

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: P883470

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883470
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-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: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18777 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

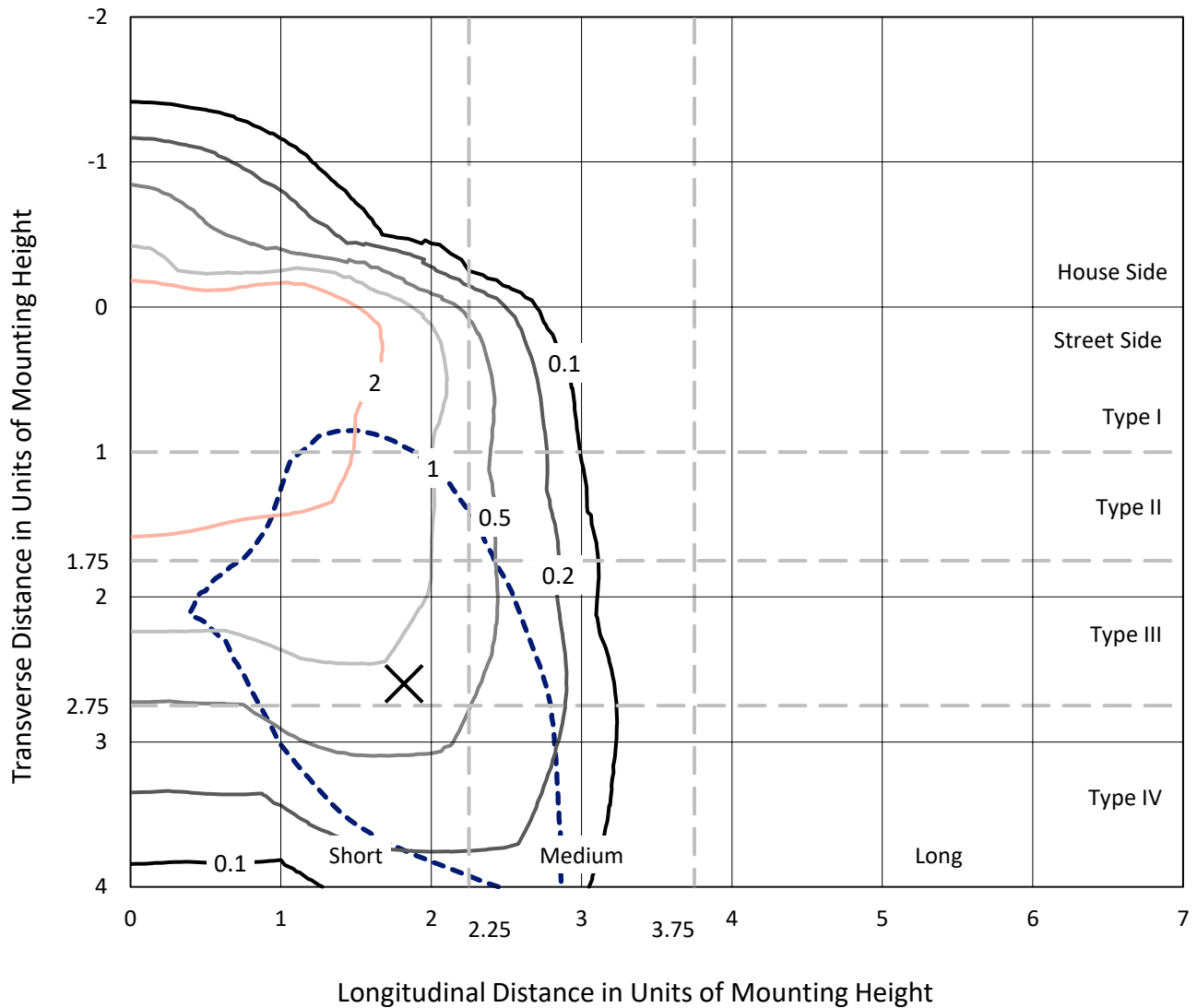
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

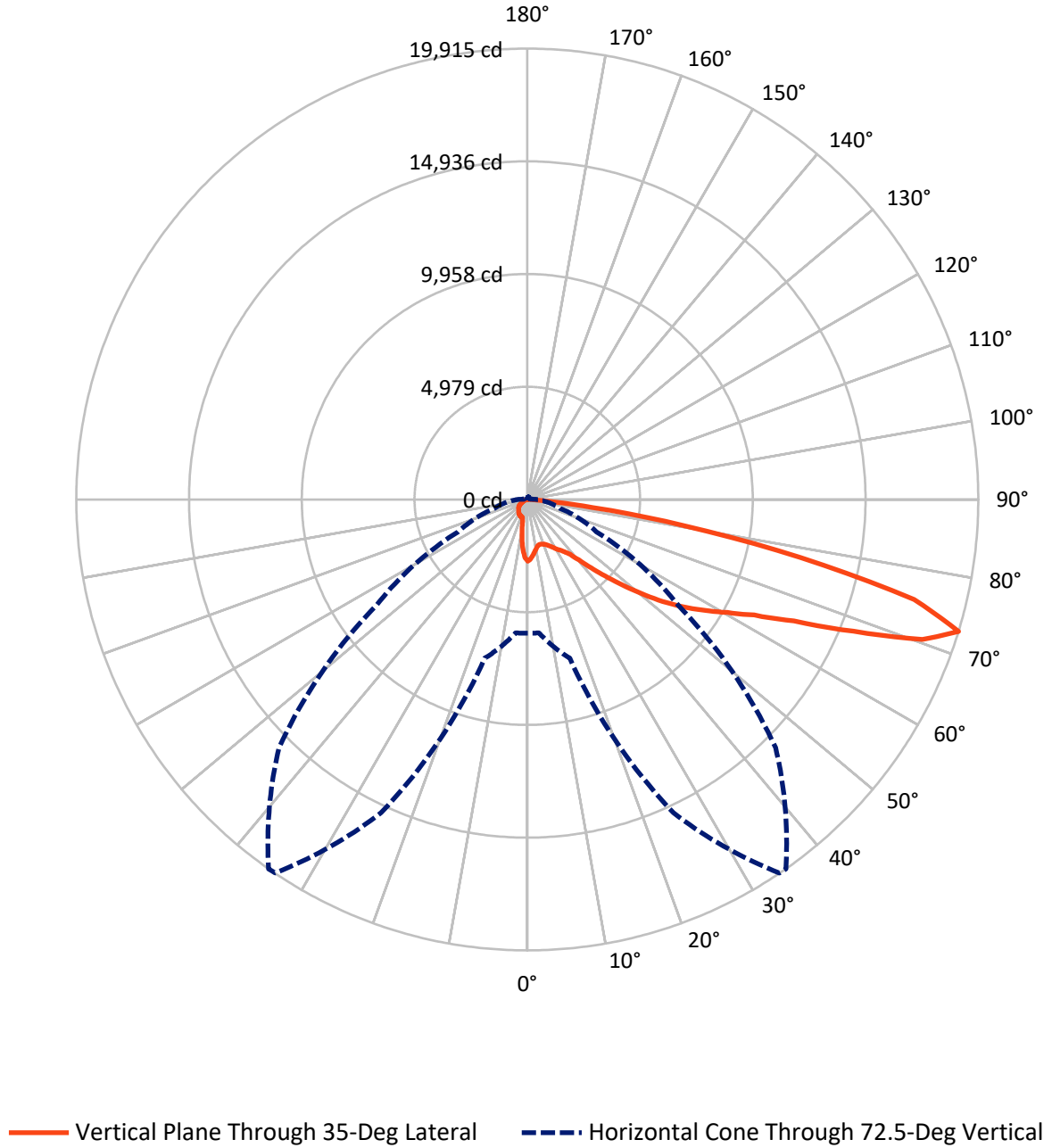
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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	2113.3	0.0	2113.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16663.7	0.0	16663.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	18777.0	0.0	18777.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.6	1.2
10°-20°	523.2	2.8
20°-30°	849.8	4.5
30°-40°	1418.0	7.6
40°-50°	2682.8	14.3
50°-60°	4263.0	22.7
60°-70°	5273.6	28.1
70°-80°	3278.1	17.5
80°-90°	264.9	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°	18777.0	100.0
0°-180°	18777.0	100.0

Coefficient of Utilization



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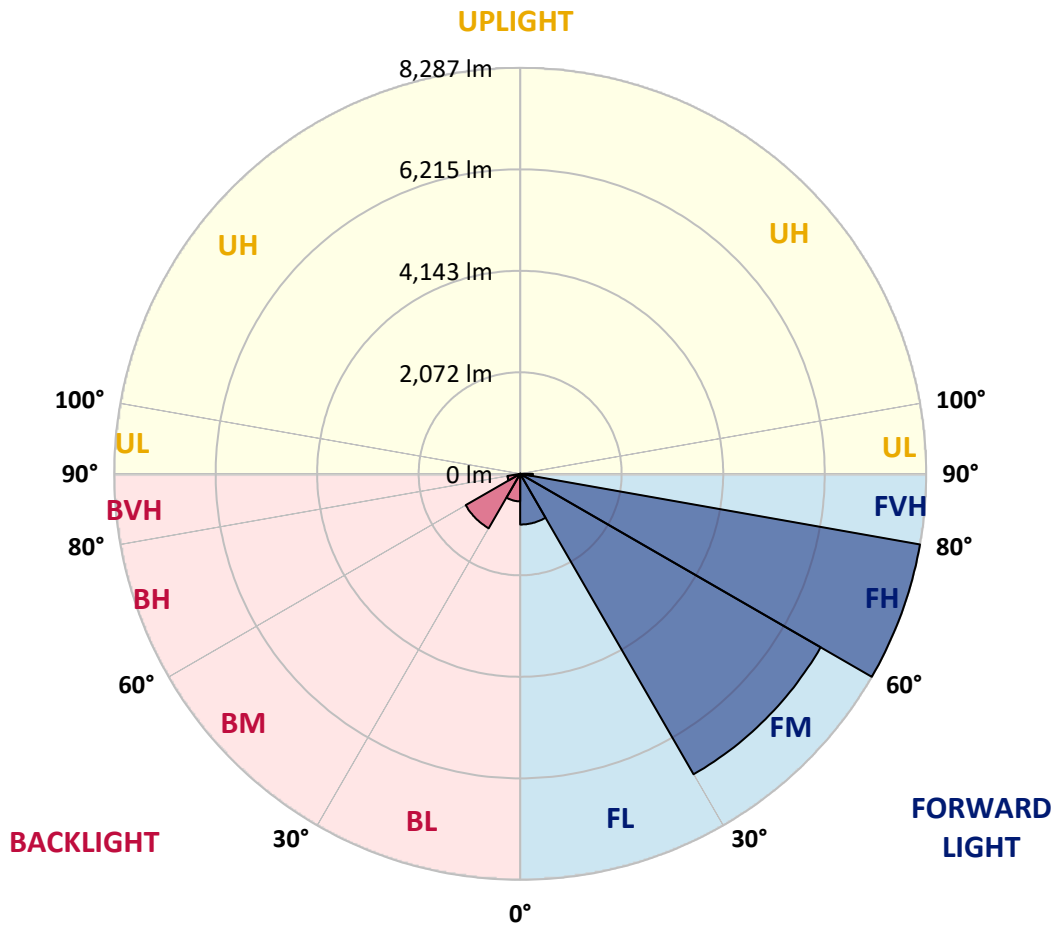
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1035.1	5.5			
FM (30°-60°)	7080.8	37.7			
FH (60°-80°)	8286.5	44.1			G4/12000
FVH (80°-90°)	261.3	1.4			G3/500
BL (0°-30°)	561.5	3.0	B2/1000		
BM (30°-60°)	1282.9	6.8	B2/2500		
BH (60°-80°)	265.2	1.4	B1/500		G1/500
BVH (80°-90°)	3.6	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°	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4
2.5°	2600.3	2622.4	2626.5	2633.4	2633.4	2641.6	2655.4	2674.6	2706.3	2722.8	2733.8
5°	2396.7	2413.2	2433.9	2450.4	2482.0	2486.1	2539.8	2592.1	2665.0	2720.0	2758.6
7.5°	2191.7	2211.0	2238.5	2278.4	2319.7	2332.1	2413.2	2501.3	2616.9	2720.0	2784.7
10°	2047.3	2048.6	2073.4	2113.3	2179.3	2194.5	2293.5	2418.7	2563.2	2703.5	2809.5
12.5°	1966.1	1975.7	1986.7	2017.0	2080.3	2089.9	2195.8	2343.1	2509.5	2693.9	2838.4
15°	1966.1	1973.0	1979.8	1995.0	2045.9	2054.1	2147.7	2294.9	2482.0	2698.0	2885.1
17.5°	1986.7	1997.7	1992.2	2010.1	2063.8	2069.3	2151.8	2281.1	2480.6	2724.2	2956.7
20°	2036.2	2044.5	2033.5	2044.5	2098.2	2109.2	2194.5	2307.3	2504.0	2769.6	3046.1
22.5°	2114.7	2118.8	2092.7	2100.9	2155.9	2169.7	2268.8	2381.6	2560.4	2842.5	3165.8
25°	2213.7	2222.0	2182.1	2191.7	2244.0	2260.5	2374.7	2493.0	2649.9	2942.9	3318.5
27.5°	2327.9	2332.1	2297.7	2296.3	2363.7	2387.1	2502.7	2630.6	2769.6	3069.5	3511.2
30°	2458.6	2471.0	2438.0	2432.5	2517.8	2537.1	2651.2	2799.8	2945.7	3259.4	3784.9
32.5°	2561.8	2571.5	2552.2	2565.9	2652.6	2667.8	2831.5	3039.2	3222.2	3529.0	4157.8
35°	2710.4	2715.9	2671.9	2696.7	2795.7	2834.2	3077.8	3374.9	3570.3	3867.5	4644.8
37.5°	3248.4	3248.4	3061.3	2938.8	3033.7	3068.1	3414.8	3797.3	3999.6	4321.5	5258.5
40°	3992.7	3980.3	3706.5	3456.1	3443.7	3511.2	3895.0	4329.8	4554.0	4866.4	5949.1
42.5°	4786.6	4767.3	4394.4	4146.8	4105.5	4128.9	4449.5	4986.1	5214.4	5530.9	6692.1
45°	5491.0	5485.5	5144.3	4811.3	4737.0	4811.3	5141.5	5753.8	5917.5	6250.5	7433.7
47.5°	6081.2	6081.2	5832.2	5614.8	5576.3	5620.3	6078.5	6605.4	6590.3	7016.8	8156.0
50°	6760.9	6755.4	6518.7	6425.2	6465.1	6527.0	7157.1	7502.5	7286.5	7769.4	8801.3
52.5°	7236.9	7270.0	7188.8	7173.6	7377.3	7484.6	8252.3	8380.3	7909.7	8483.4	9284.2
55°	7613.9	7652.4	7746.0	7851.9	8244.0	8384.4	9313.1	9212.6	8431.2	9102.6	9562.1
57.5°	8147.7	8092.7	8237.2	8446.3	9080.6	9249.8	10340.8	9998.2	8850.8	9604.8	9592.4
60°	8795.8	8804.0	8828.8	9092.9	9915.7	10133.1	11353.5	10741.2	9120.5	9912.9	9256.7
62.5°	9574.5	9586.9	9637.8	10043.7	11037.0	11242.0	12432.1	11349.3	9244.3	9826.3	8389.9
65°	9520.8	9573.1	10141.3	11529.6	12741.7	12943.9	13691.0	11775.8	9057.2	9033.8	6831.1
67.5°	8673.3	8758.6	9709.3	13304.4	15311.8	15537.4	15212.7	11859.8	8249.6	7025.1	4456.4
70°	7561.6	7591.9	8735.2	14900.4	18287.7	18516.1	16574.8	10936.6	6260.1	3918.4	1996.3
72.5°	5905.1	5912.0	7253.4	15270.5	19902.9	19915.3	15505.7	8118.8	3366.7	1505.2	693.4
75°	4218.3	4177.1	4858.1	12384.0	17510.4	17650.7	11624.5	3808.3	1286.4	711.3	345.3
77.5°	2261.9	2307.3	2748.9	7344.2	12096.4	12335.8	6342.6	1097.9	654.9	484.3	228.4
80°	698.9	737.5	1126.8	3362.6	6851.7	6996.2	2351.3	488.4	456.8	345.3	150.0
82.5°	220.1	228.4	525.6	1413.0	2843.9	2909.9	681.0	276.5	312.3	228.4	88.1
85°	63.3	64.7	233.9	526.9	703.1	716.8	191.2	107.3	178.9	141.7	45.4
87.5°	6.9	22.0	88.1	88.1	61.9	60.5	20.6	23.4	50.9	17.9	8.3
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°	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4	2721.4
2.5°	2726.9	2728.3	2710.4	2680.1	2647.1	2619.6	2585.2	2557.7	2538.4	2532.9	2542.6
5°	2746.2	2736.6	2685.6	2593.5	2483.4	2388.5	2282.5	2198.6	2143.6	2120.2	2128.4
7.5°	2775.1	2747.6	2636.1	2454.5	2244.0	2056.9	1867.0	1719.8	1626.2	1579.5	1586.3
10°	2799.8	2744.8	2553.6	2253.6	1931.7	1648.3	1392.4	1214.9	1115.8	1069.0	1070.4
12.5°	2823.2	2743.4	2446.2	2015.6	1579.5	1232.8	994.7	906.7	879.2	869.5	866.8
15°	2867.3	2747.6	2311.4	1743.2	1228.6	931.4	844.8	843.4	848.9	846.1	844.8
17.5°	2927.8	2751.7	2158.7	1454.3	948.0	821.4	817.3	829.6	837.9	833.8	832.4
20°	3006.2	2768.2	1996.3	1168.1	814.5	793.9	803.5	814.5	821.4	814.5	813.1
22.5°	3116.3	2797.1	1818.9	938.3	771.8	777.4	785.6	798.0	804.9	795.2	793.9
25°	3251.1	2842.5	1644.1	815.9	751.2	758.1	770.5	784.2	792.5	782.9	781.5
27.5°	3425.8	2915.4	1483.2	788.4	730.6	734.7	752.6	773.2	784.2	771.8	771.8
30°	3679.0	3035.1	1344.2	800.7	718.2	708.6	733.3	762.2	774.6	763.6	762.2
32.5°	4014.7	3204.3	1258.9	820.0	712.7	678.3	701.7	738.8	759.5	752.6	752.6
35°	4455.0	3461.6	1225.9	842.0	708.6	646.6	663.2	703.1	738.8	745.7	745.7
37.5°	4988.8	3819.3	1235.5	851.6	696.2	620.5	628.8	663.2	709.9	731.9	737.5
40°	5595.6	4236.2	1290.5	842.0	682.4	598.5	599.9	626.0	667.3	700.3	711.3
42.5°	6221.6	4723.3	1392.4	806.2	670.0	579.2	575.1	593.0	620.5	643.9	653.5
45°	6817.3	5224.1	1492.8	756.7	654.9	560.0	550.3	557.2	562.7	572.4	577.9
47.5°	7337.4	5576.3	1463.9	711.3	634.3	538.0	521.4	518.7	502.2	500.8	499.4
50°	7696.5	5653.3	1300.2	665.9	604.0	513.2	487.0	470.5	441.6	427.9	429.3
52.5°	7810.7	5349.3	1062.2	620.5	554.5	480.2	443.0	416.9	381.1	368.7	367.4
55°	7659.3	4753.5	848.9	565.5	485.7	436.1	394.9	360.5	331.6	316.4	316.4
57.5°	7289.2	3995.4	671.4	500.8	412.8	386.6	345.3	310.9	286.2	271.0	268.3
60°	6675.6	3172.7	531.1	423.8	352.2	333.0	290.3	268.3	246.3	228.4	224.3
62.5°	5744.1	2264.6	416.9	335.7	294.4	272.4	247.7	231.1	205.0	180.2	176.1
65°	4482.5	1385.5	321.9	246.3	236.6	225.6	210.5	195.4	163.7	139.0	134.8
67.5°	2827.4	656.3	229.8	185.7	187.1	181.6	174.7	162.3	139.0	116.9	114.2
70°	1245.1	317.8	151.3	141.7	139.0	139.0	144.5	140.3	118.3	97.7	93.6
72.5°	423.8	170.6	112.8	107.3	100.4	99.1	121.1	116.9	94.9	75.7	71.5
75°	221.5	114.2	82.6	77.0	60.5	72.9	96.3	90.8	67.4	49.5	45.4
77.5°	144.5	81.2	56.4	49.5	34.4	48.2	71.5	63.3	39.9	24.8	22.0
80°	90.8	53.7	33.0	23.4	16.5	26.1	38.5	27.5	15.1	5.5	4.1
82.5°	48.2	27.5	12.4	8.3	6.9	8.3	9.6	6.9	2.8	0.0	0.0
85°	19.3	9.6	4.1	2.8	1.4	0.0	2.8	1.4	0.0	0.0	0.0
87.5°	6.9	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)