

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: P195472

Luminaire Tested: **NAV-AF-04-D-UNV-5NQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195472
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-04-D-UNV-5NQ-7050
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25080 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

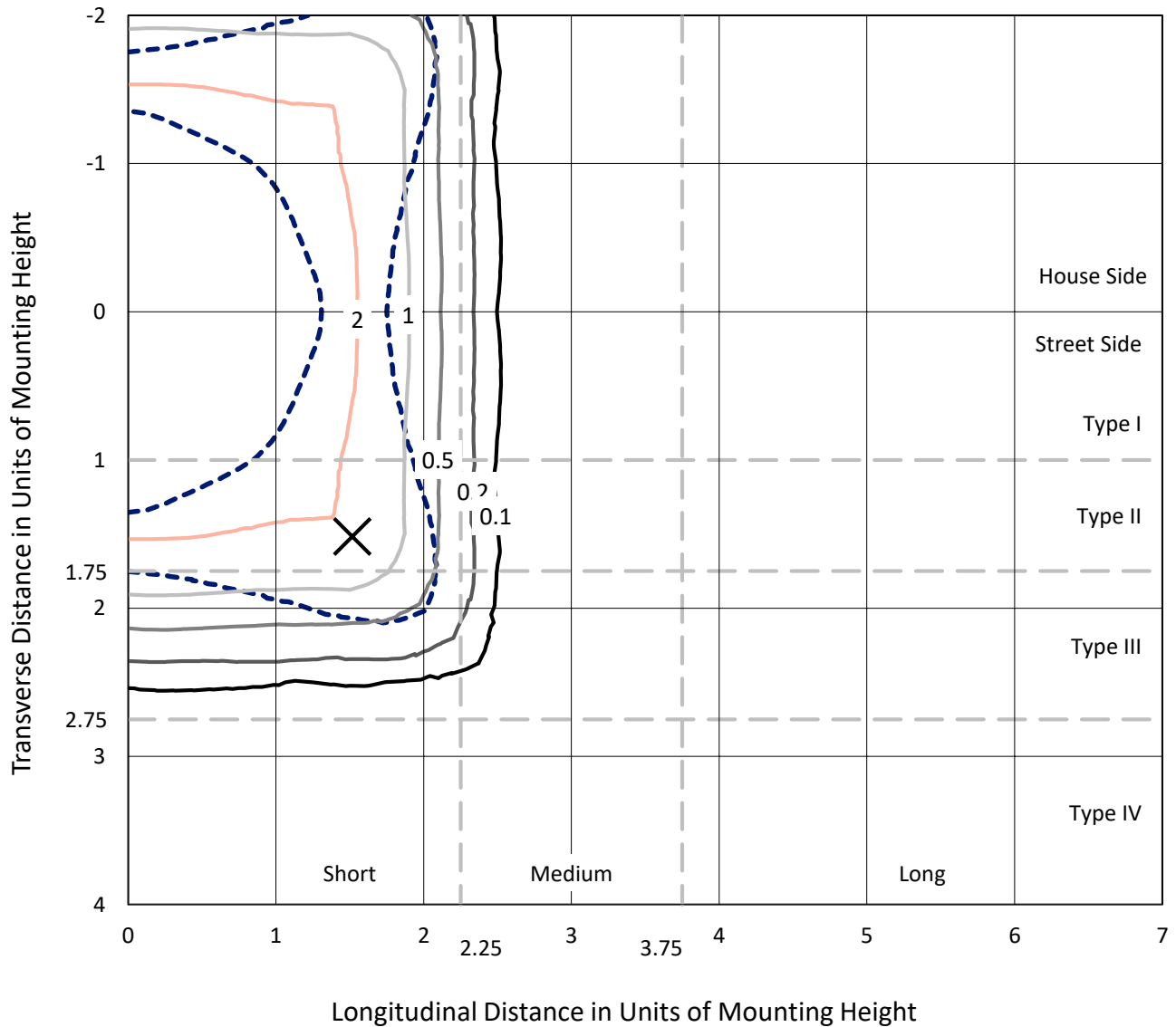
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P195472
 CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

Iso-Footcandle Lines of Horizontal Illumination

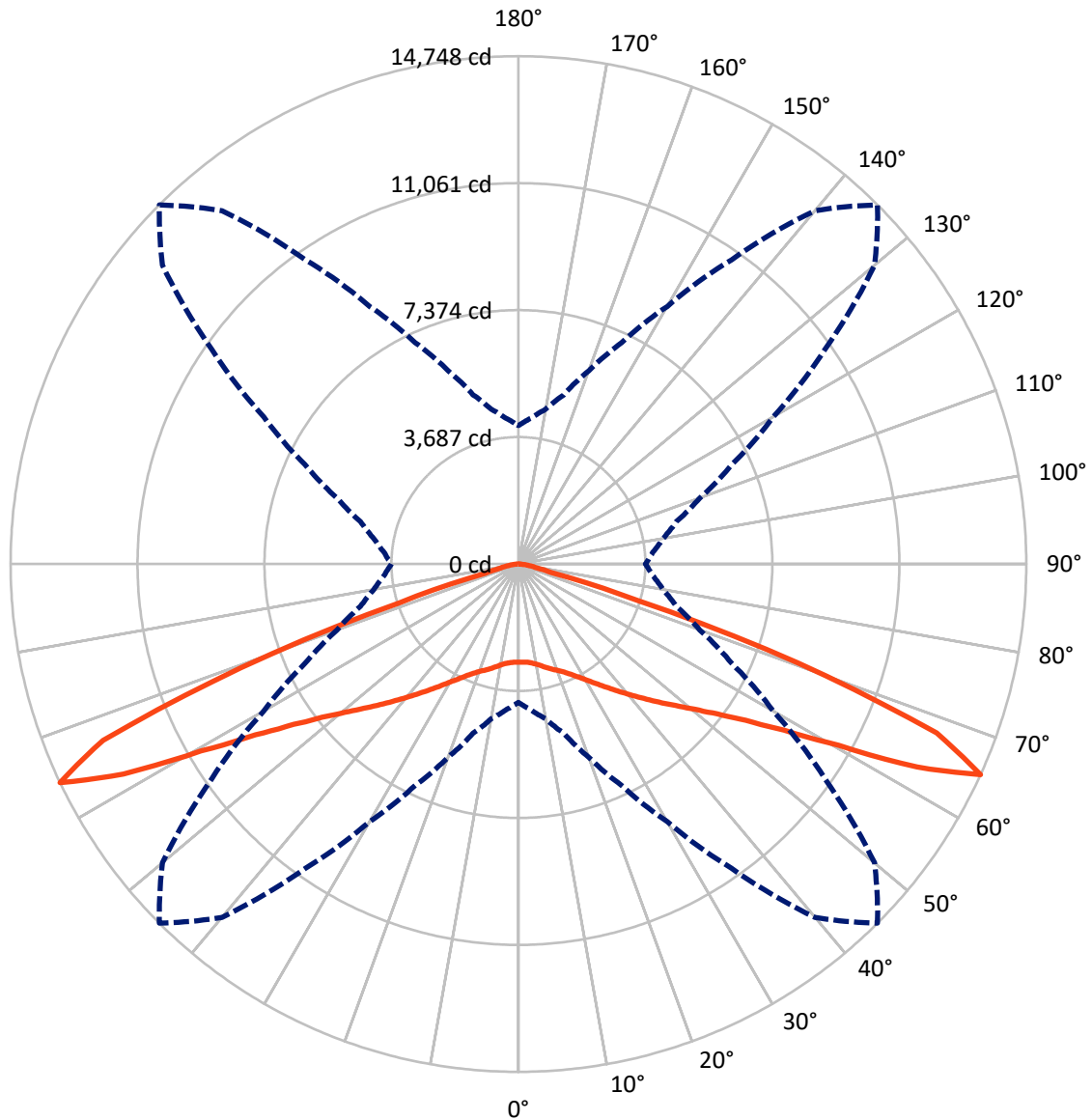
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P195472
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

Luminous Intensity Polar Plot



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

REPORT NUMBER: P195472

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12540.0	0.0	12540.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12540.0	0.0	12540.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	25080.0	0.0	25080.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.8	1.1
10°-20°	890.4	3.6
20°-30°	1661.0	6.6
30°-40°	2800.7	11.2
40°-50°	4549.2	18.1
50°-60°	7127.8	28.4
60°-70°	6728.3	26.8
70°-80°	906.8	3.6
80°-90°	138.1	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°	25080.0	100.0
0°-180°	25080.0	100.0



REPORT NUMBER: P195472

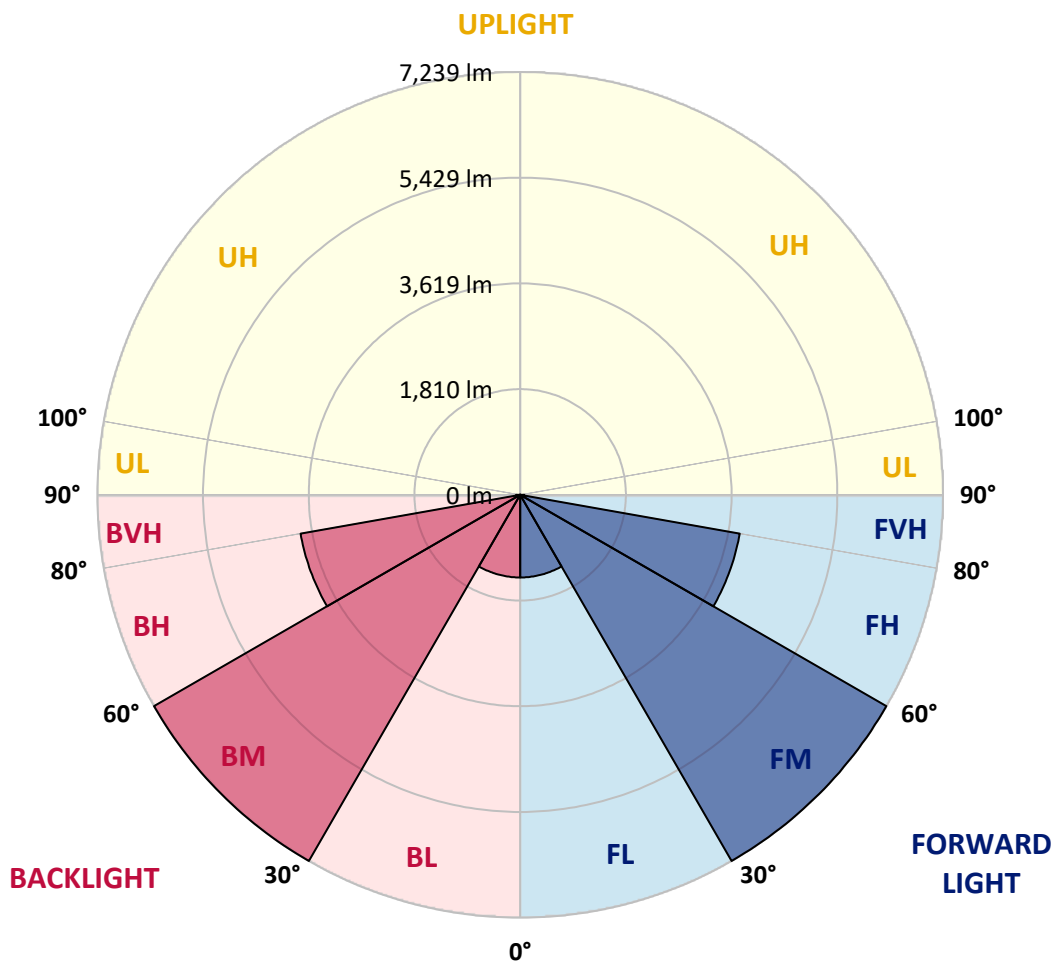
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1414.6	5.6			
FM	(30°-60°)	7238.8	28.9			
FH	(60°-80°)	3817.5	15.2			G2/5000
FVH	(80°-90°)	69.1	0.3			G1/100
BL	(0°-30°)	1414.6	5.6	B3/2500		
BM	(30°-60°)	7238.8	28.9	B4/8500		
BH	(60°-80°)	3817.5	15.2	B4/5000		G2/5000
BVH	(80°-90°)	69.1	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: P195472

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8
2.5°	2876.3	2876.3	2880.9	2879.4	2873.1	2868.4	2863.8	2857.5	2854.4	2851.3	2849.7
5°	2891.9	2891.9	2896.6	2895.0	2890.3	2884.1	2880.9	2876.3	2871.6	2868.4	2870.0
7.5°	2930.9	2932.5	2934.1	2932.5	2927.8	2923.1	2916.9	2915.3	2909.1	2904.4	2907.5
10°	2990.3	2990.3	2991.9	2993.4	2990.3	2979.4	2979.4	2976.2	2970.0	2963.7	2965.3
12.5°	3055.9	3055.9	3057.5	3057.5	3057.5	3051.2	3052.8	3051.2	3043.4	3040.3	3043.4
15°	3120.0	3121.5	3121.5	3124.7	3124.7	3126.2	3132.5	3132.5	3129.4	3127.8	3127.8
17.5°	3195.0	3198.1	3199.7	3204.3	3205.9	3209.0	3215.3	3216.8	3218.4	3213.7	3215.3
20°	3295.0	3296.5	3301.2	3302.8	3309.0	3309.0	3312.1	3310.6	3307.5	3301.2	3301.2
22.5°	3407.4	3410.6	3419.9	3419.9	3427.8	3423.1	3424.6	3419.9	3412.1	3409.0	3405.9
25°	3554.3	3559.0	3566.8	3563.7	3566.8	3559.0	3559.0	3559.0	3554.3	3549.6	3548.1
27.5°	3740.2	3732.4	3740.2	3734.0	3732.4	3726.2	3727.7	3724.6	3719.9	3718.4	3712.1
30°	3934.0	3924.6	3929.3	3930.8	3927.7	3926.1	3919.9	3915.2	3907.4	3909.0	3904.3
32.5°	4155.8	4146.4	4151.1	4152.7	4149.6	4152.7	4151.1	4140.2	4130.8	4137.1	4137.1
35°	4419.8	4413.6	4426.1	4430.8	4421.4	4416.7	4410.5	4398.0	4383.9	4393.3	4394.8
37.5°	4737.0	4729.2	4738.6	4751.1	4733.9	4724.5	4699.5	4680.7	4671.4	4676.1	4682.3
40°	5066.6	5068.2	5094.8	5097.9	5079.1	5068.2	5043.2	5015.1	4988.5	4988.5	4996.3
42.5°	5413.5	5418.2	5449.4	5460.4	5454.1	5433.8	5399.4	5365.1	5330.7	5336.9	5346.3
45°	5805.6	5799.4	5832.2	5858.7	5854.1	5847.8	5815.0	5752.5	5721.3	5719.7	5735.3
47.5°	6218.1	6230.6	6265.0	6310.3	6308.7	6293.1	6250.9	6193.1	6135.3	6140.0	6158.7
50°	6699.3	6716.5	6774.3	6819.6	6825.8	6821.1	6771.2	6704.0	6622.7	6627.4	6652.4
52.5°	7130.5	7155.5	7222.7	7316.4	7374.2	7400.8	7368.0	7305.5	7222.7	7227.4	7253.9
55°	7521.1	7560.1	7660.1	7788.2	7903.8	8011.6	8060.1	8058.5	7997.6	8011.6	8046.0
57.5°	7766.4	7821.0	7972.6	8178.8	8408.5	8625.6	8813.1	8989.7	9028.7	9102.2	9102.2
60°	7436.7	7564.8	7766.4	8119.4	8571.0	9058.4	9586.5	10100.5	10431.7	10692.6	10552.0
62.5°	6210.3	6399.3	6682.1	7147.7	7850.7	8720.9	9781.8	10977.0	12223.7	12986.1	12426.8
65°	4018.3	4255.8	4563.6	5087.0	5972.8	7093.0	8638.1	10786.3	13395.4	14748.4	13498.6
67.5°	1592.0	1752.9	1940.4	2312.3	3080.9	4180.8	5915.0	8564.7	11828.4	13104.8	11703.4
70°	760.9	787.4	823.3	903.0	1095.2	1478.0	2376.3	4219.9	7253.9	8599.1	7080.5
72.5°	549.9	554.6	571.8	598.4	654.6	732.7	890.5	1290.5	2501.3	3637.1	2504.4
75°	417.1	423.4	432.8	446.8	476.5	514.0	573.4	687.4	856.2	987.4	854.6
77.5°	317.2	323.4	331.2	345.3	360.9	387.5	409.3	454.6	526.5	554.6	551.5
80°	231.2	242.2	254.7	267.2	278.1	290.6	292.2	314.0	354.6	381.2	373.4
82.5°	146.9	156.2	189.0	203.1	204.7	207.8	206.2	207.8	229.7	248.4	242.2
85°	93.7	100.0	117.2	132.8	129.7	135.9	135.9	132.8	123.4	106.2	126.5
87.5°	46.9	48.4	56.2	70.3	67.2	59.4	57.8	57.8	42.2	35.9	39.1
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: P195472

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8	2852.8
2.5°	2845.0	2848.1	2843.4	2843.4	2841.9	2845.0	2840.3	2840.3
5°	2866.9	2871.6	2870.0	2870.0	2873.1	2876.3	2874.7	2873.1
7.5°	2905.9	2909.1	2912.2	2913.8	2916.9	2915.3	2918.4	2916.9
10°	2965.3	2962.2	2966.9	2962.2	2963.7	2960.6	2962.2	2962.2
12.5°	3040.3	3035.6	3032.5	3029.4	3029.4	3023.1	3023.1	3024.7
15°	3126.2	3118.4	3112.2	3109.0	3105.9	3105.9	3101.2	3104.4
17.5°	3210.6	3202.8	3191.8	3191.8	3187.2	3184.0	3180.9	3188.7
20°	3299.6	3291.8	3285.6	3284.0	3274.6	3271.5	3273.1	3282.5
22.5°	3402.8	3398.1	3398.1	3394.9	3388.7	3384.0	3384.0	3394.9
25°	3541.8	3532.4	3534.0	3535.6	3532.4	3532.4	3529.3	3537.1
27.5°	3712.1	3704.3	3709.0	3712.1	3709.0	3713.7	3709.0	3715.2
30°	3912.1	3907.4	3912.1	3916.8	3909.0	3909.0	3905.8	3910.5
32.5°	4151.1	4144.9	4148.0	4148.0	4137.1	4127.7	4115.2	4124.6
35°	4413.6	4405.8	4412.0	4416.7	4404.2	4394.8	4376.1	4383.9
37.5°	4702.6	4705.7	4713.6	4733.9	4730.7	4715.1	4701.1	4707.3
40°	5026.0	5041.6	5076.0	5090.1	5087.0	5071.3	5052.6	5055.7
42.5°	5391.6	5411.9	5447.9	5471.3	5460.4	5438.5	5415.0	5424.4
45°	5790.0	5821.3	5868.1	5891.6	5877.5	5854.1	5821.3	5838.4
47.5°	6211.8	6274.3	6336.8	6368.1	6363.4	6330.6	6288.4	6293.1
50°	6716.5	6799.3	6879.0	6910.2	6886.8	6836.8	6777.4	6775.8
52.5°	7344.5	7433.6	7499.2	7491.4	7433.6	7355.5	7288.3	7285.2
55°	8128.8	8158.5	8149.1	8081.9	7980.4	7858.5	7772.6	7758.5
57.5°	9077.2	8977.2	8830.3	8627.2	8399.1	8167.9	8011.6	7953.8
60°	10236.4	9784.9	9259.9	8706.9	8202.2	7824.2	7585.1	7439.8
62.5°	11194.1	9886.4	8713.1	7752.3	6966.4	6499.3	6172.8	5971.2
65°	10866.0	8541.3	6841.5	5602.5	4744.8	4262.0	3916.8	3687.1
67.5°	8394.4	5707.2	3971.5	2752.8	2087.3	1767.0	1543.6	1398.3
70°	4232.4	2188.8	1326.4	935.8	799.9	743.7	706.2	684.3
72.5°	1242.1	829.6	689.0	609.3	560.9	526.5	504.6	493.7
75°	687.4	560.9	495.3	450.0	418.7	395.3	381.2	371.8
77.5°	473.4	407.8	375.0	345.3	320.3	303.1	292.2	282.8
80°	331.2	298.4	284.3	268.7	250.0	235.9	220.3	214.0
82.5°	220.3	206.2	203.1	190.6	179.7	164.0	135.9	126.5
85°	129.7	128.1	128.1	123.4	115.6	101.6	81.2	81.2
87.5°	45.3	46.9	48.4	51.6	50.0	42.2	34.4	32.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)