

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: P883761

Luminaire Tested: **NAV-SB4B-730-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22203 lumens
Efficiency: N/A
Efficacy: 151.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

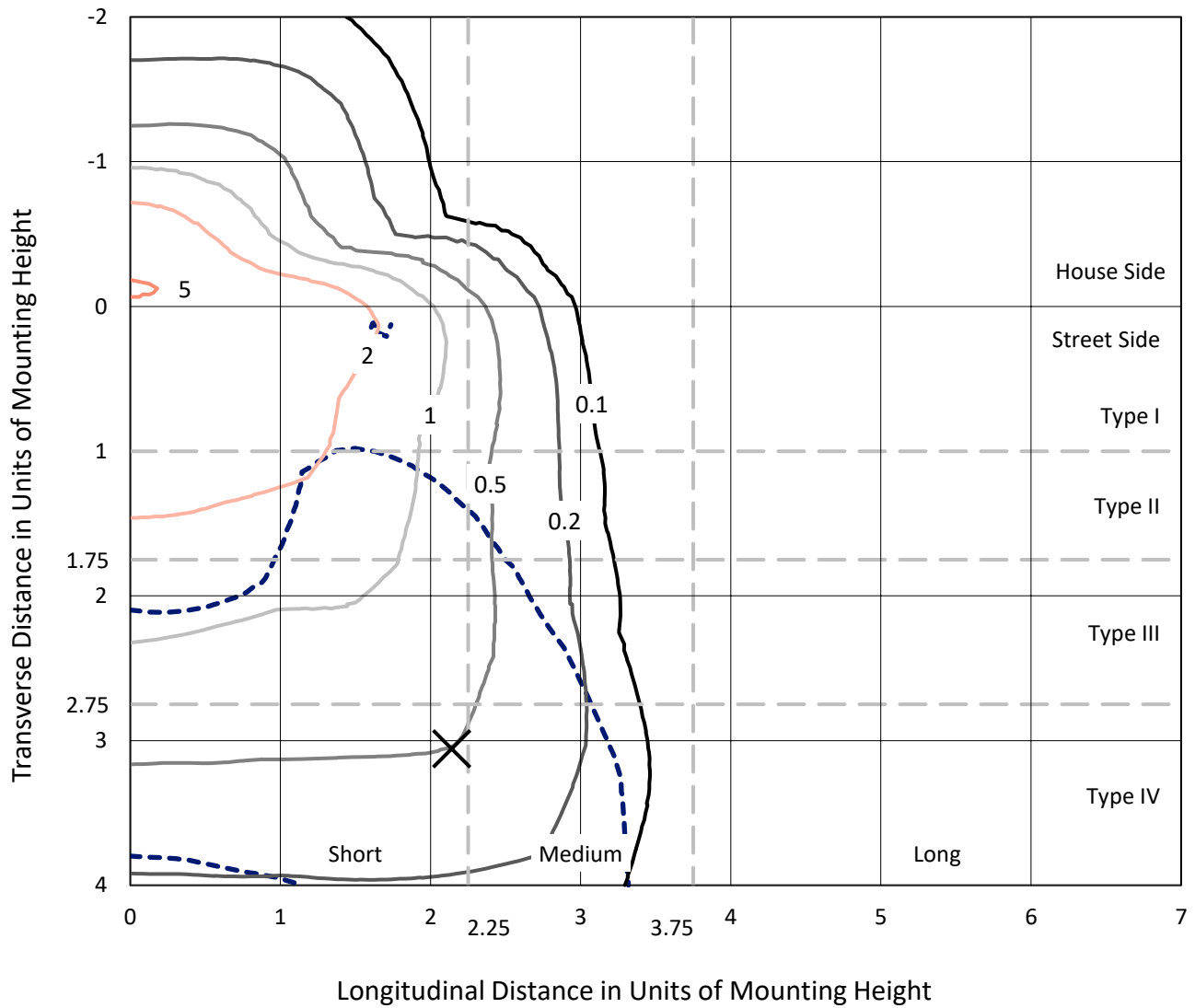
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

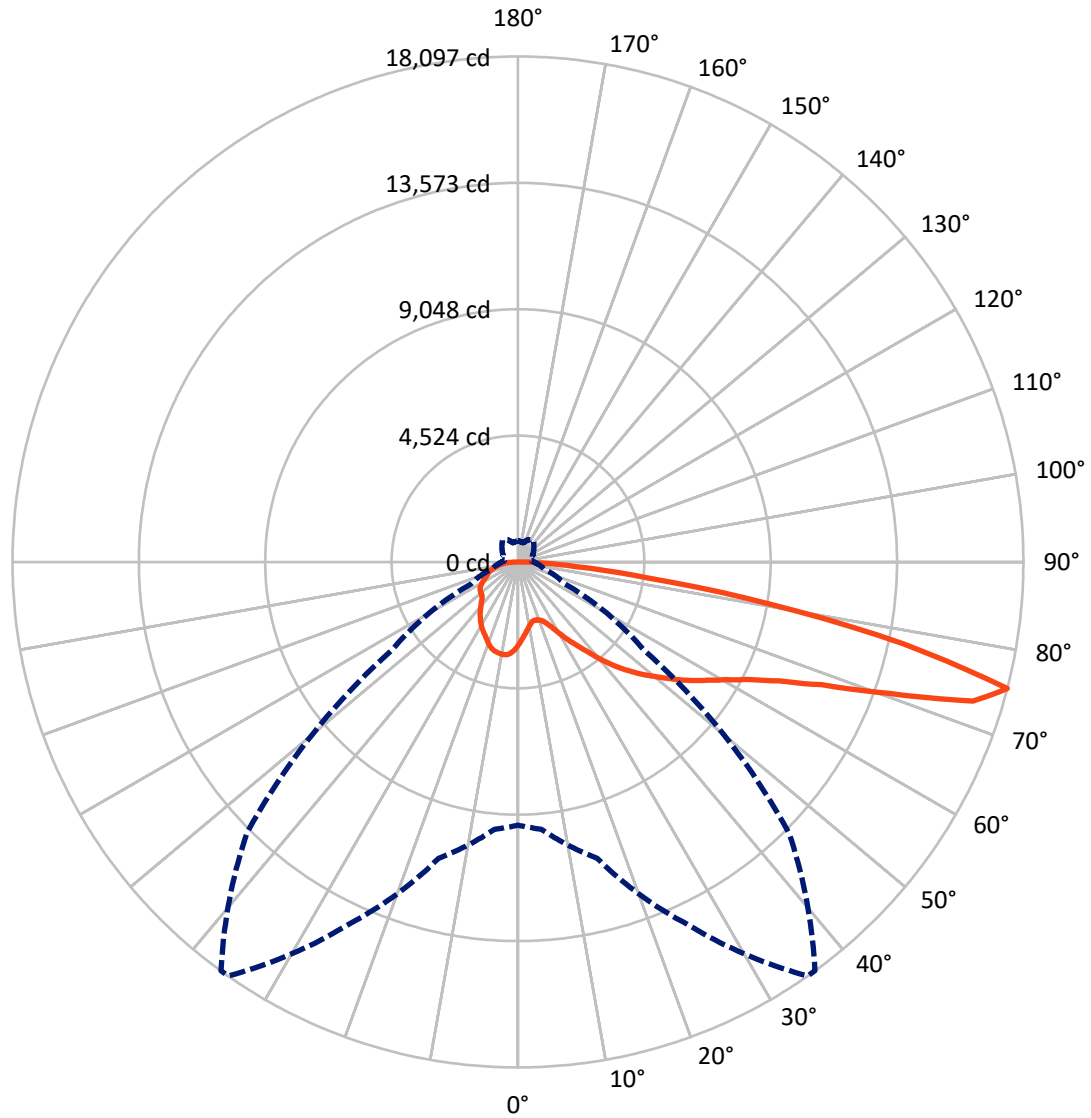
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5283.8	0.0	5283.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	16919.2	0.0	16919.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	22203.0	0.0	22203.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.1	1.3
10°-20°	808.0	3.6
20°-30°	1356.9	6.1
30°-40°	2108.8	9.5
40°-50°	3130.0	14.1
50°-60°	4321.1	19.5
60°-70°	5242.5	23.6
70°-80°	4332.5	19.5
80°-90°	623.1	2.8
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°	22203.0	100.0
0°-180°	22203.0	100.0

Coefficient of Utilization



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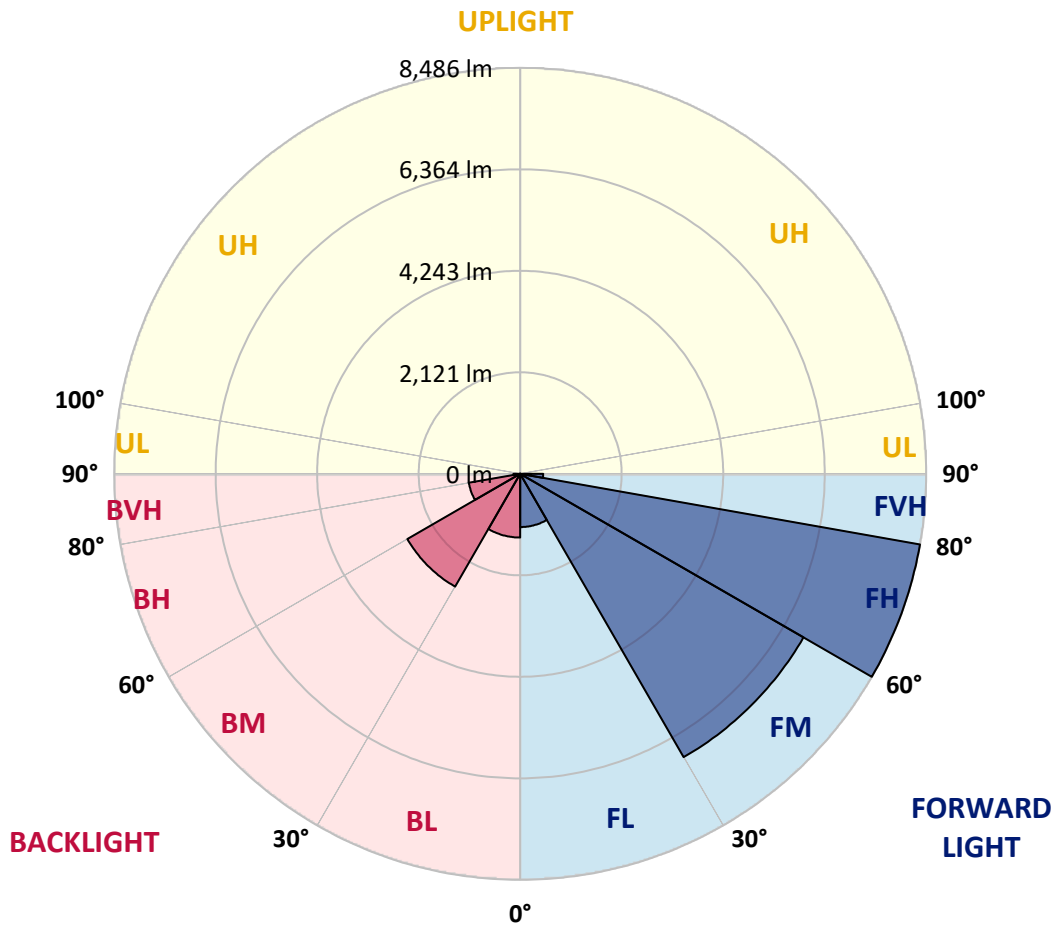
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1113.4	5.0			
FM (30°-60°)	6837.3	30.8			
FH (60°-80°)	8485.7	38.2			G4/12000
FVH (80°-90°)	482.8	2.2			G3/500
BL (0°-30°)	1331.6	6.0	B3/2500		
BM (30°-60°)	2722.5	12.3	B3/5000		
BH (60°-80°)	1089.3	4.9	B3/2500		G3/2500
BVH (80°-90°)	140.3	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2728.2	2745.0	2752.3	2748.7	2766.7	2764.3	2789.5	2820.7	2863.9	2905.9	2967.1
5°	2518.2	2536.2	2551.8	2566.2	2601.0	2611.8	2651.4	2711.4	2790.7	2871.1	2971.9
7.5°	2322.5	2338.2	2362.2	2388.6	2447.4	2458.2	2524.2	2617.8	2728.2	2845.9	2985.1
10°	2162.9	2178.5	2203.7	2233.7	2306.9	2320.1	2404.2	2529.0	2673.0	2821.9	2999.5
12.5°	2094.5	2099.3	2113.7	2143.7	2207.3	2215.7	2308.1	2451.0	2619.0	2803.9	3021.1
15°	2090.9	2100.5	2101.7	2117.3	2170.1	2173.7	2258.9	2400.6	2585.4	2800.3	3053.5
17.5°	2126.9	2134.1	2123.3	2132.9	2177.3	2183.3	2250.5	2376.6	2574.6	2815.9	3108.7
20°	2222.9	2228.9	2196.5	2183.3	2215.7	2220.5	2286.5	2392.2	2585.4	2848.3	3184.4
22.5°	2427.0	2430.6	2351.4	2297.3	2299.7	2302.1	2359.8	2455.8	2627.4	2907.1	3280.4
25°	2745.0	2742.6	2616.6	2512.2	2452.2	2439.0	2477.4	2559.0	2698.2	2985.1	3404.0
27.5°	3117.1	3099.1	2973.1	2817.1	2686.2	2667.0	2658.6	2693.4	2799.1	3088.3	3555.2
30°	3537.2	3520.4	3384.8	3180.8	2999.5	2968.3	2889.1	2871.1	2949.1	3228.8	3765.3
32.5°	3998.1	3987.3	3825.3	3578.0	3335.6	3299.6	3166.3	3118.3	3179.6	3441.2	4058.2
35°	4384.6	4375.0	4240.6	3986.1	3689.7	3645.3	3509.6	3455.6	3486.8	3713.7	4441.1
37.5°	4733.9	4729.1	4613.9	4413.4	4107.4	4053.4	3900.9	3882.9	3876.9	4072.6	4905.6
40°	5058.0	5046.0	4926.0	4820.3	4593.5	4544.3	4409.8	4394.2	4348.6	4514.3	5431.3
42.5°	5416.9	5385.7	5211.6	5162.4	5101.2	5060.4	4980.0	4982.4	4881.6	5012.4	5988.2
45°	5709.8	5691.7	5512.9	5484.1	5550.1	5533.3	5602.9	5620.9	5425.3	5534.5	6566.8
47.5°	6024.2	6007.4	5856.2	5835.8	6014.6	6019.4	6265.5	6271.5	5955.8	6077.0	7146.5
50°	6411.9	6387.9	6237.9	6263.1	6463.5	6481.5	6931.6	6890.8	6444.3	6628.0	7721.4
52.5°	6667.6	6682.0	6649.6	6690.4	6964.0	6980.9	7587.0	7482.6	6928.0	7171.7	8285.6
55°	6856.0	6884.8	6985.7	7079.3	7492.2	7509.0	8205.1	8045.5	7328.9	7675.8	8816.1
57.5°	7098.5	7057.7	7246.1	7428.6	7993.9	8038.3	8806.5	8588.0	7684.2	8110.3	9179.8
60°	7446.6	7417.8	7564.2	7834.3	8555.6	8626.4	9442.6	9076.5	7944.7	8454.8	9250.6
62.5°	8152.3	8080.3	8103.1	8342.0	9263.8	9357.4	10160.4	9502.6	8074.3	8589.2	8871.3
65°	9207.4	9083.7	8968.5	9134.2	10261.2	10353.6	10970.6	9837.5	8026.3	8328.8	7864.3
67.5°	10536.1	10413.7	10272.0	10428.1	11730.4	11803.6	11970.4	10026.0	7648.2	7325.3	6084.2
70°	11632.0	11586.3	11755.6	12397.7	14076.9	14079.3	13252.3	9869.9	6612.4	5193.6	3520.4
72.5°	11486.7	11459.1	12350.9	14336.2	17034.4	16970.8	14465.8	8688.9	4454.3	2343.0	1319.1
75°	9423.4	9602.3	10983.8	14301.4	18096.7	18088.3	13722.8	5523.7	1842.4	971.0	681.8
77.5°	5053.2	5336.5	7130.9	10558.9	14127.3	14339.8	9647.9	1932.5	791.0	621.7	471.7
80°	1648.0	1895.2	2842.3	5376.1	9179.8	9140.2	4135.0	758.6	541.3	440.5	326.5
82.5°	699.8	728.6	1269.9	2538.6	4711.1	4637.9	1316.7	435.7	380.5	301.3	201.6
85°	273.7	306.1	560.5	1173.9	2040.5	1996.1	475.3	216.1	243.7	196.8	120.0
87.5°	90.0	109.2	200.4	402.1	635.0	612.1	116.4	74.4	105.6	90.0	43.2
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°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2983.9	3003.1	3025.9	3059.5	3088.3	3112.3	3137.5	3153.1	3159.1	3177.2	3176.0
5°	3005.5	3047.5	3103.9	3159.1	3213.2	3245.6	3274.4	3288.8	3302.0	3311.6	3314.0
7.5°	3041.5	3095.5	3184.4	3256.4	3302.0	3328.4	3347.6	3342.8	3347.6	3350.0	3353.6
10°	3072.7	3148.3	3254.0	3322.4	3357.2	3358.4	3353.6	3336.8	3328.4	3329.6	3332.0
12.5°	3109.9	3194.0	3308.0	3365.6	3375.2	3348.8	3328.4	3299.6	3288.8	3284.0	3281.6
15°	3160.3	3256.4	3366.8	3388.4	3364.4	3330.8	3296.0	3249.2	3225.2	3206.0	3212.0
17.5°	3221.6	3327.2	3412.4	3396.8	3345.2	3290.0	3233.6	3162.7	3113.5	3093.1	3094.3
20°	3306.8	3401.6	3447.2	3378.8	3300.8	3216.8	3120.7	3034.3	2988.7	2968.3	2965.9
22.5°	3410.0	3501.2	3480.8	3347.6	3237.2	3102.7	2982.7	2919.1	2896.3	2881.9	2884.3
25°	3533.6	3611.7	3504.8	3302.0	3132.7	2951.5	2859.1	2838.7	2827.9	2817.1	2817.1
27.5°	3694.5	3736.5	3522.8	3234.8	2969.5	2790.7	2757.1	2760.7	2757.1	2739.0	2742.6
30°	3906.9	3898.5	3539.6	3125.5	2782.3	2645.4	2647.8	2663.4	2665.8	2653.8	2659.8
32.5°	4186.6	4101.4	3548.0	2983.9	2603.4	2518.2	2520.6	2537.4	2549.4	2529.0	2538.6
35°	4525.1	4337.8	3534.8	2806.3	2465.4	2397.0	2379.0	2383.8	2387.4	2368.2	2381.4
37.5°	4920.0	4603.1	3476.0	2609.4	2351.4	2278.1	2239.7	2207.3	2188.1	2170.1	2182.1
40°	5353.3	4892.4	3368.0	2417.4	2224.1	2152.1	2094.5	2033.3	1968.5	1944.5	1955.3
42.5°	5807.0	5190.0	3237.2	2233.7	2077.7	2018.9	1957.7	1868.8	1771.6	1722.4	1728.4
45°	6277.5	5494.9	3108.7	2052.5	1927.7	1902.5	1831.6	1724.8	1619.2	1556.8	1552.0
47.5°	6738.4	5783.0	2920.3	1870.0	1787.2	1814.8	1759.6	1661.2	1543.6	1445.1	1434.3
50°	7178.9	6053.0	2611.8	1685.2	1673.2	1788.4	1735.6	1594.0	1459.5	1333.5	1322.7
52.5°	7615.8	6271.5	2216.9	1517.2	1612.0	1781.2	1704.4	1548.4	1383.9	1251.9	1237.5
55°	7986.7	6384.3	1836.4	1373.1	1523.2	1720.0	1667.2	1494.4	1277.1	1136.7	1124.7
57.5°	8197.9	6293.1	1519.6	1231.5	1400.7	1619.2	1603.6	1379.1	1149.9	1041.8	1027.4
60°	8106.7	5923.4	1260.3	1107.9	1284.3	1510.0	1493.2	1265.1	1052.6	950.6	936.2
62.5°	7603.8	5218.8	1055.0	999.8	1178.7	1398.3	1382.7	1177.5	978.2	879.8	864.2
65°	6590.8	4245.4	895.4	909.8	1071.9	1263.9	1286.7	1104.3	919.4	823.4	807.8
67.5°	5026.8	3075.1	770.6	831.8	967.4	1131.9	1197.9	1051.4	870.2	779.0	764.6
70°	2865.1	1746.4	665.0	756.2	875.0	1009.4	1129.5	1009.4	817.4	741.8	732.2
72.5°	1086.3	801.8	574.9	680.6	786.2	906.2	1053.8	943.4	756.2	699.8	690.2
75°	579.7	488.5	483.7	591.7	684.2	805.4	959.0	878.6	710.6	739.4	763.4
77.5°	394.9	345.7	404.5	506.5	572.5	693.8	858.2	780.2	615.7	613.3	565.3
80°	273.7	244.9	328.9	408.1	442.9	583.3	749.0	669.8	501.7	468.1	447.7
82.5°	164.4	159.6	246.1	304.9	313.3	450.1	620.5	561.7	410.5	357.7	360.1
85°	90.0	94.8	157.2	178.8	182.4	314.5	486.1	434.5	315.7	265.3	267.7
87.5°	25.2	32.4	57.6	70.8	87.6	163.2	289.3	258.1	158.4	110.4	110.4
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)