

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: P270646

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21197.1 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

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

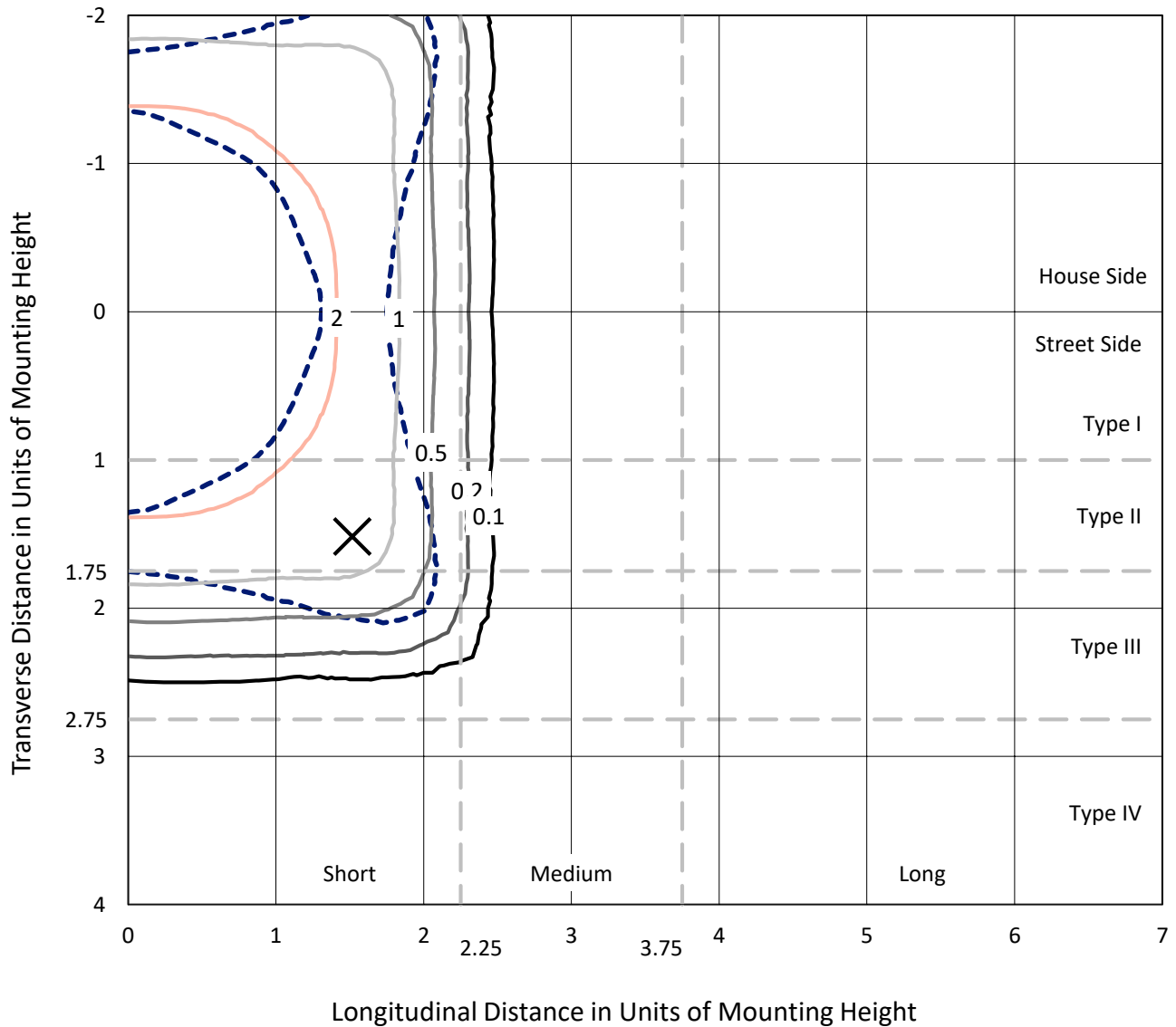


REPORT NUMBER: P270646

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

Iso-Footcandle Lines of Horizontal Illumination

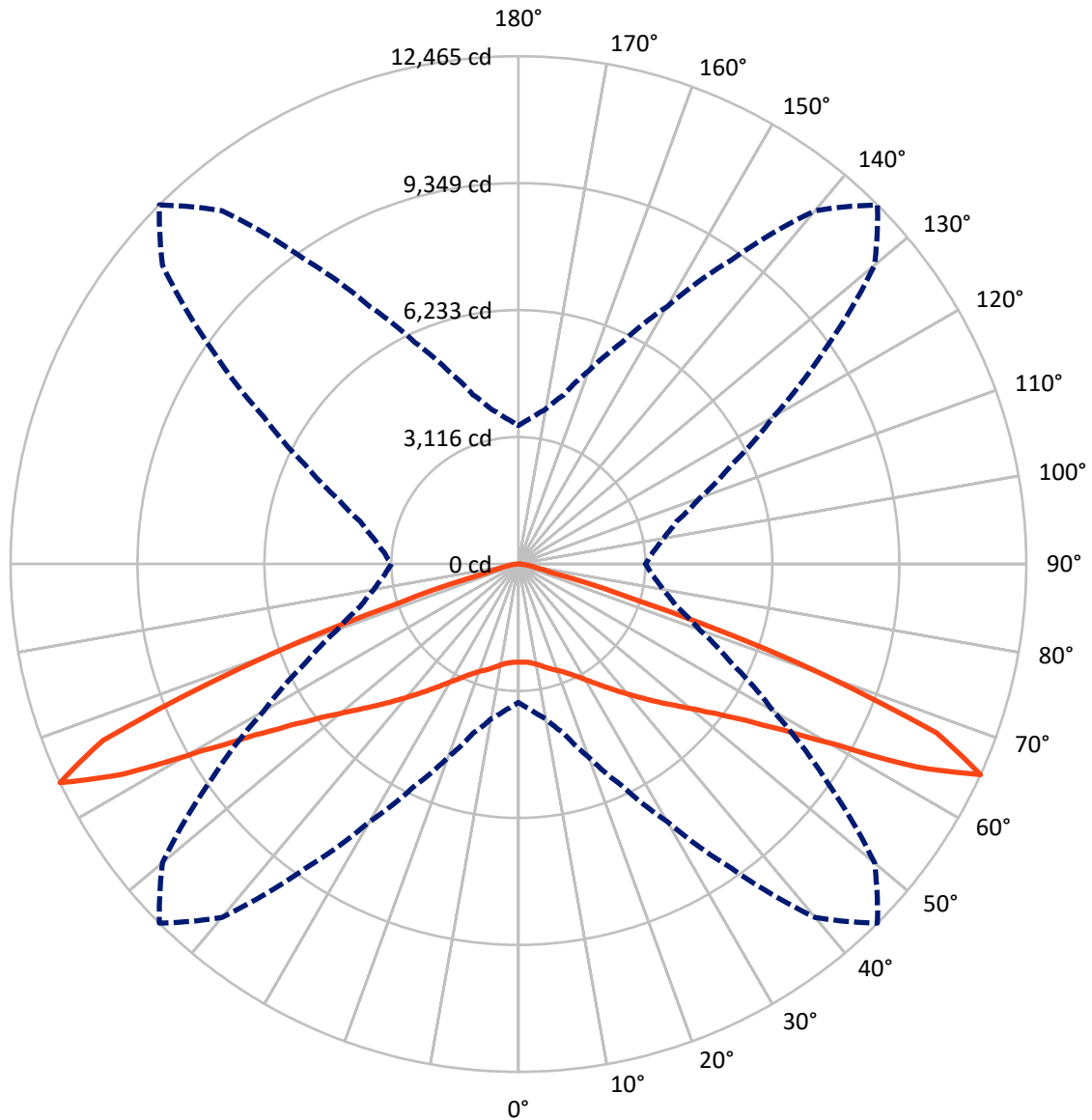
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P270646
CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P270646

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10598.5	0.0	10598.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10598.5	0.0	10598.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	21197.1	0.0	21197.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.8	1.1
10°-20°	752.5	3.6
20°-30°	1403.8	6.6
30°-40°	2367.1	11.2
40°-50°	3844.9	18.1
50°-60°	6024.2	28.4
60°-70°	5686.6	26.8
70°-80°	766.4	3.6
80°-90°	116.8	0.6
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°	21197.1	100.0
0°-180°	21197.1	100.0



REPORT NUMBER: P270646

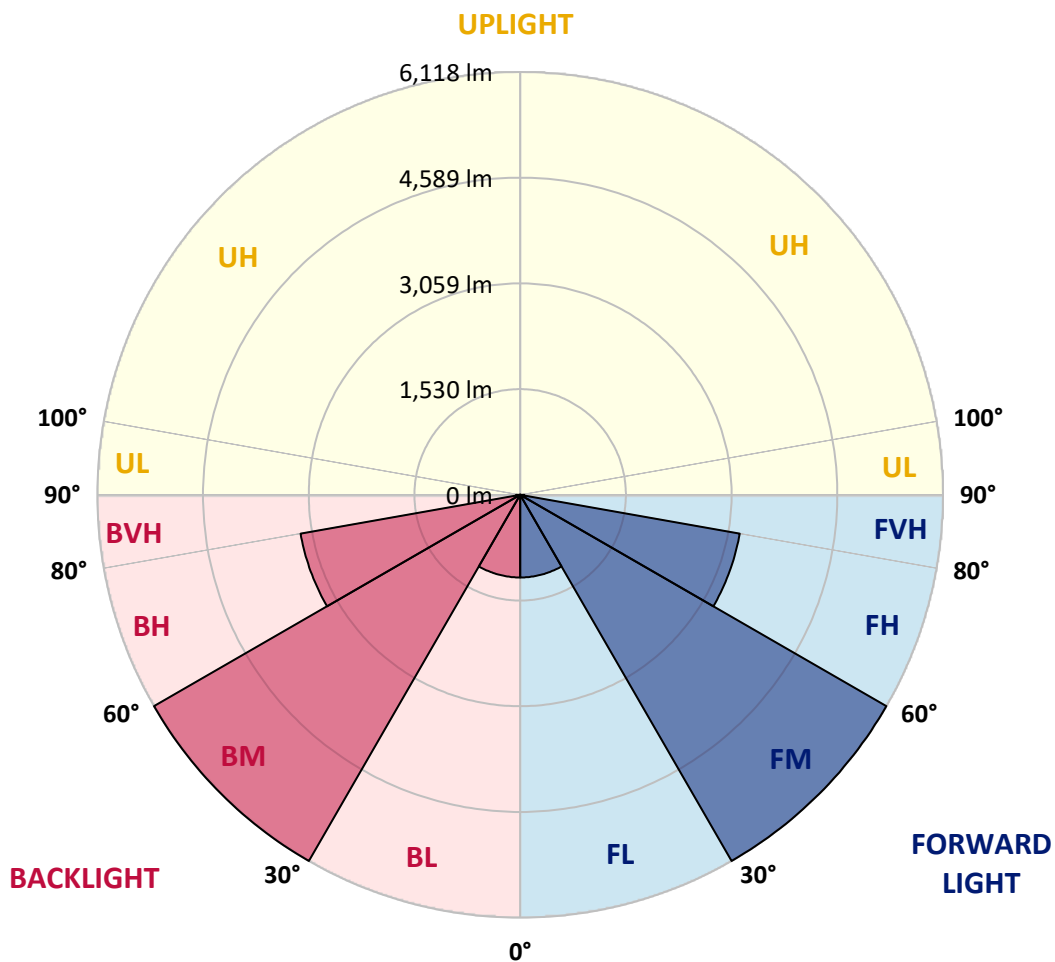
CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1195.6	5.6			
FM	(30°-60°)	6118.1	28.9			
FH	(60°-80°)	3226.5	15.2			G2/5000
FVH	(80°-90°)	58.4	0.3			G1/100
BL	(0°-30°)	1195.6	5.6	B3/2500		
BM	(30°-60°)	6118.1	28.9	B4/8500		
BH	(60°-80°)	3226.5	15.2	B4/5000		G2/5000
BVH	(80°-90°)	58.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P270646

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1
2.5°	2431.0	2431.0	2434.9	2433.6	2428.3	2424.3	2420.5	2415.2	2412.5	2409.9	2408.4
5°	2444.2	2444.2	2448.2	2446.9	2442.9	2437.6	2434.9	2431.0	2427.0	2424.3	2425.7
7.5°	2477.2	2478.5	2479.9	2478.5	2474.6	2470.6	2465.3	2464.0	2458.8	2454.7	2457.4
10°	2527.3	2527.3	2528.6	2529.9	2527.3	2518.0	2518.0	2515.4	2510.1	2505.0	2506.2
12.5°	2582.7	2582.7	2584.2	2584.2	2584.2	2578.9	2580.1	2578.9	2572.2	2569.6	2572.2
15°	2637.0	2638.2	2638.2	2640.8	2640.8	2642.3	2647.6	2647.6	2644.9	2643.5	2643.5
17.5°	2700.3	2703.0	2704.3	2708.2	2709.6	2712.3	2717.6	2718.8	2720.1	2716.1	2717.6
20°	2784.8	2786.2	2790.1	2791.5	2796.8	2796.8	2799.4	2798.0	2795.3	2790.1	2790.1
22.5°	2879.8	2882.5	2890.4	2890.4	2897.0	2893.1	2894.3	2890.4	2883.9	2881.3	2878.6
25°	3004.0	3008.0	3014.6	3011.9	3014.6	3008.0	3008.0	3008.0	3004.0	3000.1	2998.7
27.5°	3161.1	3154.6	3161.1	3155.8	3154.6	3149.3	3150.5	3147.9	3144.0	3142.7	3137.4
30°	3324.8	3317.0	3320.9	3322.2	3319.5	3318.2	3312.9	3309.0	3302.4	3303.7	3299.8
32.5°	3512.5	3504.5	3508.4	3509.8	3507.2	3509.8	3508.4	3499.2	3491.3	3496.6	3496.6
35°	3735.5	3730.3	3740.8	3744.8	3736.9	3732.8	3727.6	3717.0	3705.1	3713.1	3714.4
37.5°	4003.6	3997.0	4005.0	4015.5	4001.1	3993.1	3971.9	3956.0	3948.1	3952.2	3957.5
40°	4282.2	4283.6	4305.9	4308.6	4292.8	4283.6	4262.4	4238.7	4216.1	4216.1	4222.8
42.5°	4575.3	4579.3	4605.7	4615.0	4609.7	4592.6	4563.5	4534.5	4505.4	4510.7	4518.6
45°	4906.8	4901.5	4929.2	4951.6	4947.8	4942.5	4914.6	4861.8	4835.4	4834.1	4847.3
47.5°	5255.4	5266.0	5295.0	5333.2	5332.0	5318.8	5283.1	5234.2	5185.3	5189.4	5205.1
50°	5662.0	5676.6	5725.4	5763.7	5769.1	5765.1	5722.8	5666.1	5597.3	5601.3	5622.5
52.5°	6026.5	6047.7	6104.4	6183.7	6232.5	6255.0	6227.2	6174.4	6104.4	6108.4	6130.8
55°	6356.6	6389.6	6474.2	6582.4	6680.2	6771.2	6812.1	6810.9	6759.3	6771.2	6800.3
57.5°	6563.9	6610.2	6738.2	6912.5	7106.6	7290.1	7448.7	7597.9	7630.9	7692.9	7692.9
60°	6285.4	6393.5	6563.9	6862.4	7244.0	7656.0	8102.3	8536.8	8816.7	9037.2	8918.4
62.5°	5248.7	5408.5	5647.6	6041.0	6635.2	7370.8	8267.3	9277.4	10331.1	10975.6	10502.9
65°	3396.2	3597.0	3857.1	4299.4	5048.0	5994.7	7300.7	9116.4	11321.5	12465.1	11408.7
67.5°	1345.5	1481.6	1639.9	1954.3	2603.9	3533.6	4999.2	7238.7	9997.1	11075.9	9891.4
70°	643.0	665.6	695.8	763.2	925.7	1249.2	2008.4	3566.5	6130.8	7267.7	5984.2
72.5°	464.9	468.7	483.3	505.7	553.3	619.3	752.7	1090.7	2114.0	3074.0	2116.6
75°	352.6	357.9	365.8	377.6	402.7	434.4	484.5	581.1	723.7	834.5	722.2
77.5°	268.1	273.4	279.9	291.8	305.1	327.5	345.9	384.2	445.0	468.7	466.1
80°	195.4	204.6	215.2	225.8	235.0	245.5	246.9	265.4	299.8	322.2	315.6
82.5°	124.1	132.1	159.8	171.7	173.0	175.6	174.4	175.6	194.2	209.9	204.6
85°	79.2	84.5	99.1	112.3	109.7	114.9	114.9	112.3	104.4	89.8	107.0
87.5°	39.6	41.0	47.5	59.4	56.9	50.1	48.9	48.9	35.7	30.4	33.0
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: P270646

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7027-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1
2.5°	2404.6	2407.2	2403.2	2403.2	2401.9	2404.6	2400.6	2400.6
5°	2423.0	2427.0	2425.7	2425.7	2428.3	2431.0	2429.6	2428.3
7.5°	2456.1	2458.8	2461.4	2462.7	2465.3	2464.0	2466.6	2465.3
10°	2506.2	2503.5	2507.4	2503.5	2505.0	2502.3	2503.5	2503.5
12.5°	2569.6	2565.6	2563.0	2560.3	2560.3	2555.0	2555.0	2556.3
15°	2642.3	2635.5	2630.3	2627.7	2625.0	2625.0	2621.1	2623.7
17.5°	2713.5	2707.0	2697.7	2697.7	2693.7	2691.1	2688.4	2695.1
20°	2788.8	2782.2	2776.9	2775.7	2767.7	2765.1	2766.3	2774.2
22.5°	2876.0	2872.1	2872.1	2869.4	2864.1	2860.2	2860.2	2869.4
25°	2993.4	2985.5	2986.9	2988.2	2985.5	2985.5	2982.9	2989.5
27.5°	3137.4	3130.9	3134.7	3137.4	3134.7	3138.7	3134.7	3140.0
30°	3306.4	3302.4	3306.4	3310.3	3303.7	3303.7	3301.1	3305.0
32.5°	3508.4	3503.1	3505.7	3505.7	3496.6	3488.6	3478.1	3486.1
35°	3730.3	3723.7	3729.0	3732.8	3722.3	3714.4	3698.6	3705.1
37.5°	3974.6	3977.2	3983.9	4001.1	3998.4	3985.2	3973.3	3978.6
40°	4247.8	4261.1	4290.1	4302.1	4299.4	4286.2	4270.4	4273.0
42.5°	4556.8	4574.0	4604.4	4624.3	4615.0	4596.4	4576.7	4584.6
45°	4893.5	4919.9	4959.6	4979.5	4967.5	4947.8	4919.9	4934.5
47.5°	5250.1	5303.0	5355.8	5382.1	5378.2	5350.5	5314.8	5318.8
50°	5676.6	5746.5	5813.9	5840.3	5820.6	5778.3	5728.1	5726.8
52.5°	6207.5	6282.7	6338.1	6331.6	6282.7	6216.7	6159.9	6157.3
55°	6870.2	6895.4	6887.5	6830.7	6744.8	6641.9	6569.2	6557.4
57.5°	7671.9	7587.4	7463.2	7291.5	7098.8	6903.4	6771.2	6722.3
60°	8651.5	8269.9	7826.4	7358.8	6932.4	6612.9	6410.8	6288.0
62.5°	9460.9	8355.9	7364.1	6552.1	5887.9	5493.0	5217.0	5046.8
65°	9183.7	7218.9	5782.2	4735.1	4010.3	3602.3	3310.3	3116.3
67.5°	7094.8	4823.5	3356.5	2326.6	1764.1	1493.4	1304.6	1181.8
70°	3577.1	1850.0	1121.1	791.0	676.1	628.5	596.8	578.4
72.5°	1049.8	701.1	582.3	515.0	474.0	445.0	426.5	417.3
75°	581.1	474.0	418.6	380.3	353.9	334.1	322.2	314.2
77.5°	400.0	344.6	316.9	291.8	270.7	256.1	246.9	238.9
80°	279.9	252.2	240.3	227.1	211.3	199.3	186.2	180.9
82.5°	186.2	174.4	171.7	161.1	151.9	138.7	114.9	107.0
85°	109.7	108.2	108.2	104.4	97.7	85.8	68.7	68.7
87.5°	38.3	39.6	41.0	43.6	42.3	35.7	29.0	27.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)