

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: P270717

Luminaire Tested: **NAV-AF-06-D-UNV-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270717  
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-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30926.5 lumens  
Efficiency: N/A  
Efficacy: 92.9 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

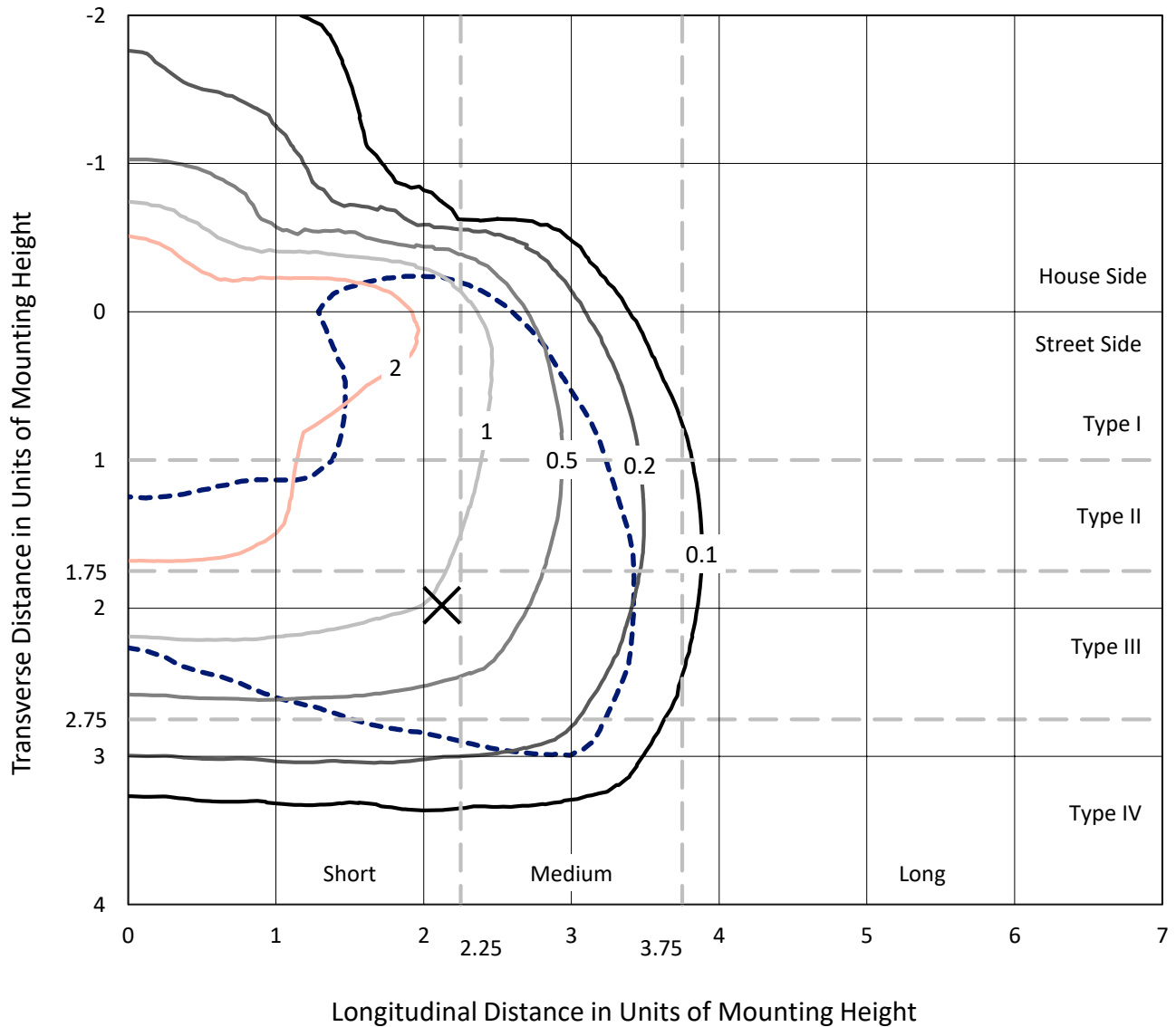
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

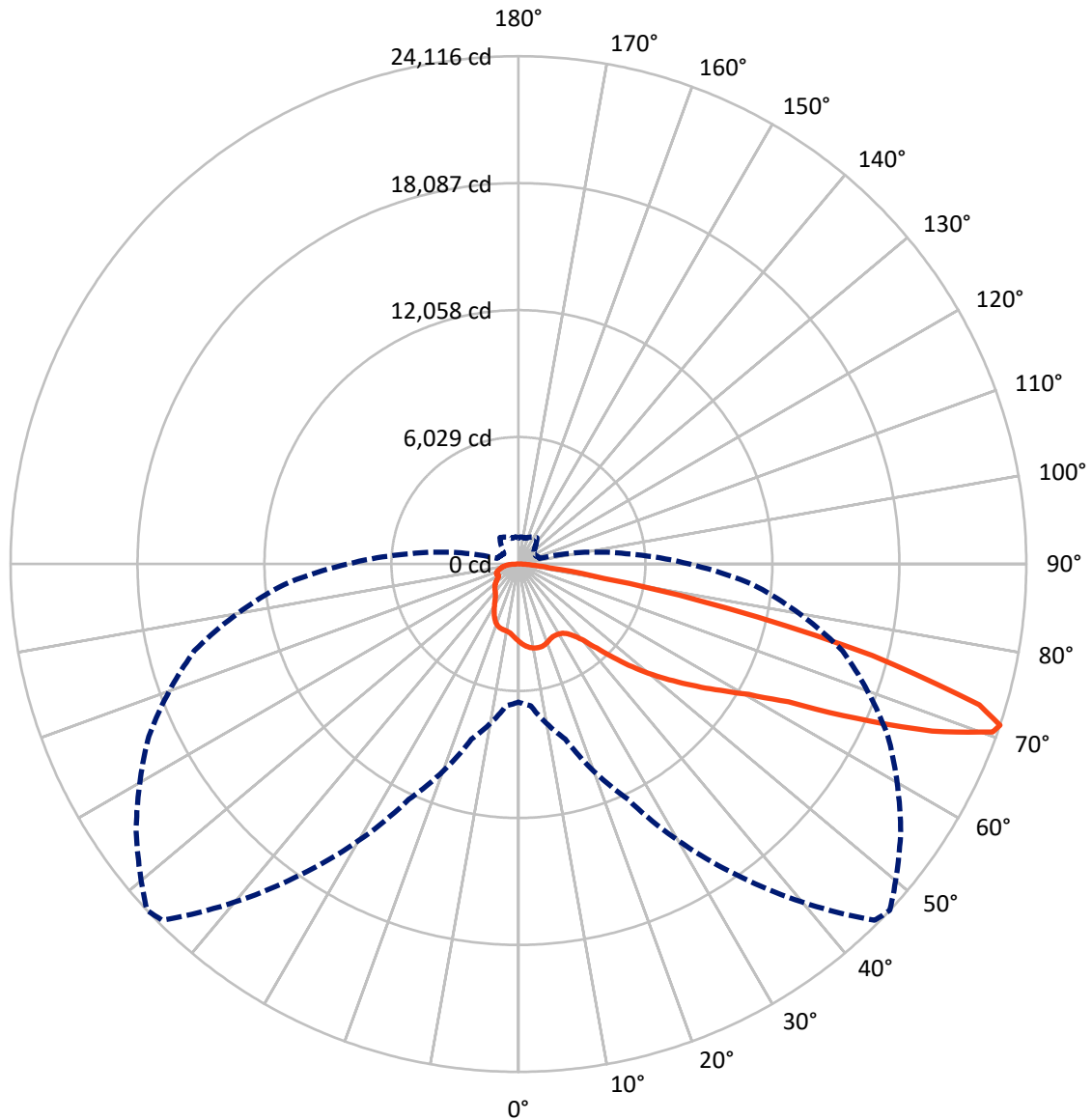
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.7 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	6628.0	0.0	6628.0
	% Fixture	21.4	0.0	21.4
<b>Street Side</b>	Lumens	24298.5	0.0	24298.5
	% Fixture	78.6	0.0	78.6
<b>Total</b>	Lumens	30926.5	0.0	30926.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	351.1	1.1
10°-20°	1027.3	3.3
20°-30°	1526.5	4.9
30°-40°	2191.9	7.1
40°-50°	3886.2	12.6
50°-60°	6649.9	21.5
60°-70°	9440.5	30.5
70°-80°	5170.5	16.7
80°-90°	682.5	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°	30926.5	100.0
0°-180°	30926.5	100.0



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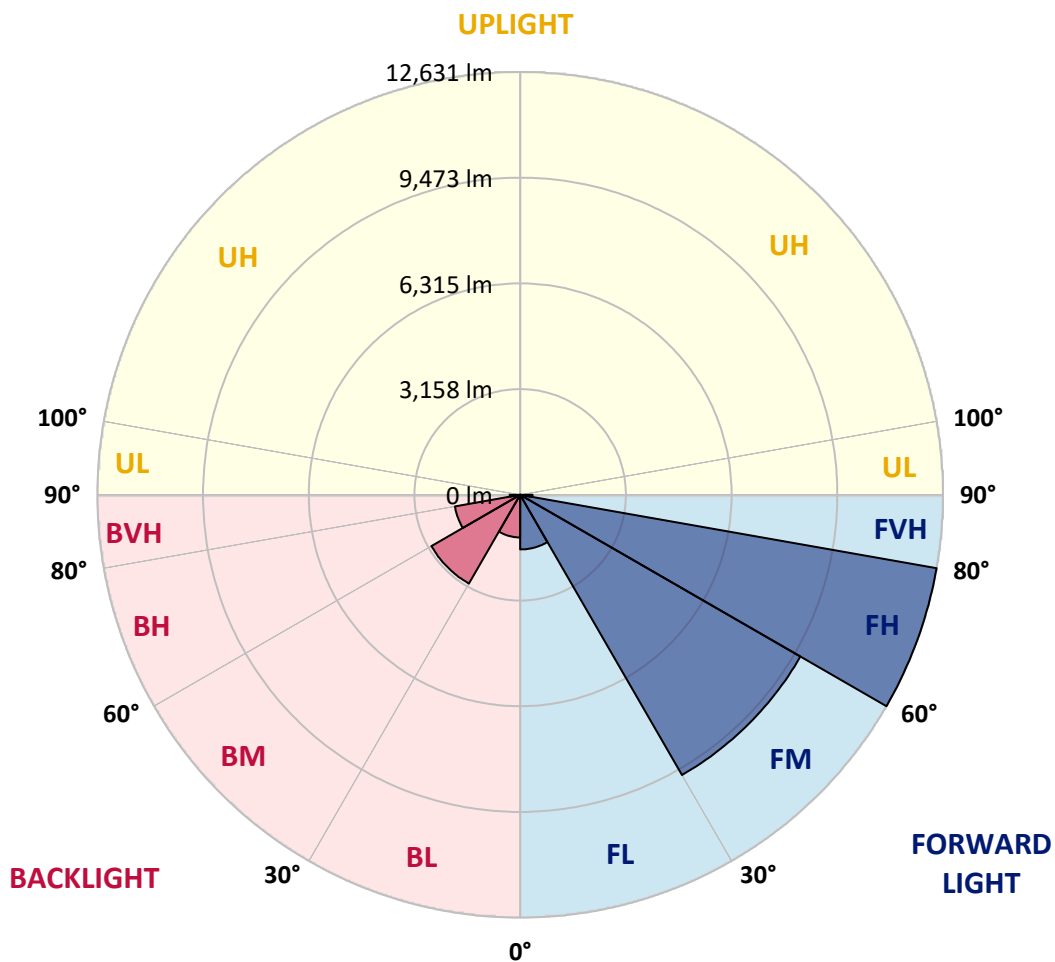
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1632.2	5.3			
FM	(30°-60°)	9665.5	31.3			
FH	(60°-80°)	12630.7	40.8			G5
FVH	(80°-90°)	370.2	1.2			G3/500
BL	(0°-30°)	1272.8	4.1	B3/2500		
BM	(30°-60°)	3062.5	9.9	B3/5000		
BH	(60°-80°)	1980.3	6.4	B3/2500		G3/2500
BVH	(80°-90°)	312.3	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°	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8
2.5°	3902.1	3894.2	3898.1	3884.1	3850.0	3813.9	3813.9	3775.8	3735.8	3695.6	3651.6
5°	4144.7	4132.7	4122.6	4078.6	4012.4	3938.2	3926.2	3850.0	3767.9	3685.7	3605.5
7.5°	4347.1	4335.0	4304.9	4224.8	4128.6	4018.4	4004.4	3904.2	3795.9	3681.8	3569.4
10°	4491.3	4483.4	4425.2	4323.1	4210.7	4080.6	4056.4	3954.2	3826.1	3683.7	3541.4
12.5°	4571.6	4559.4	4489.4	4369.1	4236.9	4104.5	4080.6	3982.4	3836.0	3679.6	3513.4
15°	4539.4	4533.4	4467.4	4345.1	4212.8	4098.5	4078.6	3978.4	3830.1	3665.7	3487.3
17.5°	4403.2	4417.2	4365.1	4244.9	4136.6	4056.4	4034.4	3940.2	3799.9	3631.6	3447.2
20°	4214.8	4230.8	4204.7	4082.5	4020.4	3968.4	3956.2	3880.0	3749.9	3581.5	3399.0
22.5°	4014.3	4028.4	4030.4	3916.3	3896.0	3876.0	3866.0	3812.0	3705.8	3551.4	3367.0
25°	3876.0	3892.1	3896.0	3795.9	3807.9	3813.9	3812.0	3773.9	3697.8	3551.4	3371.0
27.5°	3840.1	3848.0	3844.0	3751.9	3773.9	3807.9	3809.9	3801.9	3729.9	3591.6	3427.2
30°	3964.3	3968.4	3918.1	3779.9	3801.9	3846.1	3848.0	3844.0	3797.9	3695.6	3553.4
32.5°	4501.3	4497.4	4325.0	3968.4	3892.1	3908.2	3914.2	3950.2	3954.2	3868.1	3735.8
35°	5319.1	5317.1	5116.7	4507.4	4148.6	4064.6	4072.5	4128.6	4178.7	4120.5	4044.4
37.5°	6219.0	6225.0	6102.7	5277.1	4701.8	4351.1	4343.0	4385.2	4475.4	4495.4	4505.4
40°	7217.1	7247.2	7241.1	6160.8	5477.4	4840.1	4759.8	4711.8	4886.2	4996.5	5138.8
42.5°	8357.4	8349.4	8353.3	7130.8	6363.2	5609.7	5461.3	5236.8	5439.3	5629.8	5942.4
45°	9337.5	9369.5	9393.5	8163.1	7355.3	6489.5	6339.2	5930.4	6112.7	6397.4	6874.4
47.5°	10323.5	10267.4	10311.6	9311.4	8459.7	7493.7	7299.3	6748.1	6918.4	7319.3	8044.9
50°	11472.0	11445.9	11245.5	10810.6	9794.4	8511.8	8257.2	7601.8	7850.4	8385.5	9489.9
52.5°	12502.2	12361.8	12205.5	11989.0	11107.3	9541.9	9219.2	8489.7	8946.7	9610.1	11283.6
55°	12878.9	12784.7	12973.1	13253.7	12496.1	10592.2	10231.3	9525.8	10183.2	11011.0	13394.0
57.5°	13279.7	13311.9	13736.7	14303.8	13810.8	11712.5	11321.6	10752.4	11540.0	12578.2	15752.9
60°	13480.1	13608.5	14456.2	15520.3	15061.4	12941.1	12566.2	12161.3	13045.2	14309.9	18105.8
62.5°	13514.2	13686.5	14887.2	15947.3	16783.0	14822.9	14389.9	13951.0	14925.2	16223.8	19809.3
65°	12888.9	13153.4	14849.1	16472.4	18352.4	17967.4	17692.9	16927.3	17442.4	17909.4	20099.9
67.5°	11051.0	11339.7	13380.0	16255.9	19611.0	21230.4	21178.3	20047.8	19386.4	18560.7	17945.5
70°	8110.9	8343.4	10303.5	13897.0	19061.8	23791.7	23883.9	22070.1	19929.5	17177.8	13343.9
71°	6559.8	6760.1	8608.0	12337.7	17991.6	23923.9	24116.3	22160.3	19364.5	15929.3	11171.3
72.5°	4082.5	4194.7	5715.9	9311.4	15492.3	22561.1	22885.8	21005.8	17584.7	13464.1	7896.6
75°	1541.2	1585.2	2120.4	4106.6	9247.3	16949.4	17342.1	15875.1	12353.9	7686.1	3305.0
77.5°	827.7	849.7	1052.2	1707.6	3705.8	9716.2	10221.4	9054.8	5926.4	2689.6	1350.8
80°	555.2	569.2	727.4	1012.1	1703.5	3699.7	4120.5	3635.6	2218.6	1535.3	962.1
82.5°	358.8	366.8	495.1	665.4	1100.3	1300.7	1485.1	1551.3	1384.8	1100.3	581.3
85°	236.6	242.5	326.7	424.9	681.5	641.3	657.4	859.8	943.9	725.6	296.6
87.5°	136.4	140.2	196.4	218.5	306.6	240.4	260.6	408.9	561.3	473.0	170.4
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°	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8	3677.8
2.5°	3631.6	3615.6	3579.4	3557.4	3547.3	3543.5	3539.4	3547.3	3547.3	3543.5	3535.4
5°	3565.5	3535.4	3475.3	3433.1	3411.1	3405.1	3413.1	3423.1	3429.2	3429.2	3423.1
7.5°	3517.4	3473.2	3393.1	3335.0	3300.9	3290.9	3312.9	3349.1	3373.0	3385.1	3387.1
10°	3477.2	3417.2	3328.9	3268.8	3240.7	3236.8	3264.8	3311.0	3361.0	3383.0	3387.1
12.5°	3441.1	3373.0	3276.8	3220.8	3200.8	3210.7	3248.8	3290.9	3349.1	3381.1	3383.0
15°	3407.1	3336.9	3234.7	3176.6	3172.6	3188.7	3224.7	3258.8	3302.9	3343.0	3343.0
17.5°	3367.0	3290.9	3184.6	3130.6	3130.6	3144.5	3168.6	3186.6	3214.8	3252.9	3250.7
20°	3318.9	3240.7	3132.5	3076.4	3064.4	3056.4	3056.4	3060.3	3084.4	3118.5	3124.6
22.5°	3282.9	3202.6	3088.5	3020.3	2966.3	2914.1	2892.1	2884.0	2906.0	2938.1	2946.1
25°	3282.9	3202.6	3074.4	2960.2	2828.0	2727.8	2685.7	2673.5	2695.6	2725.6	2737.8
27.5°	3336.9	3256.7	3106.5	2906.0	2663.6	2503.2	2453.1	2443.1	2463.2	2487.1	2499.3
30°	3463.2	3385.1	3198.7	2843.9	2481.2	2270.7	2214.6	2204.6	2214.6	2224.7	2238.7
32.5°	3673.7	3607.6	3349.1	2787.8	2296.7	2060.4	1992.1	1976.1	1980.1	1982.1	1994.1
35°	4016.4	3986.3	3549.5	2721.7	2122.4	1888.0	1817.8	1785.7	1783.8	1793.7	1807.7
37.5°	4541.6	4559.4	3807.9	2625.4	1978.2	1765.7	1695.6	1663.5	1647.4	1667.4	1683.6
40°	5283.0	5325.2	4106.6	2495.2	1859.9	1693.6	1619.4	1589.3	1567.3	1561.3	1569.2
42.5°	6247.1	6235.0	4411.1	2328.9	1731.7	1645.4	1567.3	1535.3	1499.1	1453.0	1442.9
45°	7389.4	7217.1	4665.7	2124.4	1585.2	1599.3	1519.2	1475.0	1419.0	1350.8	1342.7
47.5°	8738.3	8263.2	4822.0	1905.9	1449.1	1539.2	1465.0	1397.0	1314.8	1270.7	1264.6
50°	10363.7	9487.8	4932.4	1683.6	1326.7	1463.1	1388.9	1298.7	1218.6	1206.6	1204.4
52.5°	12287.6	10932.8	5068.5	1483.1	1230.6	1364.9	1312.8	1220.5	1156.4	1162.4	1162.4
55°	14334.0	12428.0	5072.5	1324.8	1146.3	1250.6	1256.5	1182.4	1132.4	1152.3	1158.5
57.5°	16199.9	13734.6	4673.7	1212.5	1066.2	1160.4	1238.7	1196.5	1158.5	1228.5	1234.6
60°	17827.3	14740.7	3816.0	1120.4	1000.2	1126.4	1278.6	1282.7	1274.7	1465.0	1479.1
62.5°	18422.4	14750.8	2709.6	1042.2	964.1	1146.3	1362.9	1368.8	1368.8	1545.3	1571.2
65°	17588.8	13522.2	1803.7	996.1	939.9	1190.4	1431.0	1404.9	1342.7	1465.0	1437.0
67.5°	14650.5	10526.0	1318.7	965.9	905.9	1192.5	1491.0	1425.0	1318.7	1422.9	1374.9
70°	10069.0	6698.0	1104.2	938.0	865.7	1140.4	1523.2	1419.0	1282.7	1326.7	1262.7
71°	8104.9	5345.2	1048.2	927.9	849.7	1110.3	1527.2	1411.0	1264.6	1292.8	1234.6
72.5°	5339.2	3292.8	980.1	905.9	825.7	1058.3	1517.1	1392.9	1240.6	1242.5	1204.4
75°	2106.3	1364.9	881.9	855.7	757.6	974.0	1473.1	1354.9	1194.4	1154.4	1138.4
77.5°	1064.2	891.8	775.6	785.7	677.4	887.9	1411.0	1292.8	1130.3	1076.3	1064.2
80°	777.7	677.4	663.4	681.5	587.2	803.7	1332.7	1208.5	1048.2	1104.2	1080.2
82.5°	473.0	413.0	519.1	563.1	491.1	717.4	1240.6	1110.3	943.9	869.7	841.7
85°	224.4	242.5	374.9	414.8	362.7	573.2	1134.4	1002.1	823.7	711.5	723.6
87.5°	110.2	134.2	214.4	248.6	238.5	420.9	855.7	777.7	649.4	535.1	523.2
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)