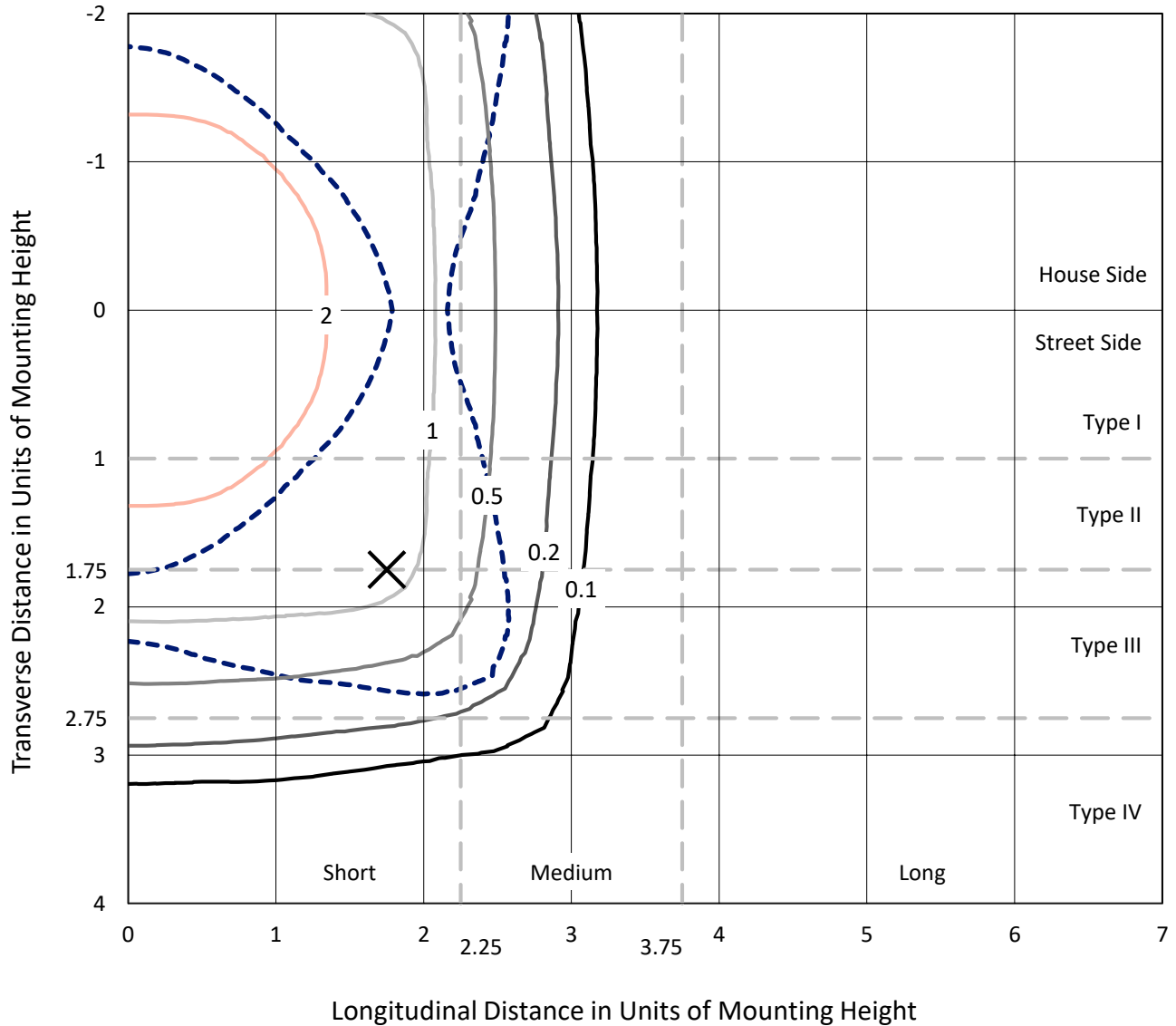
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196884  
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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

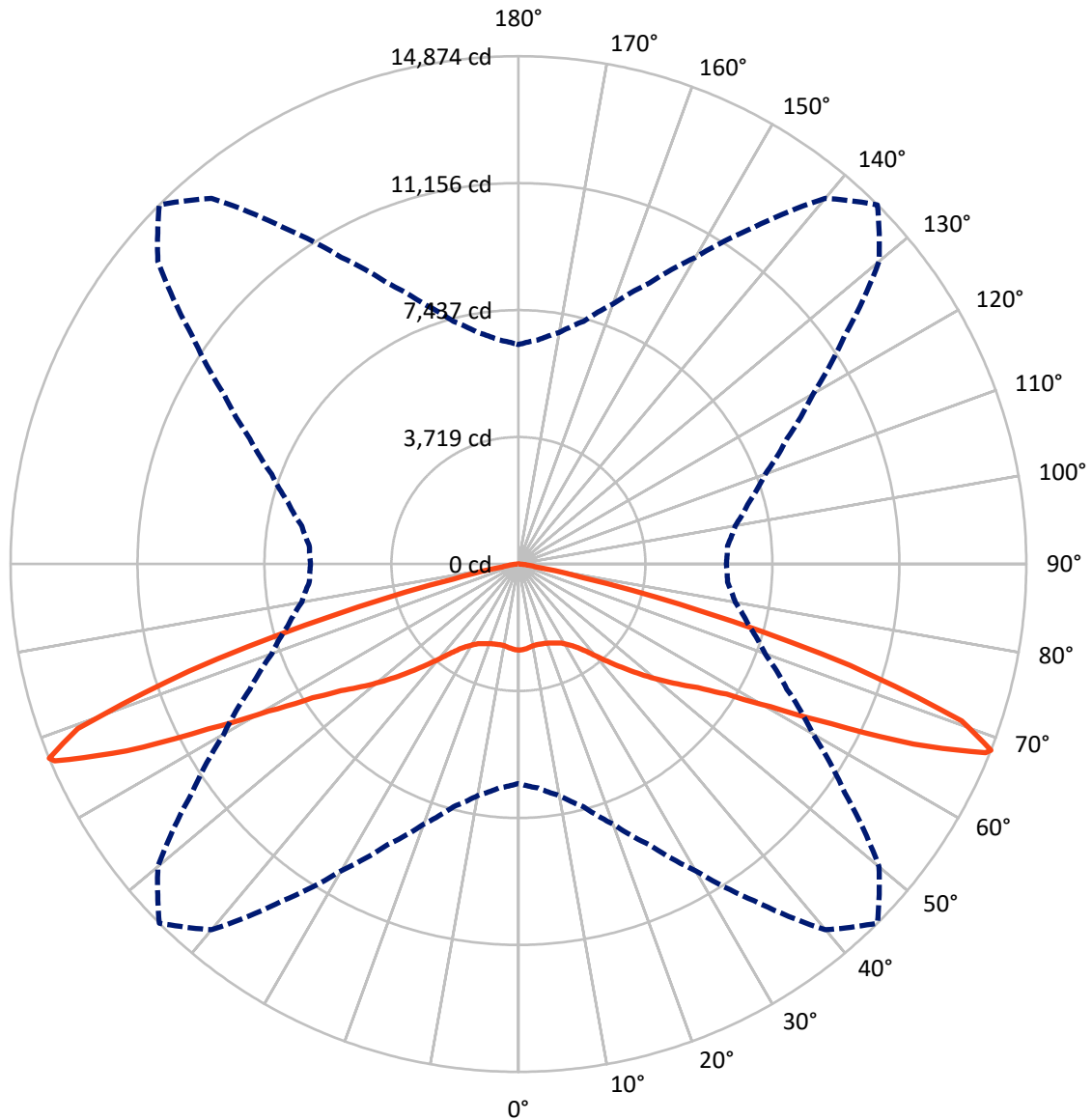


Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P196884

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-8030-800

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196884

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-8030-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12646.0	0.0	12646.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12646.0	0.0	12646.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25292.0	0.0	25292.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.1	0.9
10°-20°	684.7	2.7
20°-30°	1164.0	4.6
30°-40°	1904.9	7.5
40°-50°	3404.3	13.5
50°-60°	5749.3	22.7
60°-70°	8915.1	35.2
70°-80°	3065.2	12.1
80°-90°	168.4	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°	25292.0	100.0
0°-180°	25292.0	100.0



REPORT NUMBER: P196884

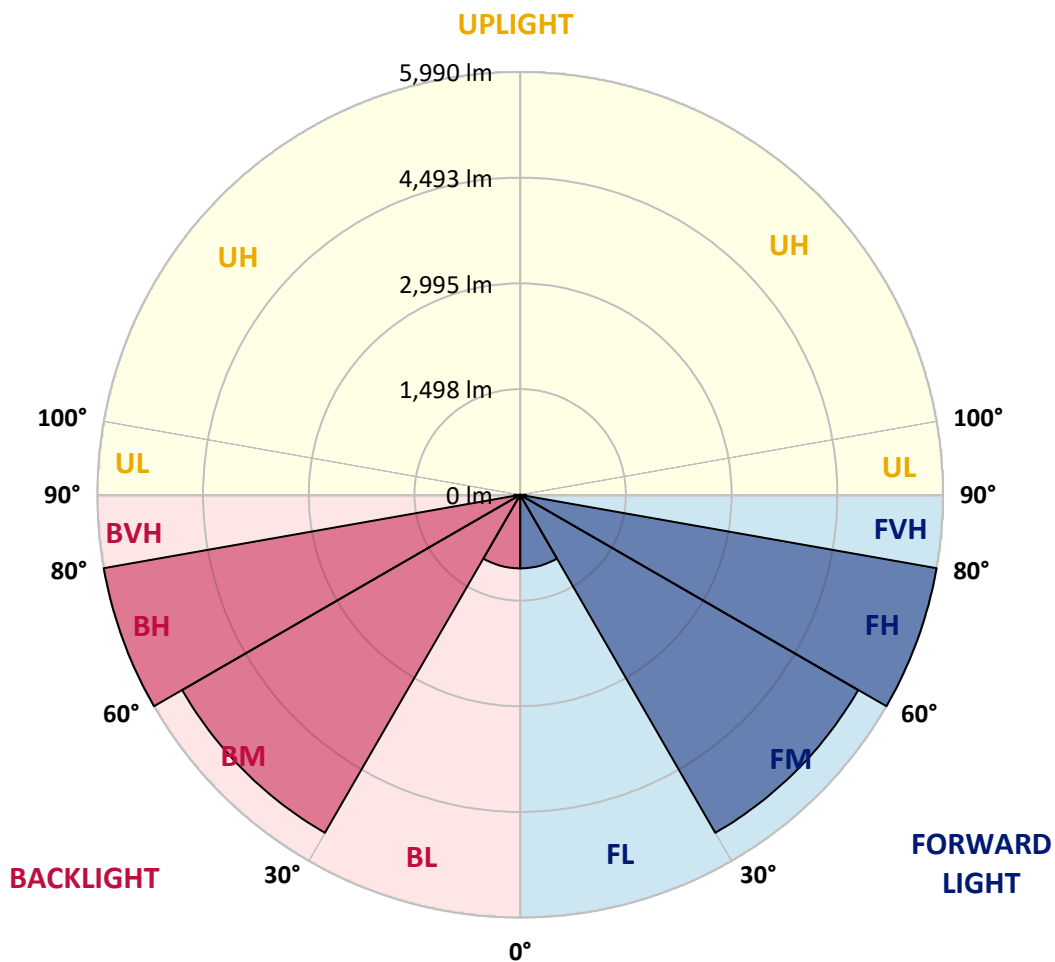
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-8030-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1042.4	4.1			
FM	(30°-60°)	5529.2	21.9			
FH	(60°-80°)	5990.1	23.7			G3/7500
FVH	(80°-90°)	84.2	0.3			G1/100
BL	(0°-30°)	1042.4	4.1	B3/2500		
BM	(30°-60°)	5529.2	21.9	B4/8500		
BH	(60°-80°)	5990.1	23.7	B5		G3/7500
BVH	(80°-90°)	84.2	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: P196884

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-8030-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0
2.5°	2533.8	2533.8	2536.9	2535.3	2530.7	2526.0	2521.4	2516.8	2513.7	2510.6	2507.5
5°	2507.5	2507.5	2512.1	2509.0	2505.9	2501.3	2498.2	2493.5	2490.4	2487.3	2488.9
7.5°	2473.4	2476.5	2479.6	2478.0	2471.8	2470.3	2465.6	2464.1	2461.0	2456.4	2457.9
10°	2444.0	2445.5	2448.6	2447.1	2445.5	2440.9	2439.3	2437.8	2436.2	2430.0	2428.5
12.5°	2414.5	2417.6	2420.7	2422.3	2420.7	2422.3	2423.8	2425.4	2423.8	2420.7	2420.7
15°	2391.3	2394.4	2399.1	2403.7	2405.2	2414.5	2420.7	2426.9	2431.6	2433.1	2428.5
17.5°	2378.9	2383.6	2389.8	2399.1	2406.8	2417.6	2428.5	2437.8	2445.5	2447.1	2442.4
20°	2377.4	2382.0	2391.3	2402.1	2416.1	2430.0	2447.1	2461.0	2468.7	2473.4	2468.7
22.5°	2388.2	2394.4	2406.8	2420.7	2437.8	2456.4	2478.0	2493.5	2509.0	2515.2	2510.6
25°	2419.2	2425.4	2439.3	2456.4	2474.9	2498.2	2519.9	2540.0	2555.5	2563.2	2557.0
27.5°	2484.2	2485.8	2501.3	2519.9	2541.5	2561.7	2589.5	2598.8	2611.2	2619.0	2611.2
30°	2575.6	2578.7	2592.6	2622.1	2642.2	2668.5	2684.0	2693.3	2707.3	2715.0	2705.7
32.5°	2715.0	2718.1	2730.5	2758.4	2777.0	2797.1	2815.7	2821.9	2835.8	2845.1	2834.3
35°	2911.7	2917.9	2928.7	2947.3	2962.8	2978.3	2992.2	2987.6	2996.9	3009.3	2998.4
37.5°	3181.2	3179.6	3182.7	3196.7	3212.2	3221.4	3243.1	3232.3	3241.6	3252.4	3246.2
40°	3495.6	3495.6	3494.0	3518.8	3525.0	3534.3	3557.5	3543.6	3556.0	3568.4	3557.5
42.5°	3853.3	3859.5	3867.3	3887.4	3904.5	3907.6	3918.4	3912.2	3927.7	3938.5	3927.7
45°	4265.3	4274.6	4283.9	4330.4	4338.1	4344.3	4352.1	4331.9	4349.0	4358.2	4355.2
47.5°	4692.8	4709.8	4730.0	4778.0	4808.9	4822.9	4829.1	4805.8	4807.4	4821.3	4822.9
50°	5176.0	5194.6	5214.7	5268.9	5298.4	5323.1	5330.9	5304.5	5307.6	5318.5	5321.6
52.5°	5622.0	5643.7	5687.1	5759.9	5801.7	5845.1	5848.2	5815.6	5829.6	5837.3	5831.1
55°	6041.8	6069.6	6126.9	6224.5	6300.4	6385.6	6424.3	6388.7	6388.7	6382.5	6379.4
57.5°	6531.2	6562.2	6621.0	6734.1	6839.4	6961.7	7067.1	7102.7	7167.7	7189.4	7155.3
60°	7268.4	7300.9	7361.3	7510.0	7643.2	7821.3	7994.8	8135.7	8364.9	8488.8	8377.3
62.5°	7942.1	7991.7	8134.2	8394.4	8682.4	9012.3	9394.9	9667.4	10084.1	10291.6	10011.3
65°	7788.8	7889.5	8168.2	8577.1	9171.8	9887.4	10666.4	11414.5	12275.6	12717.0	12147.0
67.5°	6803.8	6888.9	7189.4	7664.9	8406.7	9393.3	10604.5	12153.2	13929.7	14756.7	13748.5
68°	6427.4	6586.9	6885.8	7358.2	8106.3	9075.8	10369.0	12041.7	13980.8	14874.4	13785.6
70°	4928.2	4985.5	5272.0	5696.4	6503.3	7454.2	8759.9	10666.4	12857.9	13777.9	12658.1
72.5°	2341.7	2375.8	2561.7	2979.8	3492.5	4266.9	5419.2	7217.3	9192.0	10149.1	9032.4
75°	858.0	865.8	909.1	1008.3	1200.3	1491.5	2044.4	3162.6	4681.9	5583.3	4700.5
77.5°	463.1	464.6	481.7	506.4	540.5	579.2	662.9	889.0	1434.2	1951.5	1514.7
80°	291.2	289.6	306.7	326.8	350.0	368.6	376.4	402.7	453.8	531.2	487.9
82.5°	148.7	162.6	201.3	223.0	257.1	263.3	255.5	254.0	269.5	291.2	300.5
85°	82.1	72.8	106.9	142.5	154.9	159.5	161.1	151.8	148.7	145.6	153.3
87.5°	41.8	38.7	46.5	71.2	75.9	62.0	63.5	54.2	37.2	37.2	38.7
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: P196884

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-8030-800

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0	2523.0
2.5°	2504.4	2505.9	2502.8	2502.8	2502.8	2504.4	2502.8	2501.3
5°	2484.2	2487.3	2487.3	2488.9	2490.4	2490.4	2490.4	2490.4
7.5°	2454.8	2456.4	2459.5	2459.5	2459.5	2459.5	2459.5	2459.5
10°	2426.9	2423.8	2422.3	2419.2	2419.2	2414.5	2416.1	2417.6
12.5°	2413.0	2406.8	2403.7	2399.1	2396.0	2391.3	2391.3	2392.9
15°	2419.2	2409.9	2400.6	2397.5	2394.4	2391.3	2388.2	2389.8
17.5°	2431.6	2420.7	2409.9	2403.7	2397.5	2392.9	2391.3	2392.9
20°	2457.9	2442.4	2425.4	2414.5	2402.1	2399.1	2394.4	2399.1
22.5°	2493.5	2474.9	2453.3	2433.1	2419.2	2413.0	2406.8	2411.4
25°	2536.9	2516.8	2495.1	2471.8	2456.4	2451.7	2444.0	2444.0
27.5°	2597.3	2580.3	2561.7	2540.0	2524.5	2519.9	2507.5	2507.5
30°	2693.3	2676.3	2659.2	2640.7	2625.2	2620.5	2605.0	2605.0
32.5°	2820.3	2801.7	2790.9	2775.4	2763.0	2755.3	2736.7	2735.1
35°	2990.7	2973.6	2972.1	2961.3	2948.9	2950.4	2931.8	2928.7
37.5°	3235.4	3221.4	3226.1	3216.8	3206.0	3215.3	3204.4	3204.4
40°	3548.2	3543.6	3548.2	3542.0	3543.6	3545.1	3535.9	3538.9
42.5°	3926.1	3913.8	3941.6	3938.5	3933.9	3946.3	3924.6	3909.1
45°	4361.3	4356.7	4384.6	4389.2	4379.9	4387.7	4349.0	4347.4
47.5°	4833.7	4833.7	4858.5	4855.4	4846.1	4847.7	4801.2	4771.8
50°	5326.2	5323.1	5347.9	5341.7	5329.3	5327.8	5279.8	5250.3
52.5°	5838.9	5838.9	5874.5	5857.5	5828.0	5814.1	5755.2	5716.5
55°	6405.7	6398.0	6408.8	6353.1	6295.8	6253.9	6181.2	6151.7
57.5°	7122.8	7033.0	6955.5	6884.3	6803.8	6754.2	6669.0	6638.0
60°	8140.4	7900.3	7796.5	7654.0	7520.8	7454.2	7341.2	7280.8
62.5°	9549.7	9151.7	8869.8	8555.4	8251.9	8038.1	7866.2	7790.3
65°	11179.0	10311.7	9594.7	8920.9	8349.4	7895.6	7643.2	7564.2
67.5°	11798.6	10206.4	8968.9	8002.5	7308.7	6768.1	6466.1	6402.6
68°	11666.9	9964.8	8679.3	7689.7	6992.7	6447.5	6147.1	6089.8
70°	10291.6	8406.7	7050.0	6065.0	5414.5	4895.7	4683.5	4592.1
72.5°	7015.9	5399.0	4141.4	3312.8	2826.5	2498.2	2303.0	2236.4
75°	3229.2	2182.2	1457.4	1088.8	924.6	845.6	785.2	769.7
77.5°	941.7	684.6	588.5	545.2	512.6	484.8	464.6	463.1
80°	447.6	419.7	407.3	379.4	350.0	323.7	305.1	308.2
82.5°	300.5	292.7	292.7	264.8	218.4	187.4	154.9	139.4
85°	159.5	165.7	175.0	165.7	144.0	106.9	69.7	75.9
87.5°	54.2	62.0	65.0	63.5	57.3	43.4	32.5	32.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)