

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: P883097

Luminaire Tested: **NAV-SB3B-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883097
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-SB3B-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18043 lumens
Efficiency: N/A
Efficacy: 165.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

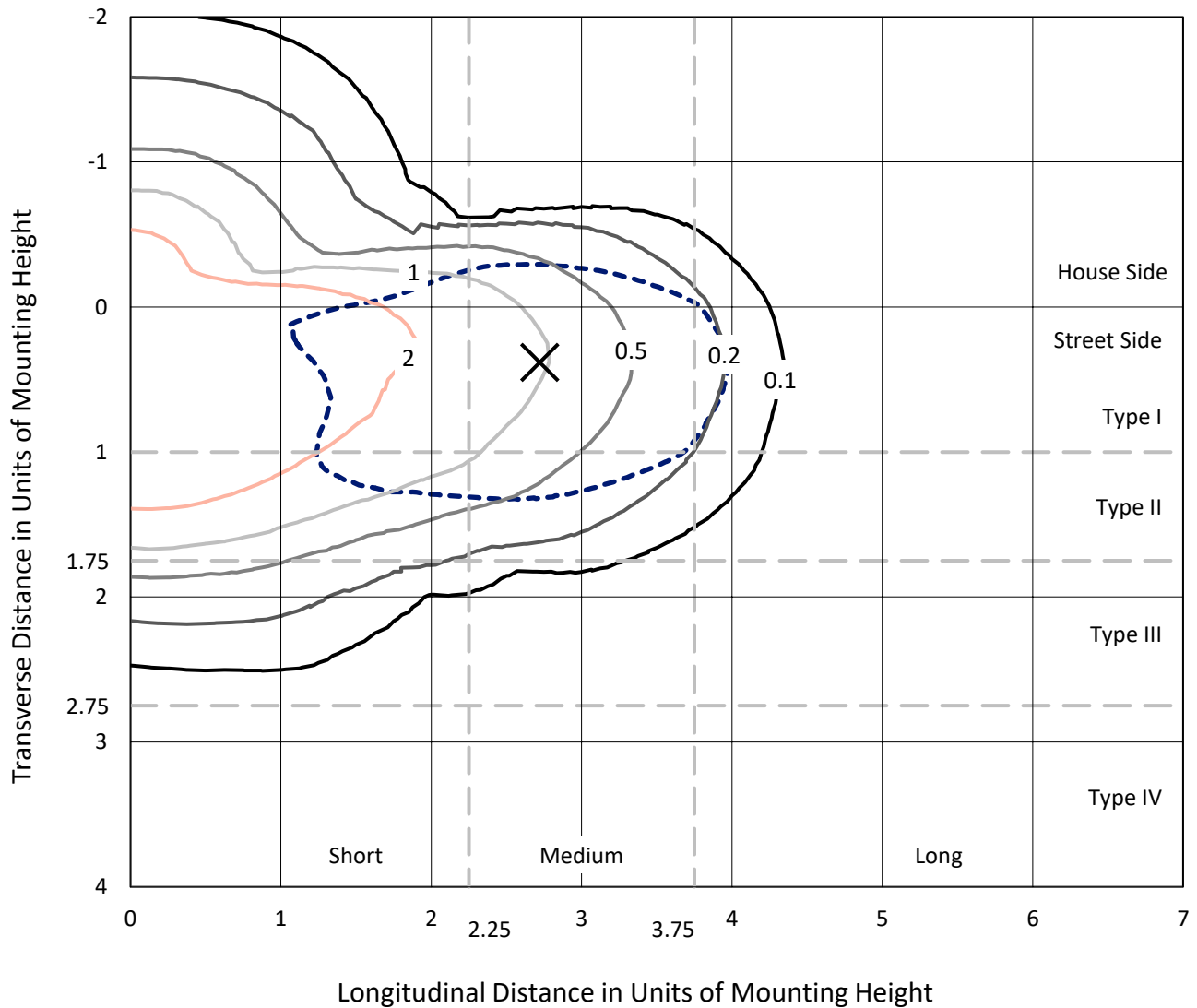
Input Watts (W): 109.2
Input Voltage (V): 120.0
Input Current (Ain): 0.919
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.657
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

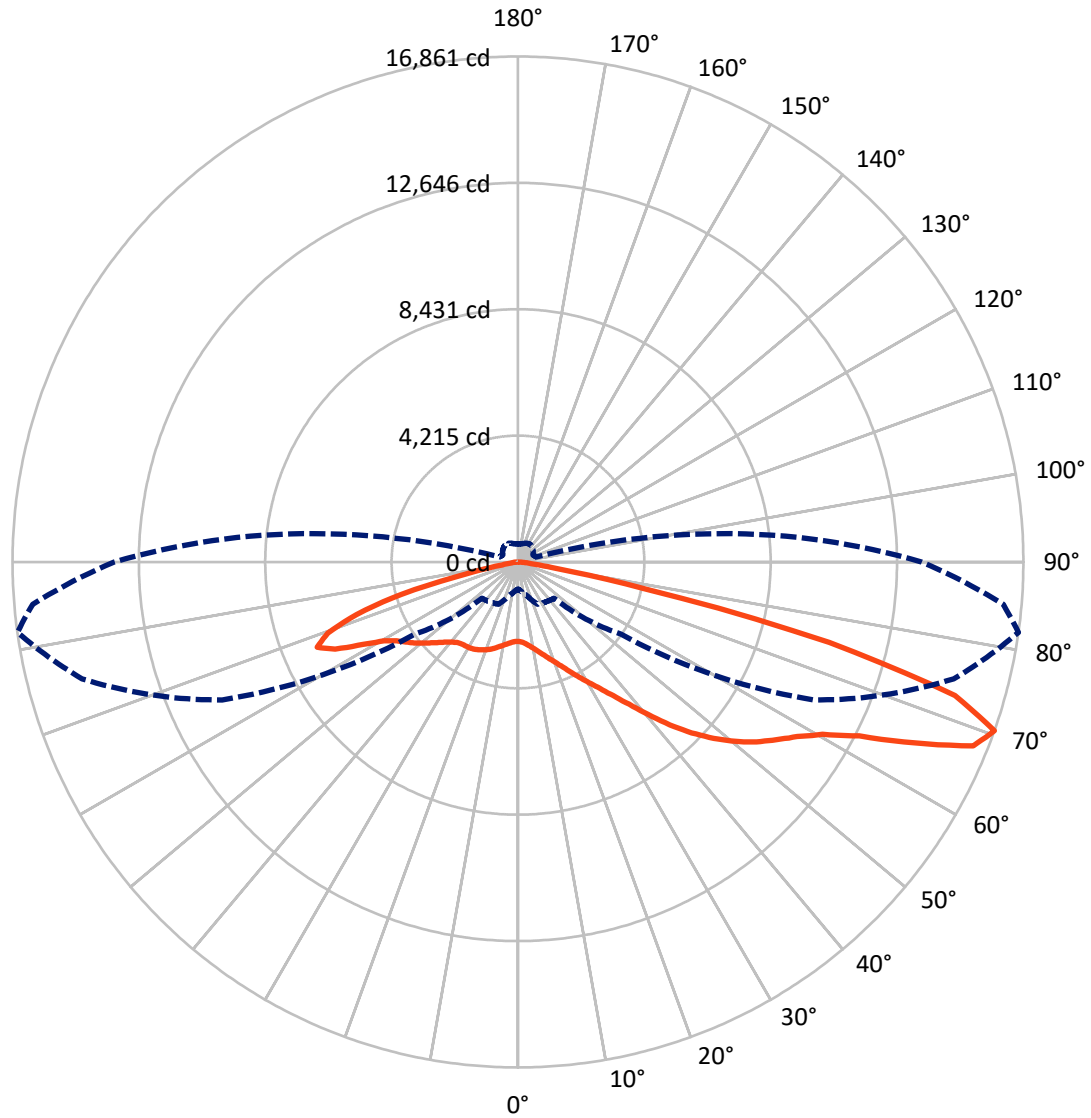
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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	4448.0	0.0	4448.0
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13595.0	0.0	13595.0
	% Fixture	75.3	0.0	75.3
Total	Lumens	18043.0	0.0	18043.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.8	1.4
10°-20°	717.6	4.0
20°-30°	1200.5	6.7
30°-40°	1875.4	10.4
40°-50°	2986.8	16.6
50°-60°	4156.5	23.0
60°-70°	4347.9	24.1
70°-80°	2272.5	12.6
80°-90°	236.0	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°	18043.0	100.0
0°-180°	18043.0	100.0

Coefficient of Utilization



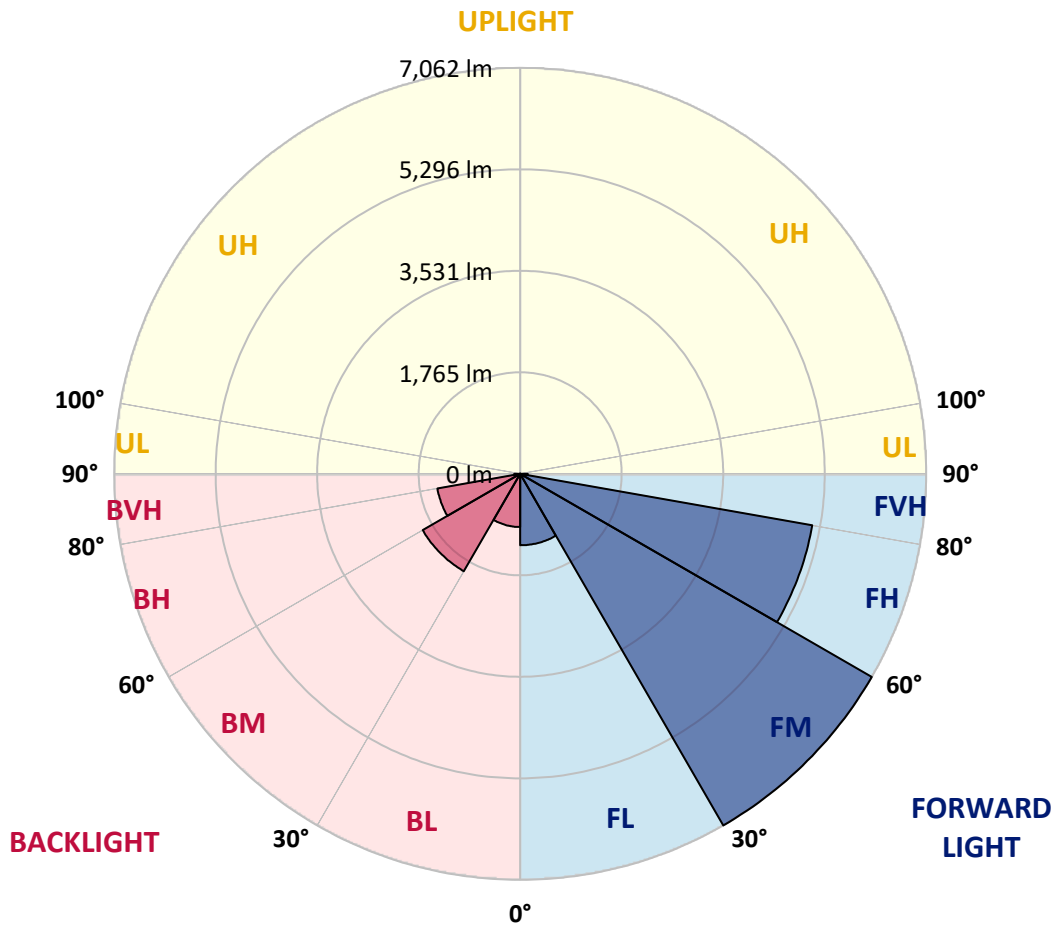
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1242.5	6.9			
FM (30°-60°)	7061.8	39.1			
FH (60°-80°)	5158.6	28.6			G3/7500
FVH (80°-90°)	132.1	0.7			G2/225
BL (0°-30°)	925.4	5.1	B2/1000		
BM (30°-60°)	1957.0	10.8	B2/2500		
BH (60°-80°)	1461.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	103.9	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°	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3
2.5°	2708.5	2723.8	2719.1	2714.3	2714.3	2707.6	2706.6	2697.0	2689.4	2676.9	2674.1
5°	2743.0	2759.3	2757.3	2761.2	2773.6	2776.5	2779.4	2773.6	2758.3	2743.0	2736.3
7.5°	2712.3	2730.5	2736.3	2759.3	2797.6	2832.0	2857.9	2868.4	2854.0	2832.0	2821.5
10°	2608.9	2629.1	2649.2	2703.7	2771.7	2853.1	2922.0	2963.2	2960.3	2939.3	2921.1
12.5°	2399.3	2420.3	2463.4	2569.7	2694.2	2837.8	2966.1	3052.2	3081.9	3066.6	3035.0
15°	2231.7	2249.9	2282.5	2391.6	2553.4	2771.7	2982.3	3149.9	3225.5	3216.9	3178.6
17.5°	2226.9	2234.6	2254.7	2306.4	2430.9	2668.3	2965.1	3245.6	3390.2	3389.2	3341.4
20°	2311.2	2314.1	2325.6	2336.1	2406.9	2589.8	2921.1	3325.1	3575.0	3575.0	3523.3
22.5°	2428.0	2426.1	2437.6	2428.0	2462.5	2583.1	2893.3	3395.0	3780.8	3796.1	3731.0
25°	2603.2	2593.6	2590.8	2568.7	2575.4	2645.3	2923.9	3474.4	4025.0	4056.6	3975.2
27.5°	2836.8	2821.5	2811.0	2760.2	2743.0	2773.6	3017.8	3570.2	4296.9	4351.4	4248.0
30°	3141.3	3113.5	3098.2	3010.1	2947.9	2952.7	3159.5	3697.5	4581.2	4669.3	4538.1
32.5°	3556.8	3513.7	3472.5	3328.0	3214.0	3176.7	3342.3	3873.7	4889.5	5030.2	4861.7
35°	4022.1	3987.6	3943.6	3720.5	3545.3	3459.1	3589.3	4119.7	5250.4	5473.5	5254.3
37.5°	4470.2	4440.5	4461.5	4160.9	3935.0	3809.5	3912.9	4450.1	5695.6	6025.0	5746.4
40°	4933.5	4910.6	4913.4	4626.2	4362.9	4222.2	4305.5	4864.6	6205.9	6680.8	6338.1
42.5°	5437.1	5419.9	5362.5	5107.8	4812.0	4680.8	4757.4	5343.3	6753.6	7427.6	6987.2
45°	6001.1	5990.5	5936.9	5644.9	5306.0	5158.5	5261.9	5871.8	7304.1	8130.3	7639.2
47.5°	6488.4	6497.0	6490.3	6244.2	5892.9	5676.5	5800.0	6423.3	7816.3	8791.0	8264.4
50°	6722.9	6767.9	6834.0	6757.4	6539.1	6318.9	6342.9	6955.6	8304.6	9410.4	8863.7
52.5°	6600.4	6685.6	6865.6	6988.2	7072.4	7026.4	6962.3	7484.1	8764.1	9969.5	9430.5
55°	6143.7	6263.4	6562.1	6857.9	7287.8	7622.0	7706.2	8070.0	9212.2	10461.6	9966.7
57.5°	5311.7	5506.1	5774.2	6372.5	7096.3	7910.1	8573.6	8882.9	9687.1	10987.3	10527.7
60°	3885.2	4145.6	4478.8	5369.2	6426.1	7756.0	9311.8	10131.3	10362.1	11668.0	11258.2
62.5°	2486.4	2647.2	2953.6	3792.3	5007.3	6966.1	9537.7	11691.9	11506.2	12784.3	12353.5
65°	1702.3	1805.7	2086.2	2557.2	3237.0	5185.3	8932.7	12861.9	13323.3	14553.6	14226.2
67.5°	1237.0	1315.5	1554.8	1967.5	2109.2	3068.5	6931.7	12808.3	15089.8	16376.5	15867.2
70°	901.9	957.4	1158.5	1554.8	1622.8	1707.1	4199.2	10887.7	15051.5	16861.0	16251.1
72.5°	668.3	706.6	841.6	1206.3	1313.6	1152.7	2078.5	7913.0	12933.7	15250.6	14761.4
75°	483.5	512.2	611.8	922.9	1051.2	877.9	1036.9	4624.3	9021.7	10727.8	10814.0
77.5°	369.6	391.6	456.7	675.9	841.6	658.7	643.4	2127.4	4277.7	4298.8	4540.0
80°	296.8	311.2	346.6	475.8	645.3	493.1	419.3	858.8	1351.9	1144.1	1200.6
82.5°	218.3	242.2	293.0	334.1	461.5	339.9	255.6	433.7	514.1	442.3	446.2
85°	124.5	140.7	177.1	239.4	294.9	207.8	146.5	192.4	239.4	196.3	175.2
87.5°	44.0	57.4	62.2	93.8	128.3	86.2	56.5	55.5	78.5	58.4	48.8
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°	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3	2645.3
2.5°	2664.5	2659.7	2640.5	2614.7	2587.9	2562.0	2553.4	2535.2	2522.8	2516.1	2523.7
5°	2718.1	2702.8	2657.8	2600.3	2540.0	2474.9	2429.0	2386.8	2356.2	2327.5	2339.0
7.5°	2794.7	2767.9	2690.3	2589.8	2482.6	2374.4	2294.0	2232.7	2191.5	2164.7	2170.5
10°	2883.7	2842.6	2723.8	2573.5	2407.9	2252.8	2158.0	2105.3	2079.5	2065.1	2069.0
12.5°	2986.2	2927.8	2758.3	2536.2	2294.0	2116.8	2051.7	2036.4	2037.4	2038.3	2040.2
15°	3112.5	3031.2	2786.1	2454.8	2145.6	2012.5	2001.0	2025.9	2051.7	2064.2	2063.2
17.5°	3255.2	3140.3	2790.9	2320.8	2000.0	1945.5	1981.8	2035.5	2074.7	2091.9	2095.8
20°	3408.4	3251.4	2756.4	2131.2	1880.4	1890.9	1956.0	2024.9	2068.0	2090.0	2095.8
22.5°	3583.6	3370.1	2674.1	1932.1	1782.7	1831.5	1908.1	1975.1	2020.1	2042.2	2047.9
25°	3783.7	3503.2	2544.8	1764.5	1698.4	1764.5	1841.1	1896.6	1933.0	1953.1	1958.9
27.5°	4005.8	3642.0	2372.5	1631.4	1624.7	1695.6	1758.8	1801.8	1821.0	1836.3	1842.1
30°	4228.9	3768.4	2163.8	1530.9	1560.6	1627.6	1672.6	1691.7	1697.5	1700.4	1707.1
32.5°	4470.2	3877.5	1944.5	1447.6	1499.3	1561.5	1588.3	1597.0	1570.2	1552.0	1557.7
35°	4762.2	3994.3	1730.0	1381.5	1439.0	1492.6	1501.2	1493.6	1462.0	1424.6	1426.5
37.5°	5123.1	4139.8	1558.7	1334.6	1382.5	1417.9	1407.4	1405.5	1408.4	1364.3	1367.2
40°	5565.4	4329.4	1433.2	1298.3	1336.5	1344.2	1314.5	1330.8	1345.2	1278.1	1280.1
42.5°	6056.6	4558.2	1353.8	1273.4	1298.3	1280.1	1234.1	1252.3	1250.4	1162.3	1161.3
45°	6557.3	4807.2	1326.0	1255.2	1262.8	1226.4	1175.7	1180.5	1140.3	1060.8	1063.7
47.5°	7055.2	5074.3	1343.2	1239.8	1218.8	1177.6	1138.4	1117.3	1057.9	998.6	998.6
50°	7543.4	5354.8	1406.4	1209.2	1158.5	1134.5	1105.8	1068.5	1005.3	954.5	950.7
52.5°	7996.3	5637.2	1477.3	1158.5	1082.8	1097.2	1079.0	1035.9	973.7	922.0	922.9
55°	8425.2	5919.7	1505.1	1088.6	1012.0	1064.6	1054.1	974.6	900.0	857.8	854.0
57.5°	8892.4	6259.6	1474.4	999.5	954.5	1027.3	987.1	899.0	855.9	824.3	821.5
60°	9539.7	6792.8	1408.4	889.4	900.0	971.8	902.8	866.5	819.5	784.1	782.2
62.5°	10614.8	7787.6	1302.1	780.3	835.8	889.4	862.6	826.2	778.4	743.9	743.9
65°	12204.1	9170.1	1102.0	695.1	764.0	809.0	819.5	783.2	733.4	697.0	698.9
67.5°	13544.5	10037.5	833.9	624.2	690.3	743.9	773.6	738.2	685.5	650.1	651.0
70°	13470.8	9407.5	636.7	554.3	625.2	679.8	718.1	690.3	633.8	600.3	603.2
72.5°	11964.8	7869.9	515.1	483.5	559.1	612.7	658.7	637.6	580.2	547.6	547.6
75°	8790.0	5586.5	411.7	411.7	476.8	542.9	593.6	580.2	527.5	504.6	497.9
77.5°	3705.2	2343.7	322.6	341.8	396.4	466.3	529.4	534.2	488.3	517.0	469.1
80°	985.2	646.3	246.1	269.0	311.2	384.9	460.5	458.6	408.8	382.0	355.2
82.5°	375.3	254.7	175.2	189.6	225.0	294.9	364.8	376.3	326.5	282.4	282.4
85°	144.6	109.1	108.2	113.9	131.2	195.3	275.7	285.3	246.1	208.7	215.4
87.5°	37.3	32.6	40.2	38.3	60.3	104.4	158.0	163.7	150.3	87.1	124.5
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)