

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: P197352

Luminaire Tested: **NAV-AF-06-D-UNV-T4W-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197352  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)  
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-T4W-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31863 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - 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

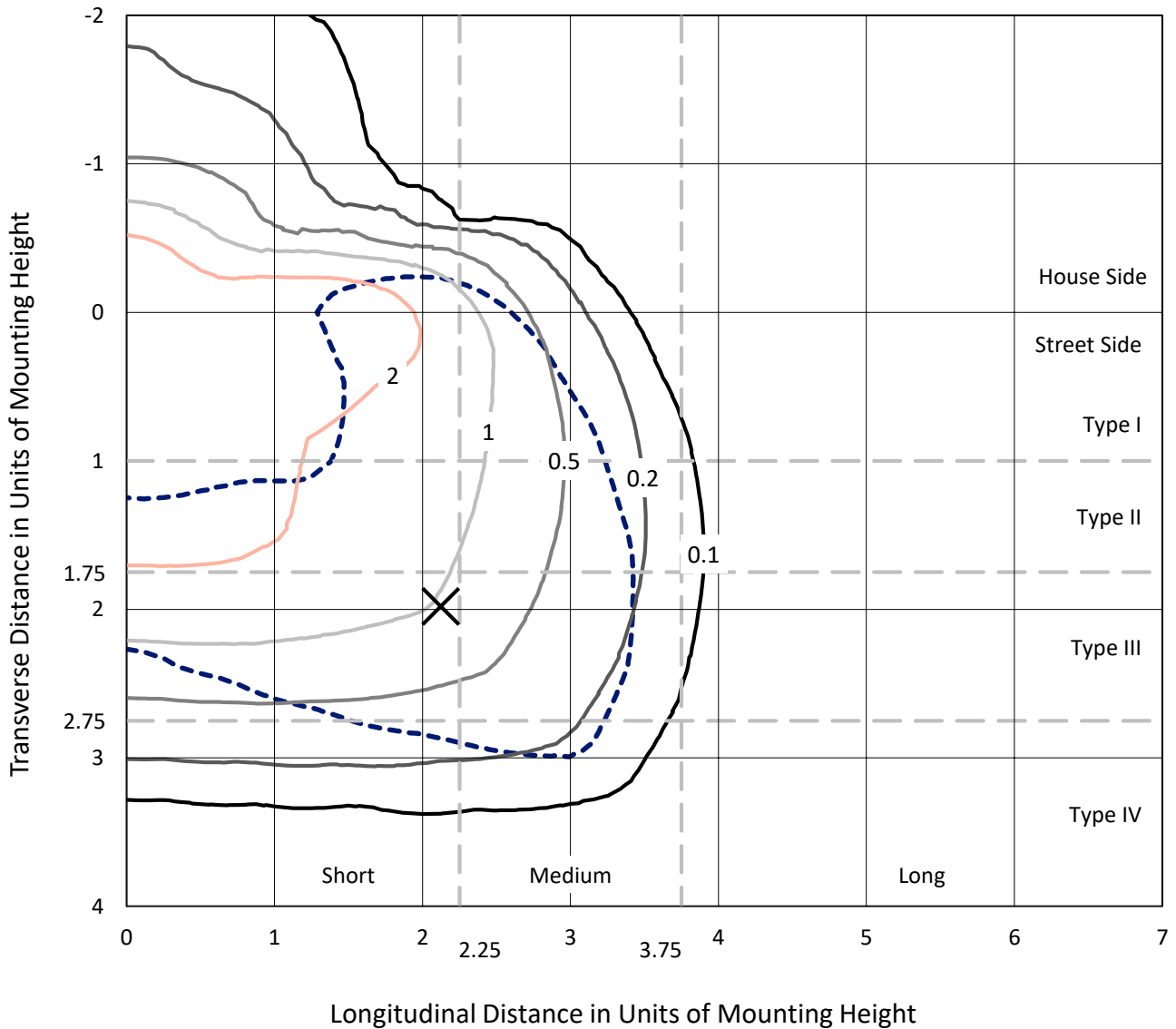


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### Iso-Footcandle Lines of Horizontal Illumination

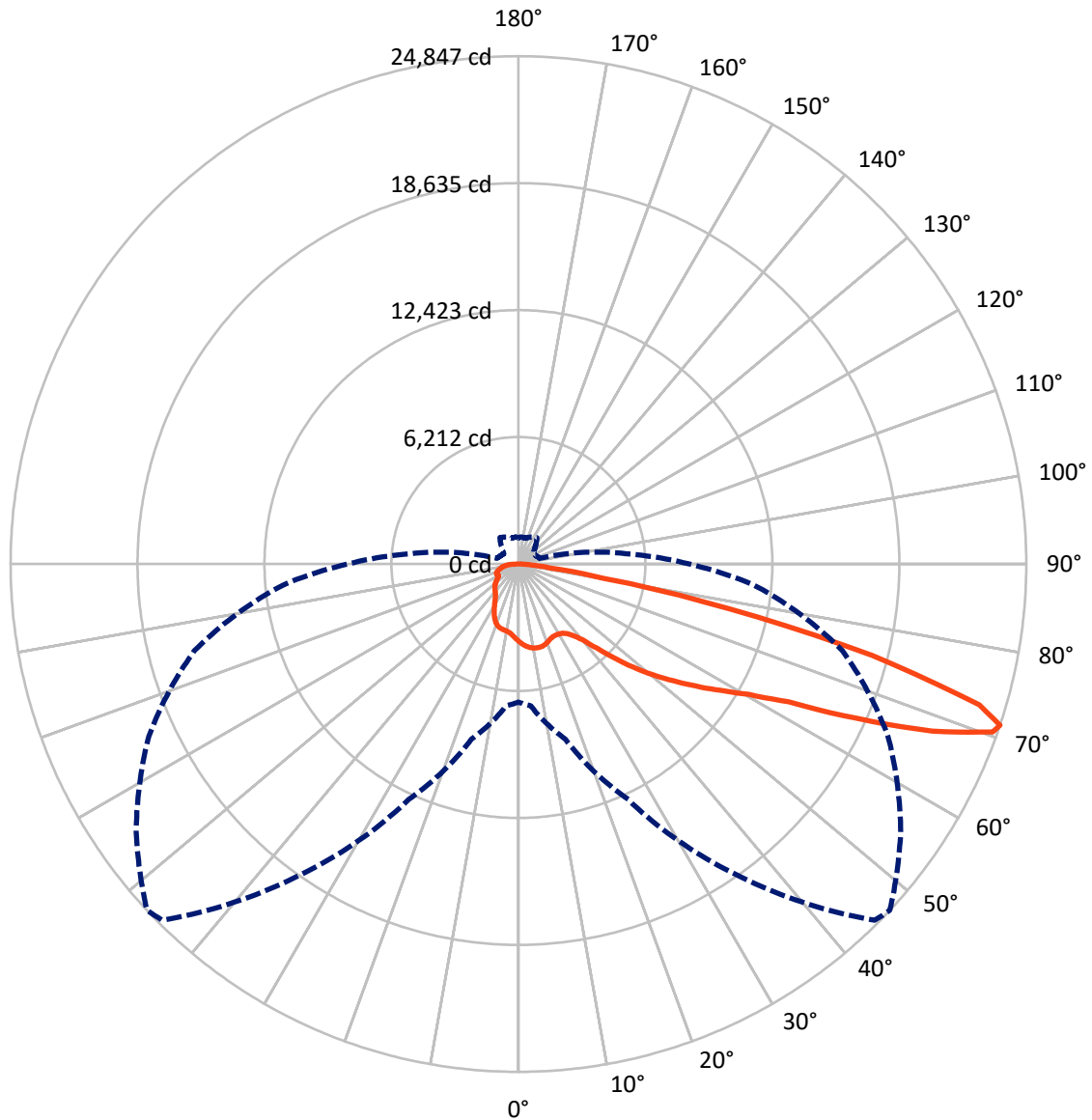
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6828.7	0.0	6828.7
	% Fixture	21.4	0.0	21.4
<b>Street Side</b>	Lumens	25034.3	0.0	25034.3
	% Fixture	78.6	0.0	78.6
<b>Total</b>	Lumens	31863.0	0.0	31863.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	361.8	1.1
10°-20°	1058.4	3.3
20°-30°	1572.7	4.9
30°-40°	2258.2	7.1
40°-50°	4003.9	12.6
50°-60°	6851.3	21.5
60°-70°	9726.4	30.5
70°-80°	5327.1	16.7
80°-90°	703.2	2.2
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°	31863.0	100.0
0°-180°	31863.0	100.0

**Coefficient of Utilization**



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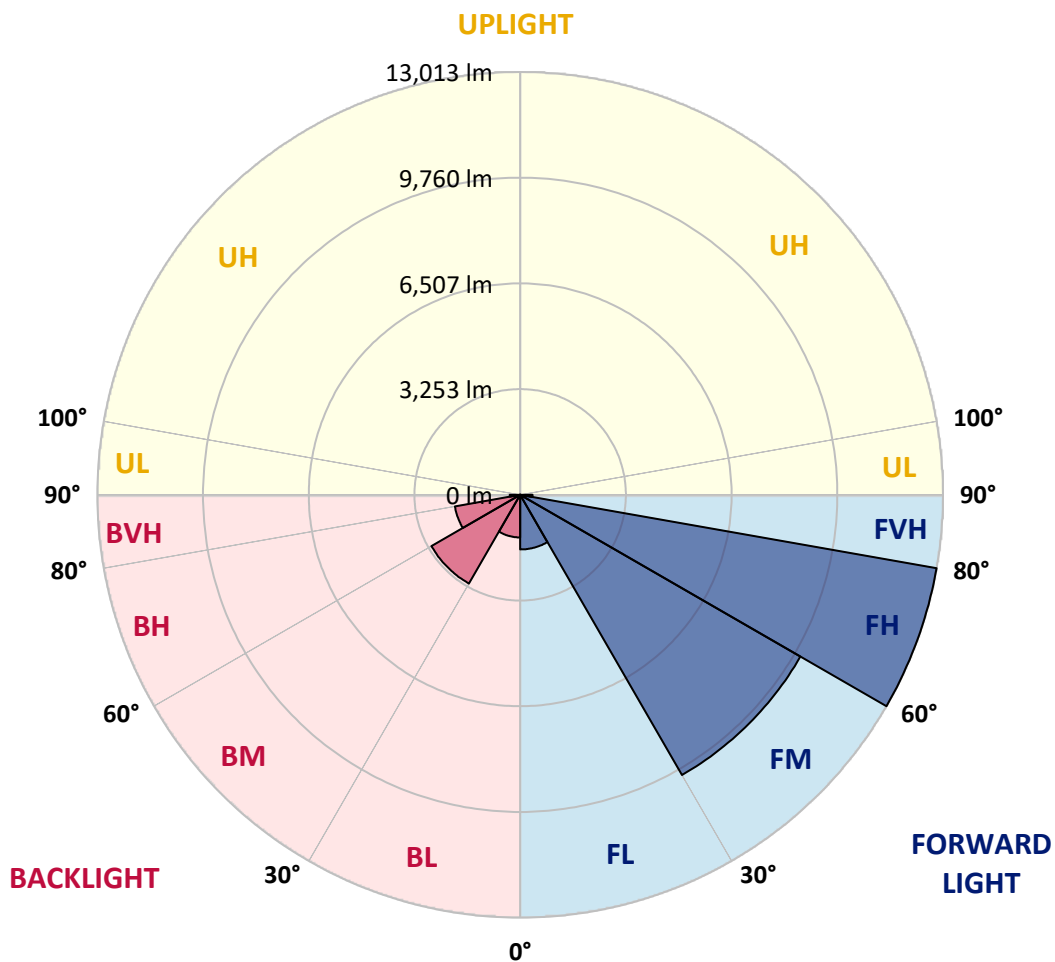
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1681.6	5.3			
FM	(30°-60°)	9958.1	31.3			
FH	(60°-80°)	13013.2	40.8			G5
FVH	(80°-90°)	381.4	1.2			G3/500
BL	(0°-30°)	1311.3	4.1	B3/2500		
BM	(30°-60°)	3155.2	9.9	B3/5000		
BH	(60°-80°)	2040.3	6.4	B3/2500		G3/2500
BVH	(80°-90°)	321.8	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0
2.5°	4020.3	4012.1	4016.2	4001.7	3966.6	3929.5	3929.5	3890.2	3848.9	3807.6	3762.2
5°	4270.2	4257.8	4247.4	4202.0	4133.9	4057.5	4045.1	3966.6	3882.0	3797.3	3714.7
7.5°	4478.7	4466.3	4435.4	4352.8	4253.6	4140.1	4125.6	4022.4	3910.9	3793.2	3677.5
10°	4627.4	4619.1	4559.2	4453.9	4338.3	4204.1	4179.3	4074.0	3941.8	3795.2	3648.6
12.5°	4710.0	4697.6	4625.3	4501.4	4365.1	4228.9	4204.1	4102.9	3952.2	3791.1	3619.7
15°	4676.9	4670.7	4602.6	4476.6	4340.4	4222.7	4202.0	4098.8	3946.0	3776.7	3592.9
17.5°	4536.5	4551.0	4497.3	4373.4	4261.9	4179.3	4156.6	4059.5	3915.0	3741.6	3551.6
20°	4342.4	4358.9	4332.1	4206.1	4142.1	4088.5	4076.1	3997.6	3863.4	3689.9	3502.0
22.5°	4135.9	4150.4	4152.5	4034.8	4014.1	3993.5	3983.1	3927.4	3818.0	3659.0	3469.0
25°	3993.5	4010.0	4014.1	3910.9	3923.3	3929.5	3927.4	3888.2	3809.7	3659.0	3473.1
27.5°	3956.3	3964.6	3960.4	3865.4	3888.2	3923.3	3925.3	3917.1	3842.7	3700.3	3530.9
30°	4084.3	4088.5	4036.8	3894.4	3917.1	3962.5	3964.6	3960.4	3912.9	3807.6	3661.0
32.5°	4637.7	4633.6	4456.0	4088.5	4010.0	4026.5	4032.7	4069.9	4074.0	3985.2	3848.9
35°	5480.2	5478.1	5271.6	4643.9	4274.3	4187.6	4195.8	4253.6	4305.3	4245.4	4166.9
37.5°	6407.3	6413.5	6287.5	5436.8	4844.2	4482.8	4474.6	4517.9	4610.9	4631.5	4641.8
40°	7435.6	7466.6	7460.4	6347.4	5643.3	4986.7	4904.1	4854.5	5034.2	5147.7	5294.3
42.5°	8610.5	8602.3	8606.4	7346.8	6556.0	5779.6	5626.8	5395.5	5604.1	5800.2	6122.4
45°	9620.2	9653.3	9678.1	8410.2	7578.1	6686.1	6531.2	6110.0	6297.9	6591.1	7082.5
47.5°	10636.2	10578.4	10623.8	9593.4	8715.8	7720.6	7520.3	6952.4	7127.9	7540.9	8288.4
50°	11819.3	11792.5	11586.0	11137.9	10091.0	8769.5	8507.3	7832.1	8088.1	8639.4	9777.2
52.5°	12880.7	12736.1	12575.1	12352.1	11443.5	9830.9	9498.4	8746.8	9217.6	9901.1	11625.2
55°	13268.9	13171.8	13365.9	13655.0	12874.5	10912.9	10541.2	9814.3	10491.6	11344.4	13799.6
57.5°	13681.9	13714.9	14152.6	14737.0	14229.0	12067.1	11664.5	11078.1	11889.5	12959.2	16229.9
60°	13888.3	14020.5	14893.9	15990.4	15517.5	13332.9	12946.8	12529.7	13440.3	14743.2	18654.1
62.5°	13923.4	14101.0	15337.9	16430.2	17291.3	15271.8	14825.8	14373.6	15377.1	16715.2	20409.2
65°	13279.2	13551.8	15298.7	16971.2	18908.1	18511.6	18228.7	17439.9	17970.6	18451.7	20708.6
67.5°	11385.7	11683.1	13785.1	16748.2	20204.8	21873.2	21819.5	20654.9	19973.5	19122.8	18488.9
70°	8356.5	8596.1	10615.5	14317.8	19639.0	24512.1	24607.1	22738.4	20533.1	17698.0	13747.9
71°	6758.3	6964.8	8868.6	12711.4	18536.4	24648.4	24846.6	22831.3	19950.8	16411.6	11509.6
72.5°	4206.1	4321.8	5889.0	9593.4	15961.5	23244.3	23578.8	21641.9	18117.2	13871.8	8135.6
75°	1587.9	1633.3	2184.6	4230.9	9527.3	17462.6	17867.4	16355.9	12727.9	7918.8	3405.0
77.5°	852.8	875.5	1084.1	1759.3	3818.0	10010.5	10530.9	9329.1	6105.8	2771.1	1391.7
80°	572.0	586.4	749.5	1042.8	1755.1	3811.8	4245.4	3745.7	2285.8	1581.7	991.1
82.5°	369.6	377.9	510.0	685.5	1133.6	1340.1	1530.1	1598.2	1426.8	1133.6	598.8
85°	243.7	249.8	336.6	437.8	702.1	660.8	677.3	885.8	972.6	747.5	305.6
87.5°	140.4	144.5	202.4	225.1	315.9	247.8	268.4	421.2	578.2	487.3	175.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0	3789.0
2.5°	3741.6	3725.0	3687.9	3665.2	3654.8	3650.7	3646.6	3654.8	3654.8	3650.7	3642.4
5°	3673.4	3642.4	3580.5	3537.1	3514.4	3508.2	3516.5	3526.8	3533.0	3533.0	3526.8
7.5°	3623.9	3578.4	3495.8	3436.0	3400.8	3390.5	3413.2	3450.4	3475.2	3487.6	3489.6
10°	3582.6	3520.6	3429.8	3367.8	3338.9	3334.8	3363.7	3411.2	3462.8	3485.5	3489.6
12.5°	3545.4	3475.2	3376.1	3318.3	3297.6	3307.9	3347.2	3390.5	3450.4	3483.4	3485.5
15°	3510.3	3438.0	3332.7	3272.8	3268.7	3285.2	3322.4	3357.5	3402.9	3444.2	3444.2
17.5°	3469.0	3390.5	3281.1	3225.3	3225.3	3239.8	3264.6	3283.2	3312.1	3351.3	3349.2
20°	3419.4	3338.9	3227.4	3169.6	3157.2	3148.9	3148.9	3153.1	3177.8	3212.9	3219.1
22.5°	3382.3	3299.7	3182.0	3111.8	3056.0	3002.3	2979.6	2971.4	2994.1	3027.1	3035.4
25°	3382.3	3299.7	3167.5	3049.8	2913.5	2810.3	2766.9	2754.5	2777.3	2808.2	2820.6
27.5°	3438.0	3355.4	3200.6	2994.1	2744.2	2579.0	2527.4	2517.1	2537.7	2562.5	2574.9
30°	3568.1	3487.6	3295.5	2930.1	2556.3	2339.5	2281.7	2271.4	2281.7	2292.0	2306.5
32.5°	3784.9	3716.8	3450.4	2872.2	2366.3	2122.7	2052.5	2036.0	2040.1	2042.2	2054.5
35°	4138.0	4107.0	3656.9	2804.1	2186.7	1945.1	1872.8	1839.8	1837.7	1848.1	1862.5
37.5°	4679.0	4697.6	3923.3	2705.0	2038.0	1819.2	1746.9	1713.8	1697.3	1718.0	1734.5
40°	5443.0	5486.4	4230.9	2570.8	1916.2	1744.8	1668.4	1637.4	1614.7	1608.5	1616.8
42.5°	6436.2	6423.8	4544.8	2399.4	1784.1	1695.3	1614.7	1581.7	1544.5	1497.0	1486.7
45°	7613.2	7435.6	4807.0	2188.8	1633.3	1647.8	1565.2	1519.7	1461.9	1391.7	1383.5
47.5°	9002.9	8513.5	4968.1	1963.7	1492.9	1585.8	1509.4	1439.2	1354.6	1309.1	1302.9
50°	10677.5	9775.1	5081.7	1734.5	1366.9	1507.4	1431.0	1338.0	1255.4	1243.1	1241.0
52.5°	12659.7	11263.9	5222.1	1528.0	1267.8	1406.2	1352.5	1257.5	1191.4	1197.6	1197.6
55°	14768.0	12804.3	5226.2	1364.9	1181.1	1288.5	1294.7	1218.3	1166.7	1187.3	1193.5
57.5°	16690.4	14150.6	4815.3	1249.2	1098.5	1195.6	1276.1	1232.7	1193.5	1265.8	1272.0
60°	18367.1	15187.2	3931.5	1154.3	1030.4	1160.5	1317.4	1321.5	1313.3	1509.4	1523.9
62.5°	18980.3	15197.5	2791.7	1073.7	993.2	1181.1	1404.1	1410.3	1410.3	1592.0	1618.9
65°	18121.3	13931.7	1858.4	1026.2	968.4	1226.5	1474.3	1447.5	1383.5	1509.4	1480.5
67.5°	15094.2	10844.7	1358.7	995.3	933.3	1228.6	1536.3	1468.1	1358.7	1466.1	1416.5
70°	10373.9	6900.8	1137.7	966.4	892.0	1174.9	1569.3	1461.9	1321.5	1366.9	1300.9
71°	8350.4	5507.0	1079.9	956.0	875.5	1143.9	1573.4	1453.7	1302.9	1331.8	1272.0
72.5°	5500.8	3392.6	1009.7	933.3	850.7	1090.3	1563.1	1435.1	1278.2	1280.2	1241.0
75°	2170.2	1406.2	908.5	881.7	780.5	1003.5	1517.7	1395.9	1230.7	1189.4	1172.8
77.5°	1096.4	918.9	799.1	809.4	697.9	914.7	1453.7	1331.8	1164.6	1108.8	1096.4
80°	801.2	697.9	683.5	702.1	605.0	828.0	1373.1	1245.1	1079.9	1137.7	1113.0
82.5°	487.3	425.4	534.8	580.2	505.9	739.2	1278.2	1143.9	972.6	896.2	867.2
85°	231.3	249.8	386.1	427.4	373.7	590.6	1168.7	1032.4	848.7	733.0	745.4
87.5°	113.6	138.3	220.9	256.0	245.7	433.6	881.7	801.2	669.0	551.3	538.9
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)