

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: P966809

Luminaire Tested: **NAV-SB4C-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966809
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-SB4C-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA 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: 20255 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

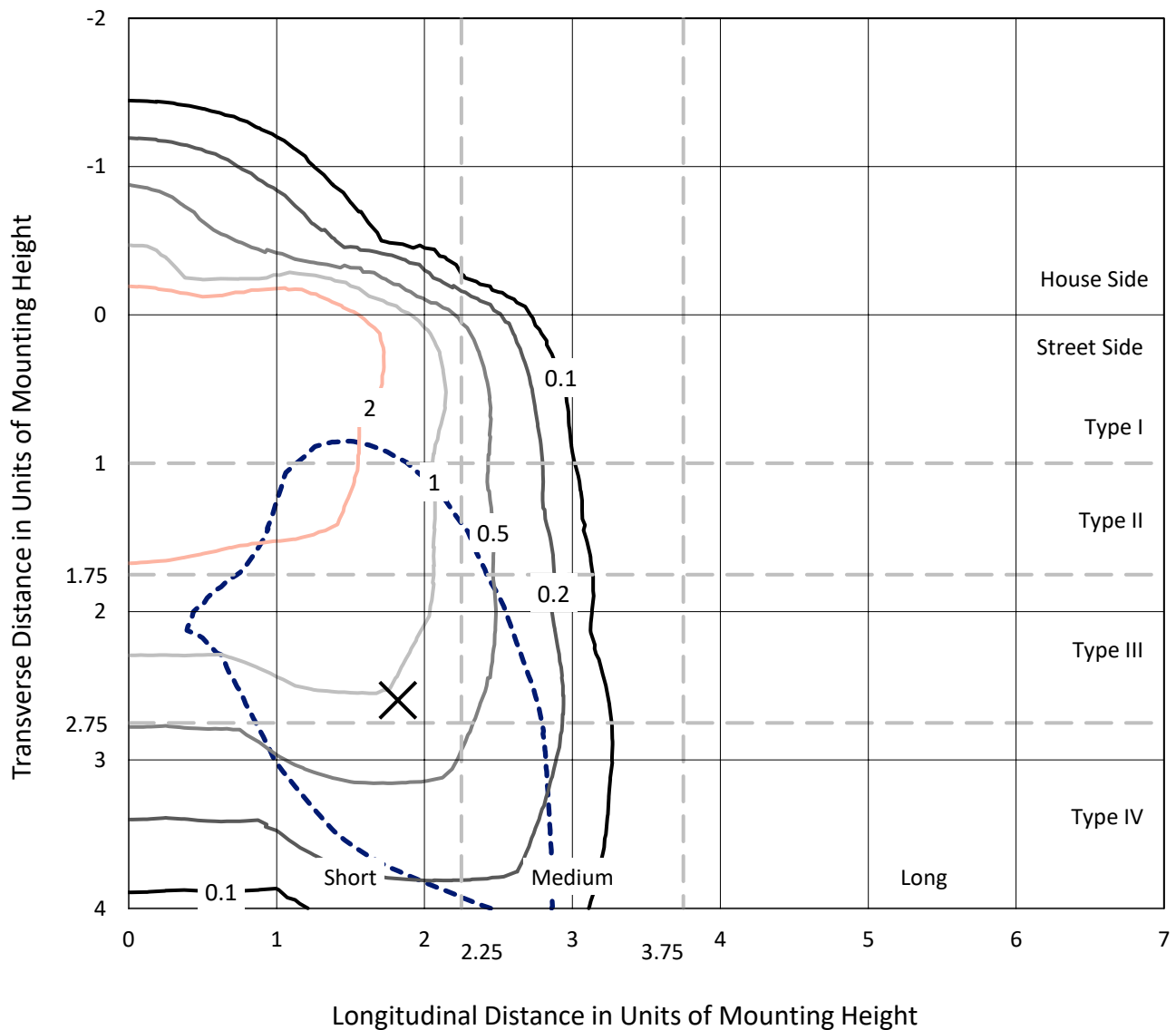
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

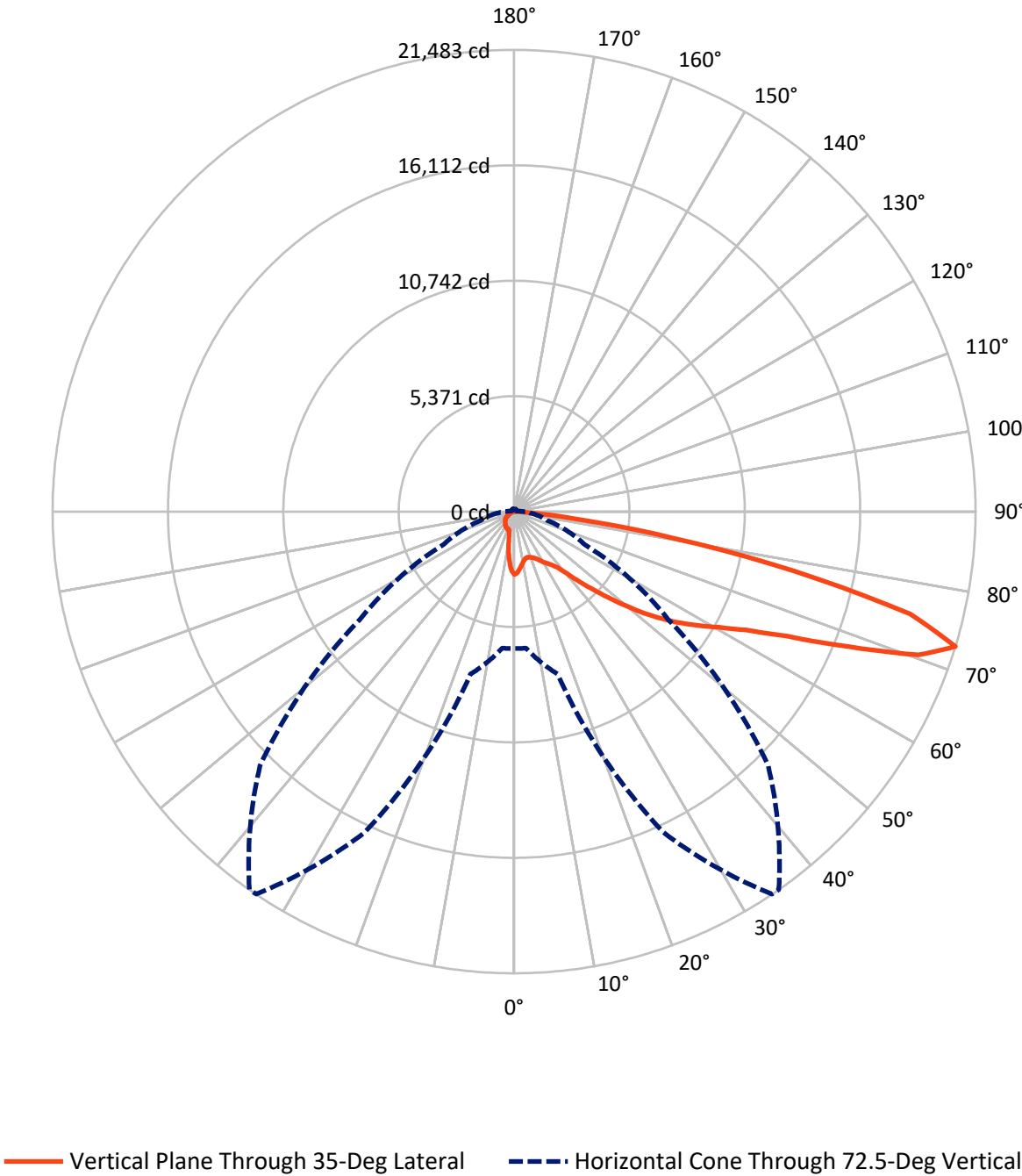
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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	2279.6	0.0	2279.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	17975.4	0.0	17975.4
	% Fixture	88.7	0.0	88.7
Total	Lumens	20255.0	0.0	20255.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.2	1.2
10°-20°	564.3	2.8
20°-30°	916.7	4.5
30°-40°	1529.6	7.6
40°-50°	2894.0	14.3
50°-60°	4598.5	22.7
60°-70°	5688.7	28.1
70°-80°	3536.1	17.5
80°-90°	285.8	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°	20255.0	100.0
0°-180°	20255.0	100.0

Coefficient of Utilization



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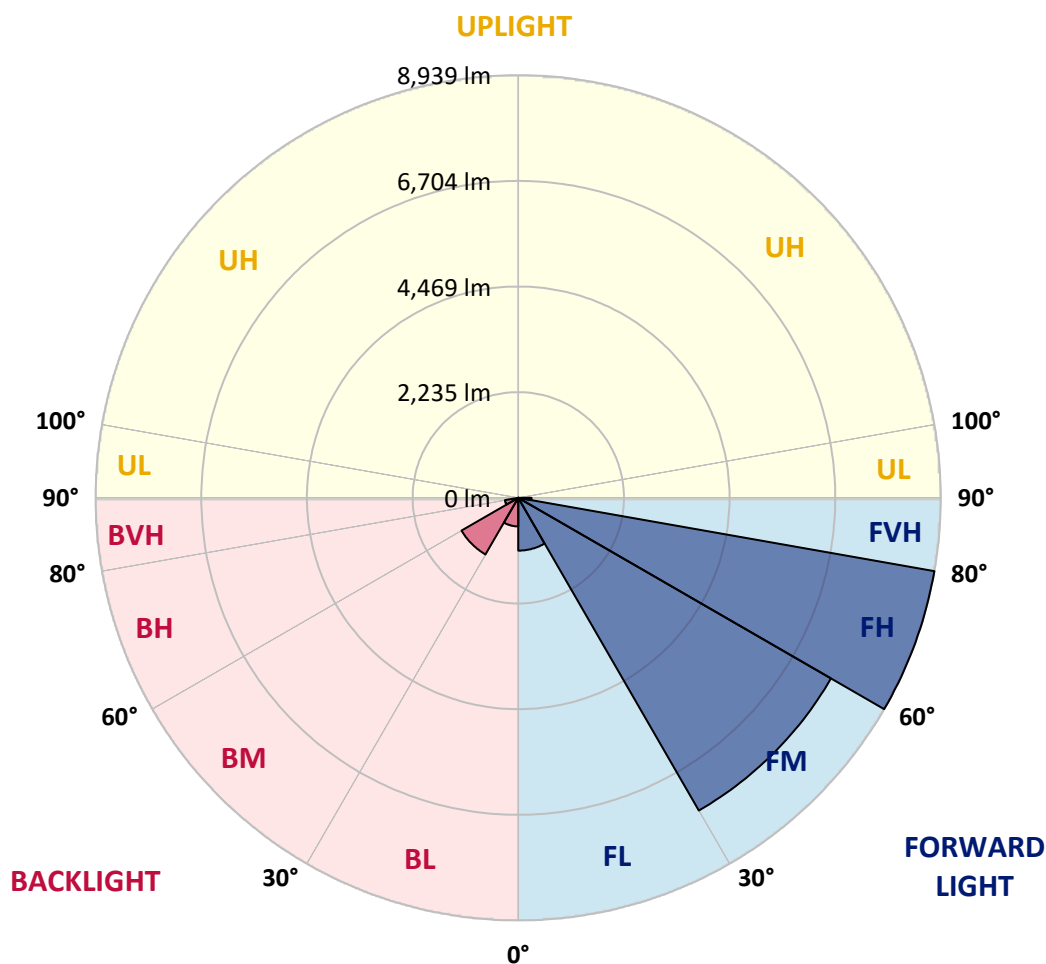
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1116.6	5.5			
FM	(30°-60°)	7638.2	37.7			
FH	(60°-80°)	8938.8	44.1			G4/12000
FVH	(80°-90°)	281.9	1.4			G3/500
BL	(0°-30°)	605.7	3.0	B2/1000		
BM	(30°-60°)	1383.9	6.8	B2/2500		
BH	(60°-80°)	286.1	1.4	B1/500		G1/500
BVH	(80°-90°)	3.9	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°	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6
2.5°	2805.0	2828.8	2833.2	2840.7	2840.7	2849.6	2864.4	2885.2	2919.3	2937.1	2949.0
5°	2585.4	2603.2	2625.4	2643.3	2677.4	2681.8	2739.7	2796.1	2874.8	2934.2	2975.7
7.5°	2364.3	2385.0	2414.7	2457.7	2502.2	2515.7	2603.2	2698.2	2822.8	2934.2	3003.9
10°	2208.4	2209.9	2236.7	2279.6	2350.8	2367.2	2474.0	2609.1	2764.9	2916.3	3030.6
12.5°	2120.8	2131.2	2143.1	2175.8	2244.0	2254.4	2368.7	2527.4	2707.0	2906.0	3061.8
15°	2120.8	2128.3	2135.7	2152.0	2206.9	2215.8	2316.7	2475.6	2677.4	2910.4	3112.2
17.5°	2143.1	2155.0	2149.0	2168.3	2226.2	2232.1	2321.2	2460.7	2675.9	2938.6	3189.4
20°	2196.6	2205.4	2193.6	2205.4	2263.3	2275.2	2367.2	2488.9	2701.2	2987.6	3285.8
22.5°	2281.1	2285.5	2257.4	2266.3	2325.6	2340.5	2447.4	2569.1	2762.0	3066.3	3415.0
25°	2387.9	2396.9	2353.8	2364.3	2420.6	2438.5	2561.6	2689.3	2858.4	3174.6	3579.7
27.5°	2511.1	2515.7	2478.6	2477.0	2549.8	2575.0	2699.6	2837.7	2987.6	3311.2	3787.6
30°	2652.2	2665.5	2629.9	2624.0	2715.9	2736.7	2860.0	3020.3	3177.5	3516.0	4082.9
32.5°	2763.5	2773.9	2753.0	2767.9	2861.4	2877.8	3054.4	3278.5	3475.9	3806.8	4485.1
35°	2923.7	2929.7	2882.2	2909.0	3015.8	3057.4	3320.0	3640.6	3851.3	4172.0	5010.5
37.5°	3504.1	3504.1	3302.2	3170.1	3272.5	3309.6	3683.6	4096.2	4314.4	4661.7	5672.3
40°	4306.9	4293.6	3998.3	3728.1	3714.8	3787.6	4201.6	4670.6	4912.5	5249.4	6417.4
42.5°	5163.3	5142.5	4740.3	4473.2	4428.7	4453.9	4799.7	5378.5	5624.9	5966.2	7218.9
45°	5923.2	5917.2	5549.2	5190.1	5109.9	5190.1	5546.3	6206.7	6383.3	6742.4	8018.8
47.5°	6559.9	6559.9	6291.2	6056.8	6015.2	6062.7	6556.9	7125.4	7109.0	7569.1	8798.0
50°	7293.1	7287.1	7031.9	6930.9	6974.0	7040.7	7720.5	8093.0	7860.0	8380.9	9494.1
52.5°	7806.6	7842.2	7754.6	7738.3	7958.0	8073.7	8901.9	9039.9	8532.3	9151.2	10015.0
55°	8213.2	8254.8	8355.7	8470.0	8893.0	9044.4	10046.1	9937.8	9094.8	9819.1	10314.8
57.5°	8789.1	8729.7	8885.5	9111.1	9795.3	9977.9	11154.8	10785.3	9547.5	10360.8	10347.5
60°	9488.1	9497.0	9523.8	9808.7	10696.2	10930.7	12247.1	11586.7	9838.4	10693.2	9985.3
62.5°	10328.1	10341.5	10396.4	10834.2	11905.8	12126.9	13410.7	12242.7	9971.9	10599.7	9050.3
65°	10270.3	10326.7	10939.6	12437.1	13744.6	13962.8	14768.7	12702.7	9770.1	9744.9	7368.7
67.5°	9356.0	9448.0	10473.6	14351.6	16517.1	16760.4	16410.1	12793.3	8898.9	7578.0	4807.1
70°	8156.8	8189.5	9422.8	16073.2	19727.3	19973.6	17879.5	11797.4	6752.8	4226.8	2153.5
72.5°	6370.0	6377.3	7824.4	16472.5	21469.5	21483.0	16726.3	8757.9	3631.7	1623.6	748.0
75°	4550.4	4505.9	5240.5	13358.7	18888.7	19040.1	12539.5	4108.1	1387.6	767.3	372.5
77.5°	2439.9	2488.9	2965.3	7922.3	13048.6	13306.9	6841.9	1184.4	706.4	522.4	246.4
80°	754.0	795.5	1215.5	3627.3	7391.1	7546.9	2536.4	526.8	492.7	372.5	161.7
82.5°	237.5	246.4	566.9	1524.2	3067.7	3139.0	734.6	298.3	336.9	246.4	95.0
85°	68.3	69.8	252.4	568.5	758.4	773.3	206.3	115.7	192.9	152.8	49.0
87.5°	7.4	23.8	95.0	95.0	66.8	65.3	22.2	25.2	54.9	19.3	8.9
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°	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6	2935.6
2.5°	2941.5	2943.1	2923.7	2891.1	2855.4	2825.8	2788.7	2759.0	2738.3	2732.3	2742.7
5°	2962.4	2952.0	2897.1	2797.6	2678.8	2576.4	2462.2	2371.6	2312.3	2287.1	2296.0
7.5°	2993.5	2963.8	2843.7	2647.7	2420.6	2218.8	2014.0	1855.1	1754.3	1703.8	1711.2
10°	3020.3	2960.8	2754.6	2431.0	2083.7	1778.0	1501.9	1310.5	1203.7	1153.2	1154.7
12.5°	3045.5	2959.4	2638.8	2174.2	1703.8	1329.8	1073.1	978.1	948.3	938.0	935.0
15°	3092.9	2963.8	2493.3	1880.4	1325.3	1004.8	911.2	909.8	915.7	912.8	911.2
17.5°	3158.2	2968.3	2328.6	1568.8	1022.5	886.0	881.6	894.9	903.8	899.4	897.9
20°	3242.9	2986.1	2153.5	1260.0	878.6	856.4	866.7	878.6	886.0	878.6	877.1
22.5°	3361.6	3017.3	1962.1	1012.2	832.6	838.6	847.5	860.8	868.2	857.8	856.4
25°	3507.0	3066.3	1773.6	880.1	810.4	817.7	831.1	845.9	854.8	844.5	843.0
27.5°	3695.5	3144.9	1599.9	850.4	788.1	792.5	811.8	834.0	845.9	832.6	832.6
30°	3968.6	3274.1	1450.0	863.8	774.7	764.3	791.1	822.3	835.6	823.7	822.3
32.5°	4330.7	3456.6	1358.0	884.6	768.7	731.6	757.0	796.9	819.3	811.8	811.8
35°	4805.6	3734.1	1322.4	908.3	764.3	697.5	715.3	758.4	796.9	804.4	804.4
37.5°	5381.5	4120.0	1332.8	918.7	751.0	669.3	678.2	715.3	765.8	789.6	795.5
40°	6036.0	4569.7	1392.2	908.3	736.2	645.6	647.1	675.3	719.9	755.4	767.3
42.5°	6711.3	5095.1	1501.9	869.7	722.7	624.8	620.3	639.7	669.3	694.5	705.0
45°	7354.0	5635.2	1610.3	816.3	706.4	604.0	593.7	601.1	607.0	617.4	623.3
47.5°	7914.9	6015.2	1579.1	767.3	684.2	580.3	562.5	559.5	541.7	540.3	538.7
50°	8302.3	6098.3	1402.5	718.3	651.5	553.6	525.4	507.6	476.4	461.6	463.1
52.5°	8425.5	5770.3	1145.7	669.3	598.1	517.9	477.9	449.7	411.1	397.7	396.3
55°	8262.2	5127.7	915.7	610.0	523.9	470.5	426.0	388.9	357.7	341.3	341.3
57.5°	7863.0	4309.9	724.3	540.3	445.3	417.1	372.5	335.4	308.7	292.3	289.4
60°	7201.0	3422.5	572.9	457.2	380.0	359.2	313.1	289.4	265.7	246.4	241.9
62.5°	6196.3	2442.9	449.7	362.1	317.6	293.9	267.1	249.4	221.1	194.4	189.9
65°	4835.3	1494.6	347.3	265.7	255.2	243.4	227.0	210.7	176.6	149.9	145.4
67.5°	3049.9	708.0	247.8	200.4	201.8	195.9	188.5	175.2	149.9	126.2	123.2
70°	1343.2	342.9	163.3	152.8	149.9	149.9	155.8	151.4	127.6	105.4	101.0
72.5°	457.2	184.0	121.7	115.7	108.3	106.9	130.6	126.2	102.4	81.6	77.2
75°	238.9	123.2	89.1	83.1	65.3	78.6	103.9	98.0	72.7	53.4	49.0
77.5°	155.8	87.5	60.9	53.4	37.1	52.0	77.2	68.3	43.0	26.8	23.8
80°	98.0	57.9	35.7	25.2	17.8	28.2	41.5	29.7	16.3	5.9	4.4
82.5°	52.0	29.7	13.3	8.9	7.4	8.9	10.4	7.4	3.0	0.0	0.0
85°	20.8	10.4	4.4	3.0	1.4	0.0	3.0	1.4	0.0	0.0	0.0
87.5°	7.4	1.4	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)