

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: P884329

Luminaire Tested: **NAV-SB5A-830-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884329  
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-SB5A-830-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19930 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

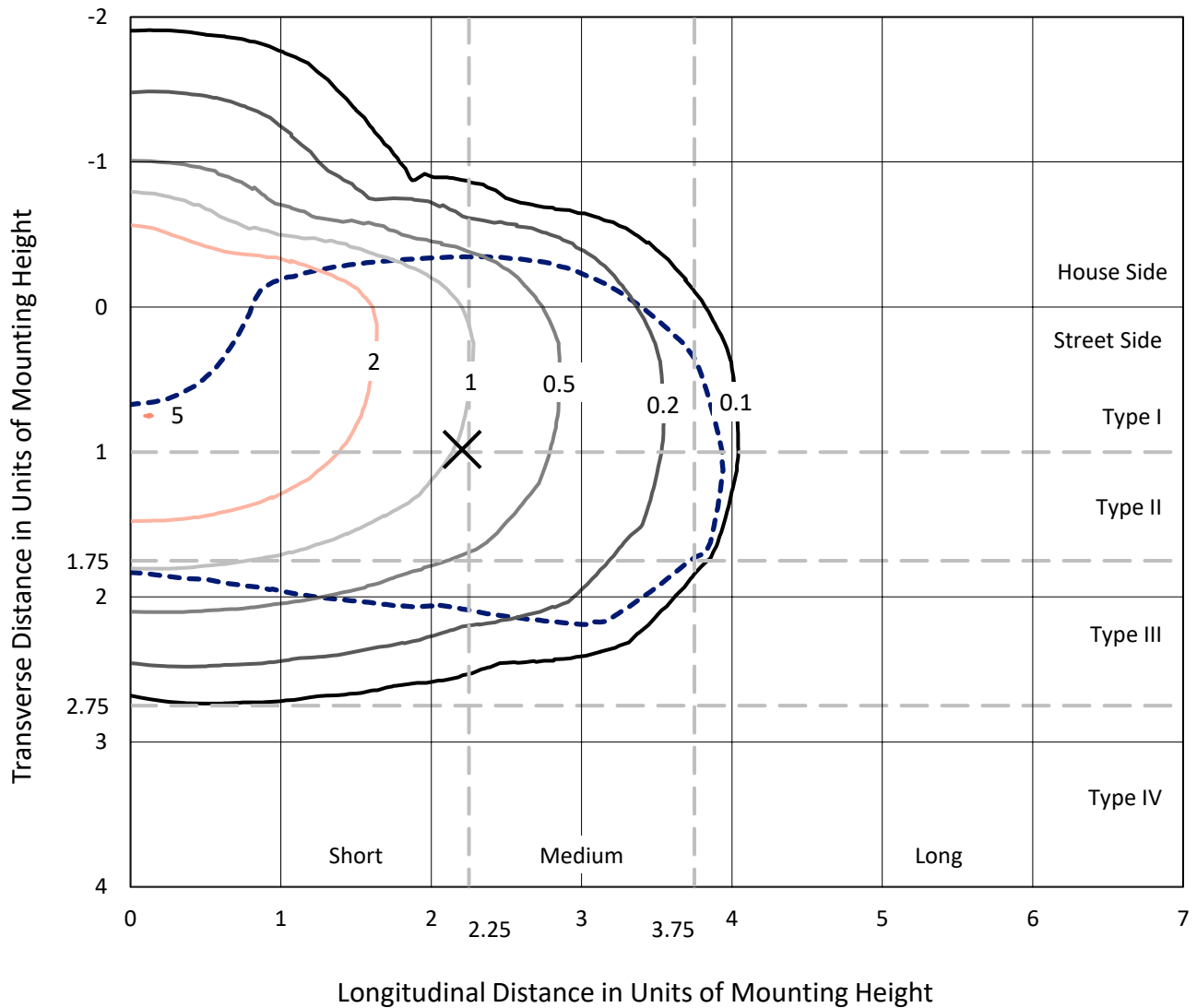
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.201  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 10.503  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

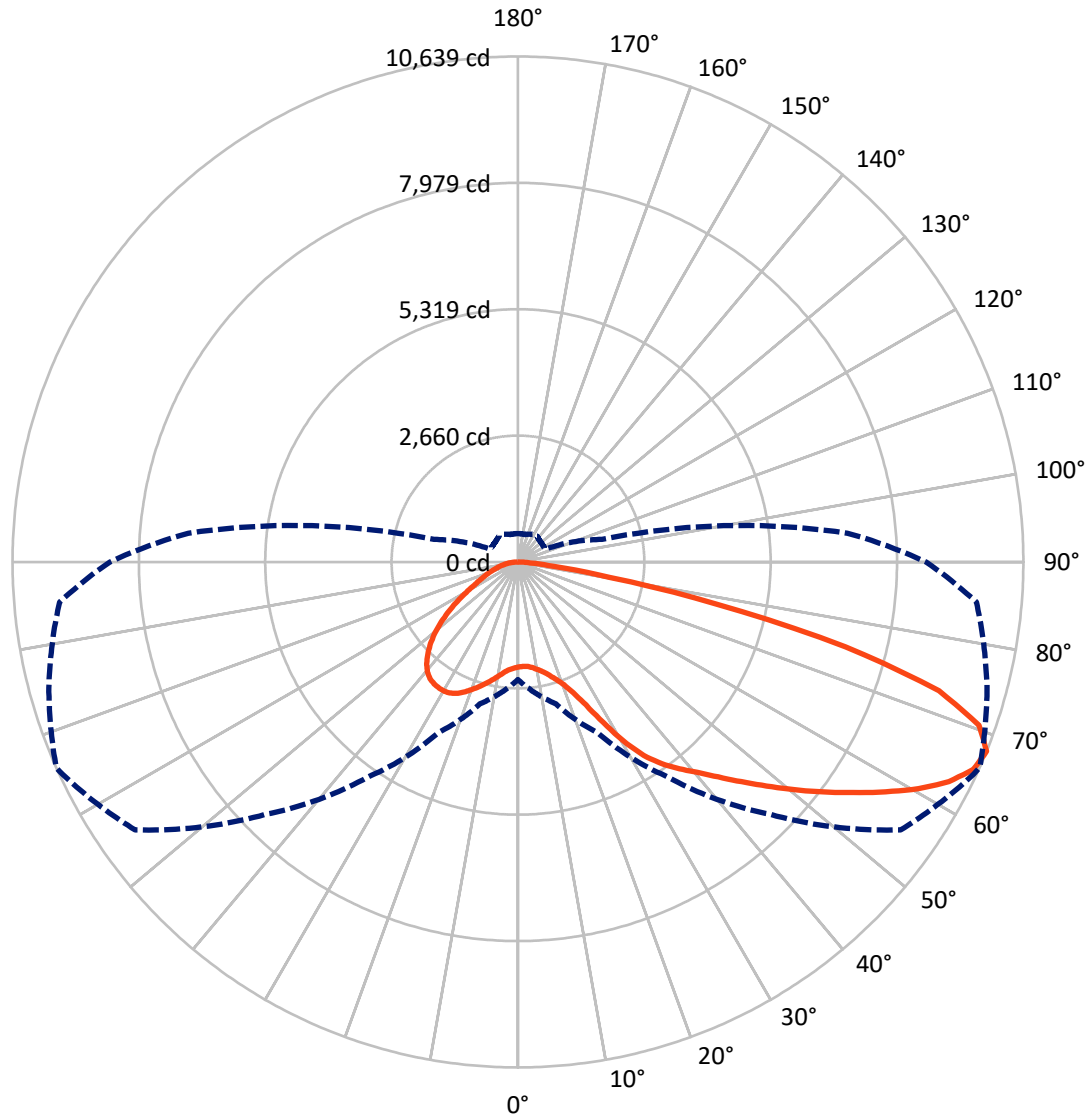
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 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
<b>House Side</b>	Lumens	4955.5	0.0	4955.5
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	14974.5	0.0	14974.5
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	19930.0	0.0	19930.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.2	1.1
10°-20°	724.1	3.6
20°-30°	1395.6	7.0
30°-40°	2447.1	12.3
40°-50°	3638.0	18.3
50°-60°	4611.5	23.1
60°-70°	4512.2	22.6
70°-80°	2152.4	10.8
80°-90°	230.0	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°	19930.0	100.0
0°-180°	19930.0	100.0

**Coefficient of Utilization**



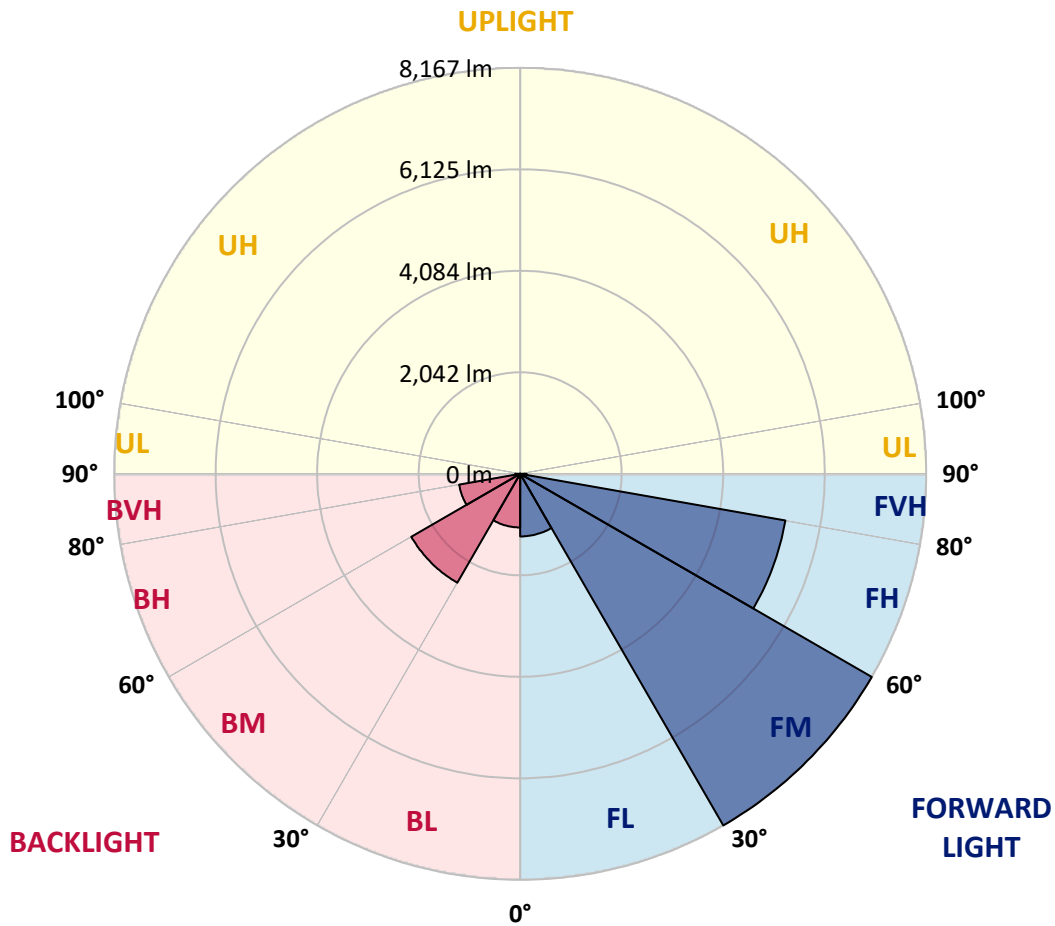
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1259.4	6.3			
FM (30°-60°)	8167.1	41.0			
FH (60°-80°)	5417.5	27.2			G3/7500
FVH (80°-90°)	130.4	0.7			G2/225
BL (0°-30°)	1079.5	5.4	B3/2500		
BM (30°-60°)	2529.4	12.7	B3/5000		
BH (60°-80°)	1247.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	99.6	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°	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5
2.5°	2187.5	2200.0	2196.9	2191.7	2190.6	2192.7	2195.8	2199.0	2197.9	2203.2	2211.5
5°	2181.2	2193.7	2192.7	2192.7	2196.9	2205.3	2210.5	2215.7	2210.5	2216.8	2228.3
7.5°	2185.4	2194.8	2199.0	2203.2	2213.6	2229.3	2241.9	2253.4	2247.2	2254.5	2269.1
10°	2238.8	2246.1	2250.3	2250.3	2257.6	2275.4	2288.0	2308.9	2303.7	2315.2	2334.1
12.5°	2336.2	2343.5	2343.5	2339.3	2344.5	2356.1	2360.2	2383.3	2373.9	2392.7	2411.6
15°	2455.5	2470.2	2458.7	2451.3	2453.4	2465.0	2463.9	2481.7	2472.3	2488.0	2504.7
17.5°	2587.5	2606.3	2587.5	2586.4	2582.2	2594.8	2595.8	2611.6	2594.8	2606.3	2617.8
20°	2743.5	2769.7	2754.0	2759.2	2749.8	2755.0	2760.2	2783.3	2757.1	2765.5	2762.3
22.5°	2963.4	2994.8	2978.0	2997.9	2991.7	2987.5	2986.4	3027.3	2986.4	2989.6	2959.2
25°	3283.8	3321.5	3292.2	3319.4	3319.4	3333.0	3348.7	3401.1	3333.0	3313.1	3234.6
27.5°	3757.1	3794.8	3737.2	3754.0	3748.7	3782.2	3765.5	3895.3	3822.0	3789.6	3631.5
30°	4326.8	4393.8	4284.9	4280.7	4275.4	4328.9	4352.9	4438.8	4364.5	4332.0	4141.4
32.5°	4942.5	5012.6	4882.8	4845.1	4825.2	4857.7	4837.8	4906.9	4855.6	4805.3	4569.7
35°	5593.8	5662.9	5539.3	5466.0	5386.5	5318.4	5247.2	5265.0	5216.8	5140.4	4896.4
37.5°	6209.5	6336.2	6205.3	6126.8	5980.2	5847.2	5648.2	5565.5	5520.5	5450.3	5204.3
40°	6836.7	6909.0	6809.5	6742.5	6583.3	6375.0	6056.6	5881.8	5821.0	5753.0	5544.6
42.5°	7298.5	7367.6	7314.2	7268.2	7143.5	6901.7	6490.1	6271.3	6183.3	6106.9	5929.9
45°	7665.0	7716.3	7682.8	7699.6	7646.2	7411.6	6939.4	6689.1	6598.0	6504.8	6365.5
47.5°	7812.7	7867.1	7920.5	8020.0	8111.1	7938.3	7422.1	7141.5	7045.1	6949.8	6812.7
50°	7795.9	7851.4	8006.4	8217.9	8500.6	8443.0	7931.0	7623.1	7534.1	7425.2	7298.5
52.5°	7661.9	7724.7	7923.7	8275.5	8725.8	8821.1	8449.3	8120.5	8036.8	7906.9	7780.2
55°	7310.0	7347.7	7646.2	8144.6	8779.2	9084.9	8957.2	8650.4	8566.6	8385.5	8247.2
57.5°	6657.7	6712.1	7146.7	7791.7	8645.1	9264.0	9403.3	9207.5	9126.8	8866.1	8721.6
60°	5806.4	5893.3	6390.7	7199.0	8303.8	9262.9	9808.5	9755.1	9688.1	9339.4	9188.6
62.5°	4843.0	4943.5	5422.1	6361.3	7706.9	9000.1	10061.9	10213.7	10179.2	9776.0	9583.4
65°	3719.4	3788.5	4265.0	5277.6	6778.1	8435.7	10091.2	10526.8	10533.1	10108.0	9789.7
67.5°	2476.5	2675.4	3089.0	3960.3	5534.1	7513.2	9833.6	10578.2	10638.9	10222.1	9686.0
70°	1208.4	1470.2	1875.4	2573.9	3960.3	6098.5	9160.3	10157.2	10292.3	9889.1	9068.2
72.5°	501.6	586.4	807.3	1270.2	2273.3	4115.2	7807.4	9015.8	9266.1	8762.4	7624.2
75°	338.2	366.5	461.8	651.3	1035.6	2029.3	5630.4	6722.6	7125.7	6617.9	5409.5
77.5°	260.7	278.5	336.1	455.5	615.7	767.5	3013.7	4051.4	4259.7	3943.5	2814.7
80°	205.2	218.9	251.3	331.9	436.7	410.5	1027.2	1835.6	1956.0	1640.9	904.7
82.5°	178.0	183.2	180.1	225.1	290.1	239.8	337.2	677.5	747.7	542.4	295.3
85°	128.8	143.5	149.7	139.3	153.9	121.5	138.2	239.8	263.9	235.6	166.5
87.5°	52.4	77.5	95.3	90.1	56.5	34.6	42.9	70.2	80.6	88.0	54.5
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°	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5	2210.5
2.5°	2212.6	2219.9	2225.2	2231.4	2235.6	2241.9	2254.5	2261.8	2262.9	2268.1	2267.0
5°	2232.5	2243.0	2254.5	2271.2	2290.1	2305.8	2329.9	2346.6	2352.9	2358.1	2357.1
7.5°	2275.4	2290.1	2311.0	2340.3	2367.6	2388.5	2417.8	2437.7	2457.6	2465.0	2466.0
10°	2339.3	2360.2	2390.6	2430.4	2459.7	2486.9	2517.3	2534.1	2554.0	2562.3	2566.5
12.5°	2418.9	2440.9	2480.7	2536.2	2563.4	2582.2	2592.7	2588.5	2592.7	2600.0	2602.1
15°	2510.0	2534.1	2579.1	2638.8	2657.6	2640.9	2617.8	2596.9	2593.8	2595.8	2603.2
17.5°	2617.8	2635.6	2688.0	2738.3	2724.6	2655.5	2605.3	2571.8	2555.0	2549.8	2557.1
20°	2768.6	2768.6	2811.6	2843.0	2751.9	2634.6	2556.1	2501.6	2467.0	2452.4	2449.2
22.5°	2951.9	2935.1	2962.3	2940.4	2746.6	2576.0	2467.0	2372.8	2320.4	2299.5	2296.4
25°	3184.3	3164.4	3157.1	3021.0	2708.9	2482.8	2305.8	2191.7	2145.6	2134.1	2136.2
27.5°	3535.1	3484.9	3389.6	3065.0	2639.8	2336.2	2117.3	2011.5	1985.4	1986.4	1989.6
30°	4002.1	3901.6	3668.1	3072.3	2526.7	2128.8	1924.6	1849.2	1836.7	1841.9	1859.7
32.5°	4434.6	4339.3	3952.9	3038.8	2352.9	1925.7	1751.9	1701.6	1682.7	1689.0	1697.4
35°	4773.9	4747.7	4216.8	2991.7	2139.3	1735.1	1596.9	1553.9	1517.3	1508.9	1515.2
37.5°	5094.3	5083.8	4414.7	2925.7	1927.8	1600.0	1472.3	1415.7	1362.3	1333.0	1334.0
40°	5446.1	5435.7	4544.6	2824.1	1740.3	1482.7	1360.2	1285.9	1219.9	1166.5	1171.7
42.5°	5842.0	5780.2	4606.3	2678.6	1581.2	1383.3	1269.1	1168.6	1081.7	1032.5	1035.6
45°	6274.4	6135.2	4605.3	2493.2	1447.1	1292.2	1171.7	1029.3	948.7	902.6	900.5
47.5°	6733.1	6474.4	4548.8	2288.0	1317.3	1191.6	1021.0	912.1	858.7	830.4	824.1
50°	7206.4	6791.7	4452.4	2052.4	1184.3	1077.5	926.7	852.4	811.5	785.4	775.9
52.5°	7651.4	7079.7	4336.2	1785.4	1049.2	966.5	884.8	827.2	784.3	755.0	742.4
55°	8065.0	7327.8	4171.8	1512.1	939.3	892.2	864.9	816.8	767.5	733.0	719.4
57.5°	8432.6	7489.1	3888.0	1255.5	860.7	840.8	844.0	799.0	742.4	713.1	694.3
60°	8738.3	7607.4	3468.1	1017.8	796.9	790.6	811.5	765.5	699.5	666.0	651.3
62.5°	8921.6	7605.3	2952.9	833.5	742.4	744.5	768.6	723.6	656.6	625.1	615.7
65°	8905.9	7418.9	2387.5	713.1	690.1	692.2	723.6	677.5	621.0	602.1	601.1
67.5°	8590.7	6964.5	1831.4	634.6	632.5	641.9	678.5	646.1	599.0	596.9	600.0
70°	7737.3	6021.0	1319.4	571.7	572.8	586.4	634.6	626.2	587.4	591.6	590.6
72.5°	6204.3	4590.6	885.9	505.8	506.8	528.8	592.7	610.5	575.9	631.4	639.8
75°	4132.0	2862.9	569.6	435.6	436.7	464.9	556.0	580.1	544.5	629.3	634.6
77.5°	1985.4	1286.9	412.6	366.5	366.5	392.7	480.6	519.4	463.9	489.0	448.2
80°	685.9	483.8	324.6	295.3	289.0	306.8	405.2	450.3	400.0	368.6	345.6
82.5°	270.2	251.3	260.7	229.3	208.4	219.9	315.2	371.7	294.2	266.0	264.9
85°	155.0	163.4	184.3	151.8	120.4	135.1	231.4	267.0	222.0	195.8	200.0
87.5°	41.9	57.6	84.8	78.5	54.5	57.6	109.9	147.6	127.8	98.4	101.6
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)