

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: P883584

Luminaire Tested: **NAV-SB4A-730-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883584  
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-SB4A-730-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

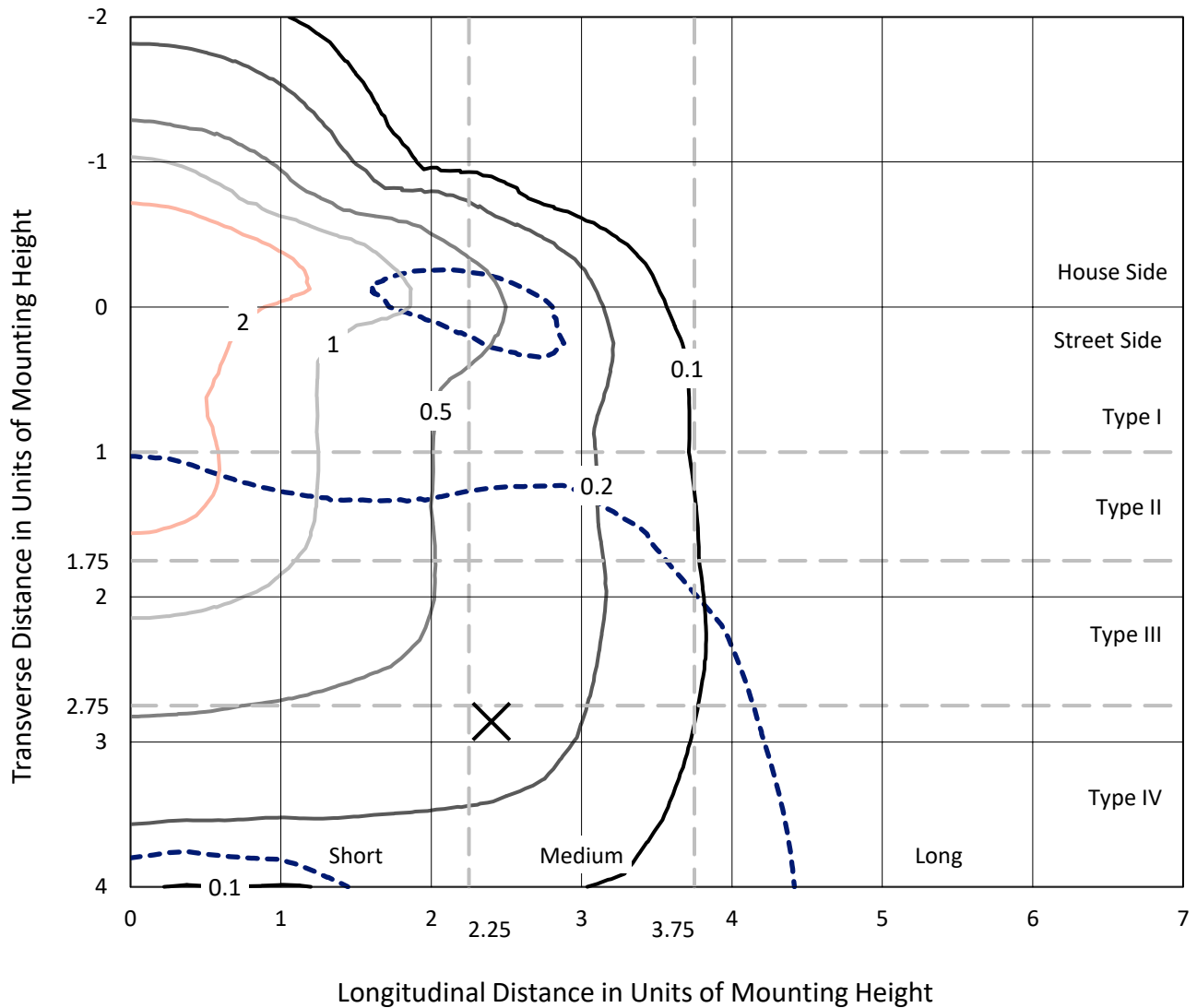
Lumens per Lamp: N/A  
Luminaire Lumens: 17739 lumens  
Efficiency: N/A  
Efficacy: 155.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
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

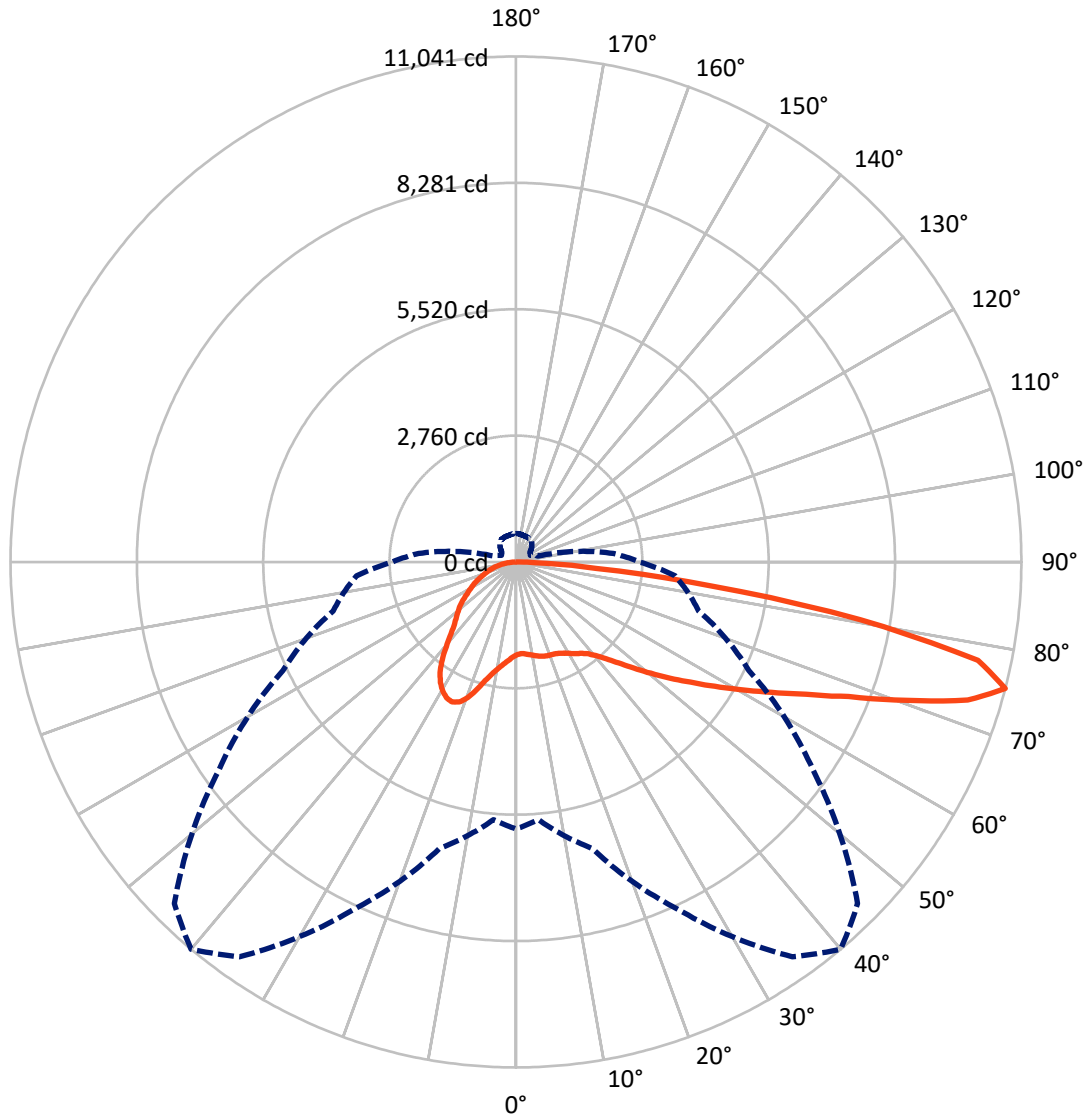
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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
<b>House Side</b>	Lumens	5496.1	0.0	5496.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	12242.9	0.0	12242.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	17739.0	0.0	17739.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.5	1.1
10°-20°	679.8	3.8
20°-30°	1241.3	7.0
30°-40°	1760.5	9.9
40°-50°	2377.2	13.4
50°-60°	3198.0	18.0
60°-70°	4059.0	22.9
70°-80°	3683.8	20.8
80°-90°	537.0	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°	17739.0	100.0
0°-180°	17739.0	100.0

**Coefficient of Utilization**



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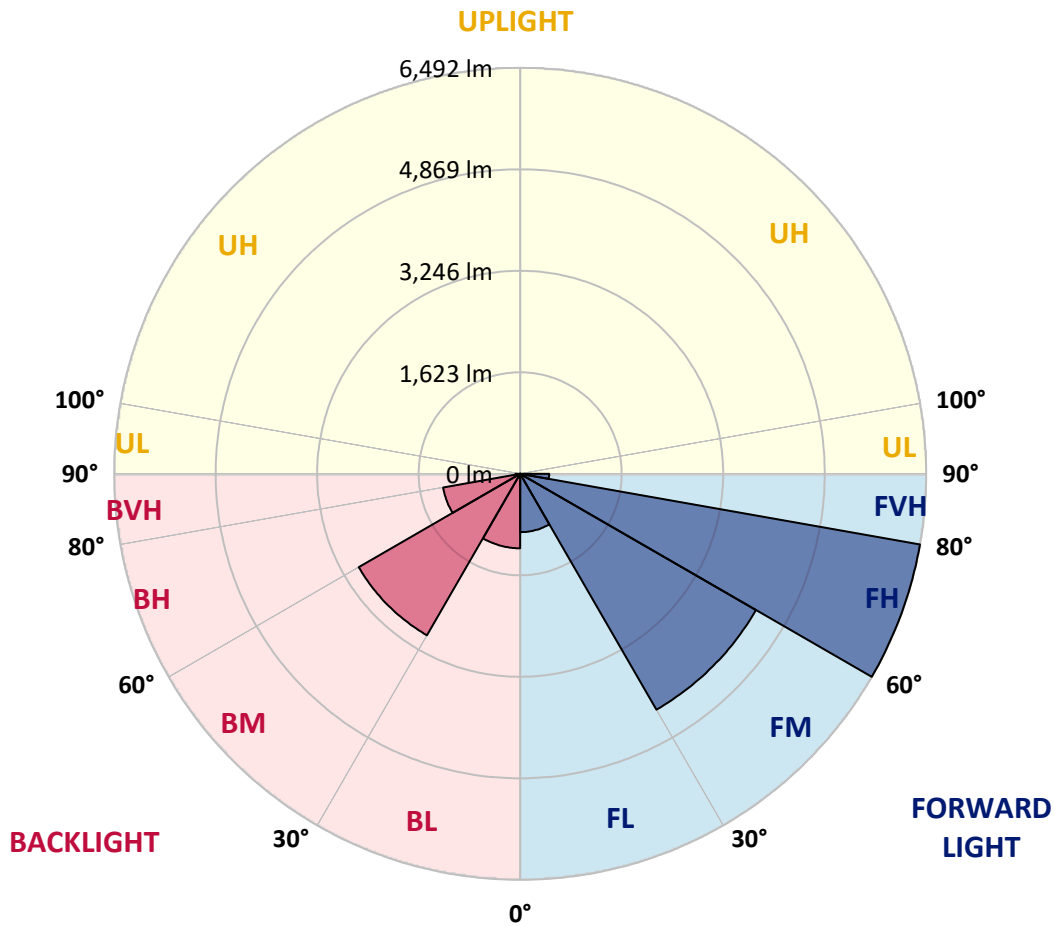
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	933.1	5.3			
FM	(30°-60°)	4354.5	24.5			
FH	(60°-80°)	6492.2	36.6			G3/7500
FVH	(80°-90°)	463.0	2.6			G3/500
BL	(0°-30°)	1190.5	6.7	B3/2500		
BM	(30°-60°)	2981.2	16.8	B3/5000		
BH	(60°-80°)	1250.5	7.0	B3/2500		G3/2500
BVH	(80°-90°)	73.9	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°	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5
2.5°	1997.4	2008.7	2005.9	2002.1	2002.1	2003.1	2002.1	2008.7	2015.3	2021.9	2032.2
5°	2018.1	2029.4	2023.8	2019.1	2015.3	2014.4	2011.5	2010.6	2014.4	2022.8	2036.9
7.5°	2058.6	2069.9	2061.4	2052.9	2045.4	2041.7	2037.9	2032.2	2029.4	2034.1	2053.9
10°	2103.7	2115.0	2104.7	2089.6	2077.4	2072.7	2068.9	2063.3	2059.5	2062.3	2084.0
12.5°	2148.9	2160.2	2146.1	2125.4	2109.4	2106.6	2101.9	2100.0	2099.0	2098.1	2119.7
15°	2191.2	2200.7	2182.8	2158.3	2141.4	2136.7	2132.0	2134.8	2139.5	2145.1	2169.6
17.5°	2224.2	2233.6	2207.2	2175.3	2159.3	2157.4	2154.6	2164.0	2177.1	2191.2	2221.4
20°	2254.3	2263.7	2229.8	2186.5	2167.7	2167.7	2168.7	2188.4	2207.2	2227.9	2269.3
22.5°	2296.6	2304.1	2262.8	2203.5	2176.2	2178.1	2185.6	2205.4	2228.9	2257.1	2314.5
25°	2359.7	2365.3	2314.5	2235.5	2204.4	2210.1	2216.6	2226.1	2248.6	2281.6	2358.7
27.5°	2461.3	2466.0	2399.2	2291.9	2244.9	2254.3	2263.7	2257.1	2267.5	2295.7	2394.5
30°	2604.3	2607.1	2522.4	2380.4	2313.6	2318.3	2320.1	2292.9	2273.1	2295.7	2419.9
32.5°	2773.6	2772.7	2672.0	2487.6	2391.6	2386.9	2370.9	2317.3	2271.2	2291.0	2442.5
35°	3036.1	3025.8	2895.9	2638.2	2480.1	2450.9	2413.3	2344.6	2280.6	2286.3	2462.2
37.5°	3470.8	3438.8	3259.1	2884.7	2611.8	2537.5	2482.0	2388.8	2301.3	2284.4	2485.7
40°	3961.0	3920.5	3723.0	3222.4	2809.4	2689.9	2600.5	2451.9	2335.2	2292.9	2520.5
42.5°	4542.4	4485.0	4272.4	3620.4	3059.7	2886.5	2752.0	2531.8	2385.1	2320.1	2567.6
45°	5256.5	5180.3	4879.3	4069.2	3374.8	3144.3	2964.6	2653.2	2461.3	2372.8	2638.2
47.5°	5978.2	5997.0	5568.9	4582.9	3753.1	3462.3	3230.9	2835.7	2572.3	2457.5	2752.0
50°	6745.0	6758.1	6254.8	5152.1	4182.1	3821.7	3530.1	3039.9	2726.6	2577.9	2922.3
52.5°	7343.4	7345.2	6877.6	5747.7	4629.0	4216.9	3852.8	3273.2	2905.4	2737.9	3149.0
55°	7717.8	7713.1	7314.2	6311.2	5142.7	4631.8	4210.3	3538.5	3123.6	2926.1	3434.1
57.5°	7989.7	7975.6	7615.3	6795.8	5690.3	5122.0	4614.9	3839.6	3381.4	3150.0	3809.5
60°	8093.2	8084.7	7819.4	7214.5	6266.1	5663.9	5081.5	4176.4	3674.0	3414.4	4292.2
62.5°	8132.7	8148.7	8019.8	7620.0	6882.3	6264.2	5594.3	4579.1	4003.3	3713.5	4801.2
65°	8272.0	8301.1	8274.8	8150.6	7578.6	6967.0	6274.5	5058.0	4362.7	4034.4	5332.8
67.5°	8547.6	8576.8	8588.1	8785.7	8429.1	7842.9	7123.2	5654.5	4783.3	4367.4	5732.6
70°	8541.1	8532.6	8732.1	9290.9	9494.1	9055.7	8267.3	6388.4	5284.8	4644.0	5783.4
72.5°	7774.3	7706.5	8177.9	9285.3	10380.4	10322.1	9664.4	7334.9	5717.6	4677.9	5018.5
75°	5832.3	5651.7	6484.4	8367.9	10528.1	11040.9	10552.6	7922.0	5615.0	4133.2	3492.4
77.5°	2494.2	2312.6	3293.9	6194.6	9422.6	10321.2	9737.8	6911.5	4482.2	2733.2	1715.2
80°	653.0	652.0	995.4	2808.4	6408.1	7621.8	6686.6	4463.4	2561.0	976.6	473.2
82.5°	270.0	263.4	366.0	1092.3	3131.2	4277.1	3490.6	1990.8	924.9	264.4	157.1
85°	100.7	99.7	177.8	377.3	1104.6	1764.1	1276.7	509.0	230.5	128.9	70.6
87.5°	28.2	27.3	38.6	130.8	269.1	408.3	218.3	83.7	64.9	50.8	20.7
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°	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5	2028.5
2.5°	2035.1	2039.8	2048.2	2054.8	2063.3	2072.7	2085.9	2094.3	2102.8	2108.5	2104.7
5°	2043.5	2053.9	2075.5	2097.2	2122.6	2146.1	2173.4	2193.1	2209.1	2213.8	2215.7
7.5°	2062.3	2079.3	2116.0	2152.7	2193.1	2231.7	2271.2	2305.1	2332.4	2342.7	2343.7
10°	2095.3	2117.9	2169.6	2221.4	2275.0	2334.3	2385.1	2434.0	2472.6	2488.6	2489.5
12.5°	2136.7	2164.9	2232.6	2304.1	2378.5	2460.3	2526.2	2586.4	2634.4	2656.0	2656.0
15°	2190.3	2227.0	2313.6	2409.5	2518.7	2632.5	2716.2	2783.0	2836.7	2863.0	2861.1
17.5°	2248.6	2297.6	2406.7	2551.6	2707.8	2857.4	2955.2	3004.1	3059.7	3085.1	3084.1
20°	2305.1	2365.3	2521.5	2732.2	2940.2	3099.2	3178.2	3191.4	3195.1	3198.0	3205.5
22.5°	2363.4	2444.3	2665.4	2959.9	3182.9	3293.0	3304.3	3247.8	3168.8	3132.1	3142.4
25°	2427.4	2534.7	2853.6	3211.1	3391.8	3404.9	3318.4	3181.0	3031.4	2962.7	2973.1
27.5°	2489.5	2639.1	3079.4	3451.0	3542.3	3426.6	3240.3	3045.5	2864.9	2792.5	2800.9
30°	2551.6	2758.6	3328.7	3660.9	3611.0	3373.0	3117.0	2899.7	2718.1	2641.9	2650.4
32.5°	2614.6	2897.8	3615.7	3812.3	3598.8	3259.1	2963.7	2736.0	2576.1	2496.1	2506.4
35°	2686.1	3069.1	3887.6	3895.1	3516.9	3091.6	2761.4	2540.3	2401.1	2337.1	2351.2
37.5°	2779.3	3286.4	4127.5	3915.8	3373.9	2846.1	2510.2	2308.9	2194.1	2164.9	2185.6
40°	2895.0	3548.0	4311.0	3882.9	3162.2	2547.8	2235.5	2074.6	2009.7	2016.2	2038.8
42.5°	3045.5	3840.6	4439.9	3798.2	2867.7	2240.2	1994.6	1923.1	1954.2	1980.5	2005.0
45°	3241.2	4144.5	4519.9	3654.3	2534.7	1979.6	1852.5	1869.5	1893.0	1895.8	1914.6
47.5°	3491.5	4452.1	4572.5	3436.9	2195.0	1796.1	1762.2	1766.0	1761.3	1741.5	1756.6
50°	3803.9	4751.3	4619.6	3149.0	1906.2	1681.3	1636.1	1623.0	1558.1	1494.1	1502.5
52.5°	4159.5	5026.0	4639.3	2791.5	1681.3	1585.3	1512.0	1429.2	1307.8	1288.0	1294.6
55°	4554.7	5280.1	4588.5	2352.1	1492.2	1462.1	1351.1	1251.3	1238.2	1221.2	1224.0
57.5°	5027.0	5553.9	4485.0	1861.9	1298.4	1318.1	1209.9	1221.2	1197.7	1171.4	1166.7
60°	5543.5	5837.0	4303.5	1415.0	1098.0	1138.4	1173.2	1172.3	1165.7	1144.1	1136.5
62.5°	6008.3	6023.3	3945.9	1083.9	922.0	999.2	1094.2	1093.3	1087.6	1075.4	1070.7
65°	6284.9	5995.1	3349.4	853.4	777.1	884.4	987.0	994.5	995.4	994.5	994.5
67.5°	6236.0	5664.9	2530.9	679.3	657.7	767.7	880.6	891.0	898.5	900.4	902.3
70°	5682.7	4939.5	1650.3	541.9	551.3	665.2	780.0	790.3	796.9	804.4	808.2
72.5°	4429.5	3631.7	944.6	438.4	458.2	576.7	680.2	692.5	696.2	710.3	716.0
75°	2699.3	2135.7	509.9	345.3	376.3	493.0	581.4	595.6	602.1	619.1	621.0
77.5°	1283.3	924.9	290.7	269.1	303.0	402.7	491.1	507.1	489.2	498.7	491.1
80°	433.7	343.4	183.5	205.1	231.4	314.2	393.3	409.3	371.6	369.8	366.0
82.5°	151.5	139.2	116.7	136.4	149.6	224.9	297.3	318.0	276.6	275.7	262.5
85°	59.3	56.5	64.9	74.3	89.4	138.3	195.7	206.0	170.3	137.4	135.5
87.5°	12.2	13.2	16.0	16.9	27.3	48.0	70.6	86.6	68.7	58.3	53.6
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)