

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: P883416

Luminaire Tested: **NAV-SB3D-730-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883416
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-730-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21940 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

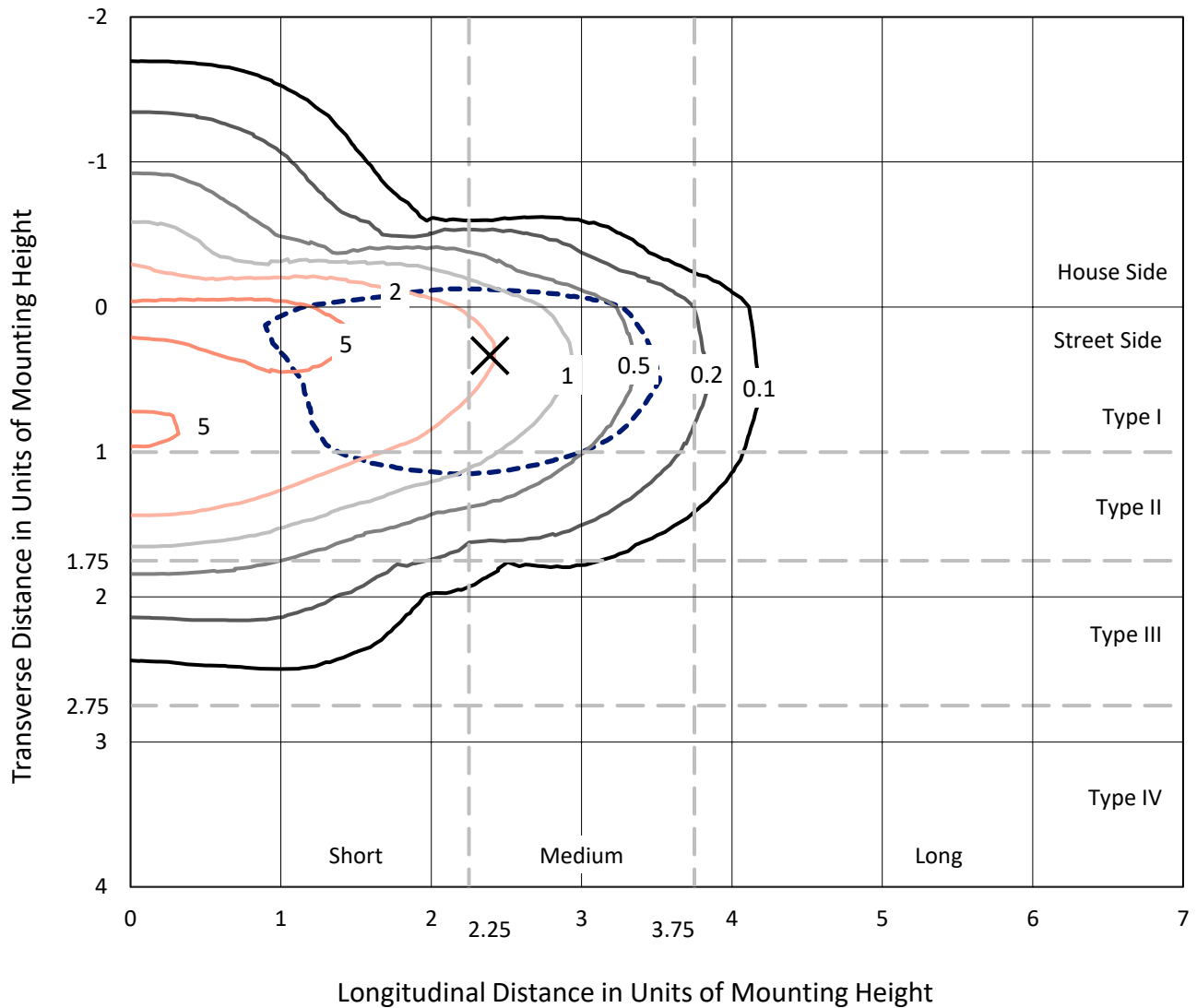
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

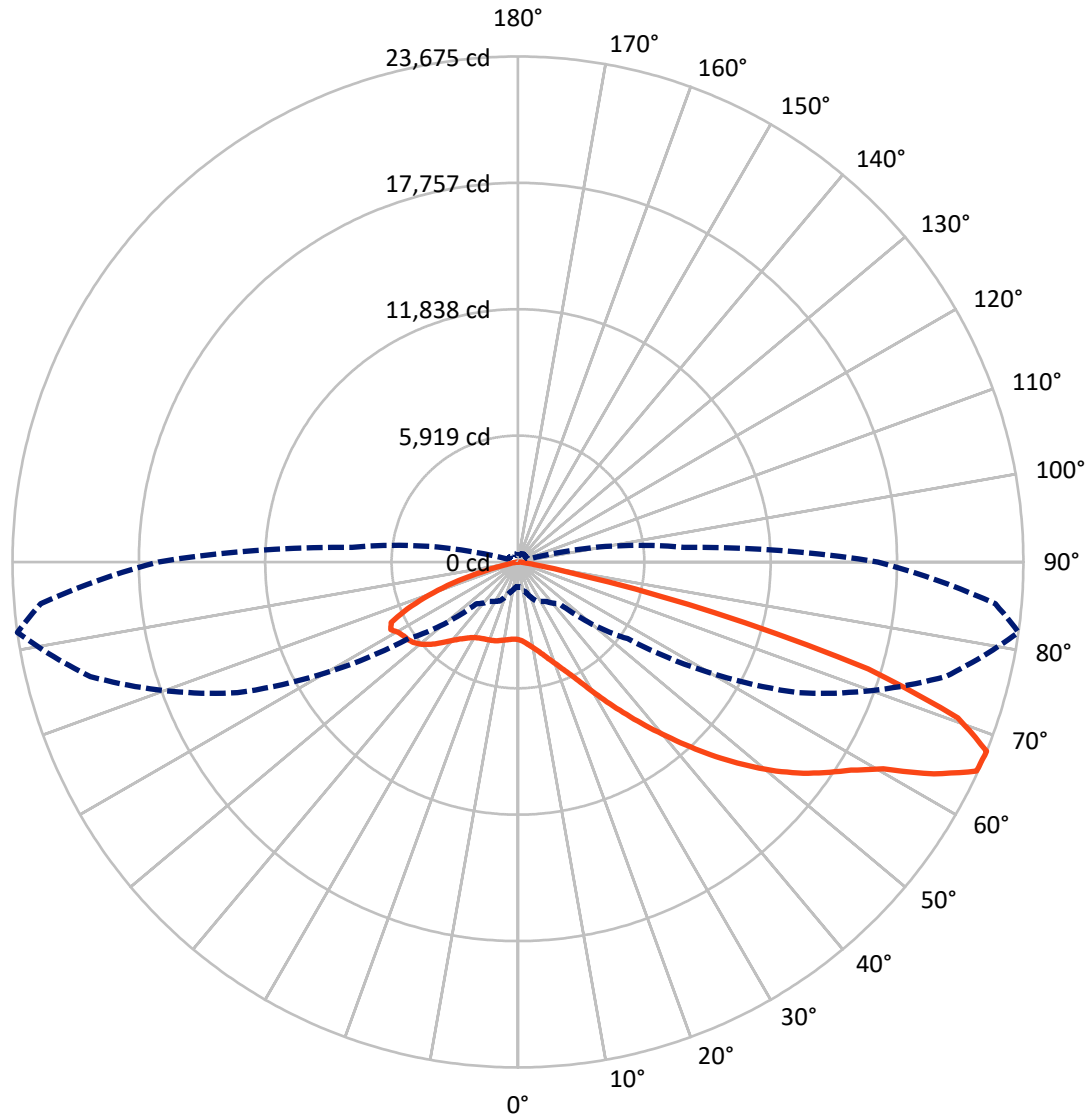
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3974.2	0.0	3974.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17965.8	0.0	17965.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	21940.0	0.0	21940.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.8	1.5
10°-20°	841.5	3.8
20°-30°	1347.8	6.1
30°-40°	2383.3	10.9
40°-50°	4175.8	19.0
50°-60°	5569.4	25.4
60°-70°	5184.8	23.6
70°-80°	1989.9	9.1
80°-90°	123.6	0.6
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°	21940.0	100.0
0°-180°	21940.0	100.0

Coefficient of Utilization



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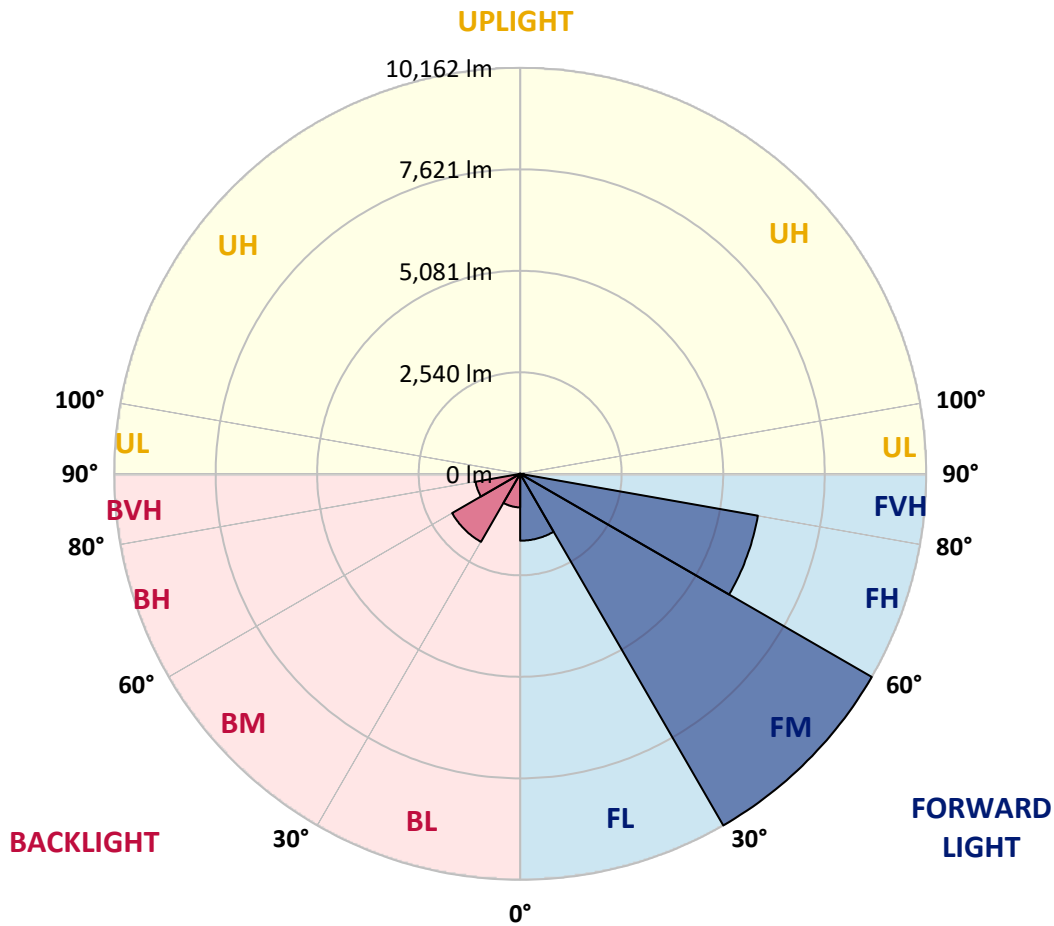
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1673.8	7.6			
FM (30°-60°)	10161.7	46.3			
FH (60°-80°)	6040.4	27.5			G3/7500
FVH (80°-90°)	89.9	0.4			G1/100
BL (0°-30°)	839.3	3.8	B2/1000		
BM (30°-60°)	1966.8	9.0	B2/2500		
BH (60°-80°)	1134.3	5.2	B3/2500		G3/2500
BVH (80°-90°)	33.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7
2.5°	3841.6	3863.8	3851.1	3844.8	3833.7	3818.0	3805.3	3765.8	3724.8	3697.9	3688.4
5°	3919.0	3941.2	3939.6	3945.9	3953.8	3958.5	3955.4	3911.1	3852.7	3806.9	3780.0
7.5°	3852.7	3878.0	3898.5	3930.1	3985.4	4043.8	4072.3	4062.8	4002.8	3939.6	3906.4
10°	3664.7	3691.6	3740.6	3814.8	3931.7	4058.1	4163.9	4212.9	4174.9	4105.4	4059.6
12.5°	3320.4	3347.2	3443.6	3604.7	3800.6	4020.1	4222.3	4353.4	4362.9	4293.4	4239.7
15°	2933.4	2960.2	3062.9	3265.1	3563.6	3915.9	4253.9	4501.9	4585.6	4525.6	4460.9
17.5°	2693.3	2717.0	2794.4	2957.1	3268.2	3707.4	4242.9	4659.9	4851.0	4803.6	4726.2
20°	2620.6	2641.1	2677.5	2791.2	3050.3	3491.0	4170.2	4808.4	5136.9	5110.1	5023.2
22.5°	2698.0	2717.0	2728.0	2778.6	2941.3	3348.8	4078.6	4960.0	5468.7	5471.8	5366.0
25°	2876.5	2895.5	2882.8	2914.4	2985.5	3304.6	4043.8	5138.5	5885.7	5920.4	5800.4
27.5°	3170.3	3171.9	3141.9	3140.3	3151.4	3370.9	4080.2	5329.7	6411.7	6476.5	6328.0
30°	3759.5	3735.8	3620.5	3495.7	3438.8	3570.0	4181.3	5555.5	7032.5	7147.8	6961.4
32.5°	4667.8	4633.0	4421.4	4122.8	3822.7	3890.6	4362.9	5813.0	7708.6	7917.1	7689.6
35°	5653.5	5644.0	5422.9	4979.0	4454.5	4347.1	4658.3	6151.1	8446.3	8778.0	8507.9
37.5°	6569.7	6564.9	6438.5	5915.7	5277.5	4983.7	5132.2	6593.4	9236.1	9716.3	9397.2
40°	7406.9	7421.1	7294.7	6827.1	6184.2	5800.4	5776.7	7139.9	10114.3	10738.3	10359.2
42.5°	8130.3	8146.1	8018.2	7672.2	7079.9	6703.9	6568.1	7809.7	10972.1	11836.1	11387.5
45°	8621.6	8719.5	8700.6	8424.1	7999.2	7609.1	7519.0	8650.0	11949.9	13000.3	12474.3
47.5°	8760.6	8850.6	8992.8	9030.7	8771.7	8387.8	8495.2	9662.6	12938.7	14166.1	13567.4
50°	8417.8	8501.5	8796.9	9190.3	9370.3	9251.9	9444.6	10747.8	13951.2	15328.7	14640.0
52.5°	7741.7	7827.0	8199.8	8822.2	9556.7	9929.5	10397.1	11817.2	14932.2	16429.7	15655.7
55°	6764.0	6854.0	7332.6	8037.1	9201.3	10209.1	11191.6	12885.0	15831.0	17420.1	16571.8
57.5°	5433.9	5500.3	5997.8	6983.5	8307.2	9931.1	11777.7	14050.8	16677.7	18393.1	17480.1
60°	3541.5	3600.0	4178.1	5277.5	6825.6	9002.3	11894.6	15350.8	17802.4	19658.4	18704.3
62.5°	2355.2	2394.7	2737.5	3544.7	4806.8	7218.9	11210.6	16388.6	19451.5	21860.4	20803.7
65°	1616.0	1655.4	1998.2	2560.6	3105.5	4775.2	9244.0	16251.2	20945.8	23609.1	22359.6
67.5°	1153.1	1186.3	1476.9	2007.7	2247.8	2773.8	6266.4	14494.6	20731.0	23675.4	22443.3
70°	826.1	845.1	1085.2	1563.8	1786.6	1666.5	3484.7	11085.8	18151.5	21862.0	20734.1
72.5°	578.1	584.5	753.5	1191.0	1439.0	1216.3	1658.6	7391.1	13728.5	17159.5	16074.3
75°	391.7	399.6	507.1	873.5	1154.7	928.8	878.3	3963.3	8059.2	9498.3	8514.2
77.5°	240.1	243.3	327.0	597.1	864.1	707.7	565.5	1679.1	3118.2	3061.3	2609.5
80°	135.8	135.8	208.5	371.2	589.2	456.5	396.5	714.0	987.3	867.2	764.5
82.5°	75.8	77.4	151.6	230.6	390.2	270.1	218.0	330.1	426.5	377.5	328.6
85°	31.6	34.8	93.2	109.0	186.4	134.3	88.5	139.0	158.0	140.6	102.7
87.5°	3.2	4.7	28.4	20.5	22.1	26.9	12.6	26.9	22.1	22.1	15.8
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°	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7	3634.7
2.5°	3658.4	3634.7	3574.7	3505.2	3413.6	3369.3	3309.3	3268.2	3233.5	3236.7	3205.1
5°	3729.5	3669.5	3535.2	3367.8	3159.2	3010.8	2852.8	2743.8	2655.3	2636.4	2593.7
7.5°	3827.4	3732.7	3497.3	3195.6	2843.3	2576.4	2337.8	2184.6	2075.6	2040.9	2006.1
10°	3953.8	3816.4	3448.3	2979.2	2472.1	2132.5	1876.6	1756.5	1682.3	1657.0	1638.1
12.5°	4100.7	3912.7	3383.6	2715.4	2089.8	1762.9	1600.2	1540.1	1516.4	1508.5	1503.8
15°	4285.5	4032.8	3285.6	2402.6	1766.0	1537.0	1467.5	1459.6	1462.7	1459.6	1458.0
17.5°	4505.1	4163.9	3126.1	2080.4	1548.0	1421.7	1396.4	1402.7	1410.6	1409.0	1405.9
20°	4745.2	4293.4	2922.3	1794.5	1399.5	1339.5	1325.3	1331.6	1337.9	1334.8	1333.2
22.5°	5018.5	4432.4	2696.4	1571.7	1300.0	1263.7	1247.9	1249.5	1249.5	1243.2	1240.0
25°	5345.4	4585.6	2459.5	1413.8	1224.2	1195.8	1176.8	1170.5	1161.0	1142.1	1138.9
27.5°	5735.6	4748.4	2232.0	1303.2	1164.2	1137.3	1115.2	1099.4	1075.7	1044.1	1041.0
30°	6174.8	4945.8	2039.3	1233.7	1116.8	1089.9	1064.7	1041.0	1006.2	966.7	963.6
32.5°	6691.3	5157.5	1898.7	1187.9	1074.1	1045.7	1015.7	987.3	949.4	909.9	911.4
35°	7307.3	5413.4	1816.6	1156.3	1041.0	1003.1	969.9	938.3	909.9	875.1	872.0
37.5°	7975.5	5685.1	1791.3	1140.5	1018.9	960.4	922.5	900.4	897.2	876.7	875.1
40°	8706.9	6007.3	1810.2	1131.0	995.2	919.3	878.3	873.5	881.4	845.1	846.7
42.5°	9480.9	6389.6	1841.8	1120.0	962.0	878.3	838.8	838.8	832.5	781.9	781.9
45°	10318.1	6830.3	1873.4	1093.1	922.5	837.2	807.2	796.1	769.3	720.3	718.7
47.5°	11161.6	7278.9	1897.1	1044.1	875.1	802.4	775.6	750.3	710.8	666.6	665.0
50°	11962.5	7681.7	1871.9	971.5	821.4	769.3	740.8	706.1	663.4	633.4	628.7
52.5°	12678.1	8030.8	1764.4	886.2	764.5	734.5	709.3	672.9	638.2	606.6	603.4
55°	13300.4	8313.6	1574.9	805.6	714.0	704.5	679.2	633.4	586.0	559.2	556.0
57.5°	13897.5	8528.4	1337.9	739.3	668.2	671.3	633.4	592.4	548.1	519.7	516.5
60°	14692.1	8815.9	1097.8	677.7	619.2	628.7	587.6	557.6	502.3	466.0	461.3
62.5°	15962.1	9262.9	872.0	601.8	562.3	565.5	548.1	511.8	445.5	402.8	399.6
65°	16969.9	9098.6	687.1	519.7	497.6	502.3	502.3	462.8	391.7	342.8	338.0
67.5°	16856.2	7790.7	548.1	439.1	436.0	439.1	450.2	417.0	347.5	308.0	301.7
70°	15527.7	6196.9	439.1	364.9	379.1	371.2	402.8	380.7	312.8	273.3	268.5
72.5°	12670.2	4464.0	334.9	301.7	290.7	303.3	363.3	342.8	260.6	216.4	211.7
75°	7403.7	2382.1	249.6	238.5	210.1	252.7	322.2	292.2	199.0	159.5	154.8
77.5°	2410.5	830.9	183.2	175.3	156.4	203.8	274.9	246.4	162.7	126.4	121.6
80°	646.1	251.2	124.8	115.3	101.1	151.6	218.0	195.9	116.9	82.1	80.6
82.5°	259.1	105.8	72.7	64.8	55.3	104.3	172.2	158.0	86.9	52.1	52.1
85°	83.7	34.8	26.9	20.5	25.3	64.8	102.7	107.4	61.6	26.9	20.5
87.5°	11.1	4.7	4.7	6.3	4.7	11.1	31.6	30.0	17.4	3.2	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)