

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: P883809

Luminaire Tested: **NAV-SB4B-827-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883809
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-827-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18554 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

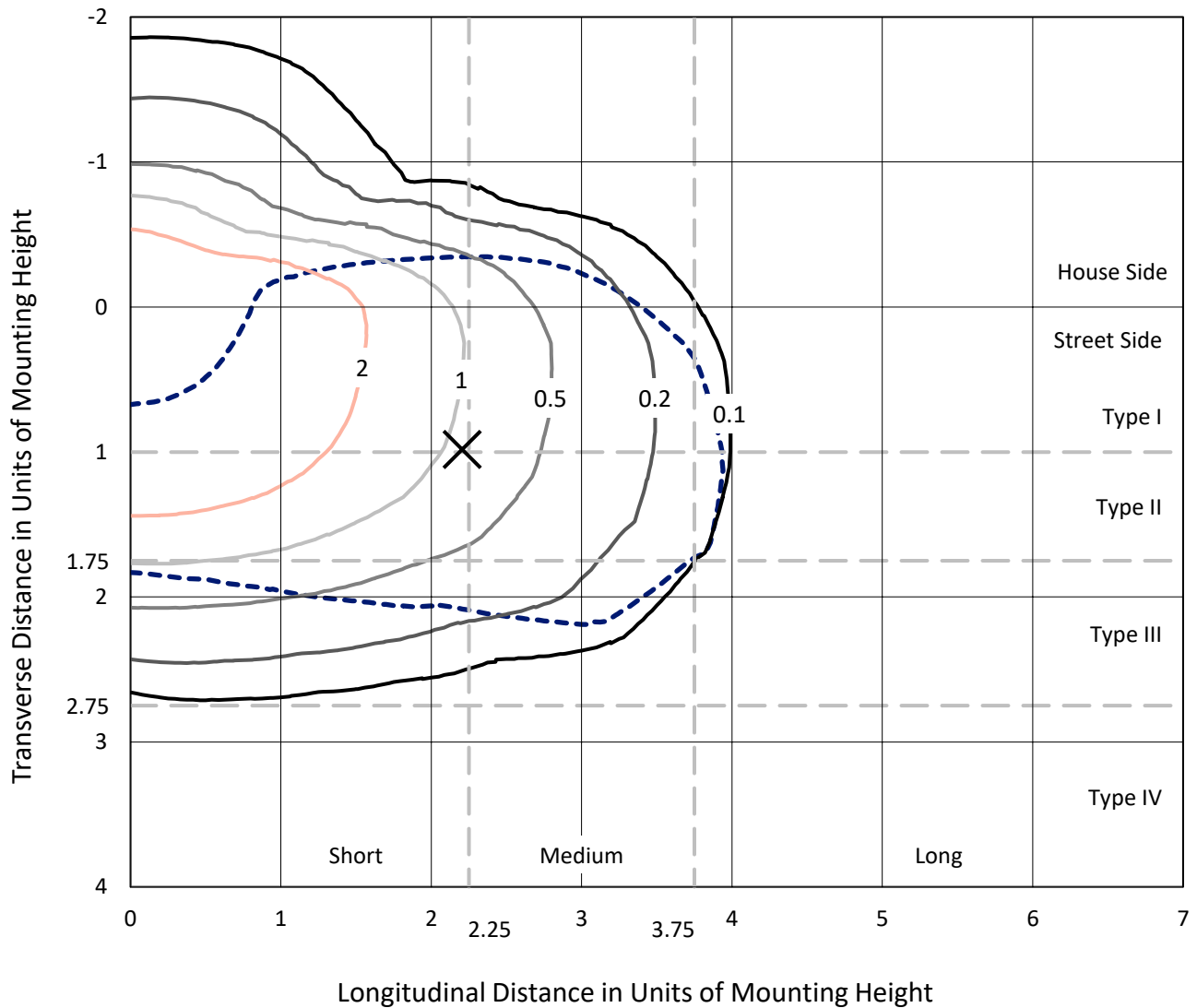
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

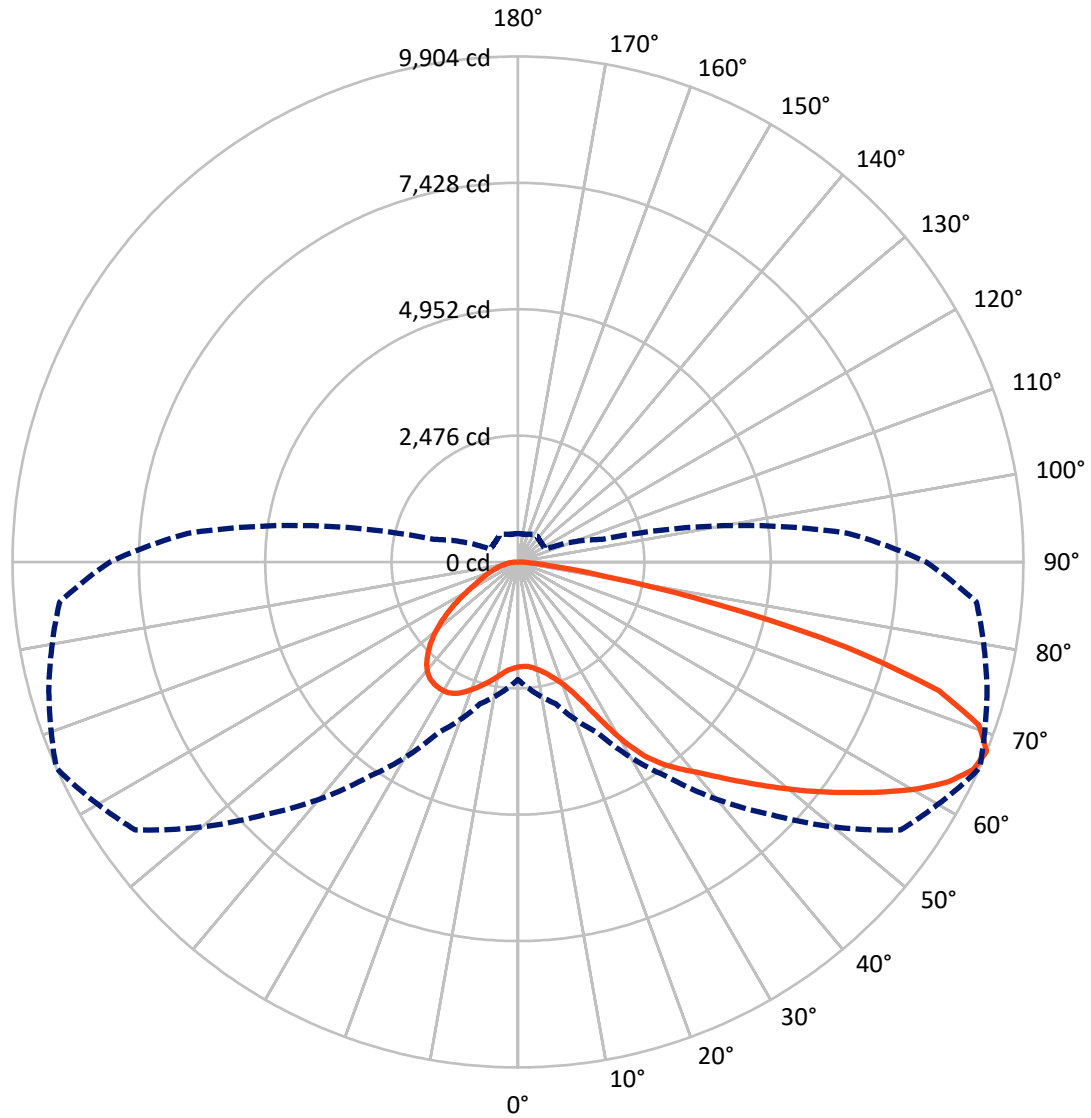
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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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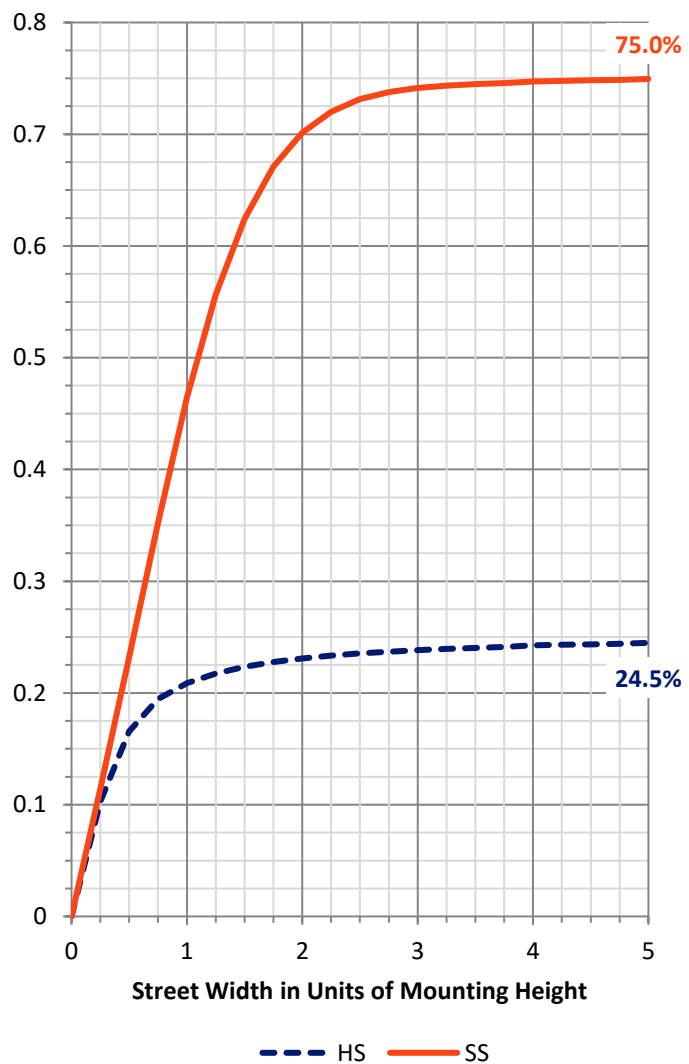
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4613.4	0.0	4613.4
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	13940.6	0.0	13940.6
	% Fixture	75.1	0.0	75.1
Total	Lumens	18554.0	0.0	18554.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.0	1.1
10°-20°	674.1	3.6
20°-30°	1299.3	7.0
30°-40°	2278.1	12.3
40°-50°	3386.8	18.3
50°-60°	4293.1	23.1
60°-70°	4200.7	22.6
70°-80°	2003.8	10.8
80°-90°	214.2	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°	18554.0	100.0
0°-180°	18554.0	100.0

Coefficient of Utilization



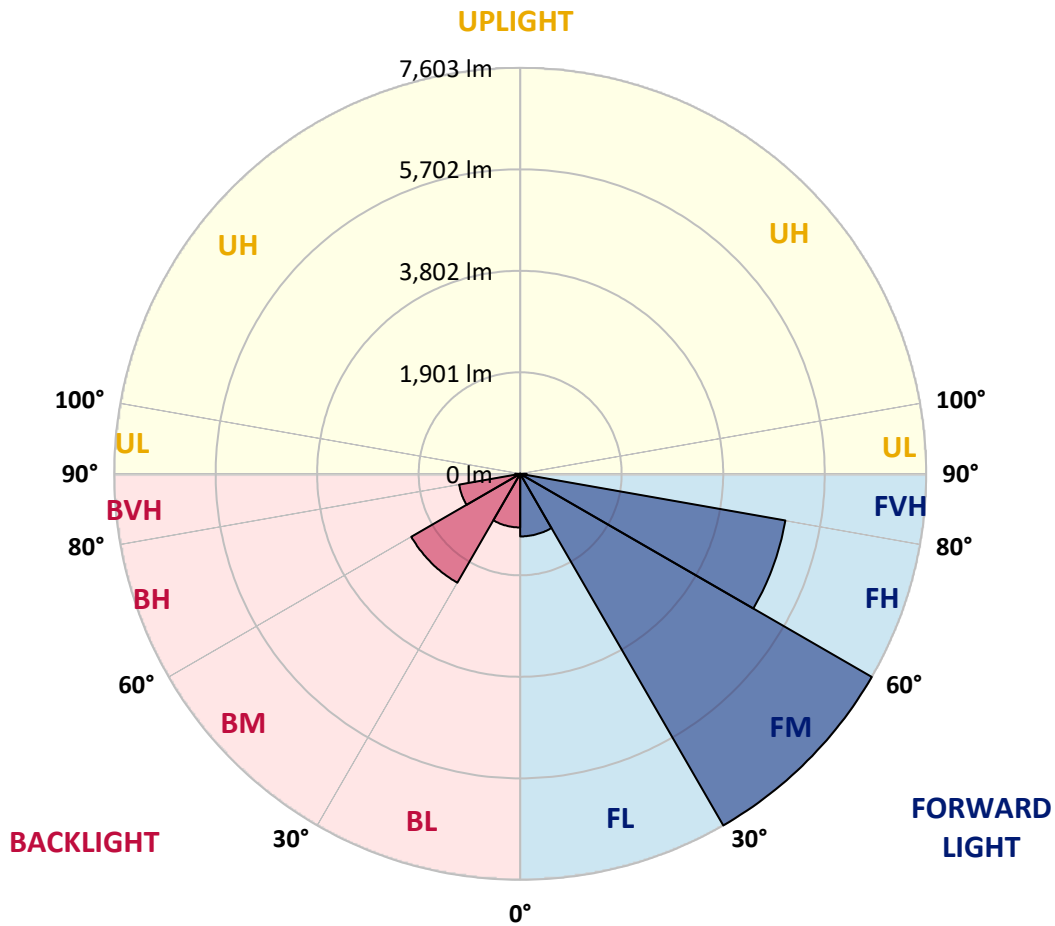
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1172.4	6.3			
FM (30°-60°)	7603.3	41.0			
FH (60°-80°)	5043.5	27.2			G3/7500
FVH (80°-90°)	121.4	0.7			G2/225
BL (0°-30°)	1005.0	5.4	B3/2500		
BM (30°-60°)	2354.7	12.7	B2/2500		
BH (60°-80°)	1161.0	6.3	B3/2500		G3/2500
BVH (80°-90°)	92.7	0.5			G1/100
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°	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9
2.5°	2036.4	2048.1	2045.2	2040.3	2039.4	2041.3	2044.2	2047.2	2046.2	2051.1	2058.9
5°	2030.6	2042.3	2041.3	2041.3	2045.2	2053.0	2057.9	2062.8	2057.9	2063.7	2074.5
7.5°	2034.5	2043.3	2047.2	2051.1	2060.8	2075.4	2087.1	2097.9	2092.0	2098.8	2112.5
10°	2084.2	2091.0	2094.9	2094.9	2101.8	2118.3	2130.0	2149.5	2144.6	2155.4	2172.9
12.5°	2174.9	2181.7	2181.7	2177.8	2182.7	2193.4	2197.3	2218.7	2210.0	2227.5	2245.1
15°	2286.0	2299.6	2288.9	2282.1	2284.0	2294.8	2293.8	2310.4	2301.6	2316.2	2331.8
17.5°	2408.8	2426.4	2408.8	2407.9	2404.0	2415.6	2416.6	2431.2	2415.6	2426.4	2437.1
20°	2554.1	2578.4	2563.8	2568.7	2559.9	2564.8	2569.7	2591.1	2566.7	2574.5	2571.6
22.5°	2758.8	2788.0	2772.4	2791.0	2785.1	2781.2	2780.2	2818.3	2780.2	2783.2	2754.9
25°	3057.1	3092.2	3064.9	3090.2	3090.2	3102.9	3117.5	3166.3	3102.9	3084.4	3011.3
27.5°	3497.7	3532.8	3479.2	3494.8	3489.9	3521.1	3505.5	3626.4	3558.2	3527.9	3380.7
30°	4028.0	4090.4	3989.0	3985.1	3980.3	4030.0	4052.4	4132.3	4063.1	4032.9	3855.5
32.5°	4601.2	4666.6	4545.7	4510.6	4492.1	4522.3	4503.8	4568.1	4520.3	4473.5	4254.2
35°	5207.6	5271.9	5156.9	5088.7	5014.6	4951.2	4884.9	4901.5	4856.6	4785.5	4558.3
37.5°	5780.8	5898.7	5776.9	5703.8	5567.3	5443.5	5258.3	5181.3	5139.3	5074.0	4844.9
40°	6364.7	6432.0	6339.4	6277.0	6128.8	5934.8	5638.5	5475.7	5419.1	5355.8	5161.8
42.5°	6794.6	6859.0	6809.2	6766.4	6650.3	6425.2	6042.0	5838.3	5756.4	5685.3	5520.5
45°	7135.8	7183.6	7152.4	7168.0	7118.3	6899.9	6460.3	6227.3	6142.5	6055.7	5926.0
47.5°	7273.3	7324.0	7373.7	7466.3	7551.1	7390.2	6909.7	6648.4	6558.7	6470.0	6342.3
50°	7257.7	7309.3	7453.6	7650.5	7913.7	7860.1	7383.4	7096.8	7014.0	6912.6	6794.6
52.5°	7132.9	7191.4	7376.6	7704.1	8123.3	8212.0	7866.0	7559.9	7481.9	7361.0	7243.0
55°	6805.3	6840.4	7118.3	7582.3	8173.0	8457.7	8338.8	8053.1	7975.2	7806.5	7677.8
57.5°	6198.0	6248.7	6653.3	7253.8	8048.3	8624.4	8754.0	8571.8	8496.7	8254.0	8119.4
60°	5405.5	5486.4	5949.4	6702.0	7730.5	8623.4	9131.3	9081.6	9019.2	8694.6	8554.2
62.5°	4508.6	4602.2	5047.7	5922.1	7174.8	8378.7	9367.2	9508.6	9476.4	9101.1	8921.7
65°	3462.6	3527.0	3970.5	4913.2	6310.1	7853.3	9394.5	9800.1	9805.9	9410.1	9113.8
67.5°	2305.5	2490.7	2875.8	3686.8	5152.0	6994.5	9154.7	9847.8	9904.4	9516.4	9017.3
70°	1125.0	1368.7	1745.9	2396.2	3686.8	5677.5	8527.9	9455.9	9581.7	9206.4	8442.1
72.5°	466.9	545.9	751.6	1182.5	2116.4	3831.1	7268.4	8393.4	8626.3	8157.4	7097.8
75°	314.9	341.2	429.9	606.3	964.1	1889.2	5241.7	6258.5	6633.8	6161.0	5036.0
77.5°	242.7	259.3	312.9	424.1	573.2	714.6	2805.6	3771.6	3965.6	3671.2	2620.4
80°	191.1	203.7	234.0	309.0	406.5	382.1	956.3	1708.9	1821.0	1527.6	842.3
82.5°	165.7	170.6	167.7	209.6	270.0	223.2	313.9	630.7	696.0	505.0	274.9
85°	119.9	133.6	139.4	129.7	143.3	113.1	128.7	223.2	245.7	219.3	155.0
87.5°	48.7	72.1	88.7	83.8	52.6	32.2	40.0	65.3	75.1	81.9	50.7
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°	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9	2057.9
2.5°	2059.8	2066.7	2071.5	2077.4	2081.3	2087.1	2098.8	2105.7	2106.6	2111.5	2110.5
5°	2078.4	2088.1	2098.8	2114.4	2132.0	2146.6	2169.0	2184.6	2190.5	2195.3	2194.4
7.5°	2118.3	2132.0	2151.5	2178.8	2204.1	2223.6	2250.9	2269.4	2287.9	2294.8	2295.7
10°	2177.8	2197.3	2225.6	2262.6	2289.9	2315.2	2343.5	2359.1	2377.6	2385.4	2389.3
12.5°	2251.9	2272.3	2309.4	2361.1	2386.4	2404.0	2413.7	2409.8	2413.7	2420.5	2422.5
15°	2336.7	2359.1	2401.0	2456.6	2474.1	2458.5	2437.1	2417.6	2414.7	2416.6	2423.4
17.5°	2437.1	2453.7	2502.4	2549.2	2536.5	2472.2	2425.4	2394.2	2378.6	2373.7	2380.6
20°	2577.5	2577.5	2617.4	2646.7	2561.9	2452.7	2379.6	2328.9	2296.7	2283.1	2280.1
22.5°	2748.1	2732.5	2757.8	2737.3	2557.0	2398.1	2296.7	2209.0	2160.2	2140.7	2137.8
25°	2964.5	2946.0	2939.1	2812.4	2521.9	2311.3	2146.6	2040.3	1997.4	1986.7	1988.7
27.5°	3291.1	3244.3	3155.6	2853.4	2457.6	2174.9	1971.1	1872.7	1848.3	1849.3	1852.2
30°	3725.8	3632.2	3414.9	2860.2	2352.3	1981.8	1791.8	1721.6	1709.9	1714.7	1731.3
32.5°	4128.4	4039.7	3680.0	2829.0	2190.5	1792.7	1630.9	1584.1	1566.6	1572.4	1580.2
35°	4444.3	4419.9	3925.7	2785.1	1991.6	1615.3	1486.6	1446.7	1412.5	1404.7	1410.6
37.5°	4742.6	4732.8	4109.9	2723.7	1794.7	1489.6	1370.6	1318.0	1268.3	1241.0	1241.9
40°	5070.1	5060.4	4230.8	2629.1	1620.2	1380.4	1266.3	1197.1	1135.7	1086.0	1090.8
42.5°	5438.6	5381.1	4288.3	2493.6	1472.0	1287.8	1181.5	1087.9	1007.0	961.2	964.1
45°	5841.2	5711.6	4287.3	2321.1	1347.2	1203.0	1090.8	958.3	883.2	840.3	838.4
47.5°	6268.2	6027.4	4234.7	2130.0	1226.3	1109.4	950.5	849.1	799.4	773.0	767.2
50°	6708.8	6322.8	4145.0	1910.7	1102.5	1003.1	862.7	793.5	755.5	731.1	722.4
52.5°	7123.1	6590.9	4036.8	1662.1	976.8	899.8	823.7	770.1	730.2	702.9	691.2
55°	7508.2	6821.9	3883.8	1407.7	874.4	830.6	805.2	760.4	714.6	682.4	669.7
57.5°	7850.4	6972.0	3619.6	1168.8	801.3	782.8	785.7	743.8	691.2	663.9	646.3
60°	8135.0	7082.2	3228.7	947.5	741.9	736.0	755.5	712.6	651.2	620.0	606.3
62.5°	8305.6	7080.3	2749.0	776.0	691.2	693.1	715.5	673.6	611.2	582.0	573.2
65°	8291.0	6906.7	2222.6	663.9	642.4	644.4	673.6	630.7	578.1	560.5	559.6
67.5°	7997.6	6483.6	1705.0	590.8	588.8	597.6	631.7	601.5	557.6	555.7	558.6
70°	7203.1	5605.3	1228.3	532.3	533.2	545.9	590.8	583.0	546.9	550.8	549.8
72.5°	5775.9	4273.7	824.7	470.8	471.8	492.3	551.8	568.3	536.2	587.8	595.6
75°	3846.7	2665.2	530.3	405.5	406.5	432.8	517.6	540.1	506.9	585.9	590.8
77.5°	1848.3	1198.1	384.1	341.2	341.2	365.6	447.5	483.5	431.9	455.2	417.2
80°	638.5	450.4	302.2	274.9	269.1	285.6	377.3	419.2	372.4	343.1	321.7
82.5°	251.5	234.0	242.7	213.5	194.0	204.7	293.4	346.1	273.9	247.6	246.6
85°	144.3	152.1	171.6	141.4	112.1	125.8	215.4	248.6	206.7	182.3	186.2
87.5°	39.0	53.6	79.0	73.1	50.7	53.6	102.4	137.5	118.9	91.6	94.6
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)