

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: P270664

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270664
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-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35081.1 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 382
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

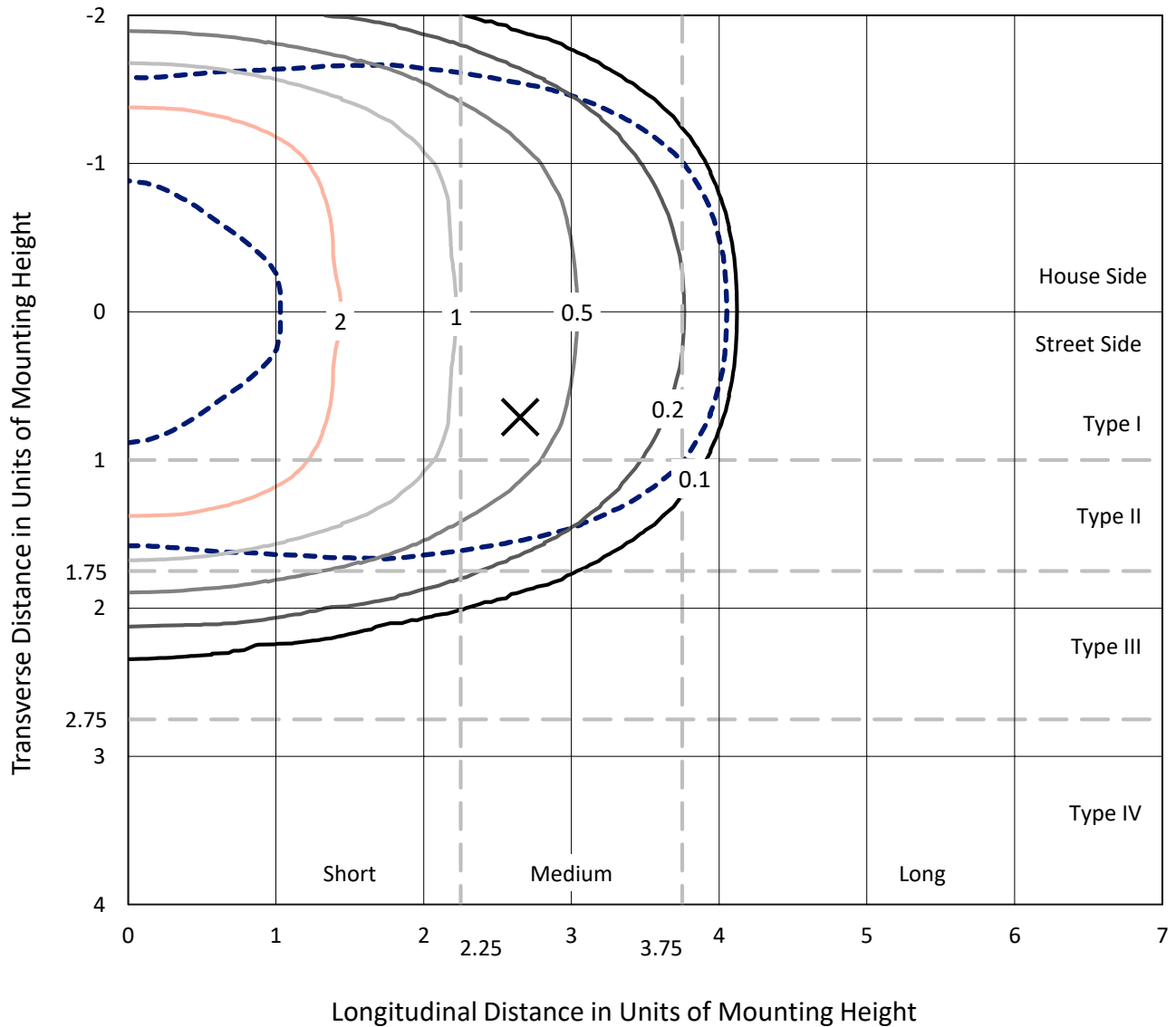


REPORT NUMBER: P270664

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

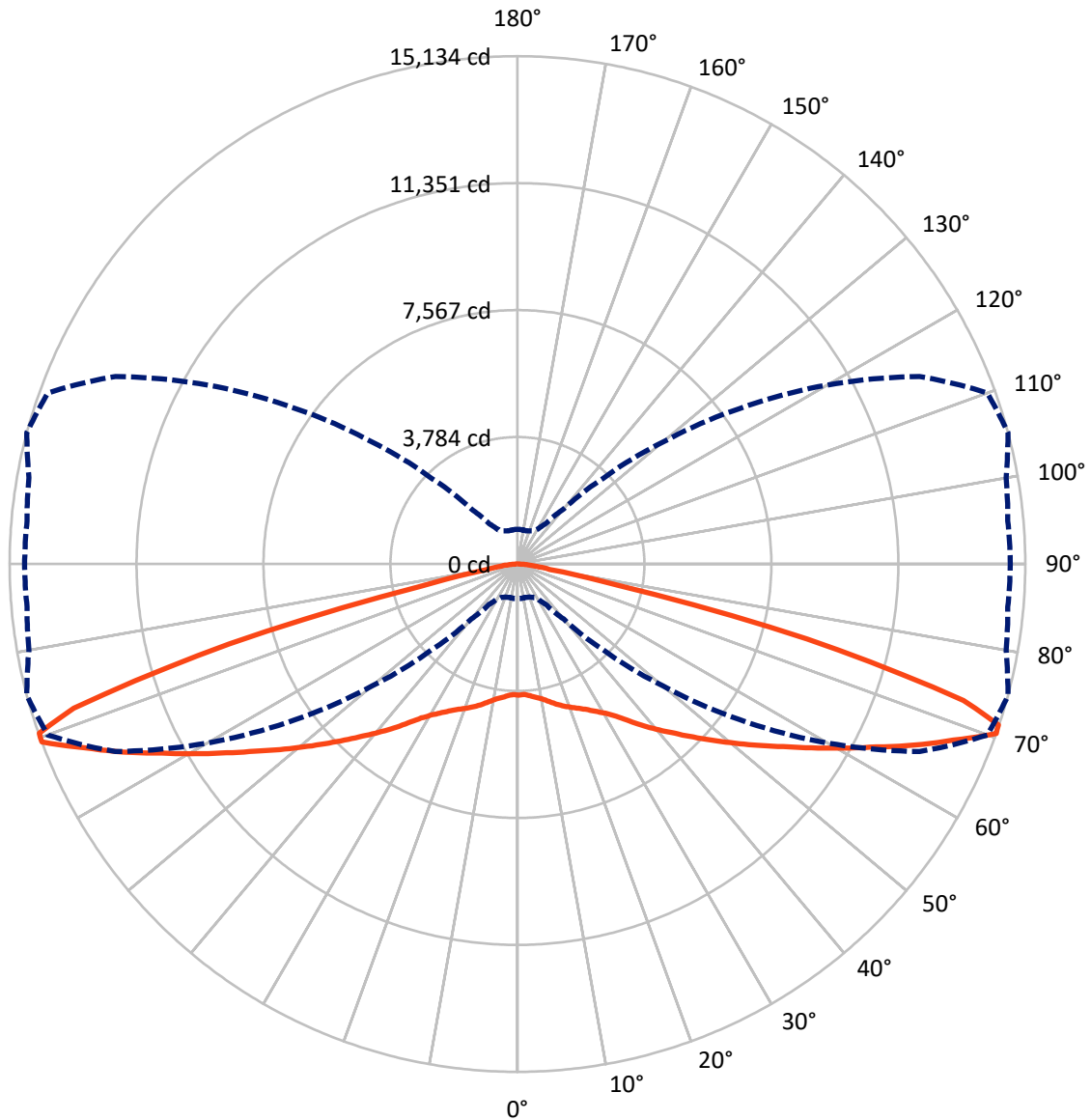
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270664
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270664

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17540.5	0.0	17540.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17540.5	0.0	17540.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	35081.1	0.0	35081.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.7	1.1
10°-20°	1162.1	3.3
20°-30°	2182.7	6.2
30°-40°	3844.8	11.0
40°-50°	6372.1	18.2
50°-60°	8864.5	25.3
60°-70°	8368.3	23.9
70°-80°	3574.2	10.2
80°-90°	337.7	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°	35081.1	100.0
0°-180°	35081.1	100.0



REPORT NUMBER: P270664

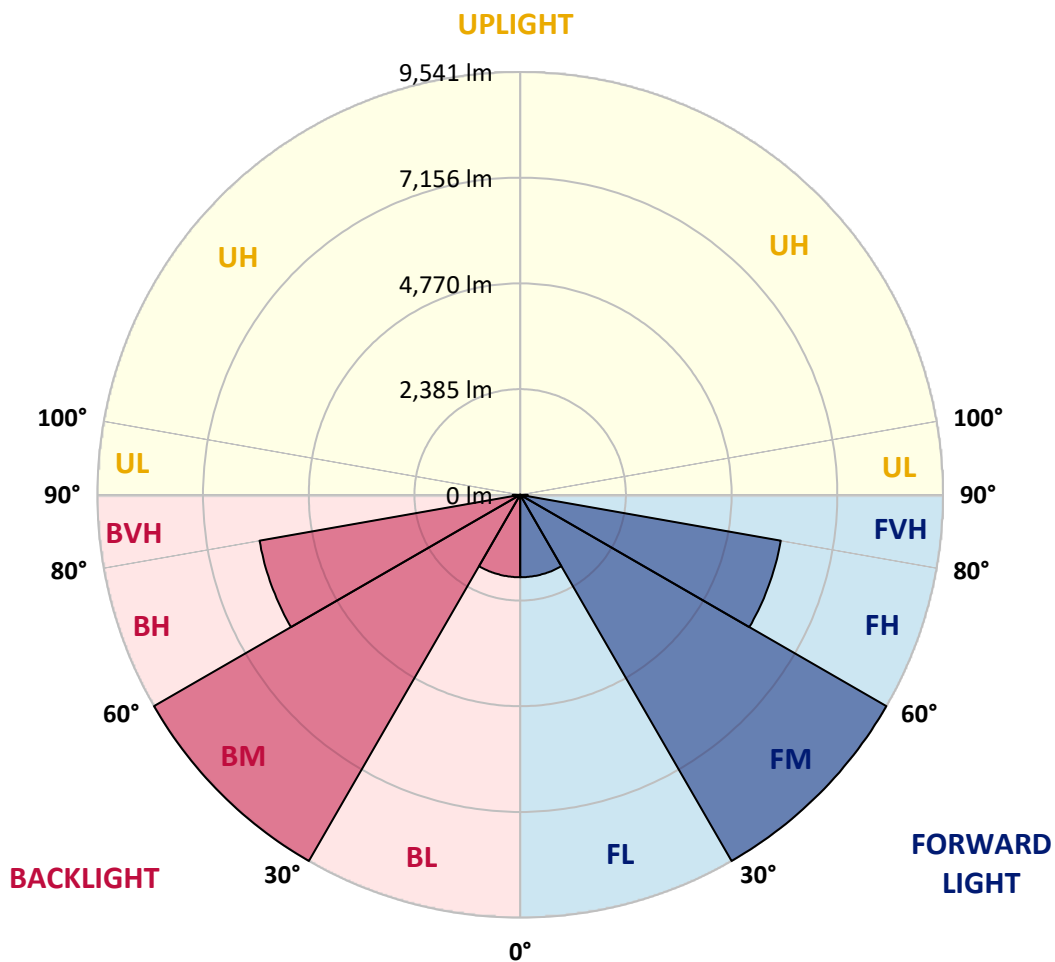
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1859.8	5.3			
FM	(30°-60°)	9540.7	27.2			
FH	(60°-80°)	5971.2	17.0			G3/7500
FVH	(80°-90°)	168.9	0.5			G2/225
BL	(0°-30°)	1859.8	5.3	B3/2500		
BM	(30°-60°)	9540.7	27.2	B5		
BH	(60°-80°)	5971.2	17.0	B5		G5
BVH	(80°-90°)	168.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Medium





REPORT NUMBER: P270664

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5
2.5°	3930.9	3928.6	3930.9	3924.2	3926.4	3924.2	3924.2	3915.4	3915.4	3911.0	3904.5
5°	3886.8	3891.3	3891.3	3891.3	3897.8	3897.8	3906.5	3908.9	3915.4	3922.0	3926.4
7.5°	3814.4	3816.4	3823.0	3827.5	3840.7	3858.3	3875.8	3895.6	3913.2	3935.3	3959.4
10°	3752.7	3757.2	3768.1	3779.1	3803.3	3825.3	3856.1	3886.8	3917.6	3955.0	3992.3
12.5°	3719.7	3726.3	3744.0	3761.6	3798.9	3827.5	3869.3	3917.6	3959.4	3994.6	4036.4
15°	3724.2	3726.3	3750.6	3774.7	3827.5	3867.1	3926.4	3983.5	4034.1	4073.8	4122.1
17.5°	3788.0	3792.4	3816.4	3851.7	3902.2	3952.8	4016.5	4075.9	4144.1	4190.2	4247.4
20°	3913.2	3919.8	3946.3	3983.5	4038.5	4091.3	4157.3	4218.8	4289.1	4344.2	4401.2
22.5°	4075.9	4086.8	4115.4	4161.7	4216.6	4280.3	4348.5	4412.3	4478.2	4533.1	4581.5
25°	4293.5	4306.7	4337.6	4383.6	4438.6	4506.7	4577.1	4643.1	4711.3	4753.0	4792.5
27.5°	4585.9	4607.9	4641.0	4678.3	4726.6	4799.1	4865.1	4920.0	4986.0	5032.2	5058.5
30°	4979.5	5010.2	5036.5	5076.2	5111.4	5188.3	5241.2	5285.1	5335.7	5362.1	5368.6
32.5°	5460.9	5489.5	5516.0	5544.5	5592.8	5663.2	5713.7	5738.0	5764.3	5759.9	5735.7
35°	6003.9	6025.9	6041.3	6091.9	6170.9	6217.2	6254.5	6263.3	6267.7	6221.7	6175.4
37.5°	6575.6	6602.0	6615.1	6694.2	6769.0	6821.8	6839.3	6859.1	6846.0	6769.0	6685.5
40°	7193.3	7221.8	7261.4	7329.6	7417.6	7468.1	7490.1	7487.9	7477.0	7386.8	7250.4
42.5°	7800.1	7835.2	7868.3	7986.9	8059.5	8145.2	8156.3	8154.0	8129.8	8026.4	7868.3
45°	8314.5	8356.3	8424.5	8556.4	8672.9	8776.1	8817.9	8833.4	8809.0	8699.1	8518.9
47.5°	8738.8	8767.4	8853.1	9013.7	9163.2	9314.7	9398.2	9457.6	9455.5	9376.2	9185.1
50°	9029.0	9061.9	9167.6	9347.8	9534.6	9712.7	9877.6	10011.7	10075.4	10018.3	9840.3
52.5°	9112.5	9154.3	9292.7	9508.2	9725.9	9965.4	10211.8	10449.2	10592.0	10627.3	10488.7
55°	8760.8	8807.0	9009.2	9308.1	9666.5	10020.5	10394.2	10732.8	11027.4	11163.6	11108.7
57.5°	7736.4	7769.4	8026.4	8413.4	8925.6	9547.8	10176.5	10796.5	11302.1	11656.0	11717.8
60°	6118.3	6159.9	6441.4	6850.4	7432.9	8219.9	9099.3	10115.0	11106.6	11917.8	12320.1
62.5°	4128.7	4157.3	4427.7	4801.4	5439.0	6197.3	7177.8	8464.0	9877.6	11326.3	12460.7
65°	2167.7	2167.7	2350.1	2611.7	3119.5	3798.9	4803.5	6122.7	7804.5	9613.8	11511.1
67.5°	1257.4	1255.3	1297.2	1356.4	1516.9	1791.7	2345.7	3315.3	4906.9	7013.0	9171.9
70°	1037.6	1031.1	1024.4	1024.4	1048.6	1090.5	1196.0	1461.9	2139.0	3616.4	5643.4
71°	991.5	987.1	969.5	963.0	973.9	996.0	1042.0	1165.2	1519.2	2466.7	4214.4
72.5°	936.6	925.6	899.2	888.2	890.4	899.2	912.4	960.6	1068.4	1402.7	2402.8
75°	853.0	826.6	793.7	778.2	771.6	769.5	769.5	782.7	806.8	846.5	984.9
77.5°	756.3	719.0	683.7	668.2	657.3	650.7	646.3	637.5	633.1	650.7	701.2
80°	639.8	600.2	571.6	562.8	556.2	543.0	525.4	507.8	496.9	505.7	536.4
82.5°	494.6	455.1	459.5	461.6	450.7	428.8	411.2	391.3	371.4	367.1	382.5
85°	393.5	373.8	360.5	389.1	364.9	338.5	314.3	281.3	235.3	193.4	211.0
87.5°	169.3	171.4	246.2	371.4	325.4	261.6	217.7	175.9	112.1	83.5	85.8
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: P270664

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5	3906.5
2.5°	3902.2	3902.2	3895.6	3891.3	3891.3	3891.3	3886.8	3889.0
5°	3928.6	3933.0	3937.5	3935.3	3941.9	3948.4	3946.3	3944.0
7.5°	3972.6	3985.8	3999.0	4005.5	4014.3	4023.1	4025.3	4018.7
10°	4016.5	4042.9	4062.8	4080.3	4091.3	4100.0	4106.7	4104.4
12.5°	4071.5	4108.8	4144.1	4179.3	4203.3	4216.6	4229.8	4225.4
15°	4161.7	4203.3	4247.4	4293.5	4330.9	4350.8	4370.6	4366.1
17.5°	4284.7	4322.1	4357.3	4403.5	4449.7	4471.7	4493.6	4491.3
20°	4438.6	4467.2	4487.0	4513.4	4557.3	4581.5	4601.3	4594.7
22.5°	4614.6	4623.2	4625.6	4634.3	4669.5	4698.0	4724.5	4731.1
25°	4805.8	4799.1	4786.0	4779.4	4803.5	4834.4	4867.3	4876.1
27.5°	5043.3	5021.3	4988.3	4961.9	4968.4	5008.1	5045.4	5054.3
30°	5342.2	5291.6	5221.3	5170.7	5161.9	5203.7	5243.2	5256.4
32.5°	5682.9	5614.8	5518.1	5441.2	5408.2	5445.5	5480.6	5500.5
35°	6087.5	6012.7	5896.2	5797.3	5744.5	5768.6	5830.3	5852.3
37.5°	6566.7	6463.5	6333.7	6208.4	6120.4	6124.9	6190.8	6217.2
40°	7096.6	6947.0	6782.2	6626.1	6498.6	6489.7	6549.2	6568.9
42.5°	7648.3	7457.1	7263.6	7059.2	6900.9	6872.4	6949.3	6951.4
45°	8241.9	7995.8	7756.1	7518.6	7353.7	7303.2	7378.0	7386.8
47.5°	8875.1	8567.3	8283.7	8026.4	7848.4	7769.4	7841.8	7855.0
50°	9534.6	9215.8	8886.0	8600.4	8391.4	8294.7	8380.5	8389.2
52.5°	10187.6	9886.3	9558.9	9231.3	8978.4	8868.4	8969.7	9000.4
55°	10844.9	10554.6	10247.0	9919.4	9600.5	9503.9	9613.8	9646.8
57.5°	11528.6	11249.5	10970.2	10640.5	10330.5	10183.1	10301.9	10348.0
60°	12282.6	12036.4	11772.6	11440.6	11135.1	10963.6	11064.8	11117.6
62.5°	13023.5	12973.0	12733.4	12388.2	12001.3	11829.8	11915.5	11952.8
65°	13085.2	13905.1	13894.2	13551.1	13010.3	12722.3	12746.5	12764.1
67.5°	11421.0	13302.7	14505.3	14613.0	14010.7	13559.9	13507.2	13518.1
70°	8085.9	10669.0	13221.4	14896.7	15134.0	14784.5	14670.2	14687.7
71°	6478.8	9154.3	11963.8	14217.2	15116.5	15015.3	14951.6	14997.7
72.5°	4135.3	6744.8	9479.6	12175.0	13900.7	14395.3	14467.9	14496.5
75°	1501.5	2902.0	4911.4	7037.2	8919.0	10214.0	10926.3	10983.3
77.5°	806.8	1039.9	1607.1	2400.7	3016.2	3346.0	3385.6	3401.1
80°	593.6	688.1	787.0	899.2	969.5	982.7	958.5	907.9
82.5°	419.9	474.8	514.4	554.1	582.6	558.3	463.9	353.9
85°	244.0	268.2	290.2	309.9	314.3	296.8	195.7	160.4
87.5°	96.7	105.6	103.3	116.5	112.1	103.3	77.0	65.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)