

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: P882756

Luminaire Tested: **NAV-SB2D-740-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882756
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16328 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

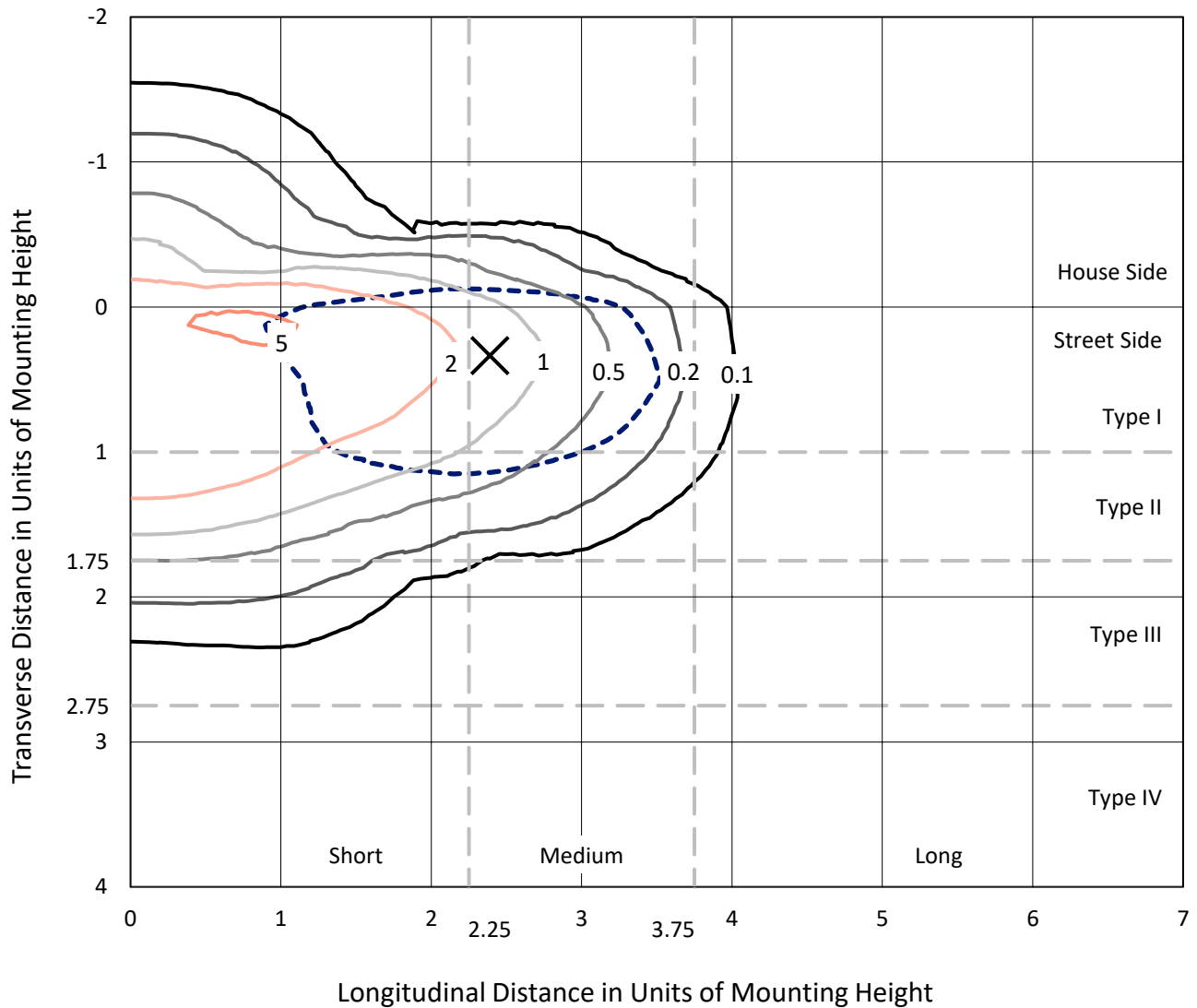
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

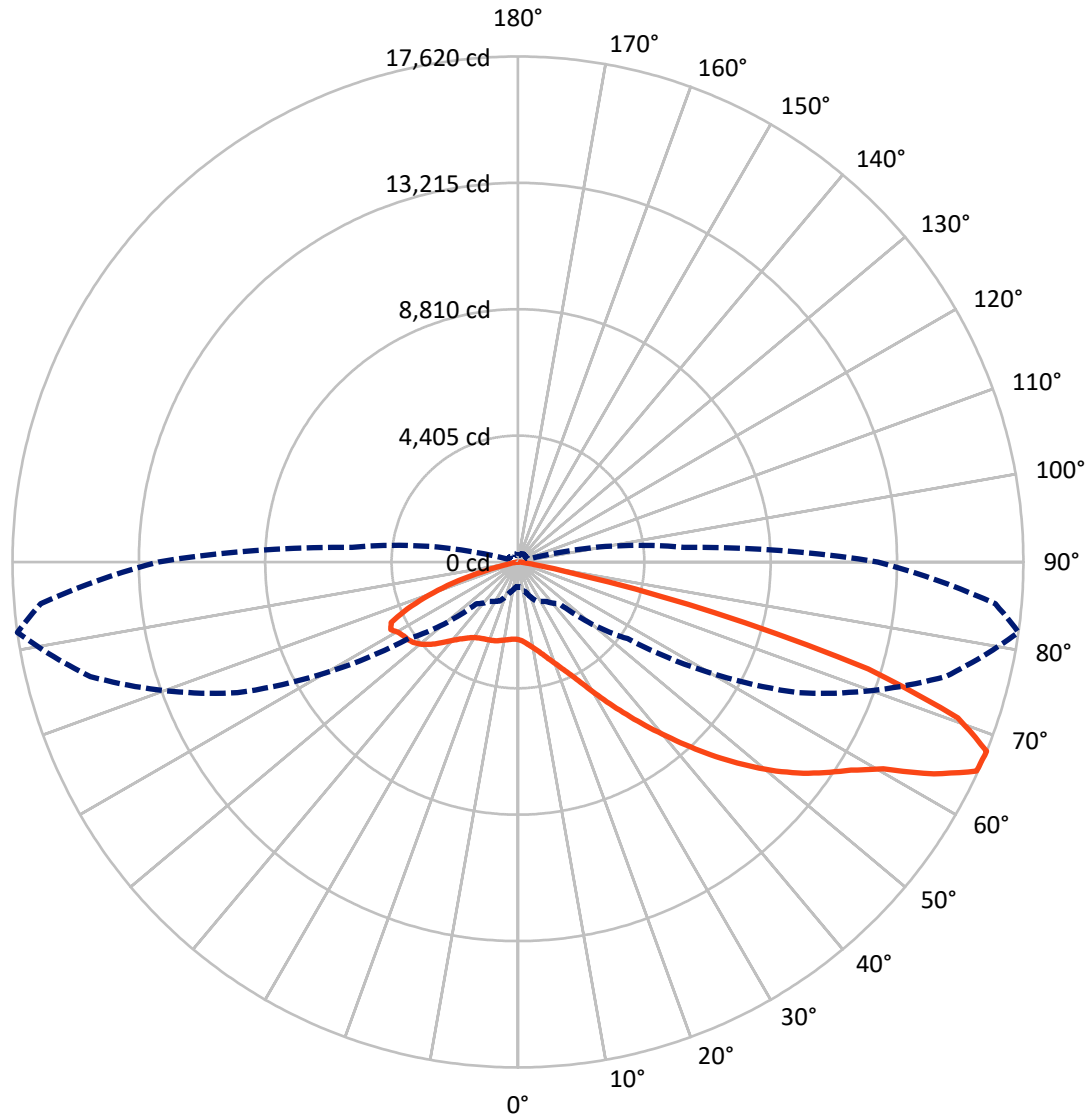
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2957.7	0.0	2957.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13370.3	0.0	13370.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	16328.0	0.0	16328.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.0	1.5
10°-20°	626.2	3.8
20°-30°	1003.1	6.1
30°-40°	1773.7	10.9
40°-50°	3107.7	19.0
50°-60°	4144.8	25.4
60°-70°	3858.6	23.6
70°-80°	1480.9	9.1
80°-90°	92.0	0.6
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°	16328.0	100.0
0°-180°	16328.0	100.0

Coefficient of Utilization



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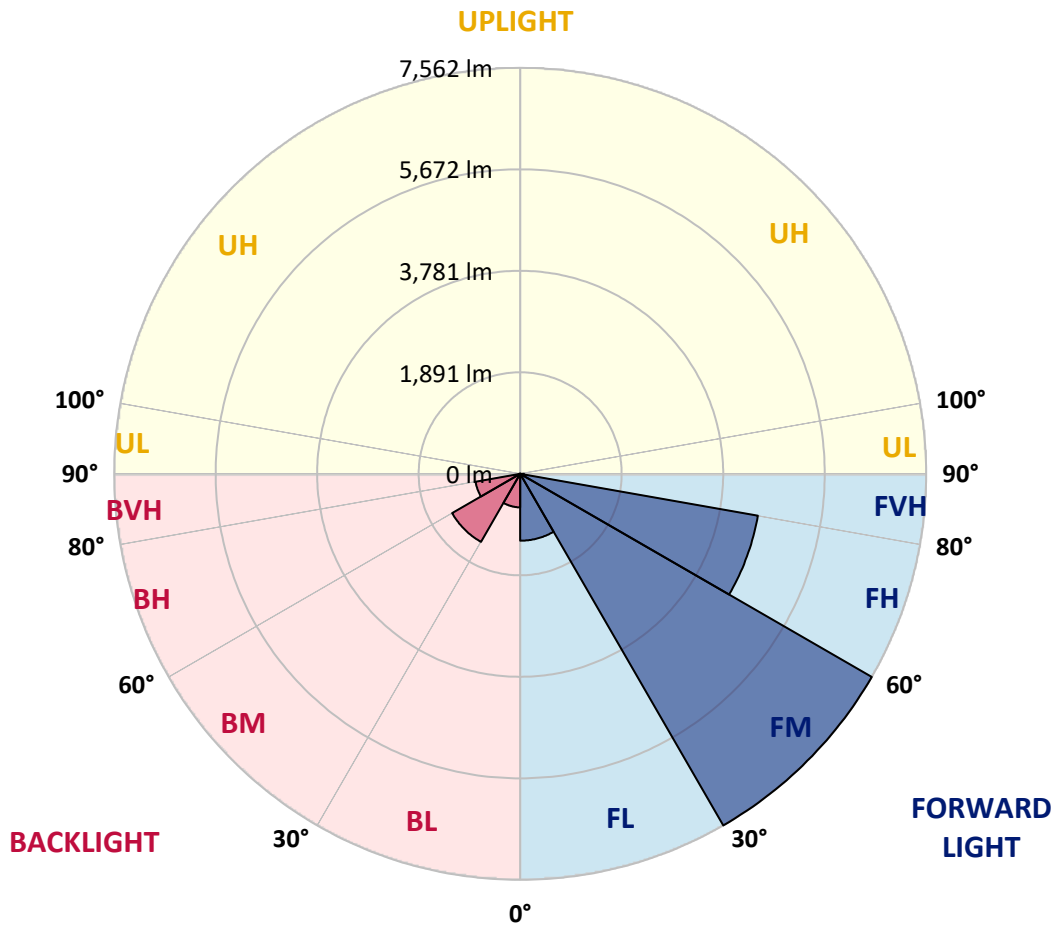
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1245.6	7.6			
FM (30°-60°)	7562.5	46.3			
FH (60°-80°)	4495.3	27.5			G2/5000
FVH (80°-90°)	66.9	0.4			G1/100
BL (0°-30°)	624.7	3.8	B2/1000		
BM (30°-60°)	1463.7	9.0	B2/2500		
BH (60°-80°)	844.2	5.2	B2/1000		G2/1000
BVH (80°-90°)	25.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0
2.5°	2859.0	2875.5	2866.1	2861.3	2853.1	2841.4	2832.0	2802.6	2772.0	2752.0	2745.0
5°	2916.6	2933.1	2931.9	2936.6	2942.5	2946.0	2943.6	2910.7	2867.2	2833.1	2813.1
7.5°	2867.2	2886.0	2901.3	2924.8	2966.0	3009.5	3030.6	3023.6	2978.9	2931.9	2907.2
10°	2727.3	2747.3	2783.8	2839.0	2926.0	3020.1	3098.8	3135.3	3107.0	3055.3	3021.2
12.5°	2471.1	2491.0	2562.8	2682.7	2828.4	2991.8	3142.3	3239.9	3246.9	3195.2	3155.2
15°	2183.0	2203.0	2279.4	2429.9	2652.1	2914.2	3165.8	3350.4	3412.7	3368.0	3319.8
17.5°	2004.4	2022.0	2079.6	2200.7	2432.3	2759.1	3157.6	3467.9	3610.2	3574.9	3517.3
20°	1950.3	1965.6	1992.6	2077.2	2270.0	2598.0	3103.5	3578.4	3823.0	3803.0	3738.3
22.5°	2007.9	2022.0	2030.2	2067.8	2188.9	2492.2	3035.3	3691.3	4069.8	4072.2	3993.4
25°	2140.7	2154.8	2145.4	2168.9	2221.8	2459.3	3009.5	3824.1	4380.2	4406.1	4316.7
27.5°	2359.4	2360.6	2338.2	2337.0	2345.3	2508.7	3036.5	3966.4	4771.7	4819.9	4709.4
30°	2797.9	2780.2	2694.4	2601.5	2559.2	2656.8	3111.7	4134.5	5233.7	5319.5	5180.8
32.5°	3473.8	3448.0	3290.4	3068.2	2844.9	2895.4	3246.9	4326.1	5736.8	5892.0	5722.7
35°	4207.4	4200.3	4035.7	3705.4	3315.1	3235.2	3466.8	4577.7	6285.8	6532.7	6331.6
37.5°	4889.2	4885.7	4791.6	4402.5	3927.6	3708.9	3819.4	4906.8	6873.6	7231.0	6993.5
40°	5512.3	5522.8	5428.8	5080.8	4602.4	4316.7	4299.1	5313.6	7527.2	7991.6	7709.4
42.5°	6050.7	6062.4	5967.2	5709.8	5268.9	4989.1	4888.0	5812.0	8165.5	8808.6	8474.7
45°	6416.3	6489.2	6475.1	6269.3	5953.1	5662.7	5595.7	6437.4	8893.2	9675.0	9283.5
47.5°	6519.7	6586.7	6692.5	6720.8	6528.0	6242.3	6322.2	7191.0	9629.1	10542.6	10097.0
50°	6264.6	6326.9	6546.8	6839.5	6973.5	6885.3	7028.8	7998.6	10382.7	11407.8	10895.2
52.5°	5761.5	5825.0	6102.4	6565.6	7112.2	7389.7	7737.6	8794.5	11112.7	12227.2	11651.1
55°	5033.8	5100.8	5457.0	5981.3	6847.7	7597.7	8328.9	9589.2	11781.6	12964.2	12333.0
57.5°	4044.0	4093.4	4463.7	5197.2	6182.3	7390.8	8765.1	10456.7	12411.7	13688.4	13008.9
60°	2635.6	2679.1	3109.4	3927.6	5079.7	6699.6	8852.1	11424.2	13248.7	14630.0	13920.0
62.5°	1752.8	1782.2	2037.3	2638.0	3577.3	5372.4	8343.1	12196.6	14476.0	16268.8	15482.3
65°	1202.6	1232.0	1487.1	1905.6	2311.2	3553.8	6879.5	12094.3	15588.1	17570.1	16640.3
67.5°	858.2	882.9	1099.2	1494.2	1672.8	2064.3	4663.5	10787.1	15428.2	17619.5	16702.6
70°	614.8	628.9	807.6	1163.8	1329.6	1240.2	2593.3	8250.2	13508.5	16270.0	15430.6
72.5°	430.3	435.0	560.7	886.4	1070.9	905.2	1234.4	5500.5	10216.9	12770.3	11962.6
75°	291.5	297.4	377.4	650.1	859.3	691.2	653.6	2949.5	5997.8	7068.7	6336.3
77.5°	178.7	181.0	243.3	444.4	643.0	526.7	420.9	1249.6	2320.6	2278.3	1942.0
80°	101.1	101.1	155.2	276.3	438.5	339.7	295.1	531.4	734.7	645.4	569.0
82.5°	56.4	57.6	112.9	171.6	290.4	201.0	162.2	245.7	317.4	281.0	244.5
85°	23.5	25.9	69.4	81.1	138.7	99.9	65.8	103.5	117.6	104.6	76.4
87.5°	2.4	3.5	21.2	15.3	16.5	20.0	9.4	20.0	16.5	16.5	11.8
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°	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0	2705.0
2.5°	2722.6	2705.0	2660.3	2608.6	2540.4	2507.5	2462.8	2432.3	2406.4	2408.8	2385.2
5°	2775.5	2730.9	2630.9	2506.3	2351.1	2240.6	2123.1	2042.0	1976.1	1962.0	1930.3
7.5°	2848.4	2777.9	2602.7	2378.2	2116.0	1917.4	1739.9	1625.8	1544.7	1518.8	1493.0
10°	2942.5	2840.2	2566.3	2217.1	1839.8	1587.0	1396.6	1307.2	1252.0	1233.2	1219.1
12.5°	3051.8	2911.9	2518.1	2020.8	1555.3	1311.9	1190.9	1146.2	1128.6	1122.7	1119.1
15°	3189.3	3001.2	2445.2	1788.0	1314.3	1143.8	1092.1	1086.2	1088.6	1086.2	1085.1
17.5°	3352.7	3098.8	2326.5	1548.2	1152.1	1058.0	1039.2	1043.9	1049.8	1048.6	1046.3
20°	3531.4	3195.2	2174.8	1335.5	1041.6	996.9	986.3	991.0	995.7	993.4	992.2
22.5°	3734.8	3298.7	2006.7	1169.7	967.5	940.5	928.7	929.9	929.9	925.2	922.8
25°	3978.1	3412.7	1830.4	1052.1	911.1	889.9	875.8	871.1	864.0	849.9	847.6
27.5°	4268.5	3533.8	1661.1	969.8	866.4	846.4	830.0	818.2	800.6	777.1	774.7
30°	4595.3	3680.7	1517.7	918.1	831.1	811.1	792.3	774.7	748.8	719.5	717.1
32.5°	4979.7	3838.3	1413.0	884.0	799.4	778.2	755.9	734.7	706.5	677.1	678.3
35°	5438.2	4028.7	1351.9	860.5	774.7	746.5	721.8	698.3	677.1	651.3	648.9
37.5°	5935.5	4230.9	1333.1	848.8	758.2	714.7	686.5	670.1	667.7	652.4	651.3
40°	6479.8	4470.7	1347.2	841.7	740.6	684.2	653.6	650.1	656.0	628.9	630.1
42.5°	7055.8	4755.2	1370.7	833.5	715.9	653.6	624.2	624.2	619.5	581.9	581.9
45°	7678.9	5083.2	1394.2	813.5	686.5	623.1	600.7	592.5	572.5	536.1	534.9
47.5°	8306.6	5417.0	1411.9	777.1	651.3	597.2	577.2	558.4	529.0	496.1	494.9
50°	8902.6	5716.8	1393.1	723.0	611.3	572.5	551.3	525.5	493.7	471.4	467.9
52.5°	9435.2	5976.6	1313.1	659.5	569.0	546.6	527.8	500.8	474.9	451.4	449.1
55°	9898.3	6187.0	1172.0	599.5	531.4	524.3	505.5	471.4	436.1	416.2	413.8
57.5°	10342.7	6346.9	995.7	550.2	497.3	499.6	471.4	440.8	407.9	386.8	384.4
60°	10934.0	6560.9	817.0	504.3	460.8	467.9	437.3	415.0	373.8	346.8	343.3
62.5°	11879.2	6893.6	648.9	447.9	418.5	420.9	407.9	380.9	331.5	299.8	297.4
65°	12629.2	6771.3	511.4	386.8	370.3	373.8	373.8	344.4	291.5	255.1	251.6
67.5°	12544.6	5797.9	407.9	326.8	324.5	326.8	335.0	310.4	258.6	229.2	224.5
70°	11555.9	4611.8	326.8	271.6	282.1	276.3	299.8	283.3	232.8	203.4	199.8
72.5°	9429.3	3322.2	249.2	224.5	216.3	225.7	270.4	255.1	194.0	161.1	157.5
75°	5509.9	1772.8	185.7	177.5	156.4	188.1	239.8	217.5	148.1	118.7	115.2
77.5°	1793.9	618.4	136.4	130.5	116.4	151.6	204.5	183.4	121.1	94.0	90.5
80°	480.8	186.9	92.9	85.8	75.2	112.9	162.2	145.8	87.0	61.1	60.0
82.5°	192.8	78.8	54.1	48.2	41.1	77.6	128.1	117.6	64.7	38.8	38.8
85°	62.3	25.9	20.0	15.3	18.8	48.2	76.4	79.9	45.8	20.0	15.3
87.5°	8.2	3.5	3.5	4.7	3.5	8.2	23.5	22.3	12.9	2.4	0.0
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)