

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: P966709

Luminaire Tested: **NAV-SB4C-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966709
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-SB4C-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA 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: 24874.7 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 200.7
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

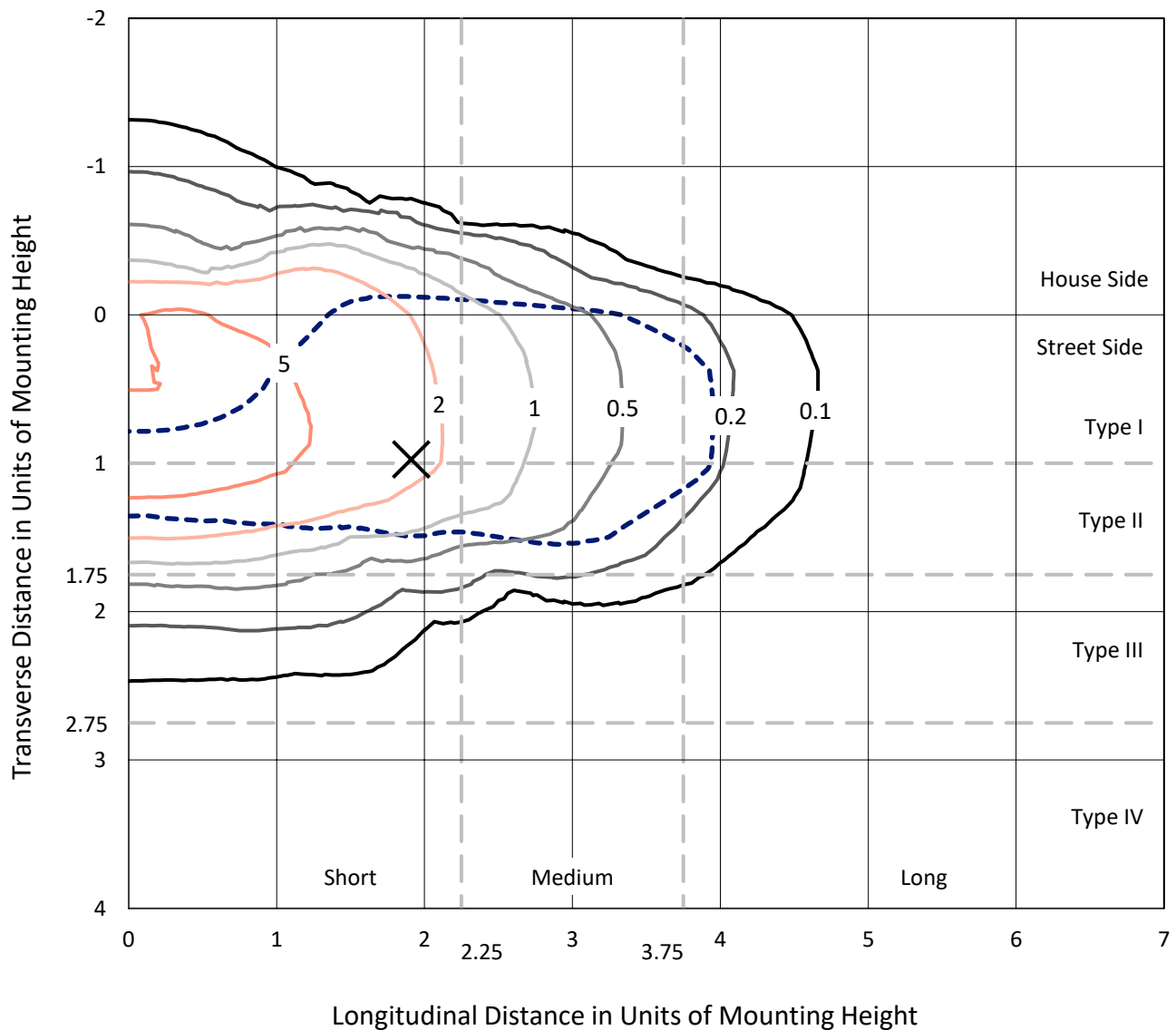


REPORT NUMBER: P966709

CATALOG NUMBER: NAV-SB4C-740-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

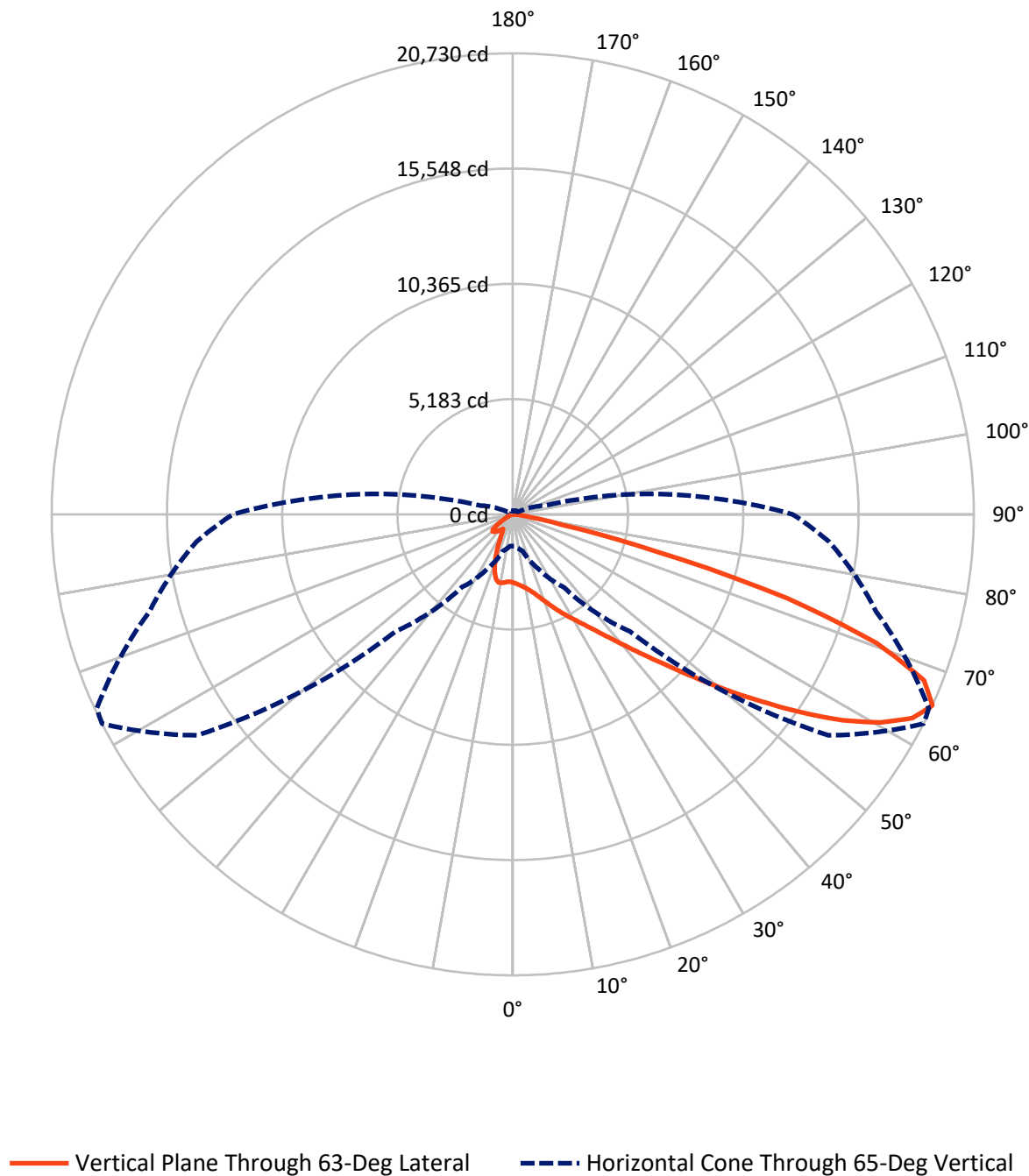
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
Type II - Short - N/A

REPORT NUMBER: P966709
CATALOG NUMBER: NAV-SB4C-740-U-T2U-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3656.4	0.0	3656.4
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	21218.3	0.0	21218.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	24874.7	0.0	24874.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.3	1.2
10°-20°	802.6	3.2
20°-30°	1397.5	5.6
30°-40°	2518.8	10.1
40°-50°	4995.6	20.1
50°-60°	6804.8	27.4
60°-70°	5431.6	21.8
70°-80°	2457.9	9.9
80°-90°	176.7	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°	24874.7	100.0
0°-180°	24874.7	100.0

Coefficient of Utilization



REPORT NUMBER: P966709

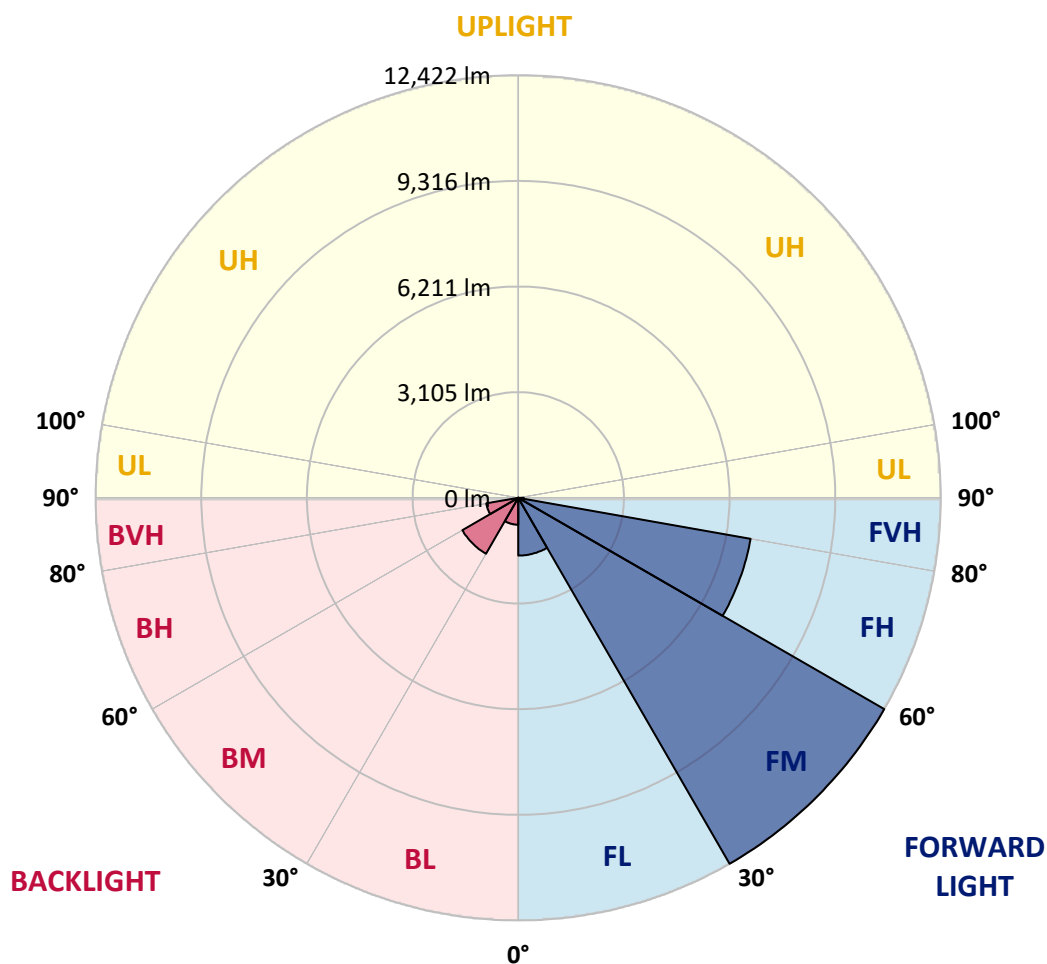
CATALOG NUMBER: NAV-SB4C-740-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1698.0	6.8			
FM	(30°-60°)	12421.8	49.9			
FH	(60°-80°)	6935.0	27.9			G3/7500
FVH	(80°-90°)	163.6	0.7			G2/225
BL	(0°-30°)	791.3	3.2	B2/1000		
BM	(30°-60°)	1897.4	7.6	B2/2500		
BH	(60°-80°)	954.5	3.8	B2/1000		G2/1000
BVH	(80°-90°)	13.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



REPORT NUMBER: P966709

CATALOG NUMBER: NAV-SB4C-740-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0
2.5°	3141.8	3133.3	3145.3	3140.2	3136.7	3129.9	3126.5	3123.1	3116.2	3111.1	3090.6
5°	3150.4	3145.3	3157.3	3167.6	3177.8	3188.1	3193.2	3200.0	3193.2	3179.5	3158.9
7.5°	3078.6	3075.1	3100.8	3131.6	3177.8	3217.2	3259.9	3283.9	3285.6	3280.5	3258.3
10°	3073.5	3064.9	3090.6	3128.2	3188.1	3258.3	3333.5	3384.9	3391.7	3414.0	3390.0
12.5°	3153.8	3145.3	3181.2	3222.3	3283.9	3357.5	3449.9	3521.8	3532.0	3562.9	3545.8
15°	3289.0	3277.0	3318.1	3371.2	3449.9	3533.8	3631.3	3696.4	3704.9	3742.6	3711.7
17.5°	3446.5	3434.5	3482.4	3538.9	3624.5	3739.1	3852.1	3923.9	3934.2	3958.1	3901.7
20°	3648.4	3633.0	3670.6	3722.0	3812.7	3949.6	4084.8	4187.4	4185.8	4185.8	4093.3
22.5°	3882.9	3858.9	3891.4	3932.5	4018.0	4184.0	4363.7	4485.2	4485.2	4437.3	4285.0
25°	4134.4	4110.5	4146.4	4184.0	4259.4	4447.6	4658.0	4808.7	4815.4	4733.3	4490.3
27.5°	4449.3	4418.5	4445.8	4490.3	4534.8	4726.5	4976.4	5150.9	5154.3	5027.7	4685.5
30°	5055.1	4967.8	4882.3	4834.3	4854.8	5044.8	5311.8	5505.2	5522.3	5347.7	4897.7
32.5°	6163.9	6146.8	5845.7	5452.1	5246.8	5387.1	5686.5	5919.3	5929.5	5705.4	5173.2
35°	7887.2	7866.7	7382.4	6632.9	5963.8	5845.7	6141.7	6417.2	6410.3	6157.2	5530.8
37.5°	9944.1	9925.4	9287.0	8284.3	7201.0	6538.8	6728.7	7017.9	7060.7	6728.7	5992.9
40°	11701.6	11631.5	11227.6	10260.8	8843.8	7688.7	7563.8	7755.5	7799.9	7406.3	6579.8
42.5°	13033.0	12973.1	12767.7	12163.7	10832.3	9389.7	8547.8	8621.4	8671.0	8198.7	7254.0
45°	13722.6	13709.0	13791.1	13734.6	12858.4	11477.4	9954.4	9648.1	9667.0	9076.6	8019.0
47.5°	13820.2	13813.3	14188.0	14718.6	14600.5	13832.2	11759.8	10928.1	10861.4	10067.3	8850.7
50°	13245.2	13231.5	13950.2	14944.5	15764.2	15810.4	13809.9	12370.7	12223.5	11092.4	9718.2
52.5°	11409.0	11405.6	12586.4	14241.1	16173.2	17542.2	15836.0	13955.4	13709.0	12177.3	10635.5
55°	8778.8	8842.1	10195.7	12151.7	15427.1	18375.6	17655.1	15714.6	15336.4	13269.1	11480.9
57.5°	6218.8	6311.1	7649.4	9391.5	13113.4	17882.7	18885.5	17477.2	17069.8	14357.5	12338.2
60°	3340.4	3422.6	4762.5	6841.7	9755.9	16044.8	19534.0	19007.0	18622.0	15391.1	13111.7
62.5°	1990.2	2017.6	2572.0	4416.7	6598.6	12257.8	19258.5	20172.4	19855.8	16258.8	13784.2
65°	1429.0	1434.1	1713.0	2697.0	4006.1	7447.4	17326.6	20730.2	20632.7	16912.4	14282.2
67.5°	1203.0	1199.6	1316.0	1791.7	2729.5	3730.6	13279.4	19941.4	20355.5	17326.6	14564.5
70°	1031.9	1037.0	1173.9	1312.5	2051.8	2111.7	6602.0	17362.5	18245.5	17436.1	14547.4
72.5°	768.3	785.5	912.1	1196.2	1548.7	1452.8	2279.4	12873.8	14470.4	16428.2	13792.8
75°	542.4	551.0	641.8	1006.2	1155.1	1057.6	1163.7	6655.1	8701.7	12594.9	11289.2
77.5°	417.6	433.0	486.0	703.4	1138.0	742.7	711.9	2303.4	3538.9	7608.3	7740.1
80°	225.9	253.3	350.9	508.2	799.2	525.3	352.5	917.3	1199.6	3557.7	2984.5
82.5°	116.3	130.1	244.7	366.2	455.2	458.6	174.6	381.6	494.6	1098.6	409.0
85°	46.2	56.5	164.3	201.9	234.4	225.9	78.7	154.1	177.9	304.6	124.9
87.5°	10.2	17.1	59.9	46.2	44.5	47.9	18.9	36.0	34.2	36.0	22.2
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: P966709

CATALOG NUMBER: NAV-SB4C-740-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0	3070.0
2.5°	3088.8	3082.0	3063.2	3042.6	3018.6	3005.0	2996.4	2994.7	2982.7	2974.1	2982.7
5°	3140.2	3133.3	3097.3	3054.6	3008.4	2972.5	2938.3	2907.4	2862.9	2854.4	2850.9
7.5°	3242.9	3224.0	3165.8	3107.7	3020.4	2916.0	2789.3	2643.9	2513.8	2474.5	2455.7
10°	3369.5	3343.9	3270.3	3167.6	2974.1	2690.1	2383.7	2099.7	1873.8	1810.6	1786.6
12.5°	3513.2	3490.9	3393.5	3203.5	2780.8	2265.8	1796.8	1444.3	1225.3	1170.6	1155.1
15°	3684.4	3651.9	3516.7	3148.7	2435.1	1721.5	1233.8	1025.0	946.3	936.0	925.8
17.5°	3865.8	3812.7	3626.1	2951.9	1969.6	1223.5	953.1	893.3	859.1	848.8	843.7
20°	4031.7	3963.3	3691.2	2654.1	1471.7	953.1	853.9	814.6	783.7	771.8	765.0
22.5°	4197.7	4100.2	3691.2	2248.6	1103.7	845.3	783.7	747.8	711.9	696.5	687.9
25°	4370.6	4240.5	3626.1	1796.8	888.2	775.2	717.0	677.6	646.9	628.0	621.2
27.5°	4538.3	4358.6	3477.3	1369.0	790.6	713.6	655.4	617.8	588.7	575.0	575.0
30°	4697.4	4474.9	3268.5	1038.7	727.2	653.7	598.9	566.4	537.3	523.7	525.3
32.5°	4913.0	4622.1	3046.1	852.2	672.5	597.3	547.6	516.8	491.2	480.8	480.8
35°	5212.5	4839.4	2854.4	836.8	626.3	551.0	501.4	472.3	446.6	438.1	438.1
37.5°	5636.9	5190.3	2753.5	939.5	588.7	509.9	463.7	433.0	409.0	402.1	400.5
40°	6160.6	5666.0	2808.2	1042.1	563.0	474.1	429.6	398.7	378.2	369.6	367.9
42.5°	6781.7	6252.9	3111.1	1120.8	545.9	443.2	397.0	362.7	349.1	345.6	345.6
45°	7495.3	6898.1	3574.8	1204.7	518.5	414.1	364.5	338.9	328.5	326.9	325.1
47.5°	8306.5	7606.5	4112.2	1309.1	491.2	386.7	338.9	321.7	313.1	309.8	309.8
50°	9110.8	8320.1	4664.9	1367.4	468.9	361.1	318.3	304.6	297.8	296.0	296.0
52.5°	9952.8	9054.3	5111.6	1312.5	450.1	340.5	301.1	290.9	284.0	282.4	282.4
55°	10755.3	9648.1	5188.5	1114.1	412.5	320.0	282.4	277.3	268.7	268.7	266.9
57.5°	11446.7	9945.9	4644.4	817.9	374.7	289.2	263.5	258.4	251.5	249.9	248.2
60°	12081.6	9860.3	3585.1	551.0	333.7	258.4	239.5	236.2	229.3	220.8	219.0
62.5°	12439.2	9483.8	2452.2	359.4	292.6	225.9	212.2	210.5	195.1	177.9	174.6
65°	12574.4	8710.3	1529.9	261.8	244.7	193.4	183.1	179.7	157.4	138.6	136.9
67.5°	12456.3	7437.2	771.8	207.0	193.4	160.8	150.6	150.6	135.2	118.1	116.3
70°	11984.0	5575.3	325.1	165.9	148.8	123.2	123.2	130.1	114.7	95.8	94.1
72.5°	10958.9	3751.1	172.8	126.6	111.2	87.2	101.0	106.1	90.7	71.9	71.9
75°	8712.1	2288.0	119.8	94.1	70.2	61.6	77.0	80.5	61.6	47.9	46.2
77.5°	5958.6	1314.3	80.5	59.9	44.5	36.0	53.1	49.6	32.5	22.2	24.0
80°	2616.5	547.6	46.2	27.4	17.1	13.7	18.9	13.7	10.2	6.9	6.9
82.5°	306.3	128.3	17.1	10.2	6.9	3.4	1.7	0.0	0.0	0.0	0.0
85°	63.3	15.4	8.5	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.0	3.4	1.7	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)