

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: P270709

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31832.4 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G4

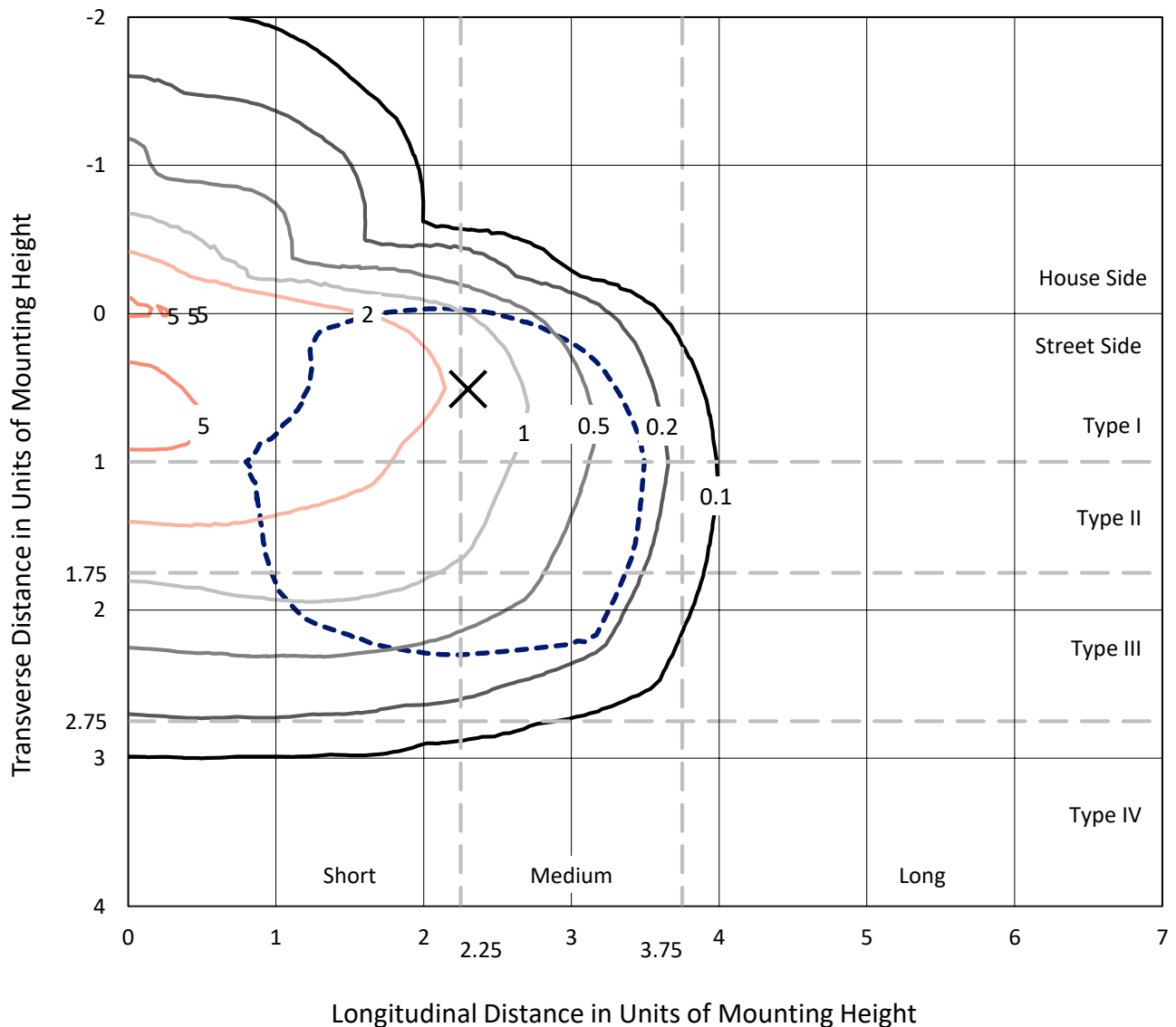
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P270709  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

### Iso-Footcandle Lines of Horizontal Illumination

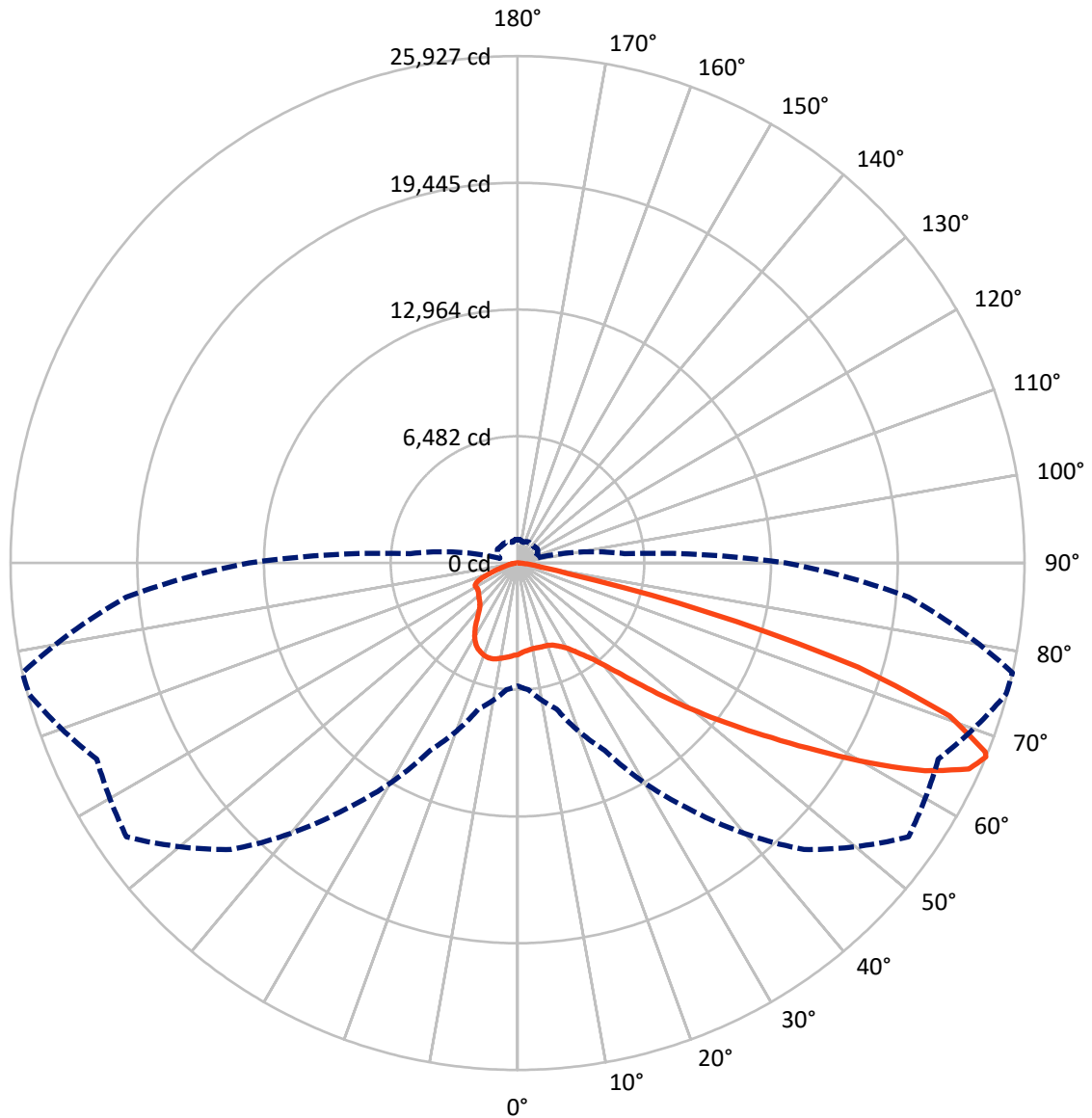
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P270709  
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P270709

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5470.4	0.0	5470.4
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	26362.0	0.0	26362.0
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	31832.4	0.0	31832.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	417.3	1.3
10°-20°	1155.5	3.6
20°-30°	1963.4	6.2
30°-40°	3140.9	9.9
40°-50°	4835.5	15.2
50°-60°	6708.8	21.1
60°-70°	8949.0	28.1
70°-80°	4258.8	13.4
80°-90°	403.2	1.3
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°	31832.4	100.0
0°-180°	31832.4	100.0



REPORT NUMBER: P270709

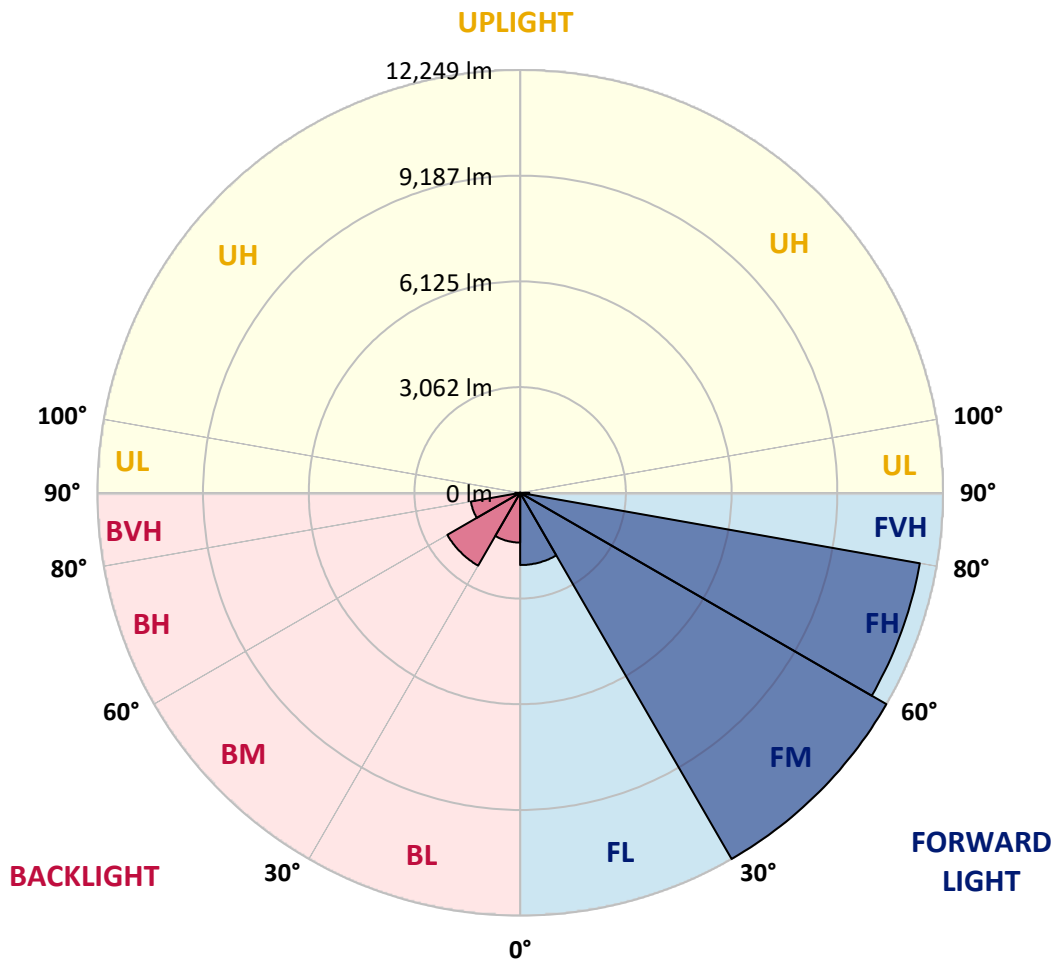
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2093.3	6.6			
FM	(30°-60°)	12249.4	38.5			
FH	(60°-80°)	11757.4	36.9			G4/12000
FVH	(80°-90°)	261.9	0.8			G3/500
BL	(0°-30°)	1442.9	4.5	B3/2500		
BM	(30°-60°)	2435.7	7.7	B2/2500		
BH	(60°-80°)	1450.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	141.3	0.4			G2/225
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 Medium





REPORT NUMBER: P270709

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9
2.5°	4200.8	4220.5	4222.6	4279.5	4305.1	4370.1	4441.0	4503.8	4559.0	4578.7	4614.1
5°	3779.8	3779.8	3785.6	3823.0	3895.9	4000.2	4147.7	4309.1	4478.3	4519.6	4623.8
7.5°	3559.4	3563.3	3567.3	3604.7	3661.8	3754.1	3901.8	4122.1	4403.5	4472.4	4655.3
10°	3579.0	3573.2	3553.5	3545.6	3569.2	3628.3	3756.2	3982.5	4340.6	4446.8	4712.5
12.5°	3888.0	3876.1	3811.2	3716.8	3630.2	3608.6	3697.2	3911.6	4311.1	4446.8	4808.8
15°	4417.2	4425.2	4297.3	4100.6	3874.2	3720.8	3708.9	3886.1	4301.3	4458.6	4921.1
17.5°	5106.0	5109.9	4932.9	4647.6	4271.7	3954.9	3789.6	3886.1	4301.3	4470.4	5029.3
20°	5837.9	5810.3	5609.6	5251.6	4763.6	4279.5	3937.2	3909.7	4313.0	4488.1	5131.6
22.5°	6465.6	6439.9	6229.4	5853.6	5294.9	4663.2	4135.9	3988.4	4377.9	4561.0	5275.1
25°	7014.5	7030.2	6825.6	6402.6	5824.2	5096.2	4433.0	4169.4	4513.8	4692.7	5452.3
27.5°	7681.5	7652.0	7416.0	7012.6	6369.2	5544.8	4804.9	4397.7	4675.0	4852.1	5668.8
30°	8453.0	8439.0	8120.4	7705.2	6969.3	6046.5	5172.9	4643.6	4885.6	5070.6	5940.2
32.5°	9389.4	9387.5	9045.2	8535.5	7644.1	6613.1	5607.7	4980.1	5192.6	5379.5	6300.4
35°	10450.1	10448.0	10093.9	9421.0	8421.4	7240.8	6119.3	5389.3	5572.2	5769.1	6729.3
37.5°	11185.9	11174.0	10989.1	10335.9	9281.3	7970.8	6758.8	5940.2	6003.3	6223.5	7246.7
40°	11327.5	11398.5	11557.8	11172.1	10219.7	8781.6	7400.1	6532.5	6591.6	6874.9	7898.0
42.5°	11174.0	11266.5	11795.9	11904.1	11158.3	9763.3	8203.1	7352.9	7427.7	7780.0	8663.4
45°	11040.3	11120.9	11784.1	12309.5	12085.1	10833.6	9204.6	8354.4	8496.2	8932.9	9537.0
47.5°	10812.0	10886.7	11551.8	12382.1	12614.4	11864.8	10410.6	9558.7	9802.7	10331.9	10532.6
50°	10800.2	10833.6	11235.1	12138.2	12797.3	12647.9	11746.6	10967.4	11341.3	11951.3	11634.5
52.5°	10501.1	10735.4	11099.3	11748.7	12801.2	13104.4	13063.1	12512.0	13088.6	13763.6	12842.6
55°	8671.2	8940.8	10646.7	11557.8	12777.8	13495.9	14265.3	14155.0	15056.2	15766.5	14196.4
57.5°	8096.8	8210.9	9340.2	11614.8	12974.5	14143.3	15467.5	15919.9	17307.1	18082.4	15819.6
60°	7939.3	8059.4	9078.6	11642.4	13507.6	15321.9	17098.6	17913.2	19953.6	20776.0	17663.3
62.5°	7764.2	7919.6	9098.3	11667.9	14444.2	17065.1	19263.0	20075.6	22670.9	23404.8	19390.9
65°	7252.6	7459.3	8734.2	11506.6	15469.4	19253.2	22123.8	22330.4	24915.8	25382.1	20433.7
67°	6282.6	6508.8	7734.6	10573.9	15374.9	20726.9	24412.2	23741.2	25870.2	25927.3	20095.3
67.5°	5975.6	6209.9	7396.3	10186.3	15105.4	20919.6	24817.6	23936.1	25862.4	25799.3	19780.4
70°	4023.8	4287.4	5237.7	7478.8	12116.6	19469.5	24719.1	23335.9	24166.3	23444.1	16994.2
72.5°	1997.1	2004.9	2613.0	4096.6	7341.2	13964.2	20620.7	19963.5	19589.6	18226.0	12470.7
75°	962.2	980.0	1233.7	1810.3	3095.1	7209.3	14062.5	13470.3	11469.2	9930.6	6241.2
77.5°	733.9	751.6	958.2	1178.5	1290.8	2351.4	6965.4	5629.4	3323.3	2654.3	1759.1
80°	566.7	600.1	808.7	905.1	854.0	942.5	2190.0	1723.7	1292.8	1186.5	871.6
82.5°	442.8	462.4	686.8	686.8	590.2	631.6	1019.2	995.6	802.7	724.0	468.2
85°	312.9	352.1	552.8	511.6	387.6	391.5	609.9	584.3	413.2	332.6	183.0
87.5°	139.6	179.0	393.5	334.4	206.6	159.4	249.9	214.4	163.3	125.9	84.6
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: P270709

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9	4684.9
2.5°	4653.4	4684.9	4734.1	4763.6	4803.0	4818.7	4834.4	4861.9	4883.6	4877.6	4867.8
5°	4696.7	4749.8	4810.9	4830.5	4830.5	4810.9	4799.0	4801.0	4795.2	4791.1	4779.3
7.5°	4759.7	4832.4	4875.7	4856.1	4795.2	4718.3	4645.6	4602.2	4561.0	4535.4	4543.2
10°	4848.2	4928.9	4930.8	4844.3	4698.7	4531.4	4387.9	4295.2	4206.8	4167.3	4179.3
12.5°	4976.2	5056.7	4987.8	4801.0	4545.2	4283.5	4019.8	3828.9	3657.8	3616.4	3604.7
15°	5113.8	5176.8	5023.3	4708.5	4324.8	3894.0	3451.2	3165.8	2975.0	2941.6	2929.8
17.5°	5233.9	5269.3	5005.6	4543.2	3976.5	3297.7	2782.2	2589.4	2550.0	2569.7	2569.7
20°	5340.2	5328.2	4928.9	4287.4	3427.7	2636.6	2337.5	2335.6	2388.8	2437.9	2441.9
22.5°	5473.9	5381.4	4806.9	3907.6	2772.3	2199.8	2148.7	2199.8	2258.8	2313.9	2319.9
25°	5633.4	5440.4	4643.6	3366.6	2229.4	1997.1	2018.9	2062.1	2099.5	2142.7	2144.8
27.5°	5792.7	5485.7	4413.4	2731.0	1934.2	1867.2	1890.9	1908.5	1918.4	1946.0	1946.0
30°	5977.6	5521.2	4080.8	2188.0	1798.3	1753.1	1739.4	1731.6	1739.4	1776.8	1778.7
32.5°	6209.9	5584.1	3626.3	1877.1	1735.4	1672.5	1601.7	1562.3	1589.8	1656.7	1668.5
35°	6473.5	5658.9	3081.2	1753.1	1713.7	1633.1	1503.3	1442.3	1452.1	1513.0	1522.9
37.5°	6804.0	5755.4	2544.1	1723.7	1735.4	1629.2	1457.9	1371.4	1328.1	1330.1	1328.1
40°	7227.0	5851.6	2119.1	1731.6	1782.6	1639.0	1436.4	1300.6	1210.0	1214.0	1221.9
42.5°	7669.8	5914.6	1849.6	1755.1	1839.6	1652.8	1428.5	1231.8	1153.1	1219.9	1281.0
45°	8187.2	5897.0	1709.8	1776.8	1882.9	1658.7	1399.0	1223.9	1159.0	1359.7	1473.8
47.5°	8781.6	5820.2	1631.1	1786.5	1894.9	1656.7	1377.3	1249.5	1208.1	1556.4	1686.3
50°	9426.9	5700.1	1568.3	1770.9	1889.0	1648.8	1400.9	1281.0	1227.9	1599.7	1700.0
52.5°	10133.2	5590.1	1503.3	1735.4	1859.4	1625.3	1430.5	1267.1	1172.6	1473.8	1550.5
55°	10969.5	5564.5	1430.5	1674.4	1810.3	1599.7	1414.7	1223.9	1111.7	1306.5	1353.7
57.5°	11925.7	5723.8	1336.0	1599.7	1743.3	1548.5	1377.3	1200.2	1090.1	1188.5	1214.0
60°	13139.8	6076.0	1235.7	1521.0	1660.6	1471.8	1343.9	1206.2	1095.9	1170.8	1176.6
62.5°	14088.1	6392.8	1145.2	1424.5	1550.5	1379.3	1308.6	1212.1	1113.7	1194.3	1184.5
65°	14432.4	6237.3	1033.1	1281.0	1395.1	1277.0	1259.2	1215.9	1113.7	1208.1	1186.5
67°	13726.1	5495.6	926.7	1137.3	1247.4	1186.5	1212.1	1200.2	1094.0	1206.2	1168.8
67.5°	13389.6	5233.9	899.3	1113.7	1208.1	1159.0	1200.2	1192.4	1088.0	1202.2	1159.0
70°	11042.2	3754.1	759.4	934.6	1011.3	1021.3	1127.5	1141.1	1040.9	1129.3	1050.7
72.5°	7856.7	2349.3	655.3	724.0	816.6	873.6	1029.1	1072.3	978.0	981.8	916.9
75°	3888.0	1261.2	584.3	558.7	635.6	728.0	897.2	978.0	885.4	818.5	796.8
77.5°	1312.5	714.2	493.9	450.6	493.9	584.3	743.7	854.0	781.2	692.7	678.8
80°	678.8	519.5	385.6	362.0	389.5	452.6	582.5	710.3	667.0	670.9	552.8
82.5°	423.0	316.8	277.4	275.5	295.2	346.2	428.9	576.5	572.6	489.9	356.2
85°	196.8	183.0	177.1	183.0	189.0	196.8	279.5	411.2	434.8	263.7	234.2
87.5°	82.6	80.7	70.8	76.7	84.6	82.6	112.2	175.1	244.0	165.3	151.5
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)