

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: P884259

Luminaire Tested: **NAV-SB5A-727-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884259
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-727-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20642 lumens
Efficiency: N/A
Efficacy: 145.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

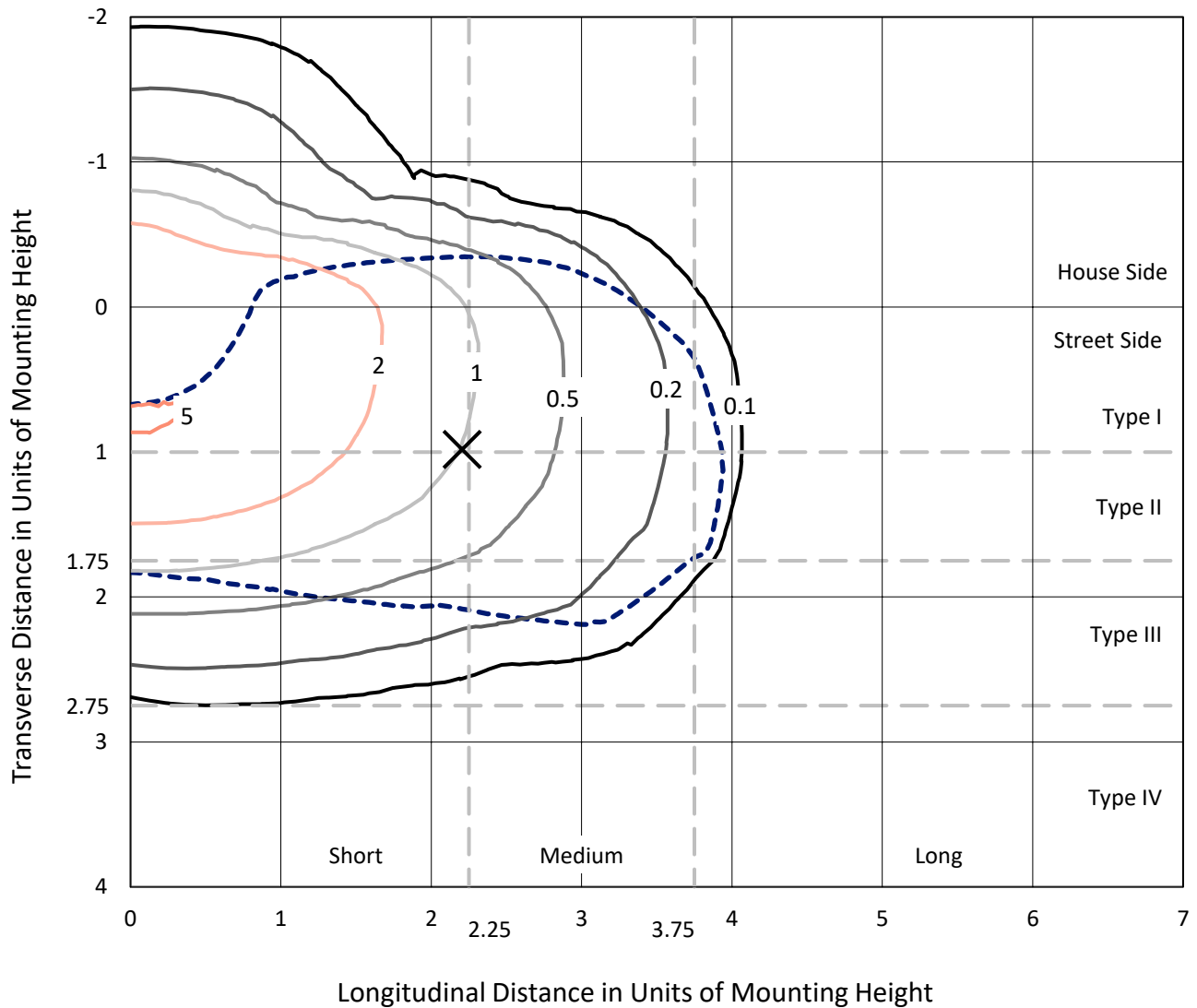
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

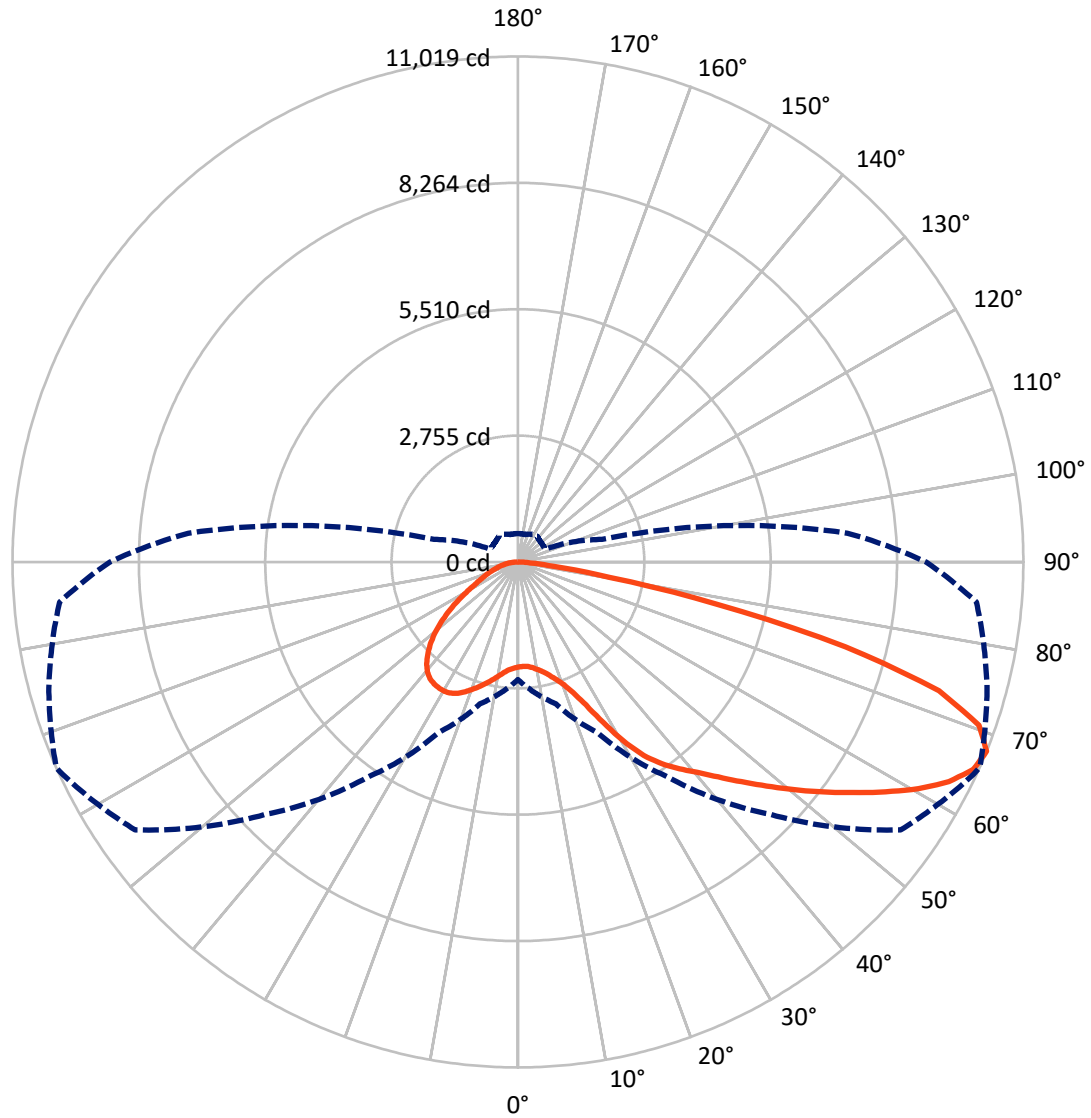
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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	5132.6	0.0	5132.6
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	15509.4	0.0	15509.4
	% Fixture	75.1	0.0	75.1
Total	Lumens	20642.0	0.0	20642.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.0	1.1
10°-20°	750.0	3.6
20°-30°	1445.5	7.0
30°-40°	2534.5	12.3
40°-50°	3767.9	18.3
50°-60°	4776.2	23.1
60°-70°	4673.4	22.6
70°-80°	2229.3	10.8
80°-90°	238.2	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°	20642.0	100.0
0°-180°	20642.0	100.0

Coefficient of Utilization



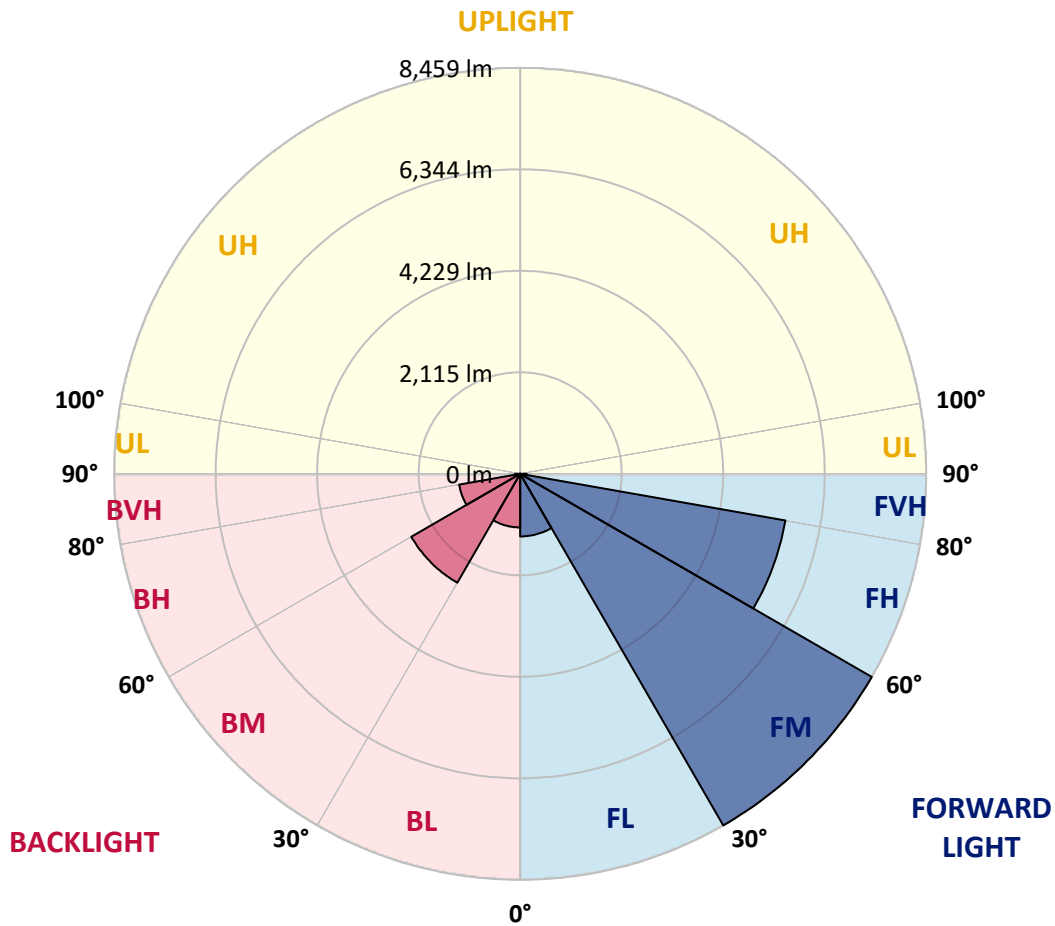
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1304.4	6.3			
FM (30°-60°)	8458.9	41.0			
FH (60°-80°)	5611.1	27.2			G3/7500
FVH (80°-90°)	135.1	0.7			G2/225
BL (0°-30°)	1118.1	5.4	B3/2500		
BM (30°-60°)	2619.7	12.7	B3/5000		
BH (60°-80°)	1291.6	6.3	B3/2500		G3/2500
BVH (80°-90°)	103.2	0.5			G2/225
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°	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5
2.5°	2265.6	2278.6	2275.4	2269.9	2268.9	2271.0	2274.3	2277.5	2276.5	2281.9	2290.6
5°	2259.1	2272.1	2271.0	2271.0	2275.4	2284.0	2289.5	2294.9	2289.5	2296.0	2307.9
7.5°	2263.4	2273.2	2277.5	2281.9	2292.7	2309.0	2322.0	2333.9	2327.4	2335.0	2350.2
10°	2318.8	2326.3	2330.7	2330.7	2338.3	2356.7	2369.7	2391.4	2386.0	2397.9	2417.4
12.5°	2419.6	2427.2	2427.2	2422.9	2428.3	2440.2	2444.6	2468.4	2458.7	2478.2	2497.7
15°	2543.3	2558.4	2546.5	2538.9	2541.1	2553.0	2551.9	2570.4	2560.6	2576.9	2594.2
17.5°	2679.9	2699.4	2679.9	2678.8	2674.5	2687.5	2688.6	2704.9	2687.5	2699.4	2711.4
20°	2841.5	2868.6	2852.3	2857.8	2848.0	2853.4	2858.9	2882.7	2855.6	2864.3	2861.0
22.5°	3069.3	3101.8	3084.4	3105.0	3098.5	3094.2	3093.1	3135.4	3093.1	3096.4	3064.9
25°	3401.1	3440.2	3409.8	3438.0	3438.0	3452.1	3468.4	3522.6	3452.1	3431.5	3350.2
27.5°	3891.3	3930.4	3870.7	3888.1	3882.7	3917.4	3900.0	4034.5	3958.6	3925.0	3761.2
30°	4481.3	4550.7	4438.0	4433.6	4428.2	4483.5	4508.4	4597.4	4520.4	4486.8	4289.4
32.5°	5119.0	5191.7	5057.2	5018.2	4997.6	5031.2	5010.6	5082.2	5029.0	4977.0	4732.9
35°	5793.6	5865.2	5737.2	5661.3	5578.9	5508.4	5434.6	5453.1	5403.2	5324.0	5071.3
37.5°	6431.3	6562.6	6427.0	6345.7	6193.8	6056.1	5850.0	5764.3	5717.7	5645.0	5390.2
40°	7081.0	7155.8	7052.8	6983.4	6818.5	6602.7	6273.0	6091.9	6029.0	5958.5	5742.7
42.5°	7559.3	7630.8	7575.5	7527.8	7398.8	7148.2	6722.0	6495.3	6404.2	6325.1	6141.8
45°	7938.9	7992.0	7957.3	7974.6	7919.3	7676.4	7187.3	6928.1	6833.7	6737.2	6592.9
47.5°	8091.8	8148.2	8203.5	8306.5	8400.9	8221.9	7687.2	7396.6	7296.8	7198.1	7056.0
50°	8074.4	8131.9	8292.4	8511.5	8804.3	8744.7	8214.3	7895.5	7803.3	7690.5	7559.3
52.5°	7935.6	8000.7	8206.7	8571.1	9037.5	9136.2	8751.2	8410.6	8323.9	8189.4	8058.2
55°	7571.2	7610.2	7919.3	8435.6	9092.8	9409.5	9277.2	8959.4	8872.6	8685.0	8541.9
57.5°	6895.5	6951.9	7402.0	8070.1	8954.0	9595.0	9739.2	9536.4	9452.9	9182.8	9033.2
60°	6013.8	6103.8	6619.0	7456.2	8600.4	9593.9	10158.9	10103.6	10034.2	9673.0	9516.9
62.5°	5016.0	5120.1	5615.8	6588.6	7982.2	9321.6	10421.4	10578.6	10542.8	10125.3	9925.7
65°	3852.3	3923.9	4417.3	5466.1	7020.2	8737.1	10451.7	10902.9	10909.4	10469.1	10139.4
67.5°	2564.9	2771.0	3199.4	4101.7	5731.8	7781.6	10184.9	10956.1	11019.0	10587.3	10032.0
70°	1251.6	1522.7	1942.4	2665.8	4101.7	6316.4	9487.6	10520.1	10660.0	10242.4	9392.1
72.5°	519.5	607.3	836.2	1315.6	2354.5	4262.3	8086.4	9337.9	9597.1	9075.5	7896.6
75°	350.3	379.6	478.3	674.6	1072.6	2101.8	5831.6	6962.8	7380.3	6854.3	5602.7
77.5°	270.1	288.5	348.1	471.8	637.7	795.0	3121.3	4196.1	4411.9	4084.4	2915.3
80°	212.6	226.7	260.3	343.8	452.3	425.1	1063.9	1901.2	2025.9	1699.5	937.0
82.5°	184.4	189.8	186.5	233.2	300.4	248.4	349.2	701.7	774.4	561.8	305.8
85°	133.4	148.6	155.1	144.2	159.4	125.8	143.2	248.4	273.3	244.0	172.4
87.5°	54.2	80.3	98.7	93.3	58.6	35.8	44.5	72.7	83.5	91.1	56.4
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°	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5	2289.5
2.5°	2291.6	2299.2	2304.7	2311.2	2315.5	2322.0	2335.0	2342.6	2343.7	2349.1	2348.0
5°	2312.2	2323.1	2335.0	2352.4	2371.9	2388.2	2413.1	2430.5	2437.0	2442.4	2441.3
7.5°	2356.7	2371.9	2393.6	2424.0	2452.2	2473.8	2504.2	2524.8	2545.4	2553.0	2554.1
10°	2422.9	2444.6	2476.0	2517.2	2547.6	2575.8	2607.2	2624.6	2645.2	2653.9	2658.2
12.5°	2505.3	2528.1	2569.3	2626.8	2655.0	2674.5	2685.3	2681.0	2685.3	2692.9	2695.1
15°	2599.6	2624.6	2671.2	2733.0	2752.6	2735.2	2711.4	2689.7	2686.4	2688.6	2696.2
17.5°	2711.4	2729.8	2784.0	2836.1	2822.0	2750.4	2698.3	2663.6	2646.3	2640.9	2648.5
20°	2867.5	2867.5	2912.0	2944.5	2850.2	2728.7	2647.4	2591.0	2555.2	2540.0	2536.7
22.5°	3057.3	3040.0	3068.2	3045.4	2844.8	2668.0	2555.2	2457.6	2403.3	2381.7	2378.4
25°	3298.1	3277.5	3269.9	3128.9	2805.7	2571.5	2388.2	2269.9	2222.2	2210.3	2212.5
27.5°	3661.4	3609.4	3510.7	3174.5	2734.1	2419.6	2192.9	2083.4	2056.3	2057.4	2060.6
30°	4145.1	4041.0	3799.2	3182.0	2617.0	2204.9	1993.4	1915.3	1902.3	1907.7	1926.1
32.5°	4593.0	4494.3	4094.2	3147.3	2437.0	1994.5	1814.4	1762.4	1742.9	1749.4	1758.0
35°	4944.4	4917.3	4367.5	3098.5	2215.7	1797.1	1653.9	1609.5	1571.5	1562.8	1569.3
37.5°	5276.3	5265.5	4572.4	3030.2	1996.6	1657.2	1524.9	1466.3	1411.0	1380.6	1381.7
40°	5640.7	5629.9	4706.9	2925.0	1802.5	1535.7	1408.8	1331.8	1263.5	1208.2	1213.6
42.5°	6050.7	5986.7	4770.9	2774.3	1637.7	1432.7	1314.5	1210.4	1120.3	1069.4	1072.6
45°	6498.6	6354.3	4769.8	2582.3	1498.8	1338.3	1213.6	1066.1	982.6	934.9	932.7
47.5°	6973.6	6705.7	4711.3	2369.7	1364.4	1234.2	1057.4	944.6	889.3	860.0	853.5
50°	7463.8	7034.3	4611.5	2125.7	1226.6	1116.0	959.8	882.8	840.5	813.4	803.6
52.5°	7924.8	7332.6	4491.1	1849.1	1086.7	1001.0	916.4	856.8	812.3	782.0	768.9
55°	8353.2	7589.6	4320.8	1566.1	972.8	924.0	895.8	845.9	795.0	759.2	745.1
57.5°	8733.8	7756.7	4026.9	1300.4	891.5	870.9	874.1	827.5	768.9	738.6	719.1
60°	9050.5	7879.2	3592.0	1054.2	825.3	818.8	840.5	792.8	724.5	689.8	674.6
62.5°	9240.3	7877.0	3058.4	863.3	768.9	771.1	796.1	749.4	680.0	647.5	637.7
65°	9224.0	7684.0	2472.8	738.6	714.7	716.9	749.4	701.7	643.1	623.6	622.5
67.5°	8897.6	7213.3	1896.9	657.2	655.1	664.8	702.8	669.2	620.4	618.2	621.4
70°	8013.7	6236.1	1366.5	592.2	593.2	607.3	657.2	648.6	608.4	612.8	611.7
72.5°	6425.9	4754.6	917.5	523.8	524.9	547.7	613.9	632.3	596.5	654.0	662.7
75°	4279.6	2965.1	590.0	451.2	452.3	481.5	575.9	600.8	564.0	651.8	657.2
77.5°	2056.3	1332.9	427.3	379.6	379.6	406.7	497.8	537.9	480.5	506.5	464.2
80°	710.4	501.1	336.2	305.8	299.3	317.8	419.7	466.4	414.3	381.8	357.9
82.5°	279.8	260.3	270.1	237.5	215.8	227.8	326.4	385.0	304.8	275.5	274.4
85°	160.5	169.2	190.9	157.3	124.7	139.9	239.7	276.6	229.9	202.8	207.1
87.5°	43.4	59.6	87.8	81.3	56.4	59.6	113.9	152.9	132.3	101.9	105.2
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)