

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: P884108

Luminaire Tested: **NAV-SB4D-735-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32343 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

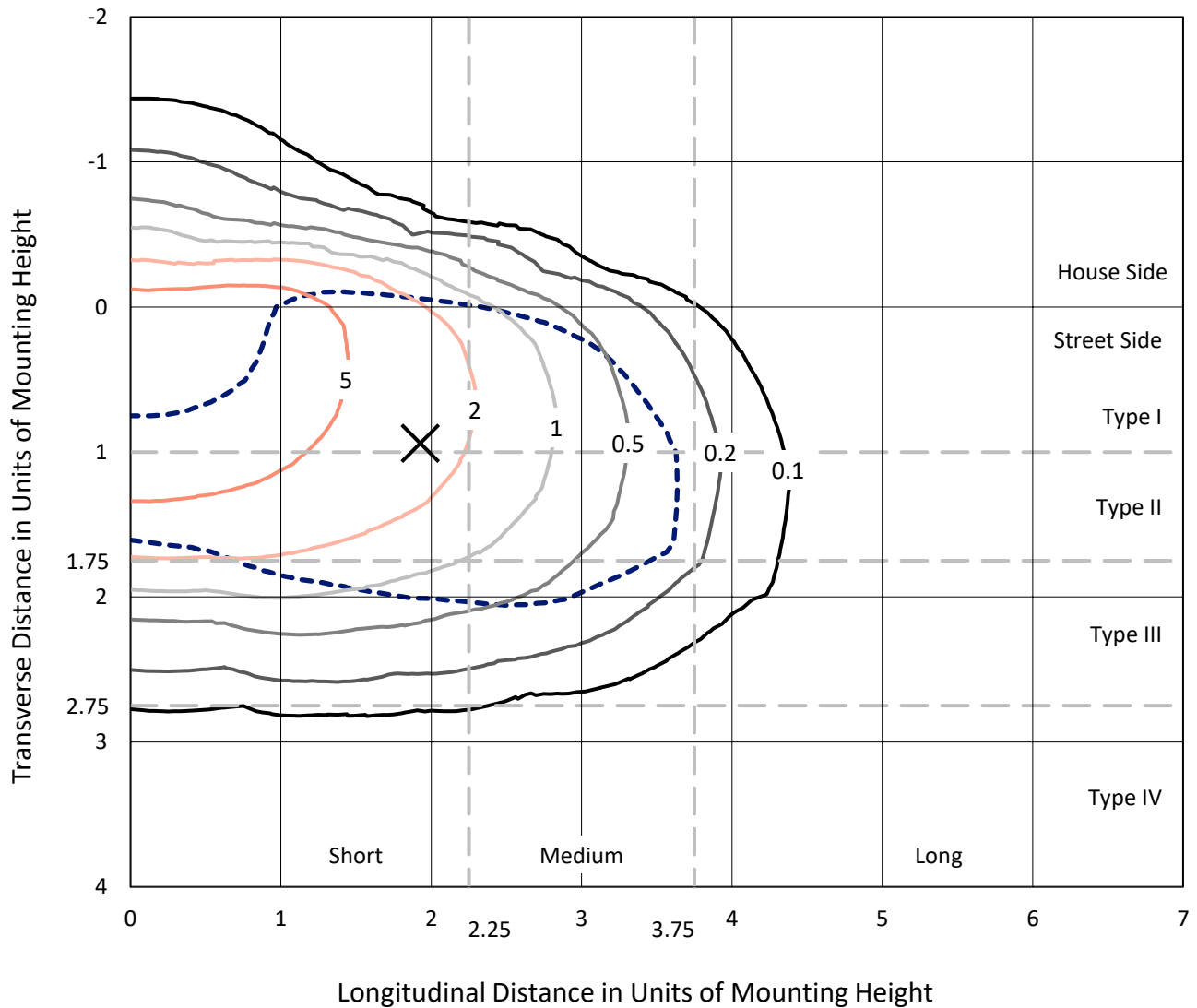
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

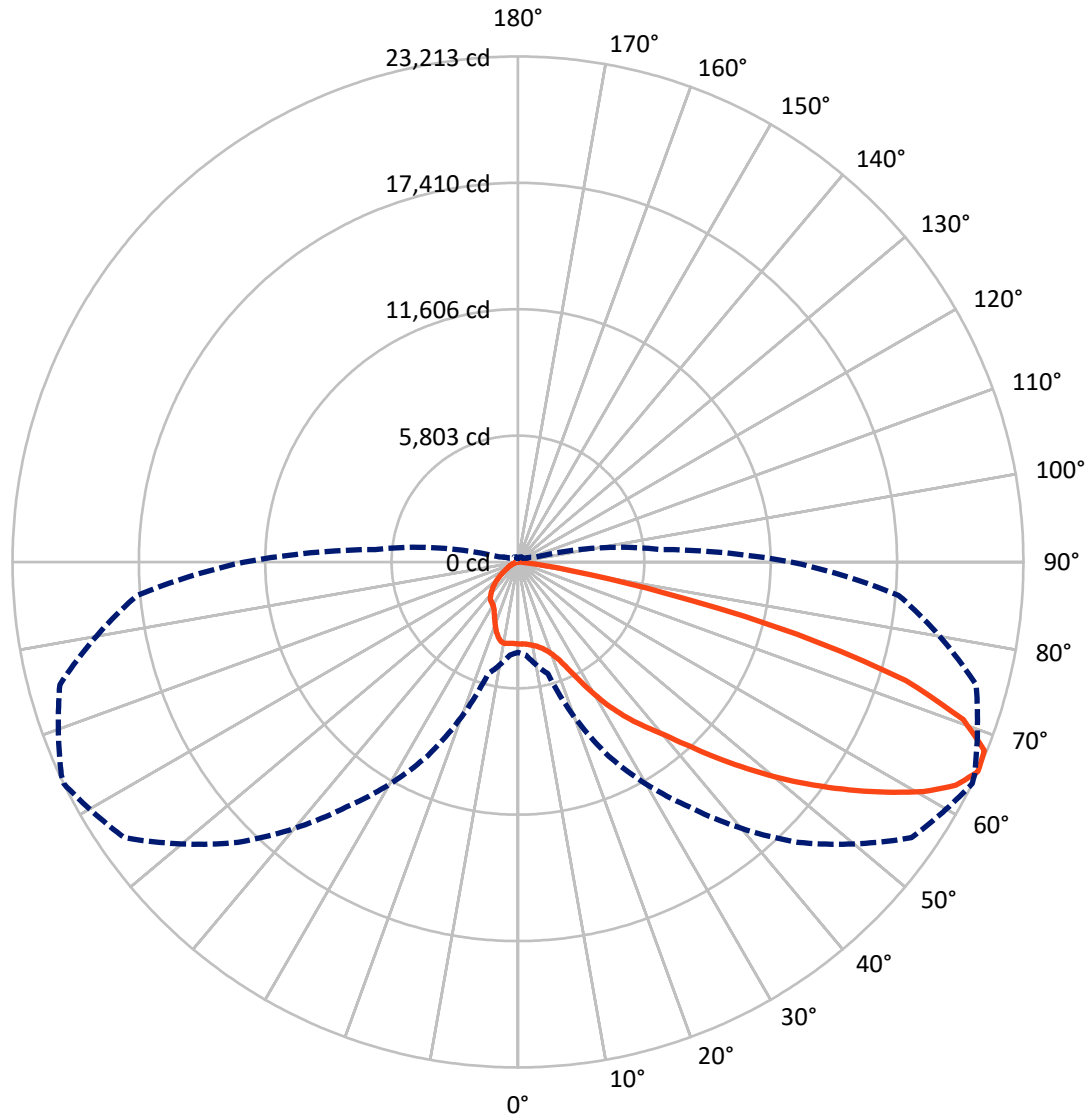
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4325.2	0.0	4325.2
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	28017.8	0.0	28017.8
	% Fixture	86.6	0.0	86.6
Total	Lumens	32343.0	0.0	32343.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.1	1.1
10°-20°	941.3	2.9
20°-30°	1783.8	5.5
30°-40°	3609.5	11.2
40°-50°	6148.8	19.0
50°-60°	8361.9	25.9
60°-70°	7852.3	24.3
70°-80°	3145.9	9.7
80°-90°	152.4	0.5
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°	32343.0	100.0
0°-180°	32343.0	100.0

Coefficient of Utilization



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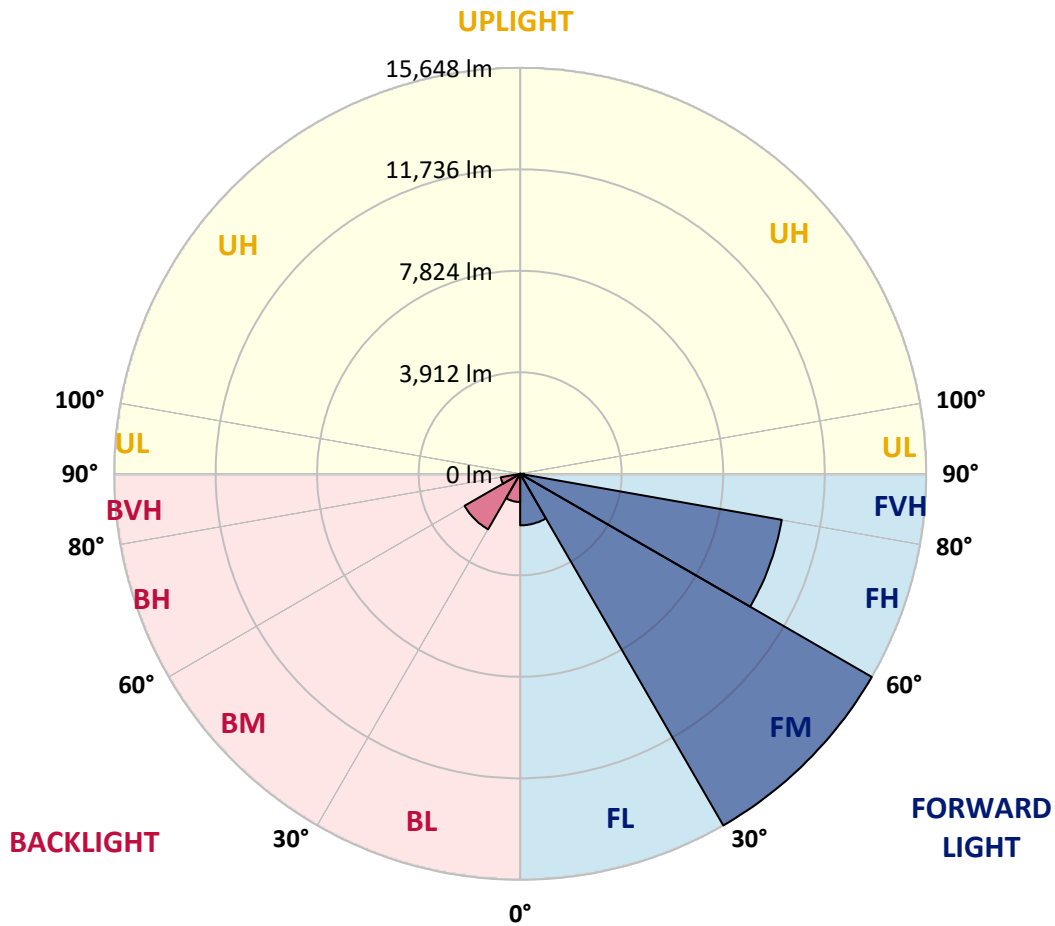
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1986.2	6.1			
FM (30°-60°)	15647.5	48.4			
FH (60°-80°)	10239.1	31.7			G4/12000
FVH (80°-90°)	145.0	0.4			G2/225
BL (0°-30°)	1085.9	3.4	B3/2500		
BM (30°-60°)	2472.7	7.6	B2/2500		
BH (60°-80°)	759.2	2.3	B2/1000		G2/1000
BVH (80°-90°)	7.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8
2.5°	3748.8	3774.8	3768.3	3761.8	3759.7	3764.0	3766.2	3764.0	3764.0	3764.0	3766.2
5°	3677.3	3698.9	3698.9	3714.1	3735.8	3761.8	3781.3	3785.7	3790.0	3796.5	3794.3
7.5°	3540.7	3558.0	3571.0	3620.9	3675.1	3744.5	3803.0	3833.4	3837.7	3861.6	3870.2
10°	3447.4	3469.1	3490.8	3542.8	3620.9	3725.0	3824.7	3898.4	3909.3	3965.6	3991.7
12.5°	3443.1	3464.8	3493.0	3549.3	3640.4	3751.0	3872.4	3978.6	3998.2	4080.6	4134.8
15°	3488.6	3514.7	3540.7	3610.1	3707.6	3842.1	3972.1	4104.4	4123.9	4241.0	4299.5
17.5°	3581.9	3616.6	3636.1	3705.5	3809.5	3959.1	4130.4	4282.2	4299.5	4436.1	4509.9
20°	3766.2	3807.4	3813.9	3870.2	3972.1	4132.6	4336.4	4525.0	4546.7	4702.8	4785.2
22.5°	4147.8	4206.3	4154.3	4182.5	4273.5	4434.0	4655.1	4893.6	4924.0	5101.8	5175.5
25°	4819.9	4902.3	4767.9	4720.2	4759.2	4926.2	5203.7	5505.1	5539.8	5682.9	5719.7
27.5°	6140.3	6034.1	5830.3	5630.8	5513.7	5609.1	5921.4	6294.3	6337.6	6476.4	6433.0
30°	7590.9	7497.6	7222.3	6780.0	6502.4	6487.3	6775.6	7191.9	7241.8	7374.0	7241.8
32.5°	9043.6	8954.7	8655.5	8111.2	7629.9	7391.4	7590.9	8052.7	8078.7	8163.3	7968.1
35°	10472.4	10381.3	10082.1	9524.9	8933.0	8390.9	8351.9	8872.3	8880.9	8969.8	8679.3
37.5°	11909.9	11834.0	11515.3	10968.9	10385.7	9637.6	9275.6	9648.5	9659.3	9746.1	9444.7
40°	12935.5	12968.0	12749.0	12326.2	11825.4	11008.0	10312.0	10474.6	10409.5	10554.8	10374.8
42.5°	13815.8	13880.8	13690.0	13477.5	13187.0	12467.1	11595.5	11567.3	11463.3	11541.3	11354.9
45°	14576.8	14631.0	14459.7	14409.9	14403.4	13898.2	12998.4	12829.2	12684.0	12668.8	12445.5
47.5°	14856.5	14960.6	15034.3	15201.2	15526.5	15314.0	14448.9	14186.5	14023.9	13904.7	13551.2
50°	14962.7	15073.3	15324.8	15810.5	16580.2	16671.3	15892.9	15598.0	15398.6	15181.7	14661.4
52.5°	14819.6	15017.0	15355.2	16172.6	17289.2	17759.7	17278.4	17020.4	16792.7	16439.3	15667.4
55°	13976.2	14173.5	14865.2	16168.3	17642.6	18522.9	18588.0	18473.1	18217.2	17660.0	16480.5
57.5°	12198.3	12491.0	13585.9	15617.5	17636.1	19179.9	19871.6	19953.9	19667.7	18869.8	17120.1
60°	9735.2	10132.0	11467.6	14396.8	17091.9	19535.5	20996.8	21408.8	21105.3	20062.4	17638.3
62.5°	6793.0	7252.6	8516.7	12484.5	15847.4	19279.6	21818.6	22579.6	22349.8	21129.1	17837.8
65°	4143.4	4290.9	5309.9	9824.1	13731.2	18208.5	22072.3	23212.7	23136.9	21781.7	17542.9
67.5°	2760.1	2883.7	3176.4	6736.6	10658.9	16068.5	21465.2	23102.2	23123.9	21675.5	16463.1
70°	1663.0	1769.3	1960.1	3917.9	6907.9	12718.7	19585.3	21692.8	21818.6	20255.3	14416.4
72.5°	685.2	756.7	930.2	1775.8	3577.5	8072.2	15595.9	18624.8	18917.5	17031.2	11064.3
75°	388.1	425.0	546.4	891.1	1552.4	3761.8	9446.8	13221.7	13653.2	11738.6	6656.4
77.5°	258.0	275.4	353.4	576.7	873.8	1283.6	4037.2	6888.4	7712.3	6411.4	2881.5
80°	173.5	188.6	242.8	385.9	568.1	550.7	1285.7	2552.0	3139.6	2202.9	702.5
82.5°	117.1	119.3	173.5	253.7	359.9	266.7	379.4	793.6	997.4	637.5	266.7
85°	67.2	65.0	127.9	147.4	160.4	110.6	114.9	238.5	312.2	268.9	151.8
87.5°	8.7	13.0	49.9	39.0	21.7	23.9	23.9	41.2	60.7	65.0	32.5
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°	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8	3761.8
2.5°	3766.2	3764.0	3757.5	3751.0	3735.8	3727.1	3731.5	3727.1	3725.0	3727.1	3735.8
5°	3794.3	3787.8	3770.5	3748.8	3718.5	3681.6	3657.8	3623.1	3590.5	3571.0	3575.4
7.5°	3870.2	3863.7	3839.9	3779.2	3681.6	3527.7	3386.7	3263.1	3169.9	3115.7	3117.9
10°	3991.7	3980.8	3944.0	3809.5	3553.7	3217.6	2937.9	2705.9	2554.1	2482.6	2476.1
12.5°	4134.8	4121.7	4056.7	3781.3	3310.8	2786.1	2400.2	2142.2	2001.2	1938.4	1931.9
15°	4303.9	4286.5	4158.6	3646.9	2957.4	2309.1	1955.7	1762.7	1671.7	1615.3	1617.5
17.5°	4514.2	4483.8	4234.5	3445.3	2573.7	1944.9	1682.5	1537.3	1457.0	1402.8	1398.5
20°	4787.4	4737.5	4295.2	3204.6	2220.2	1715.0	1498.2	1376.8	1316.1	1268.4	1259.7
22.5°	5169.0	5097.4	4368.9	2944.4	1970.9	1556.8	1361.6	1272.7	1222.9	1168.7	1160.0
25°	5641.7	5557.1	4460.0	2703.7	1799.6	1420.2	1261.9	1188.2	1129.6	1066.8	1060.2
27.5°	6303.0	6151.2	4568.4	2506.4	1652.2	1303.1	1170.8	1088.4	1021.2	969.2	958.3
30°	7040.1	6790.8	4663.8	2387.2	1517.7	1194.7	1051.6	969.2	906.3	869.4	862.9
32.5°	7738.3	7400.1	4726.7	2335.2	1396.3	1071.1	921.5	832.6	784.9	774.0	780.6
35°	8397.4	7950.8	4720.2	2285.3	1287.9	947.5	793.6	702.5	665.6	672.1	672.1
37.5°	9156.3	8538.4	4674.6	2207.2	1199.0	834.8	683.0	602.8	570.2	572.4	581.1
40°	10038.8	9217.0	4646.5	2059.8	1101.4	730.7	591.9	526.9	503.0	494.3	492.2
42.5°	10979.8	9874.0	4650.8	1892.8	980.0	637.5	529.0	474.8	453.2	446.6	444.5
45°	11925.1	10500.6	4657.3	1719.4	852.1	565.9	483.5	438.0	425.0	416.3	416.3
47.5°	12814.1	11034.0	4535.9	1532.9	726.3	511.7	446.6	416.3	405.5	394.6	394.6
50°	13642.3	11389.6	4243.2	1316.1	626.6	468.3	418.5	396.8	385.9	375.1	375.1
52.5°	14286.3	11445.9	3759.7	1092.8	557.2	435.8	401.1	381.6	368.6	357.8	355.6
55°	14572.5	11092.5	3072.3	884.6	503.0	407.6	383.8	364.3	349.1	338.2	336.1
57.5°	14498.8	10348.8	2395.9	711.2	451.0	379.4	362.1	349.1	331.7	314.4	312.2
60°	14136.7	9353.6	1806.1	591.9	403.3	349.1	338.2	327.4	303.5	277.5	273.2
62.5°	13510.1	8102.6	1287.9	490.0	351.2	314.4	310.1	301.4	266.7	219.0	214.7
65°	12551.7	6582.7	867.3	407.6	301.4	275.4	277.5	262.4	216.8	162.6	158.3
67.5°	11151.1	4813.4	555.1	333.9	251.5	229.8	232.0	223.3	184.3	138.8	132.3
70°	9366.6	3187.3	362.1	253.7	201.6	177.8	190.8	193.0	156.1	112.7	108.4
72.5°	6866.7	1882.0	253.7	188.6	147.4	123.6	156.1	160.4	125.8	84.6	80.2
75°	3913.6	893.3	190.8	136.6	91.1	86.7	121.4	121.4	86.7	56.4	52.0
77.5°	1643.5	372.9	134.4	88.9	52.0	49.9	82.4	75.9	43.4	26.0	26.0
80°	474.8	167.0	71.6	43.4	21.7	19.5	32.5	23.9	10.8	4.3	4.3
82.5°	186.5	73.7	28.2	17.3	8.7	8.7	4.3	0.0	0.0	0.0	0.0
85°	110.6	30.4	13.0	6.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	28.2	6.5	4.3	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)