

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: P884270

Luminaire Tested: **NAV-SB5A-730-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884270
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-730-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16965 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

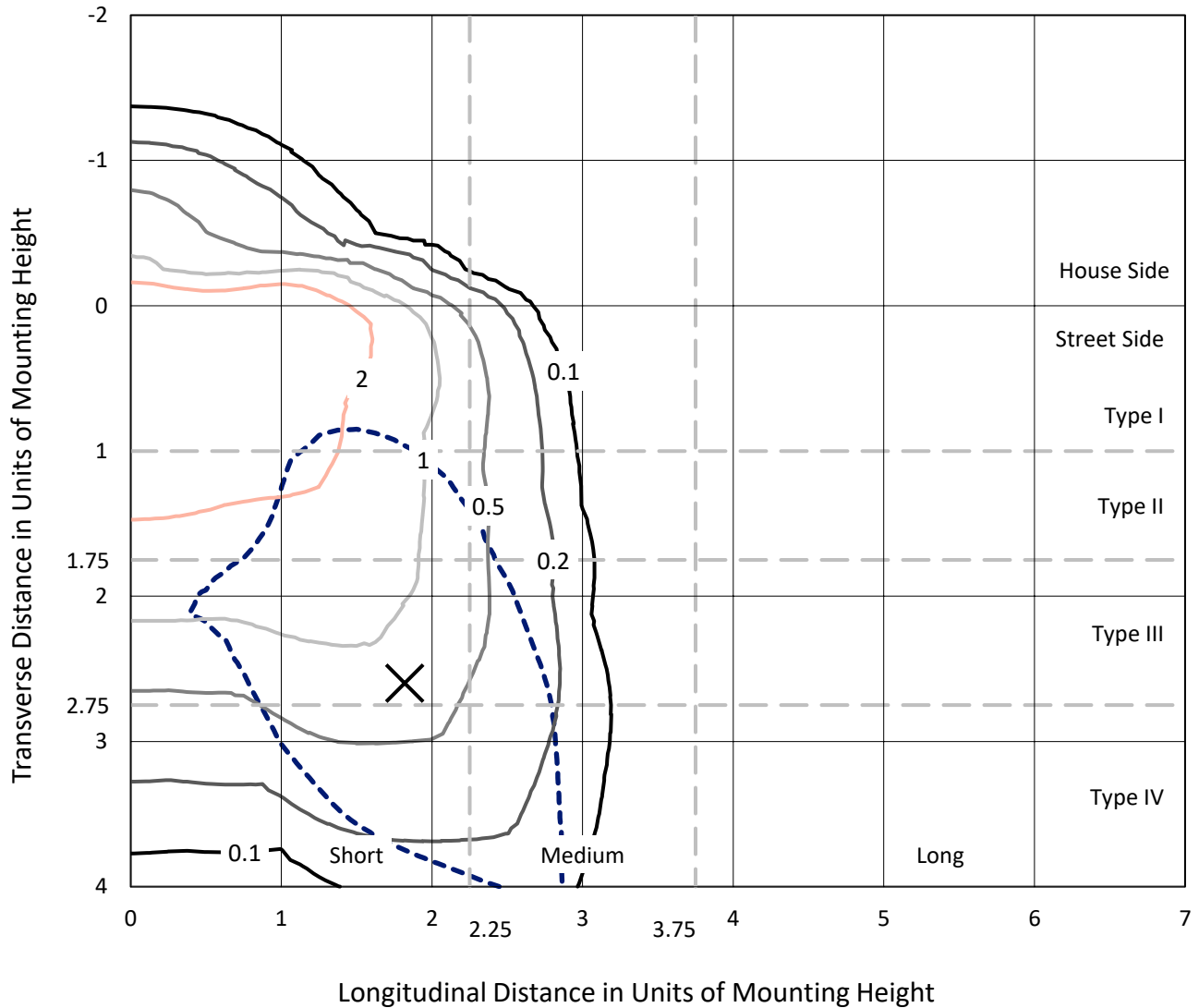
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

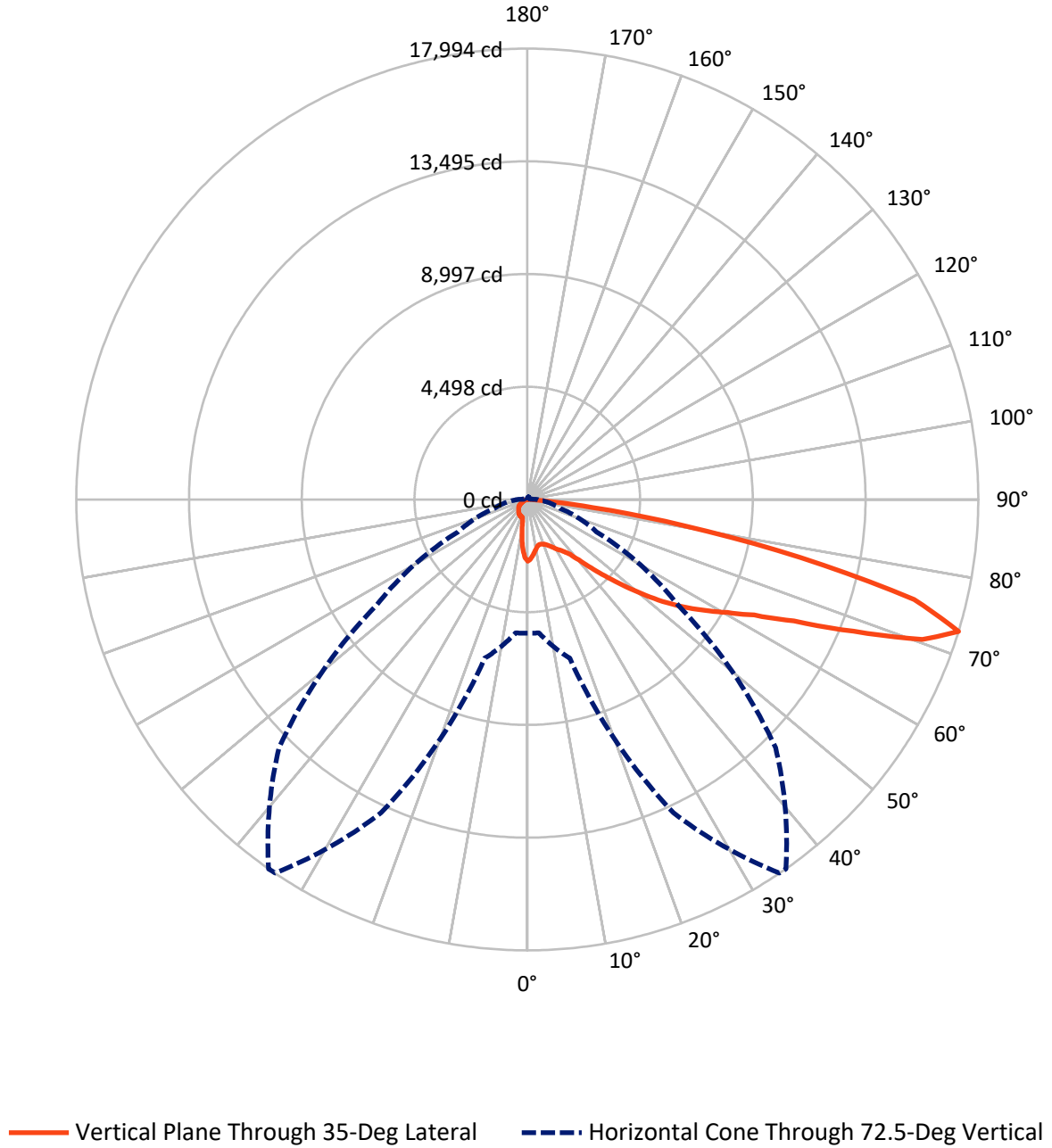
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1909.3	0.0	1909.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15055.7	0.0	15055.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	16965.0	0.0	16965.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.0	1.2
10°-20°	472.7	2.8
20°-30°	767.8	4.5
30°-40°	1281.1	7.6
40°-50°	2423.9	14.3
50°-60°	3851.6	22.7
60°-70°	4764.7	28.1
70°-80°	2961.8	17.5
80°-90°	239.4	1.4
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°	16965.0	100.0
0°-180°	16965.0	100.0

Coefficient of Utilization



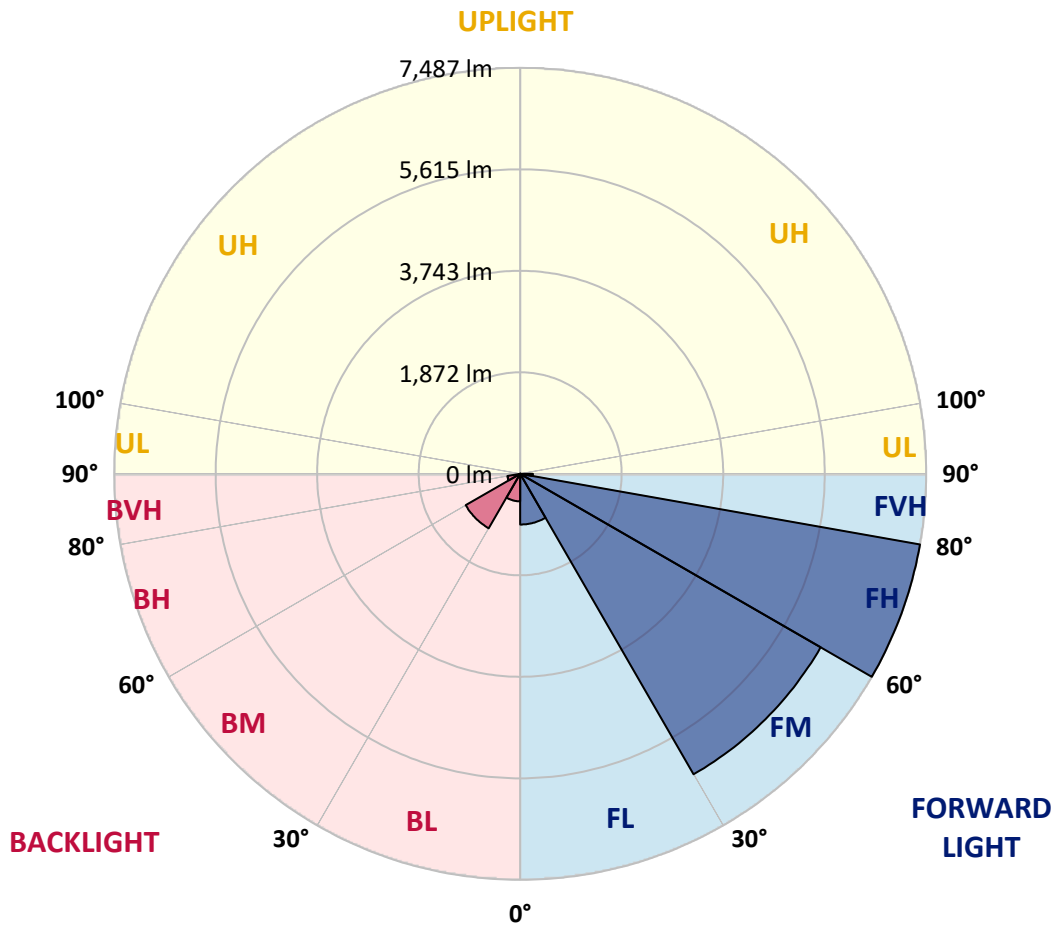
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	935.2	5.5			
FM (30°-60°)	6397.5	37.7			
FH (60°-80°)	7486.9	44.1			G3/7500
FVH (80°-90°)	236.1	1.4			G3/500
BL (0°-30°)	507.3	3.0	B2/1000		
BM (30°-60°)	1159.1	6.8	B2/2500		
BH (60°-80°)	239.6	1.4	B1/500		G1/500
BVH (80°-90°)	3.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8
2.5°	2349.4	2369.3	2373.0	2379.2	2379.2	2386.7	2399.1	2416.5	2445.1	2460.0	2470.0
5°	2165.4	2180.3	2199.0	2213.9	2242.5	2246.2	2294.7	2341.9	2407.8	2457.6	2492.4
7.5°	1980.2	1997.6	2022.5	2058.5	2095.8	2107.0	2180.3	2259.9	2364.3	2457.6	2516.0
10°	1849.7	1850.9	1873.3	1909.4	1969.0	1982.7	2072.2	2185.3	2315.8	2442.6	2538.4
12.5°	1776.4	1785.1	1795.0	1822.3	1879.5	1888.2	1983.9	2117.0	2267.4	2433.9	2564.5
15°	1776.4	1782.6	1788.8	1802.5	1848.4	1855.9	1940.4	2073.4	2242.5	2437.7	2606.7
17.5°	1795.0	1804.9	1800.0	1816.1	1864.6	1869.6	1944.2	2061.0	2241.3	2461.3	2671.4
20°	1839.7	1847.2	1837.3	1847.2	1895.7	1905.6	1982.7	2084.6	2262.4	2502.3	2752.2
22.5°	1910.6	1914.3	1890.7	1898.2	1947.9	1960.3	2049.8	2151.8	2313.4	2568.2	2860.3
25°	2000.1	2007.6	1971.5	1980.2	2027.5	2042.4	2145.5	2252.4	2394.2	2658.9	2998.3
27.5°	2103.3	2107.0	2075.9	2074.7	2135.6	2156.7	2261.1	2376.8	2502.3	2773.3	3172.3
30°	2221.4	2232.6	2202.7	2197.8	2274.8	2292.2	2395.4	2529.7	2661.4	2944.8	3419.7
32.5°	2314.6	2323.3	2305.9	2318.3	2396.6	2410.3	2558.2	2745.9	2911.3	3188.5	3756.6
35°	2448.9	2453.8	2414.0	2436.4	2525.9	2560.7	2780.8	3049.3	3225.8	3494.3	4196.6
37.5°	2934.9	2934.9	2765.8	2655.2	2741.0	2772.1	3085.3	3430.9	3613.6	3904.5	4751.0
40°	3607.4	3596.2	3348.8	3122.6	3111.4	3172.3	3519.1	3911.9	4114.6	4396.7	5375.0
42.5°	4324.6	4307.2	3970.4	3746.6	3709.3	3730.5	4020.1	4504.9	4711.2	4997.2	6046.3
45°	4961.1	4956.1	4647.8	4347.0	4279.9	4347.0	4645.4	5198.5	5346.5	5647.3	6716.3
47.5°	5494.4	5494.4	5269.4	5073.0	5038.2	5078.0	5491.9	5968.0	5954.3	6339.7	7368.9
50°	6108.5	6103.5	5889.7	5805.1	5841.2	5897.1	6466.5	6778.5	6583.3	7019.6	7951.9
52.5°	6538.6	6568.4	6495.1	6481.4	6665.4	6762.3	7455.9	7571.6	7146.4	7664.8	8388.3
55°	6879.2	6914.0	6998.5	7094.2	7448.5	7575.3	8414.4	8323.6	7617.5	8224.2	8639.4
57.5°	7361.5	7311.8	7442.3	7631.2	8204.3	8357.2	9342.9	9033.4	7996.7	8677.9	8666.7
60°	7947.0	7954.4	7976.8	8215.5	8958.8	9155.2	10257.8	9704.7	8240.3	8956.3	8363.4
62.5°	8650.5	8661.7	8707.7	9074.4	9971.9	10157.1	11232.4	10254.1	8352.2	8878.0	7580.3
65°	8602.1	8649.3	9162.7	10416.9	11512.1	11694.8	12369.8	10639.5	8183.1	8162.0	6171.9
67.5°	7836.3	7913.4	8772.4	12020.5	13834.2	14038.0	13744.7	10715.3	7453.5	6347.1	4026.3
70°	6831.9	6859.3	7892.3	13462.5	16522.9	16729.3	14975.3	9881.2	5656.0	3540.3	1803.7
72.5°	5335.3	5341.5	6553.5	13796.9	17982.3	17993.5	14009.4	7335.4	3041.8	1359.9	626.5
75°	3811.3	3774.0	4389.3	11188.9	15820.6	15947.4	10502.7	3440.8	1162.3	642.7	312.0
77.5°	2043.6	2084.6	2483.7	6635.5	10929.1	11145.4	5730.6	992.0	591.7	437.6	206.4
80°	631.5	666.3	1018.1	3038.1	6190.5	6321.0	2124.4	441.3	412.7	312.0	135.5
82.5°	198.9	206.4	474.9	1276.6	2569.4	2629.1	615.3	249.9	282.2	206.4	79.6
85°	57.2	58.4	211.3	476.1	635.2	647.6	172.8	97.0	161.6	128.0	41.0
87.5°	6.2	19.9	79.6	79.6	55.9	54.7	18.6	21.1	46.0	16.2	7.5
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°	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8	2458.8
2.5°	2463.8	2465.0	2448.9	2421.5	2391.7	2366.8	2335.7	2310.9	2293.5	2288.5	2297.2
5°	2481.2	2472.5	2426.5	2343.2	2243.7	2158.0	2062.3	1986.4	1936.7	1915.6	1923.0
7.5°	2507.3	2482.4	2381.7	2217.6	2027.5	1858.4	1686.8	1553.8	1469.3	1427.0	1433.3
10°	2529.7	2479.9	2307.1	2036.2	1745.3	1489.2	1258.0	1097.6	1008.1	965.9	967.1
12.5°	2550.8	2478.7	2210.2	1821.1	1427.0	1113.8	898.7	819.2	794.3	785.6	783.1
15°	2590.6	2482.4	2088.4	1575.0	1110.1	841.6	763.2	762.0	767.0	764.5	763.2
17.5°	2645.3	2486.1	1950.4	1313.9	856.5	742.1	738.4	749.6	757.0	753.3	752.1
20°	2716.1	2501.1	1803.7	1055.4	735.9	717.3	726.0	735.9	742.1	735.9	734.7
22.5°	2815.6	2527.2	1643.3	847.8	697.4	702.3	709.8	721.0	727.2	718.5	717.3
25°	2937.4	2568.2	1485.5	737.1	678.7	684.9	696.1	708.6	716.0	707.3	706.1
27.5°	3095.3	2634.1	1340.0	712.3	660.1	663.8	680.0	698.6	708.6	697.4	697.4
30°	3324.0	2742.2	1214.5	723.5	648.9	640.2	662.6	688.7	699.8	689.9	688.7
32.5°	3627.3	2895.1	1137.4	740.9	643.9	612.8	634.0	667.5	686.2	680.0	680.0
35°	4025.1	3127.6	1107.6	760.8	640.2	584.2	599.2	635.2	667.5	673.7	673.7
37.5°	4507.4	3450.8	1116.3	769.5	629.0	560.6	568.1	599.2	641.4	661.3	666.3
40°	5055.6	3827.4	1166.0	760.8	616.6	540.7	542.0	565.6	602.9	632.7	642.7
42.5°	5621.2	4267.5	1258.0	728.4	605.4	523.3	519.6	535.8	560.6	581.8	590.5
45°	6159.4	4719.9	1348.7	683.7	591.7	505.9	497.2	503.4	508.4	517.1	522.1
47.5°	6629.3	5038.2	1322.6	642.7	573.1	486.0	471.1	468.6	453.7	452.5	451.2
50°	6953.7	5107.8	1174.7	601.6	545.7	463.7	440.0	425.1	399.0	386.6	387.8
52.5°	7056.9	4833.1	959.7	560.6	501.0	433.8	400.3	376.7	344.3	333.1	331.9
55°	6920.2	4294.8	767.0	510.9	438.8	394.1	356.8	325.7	299.6	285.9	285.9
57.5°	6585.8	3609.9	606.6	452.5	372.9	349.3	312.0	280.9	258.6	244.9	242.4
60°	6031.4	2866.5	479.8	382.9	318.2	300.8	262.3	242.4	222.5	206.4	202.6
62.5°	5189.8	2046.1	376.7	303.3	266.0	246.1	223.8	208.8	185.2	162.8	159.1
65°	4049.9	1251.8	290.9	222.5	213.8	203.9	190.2	176.5	147.9	125.6	121.8
67.5°	2554.5	592.9	207.6	167.8	169.1	164.1	157.9	146.7	125.6	105.7	103.2
70°	1125.0	287.1	136.7	128.0	125.6	125.6	130.5	126.8	106.9	88.3	84.5
72.5°	382.9	154.1	101.9	97.0	90.7	89.5	109.4	105.7	85.8	68.4	64.6
75°	200.1	103.2	74.6	69.6	54.7	65.9	87.0	82.0	60.9	44.8	41.0
77.5°	130.5	73.3	51.0	44.8	31.1	43.5	64.6	57.2	36.0	22.4	19.9
80°	82.0	48.5	29.8	21.1	14.9	23.6	34.8	24.9	13.7	5.0	3.7
82.5°	43.5	24.9	11.2	7.5	6.2	7.5	8.7	6.2	2.5	0.0	0.0
85°	17.4	8.7	3.7	2.5	1.2	0.0	2.5	1.2	0.0	0.0	0.0
87.5°	6.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)