

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: P966220

Luminaire Tested: **NAV-SB4B-750-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-750-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18529.9 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

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



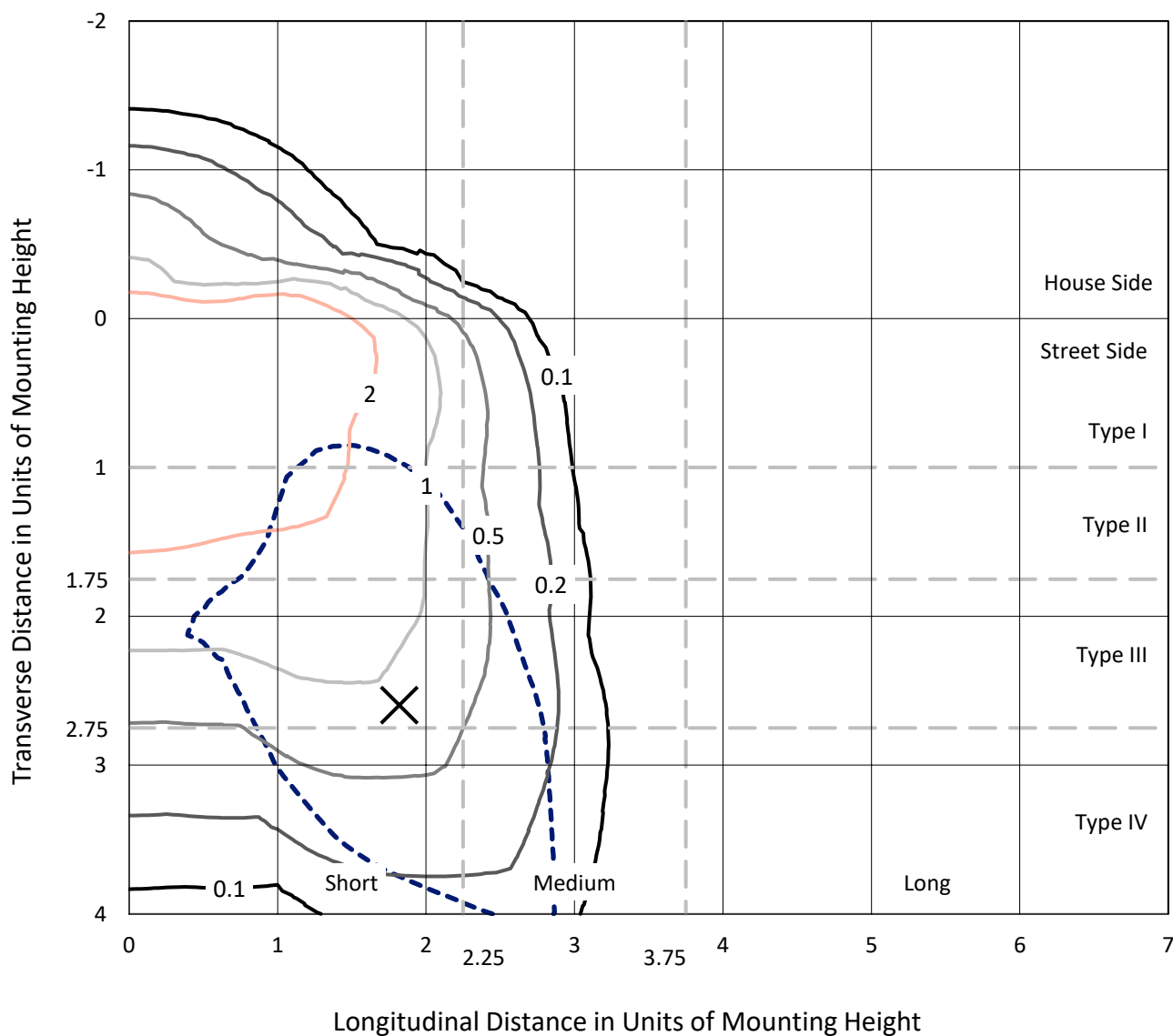
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

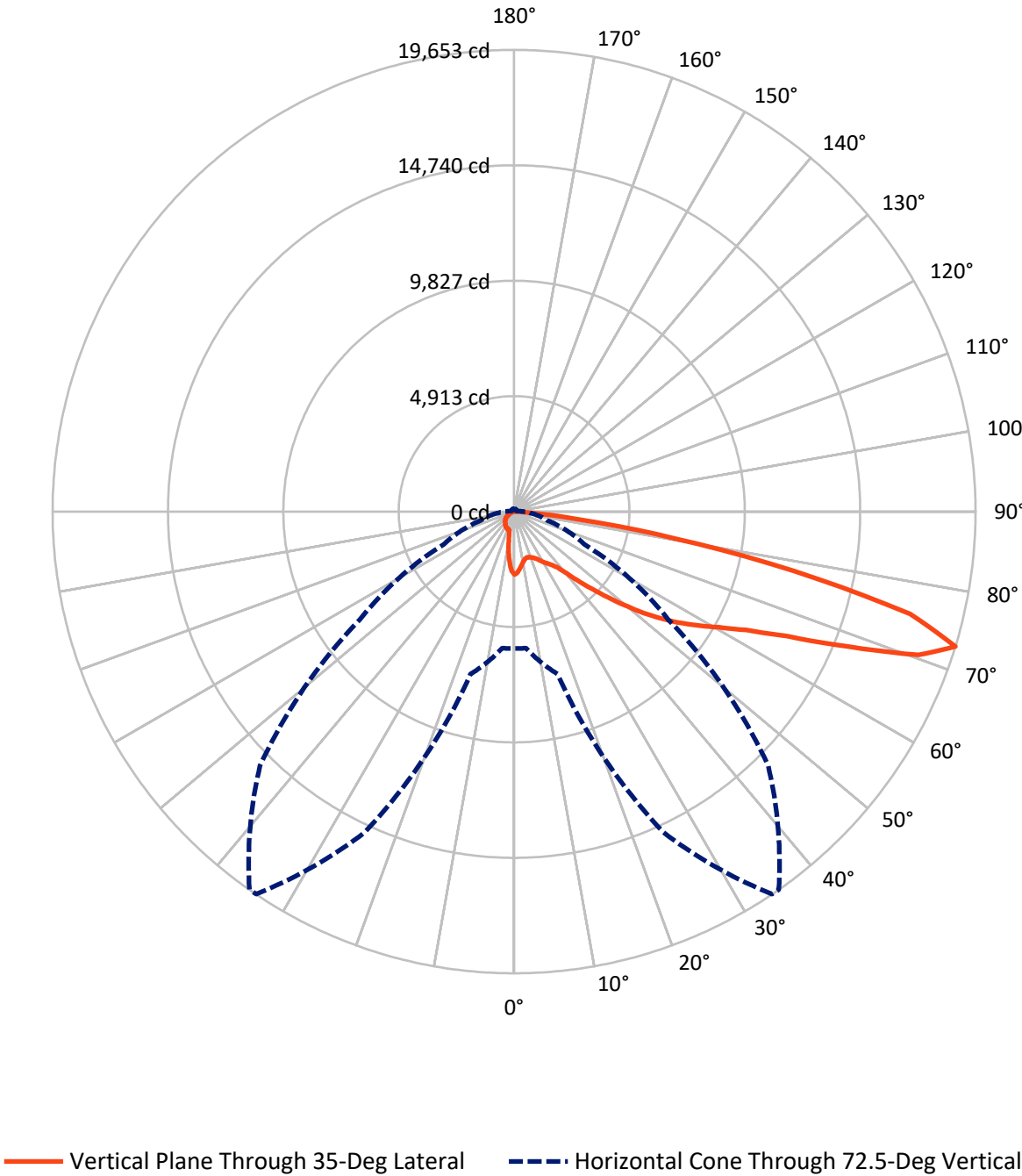


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2085.5	0.0	2085.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16444.5	0.0	16444.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	18529.9	0.0	18529.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.7	1.2
10°-20°	516.3	2.8
20°-30°	838.7	4.5
30°-40°	1399.3	7.6
40°-50°	2647.5	14.3
50°-60°	4206.9	22.7
60°-70°	5204.2	28.1
70°-80°	3235.0	17.5
80°-90°	261.4	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°	18529.9	100.0
0°-180°	18529.9	100.0

Coefficient of Utilization



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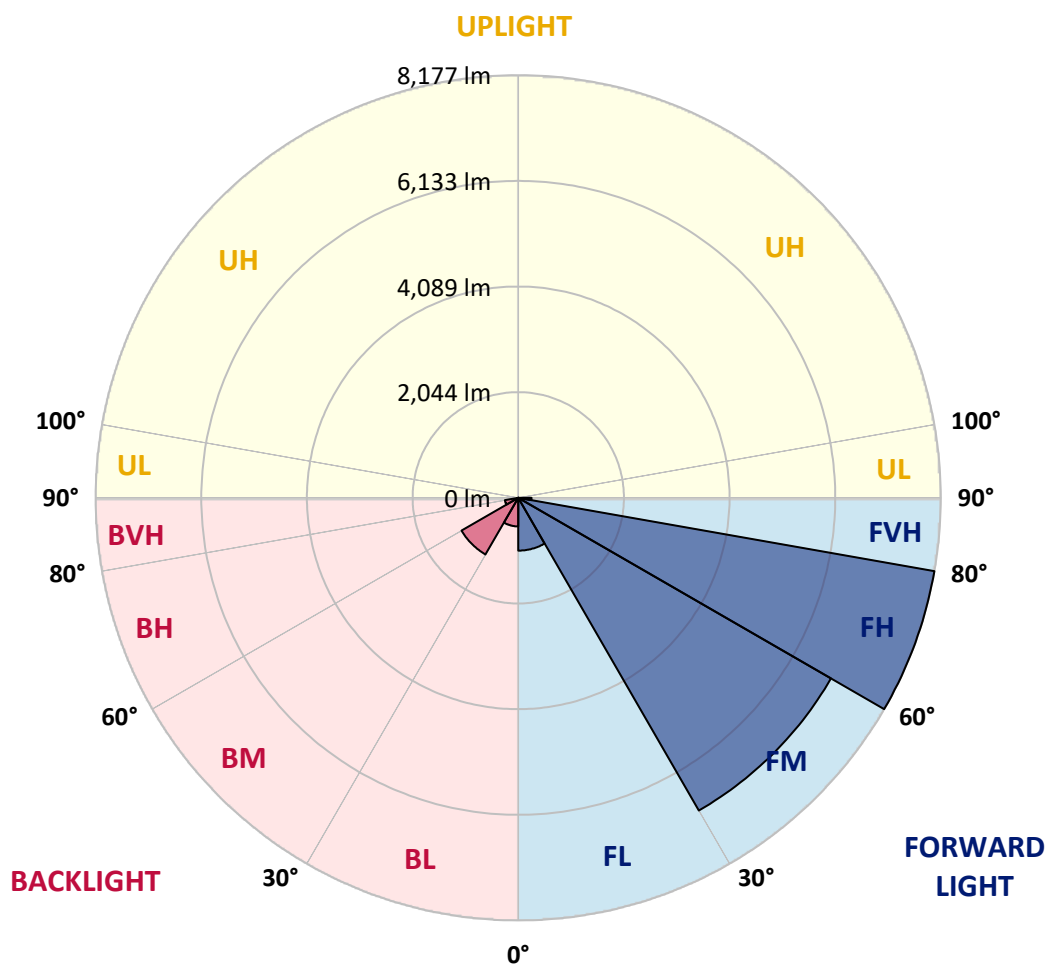
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1021.5	5.5			
FM	(30°-60°)	6987.6	37.7			
FH	(60°-80°)	8177.5	44.1			G4/12000
FVH	(80°-90°)	257.9	1.4			G3/500
BL	(0°-30°)	554.1	3.0	B2/1000		
BM	(30°-60°)	1266.1	6.8	B2/2500		
BH	(60°-80°)	261.7	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6
2.5°	2566.1	2587.8	2591.9	2598.7	2598.7	2606.9	2620.4	2639.5	2670.6	2686.9	2697.8
5°	2365.2	2381.5	2401.9	2418.2	2449.3	2453.4	2506.4	2558.0	2629.9	2684.3	2722.3
7.5°	2162.9	2181.9	2209.1	2248.4	2289.1	2301.3	2381.5	2468.4	2582.4	2684.3	2748.0
10°	2020.3	2021.7	2046.1	2085.5	2150.7	2165.6	2263.3	2386.9	2529.5	2668.0	2772.5
12.5°	1940.2	1949.8	1960.6	1990.4	2052.9	2062.4	2167.0	2312.2	2476.5	2658.4	2801.0
15°	1940.2	1947.0	1953.8	1968.7	2018.9	2027.1	2119.4	2264.7	2449.3	2662.5	2847.1
17.5°	1960.6	1971.5	1966.1	1983.7	2036.6	2042.0	2123.5	2251.1	2448.0	2688.4	2917.8
20°	2009.4	2017.6	2006.7	2017.6	2070.6	2081.5	2165.6	2276.9	2471.1	2733.2	3006.0
22.5°	2086.8	2090.9	2065.2	2073.3	2127.6	2141.1	2238.9	2350.2	2526.7	2805.1	3124.2
25°	2184.6	2192.8	2153.4	2162.9	2214.5	2230.8	2343.5	2460.2	2615.0	2904.2	3274.9
27.5°	2297.3	2301.3	2267.4	2266.1	2332.6	2355.7	2469.7	2596.0	2733.2	3029.1	3464.9
30°	2426.3	2438.5	2405.9	2400.4	2484.7	2503.7	2616.4	2763.0	2906.9	3216.4	3735.1
32.5°	2528.2	2537.6	2518.6	2532.2	2617.7	2632.6	2794.3	2999.3	3179.9	3482.6	4103.1
35°	2674.7	2680.2	2636.7	2661.2	2758.9	2796.9	3037.3	3330.5	3523.3	3816.6	4583.7
37.5°	3205.6	3205.6	3021.0	2900.1	2993.8	3027.7	3369.9	3747.4	3947.0	4264.6	5189.3
40°	3940.2	3927.9	3657.7	3410.7	3398.4	3464.9	3843.7	4272.8	4494.1	4802.3	5870.9
42.5°	4723.6	4704.5	4336.7	4092.2	4051.5	4074.6	4390.9	4920.4	5145.8	5458.1	6604.1
45°	5418.8	5413.3	5076.6	4748.0	4674.7	4748.0	5073.9	5678.1	5839.6	6168.2	7335.8
47.5°	6001.2	6001.2	5755.5	5540.9	5502.9	5546.4	5998.5	6518.5	6503.6	6924.5	8048.7
50°	6671.9	6666.5	6433.0	6340.6	6380.0	6441.1	7063.0	7403.8	7190.6	7667.2	8685.4
52.5°	7141.7	7174.3	7094.2	7079.3	7280.2	7386.2	8143.7	8270.0	7805.7	8371.8	9162.1
55°	7513.8	7551.8	7644.0	7748.6	8135.6	8274.1	9190.6	9091.4	8320.2	8982.8	9436.3
57.5°	8040.5	7986.2	8128.8	8335.2	8961.1	9128.1	10204.8	9866.8	8734.3	9478.4	9466.2
60°	8680.0	8688.2	8712.6	8973.3	9785.3	9999.8	11204.1	10599.8	9000.4	9782.5	9134.9
62.5°	9448.6	9460.8	9511.0	9911.5	10891.8	11094.1	12268.5	11200.0	9122.7	9697.0	8279.5
65°	9395.6	9447.1	10007.9	11377.9	12574.1	12773.7	13510.8	11620.9	8938.0	8914.9	6741.2
67.5°	8559.2	8643.4	9581.6	13129.3	15110.3	15333.0	15012.6	11703.8	8141.1	6932.6	4397.8
70°	7462.1	7492.0	8620.2	14704.3	18047.1	18272.5	16356.7	10792.6	6177.7	3866.8	1970.0
72.5°	5827.4	5834.2	7158.0	15069.6	19641.0	19653.2	15301.7	8012.0	3322.4	1485.3	684.3
75°	4162.8	4122.1	4794.2	12221.0	17280.0	17418.4	11471.6	3758.3	1269.5	701.9	340.8
77.5°	2232.1	2276.9	2712.8	7247.6	11937.3	12173.5	6259.2	1083.5	646.3	478.0	225.4
80°	689.7	727.7	1112.0	3318.3	6761.5	6904.1	2320.4	482.0	450.8	340.8	148.0
82.5°	217.2	225.4	518.6	1394.4	2806.4	2871.6	672.1	272.9	308.2	225.4	86.9
85°	62.4	63.9	230.8	520.0	693.8	707.4	188.7	105.9	176.5	139.8	44.8
87.5°	6.8	21.7	86.9	86.9	61.1	59.8	20.4	23.1	50.2	17.6	8.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6	2685.6
2.5°	2691.0	2692.4	2674.7	2644.9	2612.3	2585.2	2551.2	2524.1	2505.0	2499.6	2509.1
5°	2710.1	2700.6	2650.3	2559.3	2450.7	2357.0	2252.5	2169.7	2115.4	2092.2	2100.4
7.5°	2738.6	2711.4	2601.4	2422.2	2214.5	2029.8	1842.4	1697.2	1604.8	1558.7	1565.5
10°	2763.0	2708.7	2520.0	2223.9	1906.3	1626.6	1374.0	1198.8	1101.2	1054.9	1056.4
12.5°	2786.1	2707.3	2414.1	1989.1	1558.7	1216.6	981.6	894.7	867.6	858.1	855.4
15°	2829.5	2711.4	2281.0	1720.3	1212.5	919.2	833.6	832.3	837.7	835.0	833.6
17.5°	2889.3	2715.5	2130.3	1435.1	935.5	810.6	806.5	818.7	826.9	822.8	821.4
20°	2966.7	2731.7	1970.0	1152.7	803.8	783.4	792.9	803.8	810.6	803.8	802.5
22.5°	3075.3	2760.3	1795.0	926.0	761.7	767.1	775.3	787.5	794.3	784.7	783.4
25°	3208.4	2805.1	1622.5	805.1	741.3	748.1	760.3	773.9	782.1	772.5	771.2
27.5°	3380.8	2877.1	1463.6	778.0	721.0	725.0	742.7	763.0	773.9	761.7	761.7
30°	3630.6	2995.2	1326.6	790.2	708.8	699.3	723.6	752.1	764.4	753.6	752.1
32.5°	3961.9	3162.2	1242.3	809.2	703.4	669.3	692.5	729.1	749.5	742.7	742.7
35°	4396.3	3416.1	1209.7	831.0	699.3	638.2	654.5	693.8	729.1	735.8	735.8
37.5°	4923.2	3769.1	1219.2	840.4	687.1	612.3	620.5	654.5	700.6	722.3	727.7
40°	5522.0	4180.5	1273.6	831.0	673.4	590.6	591.9	617.8	658.5	691.1	701.9
42.5°	6139.7	4661.1	1374.0	795.6	661.2	571.6	567.5	585.2	612.3	635.4	644.9
45°	6727.6	5155.3	1473.1	746.7	646.3	552.6	543.1	549.9	555.3	564.8	570.2
47.5°	7240.8	5502.9	1444.6	701.9	626.0	530.8	514.6	511.9	495.6	494.3	492.8
50°	7595.2	5579.0	1283.1	657.1	596.0	506.5	480.6	464.3	435.8	422.3	423.6
52.5°	7707.9	5278.9	1048.2	612.3	547.1	473.9	437.2	411.4	376.1	363.9	362.5
55°	7558.6	4691.0	837.7	558.0	479.3	430.4	389.7	355.8	327.2	312.3	312.3
57.5°	7193.3	3942.9	662.6	494.3	407.3	381.5	340.8	306.9	282.4	267.5	264.8
60°	6587.8	3131.0	524.1	418.2	347.6	328.6	286.5	264.8	243.0	225.4	221.3
62.5°	5668.6	2234.8	411.4	331.3	290.6	268.9	244.4	228.1	202.3	177.8	173.8
65°	4423.5	1367.2	317.8	243.0	233.5	222.6	207.8	192.8	161.5	137.1	133.0
67.5°	2790.2	647.6	226.7	183.3	184.6	179.3	172.4	160.2	137.1	115.4	112.6
70°	1228.8	313.6	149.3	139.8	137.1	137.1	142.6	138.5	116.7	96.4	92.4
72.5°	418.2	168.4	111.3	105.9	99.1	97.8	119.5	115.4	93.7	74.7	70.6
75°	218.6	112.6	81.5	76.1	59.8	72.0	95.0	89.6	66.5	48.9	44.8
77.5°	142.6	80.2	55.7	48.9	33.9	47.6	70.6	62.4	39.4	24.4	21.7
80°	89.6	53.0	32.6	23.1	16.3	25.8	38.0	27.2	15.0	5.4	4.1
82.5°	47.6	27.2	12.2	8.1	6.8	8.1	9.5	6.8	2.7	0.0	0.0
85°	19.0	9.5	4.1	2.7	1.3	0.0	2.7	1.3	0.0	0.0	0.0
87.5°	6.8	1.3	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)