

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: P197010

Luminaire Tested: **NAV-AF-06-D-UNV-RW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197010
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-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30036 lumens
Efficiency: N/A
Efficacy: 90.2 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

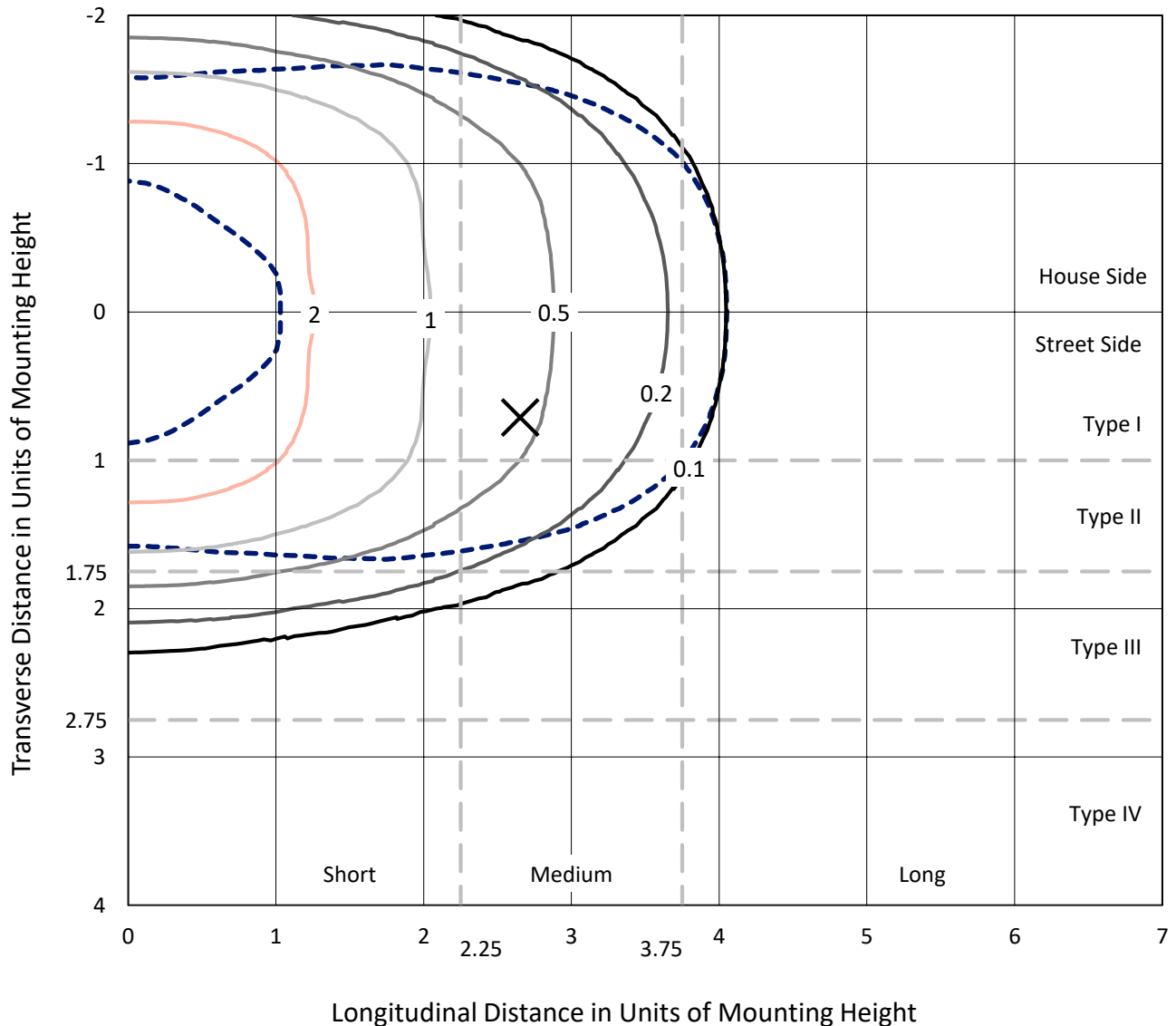
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197010
 CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

Iso-Footcandle Lines of Horizontal Illumination

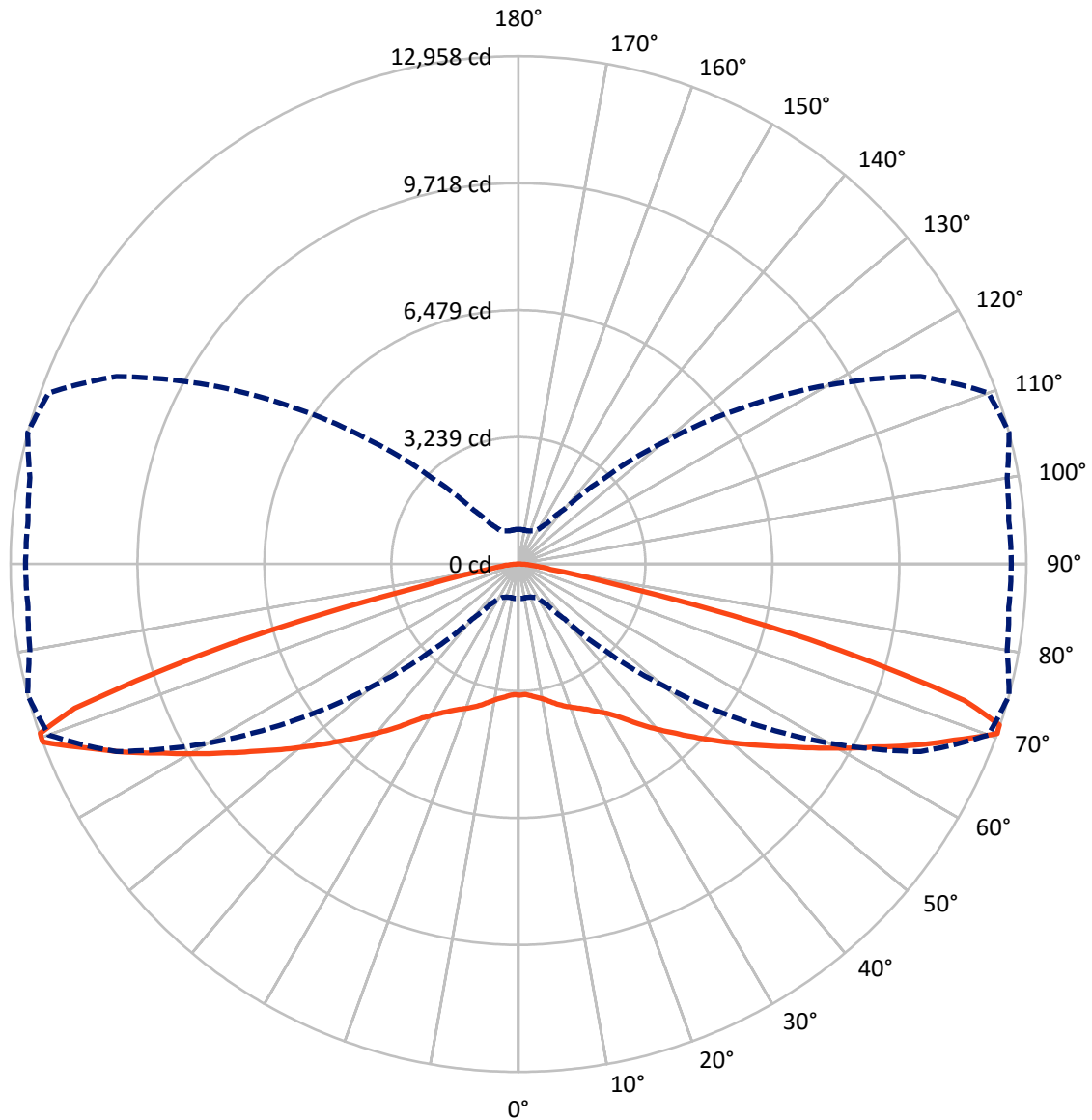
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P197010
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P197010

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15018.0	0.0	15018.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15018.0	0.0	15018.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	30036.0	0.0	30036.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.8	1.1
10°-20°	995.0	3.3
20°-30°	1868.8	6.2
30°-40°	3291.9	11.0
40°-50°	5455.7	18.2
50°-60°	7589.7	25.3
60°-70°	7164.8	23.9
70°-80°	3060.2	10.2
80°-90°	289.2	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°	30036.0	100.0
0°-180°	30036.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197010

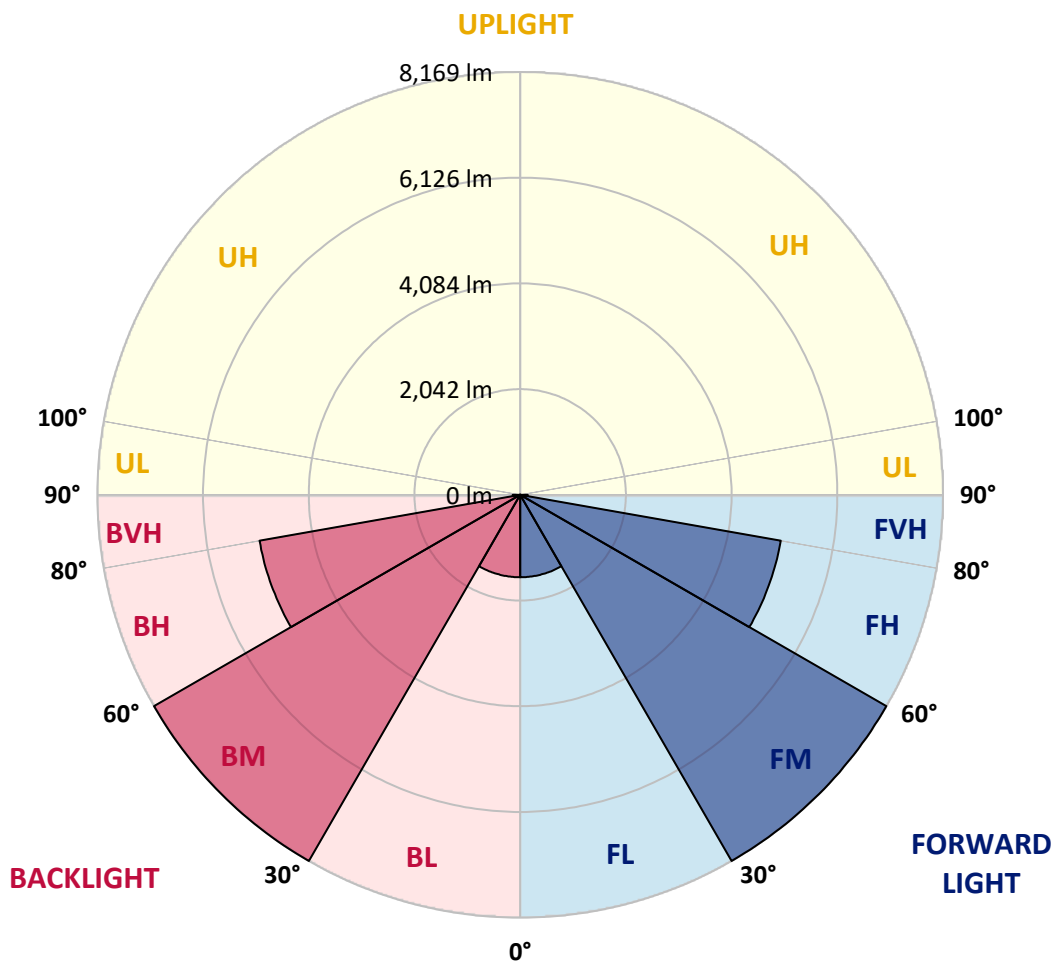
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1592.3	5.3			
FM	(30°-60°)	8168.6	27.2			
FH	(60°-80°)	5112.5	17.0			G3/7500
FVH	(80°-90°)	144.6	0.5			G2/225
BL	(0°-30°)	1592.3	5.3	B3/2500		
BM	(30°-60°)	8168.6	27.2	B4/8500		
BH	(60°-80°)	5112.5	17.0	B5		G5
BVH	(80°-90°)	144.6	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: P197010

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8
2.5°	3365.5	3363.6	3365.5	3359.9	3361.7	3359.9	3359.9	3352.3	3352.3	3348.6	3342.9
5°	3327.9	3331.6	3331.6	3331.6	3337.3	3337.3	3344.8	3346.7	3352.3	3358.0	3361.7
7.5°	3265.7	3267.6	3273.3	3277.0	3288.3	3303.4	3318.4	3335.4	3350.4	3369.3	3390.0
10°	3213.0	3216.8	3226.2	3235.6	3256.3	3275.2	3301.5	3327.9	3354.2	3386.2	3418.2
12.5°	3184.8	3190.5	3205.5	3220.6	3252.6	3277.0	3312.8	3354.2	3390.0	3420.1	3455.9
15°	3188.6	3190.5	3211.2	3231.9	3277.0	3310.9	3361.7	3410.7	3454.0	3487.9	3529.3
17.5°	3243.2	3246.9	3267.6	3297.7	3341.0	3384.3	3438.9	3489.7	3548.1	3587.6	3636.6
20°	3350.4	3356.1	3378.7	3410.7	3457.7	3502.9	3559.4	3612.1	3672.3	3719.4	3768.3
22.5°	3489.7	3499.1	3523.6	3563.1	3610.2	3664.8	3723.1	3777.7	3834.2	3881.2	3922.7
25°	3676.1	3687.4	3713.7	3753.3	3800.3	3858.7	3918.9	3975.4	4033.7	4069.5	4103.4
27.5°	3926.4	3945.2	3973.5	4005.5	4046.9	4109.0	4165.5	4212.5	4269.0	4308.5	4331.1
30°	4263.4	4289.7	4312.3	4346.2	4376.3	4442.2	4487.3	4525.0	4568.3	4590.9	4596.5
32.5°	4675.6	4700.0	4722.6	4747.1	4788.5	4848.7	4892.0	4912.7	4935.3	4931.6	4910.9
35°	5140.5	5159.3	5172.5	5215.8	5283.5	5323.1	5355.1	5362.6	5366.4	5326.8	5287.3
37.5°	5629.9	5652.5	5663.8	5731.5	5795.5	5840.7	5855.8	5872.7	5861.4	5795.5	5724.0
40°	6158.8	6183.3	6217.2	6275.5	6350.8	6394.1	6412.9	6411.0	6401.6	6324.4	6207.7
42.5°	6678.3	6708.4	6736.7	6838.3	6900.4	6973.8	6983.2	6981.4	6960.7	6872.2	6736.7
45°	7118.8	7154.5	7212.9	7325.8	7425.6	7514.0	7549.8	7563.0	7542.3	7448.2	7293.8
47.5°	7482.0	7506.5	7579.9	7717.3	7845.3	7975.2	8046.7	8097.5	8095.7	8027.9	7864.1
50°	7730.5	7758.7	7849.1	8003.4	8163.4	8315.9	8457.1	8571.9	8626.5	8577.5	8425.1
52.5°	7802.0	7837.8	7956.4	8140.8	8327.2	8532.3	8743.2	8946.5	9068.8	9098.9	8980.3
55°	7500.9	7540.4	7713.6	7969.5	8276.4	8579.4	8899.4	9189.3	9441.5	9558.2	9511.1
57.5°	6623.7	6652.0	6872.2	7203.5	7642.0	8174.7	8713.0	9243.8	9676.8	9979.8	10032.5
60°	5238.4	5274.1	5515.1	5865.2	6364.0	7037.8	7790.7	8660.3	9509.3	10203.8	10548.3
62.5°	3534.9	3559.4	3790.9	4110.9	4656.7	5306.1	6145.6	7246.8	8457.1	9697.5	10668.7
65°	1855.9	1855.9	2012.2	2236.1	2670.9	3252.6	4112.8	5242.1	6682.1	8231.2	9855.6
67.5°	1076.7	1074.8	1110.5	1161.4	1298.8	1534.1	2008.4	2838.5	4201.2	6004.5	7852.8
70°	888.4	882.8	877.1	877.1	897.8	933.6	1024.0	1251.7	1831.5	3096.3	4831.8
71°	848.9	845.1	830.1	824.4	833.8	852.7	892.2	997.6	1300.7	2111.9	3608.3
72.5°	801.8	792.4	769.9	760.4	762.3	769.9	781.1	822.6	914.8	1200.9	2057.3
75°	730.3	707.7	679.5	666.3	660.7	658.8	658.8	670.1	690.8	724.7	843.3
77.5°	647.5	615.5	585.4	572.2	562.8	557.2	553.4	545.9	542.1	557.2	600.4
80°	547.7	513.9	489.4	481.9	476.2	464.9	449.9	434.8	425.4	432.9	459.3
82.5°	423.5	389.6	393.4	395.3	385.9	367.0	352.0	335.0	318.1	314.3	327.5
85°	336.9	320.0	308.7	333.2	312.5	289.9	269.2	240.9	201.4	165.6	180.7
87.5°	144.9	146.8	210.8	318.1	278.6	224.0	186.3	150.6	96.0	71.5	73.4
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: P197010

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8	3344.8
2.5°	3341.0	3341.0	3335.4	3331.6	3331.6	3331.6	3327.9	3329.7
5°	3363.6	3367.4	3371.2	3369.3	3374.9	3380.6	3378.7	3376.8
7.5°	3401.3	3412.6	3423.9	3429.5	3437.0	3444.6	3446.4	3440.8
10°	3438.9	3461.5	3478.4	3493.5	3502.9	3510.4	3516.1	3514.2
12.5°	3486.0	3518.0	3548.1	3578.2	3598.9	3610.2	3621.5	3617.7
15°	3563.1	3598.9	3636.6	3676.1	3708.1	3725.0	3742.0	3738.2
17.5°	3668.6	3700.6	3730.7	3770.2	3809.7	3828.5	3847.4	3845.5
20°	3800.3	3824.8	3841.7	3864.3	3902.0	3922.7	3939.6	3934.0
22.5°	3950.9	3958.4	3960.3	3967.8	3998.0	4022.4	4045.0	4050.7
25°	4114.7	4109.0	4097.7	4092.1	4112.8	4139.1	4167.4	4174.9
27.5°	4317.9	4299.1	4270.9	4248.3	4253.9	4287.8	4319.8	4327.3
30°	4573.9	4530.6	4470.4	4427.1	4419.6	4455.3	4489.2	4500.5
32.5°	4865.7	4807.3	4724.5	4658.6	4630.4	4662.4	4692.5	4709.5
35°	5212.0	5148.0	5048.3	4963.6	4918.4	4939.1	4991.8	5010.6
37.5°	5622.4	5533.9	5422.8	5315.5	5240.3	5244.0	5300.5	5323.1
40°	6076.0	5948.0	5806.8	5673.2	5564.0	5556.5	5607.3	5624.2
42.5°	6548.4	6384.7	6219.0	6044.0	5908.5	5884.0	5949.9	5951.8
45°	7056.6	6845.8	6640.7	6437.4	6296.2	6252.9	6316.9	6324.4
47.5°	7598.7	7335.2	7092.4	6872.2	6719.7	6652.0	6714.1	6725.4
50°	8163.4	7890.5	7608.2	7363.5	7184.6	7101.8	7175.2	7182.8
52.5°	8722.5	8464.6	8184.1	7903.7	7687.2	7593.1	7679.7	7706.0
55°	9285.3	9036.8	8773.3	8492.8	8219.9	8137.1	8231.2	8259.4
57.5°	9870.6	9631.6	9392.5	9110.2	8844.8	8718.7	8820.3	8859.9
60°	10516.3	10305.5	10079.6	9795.4	9533.7	9386.9	9473.5	9518.7
62.5°	11150.6	11107.3	10902.1	10606.6	10275.3	10128.5	10201.9	10233.9
65°	11203.3	11905.4	11896.0	11602.3	11139.3	10892.7	10913.4	10928.5
67.5°	9778.4	11389.6	12419.2	12511.5	11995.7	11609.9	11564.7	11574.1
70°	6923.0	9134.7	11320.0	12754.3	12957.6	12658.3	12560.4	12575.5
71°	5547.1	7837.8	10243.3	12172.7	12942.5	12855.9	12801.3	12840.9
72.5°	3540.6	5774.8	8116.4	10424.0	11901.6	12325.1	12387.2	12411.7
75°	1285.6	2484.6	4205.0	6025.2	7636.4	8745.0	9354.9	9403.8
77.5°	690.8	890.3	1375.9	2055.4	2582.5	2864.8	2898.7	2911.9
80°	508.2	589.2	673.9	769.9	830.1	841.4	820.7	777.4
82.5°	359.5	406.6	440.5	474.3	498.8	478.1	397.2	303.0
85°	208.9	229.6	248.5	265.4	269.2	254.1	167.5	137.4
87.5°	82.8	90.3	88.5	99.8	96.0	88.5	65.9	56.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)