

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: P197286

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197286  
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-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19698 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 193  
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

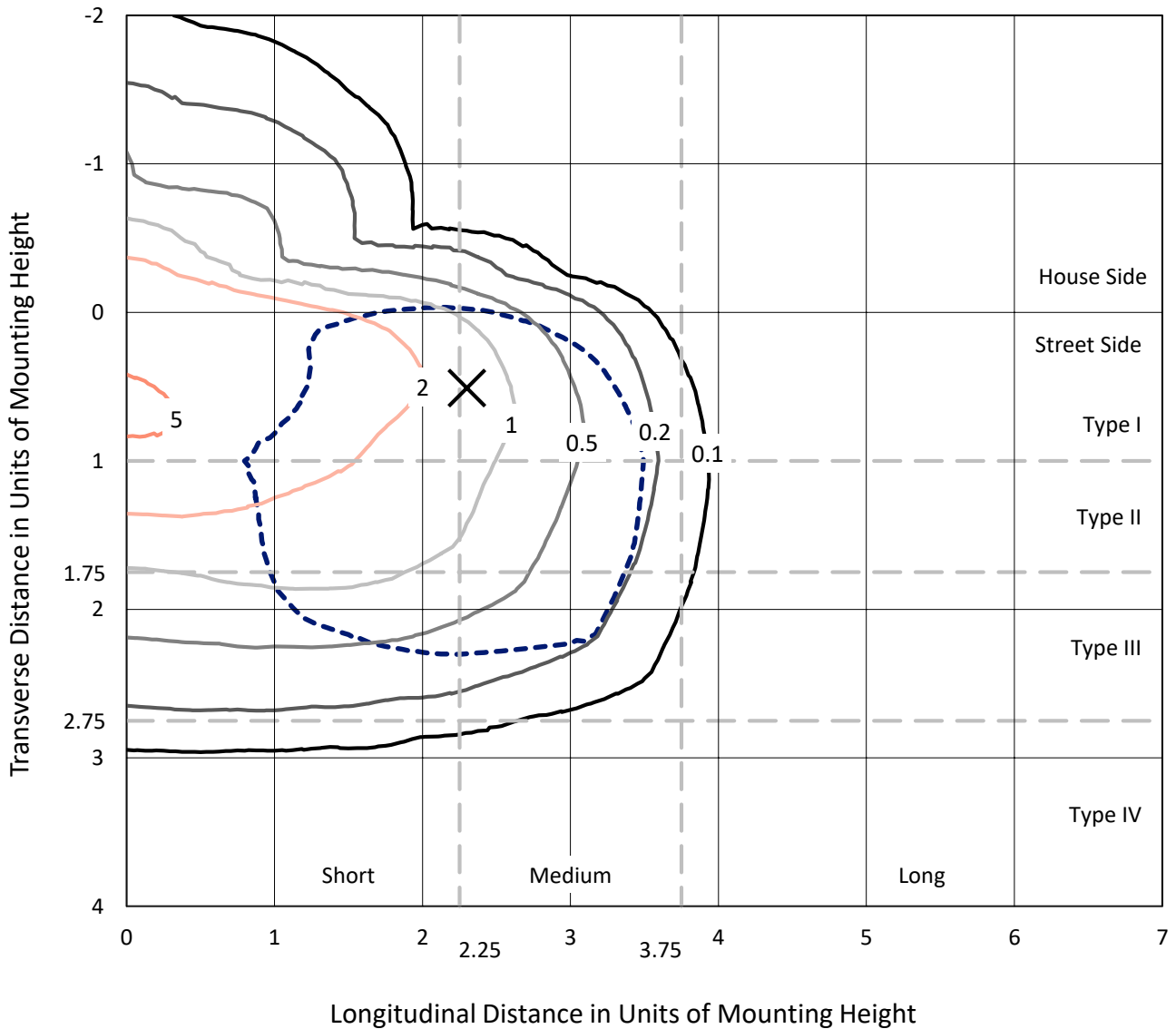


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### Iso-Footcandle Lines of Horizontal Illumination

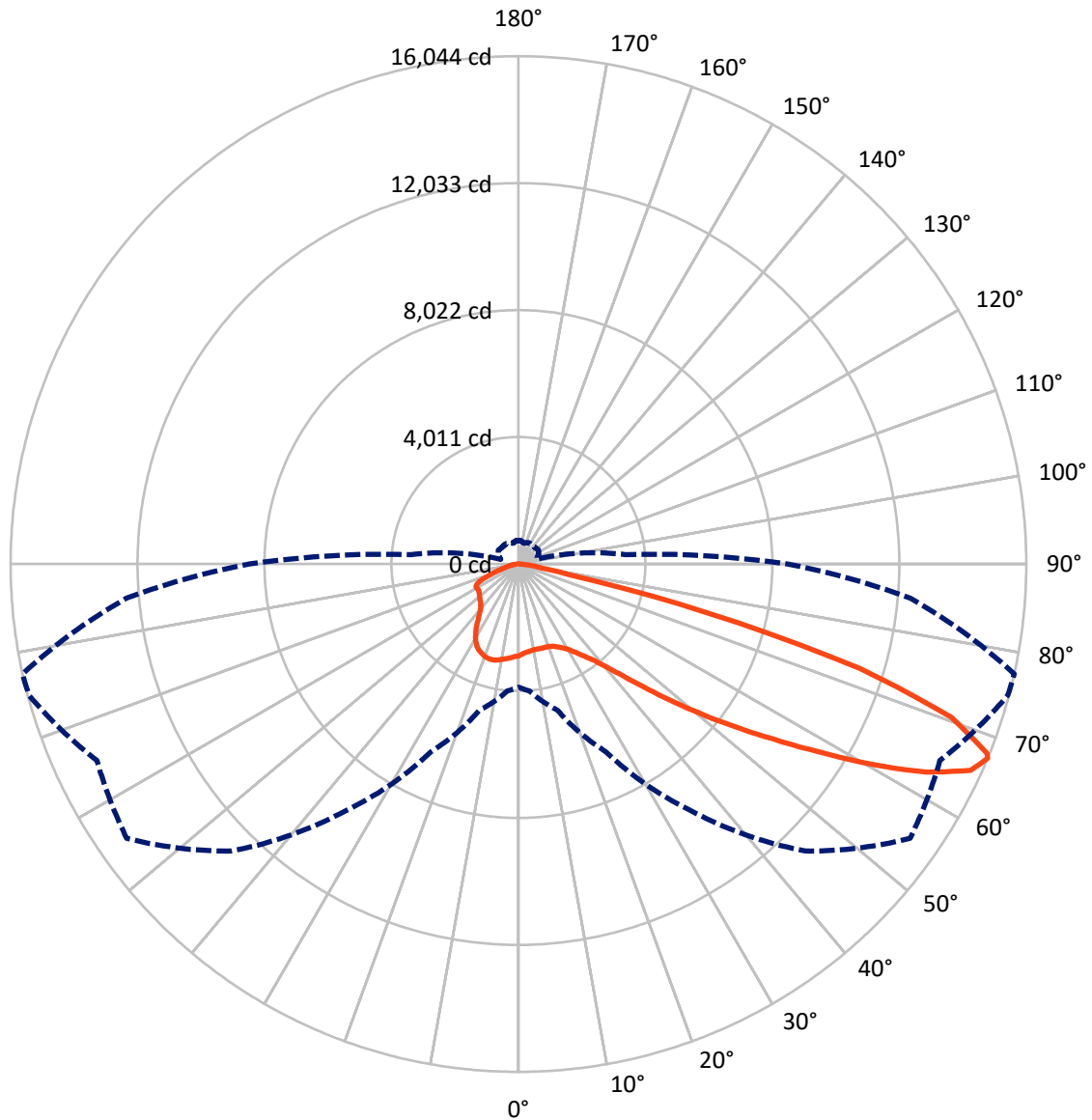
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3385.1	0.0	3385.1
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	16312.9	0.0	16312.9
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	19698.0	0.0	19698.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.2	1.3
10°-20°	715.1	3.6
20°-30°	1214.9	6.2
30°-40°	1943.6	9.9
40°-50°	2992.2	15.2
50°-60°	4151.4	21.1
60°-70°	5537.7	28.1
70°-80°	2635.4	13.4
80°-90°	249.5	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°	19698.0	100.0
0°-180°	19698.0	100.0



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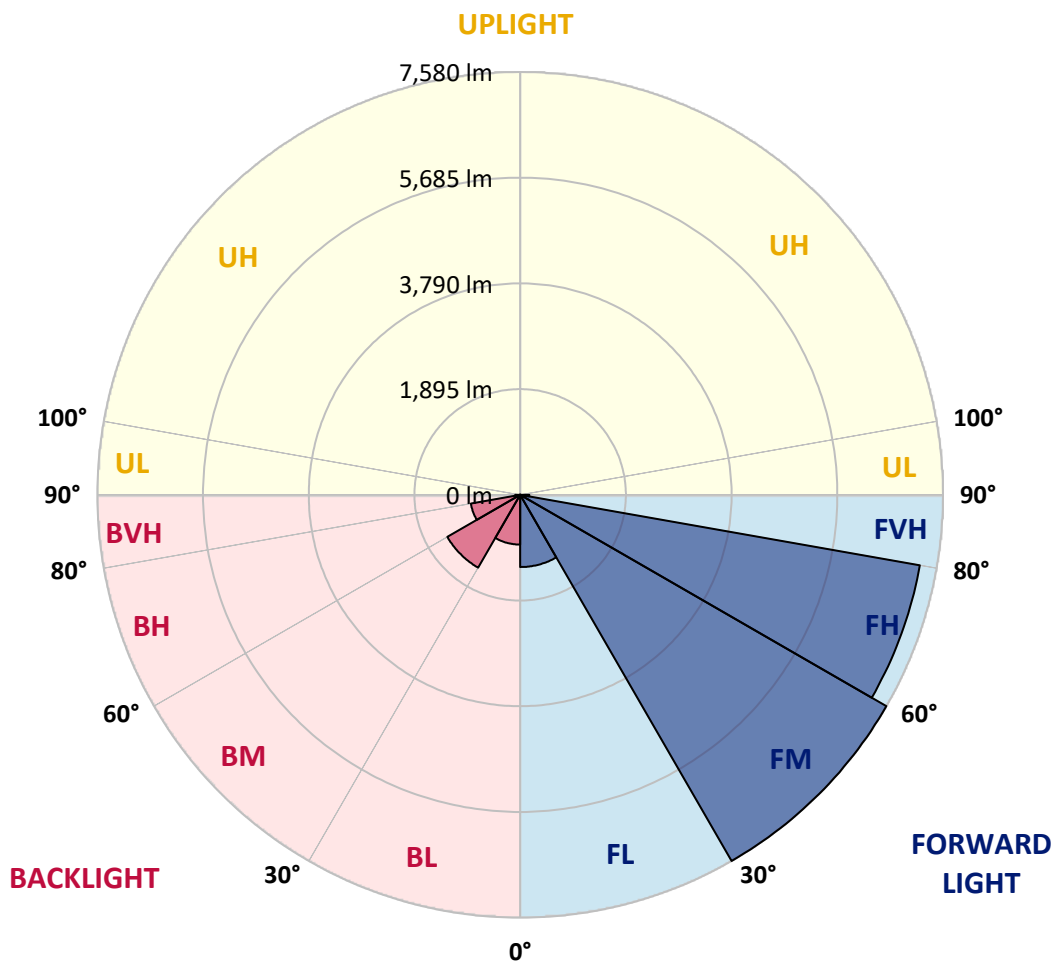
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1295.3	6.6			
FM	(30°-60°)	7580.0	38.5			
FH	(60°-80°)	7275.5	36.9			G3/7500
FVH	(80°-90°)	162.1	0.8			G2/225
BL	(0°-30°)	892.9	4.5	B2/1000		
BM	(30°-60°)	1507.2	7.7	B2/2500		
BH	(60°-80°)	897.5	4.6	B2/1000		G2/1000
BVH	(80°-90°)	87.5	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0
2.5°	2599.5	2611.7	2612.9	2648.2	2664.0	2704.2	2748.0	2787.0	2821.1	2833.3	2855.2
5°	2338.9	2338.9	2342.6	2365.7	2410.8	2475.3	2566.6	2666.5	2771.2	2796.8	2861.3
7.5°	2202.6	2205.0	2207.4	2230.6	2265.9	2323.1	2414.4	2550.8	2724.9	2767.5	2880.8
10°	2214.8	2211.1	2198.9	2194.1	2208.7	2245.2	2324.3	2464.4	2686.0	2751.7	2916.1
12.5°	2405.9	2398.6	2358.4	2300.0	2246.4	2233.0	2287.8	2420.5	2667.7	2751.7	2975.7
15°	2733.4	2738.3	2659.2	2537.4	2397.4	2302.4	2295.1	2404.7	2661.6	2759.0	3045.1
17.5°	3159.6	3162.0	3052.4	2875.9	2643.3	2447.3	2345.0	2404.7	2661.6	2766.3	3112.1
20°	3612.5	3595.5	3471.3	3249.7	2947.7	2648.2	2436.4	2419.3	2668.9	2777.3	3175.4
22.5°	4000.9	3985.1	3854.8	3622.3	3276.5	2885.6	2559.3	2468.0	2709.1	2822.3	3264.3
25°	4340.6	4350.4	4223.7	3962.0	3604.0	3153.5	2743.2	2580.0	2793.1	2903.9	3373.9
27.5°	4753.4	4735.1	4589.0	4339.4	3941.3	3431.1	2973.3	2721.3	2892.9	3002.5	3507.8
30°	5230.7	5222.1	5024.9	4768.0	4312.6	3741.6	3201.0	2873.5	3023.2	3137.7	3675.8
32.5°	5810.2	5809.0	5597.2	5281.8	4730.2	4092.2	3470.1	3081.7	3213.2	3328.8	3898.7
35°	6466.5	6465.3	6246.1	5829.7	5211.2	4480.6	3786.6	3334.9	3448.2	3569.9	4164.1
37.5°	6921.9	6914.6	6800.1	6395.9	5743.3	4932.4	4182.3	3675.8	3714.8	3851.2	4484.3
40°	7009.5	7053.4	7152.0	6913.3	6324.0	5434.0	4579.3	4042.3	4078.9	4254.2	4887.3
42.5°	6914.6	6971.8	7299.3	7366.3	6904.8	6041.6	5076.0	4550.0	4596.3	4814.3	5360.9
45°	6831.8	6881.7	7292.0	7617.1	7478.3	6703.9	5695.8	5169.8	5257.5	5527.8	5901.5
47.5°	6690.5	6736.8	7148.3	7662.2	7805.8	7341.9	6442.1	5914.9	6065.9	6393.4	6517.6
50°	6683.2	6703.9	6952.3	7511.2	7919.1	7826.5	7268.9	6786.7	7018.1	7395.5	7199.5
52.5°	6498.2	6643.0	6868.3	7270.1	7921.5	8109.0	8083.4	7742.5	8099.3	8516.9	7947.1
55°	5365.8	5532.6	6588.3	7152.0	7906.9	8351.3	8827.4	8759.2	9316.8	9756.4	8784.7
57.5°	5010.3	5080.9	5779.8	7187.3	8028.6	8751.9	9571.3	9851.3	10709.7	11189.4	9789.2
60°	4912.9	4987.2	5617.9	7204.3	8358.6	9481.2	10580.7	11084.7	12347.4	12856.3	10930.1
62.5°	4804.5	4900.7	5630.0	7220.2	8938.2	10560.0	11920.0	12422.8	14028.8	14483.0	11999.1
65°	4488.0	4615.8	5404.8	7120.3	9572.5	11913.9	13690.3	13818.2	15418.1	15706.6	12644.4
67°	3887.7	4027.7	4786.3	6543.2	9514.1	12825.9	15106.4	14691.2	16008.6	16043.9	12435.0
67.5°	3697.8	3842.6	4576.8	6303.3	9347.3	12945.2	15357.2	14811.7	16003.7	15964.7	12240.2
70°	2489.9	2653.1	3241.2	4628.0	7497.8	12047.8	15296.3	14440.3	14954.2	14507.3	10516.1
72.5°	1235.8	1240.7	1616.9	2535.0	4542.7	8641.1	12760.1	12353.4	12122.1	11278.3	7716.9
75°	595.4	606.3	763.4	1120.2	1915.2	4461.2	8702.0	8335.5	7097.2	6145.1	3862.1
77.5°	454.2	465.1	593.0	729.3	798.7	1455.0	4310.2	3483.5	2056.5	1642.5	1088.5
80°	350.7	371.4	500.4	560.1	528.4	583.2	1355.2	1066.6	799.9	734.2	539.4
82.5°	274.0	286.1	424.9	424.9	365.3	390.8	630.7	616.1	496.8	448.1	289.8
85°	193.6	217.9	342.1	316.6	239.9	242.3	377.4	361.6	255.7	205.8	113.2
87.5°	86.4	110.8	243.5	207.0	127.8	98.6	154.6	132.7	101.1	77.9	52.4
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°	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0	2899.0
2.5°	2879.5	2899.0	2929.5	2947.7	2972.1	2981.8	2991.6	3008.6	3022.0	3018.3	3012.3
5°	2906.3	2939.2	2977.0	2989.1	2989.1	2977.0	2969.6	2970.9	2967.2	2964.8	2957.5
7.5°	2945.3	2990.3	3017.1	3005.0	2967.2	2919.7	2874.7	2847.9	2822.3	2806.5	2811.4
10°	3000.1	3050.0	3051.2	2997.7	2907.6	2804.1	2715.2	2657.9	2603.2	2578.8	2586.1
12.5°	3079.2	3129.1	3086.5	2970.9	2812.6	2650.6	2487.5	2369.4	2263.5	2237.9	2230.6
15°	3164.5	3203.4	3108.4	2913.6	2676.2	2409.6	2135.6	1959.1	1841.0	1820.3	1813.0
17.5°	3238.7	3260.6	3097.5	2811.4	2460.7	2040.6	1721.6	1602.3	1578.0	1590.1	1590.1
20°	3304.5	3297.2	3050.0	2653.1	2121.0	1631.5	1446.5	1445.3	1478.1	1508.6	1511.0
22.5°	3387.3	3330.0	2974.5	2418.1	1715.6	1361.2	1329.6	1361.2	1397.8	1431.9	1435.5
25°	3485.9	3366.6	2873.5	2083.3	1379.5	1235.8	1249.2	1276.0	1299.1	1325.9	1327.1
27.5°	3584.5	3394.6	2731.0	1690.0	1196.9	1155.5	1170.1	1181.0	1187.1	1204.2	1204.2
30°	3699.0	3416.5	2525.2	1353.9	1112.9	1084.9	1076.3	1071.5	1076.3	1099.5	1100.7
32.5°	3842.6	3455.5	2244.0	1161.6	1073.9	1034.9	991.1	966.7	983.8	1025.2	1032.5
35°	4005.8	3501.7	1906.7	1084.9	1060.5	1010.6	930.2	892.5	898.6	936.3	942.4
37.5°	4210.3	3561.4	1574.3	1066.6	1073.9	1008.1	902.2	848.6	821.9	823.1	821.9
40°	4472.1	3621.0	1311.3	1071.5	1103.1	1014.2	888.8	804.8	748.8	751.2	756.1
42.5°	4746.1	3660.0	1144.5	1086.1	1138.4	1022.8	884.0	762.2	713.5	754.9	792.6
45°	5066.3	3649.0	1058.1	1099.5	1165.2	1026.4	865.7	757.3	717.1	841.3	912.0
47.5°	5434.0	3601.6	1009.4	1105.6	1172.5	1025.2	852.3	773.2	747.6	963.1	1043.5
50°	5833.4	3527.3	970.4	1095.8	1168.9	1020.3	866.9	792.6	759.8	989.9	1052.0
52.5°	6270.5	3459.1	930.2	1073.9	1150.6	1005.7	885.2	784.1	725.7	912.0	959.4
55°	6787.9	3443.3	885.2	1036.1	1120.2	989.9	875.4	757.3	687.9	808.5	837.7
57.5°	7379.7	3541.9	826.7	989.9	1078.8	958.2	852.3	742.7	674.5	735.4	751.2
60°	8130.9	3759.8	764.6	941.2	1027.6	910.7	831.6	746.4	678.2	724.5	728.1
62.5°	8717.8	3955.9	708.6	881.5	959.4	853.5	809.7	750.0	689.1	739.1	733.0
65°	8930.9	3859.7	639.2	792.6	863.3	790.2	779.2	752.5	689.1	747.6	734.2
67°	8493.8	3400.7	573.5	703.8	771.9	734.2	750.0	742.7	677.0	746.4	723.2
67.5°	8285.5	3238.7	556.4	689.1	747.6	717.1	742.7	737.8	673.3	743.9	717.1
70°	6833.0	2323.1	470.0	578.3	625.8	631.9	697.7	706.2	644.1	698.9	650.2
72.5°	4861.7	1453.8	405.4	448.1	505.3	540.6	636.8	663.6	605.1	607.6	567.4
75°	2405.9	780.5	361.6	345.8	393.3	450.5	555.2	605.1	547.9	506.5	493.1
77.5°	812.1	442.0	305.6	278.8	305.6	361.6	460.2	528.4	483.4	428.6	420.1
80°	420.1	321.4	238.6	224.0	241.1	280.0	360.4	439.5	412.8	415.2	342.1
82.5°	261.8	196.0	171.7	170.5	182.6	214.3	265.4	356.7	354.3	303.2	220.4
85°	121.8	113.2	109.6	113.2	116.9	121.8	172.9	254.5	269.1	163.2	144.9
87.5°	51.1	49.9	43.8	47.5	52.4	51.1	69.4	108.4	151.0	102.3	93.8
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)