

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: P968452

Luminaire Tested: **NAV-SB5B-835-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968452
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-SB5B-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA 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: 20475.4 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 182.7
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



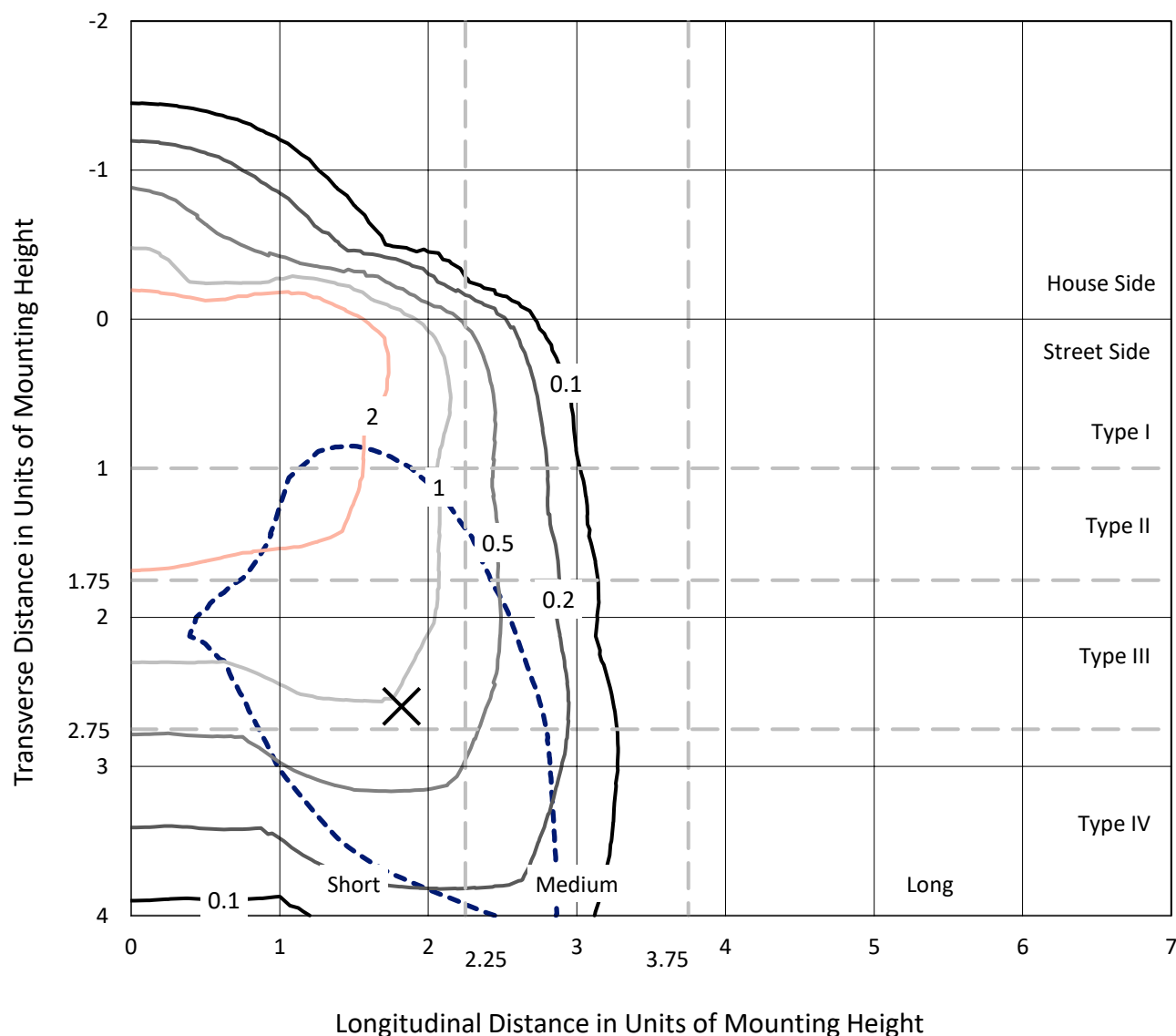
REPORT NUMBER: P968452

CATALOG NUMBER: NAV-SB5B-835-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

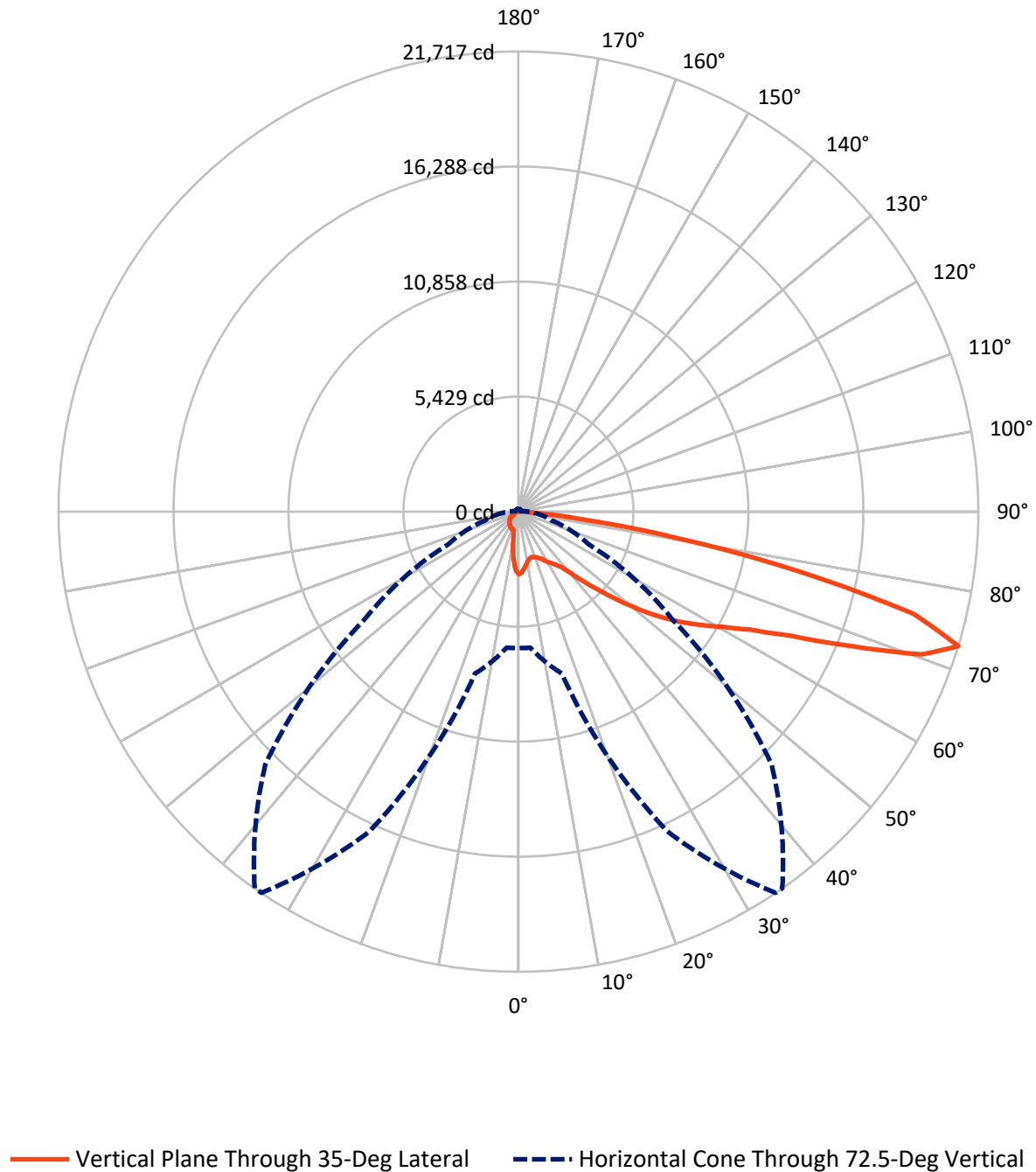


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc

Type IV - Short - N/A

REPORT NUMBER: P968452
CATALOG NUMBER: NAV-SB5B-835-U-T4FT-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2304.4	0.0	2304.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	18171.0	0.0	18171.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	20475.4	0.0	20475.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.9	1.2
10°-20°	570.5	2.8
20°-30°	926.7	4.5
30°-40°	1546.2	7.6
40°-50°	2925.5	14.3
50°-60°	4648.6	22.7
60°-70°	5750.6	28.1
70°-80°	3574.6	17.5
80°-90°	288.9	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°	20475.4	100.0
0°-180°	20475.4	100.0

Coefficient of Utilization



REPORT NUMBER: P968452

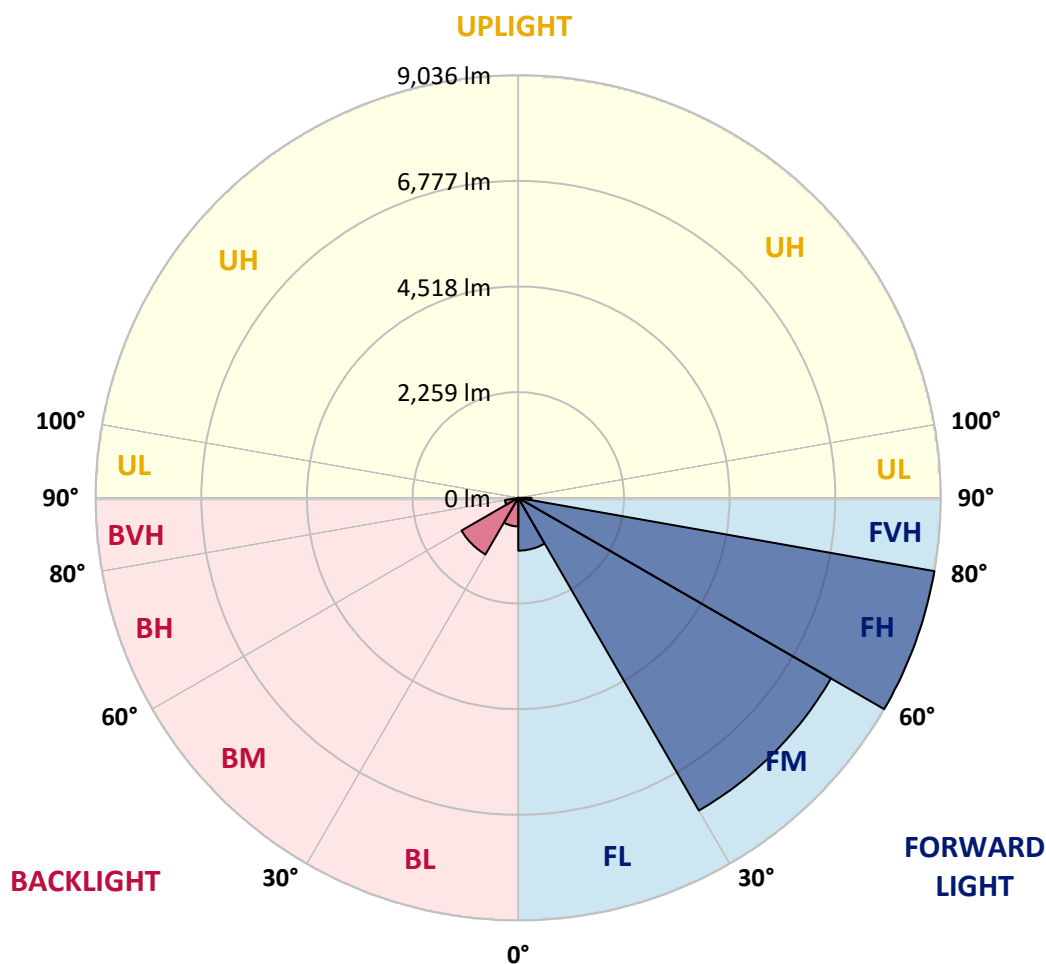
CATALOG NUMBER: NAV-SB5B-835-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1128.7	5.5			
FM	(30°-60°)	7721.3	37.7			
FH	(60°-80°)	9036.0	44.1			G4/12000
FVH	(80°-90°)	285.0	1.4			G3/500
BL	(0°-30°)	612.3	3.0	B2/1000		
BM	(30°-60°)	1399.0	6.8	B2/2500		
BH	(60°-80°)	289.2	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



REPORT NUMBER: P968452

CATALOG NUMBER: NAV-SB5B-835-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6
2.5°	2835.6	2859.5	2864.1	2871.5	2871.5	2880.6	2895.5	2916.5	2951.1	2969.1	2981.1
5°	2613.5	2631.5	2654.0	2672.0	2706.5	2711.0	2769.5	2826.5	2906.1	2966.0	3008.1
7.5°	2390.0	2411.0	2440.9	2484.5	2529.5	2543.0	2631.5	2727.5	2853.6	2966.0	3036.6
10°	2232.4	2233.9	2260.9	2304.4	2376.5	2393.0	2501.0	2637.5	2795.1	2948.1	3063.6
12.5°	2143.9	2154.4	2166.4	2199.4	2268.4	2279.0	2394.5	2555.0	2736.5	2937.5	3095.1
15°	2143.9	2151.4	2159.0	2175.5	2230.9	2239.9	2341.9	2502.4	2706.5	2942.1	3146.1
17.5°	2166.4	2178.4	2172.4	2192.0	2250.4	2256.4	2346.4	2487.5	2705.0	2970.6	3224.1
20°	2220.5	2229.5	2217.4	2229.5	2287.9	2299.9	2393.0	2516.0	2730.5	3020.1	3321.6
22.5°	2305.9	2310.5	2282.0	2291.0	2350.9	2365.9	2473.9	2597.0	2792.0	3099.6	3452.2
25°	2414.0	2423.0	2379.4	2390.0	2447.0	2465.0	2589.5	2718.5	2889.6	3209.1	3618.7
27.5°	2538.5	2543.0	2505.5	2504.0	2577.5	2603.0	2729.1	2868.6	3020.1	3347.1	3828.8
30°	2681.0	2694.5	2658.5	2652.5	2745.6	2766.6	2891.0	3053.1	3212.1	3554.2	4127.3
32.5°	2793.5	2804.0	2783.1	2798.0	2892.5	2909.1	3087.6	3314.1	3513.7	3848.3	4533.9
35°	2955.6	2961.5	2913.6	2940.5	3048.6	3090.6	3356.2	3680.2	3893.3	4217.4	5064.9
37.5°	3542.2	3542.2	3338.1	3204.7	3308.2	3345.6	3723.7	4140.8	4361.4	4712.4	5734.1
40°	4353.8	4340.4	4041.8	3768.7	3755.2	3828.8	4247.3	4721.5	4965.9	5306.5	6487.2
42.5°	5219.5	5198.5	4791.9	4521.9	4476.9	4502.4	4851.9	5437.0	5686.1	6031.2	7297.4
45°	5987.6	5981.7	5609.6	5246.5	5165.5	5246.5	5606.5	6274.2	6452.8	6815.8	8106.1
47.5°	6631.2	6631.2	6359.7	6122.6	6080.7	6128.7	6628.3	7202.9	7186.4	7651.5	8893.7
50°	7372.4	7366.5	7108.4	7006.4	7049.8	7117.4	7804.6	8181.0	7945.5	8472.1	9597.4
52.5°	7891.5	7927.6	7839.0	7822.5	8044.5	8161.6	8998.8	9138.3	8625.2	9250.8	10123.9
55°	8302.6	8344.6	8446.6	8562.1	8989.8	9142.8	10155.5	10045.9	9193.7	9925.9	10427.0
57.5°	8884.7	8824.7	8982.3	9210.2	9901.9	10086.4	11276.1	10902.6	9651.4	10473.6	10460.0
60°	9591.3	9600.4	9627.3	9915.4	10812.6	11049.6	12380.4	11712.8	9945.4	10809.5	10094.0
62.5°	10440.5	10454.0	10509.5	10952.1	12035.3	12258.9	13556.6	12375.8	10080.5	10715.0	9148.7
65°	10382.0	10439.0	11058.6	12572.4	13894.2	14114.8	14929.3	12841.0	9876.4	9850.9	7449.0
67.5°	9457.8	9550.8	10587.5	14507.7	16696.7	16942.7	16588.7	12932.5	8995.7	7660.4	4859.4
70°	8245.6	8278.6	9525.3	16248.1	19941.9	20190.9	18074.0	11925.8	6826.3	4272.8	2176.9
72.5°	6439.3	6446.7	7909.5	16651.7	21703.1	21716.7	16908.3	8853.2	3671.2	1641.3	756.1
75°	4599.9	4554.9	5297.5	13504.1	19094.2	19247.2	12676.0	4152.8	1402.8	775.6	376.6
77.5°	2466.5	2516.0	2997.6	8008.5	13190.5	13451.6	6916.3	1197.2	714.1	528.1	249.1
80°	762.2	804.1	1228.8	3666.7	7471.4	7629.0	2564.0	532.6	498.0	376.6	163.5
82.5°	240.1	249.1	573.1	1540.8	3101.1	3173.1	742.6	301.6	340.6	249.1	96.0
85°	69.0	70.5	255.0	574.6	766.6	781.7	208.6	117.1	195.1	154.6	49.5
87.5°	7.5	24.0	96.0	96.0	67.5	66.0	22.5	25.5	55.6	19.5	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

REPORT NUMBER: P968452

CATALOG NUMBER: NAV-SB5B-835-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6
2.5°	2973.5	2975.1	2955.6	2922.6	2886.6	2856.6	2819.1	2789.0	2768.0	2762.1	2772.5
5°	2994.5	2984.1	2928.5	2828.1	2708.0	2604.5	2489.0	2397.5	2337.4	2312.0	2320.9
7.5°	3026.1	2996.1	2874.5	2676.5	2447.0	2242.9	2035.9	1875.3	1773.4	1722.3	1729.8
10°	3053.1	2993.1	2784.5	2457.4	2106.4	1797.3	1518.3	1324.7	1216.8	1165.7	1167.3
12.5°	3078.6	2991.6	2667.6	2197.9	1722.3	1344.3	1084.8	988.7	958.7	948.2	945.2
15°	3126.6	2996.1	2520.5	1900.9	1339.8	1015.7	921.2	919.6	925.7	922.7	921.2
17.5°	3192.6	3000.6	2353.9	1585.8	1033.7	895.6	891.1	904.7	913.7	909.2	907.6
20°	3278.2	3018.6	2176.9	1273.8	888.2	865.7	876.2	888.2	895.6	888.2	886.6
22.5°	3398.2	3050.1	1983.4	1023.2	841.6	847.7	856.7	870.1	877.7	867.2	865.7
25°	3545.2	3099.6	1792.8	889.7	819.2	826.7	840.2	855.2	864.2	853.6	852.2
27.5°	3735.7	3179.1	1617.3	859.7	796.6	801.1	820.6	843.2	855.2	841.6	841.6
30°	4011.7	3309.6	1465.7	873.2	783.1	772.6	799.7	831.2	844.7	832.7	831.2
32.5°	4377.9	3494.1	1372.8	894.2	777.2	739.6	765.2	805.6	828.2	820.6	820.6
35°	4858.0	3774.8	1336.8	918.2	772.6	705.1	723.1	766.6	805.6	813.1	813.1
37.5°	5440.1	4164.8	1347.3	928.6	759.1	676.6	685.6	723.1	774.2	798.2	804.1
40°	6101.7	4619.4	1407.2	918.2	744.2	652.6	654.2	682.6	727.6	763.6	775.6
42.5°	6784.3	5150.5	1518.3	879.1	730.6	631.6	627.1	646.7	676.6	702.1	712.7
45°	7433.9	5696.6	1627.8	825.1	714.1	610.6	600.1	607.6	613.7	624.1	630.2
47.5°	8001.0	6080.7	1596.3	775.6	691.7	586.6	568.6	565.6	547.6	546.1	544.6
50°	8392.6	6164.7	1417.8	726.1	658.7	559.6	531.1	513.1	481.5	466.6	468.1
52.5°	8517.1	5833.2	1158.2	676.6	604.6	523.6	483.1	454.6	415.5	402.1	400.6
55°	8352.1	5183.5	925.7	616.6	529.6	475.6	430.6	393.1	361.6	345.1	345.1
57.5°	7948.6	4356.9	732.2	546.1	450.1	421.6	376.6	339.1	312.0	295.5	292.5
60°	7279.4	3459.7	579.1	462.1	384.1	363.1	316.5	292.5	268.5	249.1	244.6
62.5°	6263.7	2469.4	454.6	366.0	321.0	297.0	270.1	252.0	223.6	196.5	192.1
65°	4887.9	1510.7	351.1	268.5	258.1	246.0	229.5	213.0	178.6	151.5	147.0
67.5°	3083.1	715.7	250.5	202.5	204.1	198.0	190.5	177.0	151.5	127.5	124.5
70°	1357.7	346.6	165.0	154.6	151.5	151.5	157.5	153.0	129.0	106.5	102.0
72.5°	462.1	186.0	123.0	117.1	109.5	108.0	132.0	127.5	103.5	82.5	78.0
75°	241.6	124.5	90.0	84.0	66.0	79.5	105.1	99.0	73.5	54.0	49.5
77.5°	157.5	88.6	61.5	54.0	37.5	52.5	78.0	69.0	43.5	27.0	24.0
80°	99.0	58.5	36.0	25.5	18.0	28.5	42.0	30.0	16.5	6.0	4.5
82.5°	52.5	30.0	13.5	9.0	7.5	9.0	10.5	7.5	3.0	0.0	0.0
85°	21.0	10.5	4.5	3.0	1.5	0.0	3.0	1.5	0.0	0.0	0.0
87.5°	7.5	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)