

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: P884314

Luminaire Tested: **NAV-SB5A-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884314
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18333 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

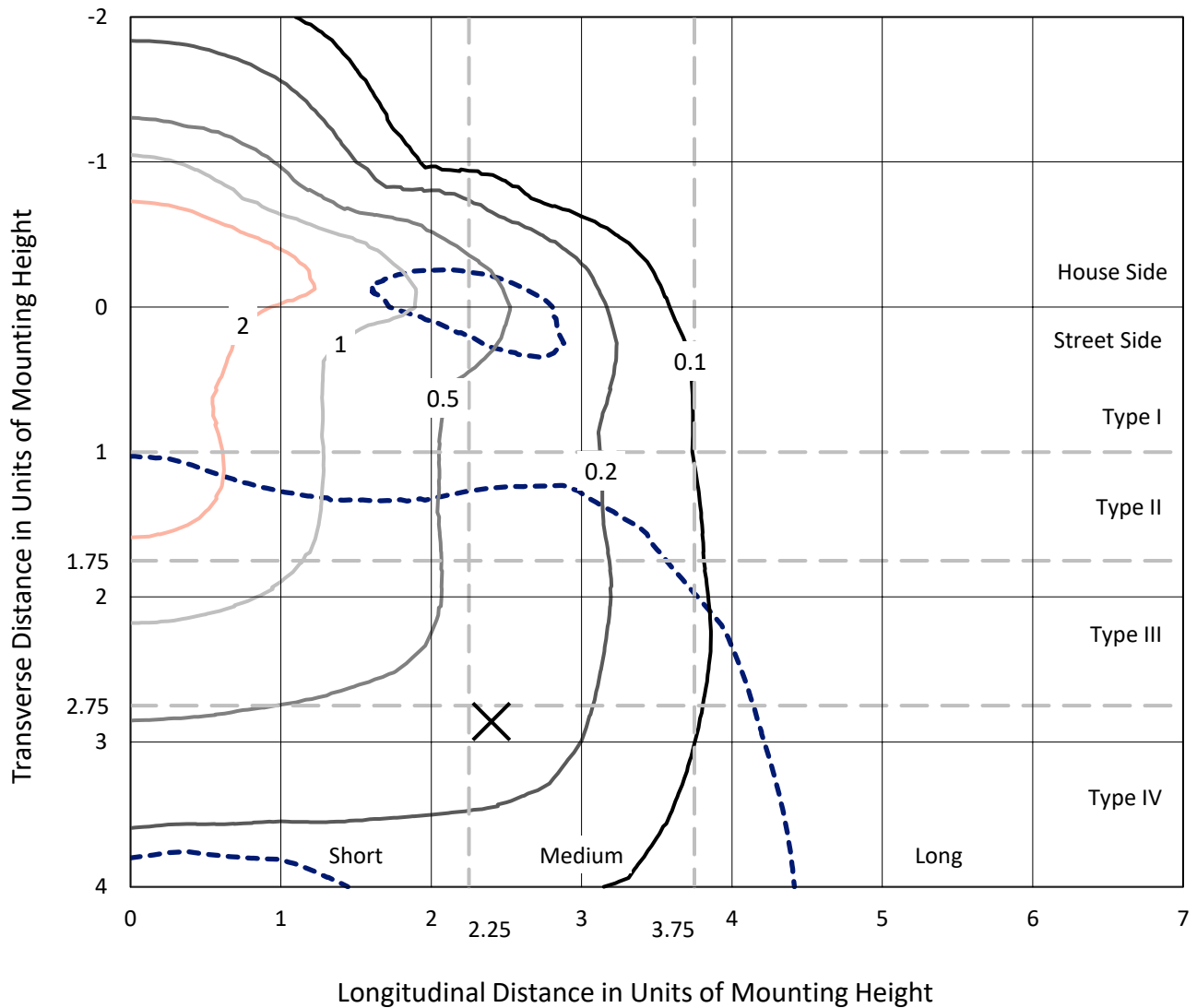
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

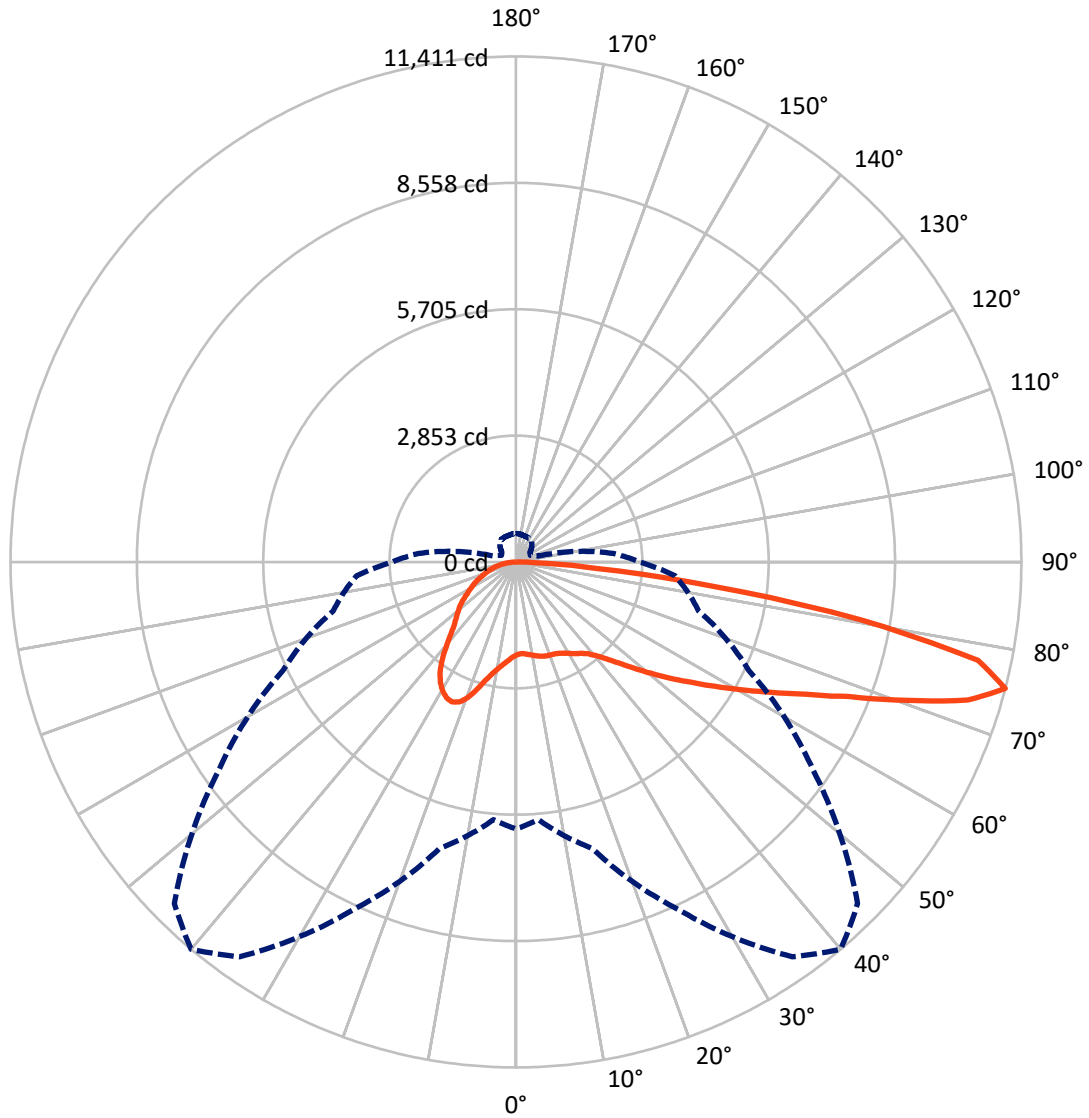
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5680.2	0.0	5680.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12652.8	0.0	12652.8
	% Fixture	69.0	0.0	69.0
Total	Lumens	18333.0	0.0	18333.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.3	1.1
10°-20°	702.6	3.8
20°-30°	1282.9	7.0
30°-40°	1819.5	9.9
40°-50°	2456.8	13.4
50°-60°	3305.1	18.0
60°-70°	4194.9	22.9
70°-80°	3807.1	20.8
80°-90°	555.0	3.0
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°	18333.0	100.0
0°-180°	18333.0	100.0

Coefficient of Utilization



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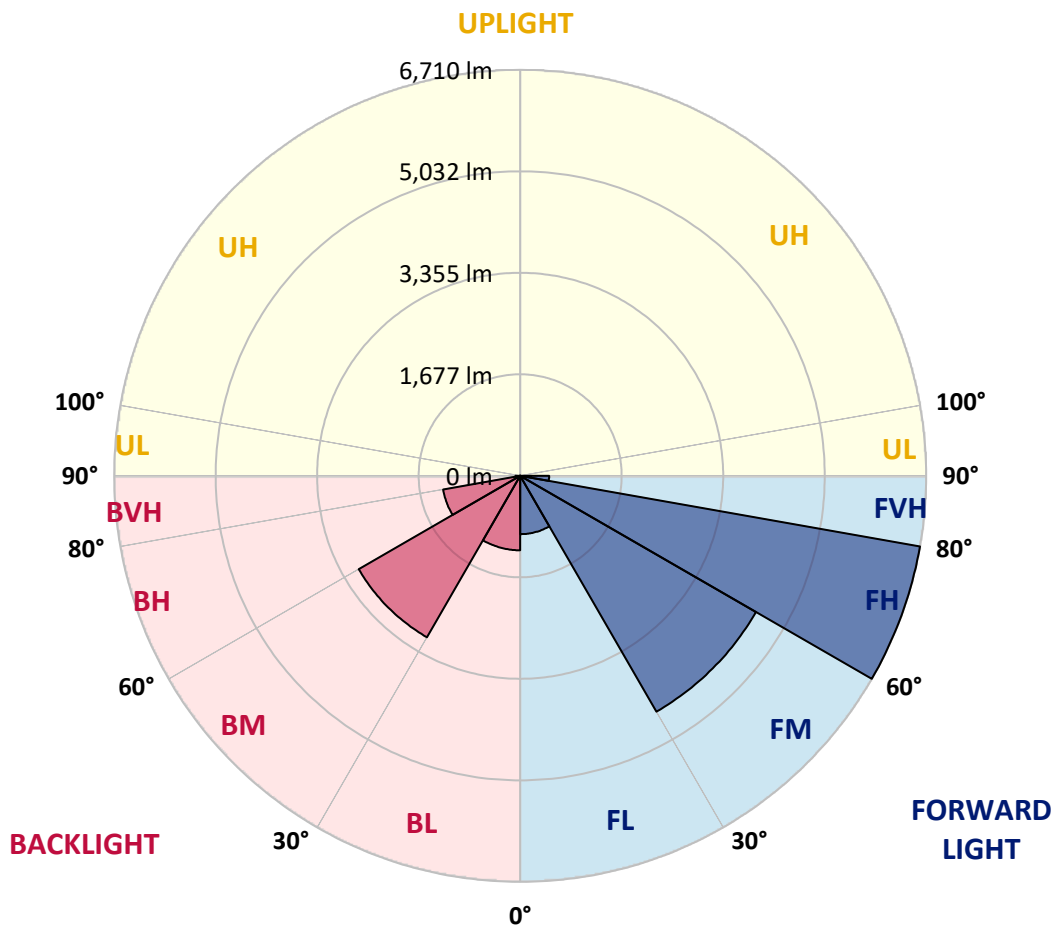
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	964.3	5.3			
FM (30°-60°)	4500.3	24.5			
FH (60°-80°)	6709.6	36.6			G3/7500
FVH (80°-90°)	478.6	2.6			G3/500
BL (0°-30°)	1230.4	6.7	B3/2500		
BM (30°-60°)	3081.0	16.8	B3/5000		
BH (60°-80°)	1292.4	7.0	B3/2500		G3/2500
BVH (80°-90°)	76.4	0.4			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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4
2.5°	2064.3	2076.0	2073.1	2069.2	2069.2	2070.1	2069.2	2076.0	2082.8	2089.6	2100.3
5°	2085.7	2097.4	2091.5	2086.7	2082.8	2081.8	2078.9	2077.9	2081.8	2090.6	2105.2
7.5°	2127.5	2139.2	2130.4	2121.7	2113.9	2110.0	2106.1	2100.3	2097.4	2102.2	2122.7
10°	2174.2	2185.9	2175.2	2159.6	2147.0	2142.1	2138.2	2132.4	2128.5	2131.4	2153.8
12.5°	2220.9	2232.5	2217.9	2196.6	2180.0	2177.1	2172.2	2170.3	2169.3	2168.4	2190.7
15°	2264.6	2274.3	2255.9	2230.6	2213.1	2208.2	2203.4	2206.3	2211.1	2217.0	2242.3
17.5°	2298.7	2308.4	2281.2	2248.1	2231.6	2229.6	2226.7	2236.4	2250.0	2264.6	2295.7
20°	2329.8	2339.5	2304.5	2259.8	2240.3	2240.3	2241.3	2261.7	2281.2	2302.5	2345.3
22.5°	2373.5	2381.3	2338.5	2277.3	2249.1	2251.0	2258.8	2279.2	2303.5	2332.7	2392.0
25°	2438.7	2444.5	2392.0	2310.3	2278.2	2284.1	2290.9	2300.6	2323.9	2358.0	2437.7
27.5°	2543.7	2548.5	2479.5	2368.7	2320.0	2329.8	2339.5	2332.7	2343.4	2372.6	2474.7
30°	2691.5	2694.4	2606.9	2460.1	2391.0	2395.9	2397.8	2369.6	2349.2	2372.6	2500.9
32.5°	2866.5	2865.5	2761.5	2570.9	2471.7	2466.9	2450.3	2394.9	2347.3	2367.7	2524.2
35°	3137.8	3127.1	2992.9	2726.5	2563.1	2533.0	2494.1	2423.1	2357.0	2362.8	2544.7
37.5°	3587.0	3554.0	3368.2	2981.2	2699.3	2622.4	2565.1	2468.8	2378.4	2360.9	2569.0
40°	4093.6	4051.8	3847.6	3330.3	2903.5	2780.0	2687.6	2534.0	2413.4	2369.6	2604.9
42.5°	4694.5	4635.2	4415.5	3741.6	3162.1	2983.2	2844.1	2616.6	2464.9	2397.8	2653.6
45°	5432.6	5353.8	5042.6	4205.4	3487.8	3249.6	3063.9	2742.0	2543.7	2452.3	2726.5
47.5°	6178.4	6197.8	5755.4	4736.4	3878.7	3578.3	3339.1	2930.7	2658.4	2539.8	2844.1
50°	6970.8	6984.4	6464.2	5324.6	4322.1	3949.7	3648.3	3141.7	2817.9	2664.3	3020.1
52.5°	7589.3	7591.2	7107.9	5940.1	4784.0	4358.1	3981.8	3382.8	3002.6	2829.6	3254.5
55°	7976.2	7971.4	7559.1	6522.6	5314.9	4786.9	4351.3	3657.0	3228.2	3024.0	3549.1
57.5°	8257.3	8242.7	7870.3	7023.3	5880.8	5293.5	4769.4	3968.2	3494.7	3255.5	3937.1
60°	8364.2	8355.5	8081.3	7456.0	6475.9	5853.6	5251.7	4316.3	3797.1	3528.7	4435.9
62.5°	8405.1	8421.6	8288.4	7875.1	7112.8	6474.0	5781.6	4732.5	4137.4	3837.9	4961.9
65°	8549.0	8579.1	8551.9	8423.5	7832.3	7200.3	6484.7	5227.4	4508.8	4169.5	5511.3
67.5°	8833.9	8864.0	8875.7	9079.9	8711.4	8105.6	7361.7	5843.9	4943.5	4513.7	5924.6
70°	8827.1	8818.3	9024.5	9602.0	9812.1	9358.9	8544.1	6602.3	5461.7	4799.6	5977.1
72.5°	8034.6	7964.6	8451.7	9596.2	10728.0	10667.7	9988.1	7580.5	5909.0	4834.6	5186.6
75°	6027.6	5841.0	6701.5	8648.1	10880.7	11410.6	10906.0	8187.3	5803.0	4271.6	3609.4
77.5°	2577.7	2390.1	3404.2	6402.0	9738.2	10666.8	10063.9	7142.9	4632.3	2824.7	1772.6
80°	674.8	673.8	1028.8	2902.5	6622.7	7877.1	6910.5	4612.9	2646.8	1009.3	489.1
82.5°	279.1	272.3	378.2	1128.9	3236.0	4420.3	3607.4	2057.5	955.8	273.2	162.4
85°	104.0	103.1	183.8	389.9	1141.5	1823.2	1319.5	526.0	238.2	133.2	72.9
87.5°	29.2	28.2	39.9	135.2	278.1	422.0	225.6	86.5	67.1	52.5	21.4
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°	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4	2096.4
2.5°	2103.2	2108.1	2116.8	2123.6	2132.4	2142.1	2155.7	2164.5	2173.2	2179.1	2175.2
5°	2112.0	2122.7	2145.0	2167.4	2193.6	2217.9	2246.1	2266.6	2283.1	2288.0	2289.9
7.5°	2131.4	2148.9	2186.8	2224.8	2266.6	2306.4	2347.3	2382.3	2410.5	2421.2	2422.1
10°	2165.4	2188.8	2242.3	2295.7	2351.2	2412.4	2464.9	2515.5	2555.4	2571.9	2572.9
12.5°	2208.2	2237.4	2307.4	2381.3	2458.1	2542.7	2610.8	2673.0	2722.6	2745.0	2745.0
15°	2263.6	2301.6	2391.0	2490.2	2603.0	2720.7	2807.2	2876.2	2931.7	2958.9	2956.9
17.5°	2323.9	2374.5	2487.3	2637.0	2798.4	2953.1	3054.2	3104.7	3162.1	3188.4	3187.4
20°	2382.3	2444.5	2605.9	2823.7	3038.6	3202.9	3284.6	3298.2	3302.1	3305.0	3312.8
22.5°	2442.6	2526.2	2754.7	3059.0	3289.5	3403.3	3414.9	3356.6	3274.9	3237.0	3247.7
25°	2508.7	2619.5	2949.2	3318.7	3505.3	3519.0	3429.5	3287.5	3132.9	3062.0	3072.7
27.5°	2572.9	2727.5	3182.5	3566.6	3660.9	3541.3	3348.8	3147.5	2960.8	2886.0	2894.7
30°	2637.0	2851.0	3440.2	3783.4	3731.9	3485.9	3221.4	2996.8	2809.1	2730.4	2739.1
32.5°	2702.2	2994.9	3736.8	3940.0	3719.3	3368.2	3062.9	2827.6	2662.3	2579.7	2590.4
35°	2776.1	3171.8	4017.8	4025.6	3634.7	3195.2	2853.9	2625.4	2481.5	2415.3	2429.9
37.5°	2872.3	3396.4	4265.7	4047.0	3486.9	2941.4	2594.3	2386.2	2267.5	2237.4	2258.8
40°	2991.9	3666.8	4455.3	4012.9	3268.1	2633.1	2310.3	2144.0	2077.0	2083.8	2107.1
42.5°	3147.5	3969.2	4588.6	3925.4	2963.7	2315.2	2061.4	1987.5	2019.6	2046.8	2072.1
45°	3349.8	4283.2	4671.2	3776.6	2619.5	2045.8	1914.6	1932.1	1956.4	1959.3	1978.7
47.5°	3608.4	4601.2	4725.7	3552.0	2268.5	1856.2	1821.2	1825.1	1820.3	1799.8	1815.4
50°	3931.2	4910.4	4774.3	3254.5	1970.0	1737.6	1690.9	1677.3	1610.2	1544.1	1552.9
52.5°	4298.8	5194.3	4794.7	2885.0	1737.6	1638.4	1562.6	1477.0	1351.6	1331.2	1338.0
55°	4707.2	5456.9	4742.2	2430.9	1542.2	1511.0	1396.3	1293.2	1279.6	1262.1	1265.0
57.5°	5195.3	5739.8	4635.2	1924.3	1341.9	1362.3	1250.5	1262.1	1237.8	1210.6	1205.7
60°	5729.1	6032.5	4447.6	1462.4	1134.7	1176.6	1212.5	1211.6	1204.8	1182.4	1174.6
62.5°	6209.5	6225.0	4078.1	1120.2	952.9	1032.6	1130.9	1129.9	1124.0	1111.4	1106.5
65°	6495.3	6195.9	3461.6	881.9	803.2	914.0	1020.0	1027.8	1028.8	1027.8	1027.8
67.5°	6444.8	5854.6	2615.6	702.0	679.7	793.4	910.1	920.8	928.6	930.5	932.5
70°	5873.0	5104.9	1705.5	560.1	569.8	687.5	806.1	816.8	823.6	831.4	835.3
72.5°	4577.9	3753.3	976.2	453.1	473.5	596.1	703.0	715.7	719.5	734.1	740.0
75°	2789.7	2207.3	527.0	356.9	388.9	509.5	600.9	615.5	622.3	639.8	641.8
77.5°	1326.3	955.8	300.5	278.1	313.1	416.2	507.6	524.1	505.6	515.3	507.6
80°	448.3	354.9	189.6	212.0	239.2	324.8	406.4	423.0	384.1	382.1	378.2
82.5°	156.5	143.9	120.6	141.0	154.6	232.4	307.3	328.7	285.9	284.9	271.3
85°	61.3	58.3	67.1	76.8	92.4	142.9	202.3	212.9	176.0	142.0	140.0
87.5°	12.6	13.6	16.5	17.5	28.2	49.6	72.9	89.5	71.0	60.3	55.4
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)