

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: P966244

Luminaire Tested: **NAV-SB4B-760-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-760-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18703.2 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



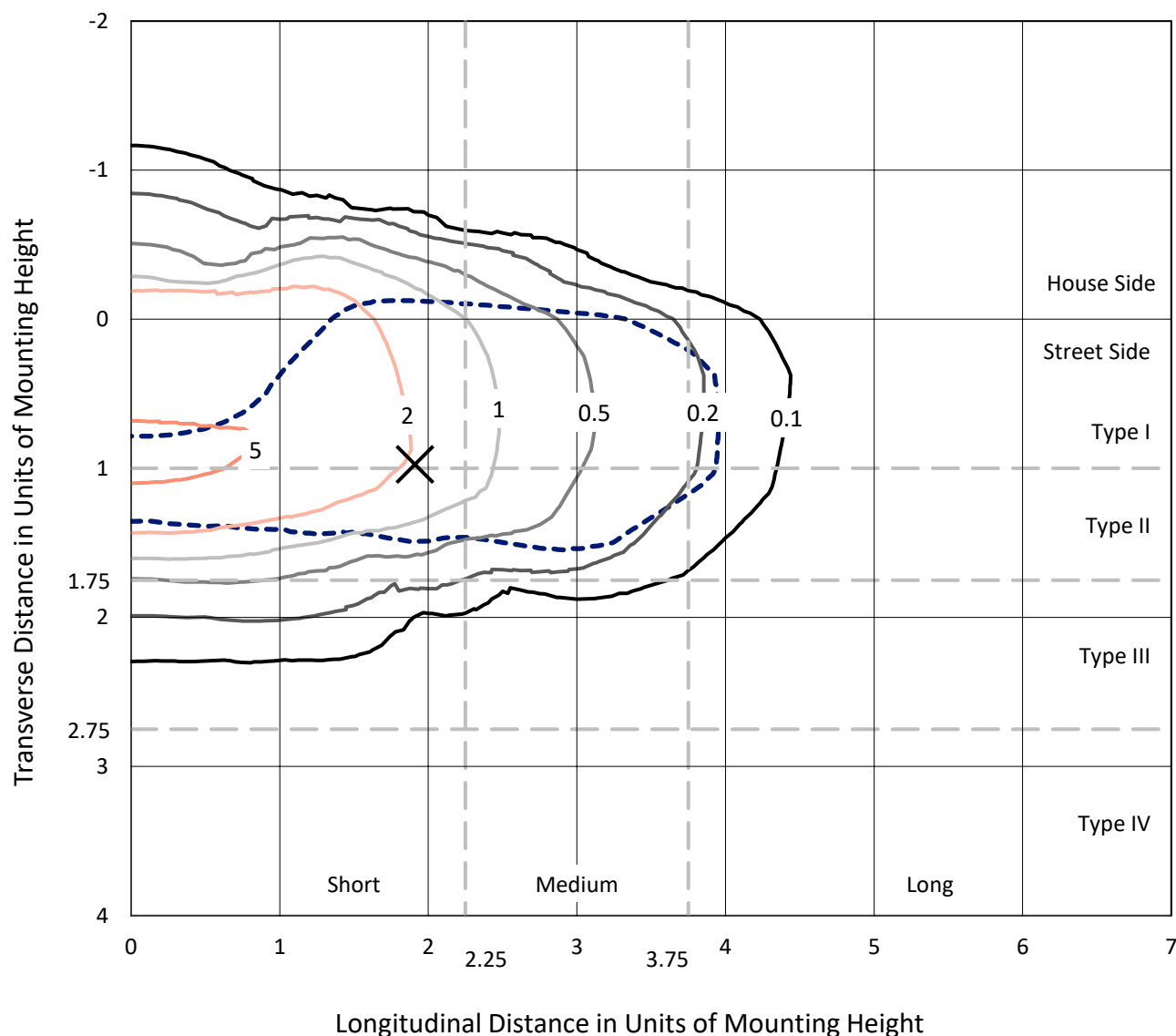
REPORT NUMBER: P966244

CATALOG NUMBER: NAV-SB4B-760-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

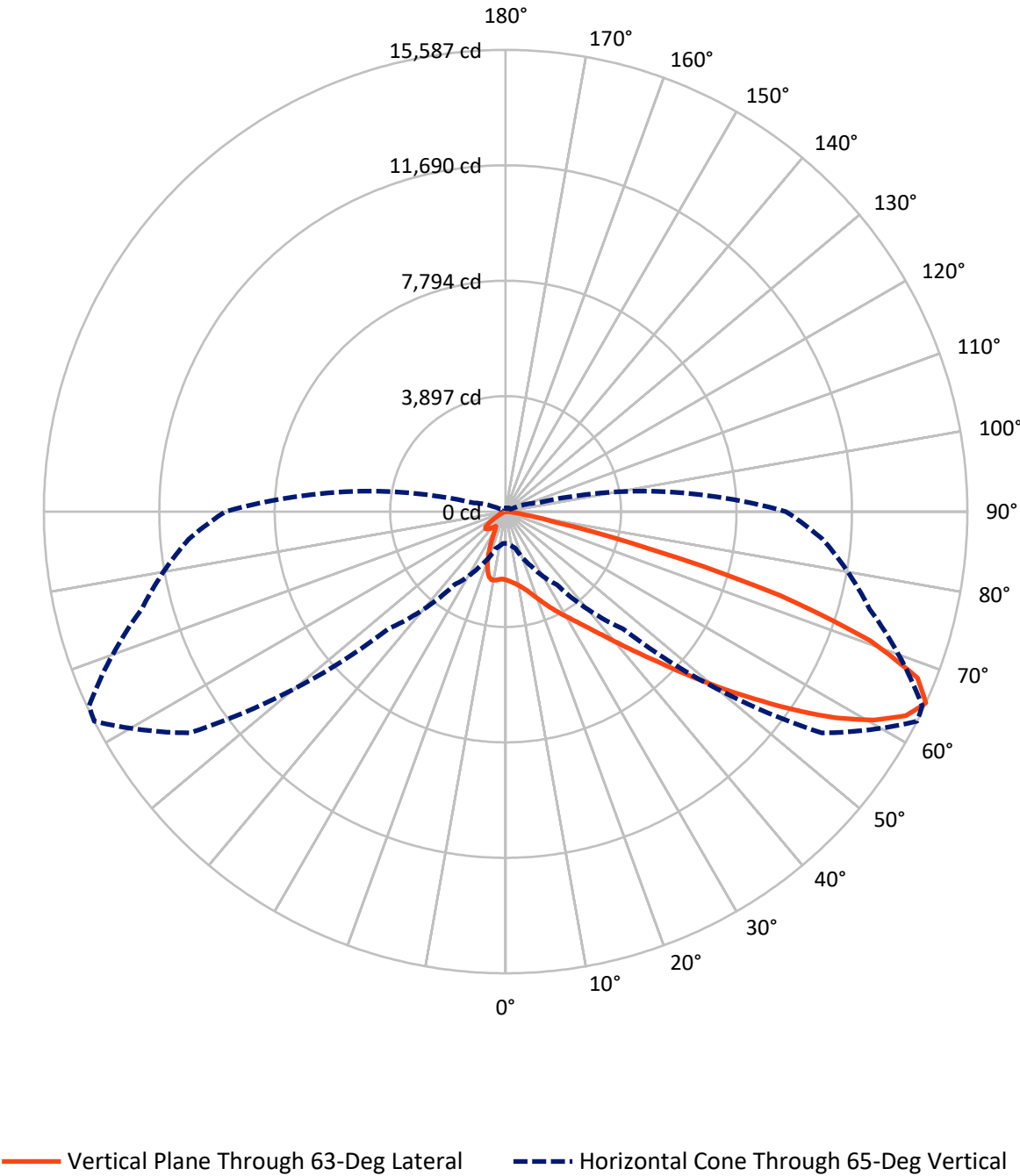


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc

Type II - Short - N/A

REPORT NUMBER: P966244
CATALOG NUMBER: NAV-SB4B-760-U-T2U-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2749.2	0.0	2749.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	15953.9	0.0	15953.9
	% Fixture	85.3	0.0	85.3
Total	Lumens	18703.2	0.0	18703.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.5	1.2
10°-20°	603.5	3.2
20°-30°	1050.8	5.6
30°-40°	1893.9	10.1
40°-50°	3756.2	20.1
50°-60°	5116.5	27.4
60°-70°	4084.0	21.8
70°-80°	1848.1	9.9
80°-90°	132.8	0.7
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°	18703.2	100.0
0°-180°	18703.2	100.0

Coefficient of Utilization



REPORT NUMBER: P966244

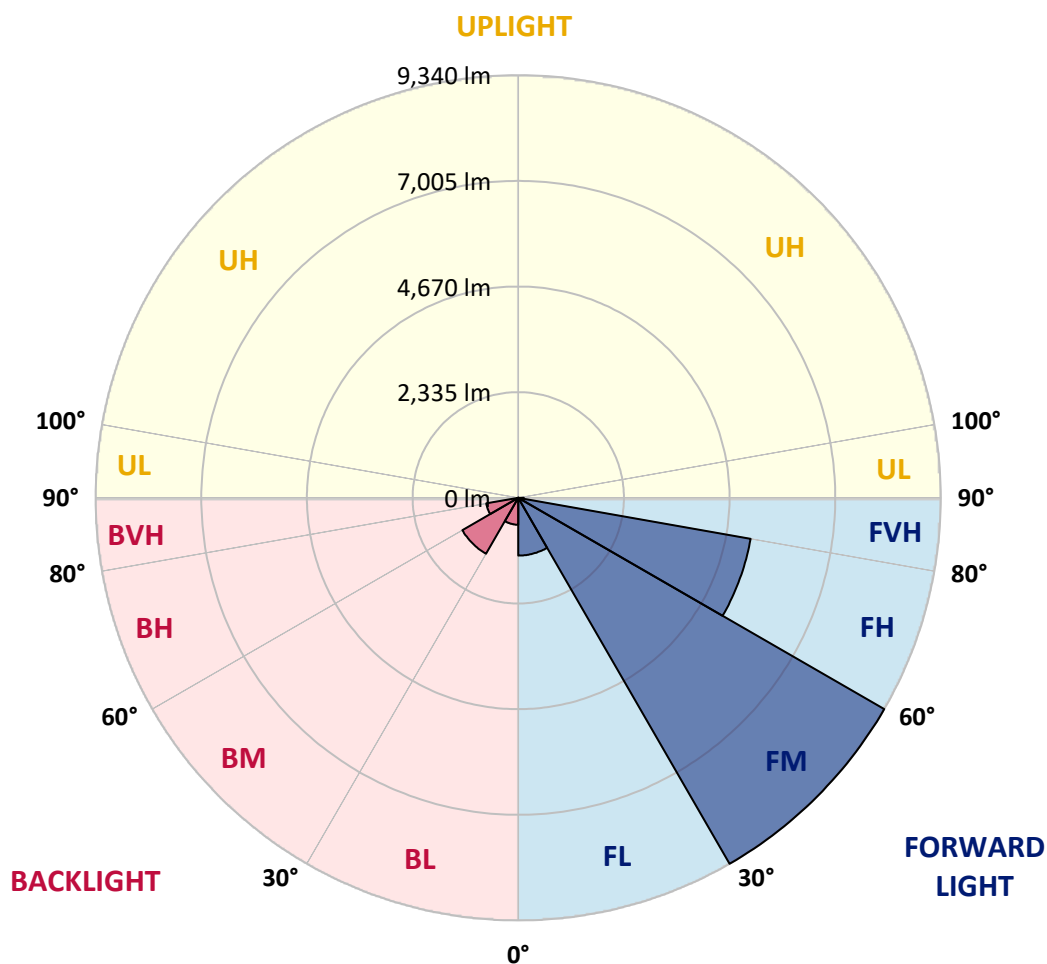
CATALOG NUMBER: NAV-SB4B-760-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1276.7	6.8			
FM	(30°-60°)	9339.9	49.9			
FH	(60°-80°)	5214.4	27.9			G3/7500
FVH	(80°-90°)	123.0	0.7			G2/225
BL	(0°-30°)	595.0	3.2	B2/1000		
BM	(30°-60°)	1426.7	7.6	B2/2500		
BH	(60°-80°)	717.7	3.8	B2/1000		G2/1000
BVH	(80°-90°)	9.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



REPORT NUMBER: P966244

CATALOG NUMBER: NAV-SB4B-760-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3
2.5°	2362.3	2356.0	2365.0	2361.1	2358.5	2353.4	2350.7	2348.2	2343.0	2339.3	2323.8
5°	2368.8	2365.0	2373.9	2381.7	2389.4	2397.1	2401.0	2406.1	2401.0	2390.7	2375.2
7.5°	2314.8	2312.2	2331.5	2354.6	2389.4	2419.0	2451.2	2469.1	2470.5	2466.6	2449.9
10°	2310.9	2304.5	2323.8	2352.1	2397.1	2449.9	2506.4	2545.1	2550.2	2566.9	2549.0
12.5°	2371.3	2365.0	2391.9	2422.8	2469.1	2524.5	2594.0	2648.0	2655.8	2678.9	2666.0
15°	2473.0	2464.0	2494.8	2534.8	2594.0	2657.0	2730.4	2779.3	2785.6	2814.0	2790.9
17.5°	2591.4	2582.4	2618.5	2660.9	2725.2	2811.5	2896.3	2950.4	2958.1	2976.1	2933.7
20°	2743.2	2731.6	2759.9	2798.6	2866.7	2969.7	3071.3	3148.5	3147.3	3147.3	3077.8
22.5°	2919.5	2901.5	2926.0	2956.8	3021.2	3145.9	3281.0	3372.5	3372.5	3336.4	3221.9
25°	3108.6	3090.7	3117.6	3145.9	3202.6	3344.1	3502.4	3615.6	3620.7	3559.0	3376.2
27.5°	3345.4	3322.2	3342.8	3376.2	3409.8	3553.9	3741.7	3873.0	3875.5	3780.3	3522.9
30°	3800.9	3735.3	3670.9	3634.9	3650.3	3793.2	3993.9	4139.3	4152.2	4020.9	3682.5
32.5°	4634.6	4621.8	4395.3	4099.4	3945.0	4050.5	4275.7	4450.7	4458.3	4289.8	3889.7
35°	5930.3	5915.0	5550.8	4987.2	4484.2	4395.3	4617.9	4825.1	4820.0	4629.5	4158.6
37.5°	7477.0	7462.8	6982.9	6228.9	5414.4	4916.4	5059.3	5276.7	5308.9	5059.3	4506.0
40°	8798.4	8745.6	8442.0	7715.0	6649.6	5781.1	5687.2	5831.3	5864.7	5568.8	4947.4
42.5°	9799.4	9754.4	9600.0	9145.8	8144.8	7060.1	6427.1	6482.3	6519.7	6164.6	5454.3
45°	10318.0	10307.7	10369.4	10327.0	9668.2	8629.9	7484.7	7254.3	7268.5	6824.7	6029.5
47.5°	10391.3	10386.2	10668.0	11066.8	10978.1	10400.4	8842.2	8216.8	8166.6	7569.6	6654.8
50°	9959.0	9948.8	10489.1	11236.7	11853.0	11887.7	10383.6	9301.5	9190.9	8340.3	7307.1
52.5°	8578.3	8575.8	9463.6	10707.9	12160.5	13189.9	11907.0	10492.9	10307.7	9156.1	7996.7
55°	6600.7	6648.4	7666.1	9136.8	11599.5	13816.5	13274.8	11815.7	11531.4	9977.0	8632.4
57.5°	4675.8	4745.3	5751.5	7061.3	9859.9	13446.0	14199.9	13141.0	12834.7	10795.3	9277.1
60°	2511.7	2573.4	3580.8	5144.2	7335.4	12064.0	14687.6	14291.3	14001.8	11572.6	9858.7
62.5°	1496.4	1517.0	1933.9	3321.0	4961.5	9216.6	14480.4	15167.5	14929.5	12224.9	10364.3
65°	1074.4	1078.2	1288.0	2027.9	3012.2	5599.7	13027.7	15587.0	15513.7	12716.4	10738.7
67.5°	904.6	902.0	989.4	1347.2	2052.3	2805.0	9984.7	14993.8	15305.2	13027.7	10951.0
70°	775.9	779.7	882.6	986.9	1542.7	1587.8	4964.1	13054.8	13718.7	13110.1	10938.2
72.5°	577.7	590.6	685.8	899.4	1164.5	1092.4	1713.9	9679.8	10880.3	12352.3	10370.7
75°	407.8	414.3	482.5	756.6	868.5	795.2	874.9	5003.9	6542.8	9470.1	8488.3
77.5°	314.0	325.5	365.4	528.8	855.7	558.4	535.3	1731.8	2660.9	5720.6	5819.7
80°	169.8	190.4	263.7	382.1	600.9	395.0	265.1	689.6	902.0	2675.0	2244.0
82.5°	87.5	97.8	184.0	275.3	342.2	344.8	131.2	286.9	371.9	826.0	307.5
85°	34.7	42.4	123.5	151.8	176.3	169.8	59.1	115.8	133.9	229.0	93.9
87.5°	7.7	12.9	45.0	34.7	33.4	36.0	14.1	27.1	25.7	27.1	16.7
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: P966244

CATALOG NUMBER: NAV-SB4B-760-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3	2308.3
2.5°	2322.4	2317.3	2303.2	2287.7	2269.8	2259.4	2253.0	2251.7	2242.7	2236.2	2242.7
5°	2361.1	2356.0	2328.9	2296.7	2262.0	2235.0	2209.3	2186.1	2152.6	2146.2	2143.6
7.5°	2438.3	2424.1	2380.4	2336.6	2271.0	2192.5	2097.4	1988.0	1890.1	1860.6	1846.4
10°	2533.5	2514.2	2458.9	2381.7	2236.2	2022.6	1792.3	1578.8	1409.0	1361.3	1343.3
12.5°	2641.5	2624.8	2551.5	2408.6	2090.9	1703.6	1351.1	1086.0	921.3	880.1	868.5
15°	2770.3	2745.8	2644.2	2367.5	1831.0	1294.4	927.7	770.7	711.6	703.9	696.1
17.5°	2906.6	2866.7	2726.5	2219.5	1481.0	919.9	716.7	671.7	646.0	638.2	634.4
20°	3031.4	2980.0	2775.4	1995.7	1106.6	716.7	642.1	612.4	589.3	580.3	575.1
22.5°	3156.3	3082.9	2775.4	1690.7	829.9	635.6	589.3	562.3	535.3	523.7	517.2
25°	3286.3	3188.5	2726.5	1351.1	667.8	582.9	539.2	509.5	486.4	472.2	467.1
27.5°	3412.3	3277.2	2614.6	1029.3	594.5	536.6	492.8	464.5	442.6	432.3	432.3
30°	3531.9	3364.7	2457.5	781.0	546.8	491.5	450.4	425.9	404.1	393.7	395.0
32.5°	3694.1	3475.4	2290.4	640.7	505.6	449.1	411.7	388.6	369.3	361.5	361.5
35°	3919.3	3638.7	2146.2	629.1	470.9	414.3	377.0	355.2	335.8	329.4	329.4
37.5°	4238.4	3902.6	2070.3	706.4	442.6	383.5	348.7	325.5	307.5	302.4	301.0
40°	4632.1	4260.2	2111.5	783.6	423.3	356.4	323.0	299.8	284.3	277.9	276.6
42.5°	5099.2	4701.6	2339.3	842.8	410.4	333.2	298.5	272.8	262.5	259.9	259.9
45°	5635.8	5186.7	2687.9	905.8	389.9	311.4	274.1	254.8	247.0	245.8	244.5
47.5°	6245.6	5719.3	3091.9	984.3	369.3	290.8	254.8	241.9	235.4	232.9	232.9
50°	6850.4	6255.9	3507.6	1028.1	352.6	271.5	239.3	229.0	223.9	222.6	222.6
52.5°	7483.4	6807.8	3843.3	986.9	338.4	256.0	226.4	218.7	213.6	212.3	212.3
55°	8086.8	7254.3	3901.3	837.6	310.1	240.6	212.3	208.5	202.0	202.0	200.7
57.5°	8606.7	7478.3	3492.1	615.0	281.8	217.4	198.1	194.3	189.1	187.9	186.5
60°	9084.1	7413.9	2695.6	414.3	250.9	194.3	180.1	177.5	172.4	165.9	164.7
62.5°	9352.9	7130.8	1843.9	270.2	220.1	169.8	159.6	158.3	146.7	133.9	131.2
65°	9454.6	6549.2	1150.3	196.9	184.0	145.3	137.7	135.1	118.4	104.2	102.9
67.5°	9365.8	5592.0	580.3	155.7	145.3	121.0	113.3	113.3	101.7	88.8	87.5
70°	9010.7	4192.0	244.5	124.8	111.9	92.7	92.7	97.8	86.2	72.1	70.7
72.5°	8240.0	2820.4	130.0	95.2	83.6	65.6	76.0	79.7	68.2	54.0	54.0
75°	6550.6	1720.3	90.1	70.7	52.8	46.3	57.9	60.5	46.3	36.0	34.7
77.5°	4480.3	988.2	60.5	45.0	33.4	27.1	39.9	37.3	24.5	16.7	18.0
80°	1967.4	411.7	34.7	20.6	12.9	10.2	14.1	10.2	7.7	5.1	5.1
82.5°	230.3	96.5	12.9	7.7	5.1	2.6	1.3	0.0	0.0	0.0	0.0
85°	47.6	11.6	6.5	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.0	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)