

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: P883779

Luminaire Tested: **NAV-SB4B-740-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883779
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24620 lumens
Efficiency: N/A
Efficacy: 167.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

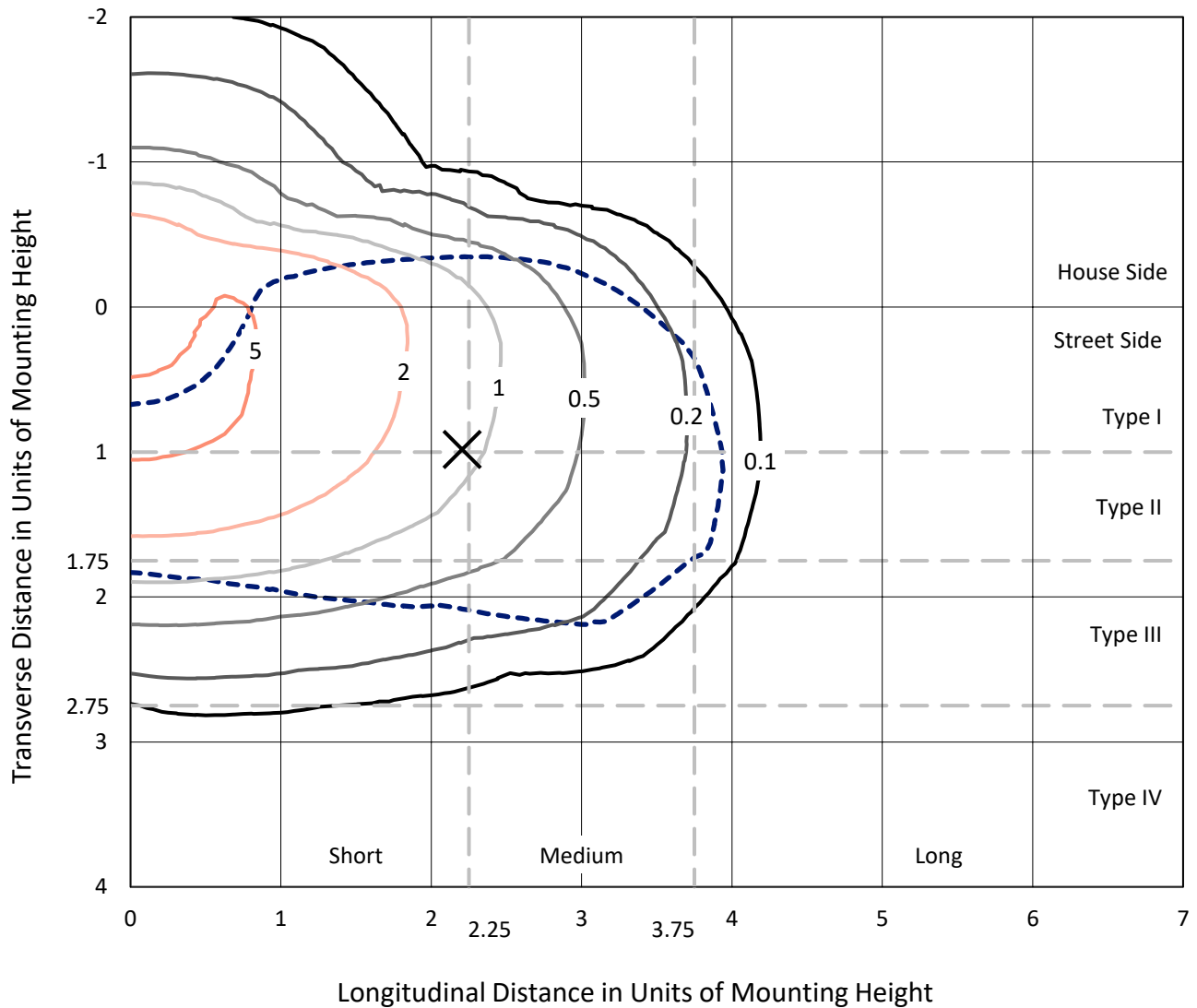
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

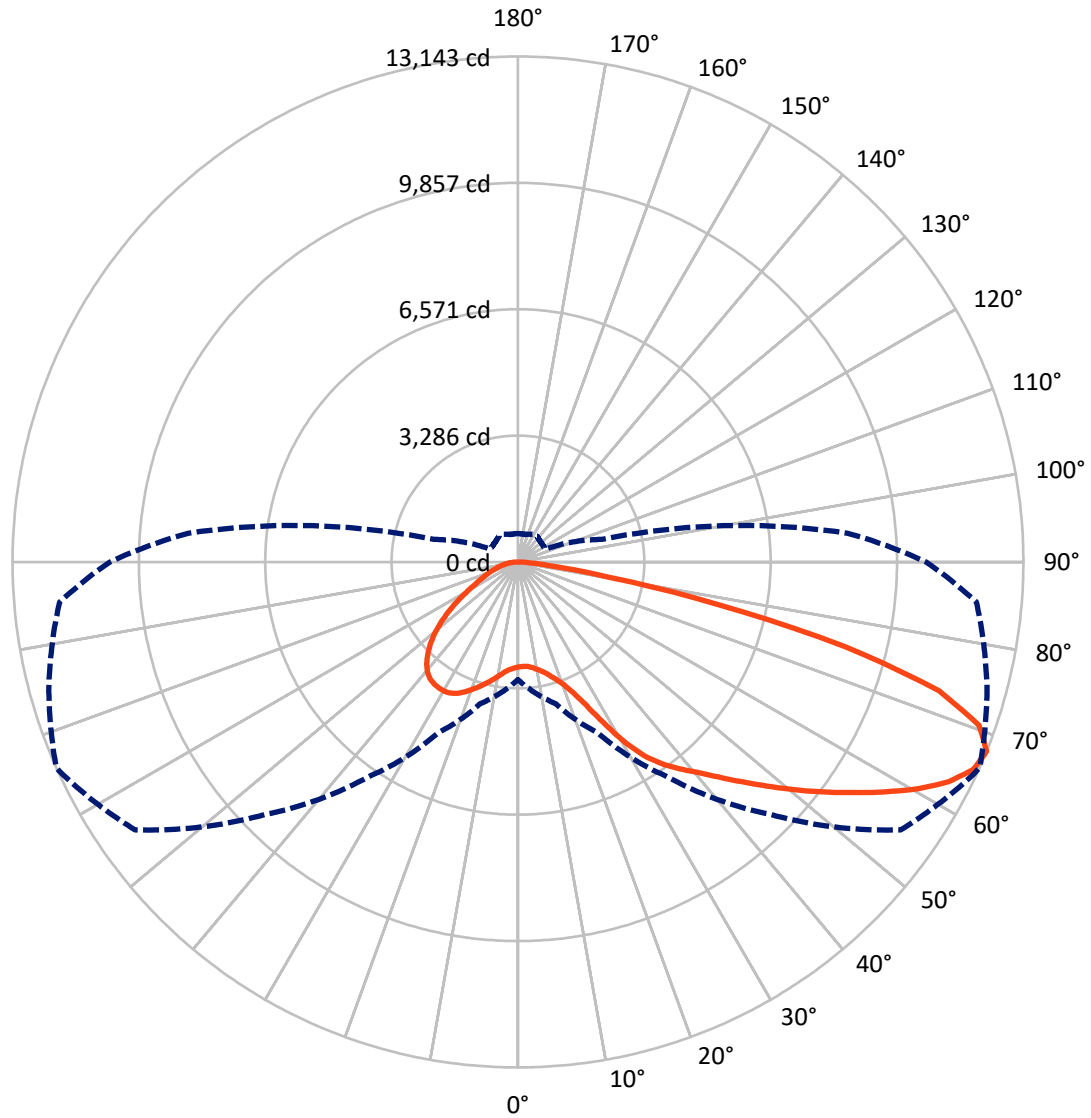
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6121.7	0.0	6121.7
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	18498.3	0.0	18498.3
	% Fixture	75.1	0.0	75.1
Total	Lumens	24620.0	0.0	24620.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.7	1.1
10°-20°	894.5	3.6
20°-30°	1724.1	7.0
30°-40°	3022.9	12.3
40°-50°	4494.1	18.3
50°-60°	5696.7	23.1
60°-70°	5574.0	22.6
70°-80°	2658.9	10.8
80°-90°	284.2	1.2
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°	24620.0	100.0
0°-180°	24620.0	100.0

Coefficient of Utilization



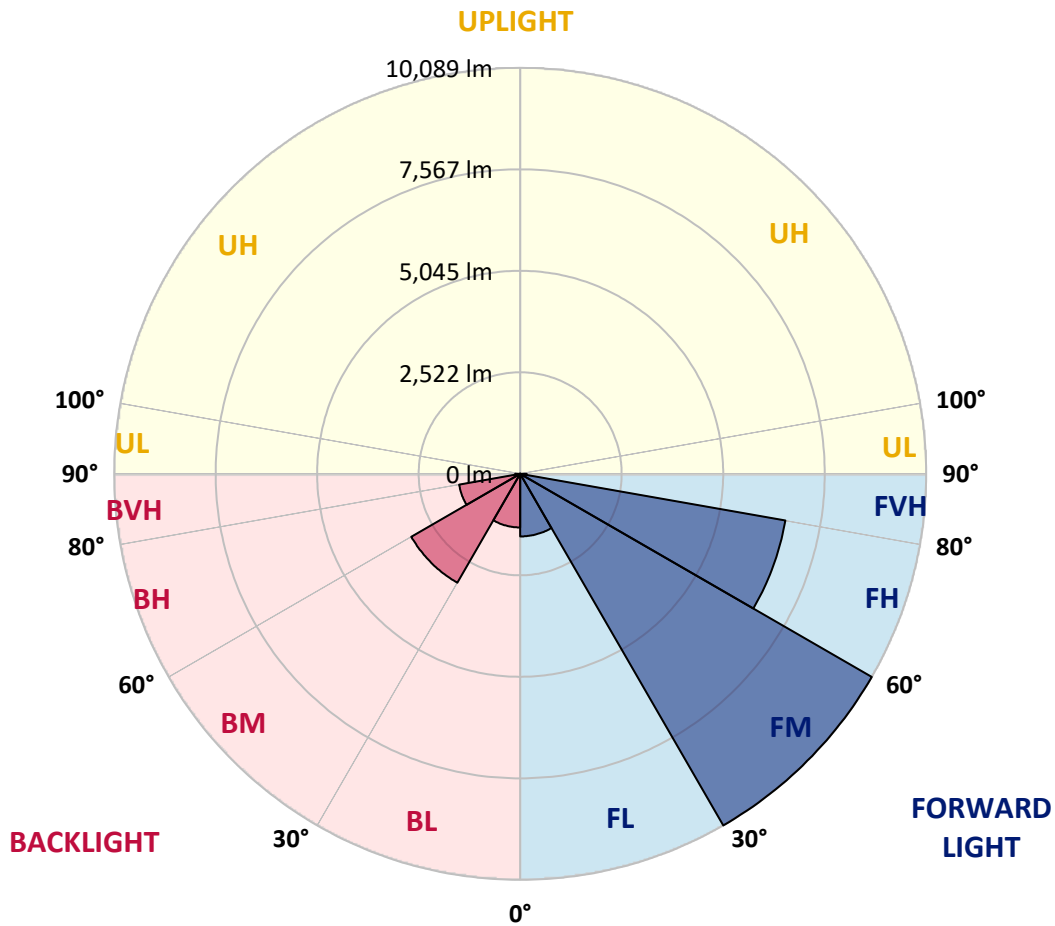
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1555.7	6.3			
FM (30°-60°)	10089.1	41.0			
FH (60°-80°)	6692.4	27.2			G3/7500
FVH (80°-90°)	161.1	0.7			G2/225
BL (0°-30°)	1333.5	5.4	B3/2500		
BM (30°-60°)	3124.6	12.7	B3/5000		
BH (60°-80°)	1540.5	6.3	B3/2500		G3/2500
BVH (80°-90°)	123.1	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7
2.5°	2702.2	2717.7	2713.9	2707.4	2706.1	2708.7	2712.6	2716.5	2715.2	2721.6	2732.0
5°	2694.5	2710.0	2708.7	2708.7	2713.9	2724.2	2730.7	2737.2	2730.7	2738.4	2752.7
7.5°	2699.6	2711.3	2716.5	2721.6	2734.6	2754.0	2769.5	2783.7	2776.0	2785.0	2803.1
10°	2765.6	2774.7	2779.8	2779.8	2788.9	2810.9	2826.4	2852.3	2845.8	2860.0	2883.3
12.5°	2885.9	2895.0	2895.0	2889.8	2896.3	2910.5	2915.7	2944.1	2932.5	2955.8	2979.0
15°	3033.4	3051.5	3037.3	3028.2	3030.8	3045.0	3043.7	3065.7	3054.1	3073.5	3094.2
17.5°	3196.4	3219.6	3196.4	3195.1	3189.9	3205.4	3206.7	3226.1	3205.4	3219.6	3233.9
20°	3389.1	3421.4	3402.0	3408.5	3396.9	3403.3	3409.8	3438.3	3405.9	3416.3	3412.4
22.5°	3660.7	3699.6	3678.9	3703.4	3695.7	3690.5	3689.2	3739.7	3689.2	3693.1	3655.6
25°	4056.6	4103.1	4066.9	4100.6	4100.6	4117.4	4136.8	4201.4	4117.4	4092.8	3995.8
27.5°	4641.3	4687.8	4616.7	4637.4	4630.9	4672.3	4651.6	4812.0	4721.5	4681.4	4486.0
30°	5344.9	5427.7	5293.2	5288.0	5281.6	5347.5	5377.3	5483.4	5391.5	5351.4	5116.0
32.5°	6105.6	6192.2	6031.8	5985.3	5960.7	6000.8	5976.2	6061.6	5998.2	5936.1	5645.1
35°	6910.1	6995.5	6842.9	6752.3	6654.0	6569.9	6482.0	6504.0	6444.5	6350.0	6048.6
37.5°	7670.7	7827.3	7665.6	7568.6	7387.5	7223.2	6977.4	6875.2	6819.6	6732.9	6428.9
40°	8445.6	8534.8	8412.0	8329.2	8132.5	7875.1	7481.9	7265.9	7190.8	7106.8	6849.3
42.5°	9016.0	9101.4	9035.4	8978.5	8824.6	8525.8	8017.4	7747.1	7638.4	7544.0	7325.4
45°	9468.8	9532.2	9490.8	9511.5	9445.5	9155.7	8572.4	8263.2	8150.7	8035.5	7863.5
47.5°	9651.2	9718.4	9784.4	9907.3	10019.8	9806.4	9168.7	8822.0	8703.0	8585.3	8415.8
50°	9630.5	9699.0	9890.5	10151.8	10501.0	10429.9	9797.3	9417.0	9307.1	9172.6	9016.0
52.5°	9464.9	9542.5	9788.3	10222.9	10779.1	10896.9	10437.7	10031.5	9928.0	9767.6	9611.1
55°	9030.3	9076.8	9445.5	10061.2	10845.1	11222.8	11065.0	10686.0	10582.5	10358.7	10188.0
57.5°	8224.4	8291.7	8828.5	9625.3	10679.5	11444.0	11616.1	11374.2	11274.6	10952.5	10774.0
60°	7172.7	7280.1	7894.5	8893.2	10257.8	11442.7	12116.7	12050.7	11967.9	11537.2	11350.9
62.5°	5982.7	6106.8	6698.0	7858.3	9520.5	11118.1	12429.7	12617.3	12574.6	12076.6	11838.6
65°	4594.7	4680.1	5268.6	6519.5	8373.1	10420.8	12465.9	13004.1	13011.8	12486.6	12093.4
67.5°	3059.2	3305.0	3816.0	4892.2	6836.4	9281.2	12147.7	13067.4	13142.5	12627.6	11965.3
70°	1492.8	1816.1	2316.7	3179.5	4892.2	7533.6	11316.0	12547.4	12714.3	12216.3	11202.1
72.5°	619.6	724.4	997.3	1569.1	2808.3	5083.7	9644.7	11137.5	11446.6	10824.4	9418.3
75°	417.8	452.7	570.5	804.6	1279.3	2506.9	6955.4	8304.6	8802.6	8175.2	6682.5
77.5°	322.1	344.1	415.2	562.7	760.6	948.2	3722.8	5004.7	5262.2	4871.5	3477.1
80°	253.5	270.4	310.5	410.1	539.4	507.1	1269.0	2267.6	2416.4	2027.0	1117.6
82.5°	219.9	226.4	222.5	278.1	358.3	296.2	416.5	836.9	923.6	670.1	364.8
85°	159.1	177.2	185.0	172.0	190.2	150.1	170.7	296.2	326.0	291.0	205.7
87.5°	64.7	95.7	117.7	111.2	69.9	42.7	53.0	86.7	99.6	108.7	67.3
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°	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7	2730.7
2.5°	2733.3	2742.3	2748.8	2756.6	2761.7	2769.5	2785.0	2794.1	2795.4	2801.8	2800.5
5°	2757.8	2770.8	2785.0	2805.7	2829.0	2848.4	2878.1	2898.8	2906.6	2913.1	2911.8
7.5°	2810.9	2829.0	2854.9	2891.1	2924.7	2950.6	2986.8	3011.4	3036.0	3045.0	3046.3
10°	2889.8	2915.7	2953.2	3002.3	3038.5	3072.2	3109.7	3130.4	3155.0	3165.3	3170.5
12.5°	2988.1	3015.3	3064.4	3133.0	3166.6	3189.9	3202.8	3197.7	3202.8	3211.9	3214.5
15°	3100.6	3130.4	3186.0	3259.7	3283.0	3262.3	3233.9	3208.0	3204.1	3206.7	3215.8
17.5°	3233.9	3255.9	3320.5	3382.6	3365.8	3280.4	3218.4	3177.0	3156.3	3149.8	3158.8
20°	3420.1	3420.1	3473.2	3512.0	3399.4	3254.6	3157.6	3090.3	3047.6	3029.5	3025.6
22.5°	3646.5	3625.8	3659.5	3632.3	3393.0	3182.1	3047.6	2931.2	2866.5	2840.6	2836.8
25°	3933.7	3909.1	3900.1	3731.9	3346.4	3067.0	2848.4	2707.4	2650.5	2636.3	2638.8
27.5°	4367.0	4304.9	4187.2	3786.2	3261.0	2885.9	2615.6	2484.9	2452.6	2453.9	2457.7
30°	4943.9	4819.8	4531.3	3795.3	3121.3	2629.8	2377.5	2284.4	2268.9	2275.4	2297.3
32.5°	5478.2	5360.5	4883.2	3753.9	2906.6	2378.8	2164.1	2102.0	2078.7	2086.5	2096.8
35°	5897.3	5865.0	5209.1	3695.7	2642.7	2143.4	1972.7	1919.6	1874.4	1864.0	1871.8
37.5°	6293.1	6280.2	5453.6	3614.2	2381.4	1976.5	1818.7	1748.9	1682.9	1646.7	1648.0
40°	6727.8	6714.8	5614.0	3488.7	2149.9	1831.7	1680.3	1588.5	1507.0	1441.0	1447.5
42.5°	7216.7	7140.4	5690.3	3308.9	1953.3	1708.8	1567.8	1443.6	1336.2	1275.4	1279.3
45°	7750.9	7578.9	5689.0	3079.9	1787.7	1596.2	1447.5	1271.6	1172.0	1115.0	1112.5
47.5°	8317.5	7998.0	5619.2	2826.4	1627.3	1472.1	1261.2	1126.7	1060.7	1025.8	1018.0
50°	8902.2	8390.0	5500.2	2535.4	1463.0	1331.1	1144.8	1052.9	1002.5	970.2	958.5
52.5°	9452.0	8745.7	5356.6	2205.5	1296.1	1193.9	1093.0	1021.9	968.9	932.6	917.1
55°	9962.9	9052.3	5153.5	1867.9	1160.3	1102.1	1068.5	1009.0	948.2	905.5	888.7
57.5°	10417.0	9251.5	4802.9	1551.0	1063.3	1038.7	1042.6	987.0	917.1	880.9	857.6
60°	10794.7	9397.6	4284.2	1257.3	984.4	976.6	1002.5	945.6	864.1	822.7	804.6
62.5°	11021.0	9395.1	3647.8	1029.7	917.1	919.7	949.5	893.8	811.1	772.2	760.6
65°	11001.6	9164.8	2949.3	880.9	852.4	855.0	893.8	836.9	767.1	743.8	742.5
67.5°	10612.3	8603.4	2262.4	783.9	781.3	792.9	838.2	798.1	739.9	737.3	741.2
70°	9558.0	7437.9	1629.9	706.3	707.6	724.4	783.9	773.5	725.7	730.9	729.6
72.5°	7664.3	5670.9	1094.3	624.8	626.1	653.2	732.1	754.1	711.5	780.0	790.4
75°	5104.3	3536.6	703.7	538.1	539.4	574.3	686.9	716.6	672.6	777.4	783.9
77.5°	2452.6	1589.8	509.7	452.7	452.7	485.1	593.7	641.6	573.0	604.1	553.6
80°	847.3	597.6	401.0	364.8	357.0	379.0	500.6	556.2	494.1	455.3	426.9
82.5°	333.7	310.5	322.1	283.3	257.4	271.6	389.4	459.2	363.5	328.6	327.3
85°	191.4	201.8	227.7	187.6	148.8	166.9	285.9	329.9	274.2	241.9	247.1
87.5°	51.7	71.1	104.8	97.0	67.3	71.1	135.8	182.4	157.8	121.6	125.5
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)