

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: P883430

Luminaire Tested: **NAV-SB3D-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883430
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-SB3D-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA 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: 23110 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

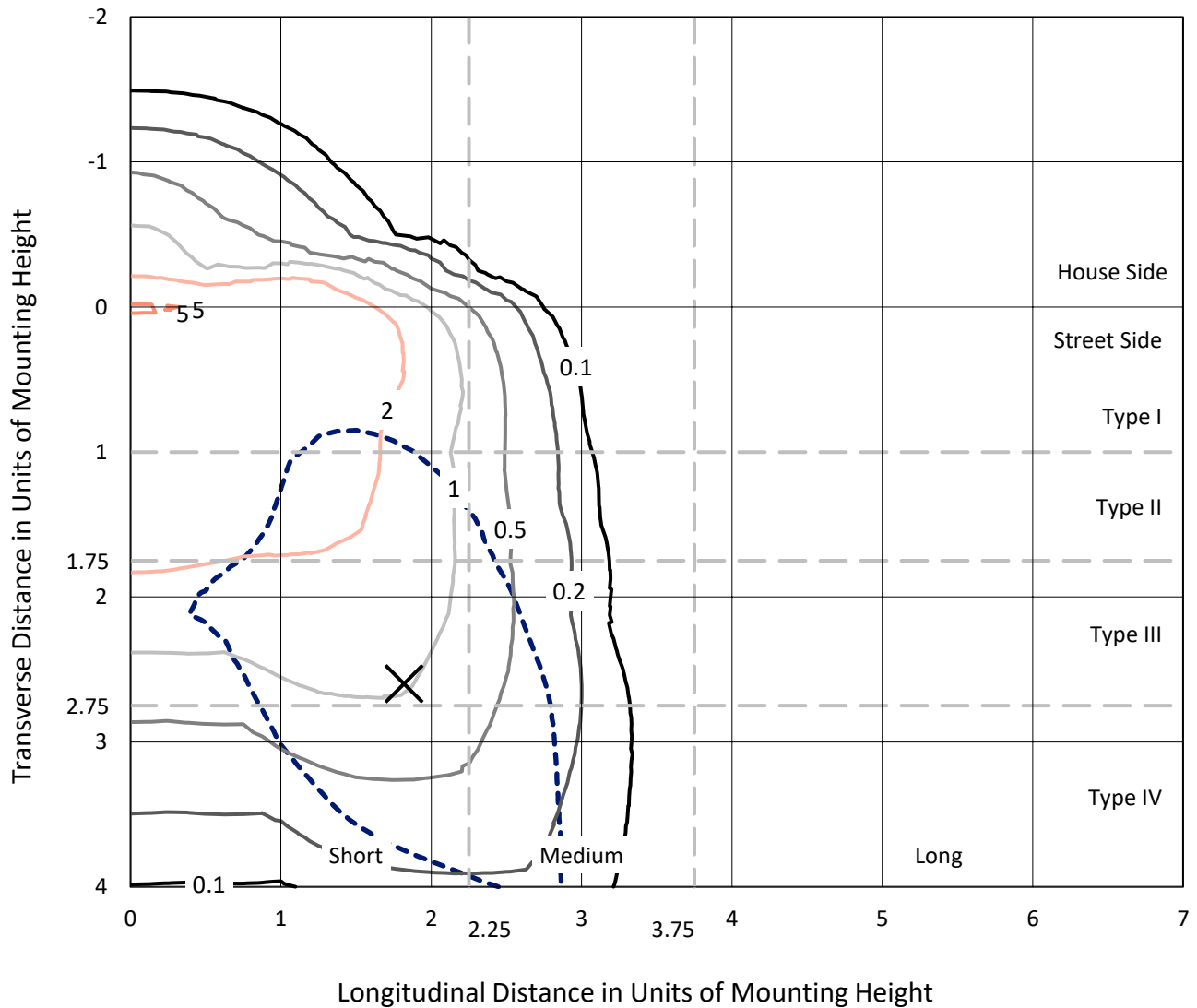
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

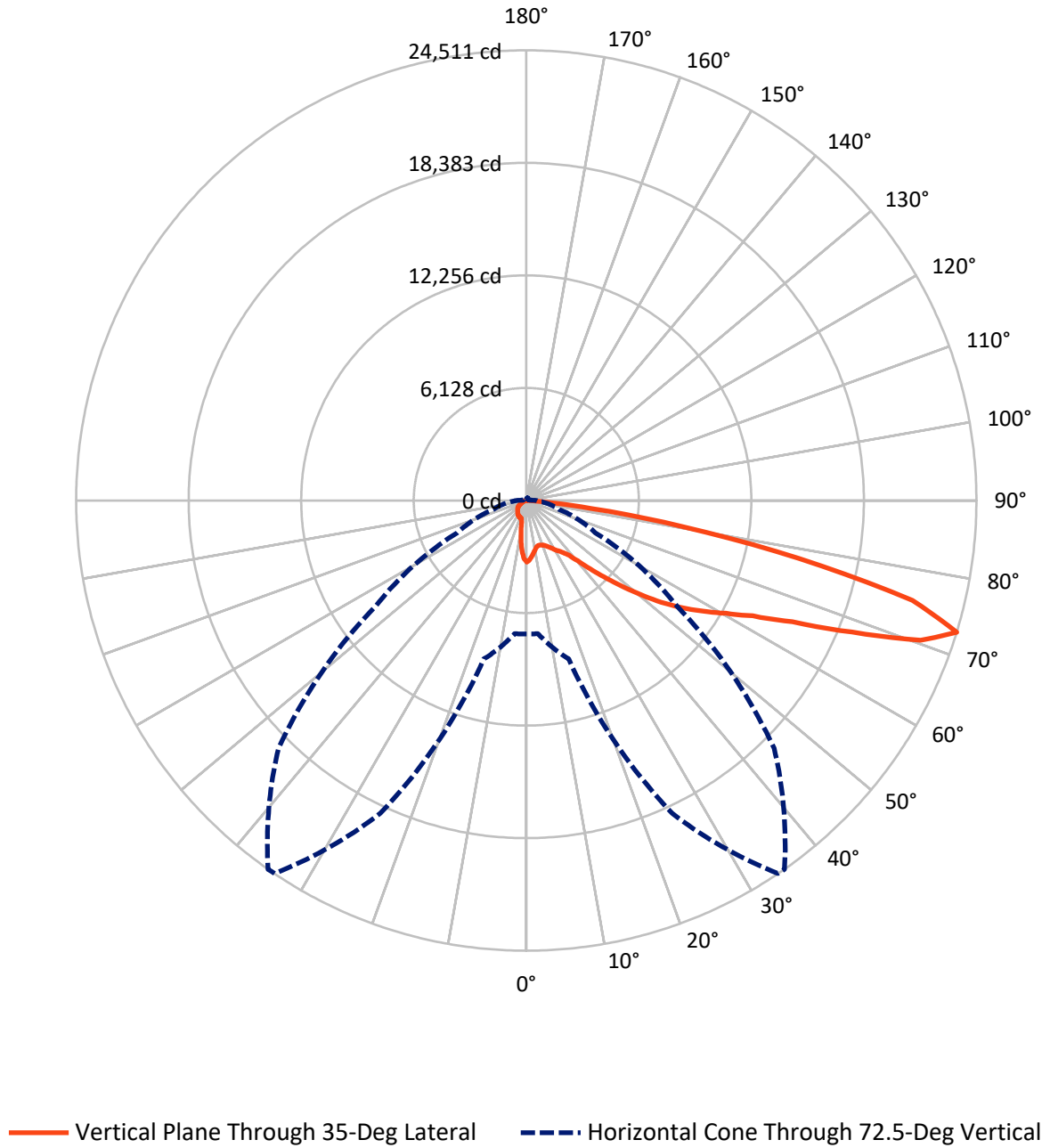
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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	2600.9	0.0	2600.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	20509.1	0.0	20509.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	23110.0	0.0	23110.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.2	1.2
10°-20°	643.9	2.8
20°-30°	1046.0	4.5
30°-40°	1745.2	7.6
40°-50°	3301.9	14.3
50°-60°	5246.7	22.7
60°-70°	6490.5	28.1
70°-80°	4034.6	17.5
80°-90°	326.1	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°	23110.0	100.0
0°-180°	23110.0	100.0

Coefficient of Utilization



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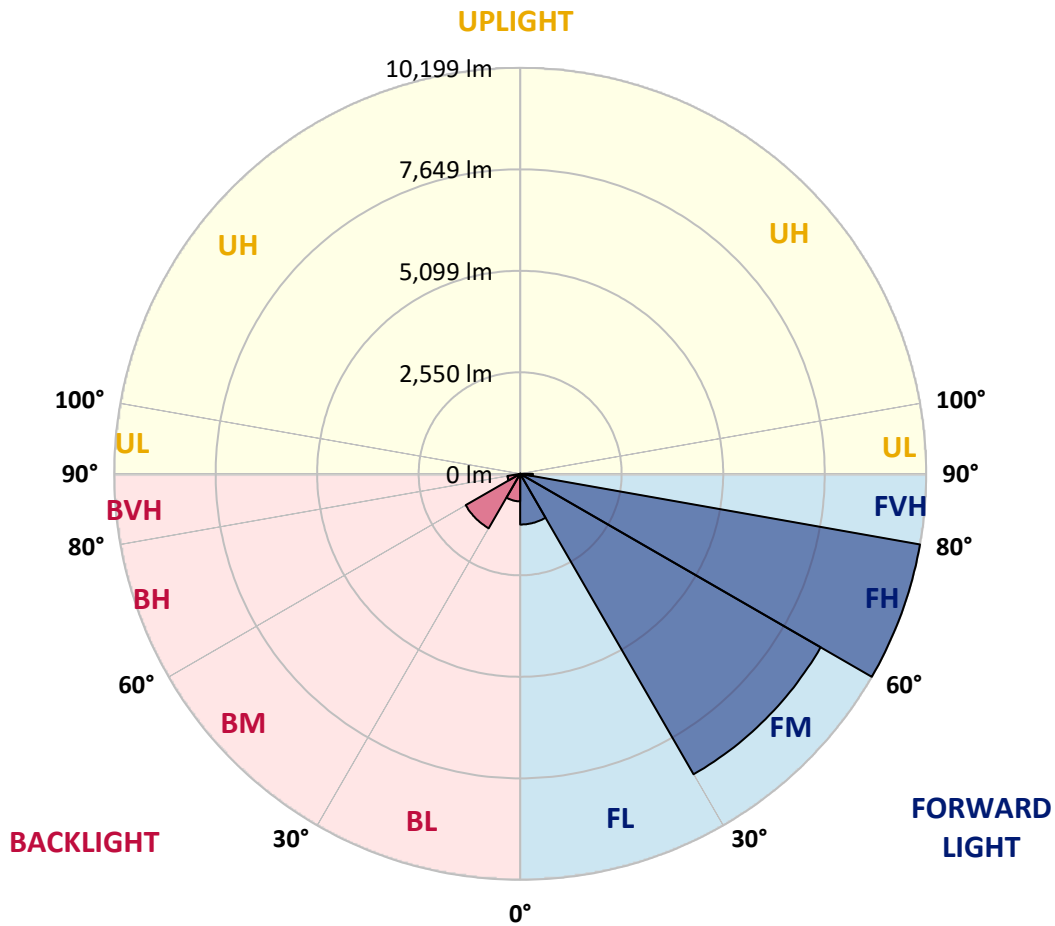
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1273.9	5.5			
FM (30°-60°)	8714.8	37.7			
FH (60°-80°)	10198.7	44.1			G4/12000
FVH (80°-90°)	321.6	1.4			G3/500
BL (0°-30°)	691.1	3.0	B2/1000		
BM (30°-60°)	1579.0	6.8	B2/2500		
BH (60°-80°)	326.4	1.4	B1/500		G1/500
BVH (80°-90°)	4.4	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°	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4
2.5°	3200.4	3227.5	3232.6	3241.0	3241.0	3251.2	3268.1	3291.8	3330.8	3351.1	3364.7
5°	2949.8	2970.1	2995.5	3015.8	3054.8	3059.9	3125.9	3190.2	3280.0	3347.7	3395.1
7.5°	2697.5	2721.2	2755.1	2804.2	2855.0	2870.2	2970.1	3078.5	3220.7	3347.7	3427.3
10°	2519.7	2521.4	2551.9	2601.0	2682.2	2700.9	2822.8	2976.9	3154.7	3327.4	3457.8
12.5°	2419.8	2431.6	2445.2	2482.4	2560.3	2572.2	2702.6	2883.7	3088.6	3315.5	3493.3
15°	2419.8	2428.2	2436.7	2455.3	2518.0	2528.1	2643.3	2824.5	3054.8	3320.6	3550.9
17.5°	2445.2	2458.7	2451.9	2474.0	2540.0	2546.8	2648.4	2807.5	3053.1	3352.8	3639.0
20°	2506.1	2516.3	2502.7	2516.3	2582.3	2595.9	2700.9	2839.7	3081.9	3408.7	3749.0
22.5°	2602.7	2607.7	2575.6	2585.7	2653.5	2670.4	2792.3	2931.2	3151.3	3498.4	3896.4
25°	2724.6	2734.7	2685.6	2697.5	2761.8	2782.1	2922.7	3068.3	3261.4	3622.0	4084.3
27.5°	2865.1	2870.2	2827.9	2826.2	2909.1	2937.9	3080.2	3237.7	3408.7	3777.8	4321.4
30°	3026.0	3041.2	3000.6	2993.8	3098.8	3122.5	3263.1	3445.9	3625.4	4011.5	4658.4
32.5°	3153.0	3164.8	3141.1	3158.1	3264.7	3283.4	3484.9	3740.6	3965.8	4343.4	5117.3
35°	3335.9	3342.6	3288.5	3318.9	3440.9	3488.3	3788.0	4153.7	4394.2	4760.0	5716.7
37.5°	3998.0	3998.0	3767.7	3617.0	3733.8	3776.1	4202.9	4673.6	4922.5	5318.8	6471.9
40°	4914.1	4898.8	4561.8	4253.7	4238.4	4321.4	4793.8	5328.9	5604.9	5989.3	7322.0
42.5°	5891.1	5867.4	5408.5	5103.7	5052.9	5081.7	5476.2	6136.6	6417.7	6807.2	8236.4
45°	6758.1	6751.3	6331.4	5921.6	5830.1	5921.6	6328.0	7081.5	7283.0	7692.8	9149.1
47.5°	7484.5	7484.5	7178.0	6910.5	6863.1	6917.3	7481.1	8129.7	8111.1	8636.0	10038.1
50°	8321.0	8314.3	8023.0	7907.9	7957.0	8033.2	8808.7	9233.7	8967.9	9562.3	10832.3
52.5°	8906.9	8947.6	8847.7	8829.0	9079.7	9211.7	10156.6	10314.1	9735.0	10441.1	11426.6
55°	9370.9	9418.3	9533.5	9663.9	10146.5	10319.2	11462.2	11338.6	10376.7	11203.1	11768.7
57.5°	10027.9	9960.2	10138.0	10395.4	11176.0	11384.3	12727.1	12305.5	10893.2	11821.2	11805.9
60°	10825.5	10835.6	10866.1	11191.2	12203.9	12471.4	13973.4	13219.9	11225.1	12200.5	11392.7
62.5°	11783.9	11799.1	11861.8	12361.3	13583.9	13836.2	15301.0	13968.3	11377.5	12093.8	10325.9
65°	11717.9	11782.2	12481.6	14190.1	15682.0	15930.9	16850.4	14493.2	11147.2	11118.4	8407.4
67.5°	10674.8	10779.8	11949.9	16374.5	18845.1	19122.8	18723.2	14596.5	10153.2	8646.2	5484.7
70°	9306.6	9343.8	10751.0	18338.8	22507.8	22788.9	20399.6	13460.3	7704.7	4822.6	2457.0
72.5°	7267.8	7276.3	8927.3	18794.3	24495.8	24511.0	19083.9	9992.4	4143.6	1852.5	853.4
75°	5191.8	5141.0	5979.2	15241.7	21551.1	21723.8	14307.0	4687.1	1583.3	875.5	425.0
77.5°	2783.8	2839.7	3383.3	9039.0	14887.8	15182.4	7806.3	1351.3	806.0	596.1	281.1
80°	860.2	907.6	1386.8	4138.5	8432.8	8610.6	2893.9	601.1	562.2	425.0	184.6
82.5°	270.9	281.1	646.9	1739.1	3500.1	3581.4	838.2	340.4	384.4	281.1	108.4
85°	77.9	79.6	287.9	648.5	865.3	882.2	235.4	132.1	220.1	174.4	55.9
87.5°	8.5	27.1	108.4	108.4	76.2	74.5	25.4	28.8	62.7	22.0	10.2
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°	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4	3349.4
2.5°	3356.2	3357.9	3335.9	3298.6	3258.0	3224.1	3181.8	3147.9	3124.2	3117.4	3129.3
5°	3379.9	3368.0	3305.4	3191.9	3056.5	2939.6	2809.2	2705.9	2638.2	2609.4	2619.6
7.5°	3415.5	3381.6	3244.4	3020.9	2761.8	2531.5	2297.9	2116.7	2001.5	1943.9	1952.4
10°	3445.9	3378.2	3142.8	2773.7	2377.4	2028.6	1713.7	1495.2	1373.3	1315.7	1317.4
12.5°	3474.7	3376.5	3010.7	2480.7	1943.9	1517.2	1224.3	1115.9	1082.0	1070.2	1066.8
15°	3528.9	3381.6	2844.8	2145.5	1512.1	1146.4	1039.7	1038.0	1044.8	1041.4	1039.7
17.5°	3603.4	3386.7	2656.8	1789.9	1166.7	1010.9	1005.8	1021.1	1031.2	1026.2	1024.5
20°	3699.9	3407.0	2457.0	1437.6	1002.5	977.1	988.9	1002.5	1010.9	1002.5	1000.8
22.5°	3835.4	3442.5	2238.6	1154.9	950.0	956.7	966.9	982.1	990.6	978.7	977.1
25°	4001.3	3498.4	2023.5	1004.1	924.6	933.0	948.3	965.2	975.4	963.5	961.8
27.5°	4216.4	3588.2	1825.4	970.3	899.2	904.2	926.3	951.7	965.2	950.0	950.0
30°	4528.0	3735.5	1654.4	985.5	883.9	872.1	902.5	938.1	953.3	939.8	938.1
32.5°	4941.1	3943.8	1549.4	1009.2	877.1	834.8	863.6	909.3	934.7	926.3	926.3
35°	5483.0	4260.4	1508.8	1036.3	872.1	795.9	816.2	865.3	909.3	917.8	917.8
37.5°	6140.0	4700.7	1520.6	1048.2	856.8	763.7	773.9	816.2	873.8	900.9	907.6
40°	6886.8	5213.8	1588.3	1036.3	839.9	736.6	738.3	770.5	821.3	861.9	875.5
42.5°	7657.3	5813.2	1713.7	992.3	824.7	712.9	707.8	729.8	763.7	792.5	804.3
45°	8390.5	6429.6	1837.3	931.3	806.0	689.2	677.3	685.8	692.6	704.4	711.2
47.5°	9030.5	6863.1	1801.7	875.5	780.6	662.1	641.8	638.4	618.1	616.4	614.7
50°	9472.5	6957.9	1600.2	819.6	743.4	631.6	599.4	579.1	543.6	526.6	528.3
52.5°	9613.1	6583.7	1307.3	763.7	682.4	591.0	545.3	513.1	469.1	453.8	452.1
55°	9426.8	5850.5	1044.8	696.0	597.7	536.8	486.0	443.7	408.1	389.5	389.5
57.5°	8971.3	4917.4	826.3	616.4	508.0	475.8	425.0	382.7	352.2	333.6	330.2
60°	8216.1	3904.8	653.6	521.5	433.5	409.8	357.3	330.2	303.1	281.1	276.0
62.5°	7069.7	2787.2	513.1	413.2	362.4	335.3	304.8	284.5	252.3	221.8	216.7
65°	5516.9	1705.2	396.2	303.1	291.3	277.7	259.1	240.5	201.5	171.0	165.9
67.5°	3479.8	807.7	282.8	228.6	230.3	223.5	215.1	199.8	171.0	143.9	140.5
70°	1532.5	391.2	186.3	174.4	171.0	171.0	177.8	172.7	145.6	120.2	115.1
72.5°	521.5	210.0	138.9	132.1	123.6	121.9	149.0	143.9	116.8	93.1	88.1
75°	272.6	140.5	101.6	94.8	74.5	89.7	118.5	111.8	83.0	61.0	55.9
77.5°	177.8	99.9	69.4	61.0	42.3	59.3	88.1	77.9	49.1	30.5	27.1
80°	111.8	66.0	40.6	28.8	20.3	32.2	47.4	33.9	18.6	6.8	5.1
82.5°	59.3	33.9	15.2	10.2	8.5	10.2	11.9	8.5	3.4	0.0	0.0
85°	23.7	11.9	5.1	3.4	1.7	0.0	3.4	1.7	0.0	0.0	0.0
87.5°	8.5	1.7	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)