

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: P882726

Luminaire Tested: **NAV-SB2D-727-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882726
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-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 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: 13725 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

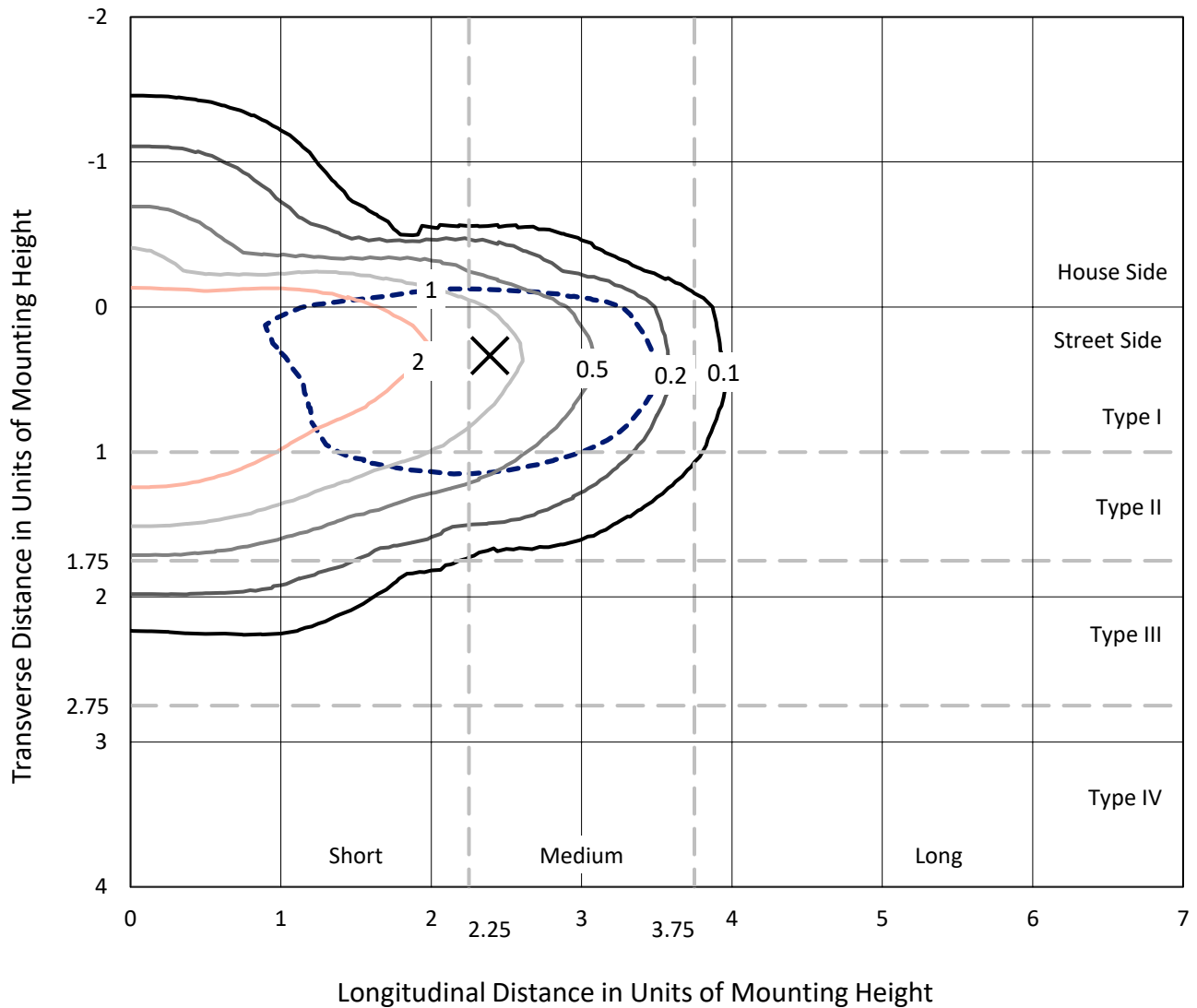
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

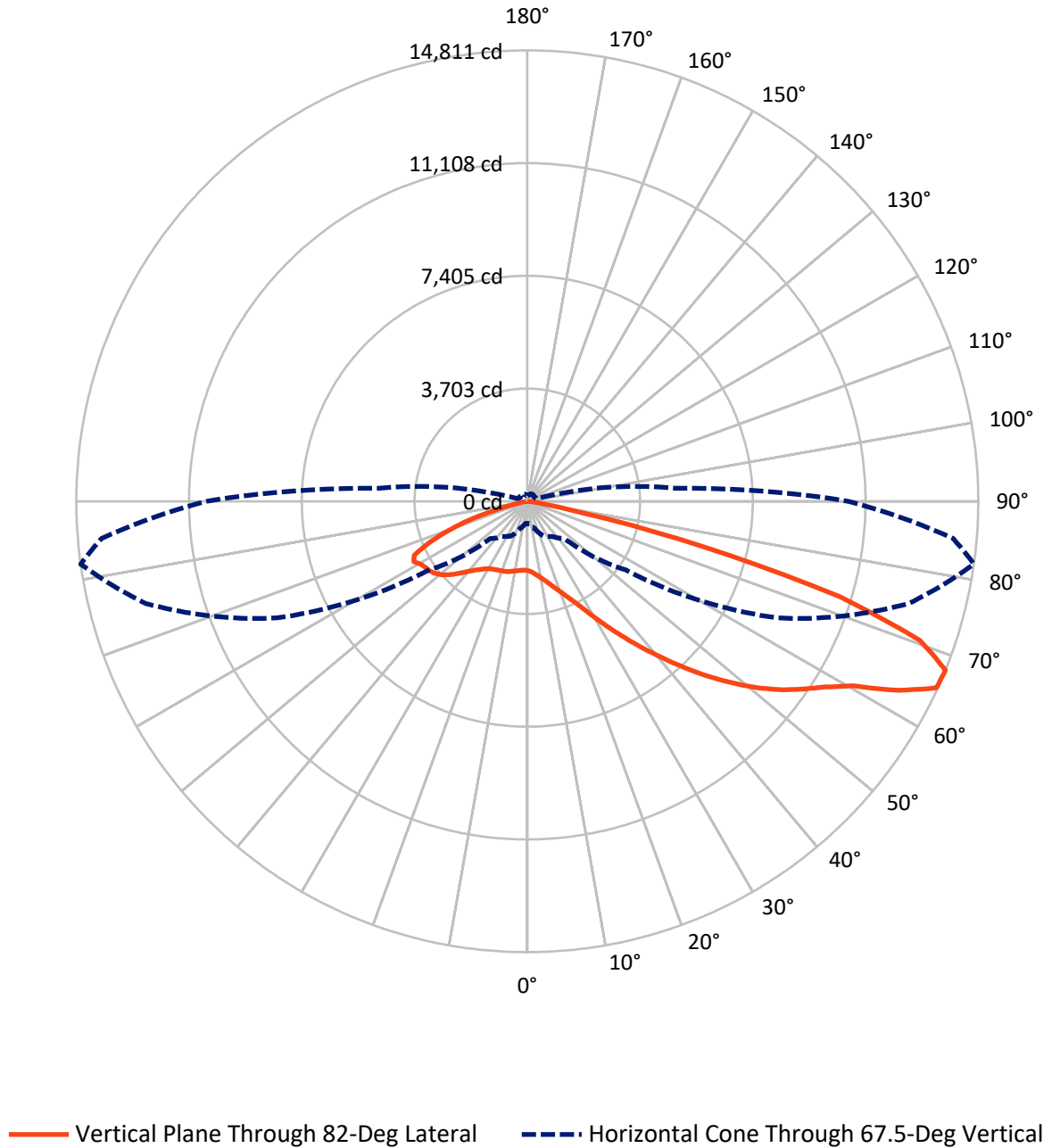
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2486.2	0.0	2486.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11238.8	0.0	11238.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	13725.0	0.0	13725.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.6	1.5
10°-20°	526.4	3.8
20°-30°	843.1	6.1
30°-40°	1490.9	10.9
40°-50°	2612.3	19.0
50°-60°	3484.0	25.4
60°-70°	3243.5	23.6
70°-80°	1244.8	9.1
80°-90°	77.3	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°	13725.0	100.0
0°-180°	13725.0	100.0

Coefficient of Utilization



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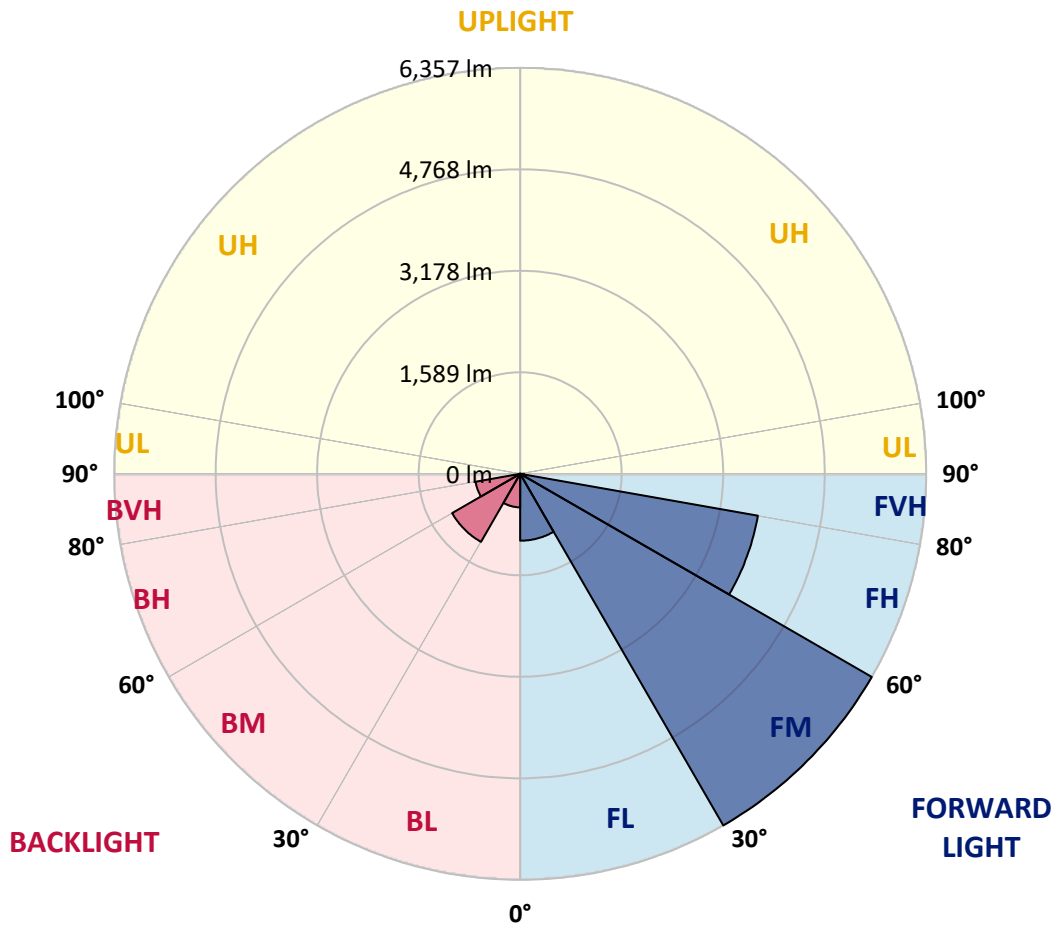
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1047.1	7.6			
FM (30°-60°)	6356.9	46.3			
FH (60°-80°)	3778.7	27.5			G2/5000
FVH (80°-90°)	56.2	0.4			G1/100
BL (0°-30°)	525.1	3.8	B2/1000		
BM (30°-60°)	1230.4	9.0	B2/2500		
BH (60°-80°)	709.6	5.2	B2/1000		G2/1000
BVH (80°-90°)	21.1	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°	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8
2.5°	2403.2	2417.1	2409.1	2405.2	2398.3	2388.4	2380.5	2355.8	2330.1	2313.3	2307.4
5°	2451.6	2465.5	2464.5	2468.4	2473.4	2476.3	2474.4	2446.7	2410.1	2381.5	2364.7
7.5°	2410.1	2425.9	2438.8	2458.6	2493.1	2529.7	2547.5	2541.6	2504.0	2464.5	2443.7
10°	2292.5	2309.3	2340.0	2386.4	2459.5	2538.6	2604.8	2635.4	2611.7	2568.2	2539.6
12.5°	2077.1	2093.9	2154.2	2255.0	2377.5	2514.9	2641.4	2723.4	2729.3	2685.8	2652.2
15°	1835.0	1851.8	1916.1	2042.5	2229.3	2449.7	2661.1	2816.3	2868.6	2831.1	2790.6
17.5°	1684.8	1699.6	1748.1	1849.8	2044.5	2319.2	2654.2	2915.1	3034.7	3005.0	2956.6
20°	1639.4	1652.2	1674.9	1746.1	1908.1	2183.8	2608.8	3008.0	3213.5	3196.7	3142.4
22.5°	1687.8	1699.6	1706.6	1738.2	1840.0	2094.9	2551.4	3102.8	3421.0	3423.0	3356.8
25°	1799.4	1811.3	1803.4	1823.2	1867.6	2067.2	2529.7	3214.5	3681.9	3703.6	3628.5
27.5°	1983.2	1984.2	1965.5	1964.5	1971.4	2108.7	2552.4	3334.1	4011.0	4051.5	3958.6
30°	2351.8	2337.0	2264.9	2186.8	2151.2	2233.3	2615.7	3475.4	4399.3	4471.4	4354.8
32.5°	2920.0	2898.3	2765.9	2579.1	2391.4	2433.9	2729.3	3636.4	4822.2	4952.7	4810.4
35°	3536.6	3530.7	3392.4	3114.7	2786.6	2719.4	2914.1	3847.9	5283.7	5491.2	5322.3
37.5°	4109.8	4106.8	4027.8	3700.7	3301.5	3117.7	3210.5	4124.6	5777.8	6078.2	5878.6
40°	4633.5	4642.4	4563.3	4270.8	3868.7	3628.5	3613.7	4466.5	6327.2	6717.5	6480.4
42.5°	5086.1	5096.0	5015.9	4799.5	4429.0	4193.8	4108.8	4885.5	6863.8	7404.3	7123.7
45°	5393.4	5454.7	5442.8	5269.9	5004.1	4760.0	4703.7	5411.2	7475.5	8132.6	7803.5
47.5°	5480.4	5536.7	5625.6	5649.3	5487.3	5247.2	5314.4	6044.6	8094.1	8861.9	8487.4
50°	5265.9	5318.3	5503.1	5749.1	5861.8	5787.7	5908.2	6723.5	8727.5	9589.2	9158.3
52.5°	4843.0	4896.4	5129.6	5518.9	5978.4	6211.6	6504.1	7392.5	9341.1	10277.9	9793.7
55°	4231.3	4287.6	4587.1	5027.8	5756.1	6386.5	7001.2	8060.5	9903.4	10897.5	10366.8
57.5°	3399.3	3440.8	3752.1	4368.7	5196.8	6212.6	7367.8	8789.7	10433.0	11506.2	10935.0
60°	2215.5	2252.0	2613.7	3301.5	4269.9	5631.6	7440.9	9603.0	11136.6	12297.7	11700.9
62.5°	1473.4	1498.1	1712.5	2217.4	3007.0	4515.9	7013.0	10252.2	12168.3	13675.2	13014.1
65°	1010.9	1035.6	1250.0	1601.8	1942.7	2987.2	5782.7	10166.2	13103.1	14769.1	13987.5
67.5°	721.4	742.1	923.9	1256.0	1406.2	1735.2	3920.1	9067.4	12968.7	14810.6	14039.9
70°	516.8	528.7	678.9	978.3	1117.6	1042.5	2179.9	6934.9	11355.0	13676.2	12970.7
72.5°	361.7	365.6	471.4	745.1	900.2	760.9	1037.6	4623.6	8588.1	10734.4	10055.6
75°	245.1	250.0	317.2	546.5	722.3	581.0	549.4	2479.3	5041.6	5941.8	5326.2
77.5°	150.2	152.2	204.6	373.5	540.5	442.7	353.8	1050.4	1950.6	1915.1	1632.4
80°	85.0	85.0	130.4	232.2	368.6	285.6	248.0	446.7	617.6	542.5	478.3
82.5°	47.4	48.4	94.9	144.3	244.1	169.0	136.4	206.5	266.8	236.2	205.5
85°	19.8	21.7	58.3	68.2	116.6	84.0	55.3	87.0	98.8	87.9	64.2
87.5°	2.0	3.0	17.8	12.8	13.8	16.8	7.9	16.8	13.8	13.8	9.9
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°	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8	2273.8
2.5°	2288.6	2273.8	2236.2	2192.7	2135.4	2107.8	2070.2	2044.5	2022.8	2024.8	2005.0
5°	2333.1	2295.5	2211.5	2106.8	1976.3	1883.4	1784.6	1716.4	1661.1	1649.2	1622.6
7.5°	2394.3	2335.0	2187.8	1999.1	1778.7	1611.7	1462.5	1366.6	1298.4	1276.7	1255.0
10°	2473.4	2387.4	2157.2	1863.7	1546.5	1334.0	1173.9	1098.8	1052.4	1036.6	1024.7
12.5°	2565.3	2447.7	2116.6	1698.7	1307.3	1102.8	1001.0	963.5	948.6	943.7	940.7
15°	2680.9	2522.8	2055.4	1503.0	1104.8	961.5	918.0	913.1	915.0	913.1	912.1
17.5°	2818.2	2604.8	1955.6	1301.4	968.4	889.3	873.5	877.5	882.4	881.4	879.5
20°	2968.4	2685.8	1828.1	1122.6	875.5	838.0	829.1	833.0	837.0	835.0	834.0
22.5°	3139.4	2772.8	1686.8	983.2	813.3	790.5	780.7	781.6	781.6	777.7	775.7
25°	3344.0	2868.6	1538.6	884.4	765.8	748.0	736.2	732.2	726.3	714.4	712.5
27.5°	3588.0	2970.4	1396.3	815.2	728.3	711.5	697.6	687.8	672.9	653.2	651.2
30°	3862.7	3093.9	1275.7	771.8	698.6	681.8	666.0	651.2	629.5	604.8	602.8
32.5°	4185.9	3226.4	1187.8	743.1	672.0	654.2	635.4	617.6	593.9	569.2	570.2
35°	4571.3	3386.4	1136.4	723.3	651.2	627.5	606.7	587.0	569.2	547.4	545.5
37.5°	4989.2	3556.4	1120.6	713.5	637.4	600.8	577.1	563.3	561.3	548.4	547.4
40°	5446.8	3758.0	1132.4	707.5	622.5	575.1	549.4	546.5	551.4	528.7	529.7
42.5°	5931.0	3997.1	1152.2	700.6	601.8	549.4	524.7	524.7	520.8	489.1	489.1
45°	6454.7	4272.8	1172.0	683.8	577.1	523.7	505.0	498.0	481.2	450.6	449.6
47.5°	6982.4	4553.5	1186.8	653.2	547.4	502.0	485.2	469.4	444.7	417.0	416.0
50°	7483.4	4805.4	1171.0	607.7	513.8	481.2	463.4	441.7	415.0	396.3	393.3
52.5°	7931.0	5023.8	1103.8	554.4	478.3	459.5	443.7	421.0	399.2	379.5	377.5
55°	8320.4	5200.7	985.2	504.0	446.7	440.7	424.9	396.3	366.6	349.8	347.8
57.5°	8693.9	5335.1	837.0	462.5	418.0	420.0	396.3	370.6	342.9	325.1	323.1
60°	9190.9	5514.9	686.8	423.9	387.4	393.3	367.6	348.8	314.2	291.5	288.5
62.5°	9985.4	5794.6	545.5	376.5	351.8	353.8	342.9	320.2	278.7	252.0	250.0
65°	10615.9	5691.8	429.9	325.1	311.3	314.2	314.2	289.5	245.1	214.4	211.5
67.5°	10544.7	4873.6	342.9	274.7	272.7	274.7	281.6	260.9	217.4	192.7	188.7
70°	9713.7	3876.6	274.7	228.3	237.2	232.2	252.0	238.1	195.7	171.0	168.0
72.5°	7926.1	2792.6	209.5	188.7	181.8	189.7	227.3	214.4	163.0	135.4	132.4
75°	4631.5	1490.2	156.1	149.2	131.4	158.1	201.6	182.8	124.5	99.8	96.8
77.5°	1507.9	519.8	114.6	109.7	97.8	127.5	171.9	154.2	101.8	79.1	76.1
80°	404.2	157.1	78.1	72.1	63.2	94.9	136.4	122.5	73.1	51.4	50.4
82.5°	162.1	66.2	45.5	40.5	34.6	65.2	107.7	98.8	54.3	32.6	32.6
85°	52.4	21.7	16.8	12.8	15.8	40.5	64.2	67.2	38.5	16.8	12.8
87.5°	6.9	3.0	3.0	4.0	3.0	6.9	19.8	18.8	10.9	2.0	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)