

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: P884290

Luminaire Tested: **NAV-SB5A-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18581 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

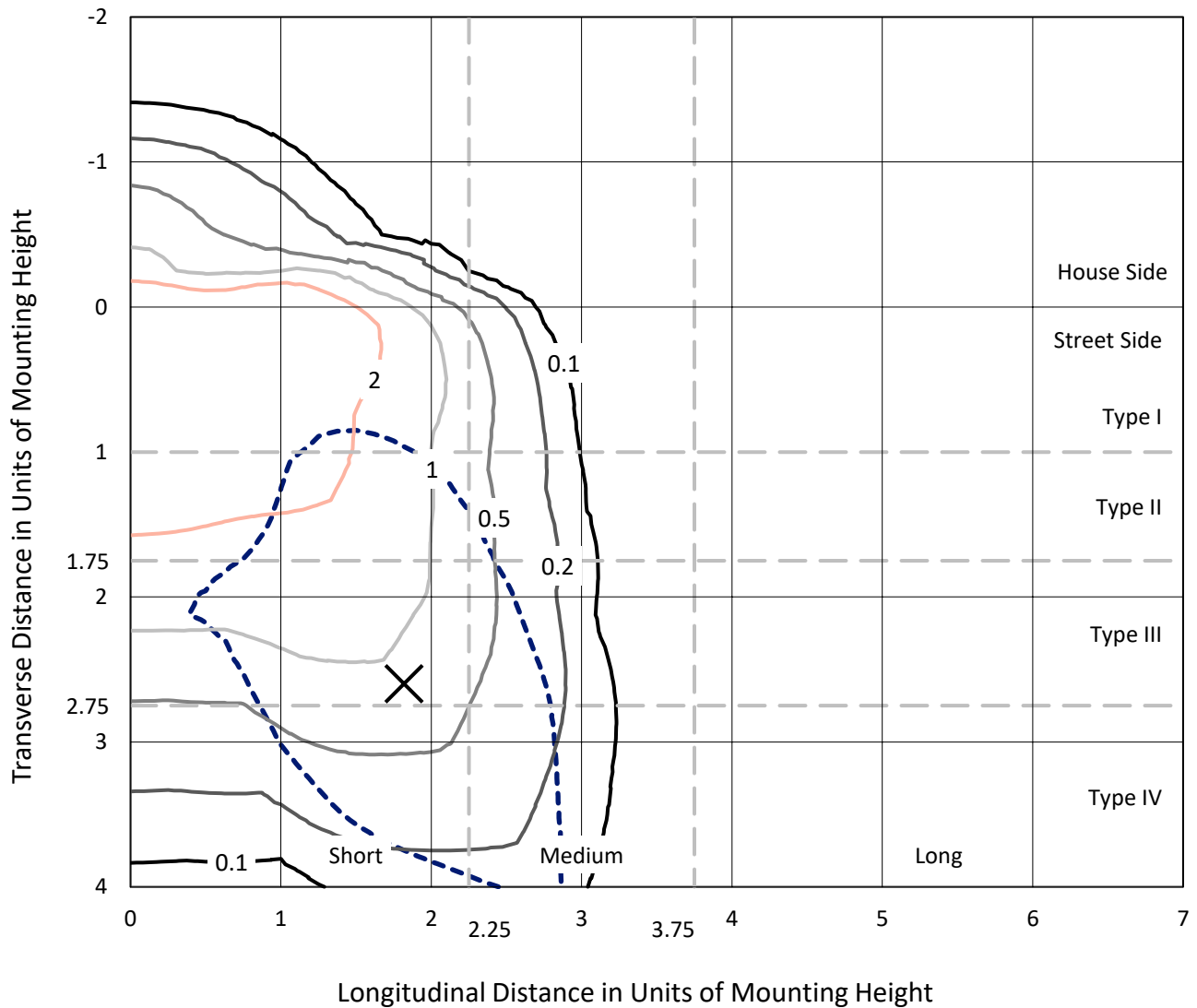
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884290
 CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

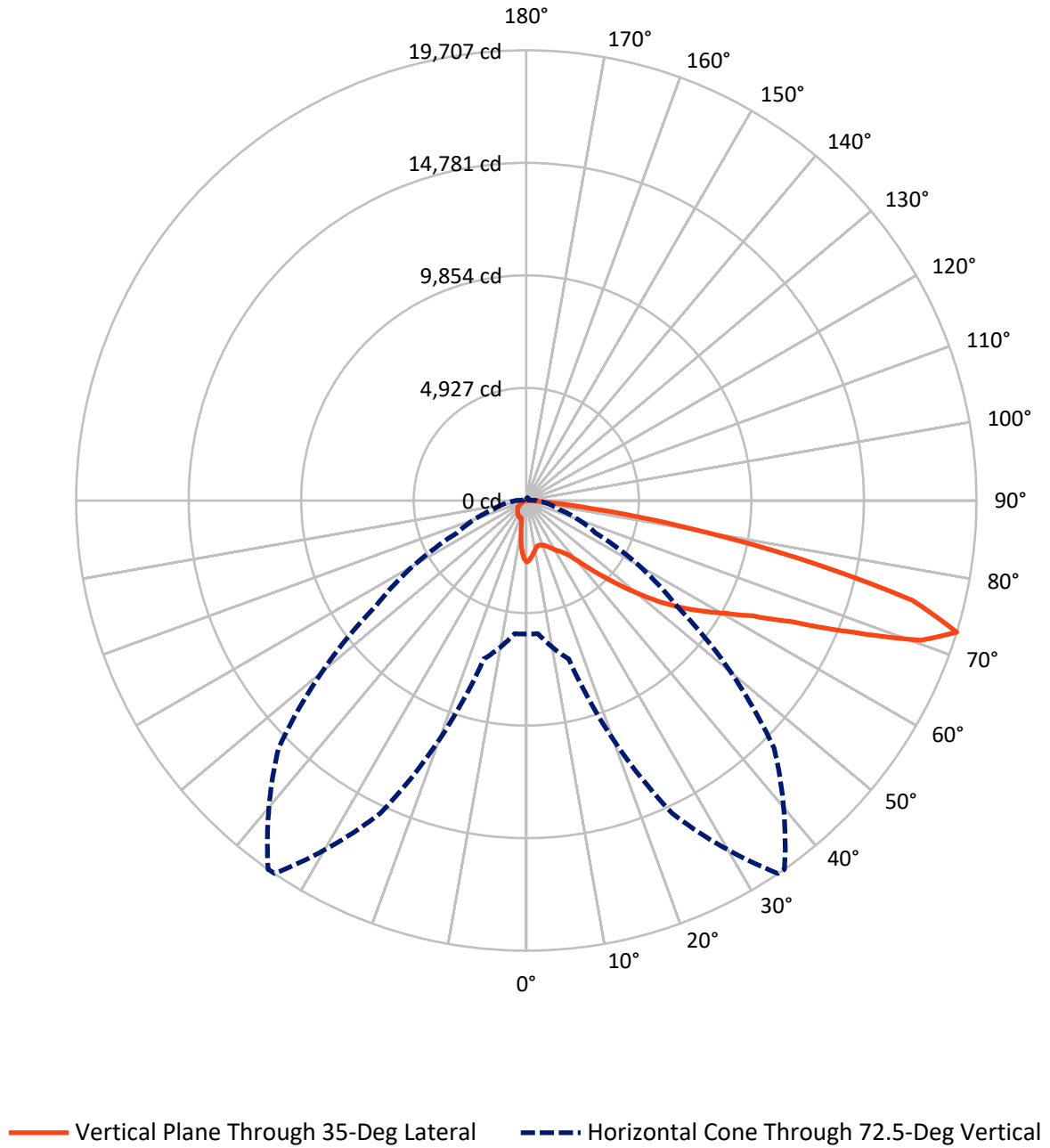
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P884290
CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P884290
 CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2091.2	0.0	2091.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16489.8	0.0	16489.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	18581.0	0.0	18581.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.3	1.2
10°-20°	517.7	2.8
20°-30°	841.0	4.5
30°-40°	1403.2	7.6
40°-50°	2654.8	14.3
50°-60°	4218.5	22.7
60°-70°	5218.6	28.1
70°-80°	3243.9	17.5
80°-90°	262.2	1.4
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°	18581.0	100.0
0°-180°	18581.0	100.0



REPORT NUMBER: P884290

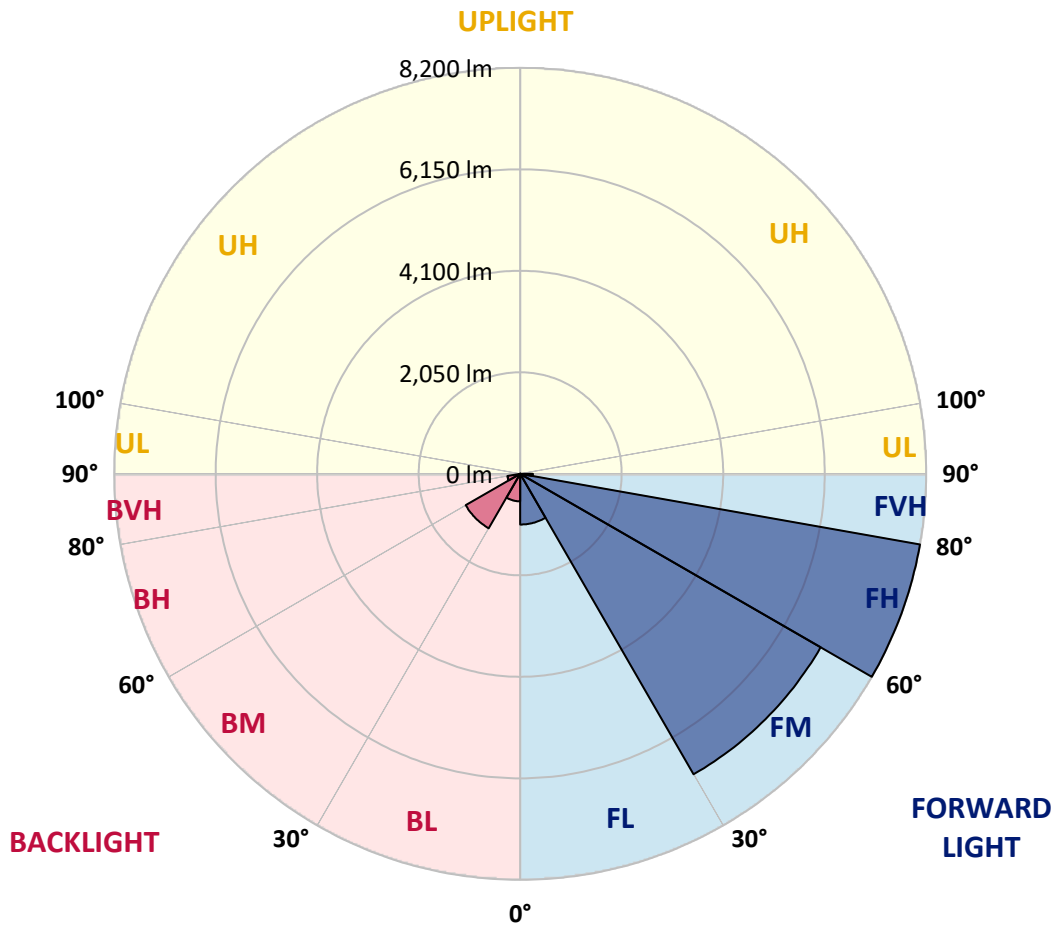
CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1024.3	5.5			
FM (30°-60°)	7006.9	37.7			
FH (60°-80°)	8200.0	44.1			G4/12000
FVH (80°-90°)	258.6	1.4			G3/500
BL (0°-30°)	555.7	3.0	B2/1000		
BM (30°-60°)	1269.5	6.8	B2/2500		
BH (60°-80°)	262.4	1.4	B1/500		G1/500
BVH (80°-90°)	3.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



REPORT NUMBER: P884290

CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0
2.5°	2573.2	2595.0	2599.1	2605.9	2605.9	2614.0	2627.7	2646.7	2678.0	2694.4	2705.3
5°	2371.7	2388.0	2408.5	2424.8	2456.1	2460.2	2513.3	2565.0	2637.2	2691.6	2729.8
7.5°	2168.8	2187.9	2215.1	2254.6	2295.5	2307.7	2388.0	2475.2	2589.5	2691.6	2755.6
10°	2025.9	2027.2	2051.8	2091.2	2156.6	2171.6	2269.6	2393.5	2536.4	2675.3	2780.1
12.5°	1945.6	1955.1	1966.0	1995.9	2058.6	2068.1	2172.9	2318.6	2483.3	2665.8	2808.7
15°	1945.6	1952.4	1959.2	1974.1	2024.5	2032.7	2125.3	2271.0	2456.1	2669.9	2855.0
17.5°	1966.0	1976.9	1971.4	1989.1	2042.2	2047.7	2129.4	2257.3	2454.8	2695.7	2925.8
20°	2015.0	2023.2	2012.3	2023.2	2076.3	2087.2	2171.6	2283.2	2477.9	2740.7	3014.3
22.5°	2092.6	2096.7	2070.8	2079.0	2133.4	2147.1	2245.1	2356.7	2533.7	2812.8	3132.8
25°	2190.6	2198.8	2159.3	2168.8	2220.6	2236.9	2349.9	2467.0	2622.2	2912.2	3283.9
27.5°	2303.6	2307.7	2273.7	2272.3	2339.0	2362.2	2476.5	2603.2	2740.7	3037.5	3474.5
30°	2433.0	2445.2	2412.5	2407.1	2491.5	2510.6	2623.6	2770.6	2914.9	3225.3	3745.4
32.5°	2535.1	2544.6	2525.5	2539.2	2624.9	2639.9	2801.9	3007.5	3188.6	3492.2	4114.4
35°	2682.1	2687.6	2644.0	2668.5	2766.5	2804.7	3045.6	3339.7	3533.0	3827.1	4596.4
37.5°	3214.5	3214.5	3029.3	2908.1	3002.1	3036.1	3379.2	3757.7	3957.8	4276.4	5203.6
40°	3951.0	3938.8	3667.8	3420.0	3407.8	3474.5	3854.4	4284.6	4506.5	4815.6	5887.0
42.5°	4736.6	4717.5	4348.6	4103.5	4062.7	4085.8	4403.0	4934.0	5160.0	5473.2	6622.2
45°	5433.7	5428.2	5090.6	4761.1	4687.6	4761.1	5087.9	5693.7	5855.7	6185.2	7356.1
47.5°	6017.7	6017.7	5771.3	5556.2	5518.1	5561.7	6015.0	6536.5	6521.5	6943.6	8070.9
50°	6690.3	6684.9	6450.7	6358.1	6397.6	6458.9	7082.4	7424.2	7210.4	7688.3	8709.4
52.5°	7161.4	7194.1	7113.7	7098.8	7300.3	7406.5	8166.2	8292.8	7827.2	8394.9	9187.3
55°	7534.4	7572.6	7665.1	7770.0	8158.0	8296.9	9215.9	9116.5	8343.2	9007.6	9462.3
57.5°	8062.7	8008.2	8151.2	8358.1	8985.8	9153.2	10232.9	9893.9	8758.4	9504.5	9492.2
60°	8703.9	8712.1	8736.6	8998.0	9812.2	10027.3	11234.9	10629.1	9025.3	9809.5	9160.0
62.5°	9474.5	9486.8	9537.2	9938.8	10921.8	11124.7	12302.3	11230.9	9147.8	9723.7	8302.3
65°	9421.5	9473.2	10035.5	11409.2	12608.7	12808.8	13548.1	11652.9	8962.6	8939.5	6759.8
67.5°	8582.8	8667.2	9608.0	13165.5	15151.9	15375.2	15053.9	11736.0	8163.4	6951.7	4409.8
70°	7482.7	7512.7	8644.0	14744.8	18096.8	18322.8	16401.8	10822.4	6194.7	3877.5	1975.5
72.5°	5843.5	5850.3	7177.7	15111.1	19695.2	19707.4	15343.9	8034.1	3331.5	1489.5	686.2
75°	4174.3	4133.5	4807.4	12254.7	17327.6	17466.4	11503.2	3768.6	1273.0	703.9	341.7
77.5°	2238.3	2283.2	2720.2	7267.6	11970.1	12207.0	6276.4	1086.5	648.1	479.2	226.0
80°	691.6	729.8	1115.1	3327.5	6780.2	6923.1	2326.8	483.3	452.0	341.7	148.4
82.5°	217.8	226.0	520.1	1398.2	2814.2	2879.5	673.9	273.7	309.1	226.0	87.1
85°	62.6	64.0	231.5	521.4	695.7	709.3	189.2	106.2	177.0	140.2	44.9
87.5°	6.8	21.8	87.1	87.1	61.3	59.9	20.4	23.1	50.4	17.7	8.2
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: P884290

CATALOG NUMBER: NAV-SB5A-740-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0	2693.0
2.5°	2698.5	2699.8	2682.1	2652.2	2619.5	2592.3	2558.2	2531.0	2511.9	2506.5	2516.0
5°	2717.5	2708.0	2657.6	2566.4	2457.5	2363.5	2258.7	2175.6	2121.2	2098.0	2106.2
7.5°	2746.1	2718.9	2608.6	2428.9	2220.6	2035.4	1847.5	1701.9	1609.3	1563.0	1569.8
10°	2770.6	2716.2	2526.9	2230.1	1911.5	1631.1	1377.8	1202.2	1104.2	1057.9	1059.2
12.5°	2793.8	2714.8	2420.7	1994.6	1563.0	1219.9	984.4	897.2	870.0	860.5	857.7
15°	2837.3	2718.9	2287.3	1725.0	1215.8	921.7	835.9	834.6	840.0	837.3	835.9
17.5°	2897.2	2723.0	2136.2	1439.1	938.1	812.8	808.7	821.0	829.1	825.1	823.7
20°	2974.8	2739.3	1975.5	1155.9	806.0	785.6	795.1	806.0	812.8	806.0	804.6
22.5°	3083.8	2767.9	1799.9	928.5	763.8	769.2	777.4	789.7	796.5	786.9	785.6
25°	3217.2	2812.8	1627.0	807.4	743.4	750.2	762.4	776.0	784.2	774.7	773.3
27.5°	3390.1	2885.0	1467.7	780.1	722.9	727.0	744.7	765.2	776.0	763.8	763.8
30°	3640.6	3003.4	1330.2	792.4	710.7	701.2	725.7	754.3	766.5	755.6	754.3
32.5°	3972.8	3170.9	1245.8	811.4	705.2	671.2	694.4	731.1	751.5	744.7	744.7
35°	4408.5	3425.5	1213.1	833.2	701.2	639.9	656.2	695.7	731.1	737.9	737.9
37.5°	4936.7	3779.5	1222.6	842.8	688.9	614.0	622.2	656.2	702.5	724.3	729.8
40°	5537.1	4192.0	1277.1	833.2	675.3	592.2	593.6	619.5	660.3	693.0	703.9
42.5°	6156.6	4674.0	1377.8	797.8	663.0	573.2	569.1	586.8	614.0	637.2	646.7
45°	6746.1	5169.5	1477.2	748.8	648.1	554.1	544.6	551.4	556.8	566.4	571.8
47.5°	7260.8	5518.1	1448.6	703.9	627.6	532.3	516.0	513.3	496.9	495.6	494.2
50°	7616.1	5594.3	1286.6	659.0	597.7	507.8	482.0	465.6	437.0	423.4	424.8
52.5°	7729.1	5293.4	1051.1	614.0	548.7	475.2	438.4	412.5	377.1	364.9	363.5
55°	7579.4	4703.9	840.0	559.6	480.6	431.6	390.7	356.7	328.1	313.1	313.1
57.5°	7213.1	3953.7	664.4	495.6	408.4	382.6	341.7	307.7	283.2	268.2	265.5
60°	6605.9	3139.6	525.5	419.3	348.5	329.5	287.3	265.5	243.7	226.0	221.9
62.5°	5684.2	2241.0	412.5	332.2	291.4	269.6	245.1	228.7	202.9	178.4	174.3
65°	4435.7	1371.0	318.6	243.7	234.2	223.3	208.3	193.3	162.0	137.5	133.4
67.5°	2797.8	649.4	227.4	183.8	185.2	179.7	172.9	160.7	137.5	115.7	113.0
70°	1232.1	314.5	149.8	140.2	137.5	137.5	143.0	138.9	117.1	96.7	92.6
72.5°	419.3	168.8	111.6	106.2	99.4	98.0	119.8	115.7	93.9	74.9	70.8
75°	219.2	113.0	81.7	76.2	59.9	72.2	95.3	89.9	66.7	49.0	44.9
77.5°	143.0	80.3	55.8	49.0	34.0	47.7	70.8	62.6	39.5	24.5	21.8
80°	89.9	53.1	32.7	23.1	16.3	25.9	38.1	27.2	15.0	5.4	4.1
82.5°	47.7	27.2	12.3	8.2	6.8	8.2	9.5	6.8	2.7	0.0	0.0
85°	19.1	9.5	4.1	2.7	1.4	0.0	2.7	1.4	0.0	0.0	0.0
87.5°	6.8	1.4	0.0	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)