

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: P195378

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195378  
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-7060  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5700K, 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: 36639 lumens  
Efficiency: N/A  
Efficacy: 110.0 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 - G5

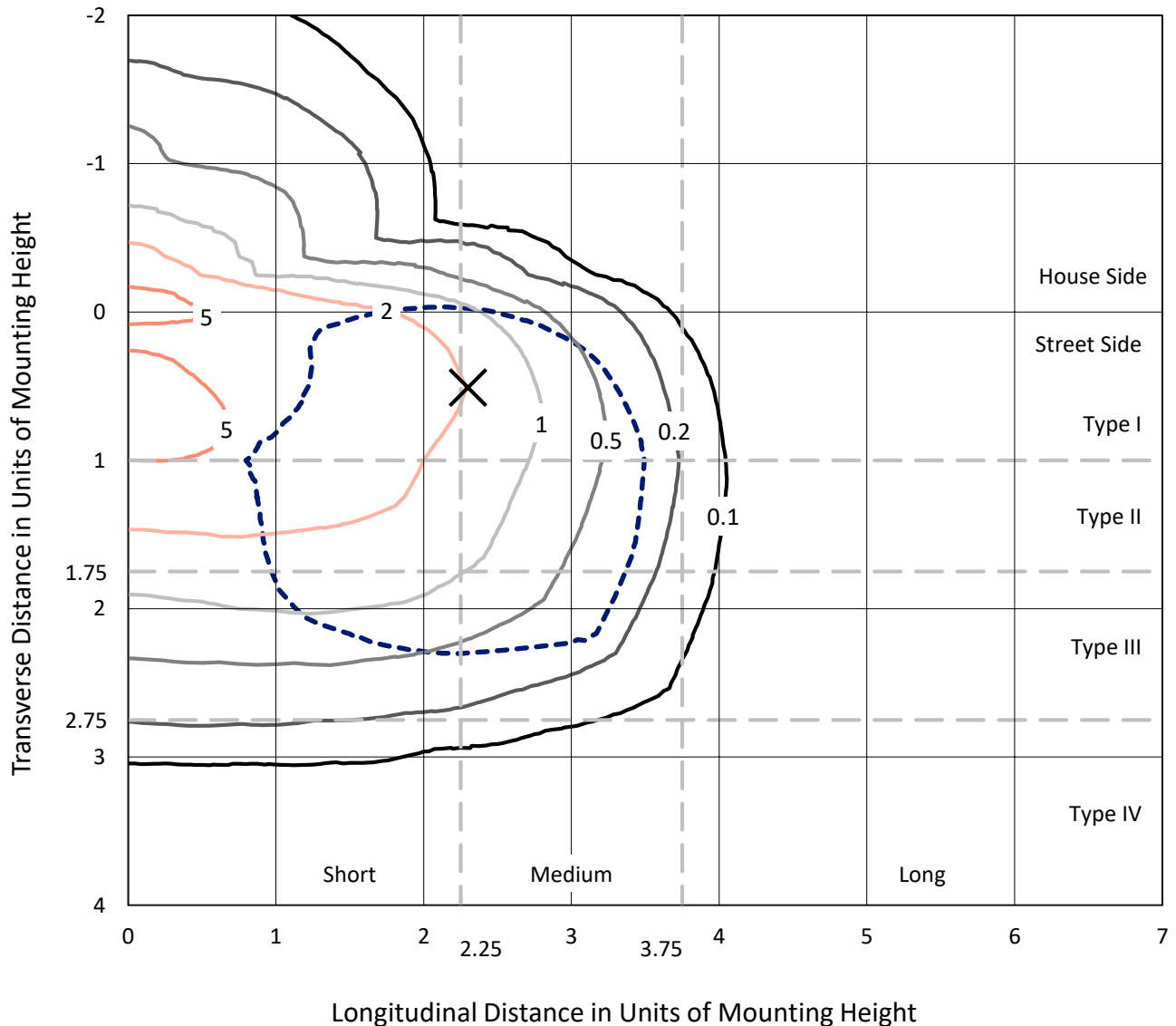
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P195378  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

### Iso-Footcandle Lines of Horizontal Illumination

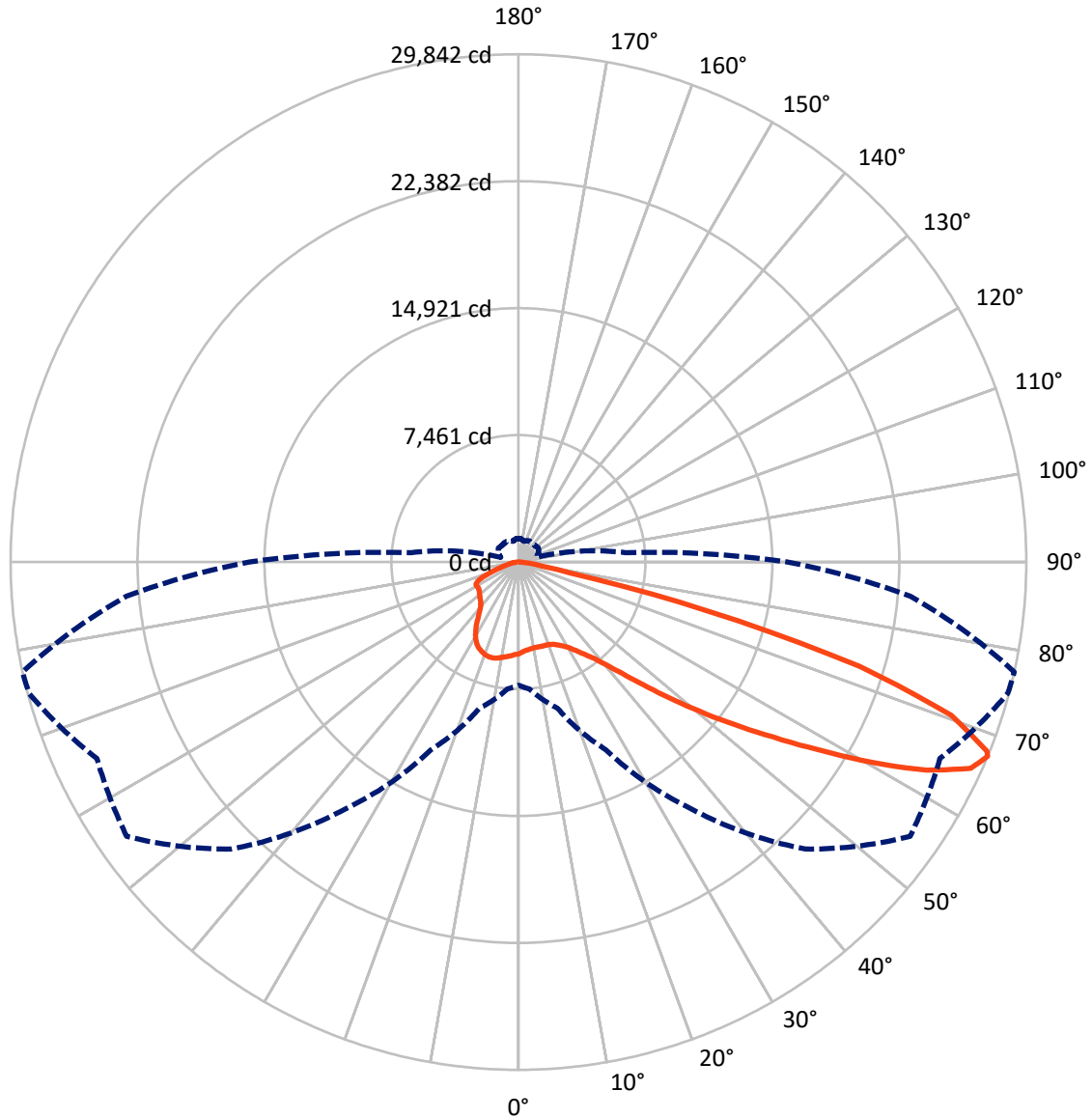
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P195378  
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P195378

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6296.4	0.0	6296.4
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	30342.6	0.0	30342.6
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	36639.0	0.0	36639.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	480.3	1.3
10°-20°	1330.0	3.6
20°-30°	2259.8	6.2
30°-40°	3615.2	9.9
40°-50°	5565.6	15.2
50°-60°	7721.8	21.1
60°-70°	10300.3	28.1
70°-80°	4901.9	13.4
80°-90°	464.1	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°	36639.0	100.0
0°-180°	36639.0	100.0



REPORT NUMBER: P195378

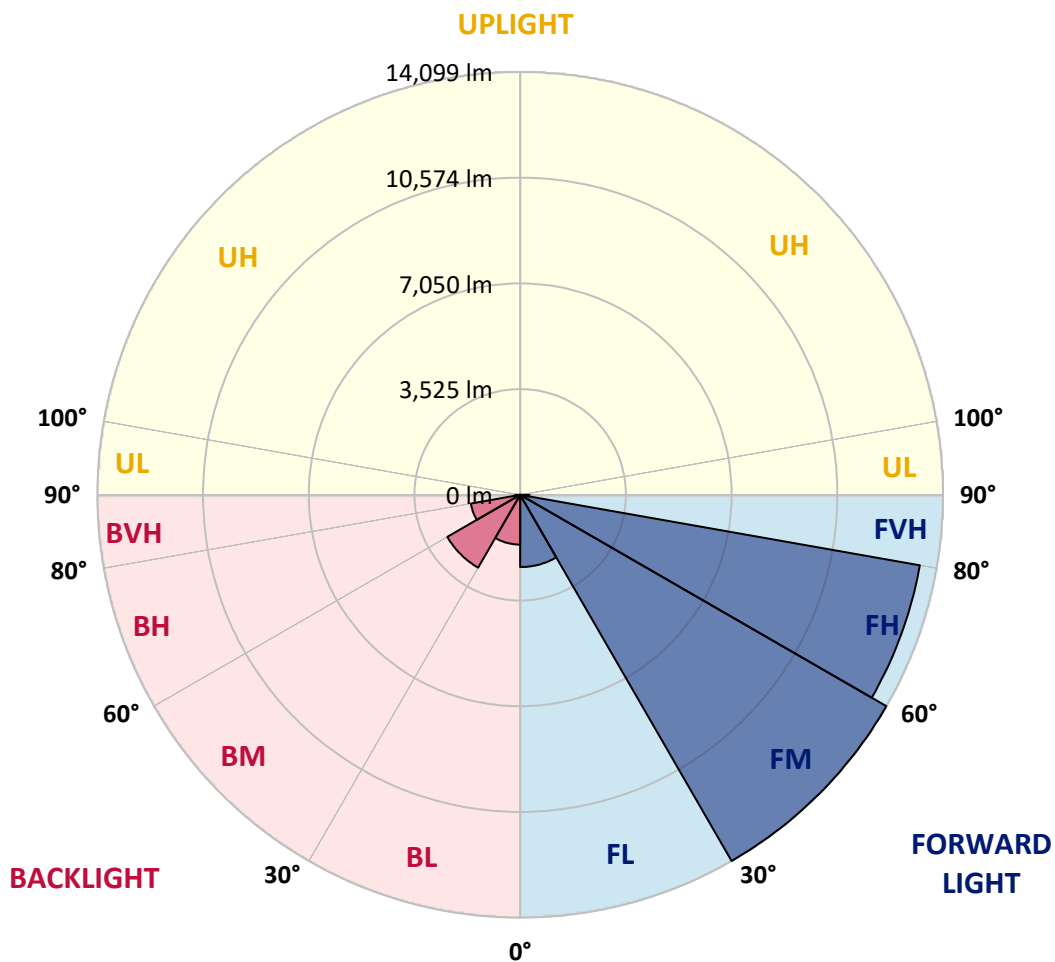
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2409.4	6.6			
FM	(30°-60°)	14099.1	38.5			
FH	(60°-80°)	13532.7	36.9			G5
FVH	(80°-90°)	301.4	0.8			G3/500
BL	(0°-30°)	1660.7	4.5	B3/2500		
BM	(30°-60°)	2803.5	7.7	B3/5000		
BH	(60°-80°)	1669.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	162.7	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-G5**

Type III Medium





REPORT NUMBER: P195378

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3
2.5°	4835.2	4857.8	4860.1	4925.8	4955.2	5029.9	5111.5	5183.9	5247.4	5270.0	5310.8
5°	4350.5	4350.5	4357.3	4400.4	4484.1	4604.2	4774.0	4959.7	5154.5	5202.1	5322.1
7.5°	4096.9	4101.4	4105.9	4149.0	4214.6	4321.1	4490.9	4744.6	5068.4	5147.7	5358.3
10°	4119.5	4112.7	4090.1	4081.0	4108.2	4176.1	4323.4	4583.8	4996.0	5118.3	5424.0
12.5°	4475.1	4461.5	4386.8	4278.1	4178.4	4153.5	4255.4	4502.3	4962.0	5118.3	5535.0
15°	5084.3	5093.4	4946.1	4719.7	4459.2	4282.6	4269.0	4472.8	4950.7	5131.9	5664.1
17.5°	5876.9	5881.5	5677.7	5349.3	4916.7	4552.1	4361.9	4472.8	4950.7	5145.4	5788.6
20°	6719.4	6687.7	6456.7	6044.5	5482.9	4925.8	4531.7	4500.0	4964.3	5165.8	5906.4
22.5°	7441.9	7412.4	7170.1	6737.5	6094.4	5367.4	4760.4	4590.6	5039.0	5249.6	6071.7
25°	8073.7	8091.8	7856.3	7369.4	6703.6	5865.6	5102.4	4798.9	5195.3	5401.4	6275.5
27.5°	8841.5	8807.5	8535.7	8071.5	7330.9	6382.0	5530.4	5061.6	5381.0	5584.8	6524.7
30°	9729.2	9713.4	9346.5	8868.6	8021.6	6959.5	5953.9	5344.7	5623.3	5836.2	6837.2
32.5°	10807.2	10805.0	10410.9	9824.4	8798.4	7611.7	6454.5	5732.0	5976.6	6191.7	7251.6
35°	12027.9	12025.7	11618.0	10843.5	9693.0	8334.2	7043.3	6203.1	6413.7	6640.2	7745.3
37.5°	12874.9	12861.3	12648.5	11896.6	10682.7	9174.4	7779.3	6837.2	6909.7	7163.3	8341.0
40°	13038.0	13119.5	13303.0	12859.1	11763.0	10107.4	8517.6	7518.9	7586.8	7912.9	9090.6
42.5°	12861.3	12967.8	13577.0	13701.6	12843.2	11237.5	9441.6	8463.3	8549.3	8954.7	9971.6
45°	12707.3	12800.2	13563.4	14168.1	13909.9	12469.5	10594.4	9616.0	9779.1	10281.8	10977.1
47.5°	12444.6	12530.7	13296.2	14251.9	14519.1	13656.3	11982.6	11002.0	11282.8	11892.0	12123.0
50°	12431.0	12469.5	12931.6	13971.1	14729.7	14557.6	13520.4	12623.5	13053.8	13755.9	13391.3
52.5°	12086.8	12356.3	12775.3	13522.6	14734.3	15083.0	15035.5	14401.4	15064.9	15841.7	14781.8
55°	9980.6	10290.9	12254.4	13303.0	14707.1	15533.7	16419.2	16292.4	17329.6	18147.2	16340.0
57.5°	9319.3	9450.7	10750.6	13368.6	14933.6	16278.8	17803.0	18323.8	19920.5	20812.8	18208.3
60°	9138.1	9276.3	10449.4	13400.3	15547.3	17635.4	19680.4	20618.0	22966.5	23913.2	20330.4
62.5°	8936.6	9115.5	10472.1	13429.8	16625.3	19641.9	22171.6	23106.9	26094.1	26938.8	22318.8
65°	8347.8	8585.6	10053.1	13244.1	17805.2	22160.3	25464.5	25702.3	28678.1	29214.9	23519.1
67°	7231.3	7491.7	8902.6	12170.6	17696.5	23856.6	28098.4	27326.1	29776.5	29842.2	23129.6
67.5°	6878.0	7147.5	8513.1	11724.5	17386.3	24078.5	28564.9	27550.3	29767.5	29695.0	22767.2
70°	4631.4	4934.8	6028.7	8608.2	13946.1	22409.4	28451.7	26859.6	27815.3	26984.1	19560.4
72.5°	2298.7	2307.7	3007.5	4715.1	8449.7	16072.7	23734.3	22977.8	22547.6	20978.1	14353.8
75°	1107.4	1127.8	1420.0	2083.5	3562.4	8297.9	16186.0	15504.3	13201.1	11430.0	7183.7
77.5°	844.7	865.1	1102.9	1356.6	1485.7	2706.3	8017.1	6479.4	3825.1	3055.1	2024.7
80°	652.2	690.7	930.8	1041.8	982.9	1084.8	2520.6	1983.9	1487.9	1365.6	1003.3
82.5°	509.6	532.2	790.4	790.4	679.4	727.0	1173.1	1145.9	924.0	833.4	539.0
85°	360.1	405.4	636.4	588.8	446.1	450.7	702.1	672.6	475.6	382.7	210.6
87.5°	160.8	206.1	452.9	385.0	237.8	183.4	287.6	246.9	188.0	144.9	97.4
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: P195378

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7060

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3	5392.3
2.5°	5356.1	5392.3	5448.9	5482.9	5528.2	5546.3	5564.4	5596.1	5621.0	5614.2	5602.9
5°	5405.9	5467.0	5537.2	5559.9	5559.9	5537.2	5523.7	5525.9	5519.1	5514.6	5501.0
7.5°	5478.4	5562.2	5612.0	5589.3	5519.1	5430.8	5347.0	5297.2	5249.6	5220.2	5229.2
10°	5580.3	5673.1	5675.4	5575.7	5408.2	5215.6	5050.3	4943.9	4842.0	4796.7	4810.3
12.5°	5727.5	5820.3	5741.1	5525.9	5231.5	4930.3	4626.8	4407.1	4210.1	4162.6	4149.0
15°	5886.0	5958.5	5781.8	5419.5	4977.9	4481.9	3972.3	3643.9	3424.3	3385.8	3372.2
17.5°	6024.2	6064.9	5761.4	5229.2	4577.0	3795.7	3202.3	2980.4	2935.1	2957.7	2957.7
20°	6146.4	6132.9	5673.1	4934.8	3945.1	3034.7	2690.5	2688.2	2749.4	2806.0	2810.5
22.5°	6300.5	6194.0	5532.7	4497.7	3191.0	2532.0	2473.1	2532.0	2599.9	2663.3	2670.1
25°	6483.9	6262.0	5344.7	3874.9	2565.9	2298.7	2323.6	2373.4	2416.5	2466.3	2468.5
27.5°	6667.3	6314.0	5079.8	3143.4	2226.2	2149.2	2176.4	2196.8	2208.1	2239.8	2239.8
30°	6880.2	6354.8	4697.0	2518.4	2070.0	2017.9	2002.0	1993.0	2002.0	2045.0	2047.3
32.5°	7147.5	6427.3	4173.9	2160.5	1997.5	1925.0	1843.5	1798.2	1829.9	1906.9	1920.5
35°	7450.9	6513.3	3546.6	2017.9	1972.6	1879.7	1730.2	1660.0	1671.4	1741.6	1752.9
37.5°	7831.4	6624.3	2928.3	1983.9	1997.5	1875.2	1678.2	1578.5	1528.7	1531.0	1528.7
40°	8318.3	6735.3	2439.1	1993.0	2051.8	1886.5	1653.2	1497.0	1392.8	1397.3	1406.4
42.5°	8827.9	6807.7	2128.8	2020.1	2117.5	1902.4	1644.2	1417.7	1327.1	1404.1	1474.3
45°	9423.5	6787.4	1968.0	2045.0	2167.3	1909.2	1610.2	1408.7	1333.9	1564.9	1696.3
47.5°	10107.4	6699.0	1877.5	2056.4	2180.9	1906.9	1585.3	1438.1	1390.5	1791.4	1940.9
50°	10850.3	6560.9	1805.0	2038.2	2174.1	1897.8	1612.5	1474.3	1413.2	1841.2	1956.7
52.5°	11663.3	6434.1	1730.2	1997.5	2140.2	1870.7	1646.5	1458.5	1349.8	1696.3	1784.6
55°	12625.8	6404.6	1646.5	1927.3	2083.5	1841.2	1628.3	1408.7	1279.6	1503.8	1558.1
57.5°	13726.5	6588.1	1537.7	1841.2	2006.5	1782.3	1585.3	1381.5	1254.7	1367.9	1397.3
60°	15123.8	6993.5	1422.2	1750.6	1911.4	1694.0	1546.8	1388.3	1261.4	1347.5	1354.3
62.5°	16215.4	7358.1	1318.1	1639.7	1784.6	1587.6	1506.0	1395.1	1281.8	1374.7	1363.4
65°	16611.7	7179.2	1189.0	1474.3	1605.7	1469.8	1449.4	1399.6	1281.8	1390.5	1365.6
67°	15798.7	6325.4	1066.7	1309.0	1435.8	1365.6	1395.1	1381.5	1259.2	1388.3	1345.2
67.5°	15411.4	6024.2	1035.0	1281.8	1390.5	1333.9	1381.5	1372.4	1252.4	1383.7	1333.9
70°	12709.6	4321.1	874.2	1075.7	1164.1	1175.4	1297.7	1313.5	1198.0	1299.9	1209.4
72.5°	9043.0	2704.1	754.2	833.4	939.9	1005.5	1184.4	1234.3	1125.6	1130.1	1055.4
75°	4475.1	1451.7	672.6	643.2	731.5	837.9	1032.7	1125.6	1019.1	942.1	917.2
77.5°	1510.6	822.1	568.4	518.6	568.4	672.6	856.1	982.9	899.1	797.2	781.3
80°	781.3	597.9	443.9	416.7	448.4	520.9	670.4	817.6	767.7	772.3	636.4
82.5°	486.9	364.6	319.3	317.1	339.7	398.6	493.7	663.6	659.0	563.9	409.9
85°	226.5	210.6	203.8	210.6	217.4	226.5	321.6	473.3	500.5	303.5	269.5
87.5°	95.1	92.9	81.5	88.3	97.4	95.1	129.1	201.6	280.8	190.2	174.4
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)