

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: P884081

Luminaire Tested: **NAV-SB4D-722-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884081
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32481 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

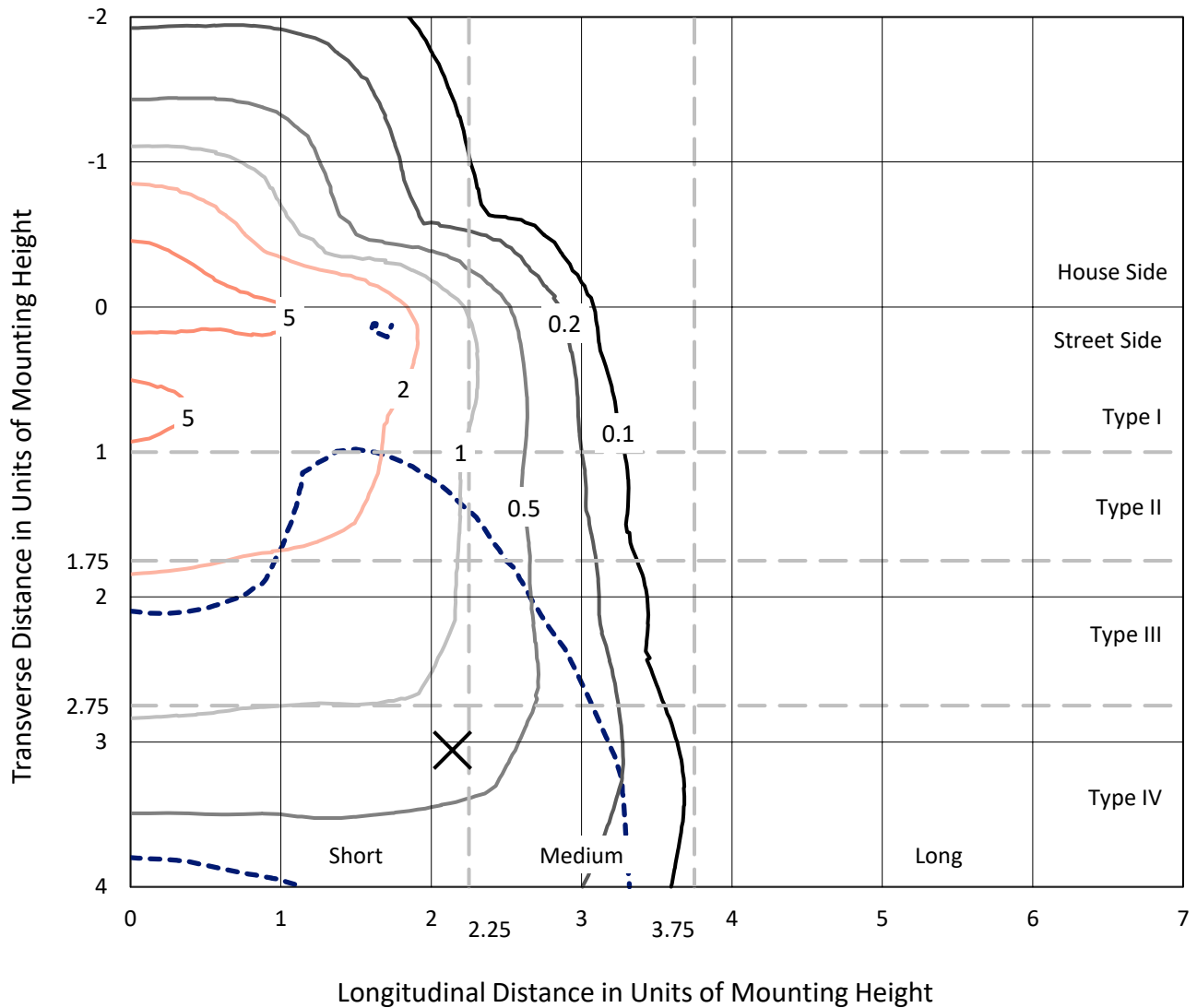
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

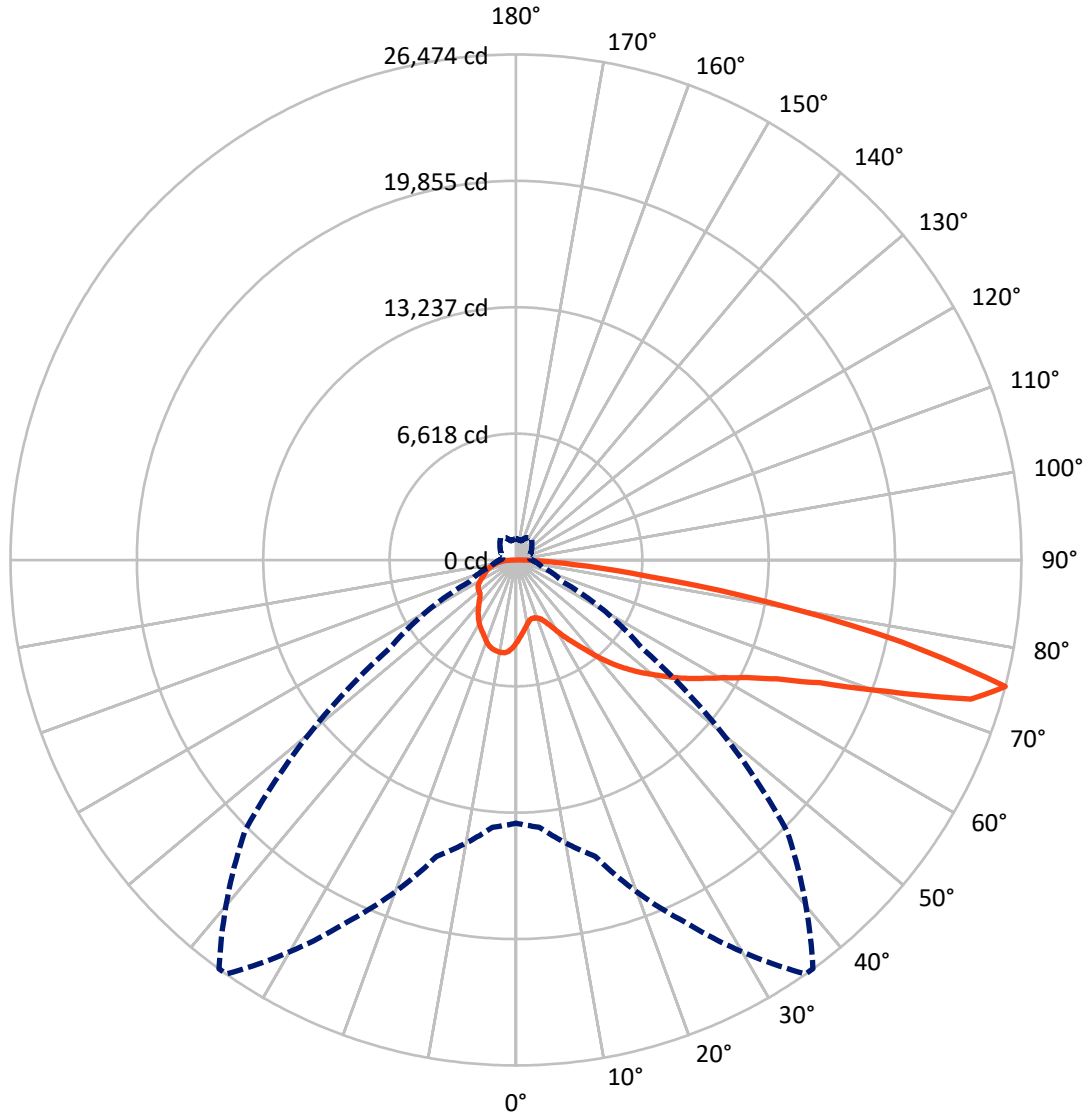
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7729.7	0.0	7729.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	24751.3	0.0	24751.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	32481.0	0.0	32481.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.8	1.3
10°-20°	1182.1	3.6
20°-30°	1985.0	6.1
30°-40°	3084.9	9.5
40°-50°	4578.9	14.1
50°-60°	6321.4	19.5
60°-70°	7669.3	23.6
70°-80°	6338.1	19.5
80°-90°	911.6	2.8
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°	32481.0	100.0
0°-180°	32481.0	100.0

Coefficient of Utilization



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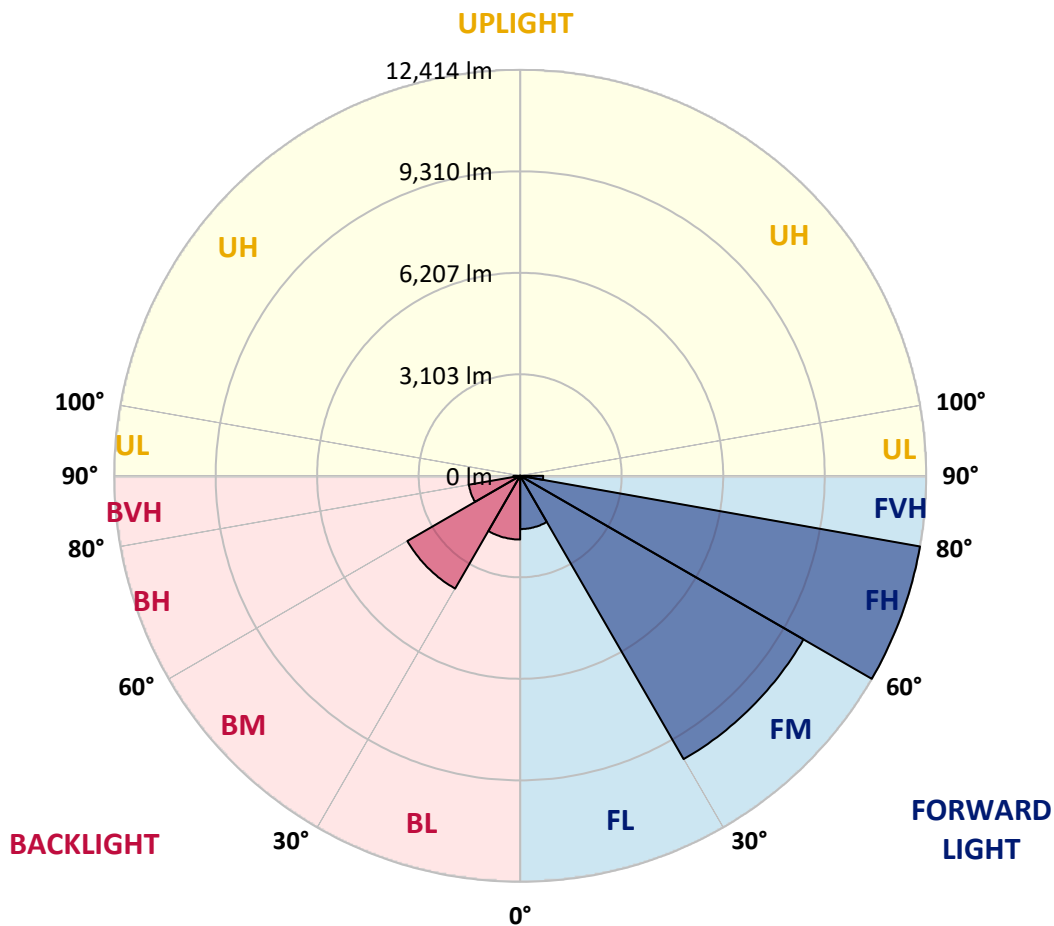
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1628.9	5.0			
FM (30°-60°)	10002.4	30.8			
FH (60°-80°)	12413.8	38.2			G5
FVH (80°-90°)	706.3	2.2			G4/750
BL (0°-30°)	1948.0	6.0	B3/2500		
BM (30°-60°)	3982.8	12.3	B3/5000		
BH (60°-80°)	1593.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	205.3	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3
2.5°	3991.2	4015.8	4026.3	4021.0	4047.4	4043.9	4080.7	4126.4	4189.6	4251.1	4340.6
5°	3683.9	3710.2	3733.1	3754.1	3805.1	3820.9	3878.8	3966.6	4082.5	4200.1	4347.6
7.5°	3397.7	3420.5	3455.6	3494.3	3580.3	3596.1	3692.7	3829.6	3991.2	4163.3	4366.9
10°	3164.1	3187.0	3223.8	3267.7	3374.9	3394.2	3517.1	3699.7	3910.4	4128.1	4388.0
12.5°	3064.1	3071.1	3092.2	3136.1	3229.1	3241.4	3376.6	3585.6	3831.4	4101.8	4419.6
15°	3058.8	3072.8	3074.6	3097.4	3174.7	3179.9	3304.6	3511.8	3782.2	4096.5	4467.0
17.5°	3111.5	3122.0	3106.2	3120.2	3185.2	3194.0	3292.3	3476.7	3766.4	4119.4	4547.8
20°	3251.9	3260.7	3213.3	3194.0	3241.4	3248.4	3345.0	3499.5	3782.2	4166.8	4658.4
22.5°	3550.4	3555.7	3439.8	3360.8	3364.3	3367.8	3452.1	3592.6	3843.7	4252.8	4798.9
25°	4015.8	4012.2	3827.9	3675.1	3587.3	3568.0	3624.2	3743.6	3947.3	4366.9	4979.8
27.5°	4560.1	4533.8	4349.4	4121.1	3929.7	3901.6	3889.3	3940.3	4094.8	4518.0	5201.0
30°	5174.7	5150.1	4951.7	4653.2	4388.0	4342.4	4226.5	4200.1	4314.3	4723.4	5508.3
32.5°	5848.9	5833.1	5596.1	5234.4	4879.7	4827.0	4632.1	4561.8	4651.4	5034.2	5936.7
35°	6414.3	6400.3	6203.6	5831.4	5397.7	5332.7	5134.3	5055.3	5100.9	5432.8	6496.9
37.5°	6925.3	6918.3	6749.7	6456.5	6008.7	5929.7	5706.7	5680.4	5671.6	5957.8	7176.4
40°	7399.4	7381.8	7206.2	7051.7	6719.9	6647.9	6451.2	6428.4	6361.7	6604.0	7945.5
42.5°	7924.4	7878.8	7624.2	7552.2	7462.6	7402.9	7285.3	7288.8	7141.3	7332.7	8760.2
45°	8352.9	8326.5	8064.9	8022.7	8119.3	8094.7	8196.6	8222.9	7936.7	8096.5	9606.6
47.5°	8812.9	8788.3	8567.1	8537.2	8798.9	8805.9	9165.8	9174.6	8712.8	8890.2	10454.7
50°	9380.1	9344.9	9125.5	9162.3	9455.6	9481.9	10140.4	10080.7	9427.5	9696.1	11295.8
52.5°	9754.1	9775.1	9727.7	9787.4	10187.8	10212.4	11099.1	10946.3	10135.1	10491.5	12121.0
55°	10029.7	10071.9	10219.4	10356.3	10960.4	10985.0	12003.4	11769.9	10721.6	11229.0	12897.1
57.5°	10384.4	10324.7	10600.4	10867.3	11694.3	11759.3	12883.1	12563.5	11241.3	11864.7	13429.2
60°	10893.7	10851.5	11065.7	11460.8	12516.1	12619.7	13813.7	13278.2	11622.4	12368.6	13532.8
62.5°	11926.1	11820.8	11854.1	12203.6	13552.1	13689.1	14863.8	13901.5	11812.0	12565.3	12977.9
65°	13469.6	13288.7	13120.1	13362.5	15011.3	15146.5	16049.0	14391.4	11741.8	12184.2	11504.7
67.5°	15413.4	15234.3	15027.1	15255.3	17160.5	17267.6	17511.7	14667.1	11188.6	10716.3	8900.7
70°	17016.5	16949.8	17197.4	18136.8	20593.3	20596.8	19387.0	14438.8	9673.3	7597.8	5150.1
72.5°	16804.0	16763.7	18068.3	20972.6	24919.8	24826.8	21162.2	12711.0	6516.2	3427.5	1929.7
75°	13785.6	14047.3	16068.3	20921.6	26473.8	26461.5	20075.3	8080.7	2695.3	1420.5	997.4
77.5°	7392.4	7806.8	10431.8	15446.7	20667.0	20977.8	14114.0	2827.0	1157.1	909.6	690.1
80°	2410.9	2772.6	4158.0	7864.7	13429.2	13371.2	6049.1	1109.7	791.9	644.4	477.6
82.5°	1023.7	1065.8	1857.8	3713.7	6891.9	6784.8	1926.2	637.4	556.6	440.7	295.0
85°	400.3	447.8	820.0	1717.3	2985.0	2920.1	695.3	316.1	356.4	288.0	175.6
87.5°	131.7	159.8	293.2	588.2	928.9	895.5	170.3	108.9	154.5	131.7	63.2
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°	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3	4328.3
2.5°	4365.2	4393.3	4426.6	4475.8	4518.0	4553.1	4589.9	4612.8	4621.5	4647.9	4646.1
5°	4396.8	4458.3	4540.8	4621.5	4700.6	4748.0	4790.1	4811.2	4830.5	4844.5	4848.1
7.5°	4449.5	4528.5	4658.4	4763.8	4830.5	4869.1	4897.2	4890.2	4897.2	4900.7	4906.0
10°	4495.1	4605.7	4760.3	4860.4	4911.3	4913.0	4906.0	4881.4	4869.1	4870.9	4874.4
12.5°	4549.6	4672.5	4839.3	4923.6	4937.6	4899.0	4869.1	4827.0	4811.2	4804.2	4800.7
15°	4623.3	4763.8	4925.3	4956.9	4921.8	4872.6	4821.7	4753.2	4718.1	4690.0	4698.8
17.5°	4712.9	4867.4	4992.0	4969.2	4893.7	4812.9	4730.4	4626.8	4554.8	4525.0	4526.7
20°	4837.5	4976.2	5043.0	4942.9	4828.7	4705.8	4565.4	4438.9	4372.2	4342.4	4338.8
22.5°	4988.5	5122.0	5092.1	4897.2	4735.7	4539.0	4363.4	4270.4	4237.0	4215.9	4219.4
25°	5169.4	5283.5	5127.3	4830.5	4582.9	4317.8	4182.6	4152.7	4136.9	4121.1	4121.1
27.5°	5404.7	5466.1	5153.6	4732.2	4344.1	4082.5	4033.3	4038.6	4033.3	4007.0	4012.2
30°	5715.5	5703.2	5178.2	4572.4	4070.2	3870.0	3873.5	3896.4	3899.9	3882.3	3891.1
32.5°	6124.6	5999.9	5190.5	4365.2	3808.6	3683.9	3687.4	3712.0	3729.5	3699.7	3713.7
35°	6619.8	6345.9	5171.1	4105.3	3606.6	3506.5	3480.2	3487.2	3492.5	3464.4	3483.7
37.5°	7197.5	6733.9	5085.1	3817.3	3439.8	3332.7	3276.5	3229.1	3201.0	3174.7	3192.2
40°	7831.3	7157.1	4927.1	3536.4	3253.7	3148.3	3064.1	2974.5	2879.7	2844.6	2860.4
42.5°	8495.1	7592.5	4735.7	3267.7	3039.5	2953.4	2863.9	2733.9	2591.7	2519.7	2528.5
45°	9183.4	8038.5	4547.8	3002.6	2820.0	2783.1	2679.5	2523.2	2368.7	2277.4	2270.4
47.5°	9857.7	8460.0	4272.1	2735.7	2614.5	2654.9	2574.2	2430.2	2258.1	2114.1	2098.3
50°	10502.1	8855.0	3820.9	2465.3	2447.7	2616.3	2539.0	2331.8	2135.2	1950.8	1935.0
52.5°	11141.2	9174.6	3243.2	2219.5	2358.2	2605.8	2493.4	2265.1	2024.6	1831.4	1810.3
55°	11683.8	9339.7	2686.5	2008.8	2228.2	2516.2	2439.0	2186.1	1868.3	1662.8	1645.3
57.5°	11992.9	9206.2	2223.0	1801.6	2049.1	2368.7	2345.9	2017.5	1682.2	1524.1	1503.1
60°	11859.4	8665.4	1843.7	1620.7	1878.8	2208.9	2184.3	1850.7	1539.9	1390.7	1369.6
62.5°	11123.7	7634.7	1543.4	1462.7	1724.3	2045.6	2022.8	1722.5	1431.1	1287.1	1264.3
65°	9641.7	6210.6	1309.9	1331.0	1568.0	1849.0	1882.3	1615.4	1345.0	1204.6	1181.7
67.5°	7353.7	4498.6	1127.3	1216.8	1415.3	1655.8	1752.4	1538.2	1273.0	1139.6	1118.5
70°	4191.4	2554.8	972.8	1106.2	1280.1	1476.7	1652.3	1476.7	1195.8	1085.2	1071.1
72.5°	1589.1	1172.9	841.1	995.6	1150.1	1325.7	1541.7	1380.1	1106.2	1023.7	1009.6
75°	848.1	714.7	707.6	865.7	1000.9	1178.2	1403.0	1285.3	1039.5	1081.6	1116.8
77.5°	577.7	505.7	591.7	741.0	837.6	1014.9	1255.5	1141.3	900.8	897.3	827.0
80°	400.3	358.2	481.1	597.0	647.9	853.4	1095.7	979.8	734.0	684.8	655.0
82.5°	240.6	233.5	360.0	446.0	458.3	658.5	907.8	821.8	600.5	523.3	526.8
85°	131.7	138.7	230.0	261.6	266.9	460.0	711.1	635.6	461.8	388.1	391.6
87.5°	36.9	47.4	84.3	103.6	128.2	238.8	423.2	377.5	231.8	161.5	161.5
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)