

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: P966345

Luminaire Tested: **NAV-SB4B-835-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966345
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21206.2 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 147
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

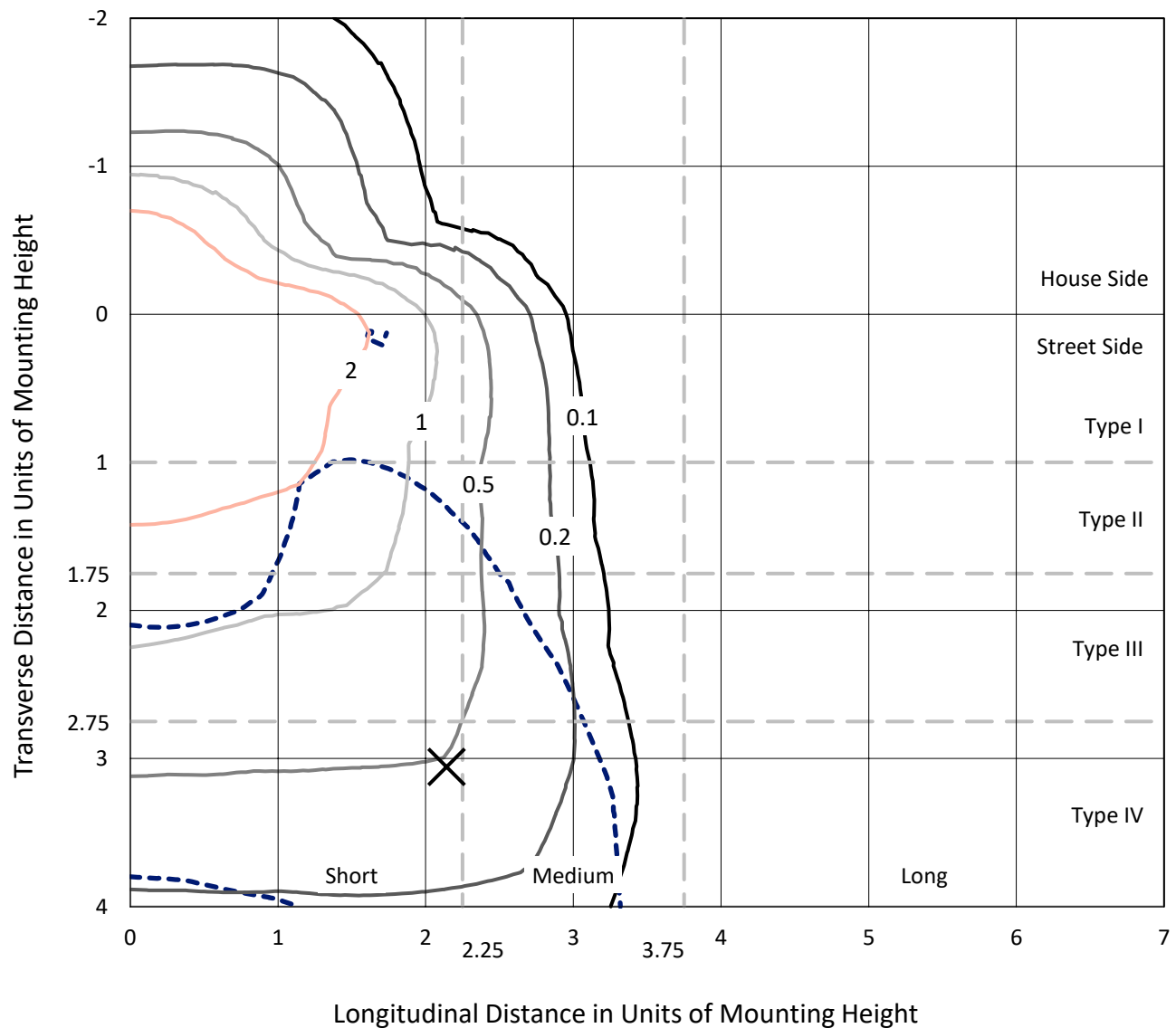


REPORT NUMBER: P966345

CATALOG NUMBER: NAV-SB4B-835-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

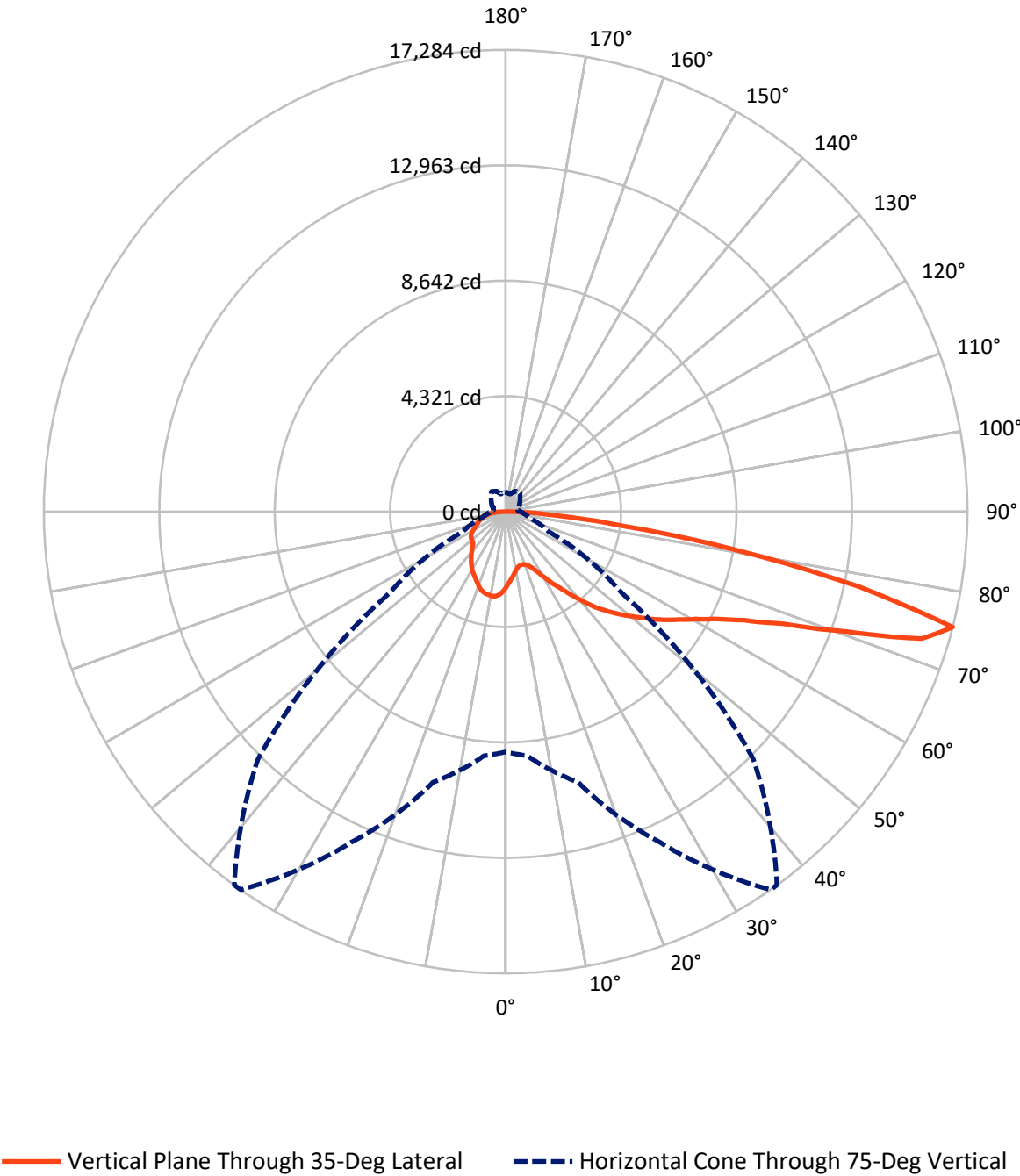
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type IV - Short - N/A

REPORT NUMBER: P966345
CATALOG NUMBER: NAV-SB4B-835-U-T4FT

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5046.6	0.0	5046.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	16159.7	0.0	16159.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	21206.2	0.0	21206.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.6	1.3
10°-20°	771.7	3.6
20°-30°	1296.0	6.1
30°-40°	2014.1	9.5
40°-50°	2989.5	14.1
50°-60°	4127.1	19.5
60°-70°	5007.1	23.6
70°-80°	4138.0	19.5
80°-90°	595.2	2.8
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°	21206.2	100.0
0°-180°	21206.2	100.0

Coefficient of Utilization



REPORT NUMBER: P966345

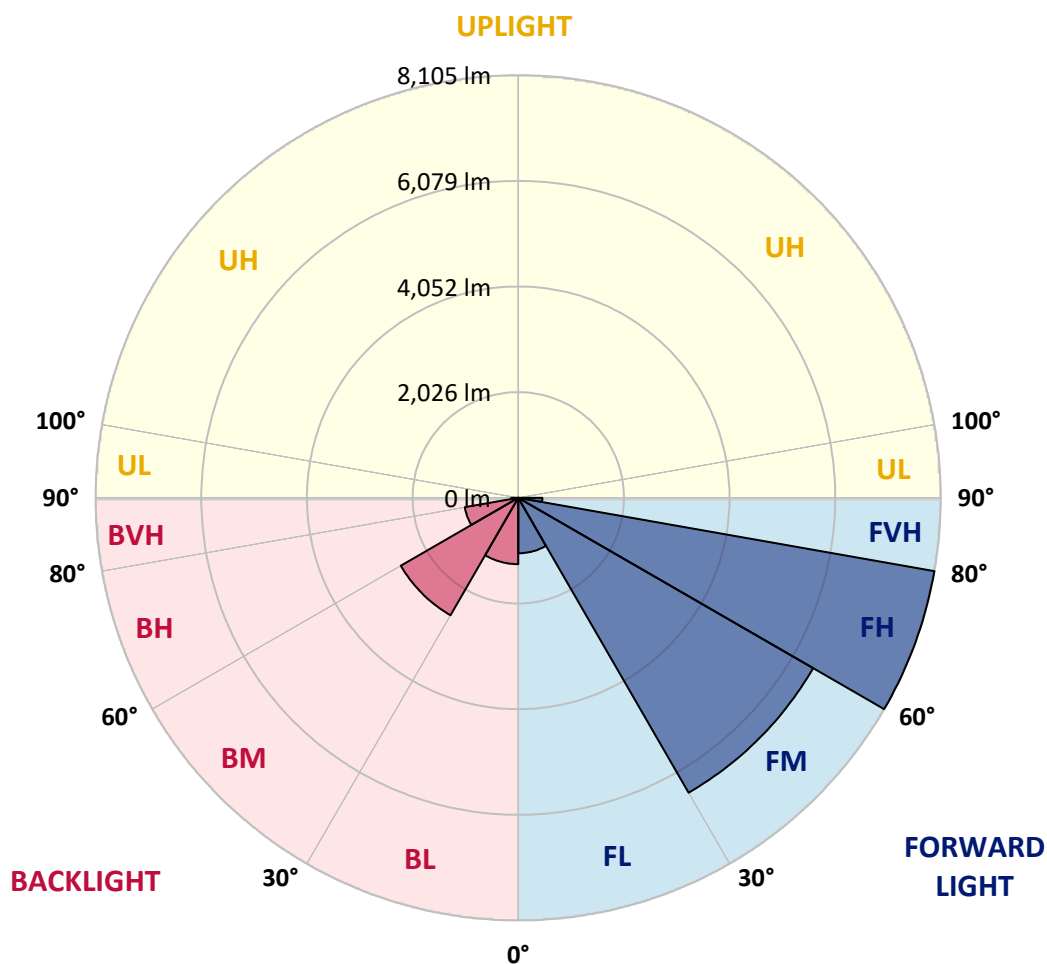
CATALOG NUMBER: NAV-SB4B-835-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1063.4	5.0			
FM	(30°-60°)	6530.4	30.8			
FH	(60°-80°)	8104.7	38.2			G4/12000
FVH	(80°-90°)	461.2	2.2			G3/500
BL	(0°-30°)	1271.8	6.0	B3/2500		
BM	(30°-60°)	2600.3	12.3	B3/5000		
BH	(60°-80°)	1040.4	4.9	B3/2500		G3/2500
BVH	(80°-90°)	134.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



REPORT NUMBER: P966345

CATALOG NUMBER: NAV-SB4B-835-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8
2.5°	2605.8	2621.8	2628.7	2625.2	2642.4	2640.2	2664.2	2694.0	2735.3	2775.4	2833.9
5°	2405.2	2422.4	2437.2	2451.0	2484.3	2494.5	2532.4	2589.8	2665.4	2742.2	2838.5
7.5°	2218.3	2233.2	2256.1	2281.3	2337.5	2347.9	2410.9	2500.3	2605.8	2718.1	2851.1
10°	2065.8	2080.8	2104.8	2133.4	2203.3	2215.9	2296.2	2415.4	2553.1	2695.1	2864.9
12.5°	2000.5	2005.0	2018.8	2047.4	2108.2	2116.2	2204.6	2341.0	2501.4	2678.0	2885.5
15°	1997.0	2006.2	2007.4	2022.2	2072.7	2076.1	2157.5	2292.8	2469.3	2674.5	2916.4
17.5°	2031.4	2038.3	2028.0	2037.2	2079.5	2085.3	2149.5	2269.9	2459.0	2689.5	2969.2
20°	2123.1	2128.8	2097.9	2085.3	2116.2	2120.8	2183.9	2284.7	2469.3	2720.5	3041.4
22.5°	2318.0	2321.4	2245.8	2194.2	2196.5	2198.8	2253.8	2345.5	2509.5	2776.6	3133.1
25°	2621.8	2619.5	2499.2	2399.4	2342.1	2329.5	2366.2	2444.1	2577.1	2851.1	3251.2
27.5°	2977.2	2960.0	2839.7	2690.6	2565.7	2547.3	2539.2	2572.5	2673.4	2949.6	3395.6
30°	3378.4	3362.4	3232.8	3038.0	2864.9	2835.0	2759.4	2742.2	2816.7	3083.8	3596.2
32.5°	3818.6	3808.4	3653.6	3417.5	3185.8	3151.5	3024.2	2978.3	3036.8	3286.8	3875.9
35°	4187.8	4178.6	4050.2	3807.2	3524.1	3481.6	3352.1	3300.5	3330.3	3546.9	4241.7
37.5°	4521.4	4516.8	4406.8	4215.3	3923.0	3871.4	3725.8	3708.6	3702.9	3889.8	4685.4
40°	4830.9	4819.4	4704.9	4603.9	4387.3	4340.3	4211.8	4197.0	4153.4	4311.6	5187.4
42.5°	5173.7	5143.9	4977.7	4930.7	4872.2	4833.2	4756.4	4758.7	4662.4	4787.4	5719.4
45°	5453.4	5436.2	5265.4	5237.9	5301.0	5284.9	5351.4	5368.5	5181.7	5286.0	6272.0
47.5°	5753.7	5737.7	5593.3	5573.7	5744.6	5749.2	5984.2	5989.9	5688.4	5804.3	6825.7
50°	6124.1	6101.1	5957.8	5981.9	6173.4	6190.6	6620.5	6581.5	6155.0	6330.4	7374.8
52.5°	6368.2	6382.0	6351.0	6390.1	6651.4	6667.4	7246.3	7146.6	6617.0	6849.8	7913.6
55°	6548.2	6575.8	6672.0	6761.4	7155.8	7171.8	7836.7	7684.3	6999.9	7331.2	8420.3
57.5°	6779.8	6740.8	6920.8	7095.0	7635.0	7677.5	8411.2	8202.5	7339.2	7746.2	8767.6
60°	7112.3	7084.7	7224.6	7482.5	8171.5	8239.2	9018.8	8669.0	7588.0	8075.3	8835.3
62.5°	7786.3	7717.5	7739.4	7967.4	8847.9	8937.3	9704.3	9076.1	7711.8	8203.6	8473.1
65°	8794.0	8675.9	8565.9	8724.1	9800.5	9888.8	10478.1	9395.9	7666.0	7954.8	7511.2
67.5°	10063.0	9946.2	9810.9	9959.9	11203.8	11273.7	11433.1	9575.9	7304.9	6996.4	5811.1
70°	11109.8	11066.2	11227.8	11841.1	13444.9	13447.3	12657.4	9426.8	6315.5	4960.5	3362.4
72.5°	10971.0	10944.6	11796.4	13692.6	16269.7	16208.9	13816.4	8298.8	4254.3	2237.8	1259.9
75°	9000.4	9171.2	10490.7	13659.4	17284.3	17276.3	13106.8	5275.8	1759.7	927.4	651.2
77.5°	4826.3	5096.9	6810.7	10084.9	13493.1	13696.0	9214.8	1845.7	755.5	593.9	450.5
80°	1574.0	1810.2	2714.7	5134.7	8767.6	8729.8	3949.3	724.6	517.0	420.8	311.8
82.5°	668.3	695.9	1212.9	2424.6	4499.6	4429.6	1257.6	416.2	363.4	287.7	192.6
85°	261.4	292.3	535.4	1121.1	1948.8	1906.5	454.0	206.3	232.7	188.0	114.6
87.5°	86.0	104.3	191.5	384.1	606.5	584.7	111.2	71.0	100.9	86.0	41.3
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: P966345

CATALOG NUMBER: NAV-SB4B-835-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8	2825.8
2.5°	2849.9	2868.3	2890.1	2922.2	2949.6	2972.6	2996.7	3011.6	3017.3	3034.5	3033.4
5°	2870.6	2910.7	2964.6	3017.3	3069.0	3099.9	3127.4	3141.1	3153.7	3162.9	3165.2
7.5°	2905.0	2956.6	3041.4	3110.2	3153.7	3178.9	3197.3	3192.7	3197.3	3199.6	3203.0
10°	2934.8	3007.0	3107.9	3173.2	3206.5	3207.6	3203.0	3187.0	3178.9	3180.1	3182.4
12.5°	2970.3	3050.6	3159.5	3214.5	3223.6	3198.4	3178.9	3151.5	3141.1	3136.5	3134.2
15°	3018.4	3110.2	3215.6	3236.2	3213.4	3181.3	3148.0	3103.3	3080.3	3062.0	3067.7
17.5°	3076.9	3177.8	3259.2	3244.3	3195.0	3142.2	3088.4	3020.8	2973.7	2954.3	2955.4
20°	3158.3	3248.9	3292.5	3227.1	3152.6	3072.3	2980.6	2898.1	2854.5	2835.0	2832.8
22.5°	3256.9	3344.1	3324.6	3197.3	3091.8	2963.5	2848.8	2788.0	2766.3	2752.5	2754.8
25°	3375.0	3449.5	3347.4	3153.7	2992.1	2819.0	2730.7	2711.2	2700.9	2690.6	2690.6
27.5°	3528.7	3568.7	3364.7	3089.6	2836.2	2665.4	2633.3	2636.7	2633.3	2616.1	2619.5
30°	3731.5	3723.5	3380.8	2985.2	2657.3	2526.6	2529.0	2543.8	2546.2	2534.7	2540.5
32.5°	3998.6	3917.2	3388.8	2849.9	2486.5	2405.2	2407.4	2423.5	2435.0	2415.4	2424.6
35°	4321.9	4143.0	3376.1	2680.3	2354.7	2289.3	2272.1	2276.7	2280.2	2261.9	2274.5
37.5°	4699.1	4396.4	3320.0	2492.3	2245.8	2175.9	2139.2	2108.2	2089.9	2072.7	2084.1
40°	5112.9	4672.8	3216.8	2308.8	2124.3	2055.5	2000.5	1942.0	1880.1	1857.2	1867.4
42.5°	5546.3	4957.0	3091.8	2133.4	1984.4	1928.2	1869.8	1784.9	1692.1	1645.1	1650.9
45°	5995.6	5248.2	2969.2	1960.3	1841.1	1817.0	1749.4	1647.4	1546.5	1486.9	1482.3
47.5°	6435.9	5523.3	2789.2	1786.1	1707.0	1733.4	1680.6	1586.6	1474.3	1380.3	1369.9
50°	6856.6	5781.3	2494.5	1609.6	1598.1	1708.2	1657.7	1522.4	1394.0	1273.7	1263.3
52.5°	7273.9	5989.9	2117.4	1449.0	1539.7	1701.3	1627.9	1478.9	1321.8	1195.7	1181.9
55°	7628.2	6097.7	1754.0	1311.5	1454.8	1642.8	1592.3	1427.3	1219.8	1085.7	1074.2
57.5°	7829.9	6010.6	1451.3	1176.2	1337.8	1546.5	1531.6	1317.2	1098.3	995.1	981.3
60°	7742.7	5657.5	1203.8	1058.1	1226.6	1442.2	1426.1	1208.3	1005.4	907.9	894.2
62.5°	7262.4	4984.6	1007.7	955.0	1125.8	1335.6	1320.6	1124.6	934.3	840.3	825.4
65°	6294.8	4054.8	855.3	869.0	1023.8	1207.1	1229.0	1054.7	878.1	786.4	771.5
67.5°	4801.1	2937.0	735.9	794.5	924.0	1081.1	1144.1	1004.3	831.2	744.0	730.2
70°	2736.4	1668.0	635.1	722.2	835.7	964.1	1078.7	964.1	780.7	708.5	699.3
72.5°	1037.5	765.8	549.1	650.1	750.9	865.5	1006.6	901.1	722.2	668.3	659.2
75°	553.7	466.6	462.0	565.2	653.4	769.3	915.9	839.2	678.7	706.2	729.1
77.5°	377.2	330.2	386.3	483.8	546.8	662.7	819.7	745.2	588.1	585.8	540.0
80°	261.4	233.9	314.2	389.8	423.0	557.2	715.3	639.7	479.2	447.1	427.6
82.5°	157.0	152.5	235.0	291.2	299.2	429.9	592.7	536.5	392.1	341.6	343.9
85°	86.0	90.6	150.2	170.8	174.2	300.3	464.3	415.0	301.5	253.4	255.6
87.5°	24.1	31.0	55.0	67.6	83.6	155.9	276.2	246.5	151.3	105.5	105.5
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)