

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: P884430

Luminaire Tested: **NAV-SB5B-727-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884430  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-727-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

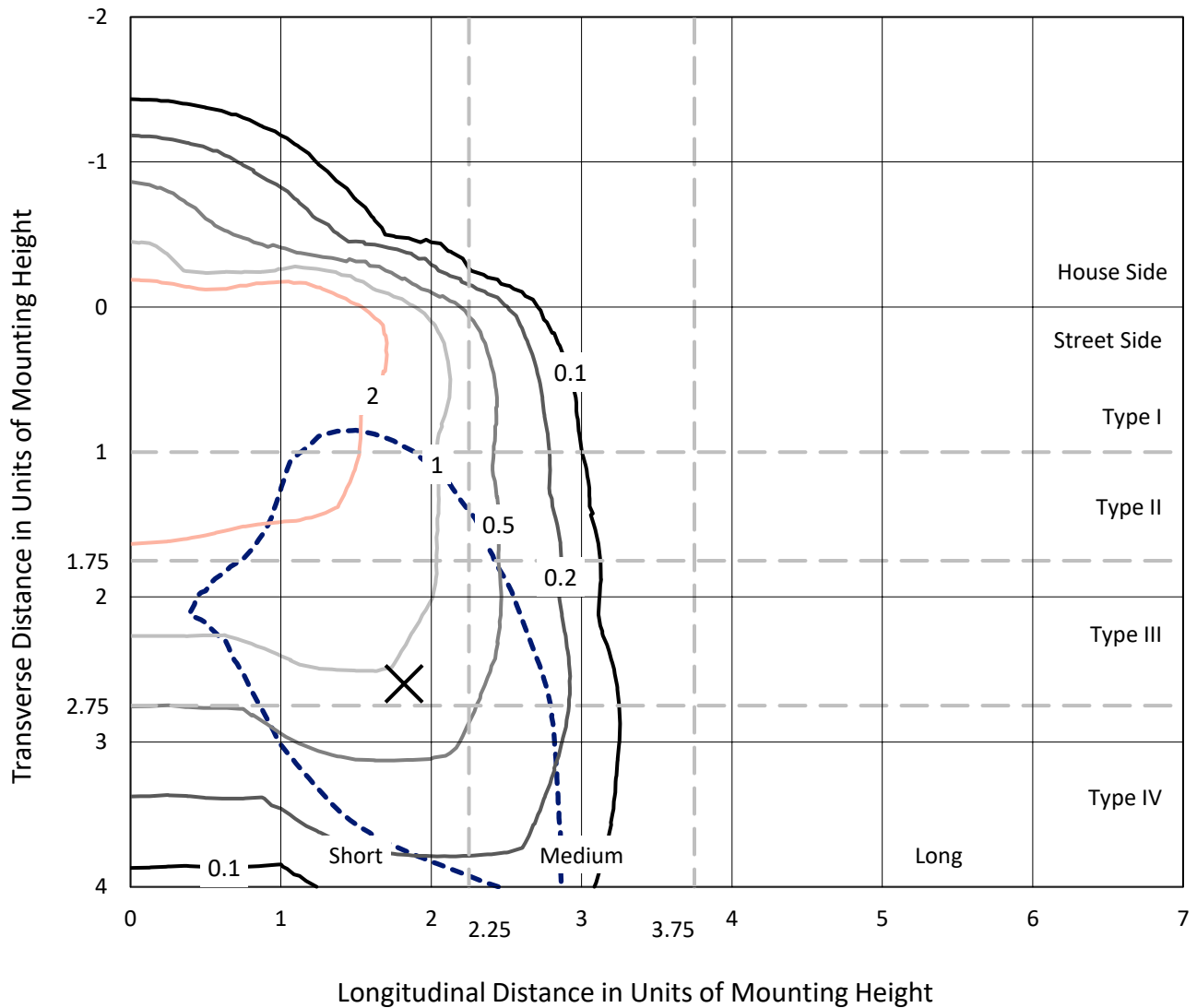
Lumens per Lamp: N/A  
Luminaire Lumens: 19606 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

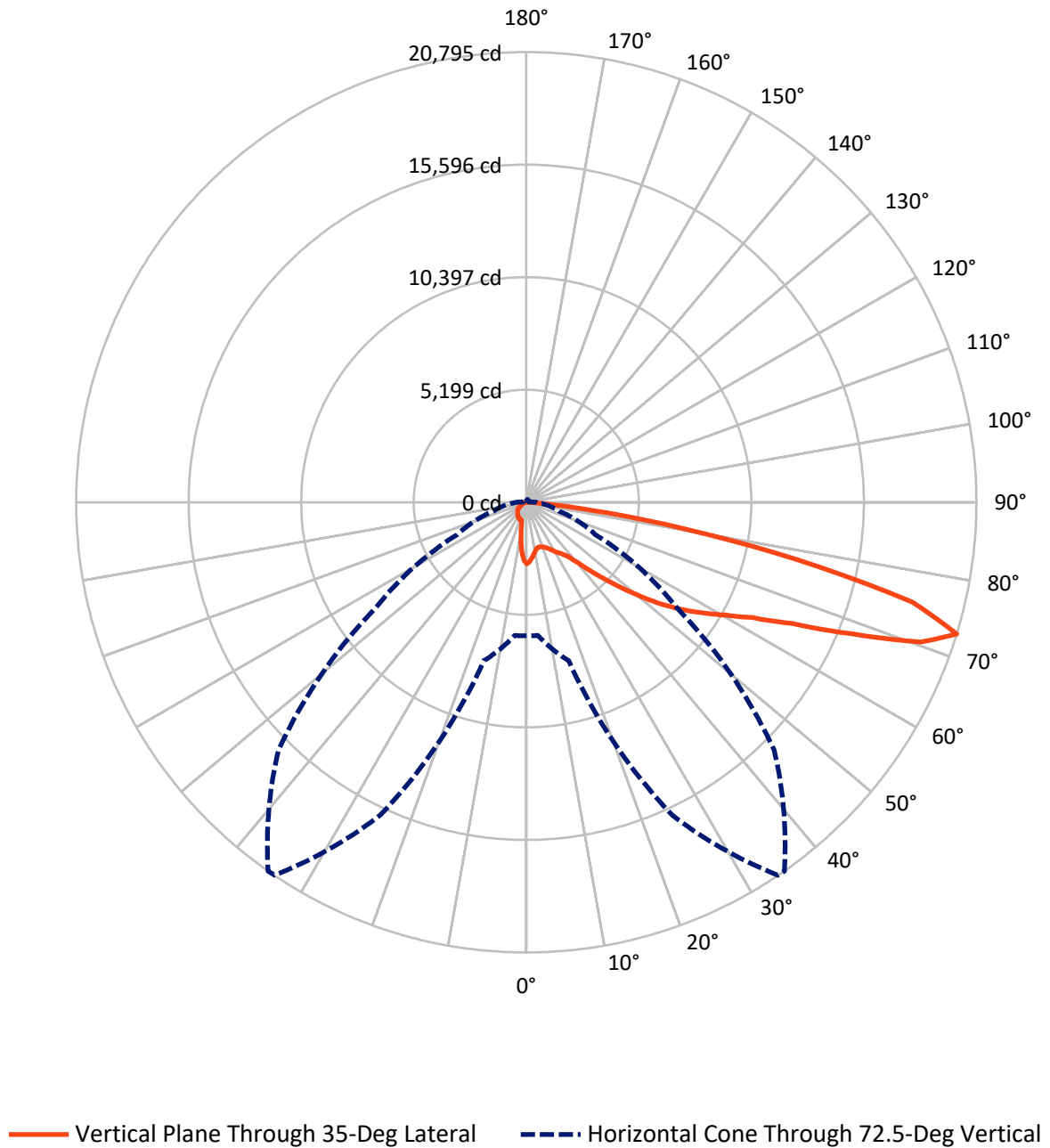
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2206.6	0.0	2206.6
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	17399.4	0.0	17399.4
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	19606.0	0.0	19606.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.5	1.2
10°-20°	546.2	2.8
20°-30°	887.4	4.5
30°-40°	1480.6	7.6
40°-50°	2801.3	14.3
50°-60°	4451.2	22.7
60°-70°	5506.4	28.1
70°-80°	3422.8	17.5
80°-90°	276.6	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°	19606.0	100.0
0°-180°	19606.0	100.0

**Coefficient of Utilization**



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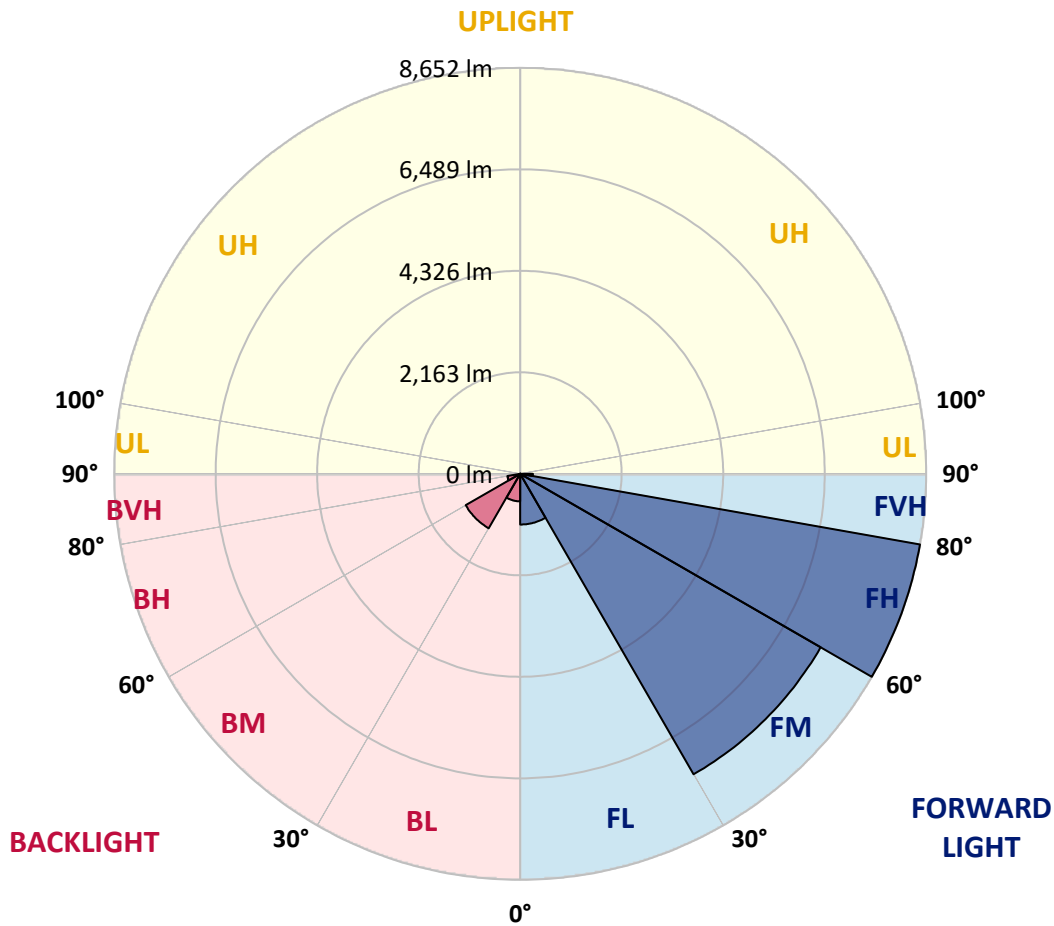
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1080.8	5.5			
FM (30°-60°)	7393.4	37.7			
FH (60°-80°)	8652.4	44.1			G4/12000
FVH (80°-90°)	272.9	1.4			G3/500
BL (0°-30°)	586.3	3.0	B2/1000		
BM (30°-60°)	1339.6	6.8	B2/2500		
BH (60°-80°)	276.9	1.4	B1/500		G1/500
BVH (80°-90°)	3.8	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°	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6
2.5°	2715.1	2738.1	2742.4	2749.6	2749.6	2758.2	2772.6	2792.7	2825.8	2843.0	2854.5
5°	2502.5	2519.8	2541.3	2558.6	2591.6	2595.9	2651.9	2706.5	2782.7	2840.1	2880.4
7.5°	2288.5	2308.6	2337.3	2379.0	2422.1	2435.0	2519.8	2611.7	2732.4	2840.1	2907.6
10°	2137.6	2139.1	2164.9	2206.6	2275.6	2291.4	2394.8	2525.5	2676.4	2822.9	2933.5
12.5°	2052.9	2062.9	2074.4	2106.0	2172.1	2182.2	2292.8	2446.5	2620.3	2812.8	2963.7
15°	2052.9	2060.1	2067.2	2083.0	2136.2	2144.8	2242.5	2396.2	2591.6	2817.1	3012.5
17.5°	2074.4	2085.9	2080.2	2098.9	2154.9	2160.6	2246.8	2381.9	2590.2	2844.4	3087.2
20°	2126.1	2134.8	2123.3	2134.8	2190.8	2202.3	2291.4	2409.2	2614.6	2891.8	3180.6
22.5°	2208.0	2212.3	2185.0	2193.7	2251.1	2265.5	2368.9	2486.7	2673.5	2968.0	3305.6
25°	2311.5	2320.1	2278.4	2288.5	2343.1	2360.3	2479.5	2603.1	2766.9	3072.9	3465.0
27.5°	2430.7	2435.0	2399.1	2397.7	2468.1	2492.5	2613.1	2746.8	2891.8	3205.0	3666.2
30°	2567.2	2580.1	2545.6	2539.9	2629.0	2649.1	2768.3	2923.5	3075.7	3403.3	3952.0
32.5°	2674.9	2685.0	2664.9	2679.2	2769.7	2785.5	2956.5	3173.4	3364.5	3684.8	4341.4
35°	2830.1	2835.8	2789.8	2815.7	2919.1	2959.4	3213.6	3523.9	3727.9	4038.2	4849.9
37.5°	3391.8	3391.8	3196.4	3068.5	3167.7	3203.6	3565.6	3965.0	4176.2	4512.3	5490.6
40°	4169.0	4156.0	3870.2	3608.7	3595.8	3666.2	4067.0	4520.9	4755.1	5081.2	6211.8
42.5°	4997.9	4977.8	4588.5	4329.9	4286.8	4311.2	4645.9	5206.2	5444.7	5775.1	6987.6
45°	5733.4	5727.7	5371.4	5023.7	4946.2	5023.7	5368.5	6007.8	6178.8	6526.4	7761.9
47.5°	6349.7	6349.7	6089.7	5862.7	5822.5	5868.5	6346.8	6897.0	6881.2	7326.6	8516.1
50°	7059.4	7053.6	6806.5	6708.9	6750.5	6815.2	7473.1	7833.7	7608.2	8112.4	9189.8
52.5°	7556.4	7590.9	7506.2	7490.4	7703.0	7815.0	8616.6	8750.2	8258.9	8858.0	9694.1
55°	7950.1	7990.3	8088.0	8198.6	8608.0	8754.6	9724.2	9619.4	8803.4	9504.5	9984.3
57.5°	8507.5	8450.0	8600.8	8819.2	9481.5	9658.2	10797.4	10439.7	9241.6	10028.8	10015.9
60°	9184.1	9192.7	9218.6	9494.4	10353.5	10580.5	11854.7	11215.4	9523.1	10350.6	9665.3
62.5°	9997.2	10010.1	10063.3	10487.1	11524.3	11738.3	12981.0	11850.4	9652.4	10260.1	8760.3
65°	9941.2	9995.8	10589.1	12038.6	13304.2	13515.4	14295.5	12295.7	9457.0	9432.6	7132.6
67.5°	9056.2	9145.3	10138.0	13891.8	15987.8	16223.4	15884.3	12383.4	8613.8	7335.2	4653.1
70°	7895.5	7927.1	9120.9	15558.2	19095.1	19333.6	17306.5	11419.4	6536.5	4091.4	2084.5
72.5°	6165.8	6173.0	7573.7	15944.7	20781.7	20794.6	16190.3	8477.3	3515.3	1571.6	724.0
75°	4404.6	4361.5	5072.6	12930.7	18283.4	18430.0	12137.7	3976.5	1343.2	742.7	360.6
77.5°	2361.7	2409.2	2870.3	7668.5	12630.5	12880.4	6622.7	1146.4	683.8	505.7	238.5
80°	729.8	770.0	1176.6	3511.0	7154.2	7305.0	2455.1	510.0	476.9	360.6	156.6
82.5°	229.9	238.5	548.8	1475.4	2969.4	3038.4	711.1	288.8	326.1	238.5	91.9
85°	66.1	67.5	244.2	550.2	734.1	748.5	199.7	112.1	186.8	148.0	47.4
87.5°	7.2	23.0	91.9	91.9	64.6	63.2	21.5	24.4	53.2	18.7	8.6
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°	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6	2841.6
2.5°	2847.3	2848.7	2830.1	2798.5	2764.0	2735.3	2699.3	2670.6	2650.5	2644.8	2654.8
5°	2867.4	2857.4	2804.2	2708.0	2593.0	2493.9	2383.3	2295.7	2238.2	2213.8	2222.4
7.5°	2897.6	2868.9	2752.5	2562.9	2343.1	2147.7	1949.4	1795.7	1698.0	1649.2	1656.4
10°	2923.5	2866.0	2666.3	2353.1	2017.0	1721.0	1453.8	1268.5	1165.1	1116.2	1117.7
12.5°	2947.9	2864.6	2554.2	2104.6	1649.2	1287.2	1038.7	946.7	918.0	907.9	905.0
15°	2993.8	2868.9	2413.5	1820.2	1282.9	972.6	882.1	880.6	886.4	883.5	882.1
17.5°	3057.1	2873.2	2254.0	1518.5	989.8	857.6	853.3	866.3	874.9	870.6	869.1
20°	3138.9	2890.4	2084.5	1219.7	850.5	828.9	839.0	850.5	857.6	850.5	849.0
22.5°	3253.9	2920.6	1899.2	979.8	805.9	811.7	820.3	833.2	840.4	830.3	828.9
25°	3394.7	2968.0	1716.7	851.9	784.4	791.6	804.5	818.9	827.5	817.4	816.0
27.5°	3577.1	3044.1	1548.6	823.2	762.8	767.1	785.8	807.4	818.9	805.9	805.9
30°	3841.4	3169.1	1403.5	836.1	749.9	739.8	765.7	795.9	808.8	797.3	795.9
32.5°	4192.0	3345.8	1314.5	856.2	744.2	708.2	732.7	771.4	793.0	785.8	785.8
35°	4651.7	3614.4	1280.0	879.2	739.8	675.2	692.4	734.1	771.4	778.6	778.6
37.5°	5209.1	3988.0	1290.1	889.2	726.9	647.9	656.5	692.4	741.3	764.3	770.0
40°	5842.6	4423.2	1347.5	879.2	712.5	624.9	626.4	653.6	696.7	731.2	742.7
42.5°	6496.2	4931.8	1453.8	841.8	699.6	604.8	600.5	619.2	647.9	672.3	682.4
45°	7118.3	5454.7	1558.7	790.1	683.8	584.7	574.6	581.8	587.6	597.6	603.4
47.5°	7661.3	5822.5	1528.5	742.7	662.3	561.7	544.5	541.6	524.4	522.9	521.5
50°	8036.3	5902.9	1357.6	695.3	630.7	535.8	508.6	491.3	461.1	446.8	448.2
52.5°	8155.5	5585.4	1109.0	647.9	578.9	501.4	462.6	435.3	397.9	385.0	383.6
55°	7997.5	4963.4	886.4	590.4	507.1	455.4	412.3	376.4	346.2	330.4	330.4
57.5°	7611.0	4171.8	701.1	522.9	431.0	403.7	360.6	324.7	298.8	283.0	280.1
60°	6970.3	3312.8	554.5	442.5	367.8	347.7	303.1	280.1	257.1	238.5	234.2
62.5°	5997.7	2364.6	435.3	350.5	307.4	284.4	258.6	241.3	214.1	188.2	183.9
65°	4680.4	1446.6	336.2	257.1	247.1	235.6	219.8	204.0	171.0	145.1	140.8
67.5°	2952.2	685.3	239.9	193.9	195.4	189.6	182.4	169.5	145.1	122.1	119.2
70°	1300.1	331.9	158.0	148.0	145.1	145.1	150.8	146.5	123.5	102.0	97.7
72.5°	442.5	178.1	117.8	112.1	104.9	103.4	126.4	122.1	99.1	79.0	74.7
75°	231.3	119.2	86.2	80.4	63.2	76.1	100.6	94.8	70.4	51.7	47.4
77.5°	150.8	84.8	58.9	51.7	35.9	50.3	74.7	66.1	41.7	25.9	23.0
80°	94.8	56.0	34.5	24.4	17.2	27.3	40.2	28.7	15.8	5.7	4.3
82.5°	50.3	28.7	12.9	8.6	7.2	8.6	10.1	7.2	2.9	0.0	0.0
85°	20.1	10.1	4.3	2.9	1.4	0.0	2.9	1.4	0.0	0.0	0.0
87.5°	7.2	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)