

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: P967360

Luminaire Tested: **NAV-SB4D-830-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967360
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28706.1 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 293.6
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



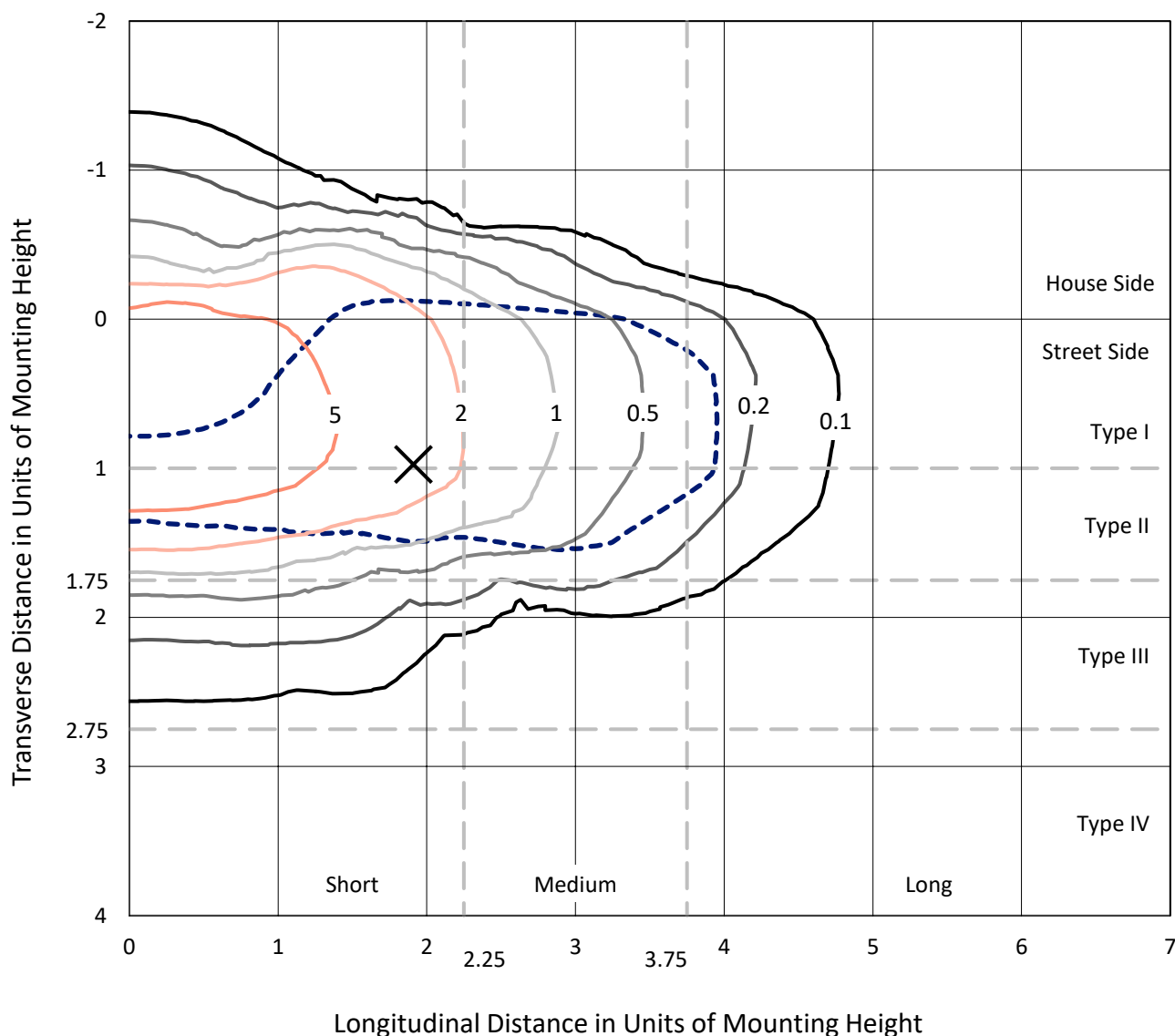
REPORT NUMBER: P967360

CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

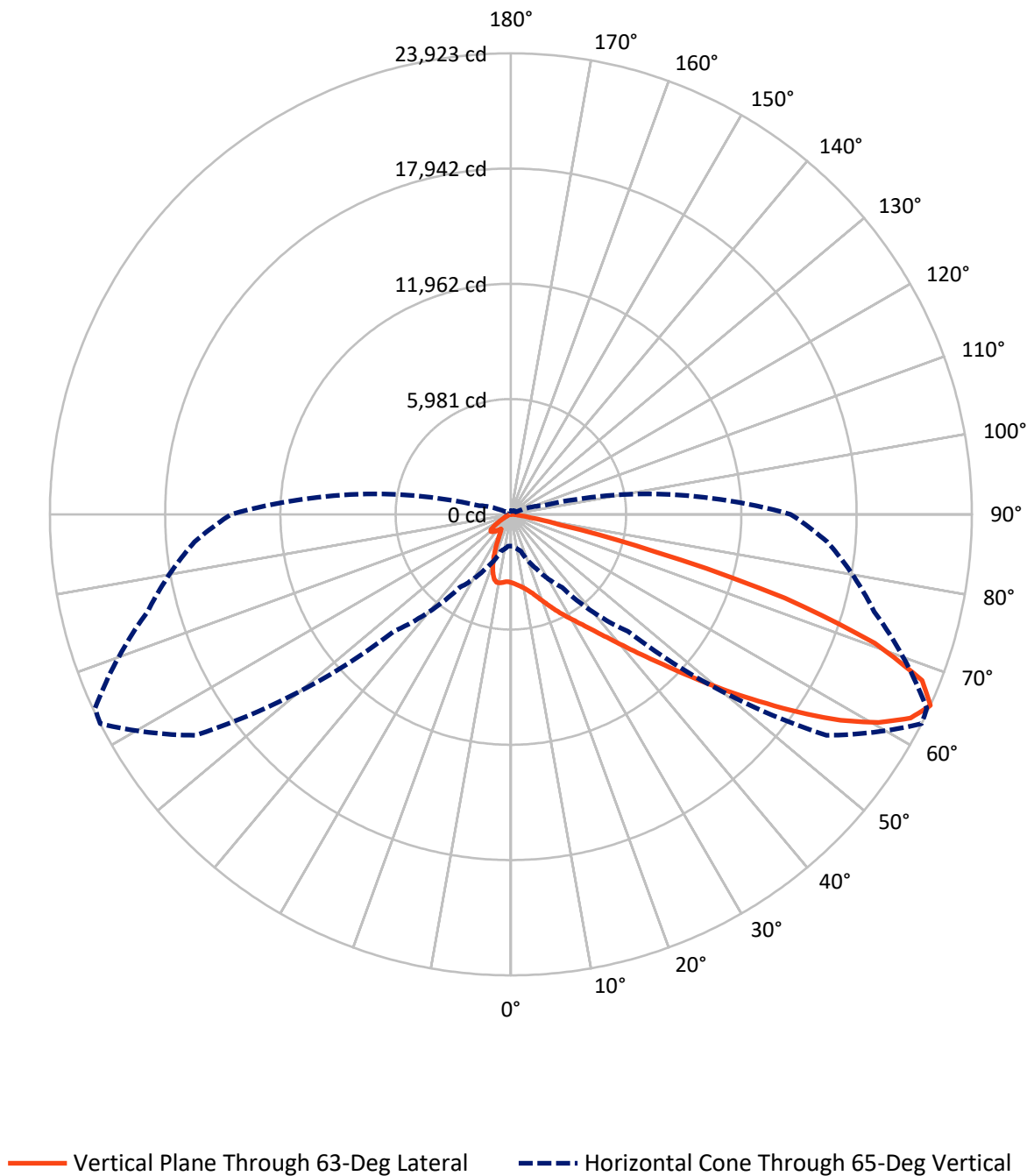


Based on 25 foot mounting height. Maximum calculated value = 9.7 fc

Type II - Short - N/A

REPORT NUMBER: P967360
CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P967360

CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4219.6	0.0	4219.6
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	24486.6	0.0	24486.6
	% Fixture	85.3	0.0	85.3
Total	Lumens	28706.1	0.0	28706.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.8	1.2
10°-20°	926.2	3.2
20°-30°	1612.7	5.6
30°-40°	2906.8	10.1
40°-50°	5765.1	20.1
50°-60°	7853.0	27.4
60°-70°	6268.2	21.8
70°-80°	2836.5	9.9
80°-90°	203.9	0.7
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°	28706.1	100.0
0°-180°	28706.1	100.0

Coefficient of Utilization



REPORT NUMBER: P967360

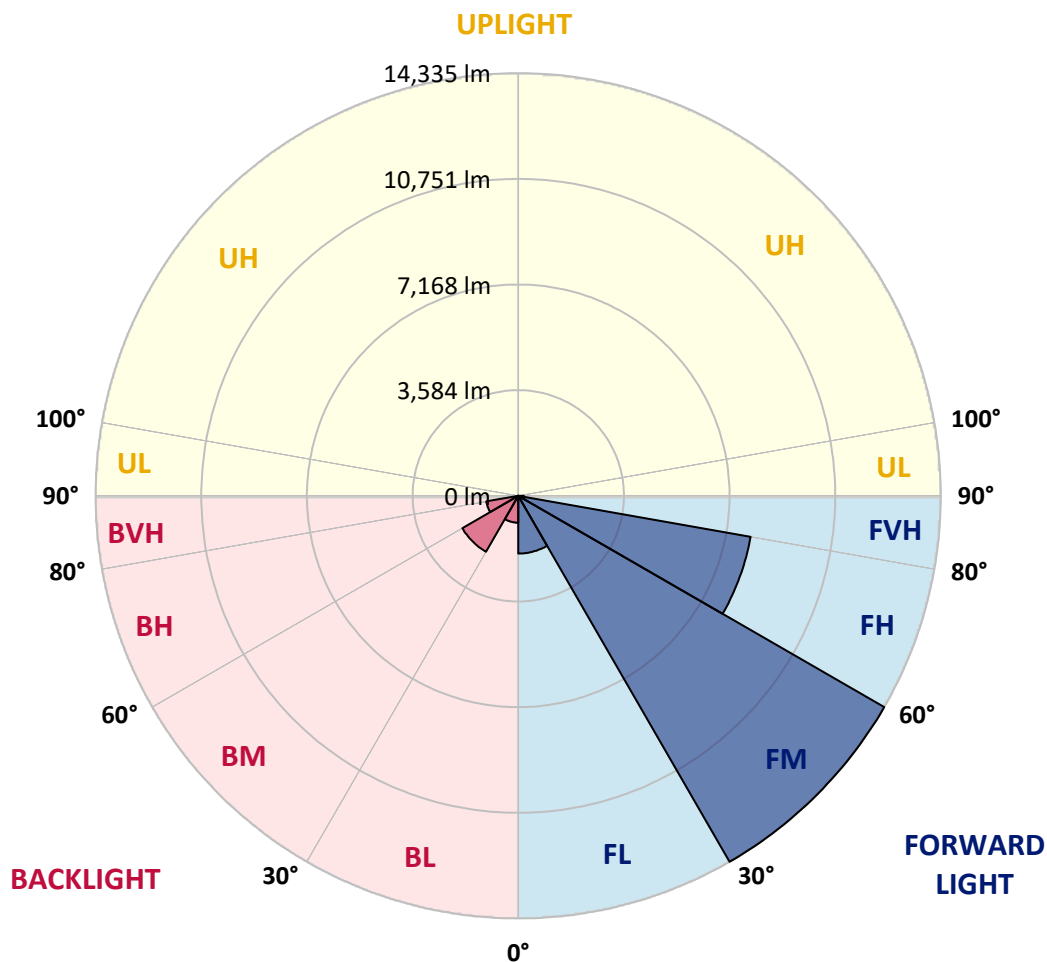
CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1959.5	6.8			
FM	(30°-60°)	14335.1	49.9			
FH	(60°-80°)	8003.1	27.9			G4/12000
FVH	(80°-90°)	188.8	0.7			G2/225
BL	(0°-30°)	913.2	3.2	B2/1000		
BM	(30°-60°)	2189.7	7.6	B2/2500		
BH	(60°-80°)	1101.6	3.8	B3/2500		G3/2500
BVH	(80°-90°)	15.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short



REPORT NUMBER: P967360

CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9
2.5°	3625.8	3616.0	3629.7	3623.9	3619.9	3612.0	3608.1	3604.1	3596.2	3590.3	3566.6
5°	3635.7	3629.7	3643.6	3655.5	3667.3	3679.1	3685.1	3693.0	3685.1	3669.3	3645.6
7.5°	3552.8	3548.8	3578.4	3613.9	3667.3	3712.8	3762.1	3789.7	3791.7	3785.8	3760.1
10°	3546.8	3537.0	3566.6	3610.0	3679.1	3760.1	3847.0	3906.3	3914.2	3939.8	3912.2
12.5°	3639.7	3629.7	3671.2	3718.6	3789.7	3874.7	3981.3	4064.2	4076.1	4111.7	4091.9
15°	3795.7	3781.8	3829.2	3890.5	3981.3	4078.1	4190.6	4265.6	4275.6	4319.0	4283.5
17.5°	3977.3	3963.6	4018.8	4084.0	4182.7	4315.0	4445.4	4528.3	4540.1	4567.8	4502.6
20°	4210.4	4192.6	4236.0	4295.3	4400.0	4558.0	4714.0	4832.5	4830.5	4830.5	4723.8
22.5°	4480.9	4453.3	4490.8	4538.2	4637.0	4828.5	5035.8	5176.0	5176.0	5120.8	4945.0
25°	4771.3	4743.6	4785.1	4828.5	4915.4	5132.6	5375.5	5549.3	5557.2	5462.4	5182.0
27.5°	5134.6	5099.1	5130.6	5182.0	5233.3	5454.5	5742.9	5944.3	5948.3	5802.1	5407.2
30°	5833.7	5733.0	5634.2	5579.0	5602.6	5821.9	6129.9	6353.1	6372.8	6171.4	5652.1
32.5°	7113.4	7093.6	6746.0	6291.9	6054.9	6216.8	6562.5	6831.0	6842.9	6584.2	5970.0
35°	9102.1	9078.4	8519.5	7654.5	6882.4	6746.0	7087.8	7405.7	7397.8	7105.5	6382.7
37.5°	11475.9	11454.2	10717.5	9560.3	8310.2	7545.9	7765.1	8098.8	8148.2	7765.1	6915.9
40°	13504.1	13423.1	12957.0	11841.2	10206.0	8873.0	8728.8	8950.0	9001.3	8547.2	7593.3
42.5°	15040.4	14971.4	14734.4	14037.3	12500.8	10836.0	9864.4	9949.3	10006.6	9461.5	8371.4
45°	15836.4	15820.6	15915.3	15850.2	14839.0	13245.4	11487.7	11134.2	11155.9	10474.6	9254.1
47.5°	15948.9	15941.0	16373.5	16985.7	16849.5	15962.7	13571.2	12611.4	12534.4	11618.1	10213.9
50°	15285.3	15269.5	16099.0	17246.3	18192.3	18245.6	15937.0	14276.2	14106.4	12801.0	11215.1
52.5°	13166.3	13162.3	14525.1	16434.7	18664.3	20244.2	18275.2	16104.9	15820.6	14053.1	12273.7
55°	10131.0	10204.1	11766.2	14023.4	17803.2	21205.9	20374.5	18135.0	17698.6	15313.0	13249.3
57.5°	7176.6	7283.2	8827.6	10837.9	15133.3	20637.1	21794.5	20169.1	19699.2	16569.0	14238.7
60°	3854.9	3949.7	5496.0	7895.5	11258.6	18516.2	22542.9	21934.7	21490.4	17761.8	15131.3
62.5°	2296.7	2328.4	2968.2	5097.1	7615.0	14145.8	22225.0	23279.5	22914.2	18763.0	15907.4
65°	1649.0	1655.0	1976.8	3112.4	4623.2	8594.5	19995.4	23923.3	23810.7	19517.4	16482.1
67.5°	1388.4	1384.4	1518.6	2067.6	3149.9	4305.2	15324.9	23012.9	23490.8	19995.4	16807.9
70°	1190.8	1196.8	1354.7	1514.7	2367.9	2436.9	7618.9	20036.8	21055.9	20121.8	16788.2
72.5°	886.7	906.4	1052.6	1380.5	1787.2	1676.7	2630.5	14856.8	16699.3	18958.6	15917.3
75°	626.1	635.9	740.6	1161.2	1333.0	1220.5	1342.9	7680.2	10042.1	14534.9	13028.1
77.5°	481.9	499.7	560.9	811.7	1313.2	857.1	821.5	2658.1	4084.0	8780.2	8932.3
80°	260.7	292.2	404.9	586.5	922.3	606.3	406.8	1058.5	1384.4	4105.7	3444.1
82.5°	134.3	150.1	282.4	422.6	525.3	529.3	201.4	440.4	570.7	1267.8	472.0
85°	53.3	65.2	189.6	233.0	270.6	260.7	90.8	177.7	205.4	351.5	144.1
87.5°	11.9	19.8	69.1	53.3	51.4	55.2	21.7	41.5	39.5	41.5	25.6
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: P967360

CATALOG NUMBER: NAV-SB4D-830-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9	3542.9
2.5°	3564.6	3556.7	3535.0	3511.2	3483.7	3467.9	3457.9	3456.0	3442.2	3432.3	3442.2
5°	3623.9	3616.0	3574.5	3525.1	3471.8	3430.3	3390.8	3355.2	3303.9	3294.0	3290.1
7.5°	3742.4	3720.6	3653.5	3586.4	3485.6	3365.2	3219.0	3051.1	2901.1	2855.6	2833.9
10°	3888.4	3858.8	3773.9	3655.5	3432.3	3104.4	2751.0	2423.1	2162.4	2089.4	2061.8
12.5°	4054.4	4028.7	3916.1	3697.0	3209.2	2614.7	2073.6	1666.8	1414.0	1350.8	1333.0
15°	4251.8	4214.3	4058.3	3633.7	2810.2	1986.7	1423.8	1183.0	1092.1	1080.2	1068.4
17.5°	4461.2	4400.0	4184.7	3406.6	2273.0	1412.0	1100.0	1030.8	991.4	979.5	973.6
20°	4652.8	4573.8	4259.8	3063.0	1698.3	1100.0	985.4	940.0	904.5	890.6	882.7
22.5°	4844.4	4731.7	4259.8	2595.0	1273.8	975.6	904.5	863.0	821.5	803.8	793.9
25°	5043.7	4893.7	4184.7	2073.6	1024.9	894.6	827.5	782.1	746.5	724.8	716.9
27.5°	5237.3	5030.0	4012.9	1579.8	912.4	823.5	756.3	712.9	679.4	663.6	663.6
30°	5420.9	5164.3	3772.0	1198.7	839.3	754.4	691.2	653.6	620.1	604.3	606.3
32.5°	5669.8	5334.1	3515.2	983.5	776.1	689.2	631.9	596.4	566.8	554.9	554.9
35°	6015.4	5584.9	3294.0	965.7	722.8	635.9	578.6	545.1	515.5	505.5	505.5
37.5°	6505.2	5989.7	3177.5	1084.1	679.4	588.6	535.2	499.7	472.0	464.1	462.1
40°	7109.5	6538.7	3240.7	1202.7	649.7	547.0	495.7	460.1	436.4	426.6	424.6
42.5°	7826.3	7216.1	3590.3	1293.6	630.0	511.5	458.2	418.7	402.8	398.9	398.9
45°	8649.9	7960.7	4125.4	1390.3	598.4	478.0	420.7	391.0	379.1	377.2	375.3
47.5°	9585.9	8778.2	4745.5	1510.7	566.8	446.3	391.0	371.3	361.4	357.4	357.4
50°	10514.1	9601.7	5383.4	1577.9	541.1	416.7	367.4	351.5	343.6	341.6	341.6
52.5°	11485.7	10449.0	5898.9	1514.7	519.4	393.0	347.6	335.7	327.8	325.8	325.8
55°	12411.9	11134.2	5987.7	1285.7	475.9	369.3	325.8	319.9	310.1	310.1	308.1
57.5°	13209.8	11477.8	5359.7	944.0	432.4	333.7	304.1	298.2	290.3	288.3	286.4
60°	13942.5	11379.0	4137.3	635.9	385.1	298.2	276.4	272.5	264.7	254.7	252.8
62.5°	14355.2	10944.6	2829.9	414.7	337.7	260.7	244.9	242.9	225.1	205.4	201.4
65°	14511.2	10052.0	1765.6	302.2	282.4	223.1	211.4	207.4	181.7	160.0	158.0
67.5°	14374.9	8582.7	890.6	238.9	223.1	185.6	173.7	173.7	156.0	136.2	134.3
70°	13829.9	6434.0	375.3	191.6	171.8	142.2	142.2	150.1	132.3	110.6	108.6
72.5°	12647.0	4328.9	199.5	146.2	128.3	100.8	116.5	122.5	104.7	82.9	82.9
75°	10053.9	2640.4	138.3	108.6	81.0	71.1	88.9	92.9	71.1	55.2	53.3
77.5°	6876.4	1516.7	92.9	69.1	51.4	41.5	61.2	57.3	37.5	25.6	27.7
80°	3019.5	631.9	53.3	31.6	19.8	15.8	21.7	15.8	11.9	7.9	7.9
82.5°	353.5	148.1	19.8	11.9	7.9	4.0	1.9	0.0	0.0	0.0	0.0
85°	73.1	17.7	9.8	4.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.8	4.0	1.9	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)