

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: P962901

Luminaire Tested: **NAV-SB2D-722-U-T3R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P962901  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-722-U-T3R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17689.5 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

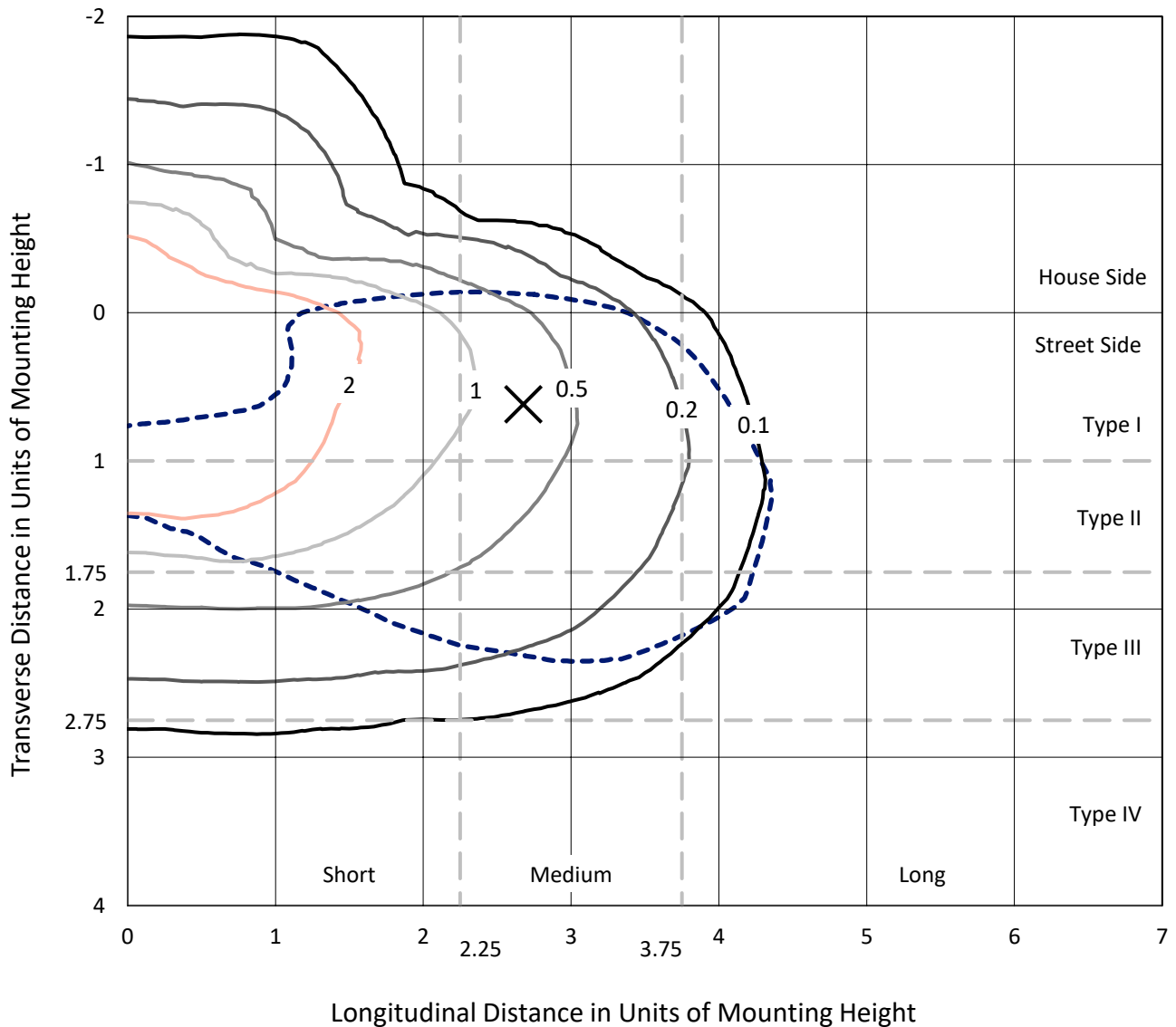
Input Watts (W): 147.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

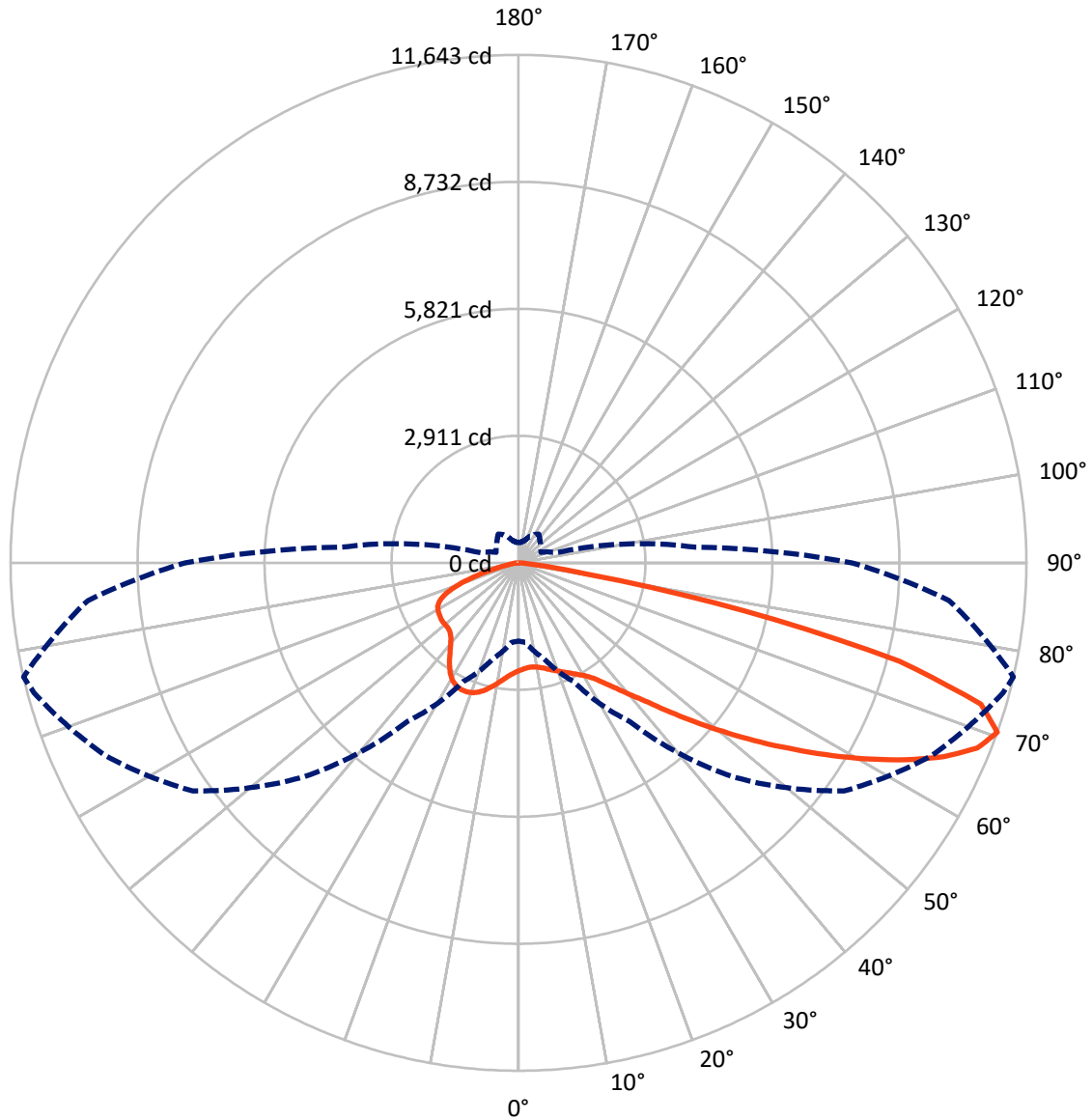
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3873.7	0.0	3873.7
	% Fixture	21.9	0.0	21.9
<b>Street Side</b>	Lumens	13815.7	0.0	13815.7
	% Fixture	78.1	0.0	78.1
<b>Total</b>	Lumens	17689.5	0.0	17689.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	235.4	1.3
10°-20°	679.3	3.8
20°-30°	1161.7	6.6
30°-40°	1868.1	10.6
40°-50°	2916.6	16.5
50°-60°	3895.9	22.0
60°-70°	4152.4	23.5
70°-80°	2556.2	14.5
80°-90°	224.0	1.3
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°	17689.5	100.0
0°-180°	17689.5	100.0

**Coefficient of Utilization**

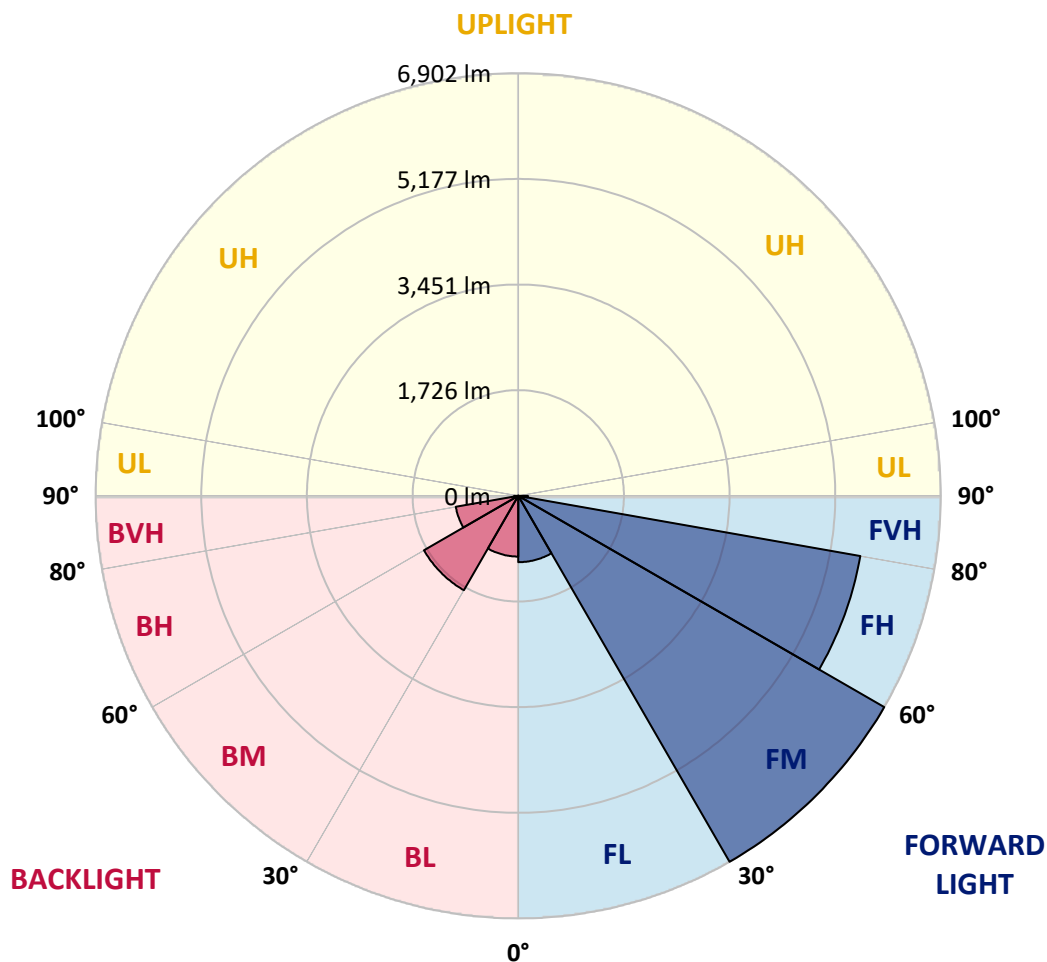


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1083.8	6.1			
FM (30°-60°)	6902.0	39.0			
FH (60°-80°)	5673.3	32.1			G3/7500
FVH (80°-90°)	156.6	0.9			G2/225
BL (0°-30°)	992.6	5.6	B2/1000		
BM (30°-60°)	1778.5	10.1	B2/2500		
BH (60°-80°)	1035.3	5.9	B3/2500		G3/2500
BVH (80°-90°)	67.4	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 III Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8
2.5°	2274.9	2274.0	2285.8	2289.3	2311.1	2326.5	2355.4	2386.3	2426.2	2430.7	2455.2
5°	2143.5	2143.5	2157.1	2171.6	2199.6	2230.5	2274.9	2328.3	2397.2	2408.0	2468.7
7.5°	2032.1	2039.3	2051.1	2079.2	2111.8	2156.2	2224.1	2300.2	2390.8	2408.0	2505.9
10°	1942.4	1950.6	1965.0	1987.7	2036.6	2098.2	2187.0	2284.8	2406.2	2433.5	2560.2
12.5°	1914.3	1922.5	1930.6	1947.8	1993.1	2065.6	2171.6	2292.1	2443.4	2470.6	2634.6
15°	1979.5	1989.5	1983.2	1978.7	2002.1	2068.3	2178.8	2318.3	2489.6	2528.6	2726.0
17.5°	2130.0	2133.5	2119.1	2076.4	2072.9	2108.2	2213.3	2354.6	2547.5	2590.2	2818.4
20°	2372.7	2366.4	2336.5	2252.2	2204.2	2197.0	2272.1	2409.0	2607.4	2652.7	2918.1
22.5°	2702.5	2695.2	2635.5	2502.2	2395.3	2324.7	2357.3	2479.6	2674.4	2725.2	3015.0
25°	3113.7	3103.8	3016.0	2834.7	2669.0	2494.1	2473.3	2573.0	2756.8	2804.0	3116.5
27.5°	3594.0	3585.8	3490.6	3251.5	3012.4	2726.0	2617.3	2682.5	2842.9	2896.3	3230.7
30°	4110.4	4133.9	3965.4	3708.1	3405.5	3028.7	2811.2	2817.5	2954.4	3002.3	3369.3
32.5°	4717.4	4758.2	4555.2	4229.0	3815.9	3357.5	3055.8	3006.0	3116.5	3156.4	3544.1
35°	5318.9	5365.1	5196.6	4836.1	4360.3	3745.2	3311.3	3222.5	3332.2	3375.6	3776.0
37.5°	5838.9	5900.5	5813.6	5500.0	4943.0	4212.8	3644.7	3477.1	3597.5	3652.0	4087.7
40°	6249.3	6343.5	6337.2	6141.5	5629.6	4779.9	4067.8	3791.5	3927.4	3986.2	4465.5
42.5°	6582.8	6664.2	6735.0	6724.9	6346.3	5424.0	4565.1	4200.0	4303.4	4371.2	4890.4
45°	6812.9	6899.8	7052.0	7216.0	7035.7	6113.4	5134.9	4684.8	4779.0	4881.4	5396.8
47.5°	7018.5	7117.2	7314.7	7574.7	7621.0	6805.6	5759.2	5249.1	5335.2	5441.2	5905.0
50°	7036.6	7121.8	7428.0	7796.7	8036.8	7470.6	6429.6	5882.4	5963.0	6076.3	6449.5
52.5°	6599.1	6733.1	7267.7	7790.4	8228.0	8026.8	7095.5	6541.0	6631.6	6767.6	7013.0
55°	5122.3	5318.9	6797.4	7547.6	8160.0	8386.4	7728.8	7241.3	7357.3	7499.5	7580.2
57.5°	4412.0	4498.1	5395.9	7105.5	7850.2	8479.8	8263.2	7948.9	8135.5	8291.3	8179.9
60°	3965.4	4037.0	4567.8	6417.8	7442.5	8332.1	8676.4	8608.5	8930.9	9116.7	8793.3
62.5°	3487.0	3555.0	4037.9	5358.8	6920.6	8086.6	8937.3	9217.2	9746.3	9949.3	9371.3
65°	3012.4	3070.3	3533.3	4502.6	6257.5	7841.1	9072.3	9743.6	10501.0	10711.1	9851.4
67.5°	2483.3	2531.2	2968.8	3798.6	5451.2	7504.9	9139.3	10157.6	11157.8	11338.1	10088.8
70°	1792.0	1829.1	2281.2	3004.2	4439.2	6927.0	9112.1	10451.2	11498.4	11642.5	9909.4
72.5°	847.1	880.6	1411.5	1950.6	3135.6	5801.8	8562.2	10218.3	11152.4	11080.9	8811.4
75°	452.0	481.0	810.9	1069.9	1656.1	3977.2	7006.7	8802.3	9364.9	9017.0	6512.0
77.5°	306.2	328.8	501.9	642.4	756.4	1888.0	4503.5	6094.4	5863.4	5289.0	3261.4
80°	242.8	266.4	411.3	434.9	366.0	682.2	1860.9	2821.2	2026.6	1620.7	927.7
82.5°	186.7	212.9	346.0	315.3	199.4	279.9	541.8	892.4	519.2	395.0	224.7
85°	114.2	142.3	271.8	201.1	112.3	127.7	183.9	248.3	158.6	132.2	80.7
87.5°	58.0	81.5	137.7	73.4	50.7	29.9	48.9	48.9	41.7	36.3	20.8
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°	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8	2467.8
2.5°	2476.9	2495.1	2525.8	2554.8	2577.5	2599.2	2620.9	2632.7	2636.3	2650.9	2659.0
5°	2505.9	2539.4	2599.2	2655.4	2690.7	2712.5	2727.8	2737.0	2738.7	2743.2	2750.5
7.5°	2559.3	2612.8	2696.2	2752.3	2778.6	2776.7	2770.5	2747.8	2738.7	2730.6	2732.3
10°	2634.6	2705.2	2807.6	2846.5	2830.2	2786.8	2730.6	2664.4	2633.6	2603.7	2594.7
12.5°	2727.8	2817.5	2918.1	2916.3	2835.7	2724.2	2593.8	2492.3	2428.0	2381.8	2370.9
15°	2841.1	2944.4	3021.4	2959.8	2783.1	2582.9	2391.7	2259.5	2201.5	2150.8	2145.3
17.5°	2957.9	3068.5	3103.8	2946.2	2650.9	2373.6	2157.1	2052.9	1995.9	1968.6	1976.8
20°	3072.1	3181.7	3152.8	2868.3	2449.8	2136.3	1943.3	1886.2	1874.4	1880.8	1878.1
22.5°	3192.6	3290.5	3162.7	2717.9	2193.3	1893.5	1787.5	1789.2	1815.6	1834.5	1839.1
25°	3315.8	3382.0	3136.4	2500.5	1917.9	1715.0	1688.7	1717.7	1769.4	1806.5	1816.4
27.5°	3434.5	3463.5	3079.4	2231.4	1681.5	1587.2	1591.8	1651.6	1729.5	1781.1	1793.9
30°	3568.5	3535.9	2969.7	1928.7	1517.5	1477.6	1515.7	1585.5	1663.4	1709.6	1720.5
32.5°	3719.8	3598.5	2795.8	1648.8	1401.5	1389.7	1452.2	1497.5	1532.0	1545.6	1552.8
35°	3908.3	3686.3	2573.0	1452.2	1297.3	1325.4	1385.2	1362.5	1349.0	1341.7	1349.0
37.5°	4152.9	3805.0	2312.0	1324.5	1213.1	1279.2	1303.7	1233.0	1179.6	1153.3	1159.6
40°	4447.4	3978.9	2061.1	1225.8	1159.6	1239.3	1196.8	1111.6	1043.7	1006.6	1009.2
42.5°	4774.4	4161.1	1850.0	1151.5	1129.8	1206.7	1118.0	1016.5	906.8	895.1	906.8
45°	5117.8	4348.7	1705.9	1094.4	1115.2	1178.6	1072.7	908.7	830.8	878.7	904.2
47.5°	5461.1	4520.8	1619.0	1051.9	1108.0	1147.0	1032.8	848.9	793.7	863.4	896.0
50°	5843.4	4674.7	1580.0	1021.0	1099.8	1134.3	973.0	833.5	754.7	800.8	835.3
52.5°	6223.1	4794.3	1551.0	990.3	1088.0	1124.3	944.0	815.4	707.6	710.3	729.3
55°	6601.7	4872.2	1519.3	949.5	1061.8	1102.6	941.3	795.4	672.2	659.6	668.6
57.5°	7005.8	4916.6	1480.3	904.2	1016.5	1047.2	938.6	780.0	661.3	640.5	643.2
60°	7417.1	4981.9	1429.6	848.9	955.8	981.1	932.2	774.6	655.0	619.7	622.4
62.5°	7785.8	5004.6	1368.9	796.3	877.9	915.9	918.6	770.1	637.8	577.1	577.1
65°	8027.7	4906.7	1262.9	736.6	793.7	848.9	892.4	754.7	607.0	546.3	546.3
67.5°	8017.8	4627.7	1097.2	659.6	712.1	774.6	854.3	728.4	569.9	508.2	511.0
70°	7644.6	4076.8	886.9	569.9	622.4	694.8	805.4	689.4	525.4	466.6	472.0
72.5°	6556.4	3190.8	644.1	464.7	518.2	612.4	742.0	642.4	480.1	429.5	426.7
75°	4683.8	2019.4	436.6	356.9	403.1	519.2	663.2	587.0	438.5	431.2	406.8
77.5°	2392.7	964.8	289.0	261.0	280.8	409.5	557.2	524.6	444.8	356.1	317.1
80°	778.2	356.1	182.1	177.5	186.7	272.6	431.2	430.3	337.0	241.9	213.8
82.5°	248.3	153.1	118.7	114.2	109.6	171.3	300.7	340.6	227.4	153.1	152.2
85°	98.7	91.5	69.8	64.4	46.2	80.7	157.6	226.5	169.4	110.5	113.3
87.5°	36.3	36.3	19.1	13.6	9.9	27.2	42.5	68.0	97.0	57.1	56.2
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)