

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: P884280

Luminaire Tested: **NAV-SB5A-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884280
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-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 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: 17234 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

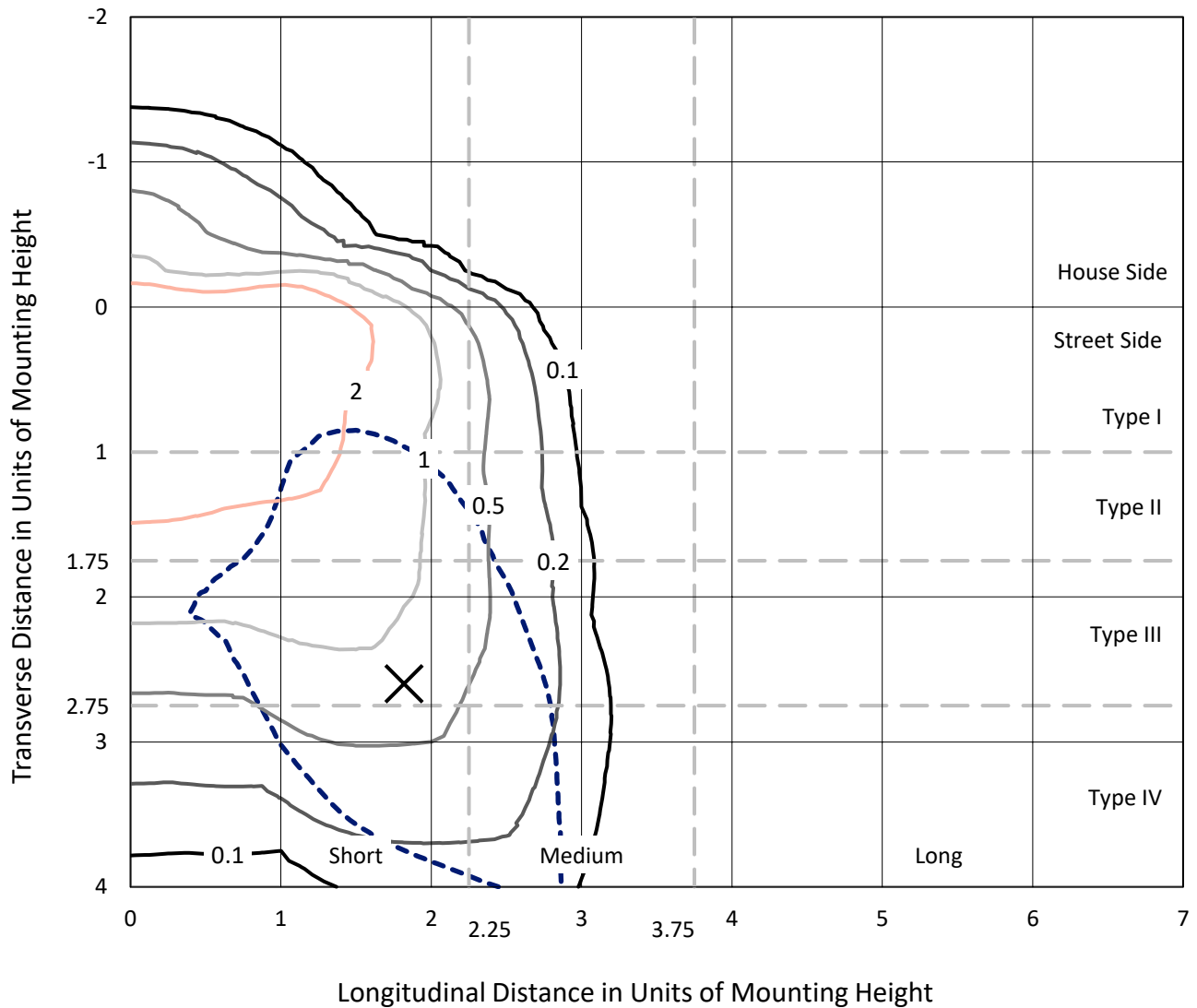
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

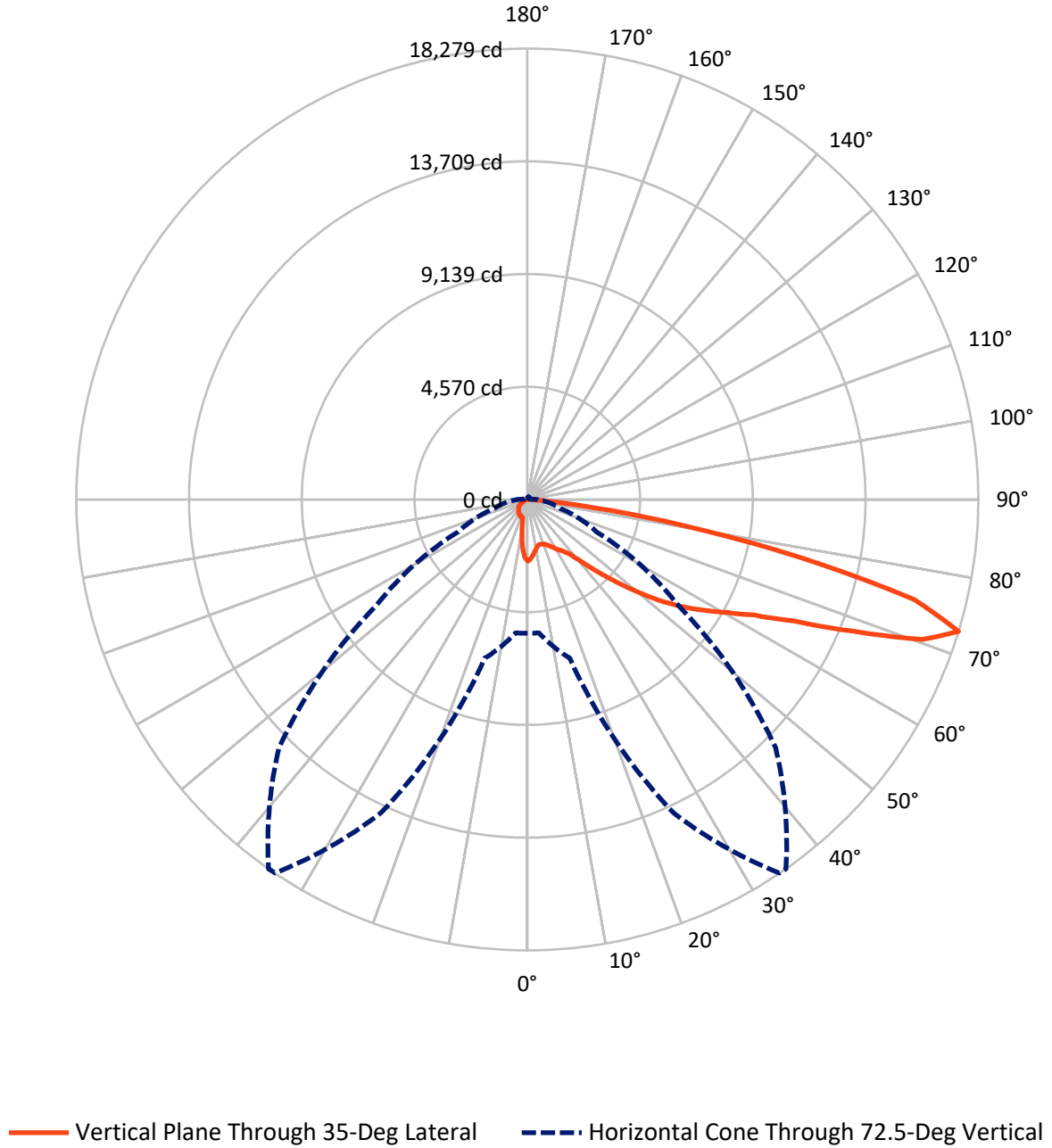
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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	1939.6	0.0	1939.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15294.4	0.0	15294.4
	% Fixture	88.7	0.0	88.7
Total	Lumens	17234.0	0.0	17234.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	1.2
10°-20°	480.2	2.8
20°-30°	780.0	4.5
30°-40°	1301.4	7.6
40°-50°	2462.4	14.3
50°-60°	3912.7	22.7
60°-70°	4840.2	28.1
70°-80°	3008.7	17.5
80°-90°	243.2	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°	17234.0	100.0
0°-180°	17234.0	100.0

Coefficient of Utilization



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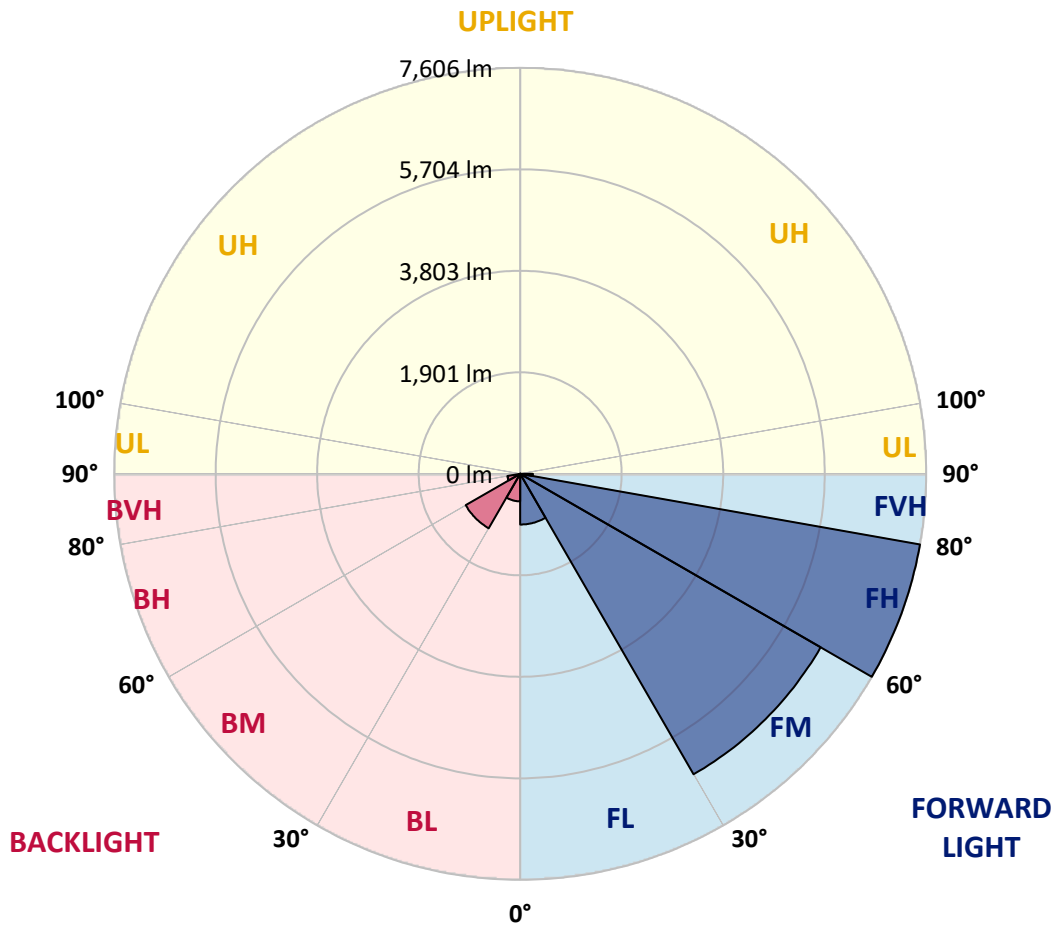
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	950.0	5.5			
FM (30°-60°)	6498.9	37.7			
FH (60°-80°)	7605.6	44.1			G4/12000
FVH (80°-90°)	239.8	1.4			G3/500
BL (0°-30°)	515.4	3.0	B2/1000		
BM (30°-60°)	1177.5	6.8	B2/2500		
BH (60°-80°)	243.4	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8
2.5°	2386.7	2406.9	2410.7	2417.0	2417.0	2424.5	2437.2	2454.8	2483.9	2499.0	2509.1
5°	2199.8	2214.9	2233.9	2249.0	2278.1	2281.8	2331.1	2379.1	2446.0	2496.5	2531.9
7.5°	2011.6	2029.3	2054.5	2091.2	2129.1	2140.4	2214.9	2295.7	2401.8	2496.5	2555.9
10°	1879.0	1880.3	1903.0	1939.6	2000.2	2014.1	2105.1	2220.0	2352.6	2481.4	2578.6
12.5°	1804.5	1813.4	1823.5	1851.2	1909.3	1918.2	2015.4	2150.5	2303.3	2472.5	2605.1
15°	1804.5	1810.8	1817.1	1831.0	1877.8	1885.3	1971.2	2106.3	2278.1	2476.3	2648.1
17.5°	1823.5	1833.6	1828.5	1844.9	1894.2	1899.2	1975.0	2093.7	2276.8	2500.3	2713.7
20°	1868.9	1876.5	1866.4	1876.5	1925.7	1935.8	2014.1	2117.7	2298.3	2542.0	2795.8
22.5°	1940.9	1944.7	1920.7	1928.3	1978.8	1991.4	2082.3	2185.9	2350.0	2608.9	2905.7
25°	2031.8	2039.4	2002.8	2011.6	2059.6	2074.8	2179.6	2288.2	2432.1	2701.1	3045.8
27.5°	2136.6	2140.4	2108.8	2107.6	2169.5	2190.9	2297.0	2414.4	2542.0	2817.3	3222.6
30°	2256.6	2268.0	2237.7	2232.6	2310.9	2328.6	2433.4	2569.8	2703.6	2991.5	3473.9
32.5°	2351.3	2360.1	2342.5	2355.1	2434.6	2448.5	2598.8	2789.5	2957.4	3239.0	3816.1
35°	2487.7	2492.7	2452.3	2475.1	2566.0	2601.3	2824.8	3097.6	3276.9	3549.7	4263.2
37.5°	2981.4	2981.4	2809.7	2697.3	2784.4	2816.0	3134.2	3485.3	3670.9	3966.4	4826.4
40°	3664.6	3653.2	3401.9	3172.1	3160.7	3222.6	3574.9	3974.0	4179.8	4466.5	5460.3
42.5°	4393.2	4375.5	4033.3	3806.0	3768.1	3789.6	4083.8	4576.3	4785.9	5076.4	6142.2
45°	5039.8	5034.7	4721.5	4416.0	4347.8	4416.0	4719.0	5281.0	5431.2	5736.8	6822.8
47.5°	5581.5	5581.5	5352.9	5153.4	5118.1	5158.5	5579.0	6062.6	6048.7	6440.2	7485.8
50°	6205.3	6200.3	5983.1	5897.2	5933.8	5990.6	6569.0	6886.0	6687.7	7130.9	8078.0
52.5°	6642.2	6672.5	6598.0	6584.1	6771.0	6869.5	7574.2	7691.6	7259.7	7786.3	8521.3
55°	6988.2	7023.6	7109.5	7206.7	7566.6	7695.4	8547.8	8455.6	7738.3	8354.6	8776.3
57.5°	7478.2	7427.7	7560.3	7752.2	8334.4	8489.7	9491.1	9176.6	8123.5	8815.5	8804.1
60°	8073.0	8080.5	8103.3	8345.7	9100.9	9300.4	10420.5	9858.5	8371.0	9098.4	8496.0
62.5°	8787.7	8799.1	8845.8	9218.3	10130.0	10318.2	11410.5	10416.7	8484.6	9018.8	7700.4
65°	8738.5	8786.4	9308.0	10582.1	11694.6	11880.3	12566.0	10808.2	8312.9	8291.4	6269.7
67.5°	7960.6	8038.9	8911.5	12211.1	14053.5	14260.6	13962.6	10885.2	7571.6	6447.8	4090.2
70°	6940.3	6968.0	8017.4	13675.9	16784.9	16994.5	15212.7	10037.9	5745.7	3596.4	1832.3
72.5°	5419.9	5426.2	6657.4	14015.6	18267.4	18278.8	14231.6	7451.7	3090.0	1381.5	636.4
75°	3871.7	3833.8	4458.9	11366.3	16071.4	16200.2	10669.3	3495.4	1180.7	652.9	317.0
77.5°	2076.0	2117.7	2523.0	6740.7	11102.4	11322.1	5821.4	1007.7	601.1	444.5	209.6
80°	641.5	676.9	1034.2	3086.2	6288.7	6421.3	2158.1	448.3	419.2	317.0	137.6
82.5°	202.0	209.6	482.4	1296.9	2610.2	2670.8	625.1	253.8	286.7	209.6	80.8
85°	58.1	59.4	214.7	483.6	645.3	657.9	175.5	98.5	164.2	130.1	41.7
87.5°	6.3	20.2	80.8	80.8	56.8	55.6	18.9	21.5	46.7	16.4	7.6
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°	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8	2497.8
2.5°	2502.8	2504.1	2487.7	2459.9	2429.6	2404.3	2372.8	2347.5	2329.8	2324.8	2333.6
5°	2520.5	2511.7	2465.0	2380.3	2279.3	2192.2	2095.0	2017.9	1967.4	1945.9	1953.5
7.5°	2547.0	2521.8	2419.5	2252.8	2059.6	1887.9	1713.6	1578.5	1492.6	1449.7	1456.0
10°	2569.8	2519.3	2343.7	2068.4	1772.9	1512.8	1277.9	1115.0	1024.1	981.2	982.4
12.5°	2591.2	2518.0	2245.2	1850.0	1449.7	1131.5	913.0	832.2	806.9	798.1	795.6
15°	2631.6	2521.8	2121.5	1599.9	1127.7	854.9	775.3	774.1	779.1	776.6	775.3
17.5°	2687.2	2525.6	1981.3	1334.8	870.1	753.9	750.1	761.5	769.0	765.2	764.0
20°	2759.2	2540.7	1832.3	1072.1	747.6	728.6	737.5	747.6	753.9	747.6	746.3
22.5°	2860.2	2567.2	1669.4	861.2	708.4	713.5	721.0	732.4	738.7	729.9	728.6
25°	2984.0	2608.9	1509.0	748.8	689.5	695.8	707.2	719.8	727.4	718.5	717.3
27.5°	3144.3	2675.8	1361.3	723.6	670.5	674.3	690.7	709.7	719.8	708.4	708.4
30°	3376.7	2785.7	1233.7	734.9	659.2	650.3	673.1	699.6	710.9	700.8	699.6
32.5°	3684.8	2941.0	1155.4	752.6	654.1	622.6	644.0	678.1	697.1	690.7	690.7
35°	4088.9	3177.2	1125.1	772.8	650.3	593.5	608.7	645.3	678.1	684.4	684.4
37.5°	4578.9	3505.5	1134.0	781.7	639.0	569.5	577.1	608.7	651.6	671.8	676.9
40°	5135.7	3888.1	1184.5	772.8	626.3	549.3	550.6	574.6	612.4	642.8	652.9
42.5°	5710.3	4335.1	1277.9	740.0	615.0	531.6	527.8	544.3	569.5	591.0	599.8
45°	6257.1	4794.8	1370.1	694.5	601.1	514.0	505.1	511.4	516.5	525.3	530.4
47.5°	6734.4	5118.1	1343.6	652.9	582.1	493.7	478.6	476.1	460.9	459.7	458.4
50°	7064.0	5188.8	1193.3	611.2	554.4	471.0	447.0	431.9	405.4	392.7	394.0
52.5°	7168.8	4909.7	974.9	569.5	508.9	440.7	406.6	382.6	349.8	338.4	337.2
55°	7029.9	4362.9	779.1	519.0	445.8	400.3	362.4	330.8	304.3	290.4	290.4
57.5°	6690.2	3667.1	616.2	459.7	378.8	354.8	317.0	285.4	262.7	248.8	246.2
60°	6127.0	2912.0	487.4	388.9	323.3	305.6	266.4	246.2	226.0	209.6	205.8
62.5°	5272.1	2078.5	382.6	308.1	270.2	250.0	227.3	212.1	188.2	165.4	161.6
65°	4114.1	1271.6	295.5	226.0	217.2	207.1	193.2	179.3	150.3	127.5	123.8
67.5°	2595.0	602.3	210.9	170.5	171.7	166.7	160.4	149.0	127.5	107.3	104.8
70°	1142.8	291.7	138.9	130.1	127.5	127.5	132.6	128.8	108.6	89.7	85.9
72.5°	388.9	156.6	103.5	98.5	92.2	90.9	111.1	107.3	87.1	69.5	65.7
75°	203.3	104.8	75.8	70.7	55.6	66.9	88.4	83.3	61.9	45.5	41.7
77.5°	132.6	74.5	51.8	45.5	31.6	44.2	65.7	58.1	36.6	22.7	20.2
80°	83.3	49.2	30.3	21.5	15.2	24.0	35.4	25.3	13.9	5.1	3.8
82.5°	44.2	25.3	11.4	7.6	6.3	7.6	8.8	6.3	2.5	0.0	0.0
85°	17.7	8.8	3.8	2.5	1.3	0.0	2.5	1.3	0.0	0.0	0.0
87.5°	6.3	1.3	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)