

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: P884487

Luminaire Tested: **NAV-SB5B-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23004 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

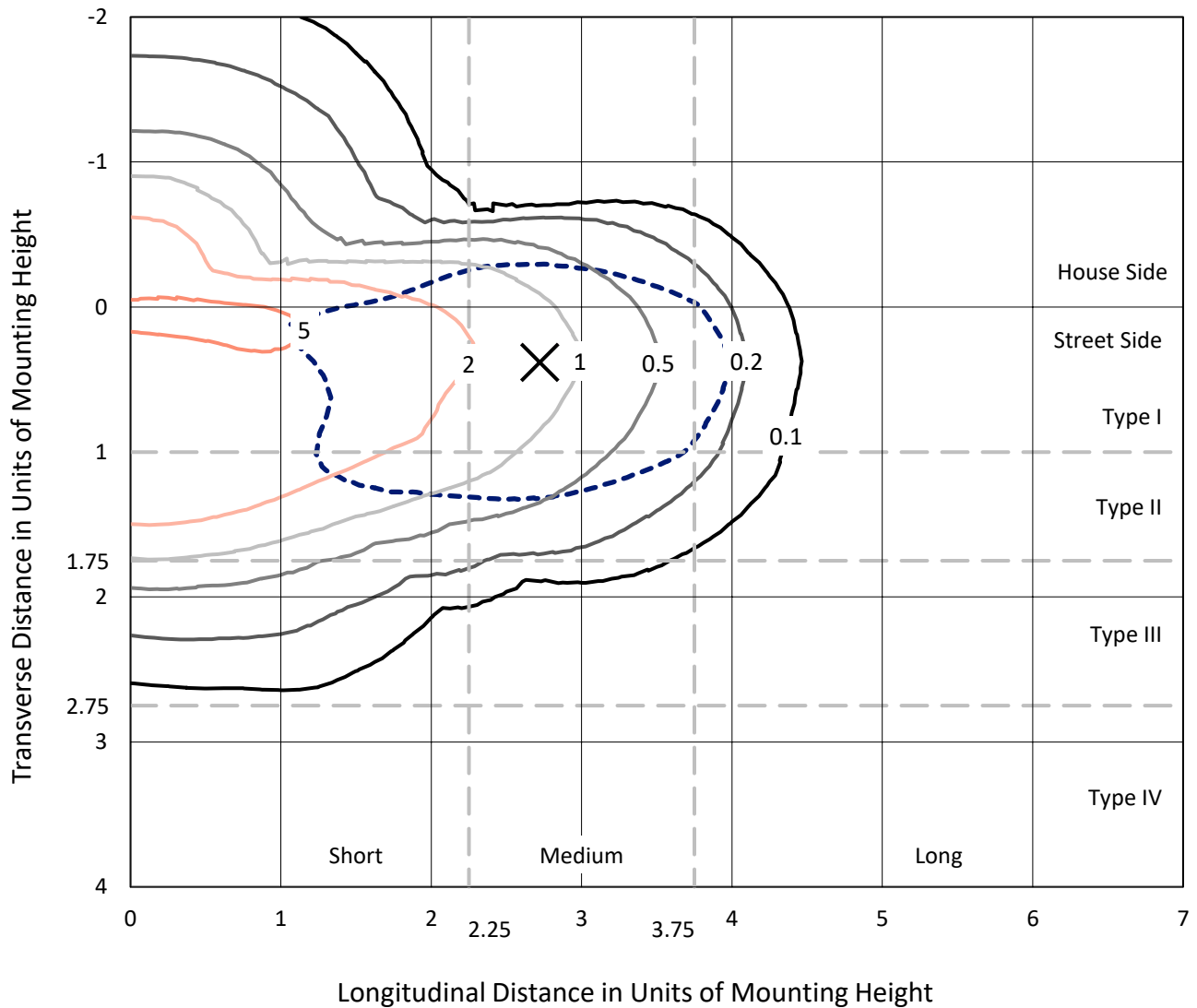
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

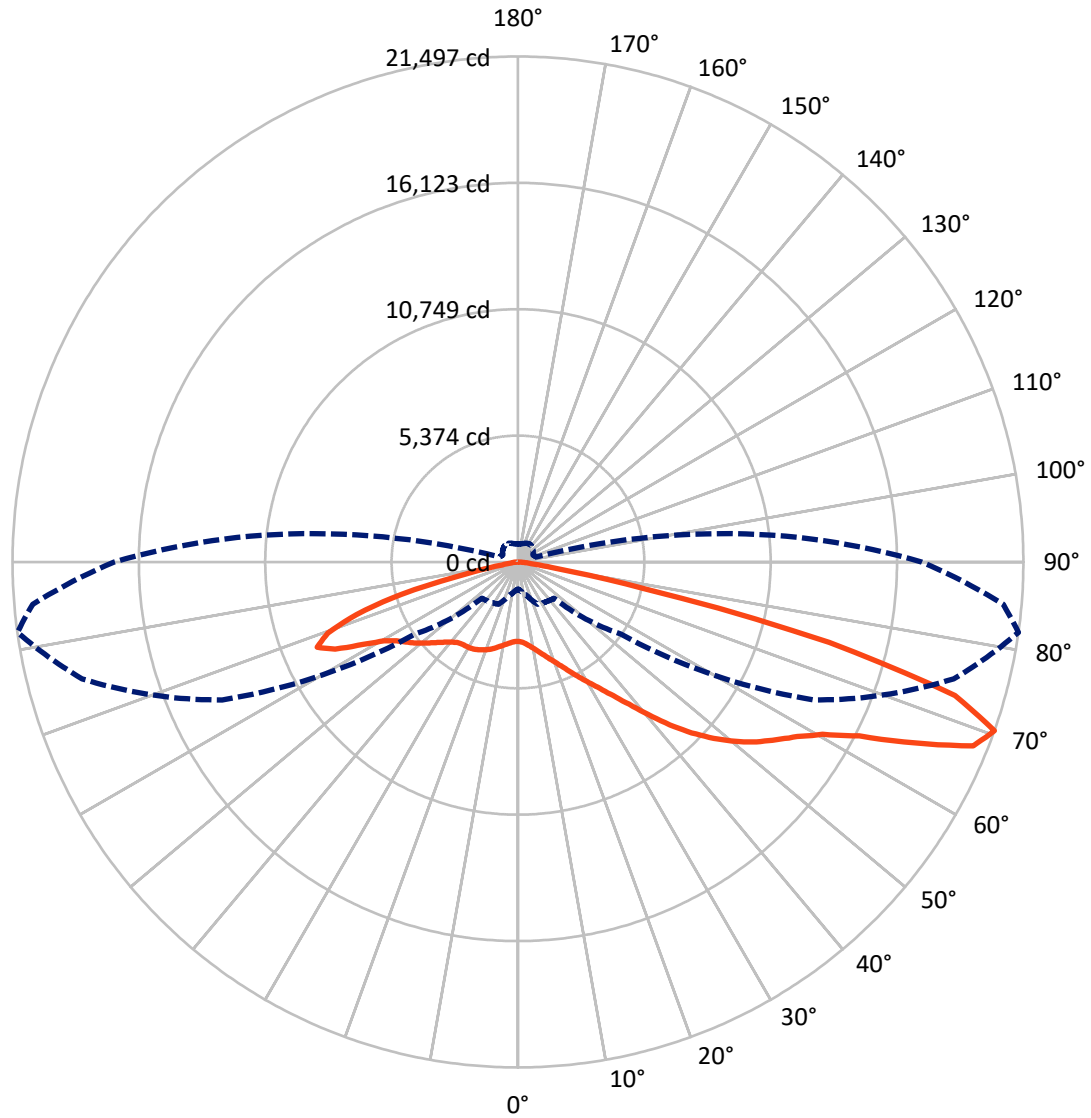
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5671.1	0.0	5671.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	17332.9	0.0	17332.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	23004.0	0.0	23004.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.4	1.4
10°-20°	914.9	4.0
20°-30°	1530.5	6.7
30°-40°	2391.1	10.4
40°-50°	3808.1	16.6
50°-60°	5299.4	23.0
60°-70°	5543.4	24.1
70°-80°	2897.3	12.6
80°-90°	300.9	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°	23004.0	100.0
0°-180°	23004.0	100.0

Coefficient of Utilization



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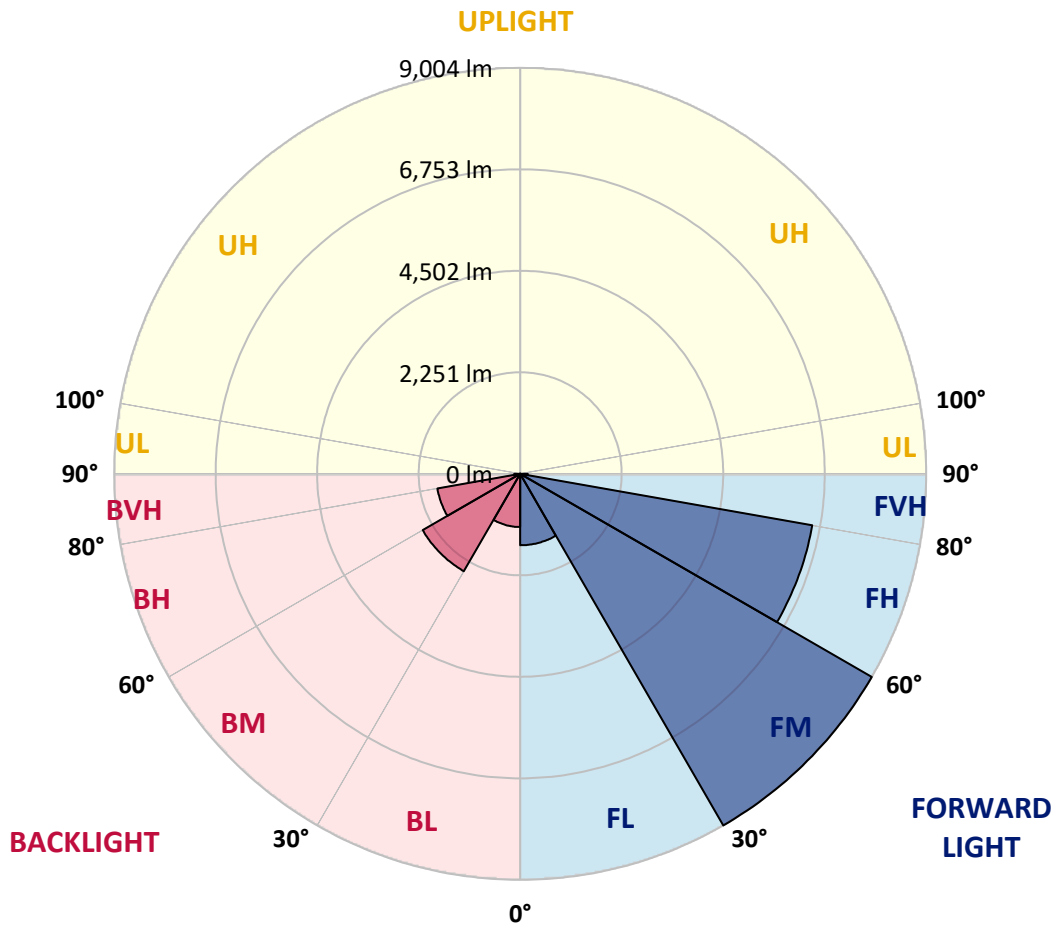
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1584.1	6.9			
FM (30°-60°)	9003.5	39.1			
FH (60°-80°)	6576.9	28.6			G3/7500
FVH (80°-90°)	168.4	0.7			G2/225
BL (0°-30°)	1179.8	5.1	B3/2500		
BM (30°-60°)	2495.0	10.8	B2/2500		
BH (60°-80°)	1863.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	132.4	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7
2.5°	3453.2	3472.8	3466.7	3460.6	3460.6	3452.0	3450.8	3438.6	3428.8	3413.0	3409.3
5°	3497.2	3517.9	3515.5	3520.4	3536.2	3539.9	3543.6	3536.2	3516.7	3497.2	3488.6
7.5°	3458.1	3481.3	3488.6	3517.9	3566.8	3610.7	3643.7	3657.1	3638.8	3610.7	3597.3
10°	3326.3	3351.9	3377.6	3447.1	3533.8	3637.6	3725.4	3777.9	3774.3	3747.4	3724.2
12.5°	3059.0	3085.8	3140.7	3276.2	3434.9	3618.0	3781.6	3891.5	3929.3	3909.8	3869.5
15°	2845.4	2868.5	2910.0	3049.2	3255.5	3533.8	3802.3	4016.0	4112.4	4101.4	4052.6
17.5°	2839.2	2849.0	2874.6	2940.6	3099.2	3402.0	3780.4	4138.0	4322.3	4321.1	4260.1
20°	2946.7	2950.3	2965.0	2978.4	3068.7	3301.9	3724.2	4239.3	4557.9	4557.9	4492.0
22.5°	3095.6	3093.1	3107.8	3095.6	3139.5	3293.3	3688.8	4328.4	4820.4	4839.9	4756.9
25°	3319.0	3306.8	3303.1	3275.0	3283.6	3372.7	3727.9	4429.8	5131.6	5171.9	5068.2
27.5°	3616.8	3597.3	3583.8	3519.2	3497.2	3536.2	3847.5	4551.8	5478.3	5547.9	5416.1
30°	4005.0	3969.6	3950.0	3837.7	3758.4	3764.5	4028.2	4714.2	5840.8	5953.1	5785.9
32.5°	4534.7	4479.8	4427.3	4243.0	4097.7	4050.1	4261.3	4938.8	6233.9	6413.3	6198.5
35°	5128.0	5084.0	5027.9	4743.5	4520.1	4410.2	4576.2	5252.5	6694.1	6978.5	6699.0
37.5°	5699.2	5661.4	5688.3	5305.0	5016.9	4857.0	4988.8	5673.6	7261.7	7681.6	7326.4
40°	6290.0	6260.7	6264.4	5898.2	5562.5	5383.1	5489.3	6202.2	7912.3	8517.7	8080.7
42.5°	6932.1	6910.1	6836.9	6512.2	6135.0	5967.8	6065.4	6812.5	8610.5	9469.9	8908.4
45°	7651.1	7637.6	7569.3	7197.0	6764.9	6576.9	6708.7	7486.3	9312.4	10365.8	9739.6
47.5°	8272.4	8283.4	8274.8	7961.1	7513.1	7237.3	7394.7	8189.4	9965.4	11208.1	10536.7
50°	8571.5	8628.8	8713.0	8615.4	8337.1	8056.3	8086.8	8868.1	10588.0	11997.8	11300.8
52.5°	8415.2	8523.8	8753.3	8909.6	9017.0	8958.4	8876.6	9541.9	11173.9	12710.7	12023.5
55°	7833.0	7985.5	8366.4	8743.6	9291.6	9717.6	9825.1	10288.9	11745.2	13338.1	12707.0
57.5°	6772.2	7020.0	7361.8	8124.7	9047.5	10085.1	10931.0	11325.3	12350.6	14008.3	13422.3
60°	4953.4	5285.4	5710.2	6845.4	8193.0	9888.5	11872.1	12917.0	13211.2	14876.1	14353.7
62.5°	3170.0	3375.1	3765.7	4835.0	6384.0	8881.5	12160.2	14906.7	14669.9	16299.4	15750.1
65°	2170.3	2302.2	2659.8	3260.4	4127.0	6611.1	11388.7	16398.3	16986.7	18555.2	18137.7
67.5°	1577.1	1677.2	1982.3	2508.4	2689.1	3912.2	8837.6	16329.9	19238.8	20879.3	20229.9
70°	1149.9	1220.7	1477.0	1982.3	2069.0	2176.4	5353.8	13881.3	19189.9	21497.0	20719.4
72.5°	852.0	900.8	1073.0	1538.0	1674.7	1469.7	2650.0	10088.7	16489.8	19443.8	18820.1
75°	616.4	653.1	780.0	1176.7	1340.3	1119.3	1322.0	5895.8	11502.2	13677.5	13787.3
77.5°	471.2	499.2	582.3	861.8	1073.0	839.8	820.3	2712.3	5453.9	5480.7	5788.4
80°	378.4	396.7	441.9	606.7	822.7	628.6	534.6	1094.9	1723.6	1458.7	1530.7
82.5°	278.3	308.8	373.5	426.0	588.4	433.3	325.9	553.0	655.5	563.9	568.8
85°	158.7	179.4	225.8	305.2	376.0	264.9	186.8	245.4	305.2	250.2	223.4
87.5°	56.2	73.2	79.3	119.6	163.6	109.9	72.0	70.8	100.1	74.5	62.3
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°	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7	3372.7
2.5°	3397.1	3391.0	3366.6	3333.6	3299.4	3266.5	3255.5	3232.3	3216.4	3207.9	3217.7
5°	3465.4	3445.9	3388.5	3315.3	3238.4	3155.4	3096.8	3043.1	3004.0	2967.4	2982.1
7.5°	3563.1	3528.9	3430.0	3301.9	3165.2	3027.2	2924.7	2846.6	2794.1	2759.9	2767.2
10°	3676.6	3624.1	3472.8	3281.1	3070.0	2872.2	2751.4	2684.2	2651.3	2633.0	2637.8
12.5°	3807.2	3732.8	3516.7	3233.5	2924.7	2698.9	2615.9	2596.3	2597.6	2598.8	2601.2
15°	3968.4	3864.6	3552.1	3129.8	2735.5	2565.8	2551.2	2582.9	2615.9	2631.7	2630.5
17.5°	4150.2	4003.8	3558.2	2958.9	2550.0	2480.4	2526.8	2595.1	2645.2	2667.1	2672.0
20°	4345.5	4145.3	3514.3	2717.2	2397.4	2410.8	2493.8	2581.7	2636.6	2664.7	2672.0
22.5°	4568.9	4296.7	3409.3	2463.3	2272.9	2335.1	2432.8	2518.2	2575.6	2603.7	2611.0
25°	4824.0	4466.4	3244.5	2249.7	2165.4	2249.7	2347.3	2418.1	2464.5	2490.1	2497.5
27.5°	5107.2	4643.4	3024.8	2080.0	2071.5	2161.8	2242.3	2297.3	2321.7	2341.2	2348.5
30°	5391.6	4804.5	2758.7	1951.8	1989.7	2075.1	2132.5	2156.9	2164.2	2167.9	2176.4
32.5°	5699.2	4943.7	2479.2	1845.6	1911.5	1990.9	2025.1	2036.1	2001.9	1978.7	1986.0
35°	6071.5	5092.6	2205.7	1761.4	1834.6	1903.0	1914.0	1904.2	1863.9	1816.3	1818.8
37.5°	6531.7	5278.1	1987.2	1701.6	1762.6	1807.8	1794.4	1791.9	1795.6	1739.4	1743.1
40°	7095.7	5519.8	1827.3	1655.2	1704.0	1713.8	1676.0	1696.7	1715.0	1629.6	1632.0
42.5°	7721.9	5811.5	1726.0	1623.5	1655.2	1632.0	1573.4	1596.6	1594.2	1481.9	1480.7
45°	8360.3	6128.9	1690.6	1600.3	1610.0	1563.7	1499.0	1505.1	1453.8	1352.5	1356.1
47.5°	8995.0	6469.5	1712.6	1580.8	1553.9	1501.4	1451.4	1424.5	1348.8	1273.1	1273.1
50°	9617.6	6827.1	1793.1	1541.7	1477.0	1446.5	1409.9	1362.3	1281.7	1217.0	1212.1
52.5°	10194.9	7187.2	1883.5	1477.0	1380.6	1398.9	1375.7	1320.8	1241.4	1175.5	1176.7
55°	10741.8	7547.3	1918.9	1387.9	1290.2	1357.4	1343.9	1242.6	1147.4	1093.7	1088.8
57.5°	11337.5	7980.7	1879.8	1274.4	1217.0	1309.8	1258.5	1146.2	1091.3	1051.0	1047.3
60°	12162.6	8660.6	1795.6	1134.0	1147.4	1239.0	1151.1	1104.7	1044.9	999.7	997.3
62.5°	13533.4	9928.8	1660.1	994.8	1065.6	1134.0	1099.8	1053.4	992.4	948.5	948.5
65°	15559.7	11691.4	1405.0	886.2	974.1	1031.5	1044.9	998.5	935.0	888.6	891.1
67.5°	17268.6	12797.4	1063.2	795.9	880.1	948.5	986.3	941.1	874.0	828.8	830.0
70°	17174.6	11994.2	811.7	706.8	797.1	866.7	915.5	880.1	808.1	765.4	769.0
72.5°	15254.5	10033.8	656.7	616.4	712.9	781.2	839.8	813.0	739.7	698.2	698.2
75°	11206.8	7122.5	524.9	524.9	607.9	692.1	756.8	739.7	672.6	643.3	634.7
77.5°	4723.9	2988.2	411.4	435.8	505.4	594.5	675.0	681.1	622.5	659.2	598.1
80°	1256.1	823.9	313.7	343.0	396.7	490.7	587.1	584.7	521.2	487.0	452.9
82.5°	478.5	324.7	223.4	241.7	286.9	376.0	465.1	479.7	416.2	360.1	360.1
85°	184.3	139.2	137.9	145.3	167.2	249.0	351.5	363.8	313.7	266.1	274.6
87.5°	47.6	41.5	51.3	48.8	76.9	133.1	201.4	208.7	191.6	111.1	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)