

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: P883410

Luminaire Tested: **NAV-SB3D-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883410
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-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 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: 20944 lumens
Efficiency: N/A
Efficacy: 96.0 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

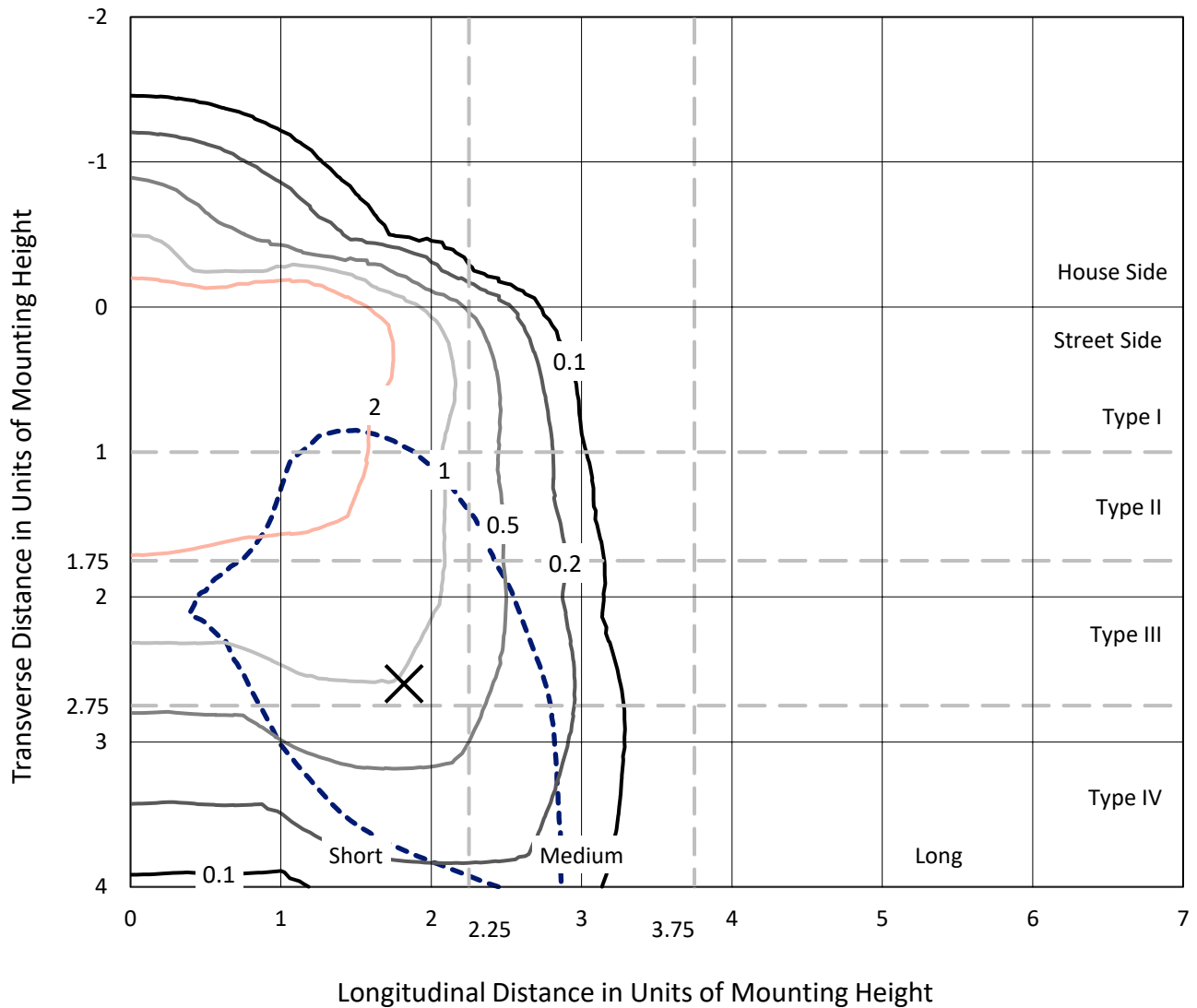
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

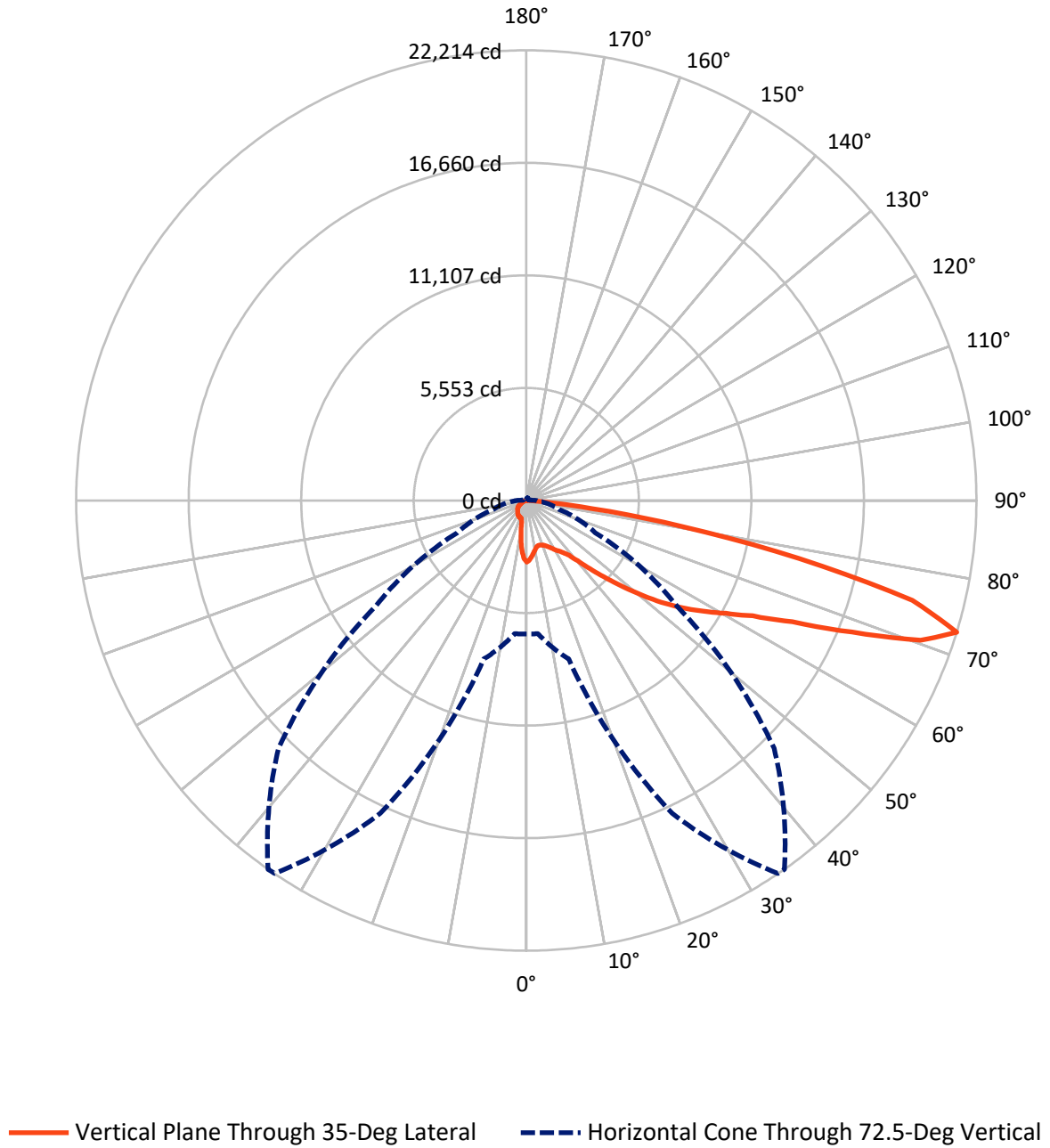
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 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	2357.1	0.0	2357.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	18586.9	0.0	18586.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	20944.0	0.0	20944.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.4	1.2
10°-20°	583.5	2.8
20°-30°	947.9	4.5
30°-40°	1581.6	7.6
40°-50°	2992.4	14.3
50°-60°	4755.0	22.7
60°-70°	5882.2	28.1
70°-80°	3656.4	17.5
80°-90°	295.5	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°	20944.0	100.0
0°-180°	20944.0	100.0

Coefficient of Utilization



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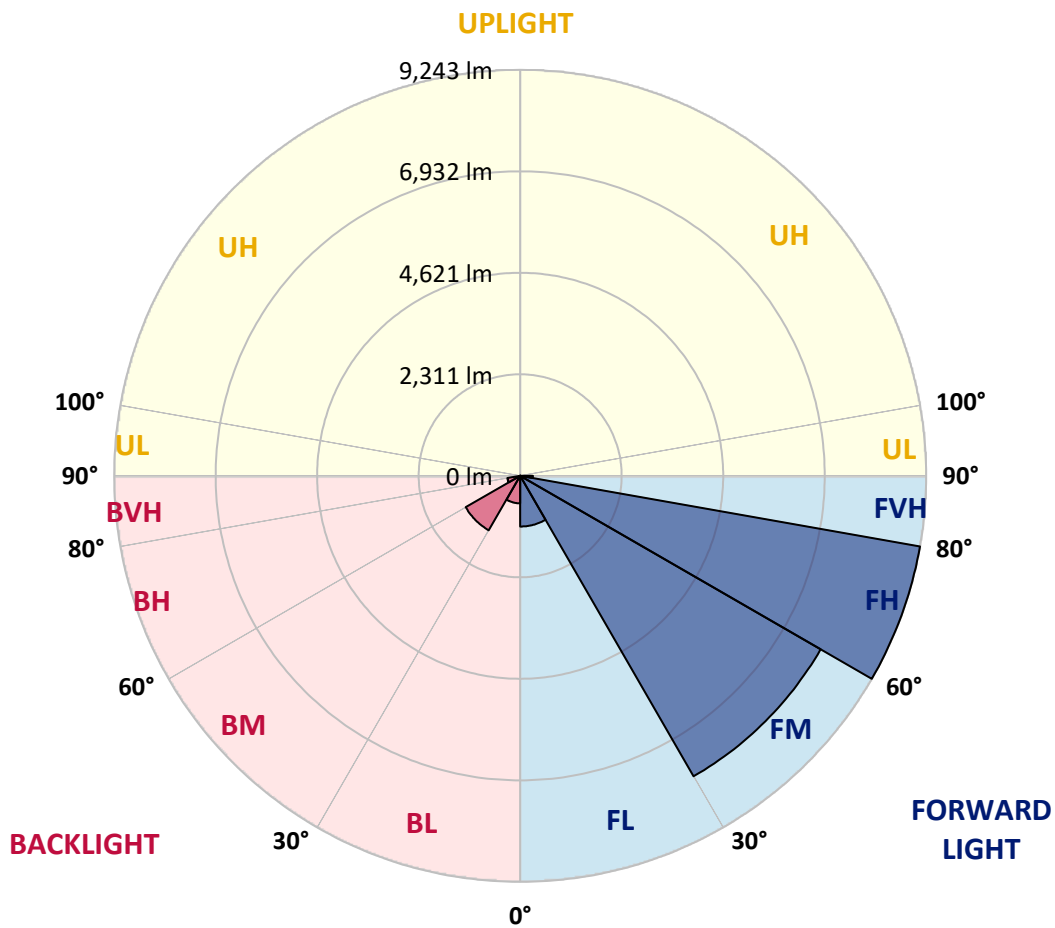
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1154.5	5.5			
FM (30°-60°)	7898.0	37.7			
FH (60°-80°)	9242.8	44.1			G4/12000
FVH (80°-90°)	291.5	1.4			G3/500
BL (0°-30°)	626.3	3.0	B2/1000		
BM (30°-60°)	1431.0	6.8	B2/2500		
BH (60°-80°)	295.8	1.4	B1/500		G1/500
BVH (80°-90°)	4.0	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°	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5
2.5°	2900.4	2925.0	2929.6	2937.3	2937.3	2946.5	2961.8	2983.3	3018.6	3037.0	3049.3
5°	2673.3	2691.7	2714.8	2733.2	2768.5	2773.1	2832.9	2891.2	2972.6	3034.0	3076.9
7.5°	2444.7	2466.1	2496.8	2541.3	2587.4	2601.2	2691.7	2789.9	2918.9	3034.0	3106.1
10°	2283.5	2285.1	2312.7	2357.2	2430.8	2447.7	2558.2	2697.9	2859.0	3015.5	3133.7
12.5°	2193.0	2203.7	2216.0	2249.8	2320.4	2331.1	2449.3	2613.5	2799.2	3004.8	3165.9
15°	2193.0	2200.7	2208.3	2225.2	2282.0	2291.2	2395.5	2559.8	2768.5	3009.4	3218.1
17.5°	2216.0	2228.3	2222.1	2242.1	2301.9	2308.1	2400.2	2544.4	2766.9	3038.6	3297.9
20°	2271.2	2280.5	2268.2	2280.5	2340.3	2352.6	2447.7	2573.6	2793.0	3089.2	3397.7
22.5°	2358.7	2363.3	2334.2	2343.4	2404.8	2420.1	2530.6	2656.4	2855.9	3170.5	3531.2
25°	2469.2	2478.4	2433.9	2444.7	2503.0	2521.4	2648.8	2780.7	2955.7	3282.6	3701.5
27.5°	2596.6	2601.2	2562.8	2561.3	2636.5	2662.6	2791.5	2934.2	3089.2	3423.7	3916.4
30°	2742.4	2756.2	2719.4	2713.2	2808.4	2829.8	2957.2	3123.0	3285.6	3635.5	4221.8
32.5°	2857.5	2868.2	2846.7	2862.1	2958.8	2975.6	3158.3	3390.0	3594.1	3936.3	4637.6
35°	3023.2	3029.3	2980.2	3007.9	3118.4	3161.3	3433.0	3764.4	3982.4	4313.8	5180.9
37.5°	3623.2	3623.2	3414.5	3278.0	3383.8	3422.2	3808.9	4235.6	4461.2	4820.3	5865.3
40°	4453.5	4439.7	4134.3	3855.0	3841.2	3916.4	4344.5	4829.5	5079.6	5428.0	6635.7
42.5°	5339.0	5317.5	4901.6	4625.4	4579.3	4605.4	4963.0	5561.5	5816.2	6169.2	7464.4
45°	6124.7	6118.5	5738.0	5366.6	5283.7	5366.6	5734.9	6417.8	6600.4	6971.8	8291.6
47.5°	6783.0	6783.0	6505.3	6262.8	6219.8	6268.9	6780.0	7367.7	7350.9	7826.6	9097.3
50°	7541.1	7535.0	7271.1	7166.7	7211.2	7280.3	7983.1	8368.3	8127.4	8666.0	9817.0
52.5°	8072.1	8109.0	8018.4	8001.5	8228.7	8348.4	9204.7	9347.4	8822.6	9462.5	10355.6
55°	8492.6	8535.6	8639.9	8758.1	9195.5	9352.0	10387.9	10275.8	9404.2	10153.1	10665.6
57.5°	9088.0	9026.7	9187.8	9421.1	10128.5	10317.3	11534.2	11152.1	9872.2	10713.2	10699.4
60°	9810.9	9820.1	9847.7	10142.3	11060.0	11302.5	12663.7	11980.8	10173.0	11057.0	10325.0
62.5°	10679.5	10693.3	10750.0	11202.8	12310.8	12539.4	13866.9	12659.1	10311.1	10960.3	9358.1
65°	10619.6	10677.9	11311.7	12860.2	14212.2	14437.7	15271.1	13134.9	10102.4	10076.3	7619.4
67.5°	9674.3	9769.4	10829.8	14839.8	17078.8	17330.5	16968.3	13228.5	9201.6	7835.8	4970.6
70°	8434.3	8468.1	9743.3	16620.0	20398.2	20653.0	18487.6	12198.7	6982.5	4370.6	2226.7
72.5°	6586.6	6594.3	8090.5	17032.8	22199.9	22213.7	17295.2	9055.8	3755.2	1678.9	773.5
75°	4705.2	4659.1	5418.8	13813.2	19531.2	19687.7	12966.0	4247.8	1434.9	793.4	385.2
77.5°	2522.9	2573.6	3066.2	8191.8	13492.4	13759.4	7074.6	1224.6	730.5	540.2	254.7
80°	779.6	822.6	1256.9	3750.6	7642.4	7803.6	2622.7	544.8	509.5	385.2	167.3
82.5°	245.5	254.7	586.2	1576.1	3172.1	3245.7	759.6	308.5	348.4	254.7	98.2
85°	70.6	72.1	260.9	587.8	784.2	799.5	213.3	119.7	199.5	158.1	50.6
87.5°	7.7	24.6	98.2	98.2	69.1	67.5	23.0	26.1	56.8	20.0	9.2
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°	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5	3035.5
2.5°	3041.6	3043.2	3023.2	2989.4	2952.6	2921.9	2883.6	2852.9	2831.4	2825.2	2836.0
5°	3063.1	3052.4	2995.6	2892.8	2770.0	2664.1	2545.9	2452.3	2390.9	2364.9	2374.1
7.5°	3095.3	3064.6	2940.3	2737.8	2503.0	2294.3	2082.5	1918.3	1813.9	1761.7	1769.4
10°	3123.0	3061.6	2848.3	2513.7	2154.6	1838.5	1553.0	1355.1	1244.6	1192.4	1193.9
12.5°	3149.1	3060.0	2728.6	2248.2	1761.7	1375.0	1109.5	1011.3	980.6	969.9	966.8
15°	3198.2	3064.6	2578.2	1944.4	1370.4	1038.9	942.3	940.7	946.9	943.8	942.3
17.5°	3265.7	3069.2	2407.8	1622.1	1057.4	916.2	911.6	925.4	934.6	930.0	928.4
20°	3353.2	3087.7	2226.7	1302.9	908.5	885.5	896.2	908.5	916.2	908.5	907.0
22.5°	3475.9	3119.9	2028.8	1046.6	860.9	867.1	876.3	890.1	897.8	887.0	885.5
25°	3626.3	3170.5	1833.9	910.0	837.9	845.6	859.4	874.7	883.9	873.2	871.7
27.5°	3821.2	3251.9	1654.3	879.3	814.9	819.5	839.4	862.5	874.7	860.9	860.9
30°	4103.6	3385.4	1499.3	893.2	801.1	790.3	818.0	850.2	864.0	851.7	850.2
32.5°	4478.0	3574.1	1404.2	914.6	794.9	756.6	782.7	824.1	847.1	839.4	839.4
35°	4969.1	3861.1	1367.4	939.2	790.3	721.3	739.7	784.2	824.1	831.8	831.8
37.5°	5564.5	4260.1	1378.1	949.9	776.5	692.1	701.3	739.7	791.9	816.4	822.6
40°	6241.3	4725.1	1439.5	939.2	761.2	667.6	669.1	698.3	744.3	781.1	793.4
42.5°	6939.6	5268.4	1553.0	899.3	747.4	646.1	641.5	661.4	692.1	718.2	728.9
45°	7604.1	5827.0	1665.1	844.0	730.5	624.6	613.8	621.5	627.7	638.4	644.5
47.5°	8184.2	6219.8	1632.8	793.4	707.5	600.0	581.6	578.6	560.1	558.6	557.1
50°	8584.7	6305.8	1450.2	742.8	673.7	572.4	543.3	524.8	492.6	477.3	478.8
52.5°	8712.1	5966.6	1184.7	692.1	618.5	535.6	494.1	465.0	425.1	411.3	409.7
55°	8543.3	5302.1	946.9	630.7	541.7	486.5	440.4	402.1	369.8	353.0	353.0
57.5°	8130.4	4456.6	748.9	558.6	460.4	431.2	385.2	346.8	319.2	302.3	299.3
60°	7446.0	3538.8	592.4	472.7	392.9	371.4	323.8	299.3	274.7	254.7	250.1
62.5°	6407.1	2526.0	465.0	374.4	328.4	303.9	276.2	257.8	228.7	201.0	196.4
65°	4999.8	1545.4	359.1	274.7	264.0	251.7	234.8	217.9	182.6	155.0	150.4
67.5°	3153.7	732.0	256.3	207.2	208.7	202.6	194.9	181.1	155.0	130.4	127.4
70°	1388.8	354.5	168.8	158.1	155.0	155.0	161.1	156.5	132.0	109.0	104.4
72.5°	472.7	190.3	125.8	119.7	112.0	110.5	135.0	130.4	105.9	84.4	79.8
75°	247.1	127.4	92.1	85.9	67.5	81.3	107.4	101.3	75.2	55.2	50.6
77.5°	161.1	90.5	62.9	55.2	38.4	53.7	79.8	70.6	44.5	27.6	24.6
80°	101.3	59.9	36.8	26.1	18.4	29.2	43.0	30.7	16.9	6.1	4.6
82.5°	53.7	30.7	13.8	9.2	7.7	9.2	10.7	7.7	3.1	0.0	0.0
85°	21.5	10.7	4.6	3.1	1.5	0.0	3.1	1.5	0.0	0.0	0.0
87.5°	7.7	1.5	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)