

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: P884078

Luminaire Tested: **NAV-SB4D-722-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884078
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-722-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 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: 25774 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

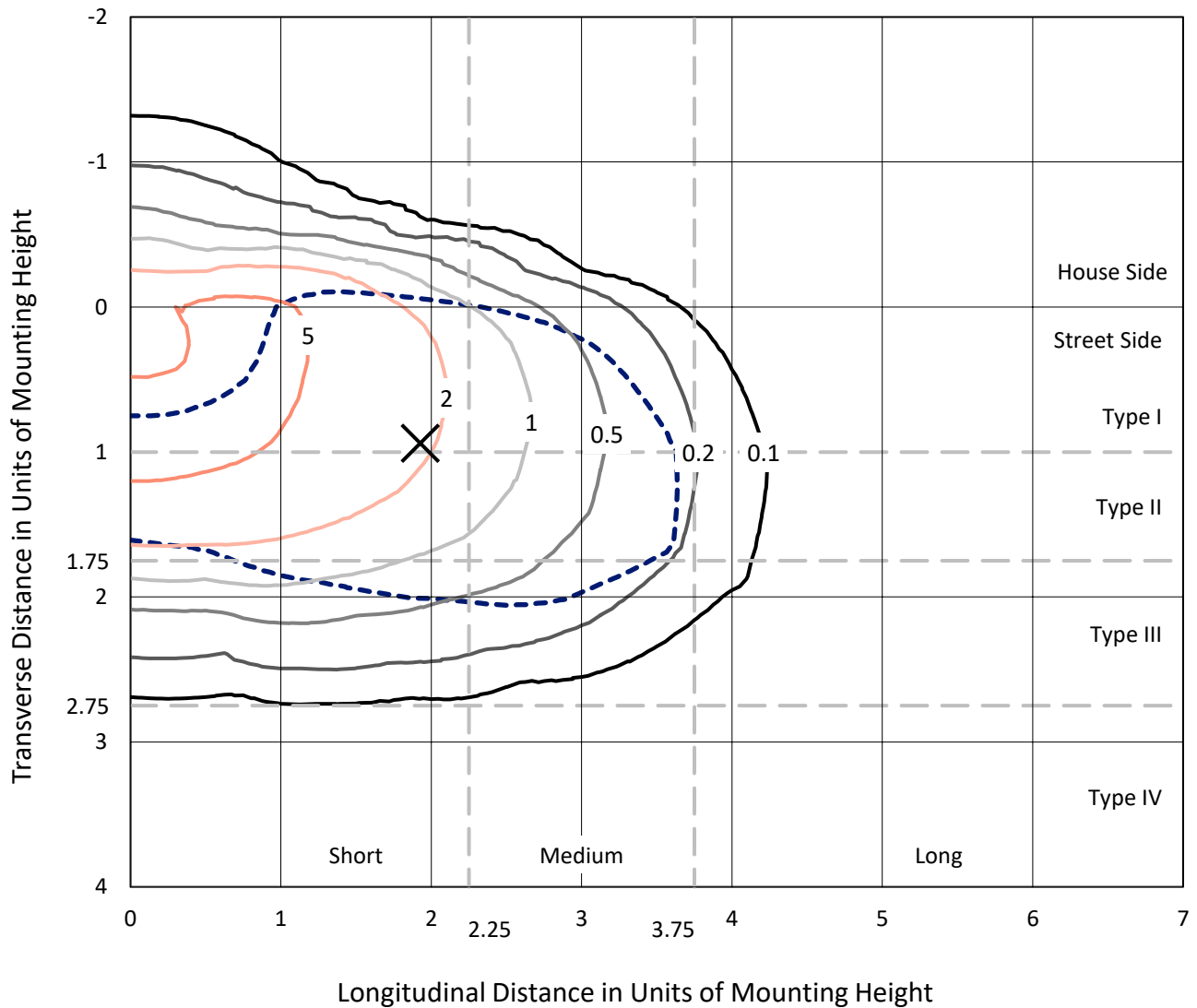
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

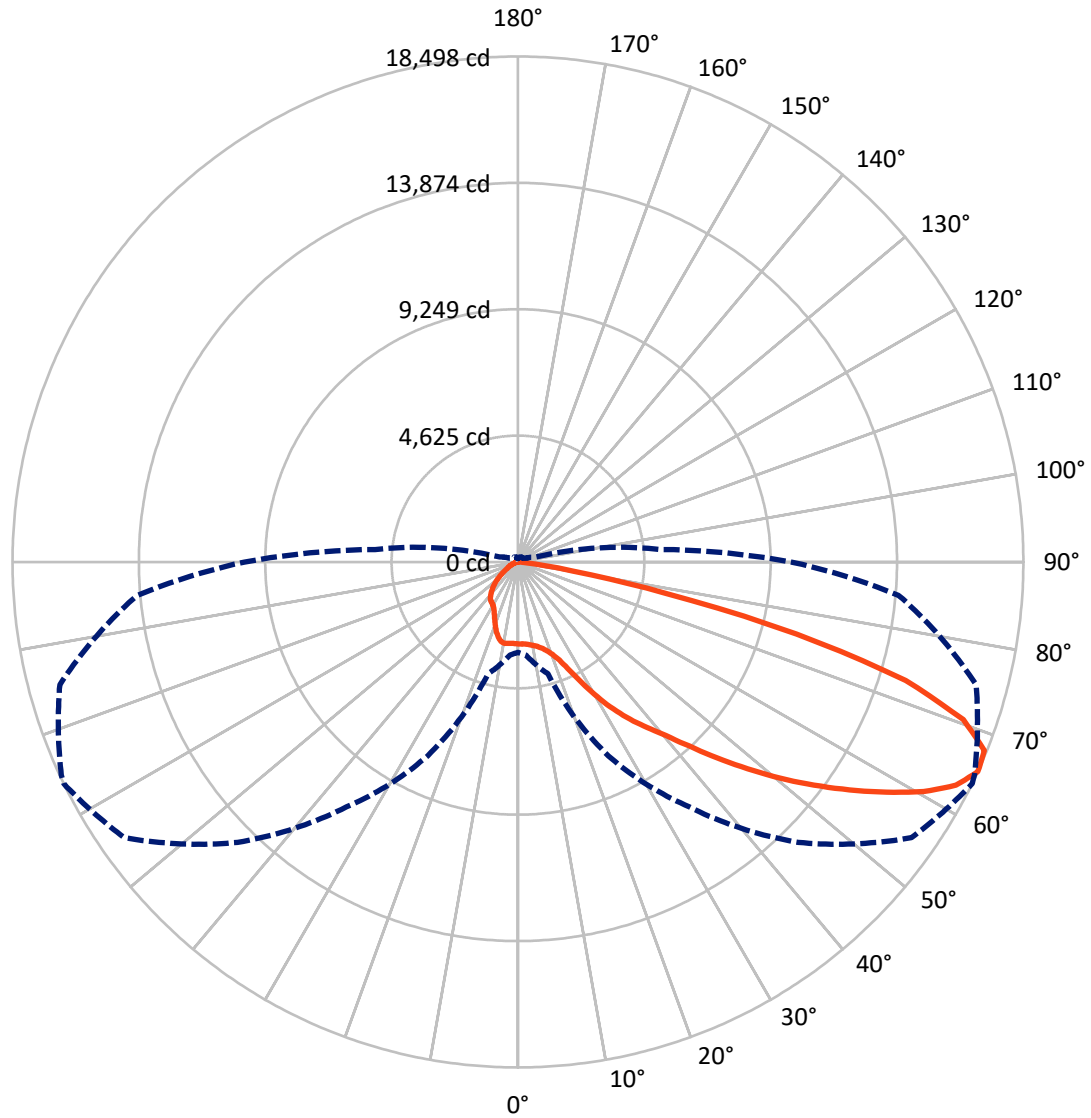
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 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	3446.8	0.0	3446.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	22327.2	0.0	22327.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	25774.0	0.0	25774.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.6	1.1
10°-20°	750.2	2.9
20°-30°	1421.5	5.5
30°-40°	2876.4	11.2
40°-50°	4900.0	19.0
50°-60°	6663.6	25.9
60°-70°	6257.4	24.3
70°-80°	2507.0	9.7
80°-90°	121.5	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°	25774.0	100.0
0°-180°	25774.0	100.0

Coefficient of Utilization



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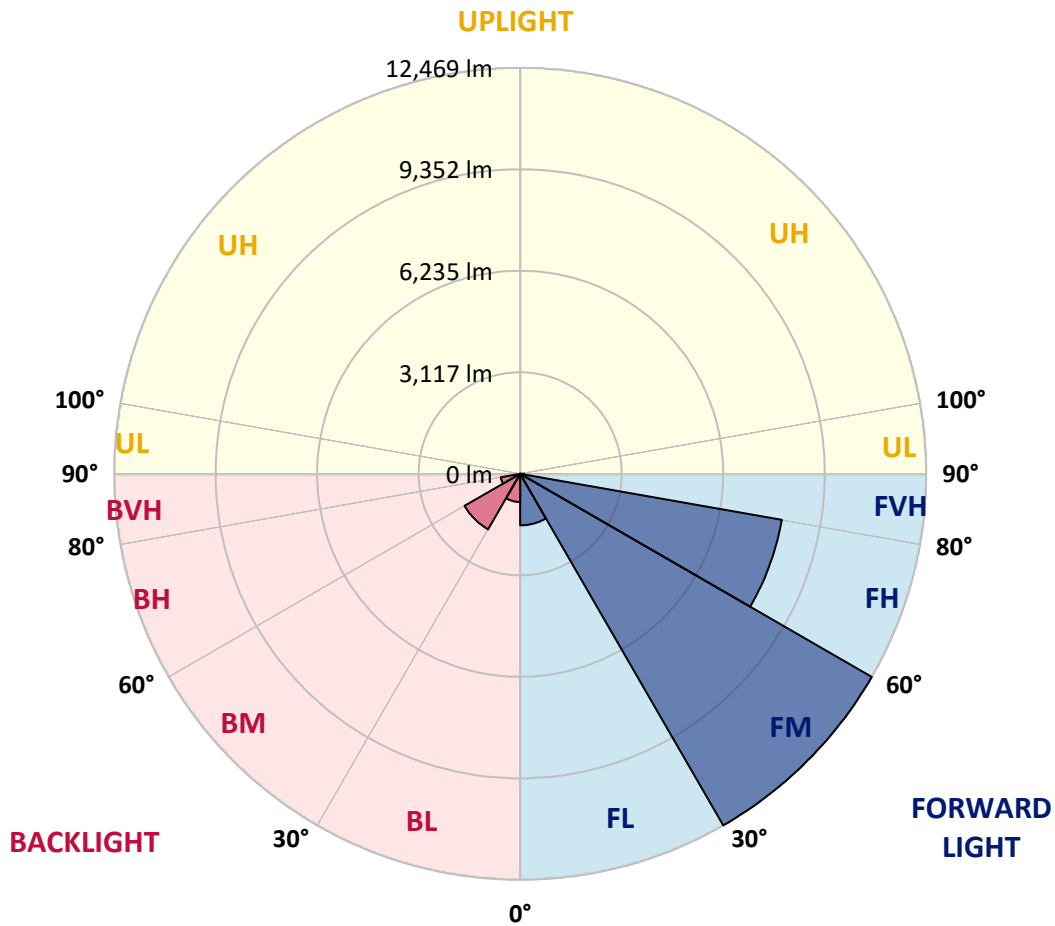
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1582.8	6.1			
FM (30°-60°)	12469.4	48.4			
FH (60°-80°)	8159.5	31.7			G4/12000
FVH (80°-90°)	115.5	0.4			G2/225
BL (0°-30°)	865.4	3.4	B2/1000		
BM (30°-60°)	1970.5	7.6	B2/2500		
BH (60°-80°)	605.0	2.3	B2/1000		G2/1000
BVH (80°-90°)	5.9	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8
2.5°	2987.4	3008.2	3003.0	2997.8	2996.1	2999.5	3001.2	2999.5	2999.5	2999.5	3001.2
5°	2930.4	2947.7	2947.7	2959.8	2977.0	2997.8	3013.3	3016.8	3020.2	3025.4	3023.7
7.5°	2821.5	2835.4	2845.7	2885.5	2928.7	2984.0	3030.6	3054.8	3058.3	3077.3	3084.2
10°	2747.2	2764.5	2781.8	2823.3	2885.5	2968.4	3047.9	3106.6	3115.3	3160.2	3180.9
12.5°	2743.8	2761.1	2783.5	2828.5	2901.0	2989.1	3085.9	3170.6	3186.1	3251.8	3295.0
15°	2780.1	2800.8	2821.5	2876.8	2954.6	3061.7	3165.4	3270.8	3286.3	3379.6	3426.3
17.5°	2854.4	2882.0	2897.6	2952.9	3035.8	3155.0	3291.5	3412.5	3426.3	3535.1	3593.9
20°	3001.2	3034.1	3039.3	3084.2	3165.4	3293.2	3455.7	3606.0	3623.3	3747.7	3813.3
22.5°	3305.3	3352.0	3310.5	3333.0	3405.6	3533.4	3709.6	3899.7	3923.9	4065.6	4124.3
25°	3841.0	3906.6	3799.5	3761.5	3792.6	3925.6	4146.8	4387.0	4414.6	4528.6	4558.0
27.5°	4893.2	4808.5	4646.1	4487.2	4393.9	4469.9	4718.7	5015.9	5050.4	5161.0	5126.5
30°	6049.1	5974.8	5755.4	5402.9	5181.8	5169.7	5399.5	5731.2	5770.9	5876.3	5770.9
32.5°	7206.8	7135.9	6897.5	6463.8	6080.2	5890.2	6049.1	6417.2	6437.9	6505.3	6349.8
35°	8345.4	8272.8	8034.4	7590.4	7118.7	6686.7	6655.6	7070.3	7077.2	7148.0	6916.5
37.5°	9491.0	9430.5	9176.5	8741.1	8276.3	7680.2	7391.7	7688.8	7697.5	7766.6	7526.4
40°	10308.2	10334.1	10159.6	9822.7	9423.6	8772.2	8217.6	8347.1	8295.3	8411.1	8267.7
42.5°	11009.7	11061.6	10909.5	10740.2	10508.7	9935.0	9240.4	9218.0	9135.0	9197.2	9048.6
45°	11616.2	11659.4	11522.9	11483.2	11478.0	11075.4	10358.3	10223.6	10107.8	10095.7	9917.7
47.5°	11839.1	11922.0	11980.8	12113.8	12373.0	12203.7	11514.3	11305.2	11175.6	11080.6	10798.9
50°	11923.7	12011.9	12212.3	12599.3	13212.7	13285.3	12665.0	12430.0	12271.0	12098.3	11683.6
52.5°	11809.7	11966.9	12236.5	12887.9	13777.7	14152.6	13769.1	13563.5	13382.0	13100.4	12485.3
55°	11137.6	11294.8	11846.0	12884.4	14059.3	14760.8	14812.7	14721.1	14517.2	14073.2	13133.2
57.5°	9720.8	9954.0	10826.6	12445.6	14054.2	15284.4	15835.6	15901.2	15673.1	15037.3	13642.9
60°	7758.0	8074.1	9138.5	11472.8	13620.5	15567.7	16732.3	17060.6	16818.7	15987.6	14055.9
62.5°	5413.3	5779.6	6786.9	9948.8	12628.7	15363.9	17387.1	17993.6	17810.5	16837.7	14214.9
65°	3301.9	3419.4	4231.5	7828.8	10942.3	14510.3	17589.3	18498.1	18437.7	17357.8	13979.9
67.5°	2199.5	2298.0	2531.3	5368.4	8494.0	12804.9	17105.5	18410.0	18427.3	17273.1	13119.4
70°	1325.2	1409.9	1562.0	3122.2	5504.9	10135.4	15607.5	17286.9	17387.1	16141.4	11488.3
72.5°	546.0	603.0	741.2	1415.1	2850.9	6432.7	12428.3	14842.1	15075.3	13572.1	8817.1
75°	309.3	338.7	435.4	710.1	1237.1	2997.8	7528.2	10536.3	10880.1	9354.5	5304.4
77.5°	205.6	219.4	281.6	459.6	696.3	1022.9	3217.2	5489.3	6145.9	5109.2	2296.3
80°	138.2	150.3	193.5	307.6	452.7	438.9	1024.6	2033.7	2501.9	1755.5	559.8
82.5°	93.3	95.0	138.2	202.2	286.8	212.5	302.4	632.4	794.8	508.0	212.5
85°	53.6	51.8	101.9	117.5	127.9	88.1	91.6	190.1	248.8	214.3	120.9
87.5°	6.9	10.4	39.7	31.1	17.3	19.0	19.0	32.8	48.4	51.8	25.9
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°	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8	2997.8
2.5°	3001.2	2999.5	2994.3	2989.1	2977.0	2970.1	2973.6	2970.1	2968.4	2970.1	2977.0
5°	3023.7	3018.5	3004.7	2987.4	2963.2	2933.9	2914.8	2887.2	2861.3	2845.7	2849.2
7.5°	3084.2	3079.0	3060.0	3011.6	2933.9	2811.2	2698.9	2600.4	2526.1	2482.9	2484.6
10°	3180.9	3172.3	3142.9	3035.8	2831.9	2564.1	2341.2	2156.3	2035.4	1978.4	1973.2
12.5°	3295.0	3284.6	3232.8	3013.3	2638.4	2220.3	1912.7	1707.1	1594.8	1544.7	1539.5
15°	3429.7	3415.9	3314.0	2906.2	2356.8	1840.1	1558.5	1404.7	1332.2	1287.2	1289.0
17.5°	3597.3	3573.2	3374.5	2745.5	2050.9	1549.9	1340.8	1225.0	1161.1	1117.9	1114.4
20°	3815.0	3775.3	3422.8	2553.7	1769.3	1366.7	1193.9	1097.2	1048.8	1010.8	1003.9
22.5°	4119.1	4062.1	3481.6	2346.4	1570.6	1240.6	1085.1	1014.2	974.5	931.3	924.4
25°	4495.8	4428.4	3554.1	2154.6	1434.1	1131.7	1005.6	946.9	900.2	850.1	844.9
27.5°	5022.8	4901.9	3640.5	1997.4	1316.6	1038.4	933.0	867.4	813.8	772.3	763.7
30°	5610.3	5411.6	3716.6	1902.3	1209.5	952.0	838.0	772.3	722.2	692.9	687.7
32.5°	6166.6	5897.1	3766.7	1860.9	1112.7	853.5	734.3	663.5	625.5	616.8	622.0
35°	6691.9	6336.0	3761.5	1821.1	1026.3	755.1	632.4	559.8	530.4	535.6	535.6
37.5°	7296.6	6804.2	3725.2	1758.9	955.5	665.2	544.3	480.3	454.4	456.1	463.1
40°	7999.8	7345.0	3702.7	1641.4	877.7	582.3	471.7	419.9	400.9	393.9	392.2
42.5°	8749.7	7868.5	3706.2	1508.4	781.0	508.0	421.6	378.4	361.1	355.9	354.2
45°	9503.1	8367.9	3711.4	1370.2	679.0	451.0	385.3	349.0	338.7	331.7	331.7
47.5°	10211.5	8792.9	3614.6	1221.6	578.8	407.8	355.9	331.7	323.1	314.5	314.5
50°	10871.5	9076.3	3381.4	1048.8	499.3	373.2	333.5	316.2	307.6	298.9	298.9
52.5°	11384.7	9121.2	2996.1	870.8	444.1	347.3	319.6	304.1	293.7	285.1	283.4
55°	11612.7	8839.6	2448.3	705.0	400.9	324.8	305.8	290.3	278.2	269.5	267.8
57.5°	11554.0	8246.9	1909.3	566.7	359.4	302.4	288.5	278.2	264.4	250.5	248.8
60°	11265.4	7453.9	1439.3	471.7	321.4	278.2	269.5	260.9	241.9	221.2	217.7
62.5°	10766.1	6456.9	1026.3	390.5	279.9	250.5	247.1	240.2	212.5	174.5	171.1
65°	10002.4	5245.7	691.1	324.8	240.2	219.4	221.2	209.1	172.8	129.6	126.1
67.5°	8886.2	3835.8	442.3	266.1	200.4	183.1	184.9	178.0	146.9	110.6	105.4
70°	7464.2	2539.9	288.5	202.2	160.7	141.7	152.0	153.8	124.4	89.8	86.4
72.5°	5472.0	1499.8	202.2	150.3	117.5	98.5	124.4	127.9	100.2	67.4	63.9
75°	3118.7	711.9	152.0	108.9	72.6	69.1	96.8	96.8	69.1	44.9	41.5
77.5°	1309.7	297.2	107.1	70.8	41.5	39.7	65.7	60.5	34.6	20.7	20.7
80°	378.4	133.0	57.0	34.6	17.3	15.6	25.9	19.0	8.6	3.5	3.5
82.5°	148.6	58.7	22.5	13.8	6.9	6.9	3.5	0.0	0.0	0.0	0.0
85°	88.1	24.2	10.4	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	22.5	5.2	3.5	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)