

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: P965228

Luminaire Tested: **NAV-SB3D-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20604.6 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

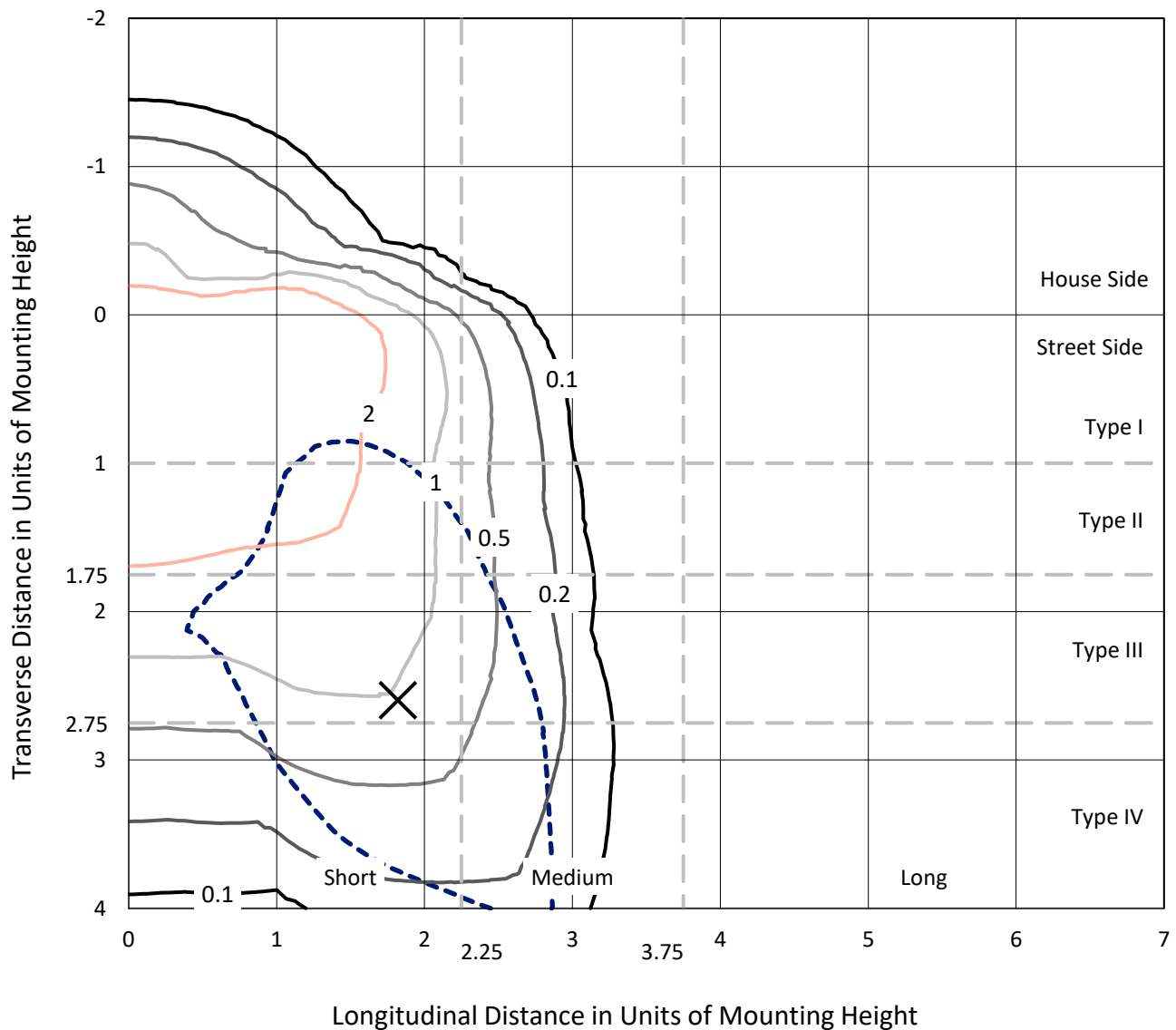
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

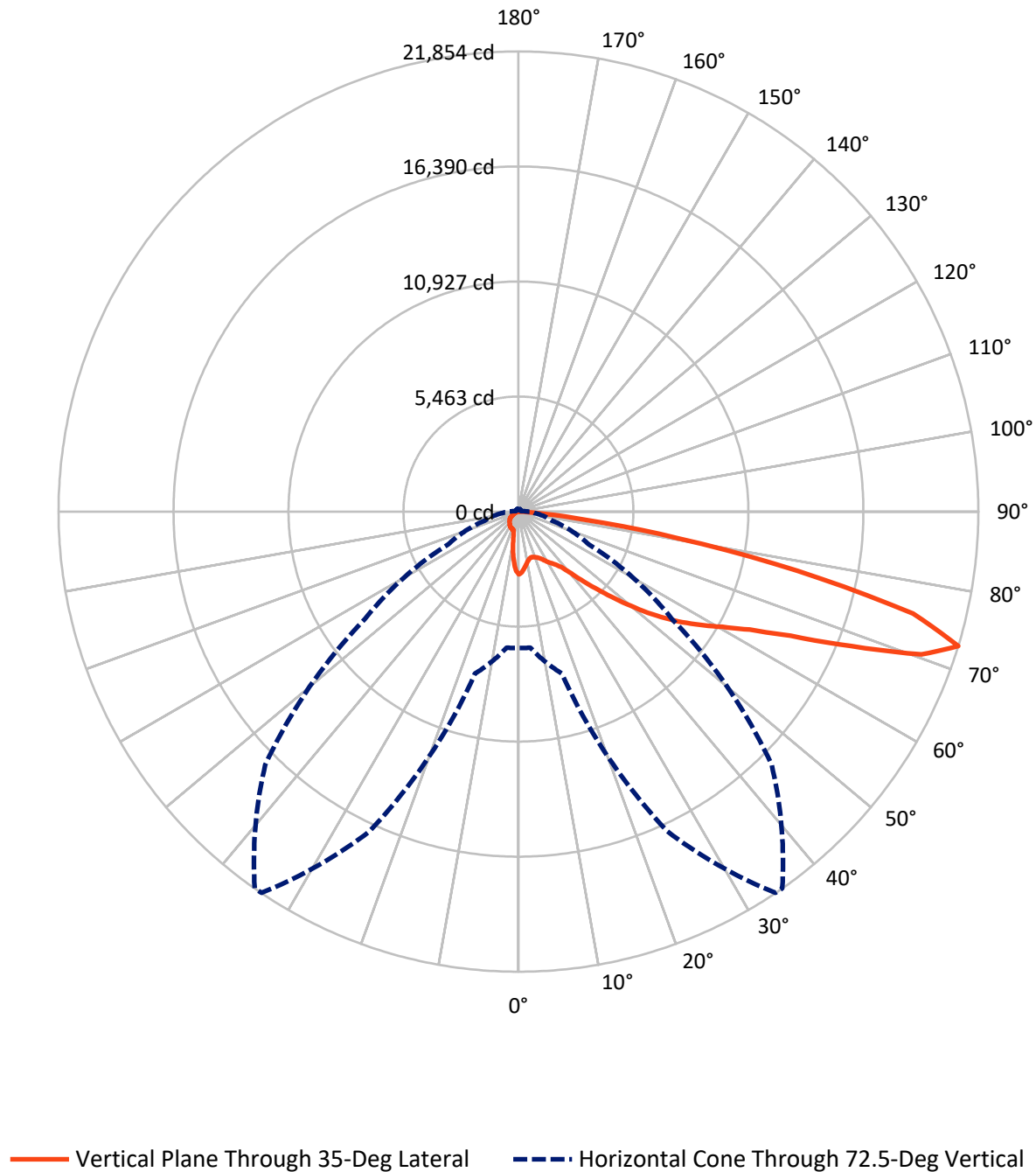
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2319.0	0.0	2319.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	18285.6	0.0	18285.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	20604.6	0.0	20604.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.4	1.2
10°-20°	574.1	2.8
20°-30°	932.6	4.5
30°-40°	1556.0	7.6
40°-50°	2943.9	14.3
50°-60°	4677.9	22.7
60°-70°	5786.9	28.1
70°-80°	3597.2	17.5
80°-90°	290.7	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°	20604.6	100.0
0°-180°	20604.6	100.0

Coefficient of Utilization



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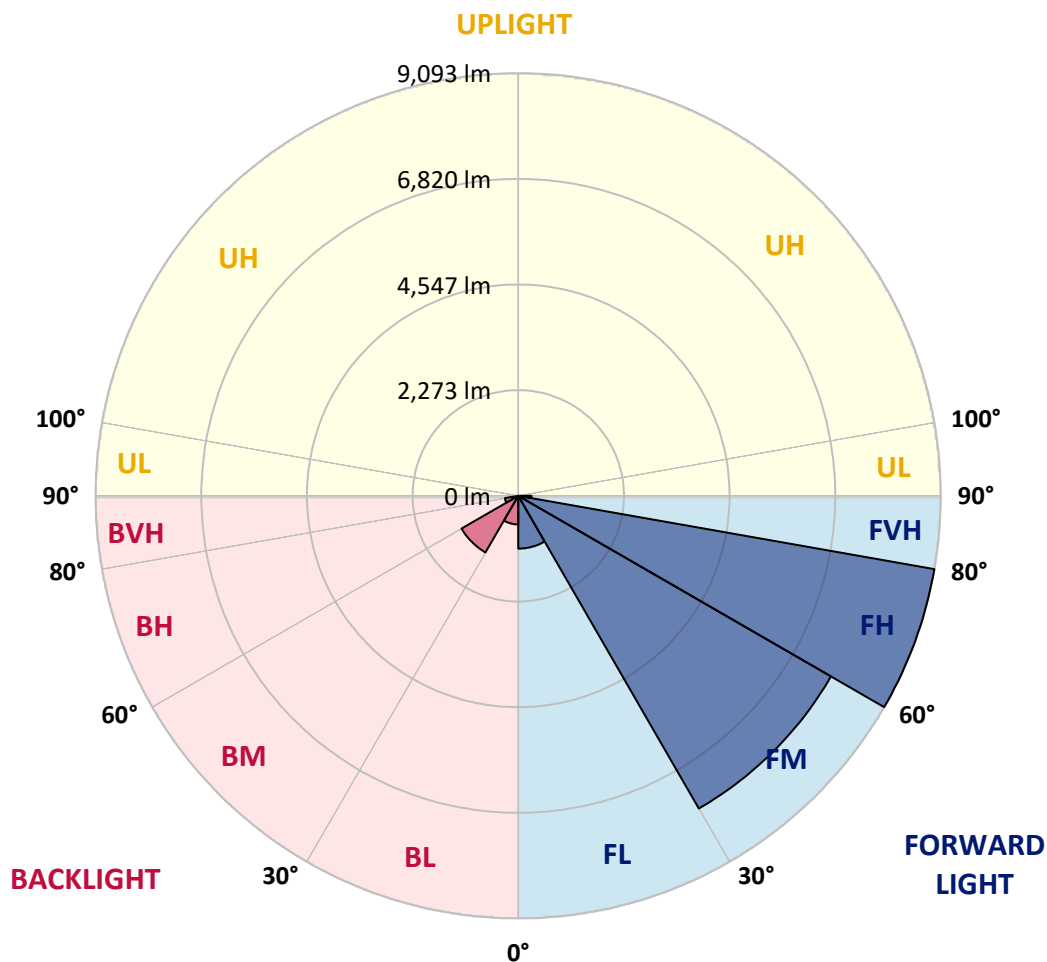
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1135.8	5.5			
FM	(30°-60°)	7770.0	37.7			
FH	(60°-80°)	9093.0	44.1			G4/12000
FVH	(80°-90°)	286.8	1.4			G3/500
BL	(0°-30°)	616.2	3.0	B2/1000		
BM	(30°-60°)	1407.8	6.8	B2/2500		
BH	(60°-80°)	291.0	1.4	B1/500		G1/500
BVH	(80°-90°)	4.0	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°	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3
2.5°	2853.4	2877.6	2882.1	2889.7	2889.7	2898.7	2913.9	2935.0	2969.7	2987.8	2999.9
5°	2629.9	2648.1	2670.7	2688.9	2723.6	2728.1	2787.0	2844.4	2924.4	2984.8	3027.0
7.5°	2405.1	2426.2	2456.4	2500.2	2545.5	2559.0	2648.1	2744.7	2871.5	2984.8	3055.7
10°	2246.5	2248.0	2275.2	2319.0	2391.4	2408.0	2516.8	2654.1	2812.7	2966.7	3082.9
12.5°	2157.4	2168.0	2180.1	2213.3	2282.8	2293.3	2409.6	2571.1	2753.8	2956.1	3114.7
15°	2157.4	2165.0	2172.5	2189.1	2245.0	2254.1	2356.7	2518.2	2723.6	2960.6	3165.9
17.5°	2180.1	2192.2	2186.1	2205.7	2264.6	2270.7	2361.3	2503.2	2722.1	2989.3	3244.4
20°	2234.4	2243.5	2231.4	2243.5	2302.4	2314.4	2408.0	2531.9	2747.7	3039.1	3342.6
22.5°	2320.5	2325.0	2296.3	2305.4	2365.8	2380.9	2489.6	2613.3	2809.6	3119.2	3473.9
25°	2429.1	2438.3	2394.5	2405.1	2462.4	2480.5	2605.9	2735.6	2907.8	3229.4	3641.5
27.5°	2554.5	2559.0	2521.3	2519.8	2593.8	2619.4	2746.3	2886.6	3039.1	3368.3	3852.9
30°	2697.9	2711.5	2675.2	2669.2	2762.9	2784.0	2909.3	3072.3	3232.3	3576.6	4153.3
32.5°	2811.2	2821.7	2800.6	2815.7	2910.8	2927.4	3107.1	3335.0	3535.8	3872.6	4562.5
35°	2974.2	2980.3	2931.9	2959.1	3067.8	3110.1	3377.3	3703.4	3917.9	4243.9	5096.9
37.5°	3564.5	3564.5	3359.2	3224.9	3329.0	3366.7	3747.2	4166.9	4388.8	4742.2	5770.2
40°	4381.3	4367.7	4067.3	3792.5	3778.9	3852.9	4274.1	4751.2	4997.3	5340.0	6528.1
42.5°	5252.4	5231.3	4822.1	4550.4	4505.1	4530.8	4882.6	5471.3	5722.0	6069.2	7343.4
45°	6025.5	6019.4	5645.0	5279.6	5198.1	5279.6	5641.9	6313.8	6493.5	6858.8	8157.2
47.5°	6673.1	6673.1	6399.8	6161.3	6119.0	6167.3	6670.1	7248.3	7231.7	7699.7	8949.8
50°	7418.9	7412.9	7153.2	7050.6	7094.3	7162.3	7853.8	8232.7	7995.6	8525.5	9657.9
52.5°	7941.3	7977.6	7888.5	7871.9	8095.2	8213.0	9055.5	9195.9	8679.6	9309.2	10187.8
55°	8355.0	8397.2	8499.9	8616.2	9046.4	9200.4	10219.6	10109.3	9251.8	9988.5	10492.8
57.5°	8940.8	8880.4	9038.9	9268.4	9964.3	10150.1	11347.3	10971.4	9712.3	10539.6	10526.0
60°	9651.8	9660.9	9688.1	9978.0	10880.8	11119.3	12458.5	11786.7	10008.1	10877.8	10157.6
62.5°	10506.4	10520.0	10575.8	11021.2	12111.2	12336.2	13642.1	12454.0	10144.0	10782.7	9206.4
65°	10447.5	10504.8	11128.4	12651.7	13981.8	14203.7	15023.5	12922.0	9938.7	9913.1	7495.9
67.5°	9517.4	9611.1	10654.4	14599.3	16802.0	17049.6	16693.4	13014.0	9052.5	7708.8	4890.1
70°	8297.6	8330.8	9585.4	16350.6	20067.7	20318.3	18188.0	12001.0	6869.3	4299.8	2190.6
72.5°	6479.8	6487.4	7959.4	16756.7	21840.1	21853.6	17014.9	8909.1	3694.4	1651.7	761.0
75°	4628.9	4583.6	5330.9	13589.2	19214.6	19368.6	12755.9	4179.0	1411.6	780.5	378.9
77.5°	2482.0	2531.9	3016.5	8059.1	13273.7	13536.5	6960.0	1204.8	718.6	531.5	250.6
80°	766.9	809.2	1236.5	3689.8	7518.6	7677.0	2580.1	536.0	501.2	378.9	164.5
82.5°	241.6	250.6	576.8	1550.5	3120.6	3193.1	747.3	303.5	342.8	250.6	96.7
85°	69.5	70.9	256.7	578.2	771.5	786.6	209.8	117.8	196.3	155.5	49.8
87.5°	7.6	24.2	96.7	96.7	68.0	66.4	22.7	25.6	55.9	19.6	9.0
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°	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3	2986.3
2.5°	2992.3	2993.8	2974.2	2941.0	2904.7	2874.6	2836.8	2806.7	2785.5	2779.5	2790.0
5°	3013.5	3002.9	2947.1	2845.9	2725.1	2620.9	2504.7	2412.5	2352.2	2326.5	2335.6
7.5°	3045.2	3014.9	2892.7	2693.4	2462.4	2257.0	2048.8	1887.2	1784.5	1733.2	1740.8
10°	3072.3	3012.0	2802.1	2473.0	2119.7	1808.7	1527.9	1333.1	1224.4	1173.1	1174.5
12.5°	3098.1	3010.4	2684.4	2211.7	1733.2	1352.7	1091.5	995.0	964.7	954.2	951.1
15°	3146.3	3014.9	2536.4	1912.9	1348.2	1022.1	927.0	925.5	931.5	928.5	927.0
17.5°	3212.8	3019.5	2368.8	1595.8	1040.2	901.3	896.8	910.4	919.4	914.9	913.4
20°	3298.9	3037.6	2190.6	1281.8	893.8	871.1	881.7	893.8	901.3	893.8	892.3
22.5°	3419.6	3069.4	1995.9	1029.6	847.0	853.0	862.0	875.7	883.2	872.7	871.1
25°	3567.5	3119.2	1804.2	895.2	824.3	831.9	845.4	860.6	869.6	859.1	857.5
27.5°	3759.3	3199.1	1627.5	865.1	801.7	806.2	825.8	848.5	860.6	847.0	847.0
30°	4037.1	3330.5	1475.1	878.6	788.1	777.6	804.7	836.4	850.0	837.9	836.4
32.5°	4405.4	3516.3	1381.4	899.8	782.1	744.4	770.0	810.8	833.4	825.8	825.8
35°	4888.5	3798.5	1345.2	923.9	777.6	709.6	727.7	771.5	810.8	818.3	818.3
37.5°	5474.3	4191.1	1355.8	934.5	763.9	680.9	689.9	727.7	779.0	803.2	809.2
40°	6140.2	4648.5	1416.1	923.9	748.9	656.7	658.3	687.0	732.3	768.4	780.5
42.5°	6827.1	5183.0	1527.9	884.7	735.2	635.6	631.1	650.7	680.9	706.5	717.1
45°	7480.9	5732.5	1638.1	830.4	718.6	614.5	603.9	611.4	617.5	628.0	634.1
47.5°	8051.5	6119.0	1606.4	780.5	696.0	590.3	572.2	569.2	551.0	549.5	548.1
50°	8445.6	6203.6	1426.7	730.7	662.8	563.1	534.4	516.3	484.6	469.6	471.1
52.5°	8570.8	5869.9	1165.5	680.9	608.4	527.0	486.2	457.5	418.2	404.6	403.1
55°	8404.8	5216.2	931.5	620.5	532.9	478.6	433.3	395.5	363.9	347.3	347.3
57.5°	7998.7	4384.3	736.8	549.5	452.9	424.2	378.9	341.2	314.1	297.5	294.4
60°	7325.4	3481.5	582.8	465.0	386.5	365.3	318.6	294.4	270.3	250.6	246.1
62.5°	6303.2	2485.0	457.5	368.4	323.1	298.9	271.7	253.7	225.0	197.8	193.2
65°	4918.8	1520.3	353.3	270.3	259.6	247.6	231.0	214.4	179.7	152.5	147.9
67.5°	3102.6	720.2	252.2	203.8	205.3	199.3	191.8	178.1	152.5	128.3	125.4
70°	1366.3	348.7	166.0	155.5	152.5	152.5	158.6	154.0	129.9	107.2	102.7
72.5°	465.0	187.2	123.8	117.8	110.2	108.8	132.8	128.3	104.1	83.0	78.5
75°	243.0	125.4	90.6	84.6	66.4	80.1	105.7	99.6	74.0	54.3	49.8
77.5°	158.6	89.1	61.9	54.3	37.7	52.9	78.5	69.5	43.8	27.2	24.2
80°	99.6	58.8	36.3	25.6	18.1	28.7	42.2	30.2	16.6	6.0	4.5
82.5°	52.9	30.2	13.6	9.0	7.6	9.0	10.6	7.6	3.0	0.0	0.0
85°	21.1	10.6	4.5	3.0	1.5	0.0	3.0	1.5	0.0	0.0	0.0
87.5°	7.6	1.5	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)