

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: P884076

Luminaire Tested: **NAV-SB4D-722-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884076  
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-SB4D-722-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

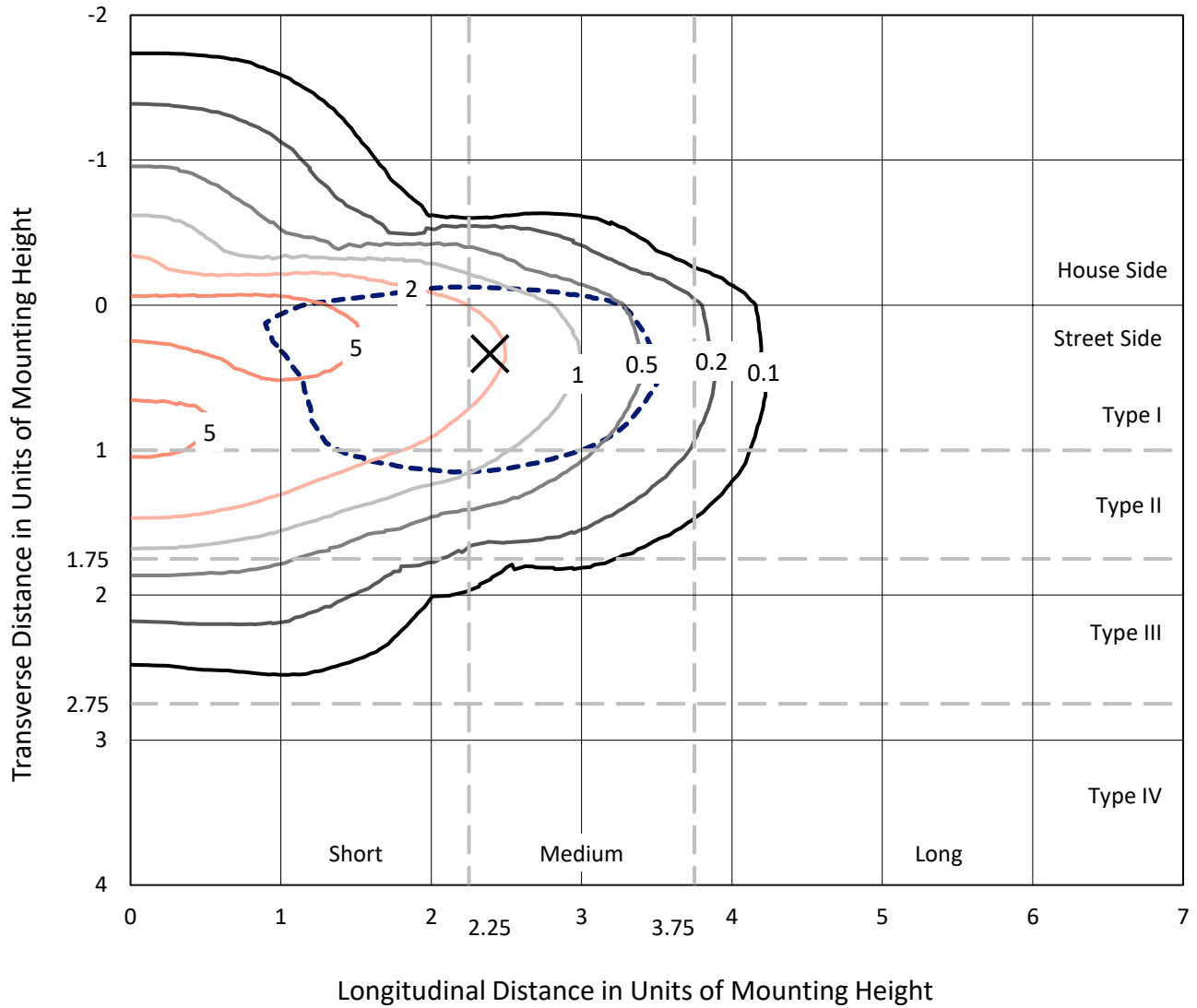
Lumens per Lamp: N/A  
Luminaire Lumens: 23997 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
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



REPORT NUMBER: P884076  
 CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

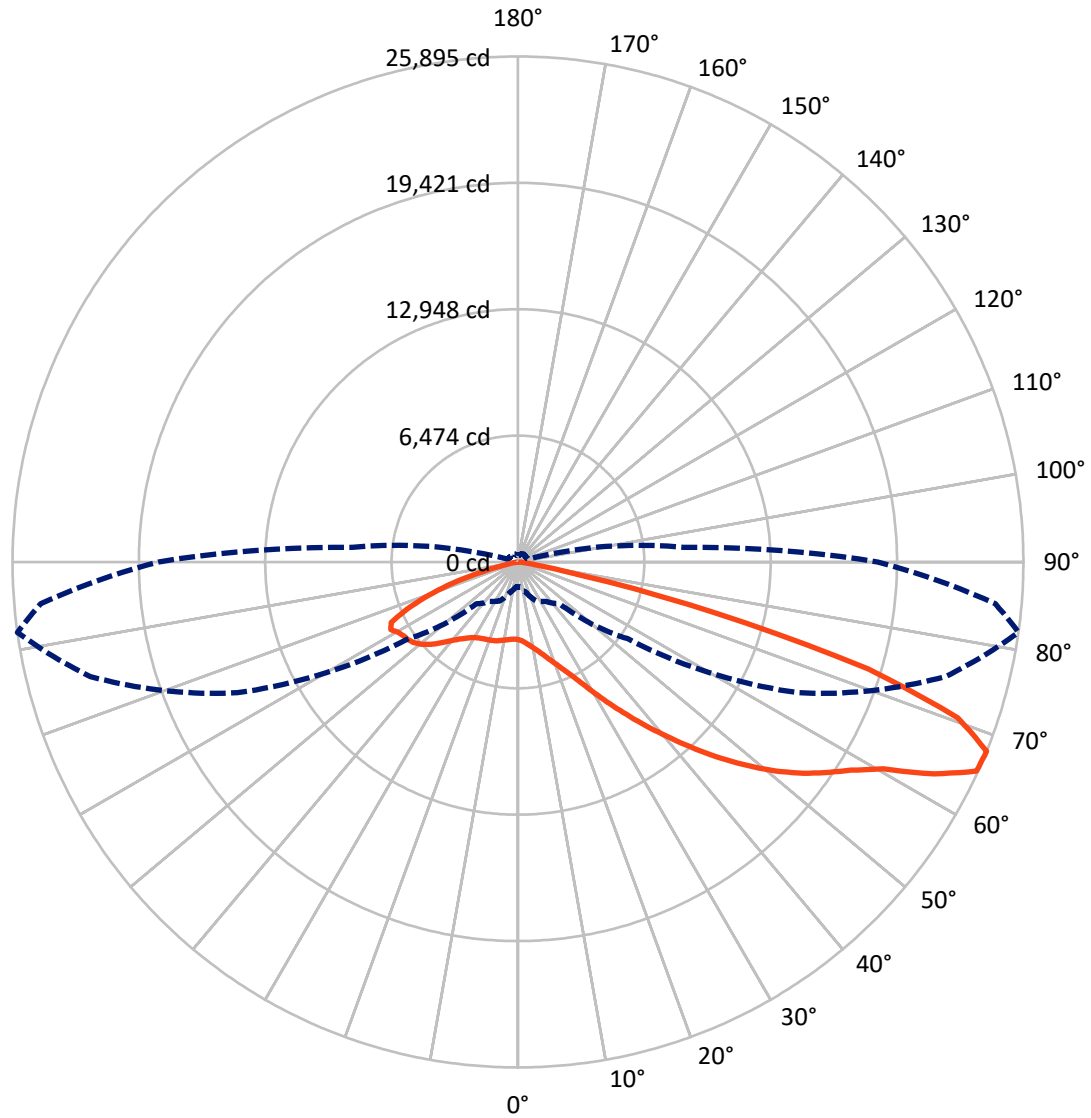
✕ Max cd  
 - - - 1/2 Max cd



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

REPORT NUMBER: P884076  
CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P884076

CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4346.9	0.0	4346.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	19650.2	0.0	19650.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	23997.0	0.0	23997.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	354.2	1.5
10°-20°	920.4	3.8
20°-30°	1474.2	6.1
30°-40°	2606.8	10.9
40°-50°	4567.3	19.0
50°-60°	6091.5	25.4
60°-70°	5670.9	23.6
70°-80°	2176.5	9.1
80°-90°	135.2	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°	23997.0	100.0
0°-180°	23997.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P884076

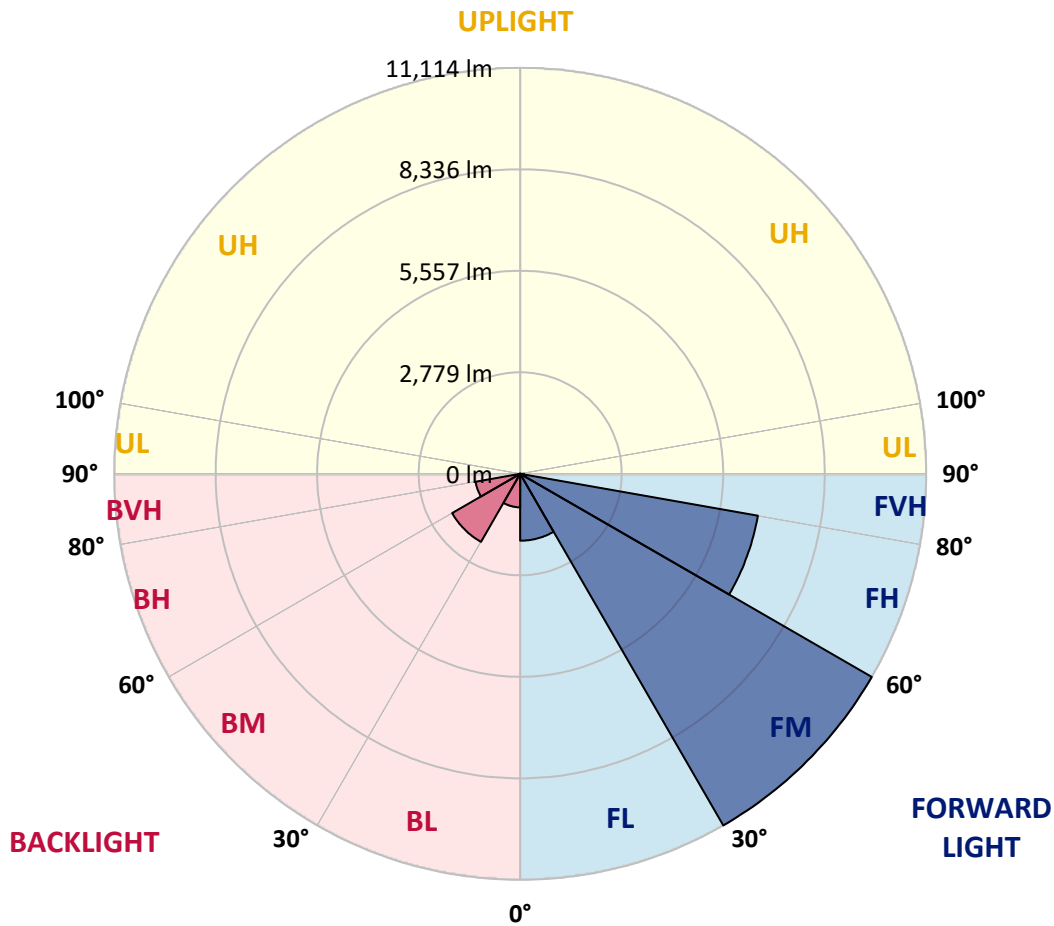
CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1830.7	7.6			
FM (30°-60°)	11114.4	46.3			
FH (60°-80°)	6606.7	27.5			G3/7500
FVH (80°-90°)	98.3	0.4			G1/100
BL (0°-30°)	918.0	3.8	B2/1000		
BM (30°-60°)	2151.2	9.0	B2/2500		
BH (60°-80°)	1240.7	5.2	B3/2500		G3/2500
BVH (80°-90°)	36.9	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



REPORT NUMBER: P884076

CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5
2.5°	4201.8	4226.0	4212.2	4205.3	4193.2	4175.9	4162.1	4118.9	4074.0	4044.6	4034.2
5°	4286.5	4310.7	4308.9	4315.9	4324.5	4329.7	4326.2	4277.8	4213.9	4163.8	4134.4
7.5°	4213.9	4241.6	4264.0	4298.6	4359.0	4423.0	4454.1	4443.7	4378.1	4308.9	4272.7
10°	4008.3	4037.7	4091.2	4172.5	4300.3	4438.5	4554.3	4607.8	4566.4	4490.4	4440.2
12.5°	3631.7	3661.0	3766.4	3942.7	4156.9	4397.1	4618.2	4761.6	4772.0	4696.0	4637.2
15°	3208.4	3237.8	3350.1	3571.2	3897.7	4283.0	4652.8	4924.0	5015.6	4949.9	4879.1
17.5°	2945.8	2971.7	3056.3	3234.3	3574.7	4055.0	4640.7	5096.8	5305.8	5254.0	5169.3
20°	2866.3	2888.8	2928.5	3052.9	3336.2	3818.3	4561.2	5259.2	5618.6	5589.2	5494.2
22.5°	2951.0	2971.7	2983.8	3039.1	3217.0	3662.8	4461.0	5425.1	5981.4	5984.8	5869.1
25°	3146.2	3166.9	3153.1	3187.6	3265.4	3614.4	4423.0	5620.3	6437.5	6475.5	6344.2
27.5°	3467.5	3469.3	3436.4	3434.7	3446.8	3687.0	4462.7	5829.3	7012.8	7083.7	6921.3
30°	4112.0	4086.1	3959.9	3823.5	3761.3	3904.7	4573.3	6076.4	7691.8	7817.9	7614.1
32.5°	5105.4	5067.4	4835.9	4509.4	4181.1	4255.4	4772.0	6358.0	8431.3	8659.3	8410.6
35°	6183.5	6173.2	5931.3	5445.8	4872.2	4754.7	5095.1	6727.8	9238.1	9601.0	9305.5
37.5°	7185.6	7180.4	7042.2	6470.3	5772.3	5451.0	5613.4	7211.5	10102.0	10627.2	10278.2
40°	8101.3	8116.8	7978.6	7467.2	6764.0	6344.2	6318.3	7809.3	11062.6	11745.1	11330.4
42.5°	8892.6	8909.9	8769.9	8391.6	7743.7	7332.5	7183.9	8541.9	12000.8	12945.8	12455.2
45°	9429.9	9537.0	9516.3	9213.9	8749.2	8322.4	8224.0	9461.0	13070.2	14219.2	13643.8
47.5°	9582.0	9680.4	9835.9	9877.4	9594.0	9174.2	9291.7	10568.5	14151.8	15494.2	14839.4
50°	9207.0	9298.6	9621.7	10051.9	10248.9	10119.3	10330.1	11755.4	15259.3	16765.8	16012.5
52.5°	8467.6	8560.9	8968.6	9649.3	10452.7	10860.5	11371.9	12925.1	16332.2	17970.0	17123.5
55°	7398.1	7496.6	8020.1	8790.7	10064.0	11166.3	12240.9	14093.0	17315.2	19053.3	18125.5
57.5°	5943.4	6015.9	6560.2	7638.3	9086.1	10862.2	12881.9	15368.1	18241.3	20117.6	19119.0
60°	3873.6	3937.5	4569.8	5772.3	7465.5	9846.3	13009.8	16790.0	19471.4	21501.5	20458.0
62.5°	2576.0	2619.2	2994.1	3877.0	5257.5	7895.7	12261.7	17925.1	21275.2	23910.0	22754.1
65°	1767.5	1810.7	2185.6	2800.6	3396.7	5222.9	10110.6	17774.8	22909.6	25822.5	24455.9
67.5°	1261.2	1297.5	1615.4	2195.9	2458.5	3033.9	6853.9	15853.6	22674.6	25895.1	24547.5
70°	903.6	924.3	1186.9	1710.4	1954.1	1822.7	3811.4	12125.2	19853.3	23911.7	22678.1
72.5°	632.3	639.3	824.1	1302.7	1574.0	1330.3	1814.1	8084.0	15015.6	18768.3	17581.3
75°	428.5	437.1	554.6	955.4	1263.0	1015.9	960.6	4334.9	8814.8	10388.8	9312.4
77.5°	262.6	266.1	357.6	653.1	945.1	774.0	618.5	1836.6	3410.5	3348.3	2854.2
80°	148.6	148.6	228.1	406.0	644.4	499.3	433.7	780.9	1079.8	948.5	836.2
82.5°	82.9	84.7	165.9	252.2	426.7	295.4	238.4	361.1	466.5	412.9	359.4
85°	34.6	38.0	101.9	119.2	203.9	146.9	96.8	152.0	172.8	153.8	112.3
87.5°	3.5	5.2	31.1	22.5	24.2	29.4	13.8	29.4	24.2	24.2	17.3
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: P884076

CATALOG NUMBER: NAV-SB4D-722-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5	3975.5
2.5°	4001.4	3975.5	3909.8	3833.8	3733.6	3685.2	3619.6	3574.7	3536.6	3540.1	3505.6
5°	4079.2	4013.5	3866.6	3683.5	3455.4	3293.0	3120.3	3001.1	2904.3	2883.6	2836.9
7.5°	4186.3	4082.6	3825.2	3495.2	3109.9	2817.9	2557.0	2389.4	2270.2	2232.2	2194.2
10°	4324.5	4174.2	3771.6	3258.5	2703.9	2332.4	2052.5	1921.2	1840.0	1812.4	1791.6
12.5°	4485.2	4279.6	3700.8	2970.0	2285.8	1928.1	1750.2	1684.5	1658.6	1650.0	1644.8
15°	4687.3	4410.9	3593.7	2627.9	1931.6	1681.1	1605.1	1596.4	1599.9	1596.4	1594.7
17.5°	4927.5	4554.3	3419.2	2275.4	1693.2	1555.0	1527.3	1534.2	1542.9	1541.1	1537.7
20°	5190.1	4696.0	3196.3	1962.7	1530.8	1465.1	1449.6	1456.5	1463.4	1459.9	1458.2
22.5°	5489.0	4848.0	2949.2	1719.1	1421.9	1382.2	1364.9	1366.6	1366.6	1359.7	1356.3
25°	5846.6	5015.6	2690.1	1546.3	1339.0	1307.9	1287.2	1280.2	1269.9	1249.1	1245.7
27.5°	6273.4	5193.5	2441.3	1425.4	1273.3	1244.0	1219.8	1202.5	1176.6	1142.0	1138.6
30°	6753.7	5409.5	2230.5	1349.4	1221.5	1192.1	1164.5	1138.6	1100.6	1057.4	1053.9
32.5°	7318.6	5641.0	2076.7	1299.2	1174.9	1143.8	1110.9	1079.8	1038.4	995.2	996.9
35°	7992.4	5920.9	1986.9	1264.7	1138.6	1097.1	1060.8	1026.3	995.2	957.2	953.7
37.5°	8723.3	6218.1	1959.2	1247.4	1114.4	1050.5	1009.0	984.8	981.3	958.9	957.2
40°	9523.2	6570.5	1980.0	1237.0	1088.5	1005.5	960.6	955.4	964.1	924.3	926.1
42.5°	10369.8	6988.6	2014.5	1225.0	1052.2	960.6	917.4	917.4	910.5	855.2	855.2
45°	11285.5	7470.7	2049.1	1195.6	1009.0	915.7	882.9	870.8	841.4	787.8	786.1
47.5°	12208.1	7961.3	2075.0	1142.0	957.2	877.7	848.3	820.7	777.5	729.1	727.4
50°	13084.0	8401.9	2047.4	1062.5	898.4	841.4	810.3	772.3	725.6	692.8	687.6
52.5°	13866.7	8783.7	1929.9	969.3	836.2	803.4	775.7	736.0	698.0	663.4	660.0
55°	14547.4	9093.0	1722.5	881.1	780.9	770.6	742.9	692.8	641.0	611.6	608.2
57.5°	15200.5	9328.0	1463.4	808.6	730.8	734.3	692.8	647.9	599.5	568.4	565.0
60°	16069.6	9642.4	1200.8	741.2	677.3	687.6	642.7	609.9	549.4	509.7	504.5
62.5°	17458.6	10131.4	953.7	658.3	615.1	618.5	599.5	559.8	487.2	440.6	437.1
65°	18560.9	9951.7	751.6	568.4	544.2	549.4	549.4	506.2	428.5	374.9	369.7
67.5°	18436.5	8521.1	599.5	480.3	476.9	480.3	492.4	456.1	380.1	336.9	330.0
70°	16983.5	6777.9	480.3	399.1	414.7	406.0	440.6	416.4	342.1	298.9	293.7
72.5°	13858.1	4882.5	366.3	330.0	317.9	331.7	397.4	374.9	285.1	236.7	231.5
75°	8097.8	2605.4	273.0	260.9	229.8	276.4	352.5	319.6	217.7	174.5	169.3
77.5°	2636.5	908.8	200.4	191.8	171.0	222.9	300.6	269.5	178.0	138.2	133.0
80°	706.6	274.7	136.5	126.1	110.6	165.9	238.4	214.2	127.9	89.8	88.1
82.5°	283.3	115.8	79.5	70.8	60.5	114.0	188.3	172.8	95.0	57.0	57.0
85°	91.6	38.0	29.4	22.5	27.6	70.8	112.3	117.5	67.4	29.4	22.5
87.5°	12.1	5.2	5.2	6.9	5.2	12.1	34.6	32.8	19.0	3.5	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)