

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: P884501

Luminaire Tested: **NAV-SB5B-830-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884501  
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-SB5B-830-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

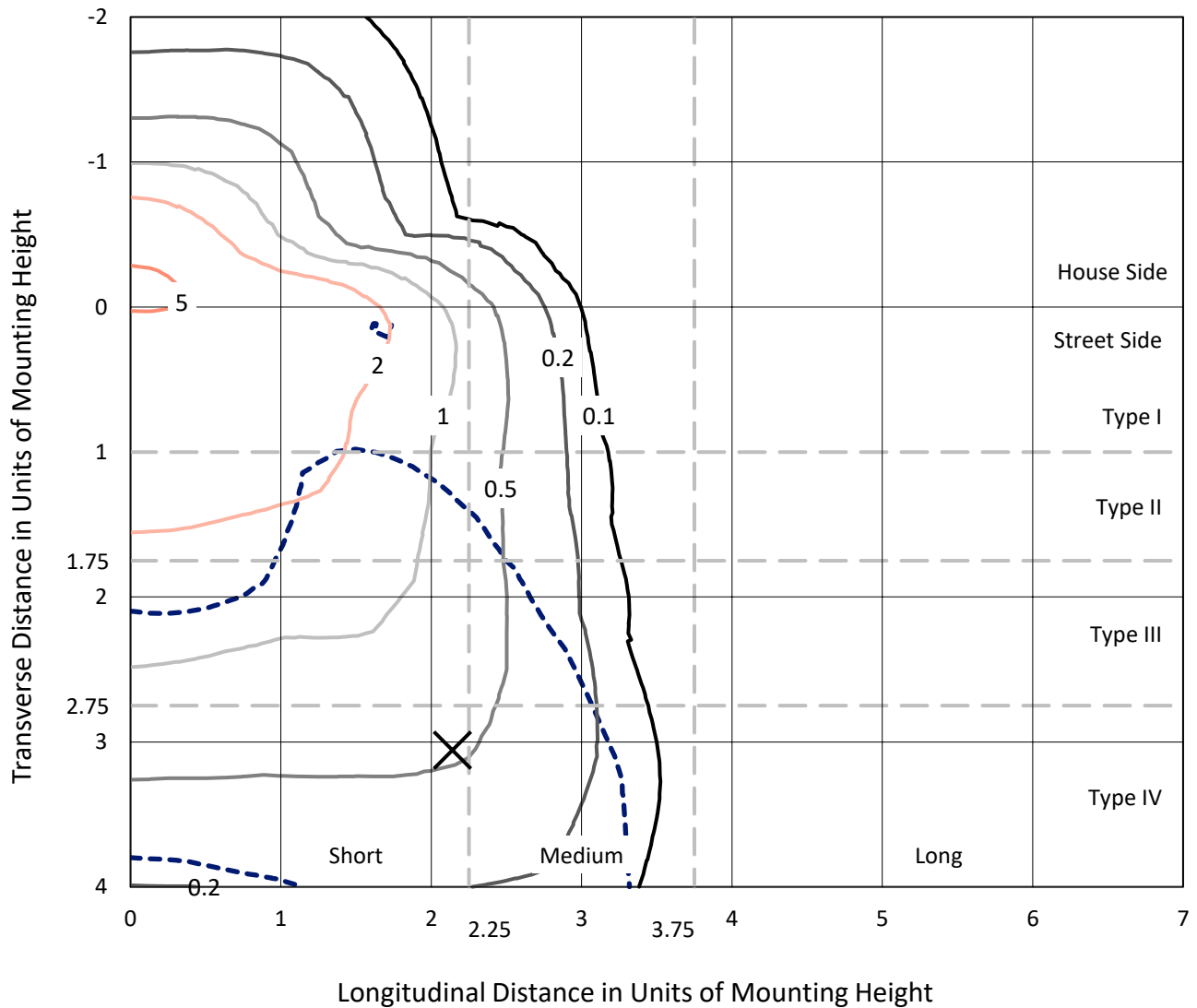
Lumens per Lamp: N/A  
Luminaire Lumens: 24711 lumens  
Efficiency: N/A  
Efficacy: 135.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

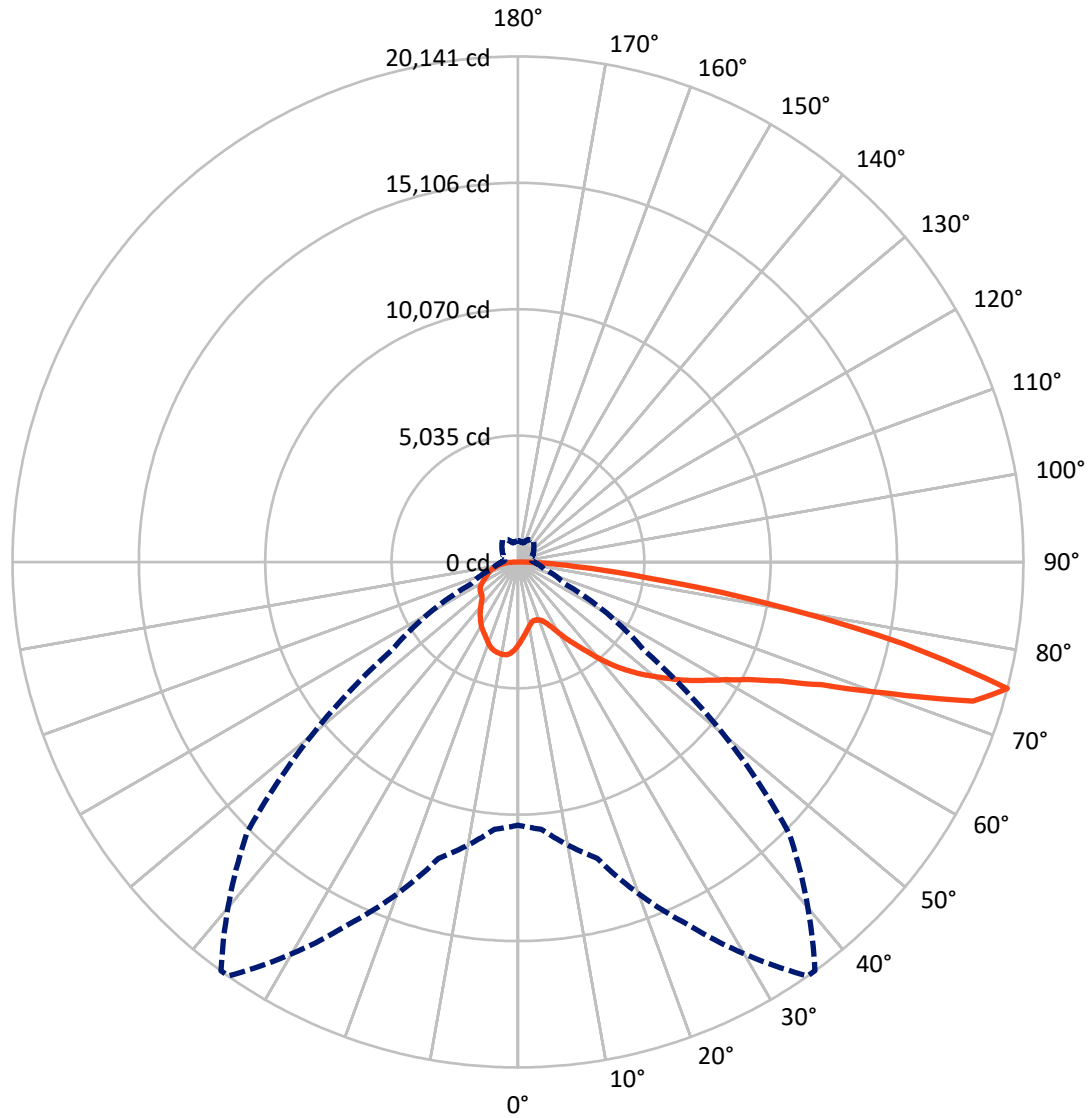
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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
<b>House Side</b>	Lumens	5880.6	0.0	5880.6
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	18830.4	0.0	18830.4
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	24711.0	0.0	24711.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	311.8	1.3
10°-20°	899.3	3.6
20°-30°	1510.1	6.1
30°-40°	2347.0	9.5
40°-50°	3483.5	14.1
50°-60°	4809.2	19.5
60°-70°	5834.7	23.6
70°-80°	4821.9	19.5
80°-90°	693.5	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°	24711.0	100.0
0°-180°	24711.0	100.0

**Coefficient of Utilization**



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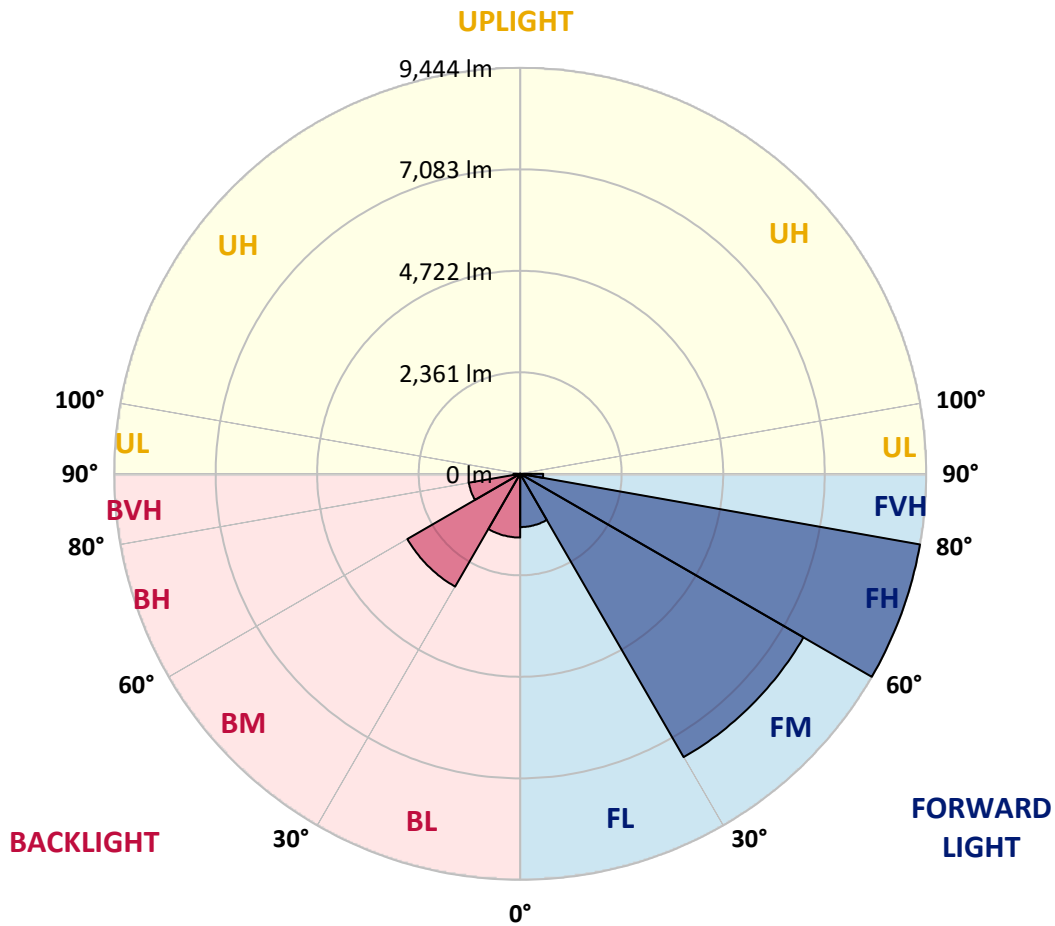
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1239.2	5.0			
FM (30°-60°)	7609.6	30.8			
FH (60°-80°)	9444.2	38.2			G4/12000
FVH (80°-90°)	537.4	2.2			G4/750
BL (0°-30°)	1482.0	6.0	B3/2500		
BM (30°-60°)	3030.0	12.3	B3/5000		
BH (60°-80°)	1212.4	4.9	B3/2500		G3/2500
BVH (80°-90°)	156.2	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°	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9
2.5°	3036.4	3055.1	3063.1	3059.1	3079.2	3076.5	3104.6	3139.3	3187.4	3234.1	3302.3
5°	2802.6	2822.7	2840.0	2856.1	2894.8	2906.8	2950.9	3017.7	3105.9	3195.4	3307.6
7.5°	2584.9	2602.3	2629.0	2658.4	2723.8	2735.9	2809.3	2913.5	3036.4	3167.3	3322.3
10°	2407.2	2424.6	2452.6	2486.0	2567.5	2582.2	2675.7	2814.7	2975.0	3140.6	3338.3
12.5°	2331.1	2336.4	2352.5	2385.9	2456.7	2466.0	2568.9	2727.8	2914.9	3120.6	3362.4
15°	2327.1	2337.8	2339.1	2356.5	2415.2	2419.3	2514.1	2671.7	2877.5	3116.6	3398.4
17.5°	2367.2	2375.2	2363.1	2373.8	2423.3	2429.9	2504.7	2645.0	2865.4	3133.9	3459.9
20°	2474.0	2480.7	2444.6	2429.9	2466.0	2471.4	2544.8	2662.4	2877.5	3170.0	3544.1
22.5°	2701.1	2705.1	2617.0	2556.8	2559.5	2562.2	2626.3	2733.2	2924.2	3235.5	3650.9
25°	3055.1	3052.5	2912.2	2796.0	2729.2	2714.5	2757.2	2848.1	3003.0	3322.3	3788.5
27.5°	3469.2	3449.2	3308.9	3135.3	2989.7	2968.3	2958.9	2997.7	3115.2	3437.2	3956.8
30°	3936.8	3918.1	3767.1	3540.0	3338.3	3303.6	3215.4	3195.4	3282.2	3593.5	4190.6
32.5°	4449.8	4437.7	4257.4	3982.2	3712.4	3672.3	3524.0	3470.6	3538.7	3829.9	4516.6
35°	4879.9	4869.2	4719.6	4436.4	4106.4	4057.0	3906.1	3846.0	3880.7	4133.2	4942.7
37.5°	5268.7	5263.3	5135.1	4912.0	4571.3	4511.2	4341.6	4321.5	4314.8	4532.6	5459.7
40°	5629.3	5616.0	5482.4	5364.8	5112.4	5057.6	4908.0	4890.6	4839.8	5024.2	6044.8
42.5°	6028.8	5994.0	5800.3	5745.6	5677.4	5632.0	5542.5	5545.2	5433.0	5578.6	6664.6
45°	6354.7	6334.7	6135.6	6103.6	6177.0	6158.3	6235.8	6255.9	6038.1	6159.7	7308.5
47.5°	6704.7	6686.0	6517.7	6495.0	6694.0	6699.4	6973.2	6979.9	6628.6	6763.5	7953.7
50°	7136.2	7109.5	6942.5	6970.5	7193.6	7213.7	7714.6	7669.2	7172.3	7376.6	8593.6
52.5°	7420.7	7436.8	7400.7	7446.1	7750.7	7769.4	8444.0	8327.8	7710.6	7981.8	9221.5
55°	7630.5	7662.5	7774.7	7878.9	8338.5	8357.2	9132.0	8954.3	8156.8	8542.9	9811.9
57.5°	7900.3	7854.9	8064.6	8267.7	8896.9	8946.3	9801.2	9558.1	8552.2	9026.4	10216.7
60°	8287.7	8255.6	8418.6	8719.2	9522.0	9600.9	10509.3	10101.8	8842.1	9409.8	10295.5
62.5°	9073.2	8993.0	9018.4	9284.3	10310.2	10414.4	11308.1	10576.0	8986.4	9559.5	9873.4
65°	10247.4	10109.8	9981.6	10165.9	11420.3	11523.2	12209.8	10948.8	8932.9	9269.6	8752.6
67.5°	11726.2	11590.0	11432.3	11606.0	13055.4	13136.9	13322.6	11158.5	8512.1	8152.8	6771.5
70°	12945.9	12895.1	13083.5	13798.2	15667.0	15669.7	14749.3	10984.8	7359.3	5780.3	3918.1
72.5°	12784.2	12753.5	13746.1	15955.6	18958.6	18887.8	16099.8	9670.3	4957.4	2607.6	1468.1
75°	10487.9	10686.9	12224.5	15916.8	20140.8	20131.5	15272.9	6147.7	2050.6	1080.7	758.8
77.5°	5624.0	5939.3	7936.4	11751.6	15723.1	15959.6	10737.7	2150.7	880.3	692.0	525.0
80°	1834.1	2109.3	3163.3	5983.3	10216.7	10172.6	4602.1	844.3	602.5	490.3	363.4
82.5°	778.8	810.9	1413.3	2825.4	5243.3	5161.8	1465.4	484.9	423.5	335.3	224.4
85°	304.6	340.6	623.8	1306.5	2271.0	2221.5	529.0	240.5	271.2	219.1	133.6
87.5°	100.2	121.6	223.1	447.5	706.7	681.3	129.6	82.8	117.6	100.2	48.1
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°	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9	3292.9
2.5°	3321.0	3342.3	3367.7	3405.1	3437.2	3463.9	3492.0	3509.3	3516.0	3536.0	3534.7
5°	3345.0	3391.8	3454.5	3516.0	3576.1	3612.2	3644.2	3660.3	3675.0	3685.7	3688.3
7.5°	3385.1	3445.2	3544.1	3624.2	3675.0	3704.4	3725.7	3720.4	3725.7	3728.4	3732.4
10°	3419.8	3504.0	3621.5	3697.7	3736.4	3737.8	3732.4	3713.7	3704.4	3705.7	3708.4
12.5°	3461.2	3554.7	3681.6	3745.8	3756.5	3727.1	3704.4	3672.3	3660.3	3654.9	3652.3
15°	3517.3	3624.2	3747.1	3771.1	3744.4	3707.0	3668.3	3616.2	3589.5	3568.1	3574.8
17.5°	3585.5	3703.0	3797.9	3780.5	3723.1	3661.6	3598.8	3520.0	3465.2	3442.5	3443.9
20°	3680.3	3785.8	3836.6	3760.5	3673.6	3580.1	3473.2	3377.1	3326.3	3303.6	3300.9
22.5°	3795.2	3896.7	3874.0	3725.7	3602.8	3453.2	3319.6	3248.8	3223.4	3207.4	3210.1
25°	3932.8	4019.6	3900.7	3675.0	3486.6	3284.9	3182.0	3159.3	3147.3	3135.3	3135.3
27.5°	4111.8	4158.5	3920.8	3600.2	3304.9	3105.9	3068.5	3072.5	3068.5	3048.4	3052.5
30°	4348.2	4338.9	3939.5	3478.6	3096.5	2944.2	2946.9	2964.3	2967.0	2953.6	2960.3
32.5°	4659.5	4564.7	3948.8	3321.0	2897.5	2802.6	2805.3	2824.0	2837.4	2814.7	2825.4
35°	5036.2	4827.8	3934.1	3123.3	2743.9	2667.7	2647.7	2653.0	2657.0	2635.7	2650.4
37.5°	5475.7	5123.0	3868.7	2904.2	2617.0	2535.5	2492.7	2456.7	2435.3	2415.2	2428.6
40°	5958.0	5445.0	3748.4	2690.4	2475.4	2395.2	2331.1	2263.0	2190.8	2164.1	2176.1
42.5°	6462.9	5776.3	3602.8	2486.0	2312.4	2246.9	2178.8	2079.9	1971.7	1917.0	1923.6
45°	6986.6	6115.6	3459.9	2284.3	2145.4	2117.3	2038.5	1919.6	1802.1	1732.6	1727.3
47.5°	7499.5	6436.2	3250.2	2081.3	1989.1	2019.8	1958.4	1848.8	1717.9	1608.4	1596.4
50°	7989.8	6736.8	2906.8	1875.6	1862.2	1990.4	1931.7	1774.0	1624.4	1484.1	1472.1
52.5°	8476.1	6979.9	2467.3	1688.5	1794.1	1982.4	1896.9	1723.3	1540.3	1393.3	1377.3
55°	8888.8	7105.5	2043.9	1528.2	1695.2	1914.3	1855.5	1663.2	1421.4	1265.1	1251.7
57.5°	9124.0	7003.9	1691.2	1370.6	1559.0	1802.1	1784.7	1534.9	1279.8	1159.5	1143.5
60°	9022.4	6592.5	1402.7	1233.0	1429.4	1680.5	1661.8	1408.0	1171.6	1058.0	1042.0
62.5°	8462.7	5808.3	1174.2	1112.8	1311.8	1556.3	1538.9	1310.5	1088.7	979.2	961.8
65°	7335.2	4725.0	996.6	1012.6	1192.9	1406.7	1432.0	1229.0	1023.3	916.4	899.0
67.5°	5594.6	3422.5	857.6	925.8	1076.7	1259.7	1333.2	1170.2	968.5	867.0	850.9
70°	3188.7	1943.7	740.1	841.6	973.8	1123.5	1257.0	1123.5	909.7	825.6	814.9
72.5°	1209.0	892.4	639.9	757.4	875.0	1008.6	1172.9	1050.0	841.6	778.8	768.1
75°	645.2	543.7	538.4	658.6	761.4	896.4	1067.4	977.9	790.8	822.9	849.6
77.5°	439.5	384.7	450.2	563.7	637.2	772.1	955.1	868.3	685.3	682.6	629.2
80°	304.6	272.5	366.0	454.2	492.9	649.2	833.6	745.4	558.4	521.0	498.3
82.5°	183.0	177.7	273.9	339.3	348.7	500.9	690.6	625.2	456.9	398.1	400.8
85°	100.2	105.5	175.0	199.0	203.1	350.0	541.0	483.6	351.3	295.2	297.9
87.5°	28.1	36.1	64.1	78.8	97.5	181.7	321.9	287.2	176.3	122.9	122.9
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)