

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: P270715

Luminaire Tested: **NAV-AF-06-D-UNV-T4FT-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
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-T4FT-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25485.2 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

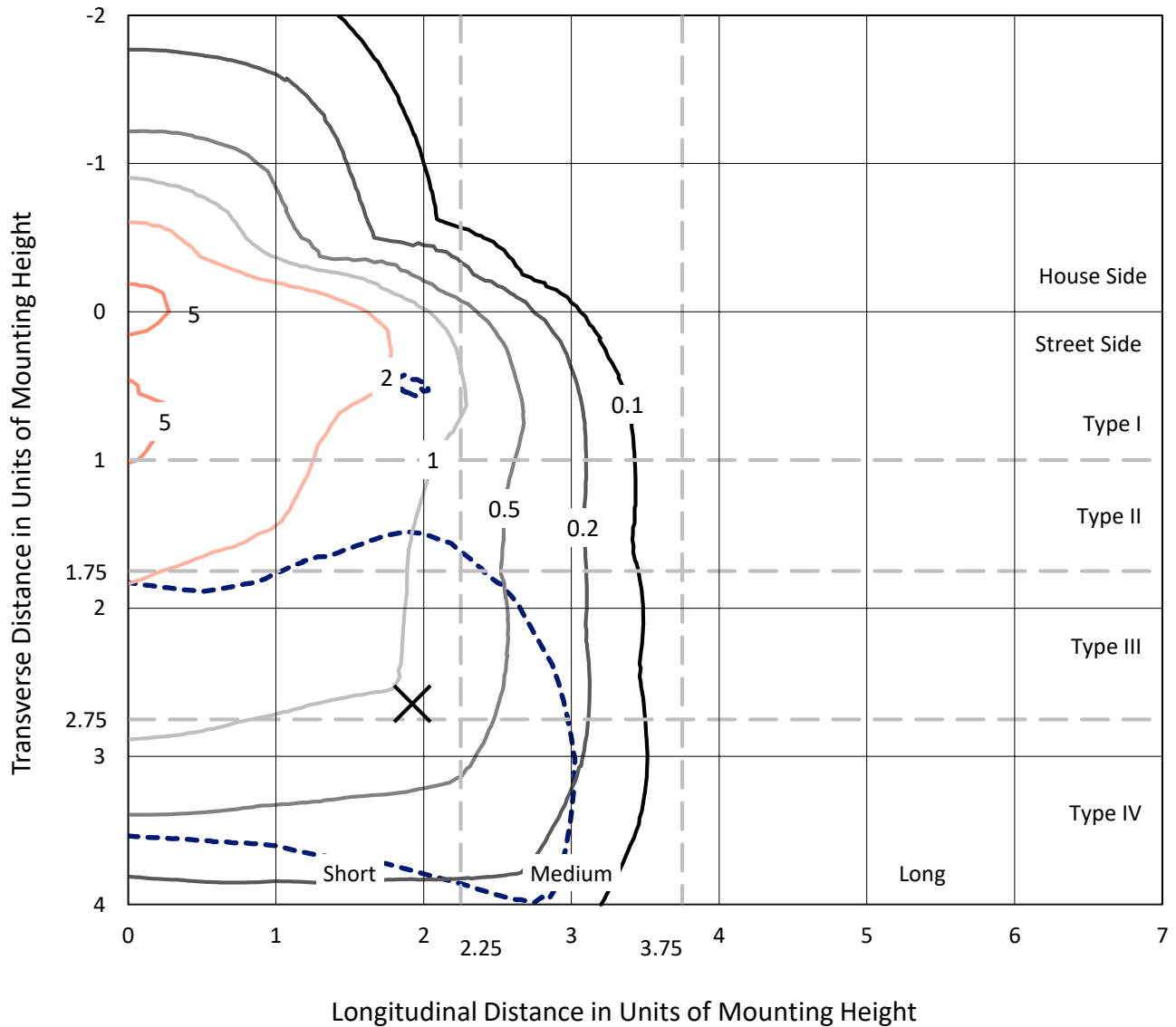
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

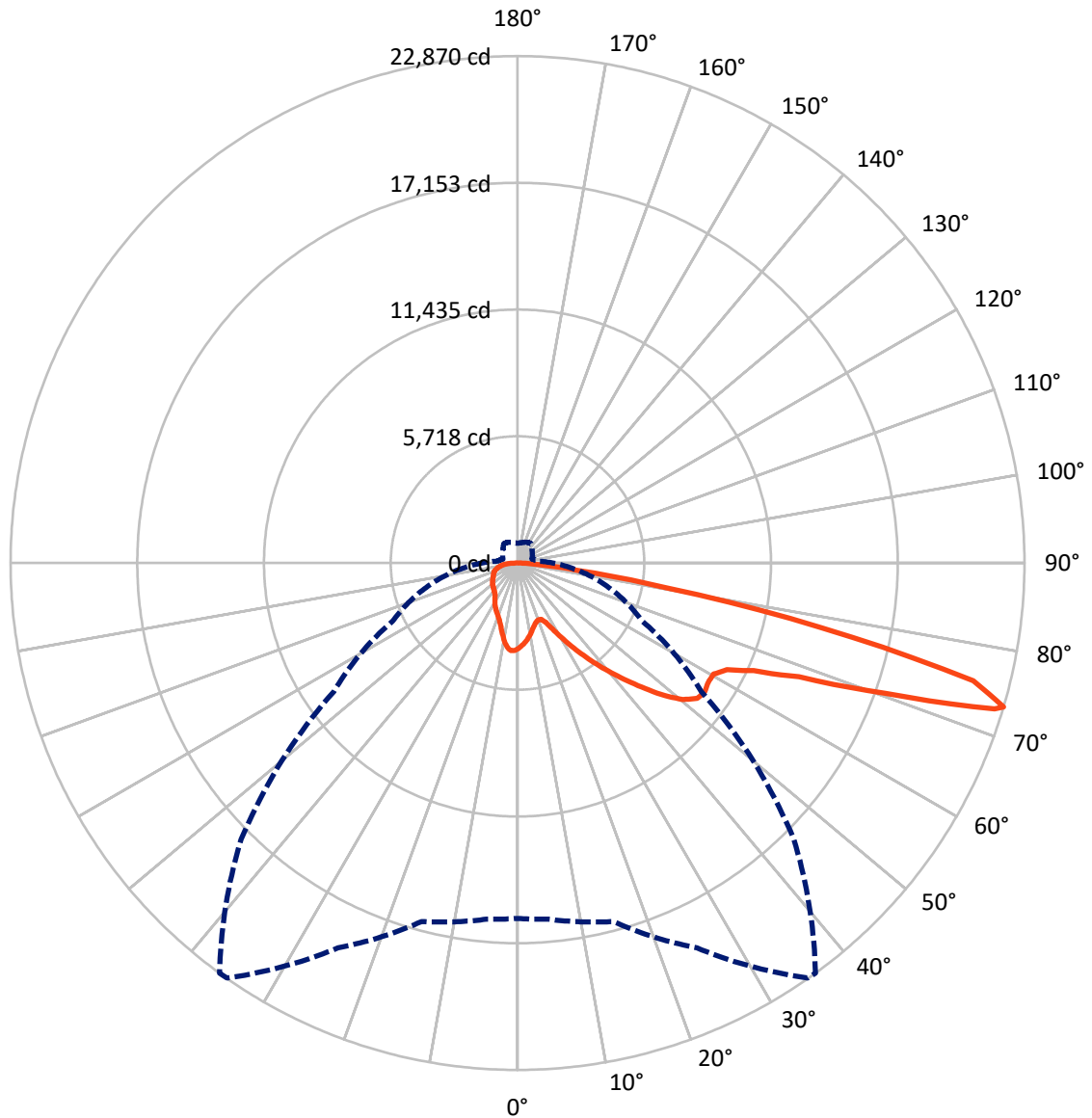
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4914.3	0.0	4914.3
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	20570.9	0.0	20570.9
	% Fixture	80.7	0.0	80.7
Total	Lumens	25485.2	0.0	25485.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.6	1.4
10°-20°	880.6	3.5
20°-30°	1411.8	5.5
30°-40°	2335.3	9.2
40°-50°	3613.6	14.2
50°-60°	4837.5	19.0
60°-70°	6319.3	24.8
70°-80°	5161.8	20.3
80°-90°	574.6	2.3
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°	25485.2	100.0
0°-180°	25485.2	100.0



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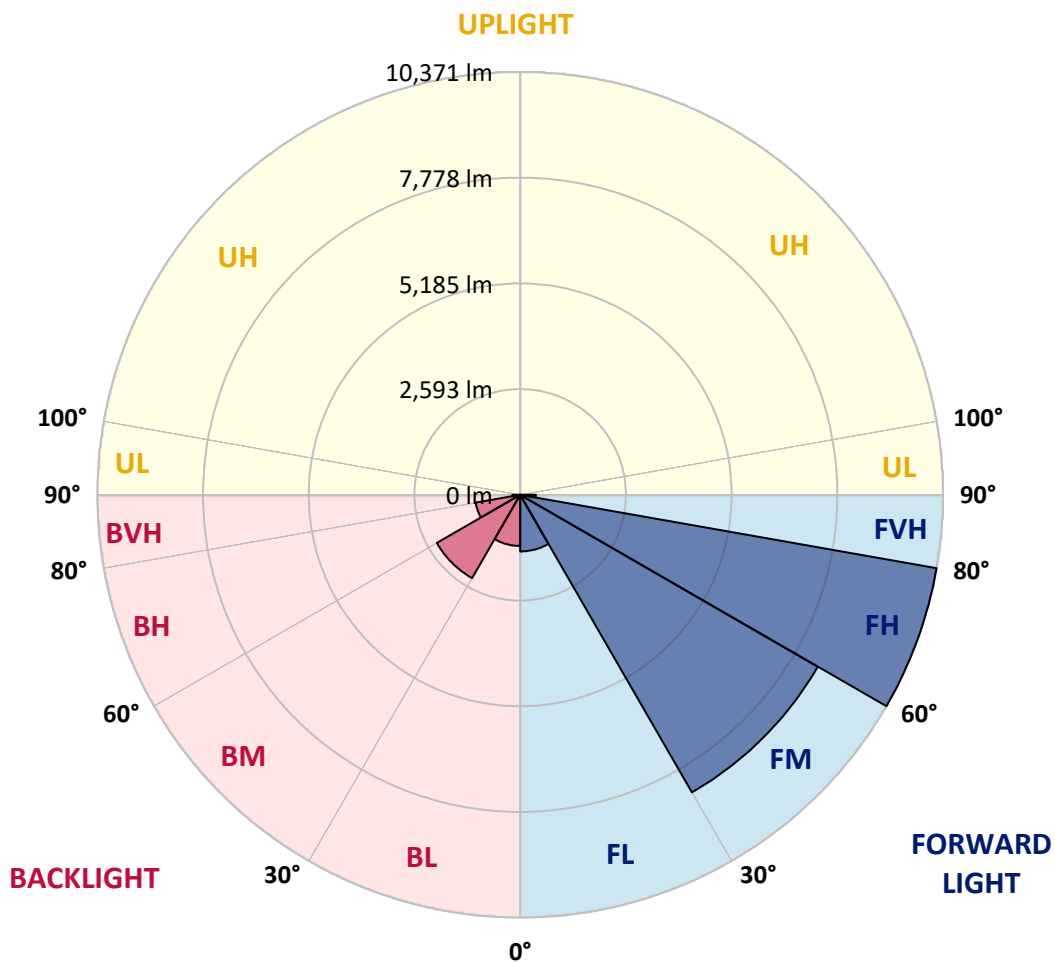
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1388.6	5.4			
FM (30°-60°)	8426.3	33.1			
FH (60°-80°)	10370.6	40.7			G4/12000
FVH (80°-90°)	385.3	1.5			G3/500
BL (0°-30°)	1254.4	4.9	B3/2500		
BM (30°-60°)	2360.1	9.3	B2/2500		
BH (60°-80°)	1110.5	4.4	B3/2500		G3/2500
BVH (80°-90°)	189.2	0.7			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2
2.5°	3713.0	3722.7	3724.3	3735.6	3735.6	3734.0	3738.8	3758.2	3768.0	3790.7	3810.2
5°	3529.9	3541.3	3546.1	3565.6	3589.8	3591.5	3609.3	3646.5	3682.2	3732.4	3774.5
7.5°	3324.3	3337.3	3350.1	3390.7	3426.3	3429.5	3463.5	3523.4	3570.5	3631.9	3708.1
10°	3125.2	3128.3	3141.4	3193.1	3240.0	3244.9	3293.5	3361.5	3424.7	3510.4	3596.4
12.5°	2961.6	2971.4	2968.1	3006.9	3047.4	3050.6	3115.4	3201.2	3293.5	3390.7	3492.7
15°	2904.8	2903.3	2869.2	2867.7	2885.4	2888.7	2951.9	3052.3	3155.8	3275.7	3406.9
17.5°	2943.7	2930.8	2841.8	2786.7	2775.4	2778.5	2825.6	2935.8	3045.9	3183.5	3340.4
20°	3157.5	3107.2	2898.4	2765.6	2728.4	2728.4	2755.9	2845.0	2966.5	3126.7	3324.3
22.5°	3664.4	3586.7	3141.4	2904.8	2773.7	2760.9	2739.7	2807.7	2942.2	3134.8	3390.7
25°	4302.3	4265.1	3586.7	3275.7	3005.3	2963.1	2823.9	2848.3	2992.3	3222.3	3572.0
27.5°	4893.3	4828.6	4171.2	3814.9	3432.8	3368.0	3073.3	2974.6	3112.2	3384.3	3834.3
30°	5238.2	5194.4	4771.8	4431.9	3976.8	3894.2	3471.6	3223.8	3326.0	3651.4	4206.8
32.5°	5613.9	5587.9	5374.2	5065.0	4566.3	4470.8	3986.6	3630.3	3653.0	4006.0	4655.2
35°	5978.2	6012.3	5890.7	5664.2	5200.9	5112.0	4678.0	4161.5	4056.1	4404.3	5134.6
37.5°	6415.4	6423.5	6347.5	6200.0	5868.1	5795.2	5437.4	4728.1	4494.9	4828.6	5597.7
40°	7288.2	7160.3	6862.3	6745.7	6548.1	6502.8	6094.8	5248.0	4903.0	5264.2	6035.0
42.5°	8232.2	8033.1	7566.8	7375.7	7296.3	7254.2	6642.1	5594.5	5285.2	5699.7	6464.1
45°	8993.2	8831.2	8374.7	8138.3	8147.9	8080.0	7119.7	5903.8	5699.7	6137.0	6943.3
47.5°	9742.9	9472.5	8960.9	8926.8	9040.3	8939.8	7576.5	6212.9	6132.0	6613.0	7422.5
50°	9791.5	9545.4	9338.2	9610.2	9804.6	9679.7	7991.0	6617.9	6580.5	7189.5	8041.1
52.5°	9200.5	9164.9	9480.6	9938.8	10261.1	10149.4	8329.4	7034.0	7038.8	7909.9	8794.0
55°	8985.1	8939.8	9318.7	9882.3	10317.8	10251.4	8582.0	7503.5	7547.3	8784.3	9602.1
57.5°	9347.9	9234.4	9309.0	9775.4	10185.1	10146.1	8844.3	8024.9	8104.2	9791.5	10348.6
60°	10473.2	10241.7	9846.6	9933.9	10189.8	10167.1	9219.9	8606.2	8739.0	10840.7	10821.3
62.5°	12158.9	11896.6	11091.7	10703.1	10646.5	10602.8	9840.2	9320.4	9386.7	11598.6	10546.1
65°	14008.0	13726.3	12769.2	12133.0	11799.3	11705.5	10840.7	10181.7	9765.7	11596.9	9474.2
67.5°	16083.9	15785.9	14832.3	14225.0	13863.9	13703.6	12464.9	10878.0	9642.5	10615.7	7581.2
70°	18209.9	17926.5	17489.5	17701.6	17860.2	17615.7	15023.3	11109.6	8758.5	8322.8	5090.9
72.5°	17081.4	17058.6	17390.6	19401.8	22460.4	22509.0	17578.5	10455.5	6766.8	4946.7	2713.8
73°	16033.7	16129.2	16744.5	19150.6	22853.9	22870.0	17628.6	10117.0	6212.9	4261.7	2383.6
75°	8306.6	8954.3	11237.4	15528.6	21161.8	21237.9	15539.8	7658.9	3703.3	2367.4	1606.3
77.5°	2224.8	2195.6	3620.6	7565.0	14108.4	14008.0	9819.1	3708.1	1774.7	1484.9	1127.1
80°	762.8	772.4	1232.3	2767.3	6585.5	6820.2	4261.7	1617.6	1167.4	1034.7	798.2
82.5°	388.5	401.5	644.4	1177.1	2754.4	2696.1	1371.5	952.2	782.1	628.3	446.8
85°	207.2	213.7	354.7	610.5	1010.5	1021.7	482.5	508.4	497.1	356.3	220.3
87.5°	102.0	105.2	170.0	268.9	374.1	361.1	168.4	220.3	244.5	200.9	121.5
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°	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2	3860.2
2.5°	3834.3	3834.3	3855.3	3891.0	3916.9	3941.3	3957.5	3983.4	3997.8	3996.3	3994.7
5°	3808.5	3824.7	3866.8	3910.4	3939.5	3959.0	3959.0	3970.4	3970.4	3965.5	3959.0
7.5°	3748.5	3776.0	3837.6	3876.5	3884.5	3863.5	3821.4	3789.1	3748.5	3727.4	3719.4
10°	3653.0	3688.6	3766.4	3784.2	3742.1	3667.6	3565.6	3478.1	3400.4	3364.8	3353.5
12.5°	3559.1	3606.1	3678.9	3651.4	3551.0	3405.2	3248.2	3128.3	3040.9	3006.9	2995.6
15°	3481.3	3538.1	3594.7	3508.9	3334.0	3131.6	2958.4	2846.5	2780.3	2754.4	2747.8
17.5°	3429.5	3495.9	3515.3	3355.1	3112.2	2885.4	2731.7	2658.9	2629.7	2618.3	2615.1
20°	3432.8	3507.3	3460.4	3206.1	2898.4	2670.1	2568.2	2547.1	2547.1	2547.1	2545.4
22.5°	3521.9	3586.7	3437.6	3066.9	2692.8	2488.8	2445.0	2462.9	2475.8	2475.8	2474.2
25°	3706.4	3742.1	3453.9	2932.4	2500.2	2331.7	2333.3	2367.4	2378.6	2378.6	2375.4
27.5°	3988.1	3959.0	3483.0	2783.5	2310.6	2189.2	2211.8	2242.7	2250.8	2245.9	2244.2
30°	4341.1	4224.5	3507.3	2608.6	2132.5	2056.4	2075.9	2093.7	2087.2	2075.9	2074.2
32.5°	4736.3	4494.9	3492.7	2412.7	1975.5	1918.8	1930.1	1939.8	1930.1	1902.6	1902.6
35°	5128.2	4739.5	3413.4	2199.0	1850.8	1786.0	1784.5	1815.1	1813.6	1781.2	1782.7
37.5°	5471.3	4932.2	3259.5	2003.0	1743.9	1688.9	1695.3	1714.8	1724.4	1680.8	1675.9
40°	5770.9	5065.0	3042.6	1836.2	1658.1	1661.3	1643.4	1612.7	1601.4	1581.9	1578.7
42.5°	6052.7	5157.3	2812.7	1697.0	1614.3	1651.7	1591.6	1518.9	1488.1	1505.9	1517.2
45°	6329.5	5261.0	2590.8	1581.9	1559.3	1622.5	1539.9	1458.9	1423.4	1431.4	1442.8
47.5°	6667.9	5405.0	2323.6	1458.9	1475.1	1569.0	1507.5	1420.1	1366.6	1334.3	1324.6
50°	7113.3	5613.9	1977.1	1326.2	1386.1	1510.8	1480.0	1363.4	1305.1	1240.3	1224.1
52.5°	7670.3	5811.4	1627.3	1219.3	1313.2	1460.6	1434.7	1314.8	1243.6	1165.8	1152.9
55°	8225.7	5839.0	1326.2	1127.1	1230.6	1392.6	1379.5	1276.0	1175.5	1112.5	1099.4
57.5°	8614.3	5578.2	1123.8	1049.3	1151.3	1308.3	1329.4	1229.1	1118.8	1070.3	1062.2
60°	8620.9	4955.0	1000.7	997.5	1091.4	1235.4	1277.6	1173.9	1083.3	1050.8	1044.4
62.5°	7935.8	3993.1	921.3	958.6	1047.7	1175.5	1238.8	1143.3	1075.2	1062.2	1055.8
65°	6651.8	2950.3	858.2	923.0	1007.2	1125.3	1206.3	1133.5	1071.9	1067.0	1062.2
67.5°	4911.2	2022.4	804.7	877.6	961.8	1073.6	1175.5	1118.8	1052.5	1071.9	1065.5
70°	3089.5	1350.4	754.5	825.8	901.9	1013.6	1135.1	1093.0	1028.2	1016.9	995.9
72.5°	1743.9	976.4	694.7	759.4	824.1	934.2	1080.0	1049.3	973.1	927.8	906.7
73°	1575.4	924.5	680.0	743.3	806.4	918.1	1067.0	1036.4	957.0	906.7	887.3
75°	1152.9	756.3	613.7	676.9	731.8	843.6	1005.6	971.5	885.6	825.8	812.8
77.5°	835.6	582.9	527.8	584.5	633.1	740.1	913.2	874.4	790.1	757.8	744.9
80°	602.4	442.1	437.1	492.2	534.3	642.8	814.5	774.0	693.0	788.5	767.5
82.5°	359.5	283.3	320.6	382.0	425.8	539.3	707.7	660.7	582.9	589.4	502.0
85°	171.7	160.3	199.2	250.9	281.8	369.3	589.4	552.2	466.3	382.0	374.1
87.5°	76.0	72.9	95.5	111.7	150.6	221.8	403.2	357.9	338.4	202.4	158.7
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)