

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: P884096

Luminaire Tested: **NAV-SB4D-730-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884096
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-730-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 29644 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

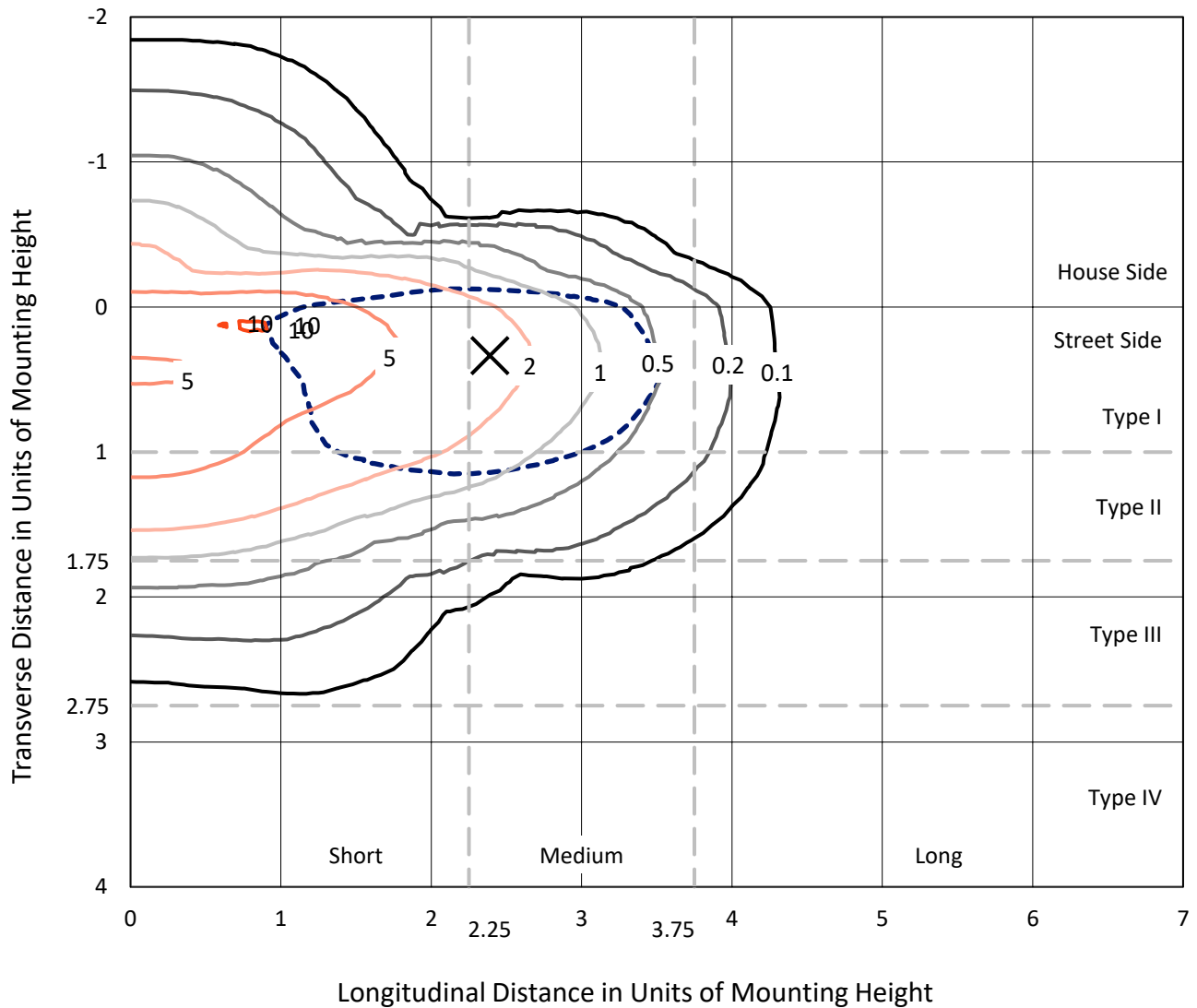
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884096
 CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

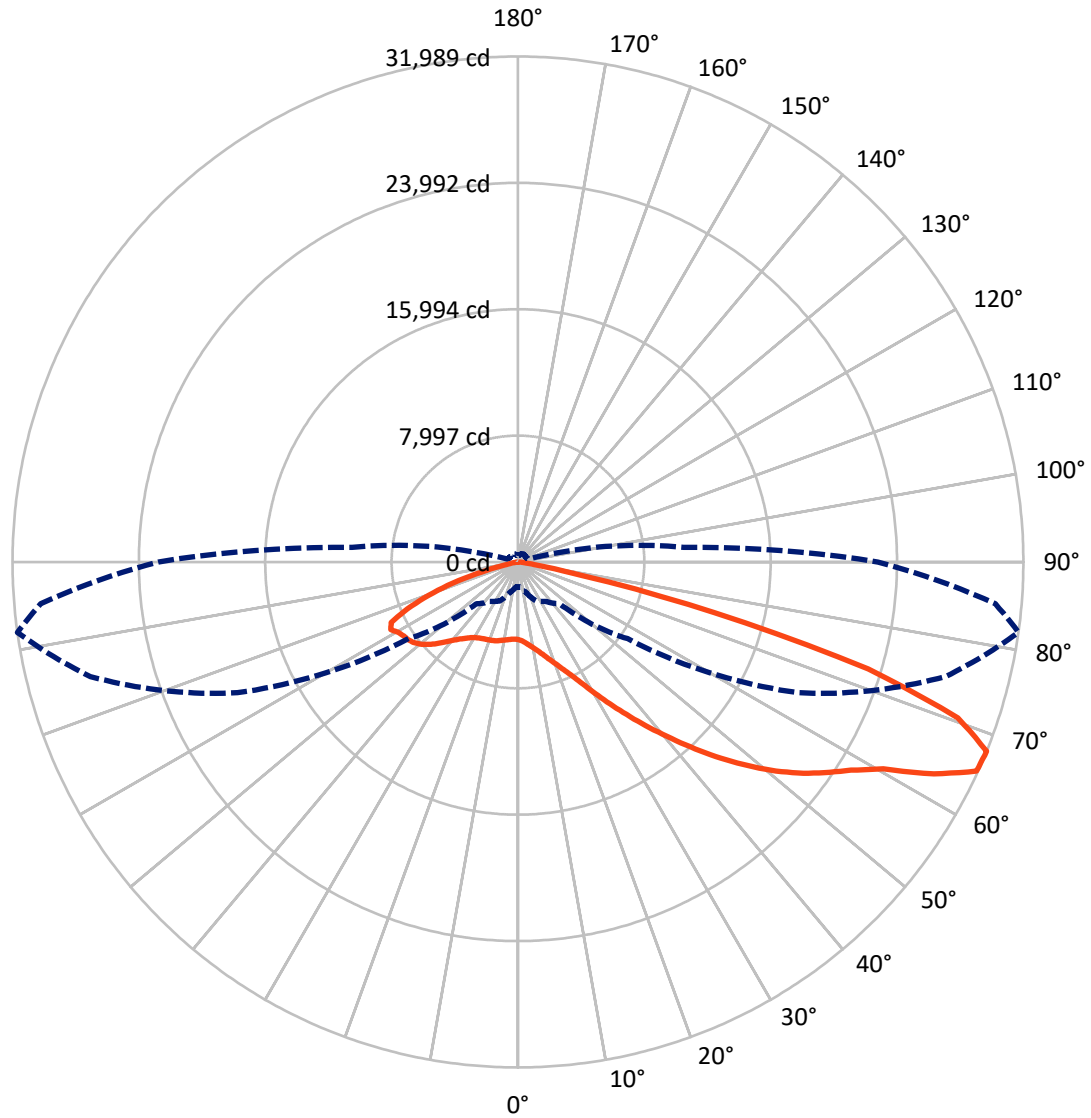
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P884096
CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P884096

CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5369.7	0.0	5369.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	24274.3	0.0	24274.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	29644.0	0.0	29644.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.5	1.5
10°-20°	1137.0	3.8
20°-30°	1821.1	6.1
30°-40°	3220.2	10.9
40°-50°	5642.1	19.0
50°-60°	7525.0	25.4
60°-70°	7005.4	23.6
70°-80°	2688.7	9.1
80°-90°	167.0	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°	29644.0	100.0
0°-180°	29644.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884096

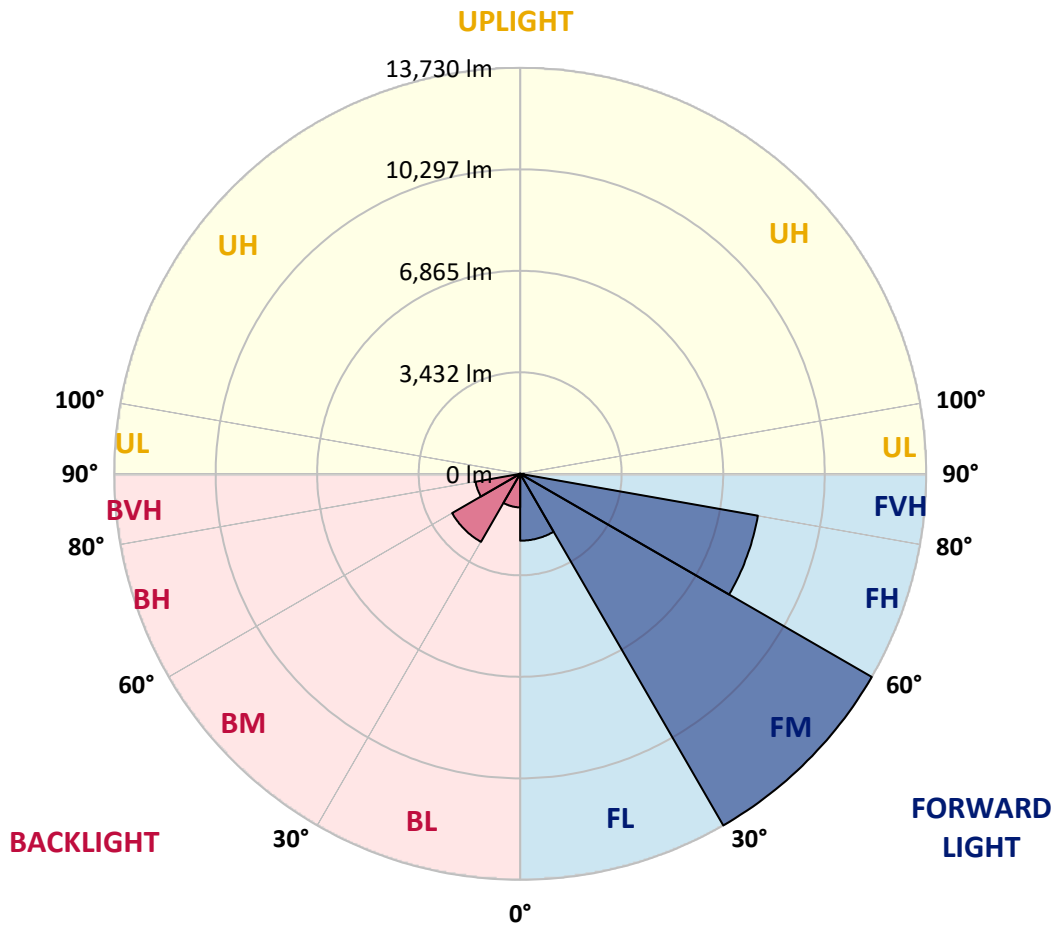
CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2261.5	7.6			
FM (30°-60°)	13729.9	46.3			
FH (60°-80°)	8161.5	27.5			G4/12000
FVH (80°-90°)	121.4	0.4			G2/225
BL (0°-30°)	1134.1	3.8	B3/2500		
BM (30°-60°)	2657.5	9.0	B3/5000		
BH (60°-80°)	1532.6	5.2	B3/2500		G3/2500
BVH (80°-90°)	45.6	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-G4

Type II Medium



REPORT NUMBER: P884096

CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0
2.5°	5190.6	5220.5	5203.4	5194.9	5179.9	5158.6	5141.5	5088.2	5032.7	4996.4	4983.6
5°	5295.2	5325.1	5322.9	5331.5	5342.1	5348.5	5344.3	5284.5	5205.5	5143.6	5107.4
7.5°	5205.5	5239.7	5267.4	5310.1	5384.8	5463.8	5502.2	5489.4	5408.3	5322.9	5278.1
10°	4951.6	4987.8	5054.0	5154.3	5312.3	5483.0	5626.0	5692.2	5640.9	5547.0	5485.1
12.5°	4486.3	4522.6	4652.8	4870.5	5135.1	5431.8	5705.0	5882.1	5894.9	5801.0	5728.4
15°	3963.4	3999.7	4138.4	4411.6	4815.0	5290.9	5747.7	6082.7	6195.9	6114.7	6027.2
17.5°	3639.0	3671.0	3775.6	3995.4	4415.9	5009.2	5732.7	6296.2	6554.4	6490.4	6385.8
20°	3540.8	3568.5	3617.6	3771.3	4121.3	4716.8	5634.5	6496.8	6940.7	6904.4	6787.1
22.5°	3645.4	3671.0	3685.9	3754.2	3974.1	4524.7	5510.7	6701.7	7388.9	7393.2	7250.2
25°	3886.5	3912.2	3895.1	3937.8	4033.8	4464.9	5463.8	6942.9	7952.4	7999.3	7837.1
27.5°	4283.5	4285.7	4245.1	4243.0	4257.9	4554.6	5512.9	7201.1	8663.1	8750.6	8550.0
30°	5079.6	5047.6	4891.8	4723.2	4646.4	4823.5	5649.5	7506.3	9501.9	9657.7	9405.8
32.5°	6306.8	6259.9	5973.9	5570.5	5165.0	5256.8	5894.9	7854.2	10415.3	10697.1	10389.7
35°	7638.6	7625.8	7327.0	6727.3	6018.7	5873.6	6294.0	8310.9	11412.1	11860.3	11495.3
37.5°	8876.5	8870.1	8699.4	7992.9	7130.7	6733.7	6934.3	8908.5	12479.2	13128.0	12696.9
40°	10007.7	10026.9	9856.2	9224.4	8355.8	7837.1	7805.1	9647.0	13665.9	14508.9	13996.7
42.5°	10985.2	11006.5	10833.7	10366.3	9565.9	9057.9	8874.4	10551.9	14824.8	15992.3	15386.1
45°	11649.0	11781.3	11755.7	11382.2	10808.1	10280.9	10159.2	11687.4	16145.9	17565.2	16854.5
47.5°	11836.8	11958.4	12150.5	12201.8	11851.7	11333.1	11478.2	13055.5	17482.0	19140.3	18331.4
50°	11373.6	11486.8	11885.9	12417.3	12660.6	12500.6	12760.9	14521.7	18850.1	20711.2	19780.6
52.5°	10460.2	10575.4	11079.1	11920.0	12912.5	13416.2	14047.9	15966.6	20175.5	22198.8	21153.0
55°	9139.0	9260.7	9907.4	10859.3	12432.3	13793.9	15121.5	17409.4	21389.9	23537.0	22390.9
57.5°	7342.0	7431.6	8103.9	9435.7	11224.2	13418.3	15913.3	18984.5	22533.9	24851.7	23618.1
60°	4785.1	4864.1	5645.2	7130.7	9222.3	12163.3	16071.2	20741.1	24053.5	26561.3	25272.2
62.5°	3182.2	3235.6	3698.7	4789.4	6494.7	9753.7	15147.1	22143.3	26281.7	29536.5	28108.6
65°	2183.4	2236.7	2699.9	3459.7	4196.0	6452.0	12489.9	21957.6	28300.7	31899.1	30210.9
67.5°	1558.0	1602.9	1995.6	2712.7	3037.1	3747.8	8466.7	19584.3	28010.5	31988.8	30324.0
70°	1116.2	1141.8	1466.3	2112.9	2413.9	2251.7	4708.2	14978.5	24525.2	29538.6	28014.7
72.5°	781.2	789.7	1018.1	1609.3	1944.3	1643.4	2241.0	9986.4	18549.1	23184.8	21718.6
75°	529.3	540.0	685.1	1180.3	1560.2	1255.0	1186.7	5354.9	10889.2	12833.5	11503.8
77.5°	324.4	328.7	441.8	806.8	1167.5	956.2	764.1	2268.8	4213.1	4136.3	3525.9
80°	183.5	183.5	281.7	501.6	796.1	616.8	535.7	964.7	1333.9	1171.7	1033.0
82.5°	102.4	104.6	204.9	311.6	527.2	365.0	294.5	446.1	576.3	510.1	443.9
85°	42.7	47.0	125.9	147.3	251.8	181.4	119.5	187.8	213.4	190.0	138.7
87.5°	4.3	6.4	38.4	27.7	29.9	36.3	17.1	36.3	29.9	29.9	21.3
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: P884096

CATALOG NUMBER: NAV-SB4D-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0	4911.0
2.5°	4943.0	4911.0	4829.9	4736.0	4612.2	4552.4	4471.3	4415.9	4368.9	4373.2	4330.5
5°	5039.1	4958.0	4776.5	4550.3	4268.6	4068.0	3854.5	3707.3	3587.7	3562.1	3504.5
7.5°	5171.4	5043.3	4725.3	4317.7	3841.7	3481.0	3158.8	2951.7	2804.5	2757.5	2710.6
10°	5342.1	5156.5	4659.2	4025.3	3340.2	2881.3	2535.5	2373.3	2273.0	2238.9	2213.3
12.5°	5540.6	5286.6	4571.7	3668.8	2823.7	2381.9	2162.0	2080.9	2048.9	2038.2	2031.8
15°	5790.3	5448.8	4439.3	3246.3	2386.1	2076.7	1982.8	1972.1	1976.4	1972.1	1970.0
17.5°	6087.0	5626.0	4223.8	2810.9	2091.6	1920.9	1886.7	1895.3	1905.9	1903.8	1899.5
20°	6411.4	5801.0	3948.4	2424.6	1891.0	1809.9	1790.7	1799.2	1807.7	1803.5	1801.3
22.5°	6780.6	5988.8	3643.2	2123.6	1756.5	1707.4	1686.1	1688.2	1688.2	1679.7	1675.4
25°	7222.4	6195.9	3323.1	1910.2	1654.1	1615.7	1590.0	1581.5	1568.7	1543.1	1538.8
27.5°	7749.6	6415.7	3015.8	1760.8	1573.0	1536.7	1506.8	1485.5	1453.5	1410.8	1406.5
30°	8343.0	6682.5	2755.4	1666.9	1508.9	1472.7	1438.5	1406.5	1359.5	1306.2	1301.9
32.5°	9040.9	6968.5	2565.4	1605.0	1451.3	1412.9	1372.4	1333.9	1282.7	1229.4	1231.5
35°	9873.2	7314.2	2454.4	1562.3	1406.5	1355.3	1310.5	1267.8	1229.4	1182.4	1178.1
37.5°	10776.0	7681.3	2420.3	1541.0	1376.6	1297.6	1246.4	1216.5	1212.3	1184.5	1182.4
40°	11764.2	8116.7	2445.9	1528.2	1344.6	1242.2	1186.7	1180.3	1190.9	1141.8	1144.0
42.5°	12810.0	8633.2	2488.6	1513.2	1299.8	1186.7	1133.3	1133.3	1124.8	1056.5	1056.5
45°	13941.2	9228.7	2531.3	1476.9	1246.4	1131.2	1090.6	1075.7	1039.4	973.2	971.1
47.5°	15080.9	9834.8	2563.3	1410.8	1182.4	1084.2	1047.9	1013.8	960.4	900.7	898.5
50°	16163.0	10379.1	2529.1	1312.6	1109.8	1039.4	1001.0	954.0	896.4	855.9	849.4
52.5°	17129.8	10850.7	2384.0	1197.3	1033.0	992.4	958.3	909.2	862.3	819.6	815.3
55°	17970.7	11232.8	2127.9	1088.5	964.7	951.9	917.7	855.9	791.8	755.5	751.3
57.5°	18777.5	11523.0	1807.7	998.8	902.8	907.1	855.9	800.4	740.6	702.2	697.9
60°	19851.1	11911.5	1483.3	915.6	836.6	849.4	794.0	753.4	678.7	629.6	623.2
62.5°	21567.0	12515.5	1178.1	813.2	759.8	764.1	740.6	691.5	601.9	544.2	540.0
65°	22928.7	12293.5	928.4	702.2	672.3	678.7	678.7	625.3	529.3	463.1	456.7
67.5°	22775.0	10526.3	740.6	593.3	589.1	593.3	608.3	563.5	469.5	416.2	407.6
70°	20980.1	8372.8	593.3	493.0	512.2	501.6	544.2	514.4	422.6	369.2	362.8
72.5°	17119.2	6031.5	452.5	407.6	392.7	409.8	490.9	463.1	352.2	292.4	286.0
75°	10003.4	3218.5	337.2	322.3	283.9	341.5	435.4	394.8	268.9	215.6	209.2
77.5°	3256.9	1122.6	247.6	236.9	211.3	275.3	371.4	332.9	219.8	170.7	164.3
80°	872.9	339.4	168.6	155.8	136.6	204.9	294.5	264.7	157.9	111.0	108.8
82.5°	350.0	143.0	98.2	87.5	74.7	140.9	232.6	213.4	117.4	70.4	70.4
85°	113.1	47.0	36.3	27.7	34.1	87.5	138.7	145.1	83.2	36.3	27.7
87.5°	14.9	6.4	6.4	8.5	6.4	14.9	42.7	40.6	23.5	4.3	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)