

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: P883981

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883981
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T4FT
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
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24373 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

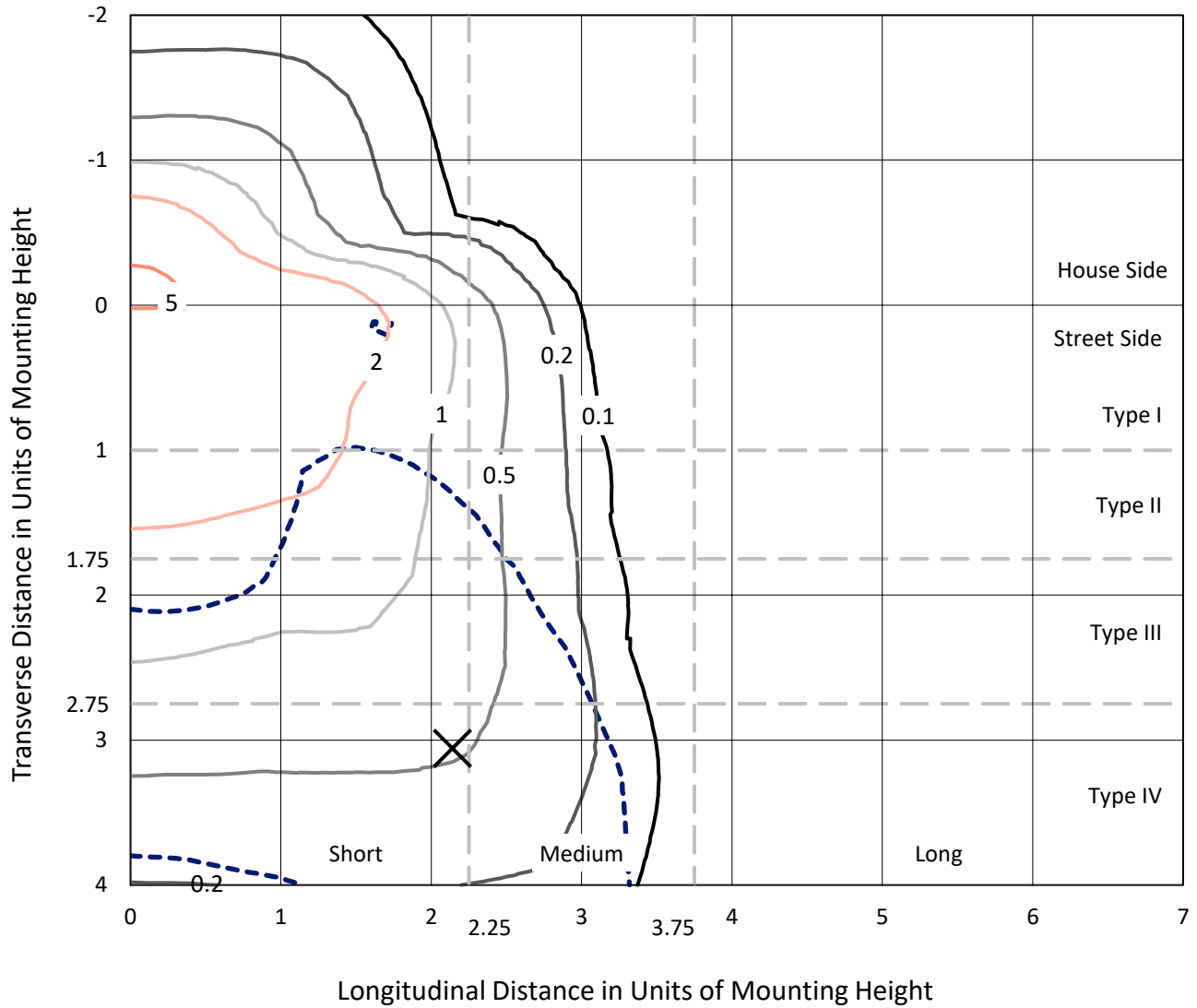
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883981
 CATALOG NUMBER: NAV-SB4C-827-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

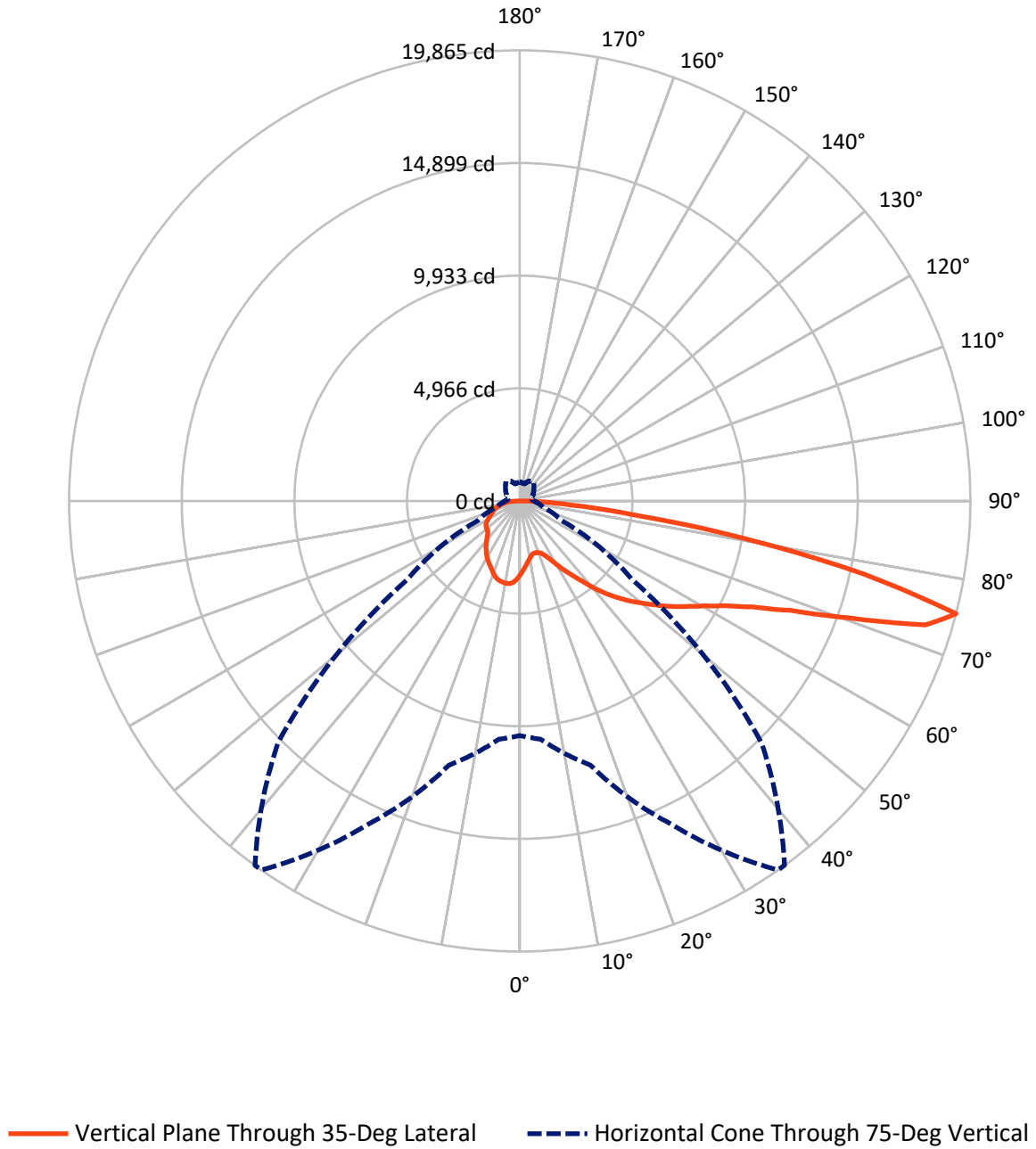
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P883981
CATALOG NUMBER: NAV-SB4C-827-U-T4FT

Luminous Intensity Polar Plot



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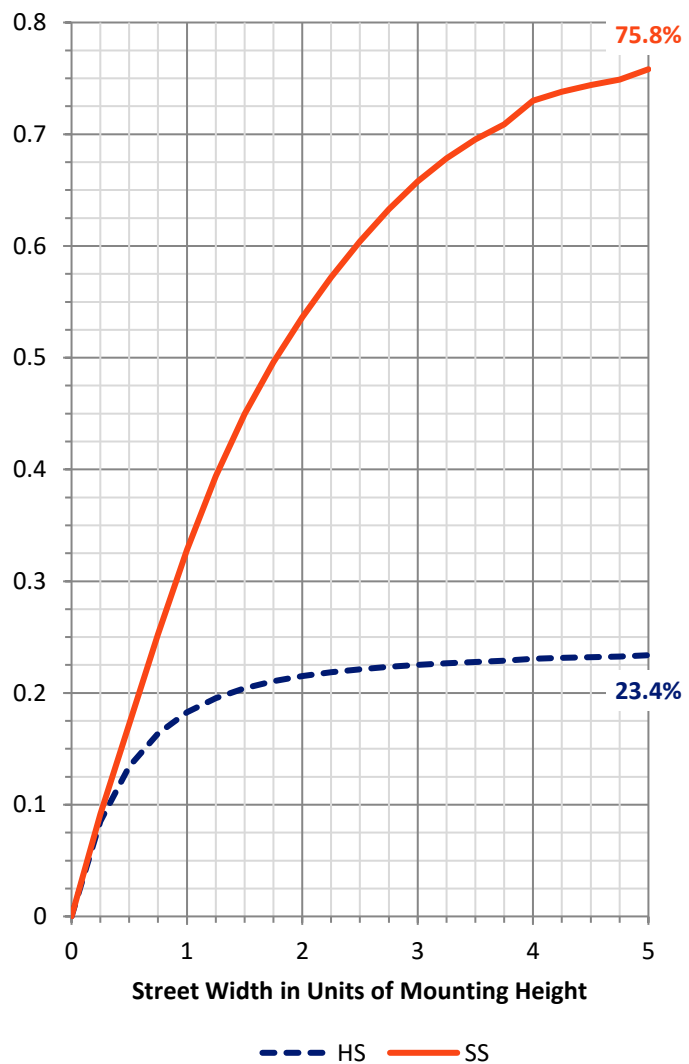
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5800.2	0.0	5800.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	18572.8	0.0	18572.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	24373.0	0.0	24373.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.5	1.3
10°-20°	887.0	3.6
20°-30°	1489.5	6.1
30°-40°	2314.9	9.5
40°-50°	3435.9	14.1
50°-60°	4743.4	19.5
60°-70°	5754.9	23.6
70°-80°	4756.0	19.5
80°-90°	684.1	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°	24373.0	100.0
0°-180°	24373.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883981

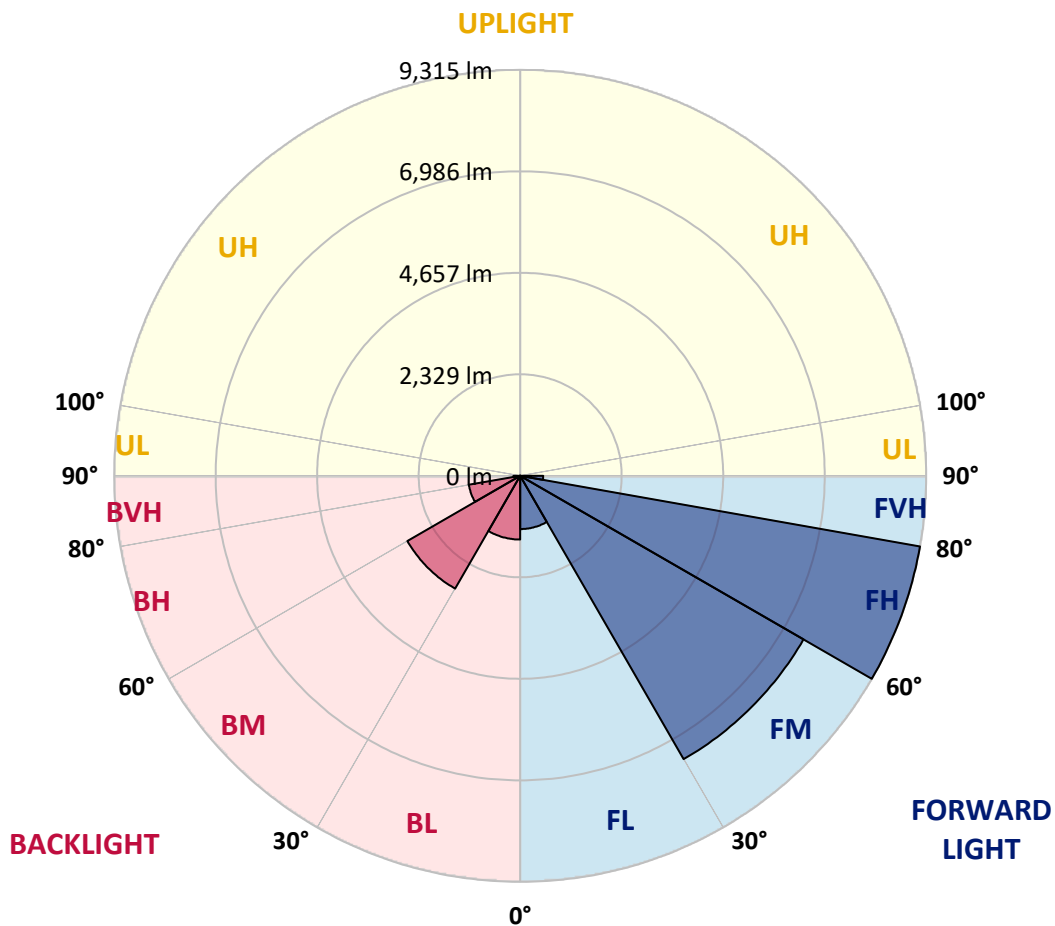
CATALOG NUMBER: NAV-SB4C-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1222.3	5.0			
FM (30°-60°)	7505.6	30.8			
FH (60°-80°)	9315.0	38.2			G4/12000
FVH (80°-90°)	530.0	2.2			G4/750
BL (0°-30°)	1461.7	6.0	B3/2500		
BM (30°-60°)	2988.6	12.3	B3/5000		
BH (60°-80°)	1195.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	154.0	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: P883981
 CATALOG NUMBER: NAV-SB4C-827-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9
2.5°	2994.9	3013.3	3021.2	3017.3	3037.1	3034.4	3062.1	3096.3	3143.8	3189.9	3257.1
5°	2764.3	2784.1	2801.2	2817.0	2855.2	2867.1	2910.6	2976.4	3063.4	3151.7	3262.4
7.5°	2549.5	2566.7	2593.0	2622.0	2686.6	2698.4	2770.9	2873.7	2994.9	3124.0	3276.9
10°	2374.3	2391.4	2419.1	2452.0	2532.4	2546.9	2639.1	2776.2	2934.3	3097.7	3292.7
12.5°	2299.2	2304.5	2320.3	2353.2	2423.1	2432.3	2533.7	2690.5	2875.0	3077.9	3316.4
15°	2295.2	2305.8	2307.1	2324.2	2382.2	2386.2	2479.7	2635.2	2838.1	3073.9	3352.0
17.5°	2334.8	2342.7	2330.8	2341.4	2390.1	2396.7	2470.5	2608.8	2826.2	3091.1	3412.6
20°	2440.2	2446.8	2411.2	2396.7	2432.3	2437.5	2510.0	2626.0	2838.1	3126.6	3495.6
22.5°	2664.2	2668.1	2581.2	2521.9	2524.5	2527.1	2590.4	2695.8	2884.2	3191.2	3601.0
25°	3013.3	3010.7	2872.4	2757.7	2691.8	2677.3	2719.5	2809.1	2961.9	3276.9	3736.7
27.5°	3421.8	3402.0	3263.7	3092.4	2948.8	2927.7	2918.5	2956.7	3072.6	3390.2	3902.7
30°	3882.9	3864.5	3715.6	3491.6	3292.7	3258.4	3171.4	3151.7	3237.3	3544.3	4133.3
32.5°	4388.9	4377.0	4199.2	3927.7	3661.6	3622.1	3475.8	3423.1	3490.3	3777.5	4454.8
35°	4813.2	4802.6	4655.1	4375.7	4050.3	4001.5	3852.6	3793.4	3827.6	4076.6	4875.1
37.5°	5196.6	5191.3	5064.8	4844.8	4508.8	4449.5	4282.2	4262.4	4255.8	4470.6	5385.0
40°	5552.3	5539.2	5407.4	5291.5	5042.4	4988.4	4840.8	4823.7	4773.6	4955.5	5962.1
42.5°	5946.3	5912.0	5721.0	5667.0	5599.8	5555.0	5466.7	5469.3	5358.7	5502.3	6573.5
45°	6267.8	6248.0	6051.7	6020.1	6092.6	6074.1	6150.5	6170.3	5955.5	6075.4	7208.6
47.5°	6613.0	6594.6	6428.5	6406.1	6602.5	6607.7	6877.8	6884.4	6537.9	6671.0	7844.9
50°	7038.6	7012.2	6847.5	6875.2	7095.2	7115.0	7609.1	7564.3	7074.2	7275.7	8476.1
52.5°	7319.2	7335.0	7299.5	7344.3	7644.7	7663.1	8328.5	8213.9	7605.1	7872.6	9095.3
55°	7526.1	7557.7	7668.4	7771.2	8224.4	8242.9	9007.1	8831.8	8045.2	8426.0	9677.7
57.5°	7792.2	7747.4	7954.3	8154.6	8775.2	8823.9	9667.2	9427.4	8435.2	8903.0	10077.0
60°	8174.3	8142.7	8303.5	8599.9	9391.8	9469.5	10365.5	9963.6	8721.1	9281.1	10154.7
62.5°	8949.1	8870.0	8895.1	9157.3	10169.2	10272.0	11153.4	10431.4	8863.4	9428.7	9738.3
65°	10107.3	9971.5	9845.1	10026.9	11264.1	11365.6	12042.8	10799.0	8810.7	9142.8	8632.9
67.5°	11565.8	11431.4	11276.0	11447.2	12876.8	12957.2	13140.4	11005.9	8395.7	8041.3	6678.9
70°	12768.8	12718.7	12904.5	13609.4	15452.7	15455.4	14547.5	10834.6	7258.6	5701.2	3864.5
72.5°	12609.4	12579.1	13558.0	15737.3	18699.3	18629.4	15879.6	9538.1	4889.6	2571.9	1448.0
75°	10344.4	10540.7	12057.3	15699.1	19865.4	19856.1	15064.0	6063.6	2022.5	1065.9	748.4
77.5°	5547.1	5858.0	7827.8	11590.9	15508.1	15741.3	10590.8	2121.3	868.3	682.5	517.8
80°	1809.1	2080.5	3120.1	5901.5	10077.0	10033.5	4539.1	832.7	594.2	483.6	358.4
82.5°	768.2	799.8	1394.0	2786.7	5171.6	5091.2	1445.4	478.3	417.7	330.7	221.4
85°	300.4	336.0	615.3	1288.6	2239.9	2191.2	521.8	237.2	267.5	216.1	131.8
87.5°	98.8	119.9	220.0	441.4	697.0	672.0	127.8	81.7	115.9	98.8	47.4
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: P883981
 CATALOG NUMBER: NAV-SB4C-827-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9	3247.9
2.5°	3275.5	3296.6	3321.7	3358.5	3390.2	3416.5	3444.2	3461.3	3467.9	3487.7	3486.4
5°	3299.3	3345.4	3407.3	3467.9	3527.2	3562.8	3594.4	3610.2	3624.7	3635.2	3637.9
7.5°	3338.8	3398.1	3495.6	3574.6	3624.7	3653.7	3674.8	3669.5	3674.8	3677.4	3681.4
10°	3373.0	3456.0	3572.0	3647.1	3685.3	3686.6	3681.4	3662.9	3653.7	3655.0	3657.6
12.5°	3413.9	3506.1	3631.3	3694.5	3705.1	3676.1	3653.7	3622.1	3610.2	3604.9	3602.3
15°	3469.2	3574.6	3695.8	3719.6	3693.2	3656.3	3618.1	3566.7	3540.4	3519.3	3525.9
17.5°	3536.4	3652.4	3745.9	3728.8	3672.1	3611.5	3549.6	3471.9	3417.8	3395.4	3396.8
20°	3630.0	3734.1	3784.1	3709.0	3623.4	3531.1	3425.7	3330.9	3280.8	3258.4	3255.8
22.5°	3743.3	3843.4	3821.0	3674.8	3553.5	3406.0	3274.2	3204.4	3179.4	3163.5	3166.2
25°	3879.0	3964.6	3847.4	3624.7	3438.9	3240.0	3138.5	3116.1	3104.2	3092.4	3092.4
27.5°	4055.6	4101.7	3867.1	3550.9	3259.7	3063.4	3026.5	3030.5	3026.5	3006.7	3010.7
30°	4288.8	4279.5	3885.6	3431.0	3054.2	2904.0	2906.6	2923.7	2926.4	2913.2	2919.8
32.5°	4595.8	4502.2	3894.8	3275.5	2857.9	2764.3	2766.9	2785.4	2798.6	2776.2	2786.7
35°	4967.3	4761.8	3880.3	3080.5	2706.3	2631.2	2611.5	2616.7	2620.7	2599.6	2614.1
37.5°	5400.8	5053.0	3815.7	2864.4	2581.2	2500.8	2458.6	2423.1	2402.0	2382.2	2395.4
40°	5876.5	5370.5	3697.2	2653.6	2441.5	2362.4	2299.2	2232.0	2160.9	2134.5	2146.4
42.5°	6374.5	5697.3	3553.5	2452.0	2280.8	2216.2	2149.0	2051.5	1944.8	1890.7	1897.3
45°	6891.0	6031.9	3412.6	2253.1	2116.1	2088.4	2010.6	1893.4	1777.4	1708.9	1703.6
47.5°	7397.0	6348.2	3205.7	2052.8	1961.9	1992.2	1931.6	1823.5	1694.4	1586.4	1574.5
50°	7880.5	6644.6	2867.1	1849.9	1836.7	1963.2	1905.2	1749.8	1602.2	1463.8	1452.0
52.5°	8360.1	6884.4	2433.6	1665.4	1769.5	1955.3	1871.0	1699.7	1519.2	1374.2	1358.4
55°	8767.3	7008.3	2015.9	1507.3	1672.0	1888.1	1830.1	1640.4	1401.9	1247.8	1234.6
57.5°	8999.2	6908.1	1668.1	1351.9	1537.6	1777.4	1760.3	1513.9	1262.3	1143.7	1127.9
60°	8899.0	6502.3	1383.5	1216.1	1409.8	1657.5	1639.1	1388.7	1155.5	1043.5	1027.7
62.5°	8347.0	5728.9	1158.2	1097.6	1293.9	1535.0	1517.9	1292.6	1073.8	965.8	948.7
65°	7234.9	4660.3	982.9	998.7	1176.6	1387.4	1412.5	1212.2	1009.3	903.9	886.7
67.5°	5518.1	3375.7	845.9	913.1	1062.0	1242.5	1315.0	1154.2	955.3	855.1	839.3
70°	3145.1	1917.1	729.9	830.1	960.5	1108.1	1239.9	1108.1	897.3	814.3	803.7
72.5°	1192.4	880.2	631.1	747.1	863.0	994.8	1156.8	1035.6	830.1	768.2	757.6
75°	636.4	536.3	531.0	649.6	751.0	884.1	1052.8	964.5	780.0	811.6	838.0
77.5°	433.5	379.5	444.0	556.0	628.5	761.6	942.1	856.4	675.9	673.3	620.6
80°	300.4	268.8	361.0	448.0	486.2	640.4	822.2	735.2	550.8	513.9	491.5
82.5°	180.5	175.2	270.1	334.7	343.9	494.1	681.2	616.6	450.6	392.6	395.3
85°	98.8	104.1	172.6	196.3	200.3	345.2	533.6	477.0	346.5	291.2	293.8
87.5°	27.7	35.6	63.2	77.7	96.2	179.2	317.5	283.3	173.9	121.2	121.2
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)