

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: P883466

Luminaire Tested: **NAV-SB3D-827-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883466
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-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 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: 18109 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

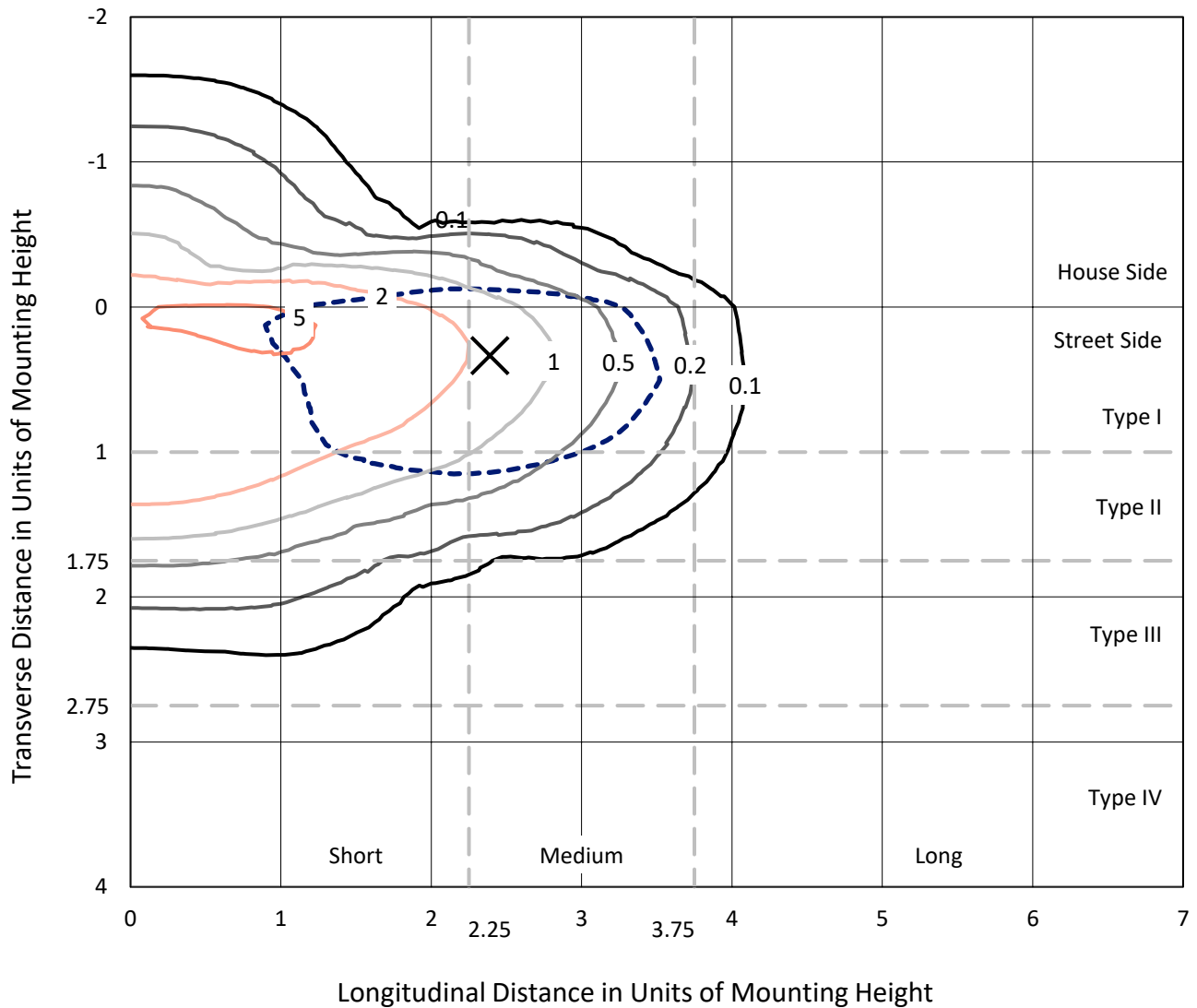
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883466
 CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

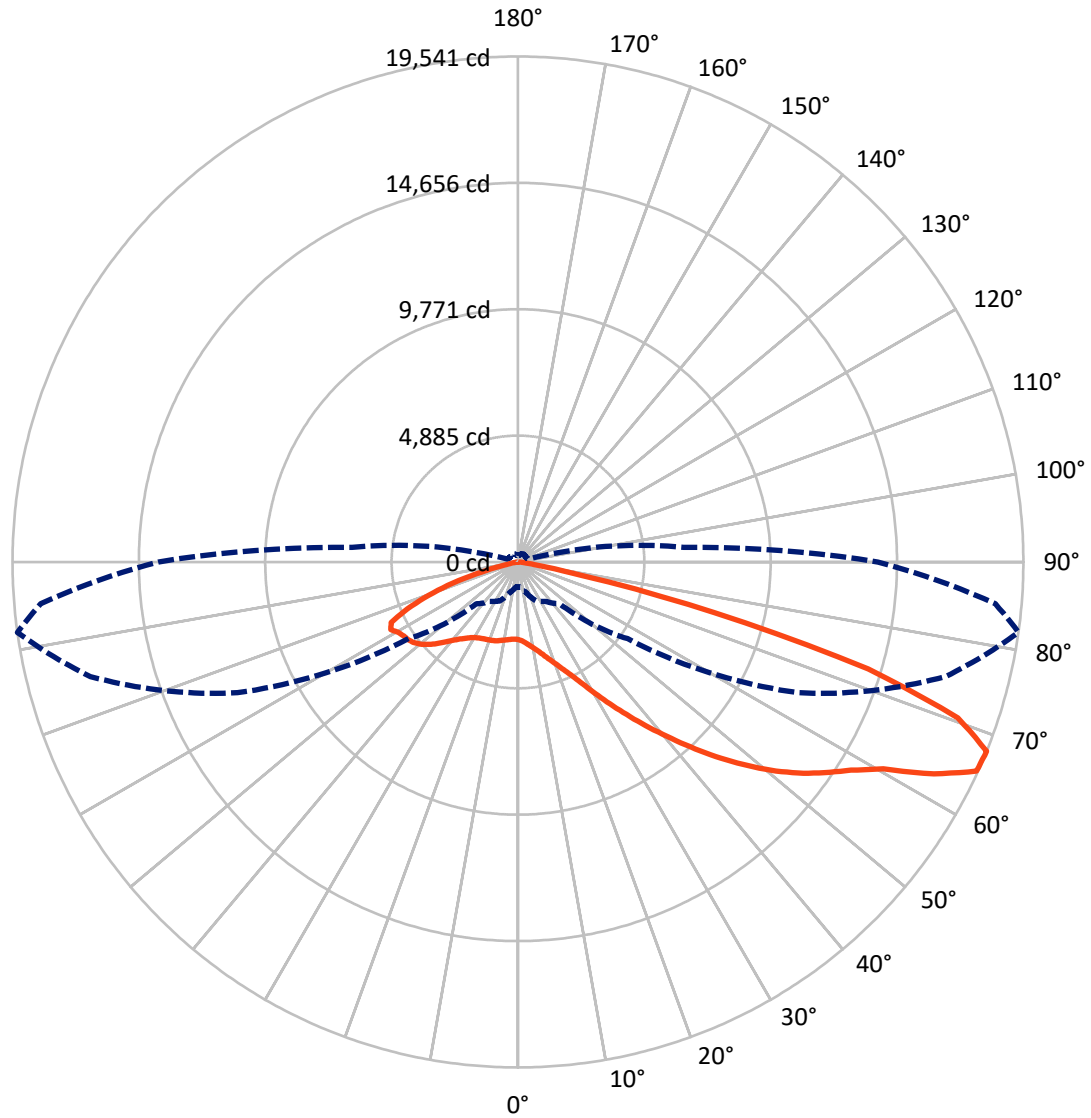
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Medium - N/A

REPORT NUMBER: P883466
CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P883466

CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3280.3	0.0	3280.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14828.7	0.0	14828.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	18109.0	0.0	18109.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.3	1.5
10°-20°	694.6	3.8
20°-30°	1112.5	6.1
30°-40°	1967.2	10.9
40°-50°	3446.7	19.0
50°-60°	4596.9	25.4
60°-70°	4279.5	23.6
70°-80°	1642.5	9.1
80°-90°	102.0	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°	18109.0	100.0
0°-180°	18109.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883466

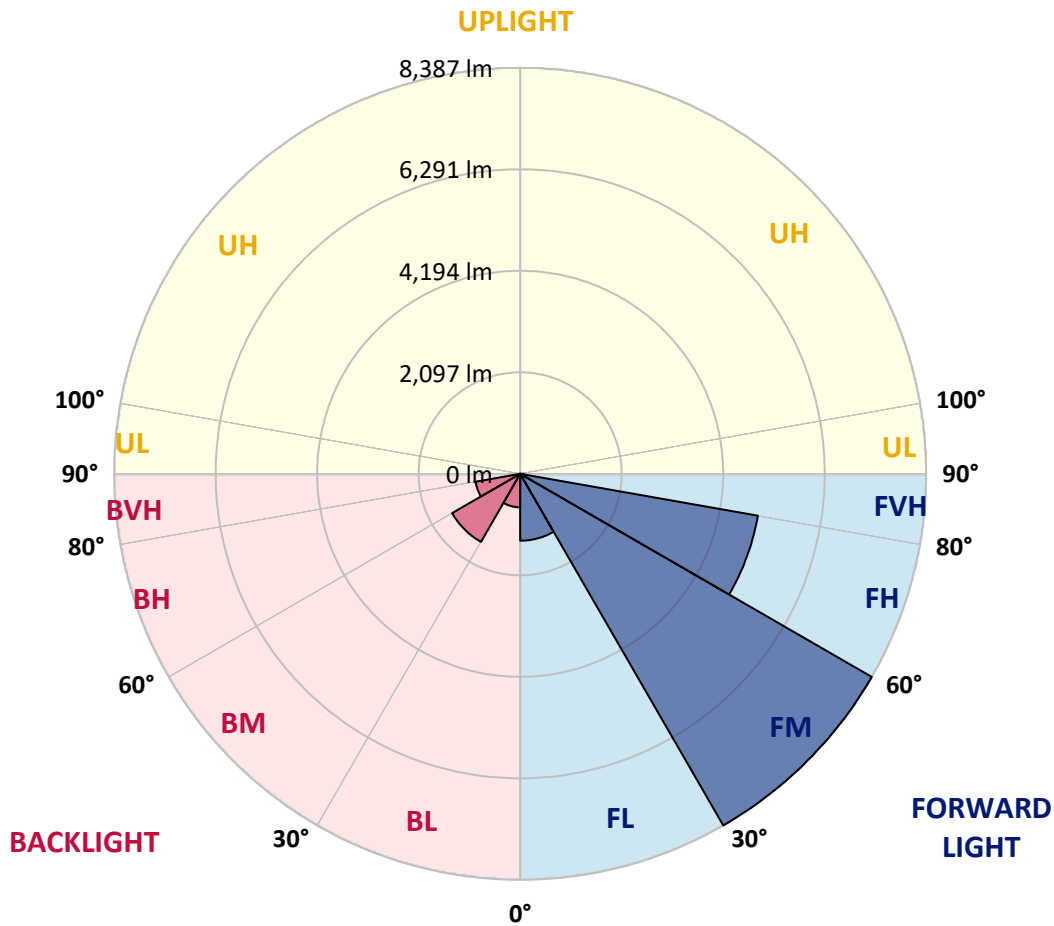
CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1381.5	7.6			
FM (30°-60°)	8387.3	46.3			
FH (60°-80°)	4985.7	27.5			G2/5000
FVH (80°-90°)	74.2	0.4			G1/100
BL (0°-30°)	692.8	3.8	B2/1000		
BM (30°-60°)	1623.4	9.0	B2/2500		
BH (60°-80°)	936.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



REPORT NUMBER: P883466

CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0
2.5°	3170.8	3189.1	3178.7	3173.5	3164.3	3151.3	3140.9	3108.3	3074.4	3052.2	3044.4
5°	3234.7	3253.0	3251.7	3256.9	3263.4	3267.3	3264.7	3228.2	3180.0	3142.2	3120.0
7.5°	3180.0	3200.8	3217.8	3243.9	3289.5	3337.7	3361.2	3353.4	3303.8	3251.7	3224.3
10°	3024.8	3047.0	3087.4	3148.7	3245.2	3349.5	3436.8	3477.2	3445.9	3388.6	3350.8
12.5°	2740.6	2762.8	2842.3	2975.3	3136.9	3318.2	3485.1	3593.3	3601.1	3543.7	3499.4
15°	2421.2	2443.3	2528.1	2695.0	2941.4	3232.1	3511.1	3715.8	3784.9	3735.4	3681.9
17.5°	2223.0	2242.5	2306.4	2440.7	2697.6	3060.0	3502.0	3846.2	4004.0	3964.9	3901.0
20°	2163.0	2180.0	2209.9	2303.8	2517.6	2881.4	3442.0	3968.8	4240.0	4217.8	4146.1
22.5°	2226.9	2242.5	2251.7	2293.4	2427.7	2764.1	3366.4	4093.9	4513.8	4516.4	4429.0
25°	2374.2	2389.9	2379.4	2405.5	2464.2	2727.6	3337.7	4241.3	4858.0	4886.7	4787.6
27.5°	2616.7	2618.0	2593.3	2592.0	2601.1	2782.3	3367.7	4399.0	5292.1	5345.6	5223.0
30°	3103.0	3083.5	2988.3	2885.3	2838.4	2946.6	3451.2	4585.5	5804.5	5899.7	5745.9
32.5°	3852.7	3824.1	3649.3	3402.9	3155.2	3211.3	3601.1	4798.0	6362.6	6534.7	6346.9
35°	4666.3	4658.5	4476.0	4109.6	3676.7	3588.1	3844.9	5077.0	6971.4	7245.2	7022.3
37.5°	5422.5	5418.6	5314.3	4882.7	4356.0	4113.5	4236.1	5442.1	7623.3	8019.7	7756.3
40°	6113.5	6125.3	6021.0	5635.0	5104.4	4787.6	4768.0	5893.2	8348.2	8863.2	8550.3
42.5°	6710.7	6723.7	6618.1	6332.6	5843.6	5533.3	5421.2	6446.0	9056.2	9769.4	9399.1
45°	7116.2	7197.0	7181.3	6953.2	6602.5	6280.4	6206.1	7139.6	9863.3	10730.3	10296.1
47.5°	7230.9	7305.2	7422.5	7453.8	7240.0	6923.2	7011.8	7975.4	10679.4	11692.5	11198.4
50°	6948.0	7017.1	7260.9	7585.5	7734.2	7636.4	7795.4	8871.1	11515.2	12652.1	12083.6
52.5°	6389.9	6460.3	6768.0	7281.7	7888.0	8195.7	8581.6	9753.7	12324.8	13560.8	12922.0
55°	5582.9	5657.2	6052.2	6633.7	7594.6	8426.5	9237.4	10635.1	13066.7	14378.3	13678.2
57.5°	4485.1	4539.8	4950.5	5764.1	6856.7	8197.0	9721.1	11597.3	13765.5	15181.5	14427.9
60°	2923.1	2971.4	3448.6	4356.0	5633.7	7430.4	9817.6	12670.3	14693.8	16225.8	15438.3
62.5°	1944.0	1976.6	2259.5	2925.7	3967.5	5958.4	9253.1	13526.9	16055.0	18043.3	17171.1
65°	1333.8	1366.4	1649.3	2113.5	2563.3	3941.4	7629.8	13413.5	17288.4	19486.6	18455.3
67.5°	951.8	979.2	1219.1	1657.1	1855.3	2289.5	5172.2	11963.7	17111.1	19541.4	18524.4
70°	681.9	697.5	895.7	1290.8	1474.6	1375.5	2876.2	9150.1	14982.0	18044.6	17113.7
72.5°	477.2	482.4	621.9	983.1	1187.8	1003.9	1369.0	6100.5	11331.3	14163.2	13267.5
75°	323.3	329.9	418.5	721.0	953.1	766.6	724.9	3271.2	6652.0	7839.8	7027.5
77.5°	198.2	200.8	269.9	492.8	713.2	584.1	466.8	1385.9	2573.7	2526.8	2153.9
80°	112.1	112.1	172.1	306.4	486.3	376.8	327.3	589.3	814.9	715.8	631.0
82.5°	62.6	63.9	125.2	190.4	322.0	223.0	179.9	272.5	352.0	311.6	271.2
85°	26.1	28.7	76.9	90.0	153.8	110.8	73.0	114.7	130.4	116.0	84.7
87.5°	2.6	3.9	23.5	16.9	18.3	22.2	10.4	22.2	18.3	18.3	13.0
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: P883466

CATALOG NUMBER: NAV-SB3D-827-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0
2.5°	3019.6	3000.0	2950.5	2893.1	2817.5	2781.0	2731.5	2697.6	2668.9	2671.5	2645.4
5°	3078.3	3028.7	2917.9	2779.7	2607.6	2485.0	2354.7	2264.7	2191.7	2176.0	2140.8
7.5°	3159.1	3080.9	2886.6	2637.6	2346.8	2126.5	1929.6	1803.2	1713.2	1684.5	1655.8
10°	3263.4	3150.0	2846.2	2459.0	2040.5	1760.1	1548.9	1449.8	1388.5	1367.7	1352.0
12.5°	3384.7	3229.5	2792.7	2241.2	1724.9	1455.0	1320.8	1271.2	1251.6	1245.1	1241.2
15°	3537.2	3328.6	2711.9	1983.1	1457.7	1268.6	1211.2	1204.7	1207.3	1204.7	1203.4
17.5°	3718.4	3436.8	2580.2	1717.1	1277.7	1173.4	1152.6	1157.8	1164.3	1163.0	1160.4
20°	3916.6	3543.7	2412.0	1481.1	1155.2	1105.6	1093.9	1099.1	1104.3	1101.7	1100.4
22.5°	4142.2	3658.5	2225.6	1297.3	1073.0	1043.0	1030.0	1031.3	1031.3	1026.1	1023.5
25°	4412.1	3784.9	2030.0	1166.9	1010.4	987.0	971.3	966.1	958.3	942.6	940.0
27.5°	4734.1	3919.2	1842.3	1075.6	960.9	938.7	920.5	907.4	887.9	861.8	859.2
30°	5096.6	4082.2	1683.2	1018.3	921.8	899.6	878.8	859.2	830.5	797.9	795.3
32.5°	5522.9	4256.9	1567.2	980.5	886.6	863.1	838.3	814.9	783.6	751.0	752.3
35°	6031.4	4468.1	1499.4	954.4	859.2	827.9	800.5	774.5	751.0	722.3	719.7
37.5°	6582.9	4692.4	1478.5	941.3	841.0	792.7	761.4	743.2	740.6	723.6	722.3
40°	7186.6	4958.4	1494.2	933.5	821.4	758.8	724.9	721.0	727.5	697.5	698.8
42.5°	7825.4	5273.9	1520.2	924.4	794.0	724.9	692.3	692.3	687.1	645.4	645.4
45°	8516.4	5637.6	1546.3	902.2	761.4	691.0	666.2	657.1	635.0	594.5	593.2
47.5°	9212.7	6007.9	1565.9	861.8	722.3	662.3	640.2	619.3	586.7	550.2	548.9
50°	9873.7	6340.4	1545.0	801.8	678.0	635.0	611.5	582.8	547.6	522.8	518.9
52.5°	10464.3	6628.5	1456.3	731.4	631.0	606.3	585.4	555.4	526.7	500.7	498.1
55°	10978.0	6861.9	1299.9	664.9	589.3	581.5	560.6	522.8	483.7	461.5	458.9
57.5°	11470.9	7039.2	1104.3	610.2	551.5	554.1	522.8	488.9	452.4	429.0	426.3
60°	12126.7	7276.5	906.1	559.3	511.1	518.9	485.0	460.2	414.6	384.6	380.7
62.5°	13174.9	7645.5	719.7	496.7	464.2	466.8	452.4	422.4	367.7	332.5	329.9
65°	14006.7	7509.9	567.2	429.0	410.7	414.6	414.6	382.0	323.3	282.9	279.0
67.5°	13912.9	6430.4	452.4	362.5	359.8	362.5	371.6	344.2	286.8	254.2	249.0
70°	12816.4	5114.8	362.5	301.2	312.9	306.4	332.5	314.2	258.2	225.6	221.6
72.5°	10457.8	3684.5	276.4	249.0	239.9	250.3	299.9	282.9	215.1	178.6	174.7
75°	6110.9	1966.1	206.0	196.9	173.4	208.6	266.0	241.2	164.3	131.7	127.8
77.5°	1989.6	685.8	151.2	144.7	129.1	168.2	226.9	203.4	134.3	104.3	100.4
80°	533.3	207.3	103.0	95.2	83.4	125.2	179.9	161.7	96.5	67.8	66.5
82.5°	213.8	87.4	60.0	53.5	45.6	86.1	142.1	130.4	71.7	43.0	43.0
85°	69.1	28.7	22.2	16.9	20.9	53.5	84.7	88.7	50.8	22.2	16.9
87.5°	9.1	3.9	3.9	5.2	3.9	9.1	26.1	24.8	14.3	2.6	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)