

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: P270708

Luminaire Tested: **NAV-AF-06-D-UNV-T3-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270708
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
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-T3-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34341.1 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

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

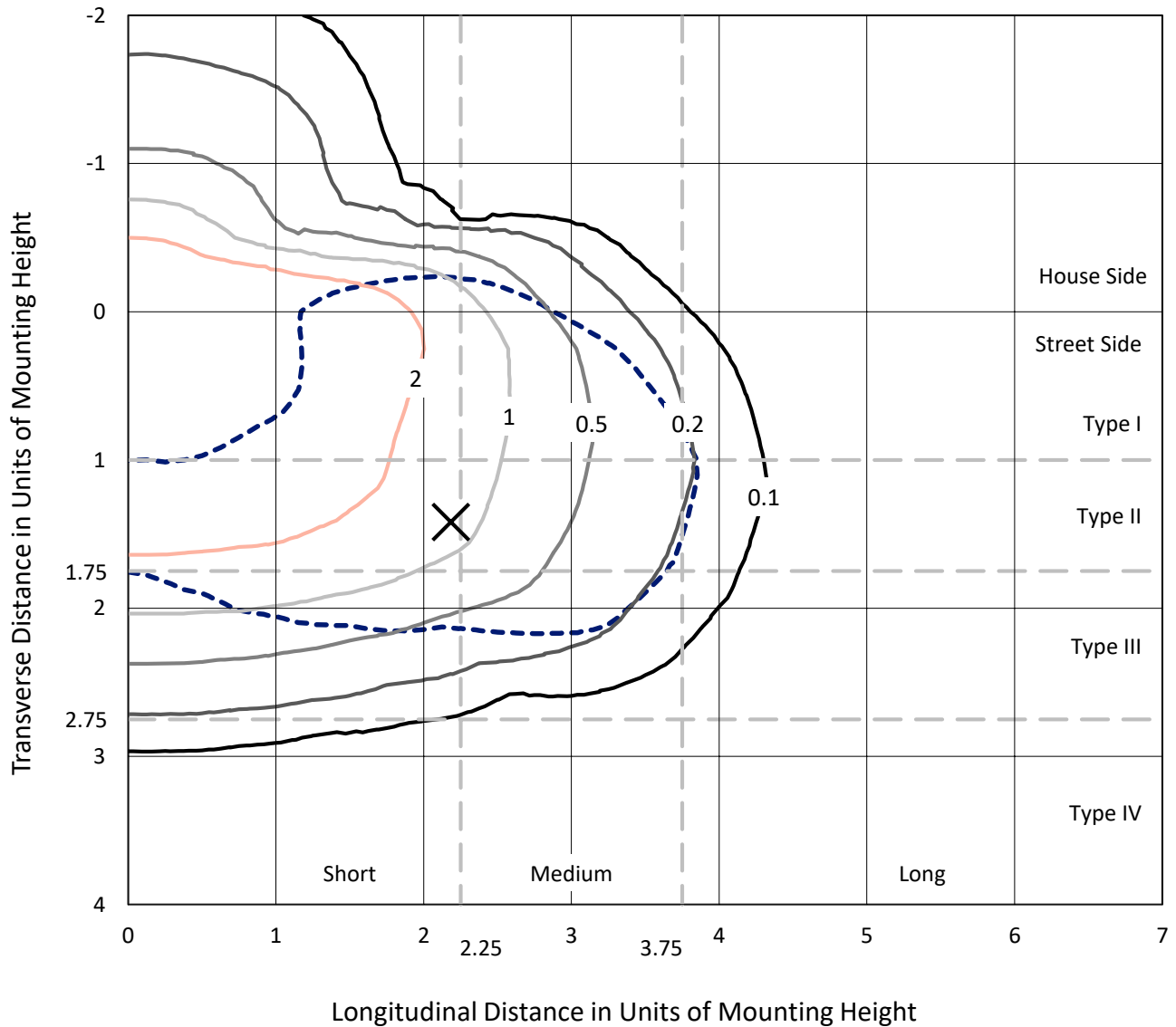


REPORT NUMBER: P270708

CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

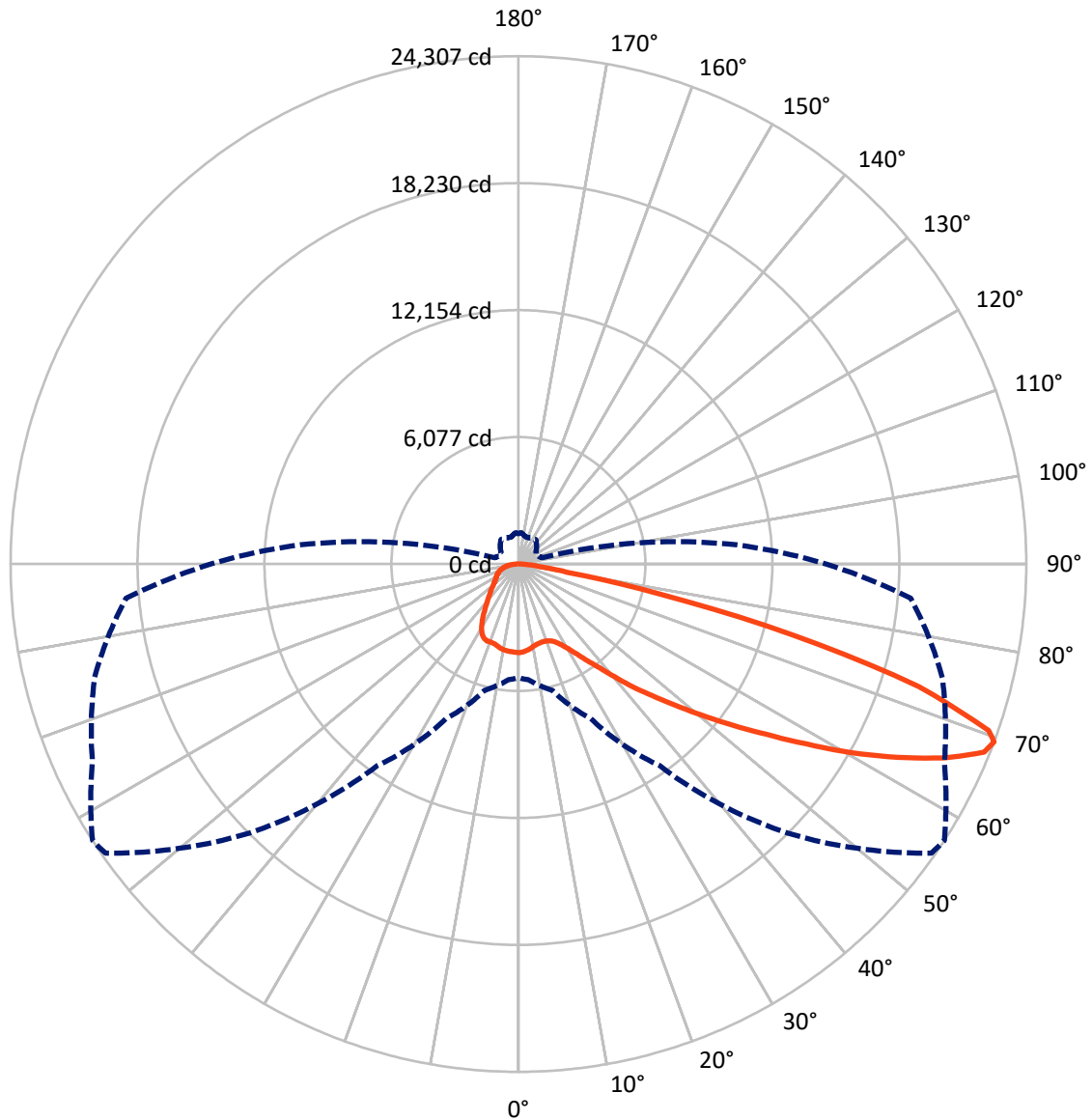
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P270708
CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P270708

CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7577.9	0.0	7577.9
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	26763.2	0.0	26763.2
	% Fixture	77.9	0.0	77.9
Total	Lumens	34341.1	0.0	34341.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.3	1.2
10°-20°	1129.5	3.3
20°-30°	1878.9	5.5
30°-40°	3068.1	8.9
40°-50°	5178.3	15.1
50°-60°	8055.1	23.5
60°-70°	9595.3	27.9
70°-80°	4470.1	13.0
80°-90°	568.5	1.7
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°	34341.1	100.0
0°-180°	34341.1	100.0



REPORT NUMBER: P270708

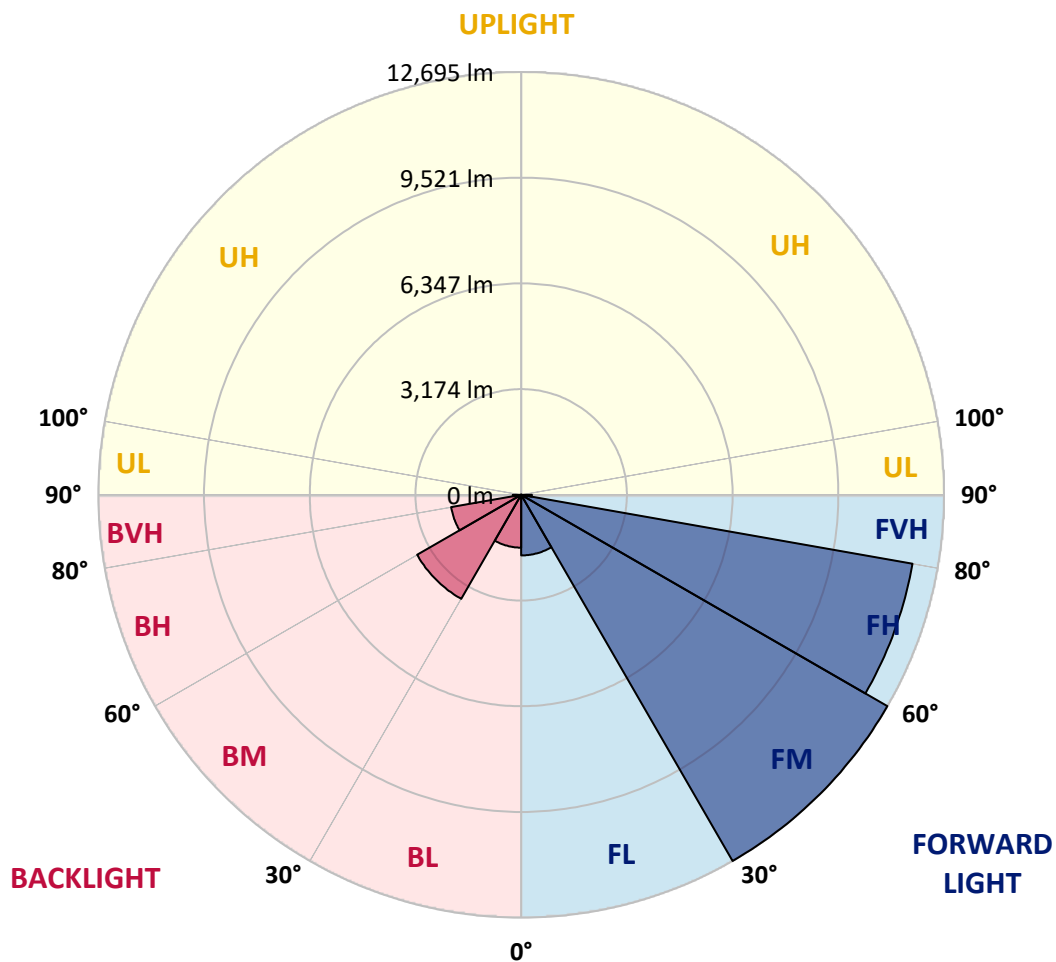
CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1818.6	5.3			
FM	(30°-60°)	12694.8	37.0			
FH	(60°-80°)	11930.1	34.7			G4/12000
FVH	(80°-90°)	319.6	0.9			G3/500
BL	(0°-30°)	1587.0	4.6	B3/2500		
BM	(30°-60°)	3606.6	10.5	B3/5000		
BH	(60°-80°)	2135.3	6.2	B3/2500		G3/2500
BVH	(80°-90°)	249.0	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





REPORT NUMBER: P270708

CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1
2.5°	4219.0	4219.0	4229.9	4229.9	4229.9	4225.5	4212.4	4216.9	4208.0	4201.5	4190.5
5°	4133.2	4137.7	4150.9	4155.2	4161.8	4164.1	4164.1	4161.8	4164.1	4164.1	4157.4
7.5°	4014.5	4018.9	4034.3	4043.1	4062.9	4080.6	4089.3	4089.3	4100.3	4109.0	4111.3
10°	3941.9	3941.9	3950.7	3950.7	3966.1	3975.0	4003.6	4001.3	4032.1	4060.7	4074.0
12.5°	3933.1	3933.1	3928.7	3913.3	3904.7	3902.3	3931.0	3935.4	3981.6	4032.1	4056.2
15°	3961.7	3961.7	3948.6	3917.8	3884.8	3869.4	3897.9	3906.8	3957.4	4016.7	4054.1
17.5°	4054.1	4052.0	4023.2	3961.7	3904.7	3880.4	3889.2	3897.9	3944.2	4012.3	4058.5
20°	4258.5	4258.5	4197.1	4085.0	3986.0	3928.7	3915.6	3922.2	3955.1	4018.9	4078.2
22.5°	4616.8	4623.5	4513.7	4328.9	4159.6	4038.7	3986.0	3992.5	4008.0	4069.5	4135.4
25°	5144.6	5126.9	4971.0	4709.3	4445.4	4238.8	4131.0	4137.7	4137.7	4194.8	4262.9
27.5°	5703.0	5707.4	5483.2	5201.7	4854.4	4546.6	4375.0	4372.9	4370.8	4425.7	4498.3
30°	6333.9	6336.1	6076.8	5751.4	5353.4	4959.9	4702.6	4700.6	4680.7	4748.8	4843.4
32.5°	7024.3	7022.1	6720.8	6353.7	5911.8	5465.6	5131.4	5129.2	5113.8	5206.1	5320.4
35°	7789.5	7789.5	7490.3	7037.5	6560.4	6063.6	5676.6	5674.5	5683.1	5808.5	5916.2
37.5°	8710.5	8730.4	8369.8	7820.1	7299.2	6769.3	6318.6	6305.5	6239.4	6450.5	6628.7
40°	9671.3	9726.3	9352.6	8710.5	8147.7	7600.3	7103.4	7094.6	7037.5	7261.8	7549.7
42.5°	10711.3	10836.6	10421.1	9766.0	9152.6	8561.0	8062.0	8037.9	7817.9	8167.6	8618.2
45°	12074.4	12155.8	11553.3	10959.7	10381.5	9706.5	9112.9	8983.2	8763.3	9211.8	9796.6
47.5°	13002.2	12962.5	12586.6	12188.7	11817.2	11170.8	10258.4	10093.4	9825.2	10418.8	11063.0
50°	13578.2	13606.7	13395.6	13375.9	13356.1	12905.4	11551.0	11353.1	11043.3	11746.7	12498.7
52.5°	13958.6	13828.8	13866.1	14314.6	14857.6	14642.3	13013.1	12793.3	12474.6	13178.0	14026.7
55°	13800.2	13628.7	13973.9	14857.6	16135.0	16183.4	14618.1	14391.6	14119.0	14699.4	15864.6
57.5°	13145.1	13230.7	13776.0	15005.0	17007.9	17564.1	16462.6	16231.7	15695.4	16284.6	17610.3
60°	12223.9	12397.6	13230.7	14772.0	17619.0	18639.2	18487.5	18333.6	17410.2	17827.9	19443.9
62.5°	11234.6	11406.0	12430.6	14374.0	17344.3	19591.1	20475.0	20380.4	19303.0	19314.1	20606.8
65°	9772.5	9842.9	10889.3	13288.0	16581.4	20450.8	22464.6	22381.1	21112.5	20582.7	20932.2
67.5°	7380.5	7468.4	8328.0	10489.1	14259.7	19984.8	24054.2	24041.0	22200.8	21053.1	20158.3
69°	5450.1	5558.0	6259.2	8143.3	11790.8	18208.3	24129.0	24307.0	22495.4	21004.8	18850.3
70°	3988.1	4111.3	4759.8	6463.7	9820.9	16247.1	23489.2	23871.6	22383.2	20699.3	17830.1
72.5°	1695.1	1736.9	2055.6	2917.4	4981.9	9796.6	19239.4	20044.1	20215.5	18546.9	13929.8
75°	1061.8	1075.1	1200.3	1497.2	2216.1	4052.0	12459.1	13556.1	15093.0	14389.4	9326.3
77.5°	800.3	811.3	883.8	1031.2	1376.4	1512.6	5780.0	6892.4	8644.6	8464.4	4641.2
80°	613.5	620.0	668.3	749.6	969.5	947.5	1875.3	2356.9	3607.9	3183.5	1642.3
82.5°	481.5	483.6	525.5	540.8	677.1	637.5	941.0	1048.7	1457.6	1211.4	802.5
85°	426.5	433.2	474.8	395.8	433.2	384.7	516.6	560.6	773.9	730.0	303.4
87.5°	217.7	228.7	397.9	338.7	217.7	182.4	226.5	244.0	314.3	340.7	147.3
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: P270708

CATALOG NUMBER: NAV-AF-06-D-UNV-T3-7027-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1	4243.1
2.5°	4192.6	4194.8	4201.5	4212.4	4229.9	4251.9	4278.4	4304.8	4320.0	4331.1	4326.7
5°	4157.4	4159.6	4172.8	4192.6	4214.6	4247.5	4291.6	4324.5	4348.8	4364.1	4361.9
7.5°	4113.5	4120.0	4146.4	4168.4	4199.1	4225.5	4260.8	4291.6	4315.7	4331.1	4328.9
10°	4080.6	4087.1	4120.0	4148.6	4175.1	4179.5	4172.8	4164.1	4161.8	4172.8	4168.4
12.5°	4065.1	4078.2	4109.0	4128.9	4117.9	4076.1	4027.7	4008.0	4001.3	4023.2	4025.6
15°	4069.5	4080.6	4107.0	4093.7	4034.3	3964.0	3937.6	3952.9	3966.1	3979.3	3981.6
17.5°	4080.6	4087.1	4093.7	4045.2	3961.7	3915.6	3906.8	3891.4	3851.8	3829.8	3827.7
20°	4100.3	4109.0	4098.1	4021.2	3946.3	3884.8	3779.3	3684.8	3594.6	3546.1	3526.4
22.5°	4168.4	4175.1	4142.1	4067.3	3952.9	3752.8	3539.6	3377.0	3238.4	3163.7	3135.2
25°	4302.5	4313.5	4267.4	4172.8	3873.9	3524.2	3223.1	3003.3	2829.5	2739.4	2715.1
27.5°	4537.8	4548.7	4498.3	4251.9	3689.1	3218.6	2853.6	2636.0	2486.6	2409.7	2398.7
30°	4889.6	4904.9	4858.8	4249.8	3407.7	2829.5	2493.2	2365.6	2279.9	2227.1	2224.9
32.5°	5377.7	5434.7	5245.7	4175.1	3060.3	2435.9	2220.5	2176.6	2134.8	2099.6	2099.6
35°	5997.7	6131.7	5628.2	4018.9	2677.8	2167.8	2068.8	2027.0	1974.3	1936.9	1932.6
37.5°	6738.5	6947.4	5900.8	3741.9	2348.0	2038.1	1976.5	1908.3	1824.7	1752.2	1734.6
40°	7756.4	7804.8	6035.0	3291.2	2101.9	1967.6	1890.8	1805.1	1699.5	1618.1	1609.4
42.5°	8778.7	8620.5	6008.7	2807.6	1961.1	1904.0	1802.8	1708.2	1613.7	1545.5	1545.5
45°	9941.8	9332.9	5808.5	2321.7	1833.6	1831.4	1721.4	1631.3	1558.7	1508.3	1497.2
47.5°	11054.3	9972.5	5463.3	1963.2	1701.7	1758.8	1668.7	1596.2	1530.3	1481.8	1473.0
50°	12404.2	10713.5	5096.3	1712.7	1574.2	1695.1	1646.8	1609.4	1545.5	1462.0	1453.3
52.5°	13745.2	11579.7	4812.6	1523.5	1462.0	1644.4	1659.9	1664.3	1604.9	1442.3	1431.3
55°	15185.3	12505.2	4513.7	1376.4	1369.6	1620.4	1690.7	1686.3	1657.7	1446.6	1429.1
57.5°	16555.0	13435.2	4067.3	1273.0	1297.2	1596.2	1697.3	1626.9	1576.3	1468.5	1440.1
60°	17689.5	14204.7	3412.1	1200.3	1235.6	1547.8	1653.3	1547.8	1462.0	1464.2	1437.8
62.5°	18241.3	14420.2	2609.7	1116.9	1185.0	1468.5	1589.6	1488.4	1409.4	1473.0	1457.6
65°	17821.4	13806.8	1860.0	1039.9	1123.4	1376.4	1552.2	1437.8	1382.9	1517.0	1499.5
67.5°	16313.1	12135.9	1350.0	971.7	1064.1	1281.7	1481.8	1391.7	1356.5	1549.9	1510.4
69°	14710.5	10478.2	1169.7	932.3	1022.4	1231.1	1435.6	1367.5	1336.7	1503.9	1446.6
70°	13378.1	9200.9	1079.5	907.9	987.1	1202.7	1400.5	1352.0	1316.9	1448.8	1380.7
72.5°	9592.2	5947.0	907.9	835.5	894.8	1138.8	1323.6	1294.9	1242.1	1308.1	1264.2
75°	5795.3	3104.4	771.6	760.7	798.1	1050.8	1233.4	1198.2	1145.3	1152.0	1130.1
77.5°	2662.4	1433.4	646.4	672.7	696.9	941.0	1123.4	1083.8	1035.4	1017.9	1020.1
80°	1167.3	837.6	540.8	573.7	587.0	846.5	1004.8	960.7	907.9	1002.5	929.9
82.5°	631.0	485.9	422.2	444.1	481.5	736.5	872.9	815.7	765.0	890.4	719.0
85°	254.9	248.4	285.8	307.8	334.2	529.8	730.0	670.6	609.1	545.2	532.1
87.5°	110.0	118.8	140.8	149.5	178.0	329.8	490.3	428.8	430.8	369.4	362.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)