

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: P883751

Luminaire Tested: **NAV-SB4B-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20441 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

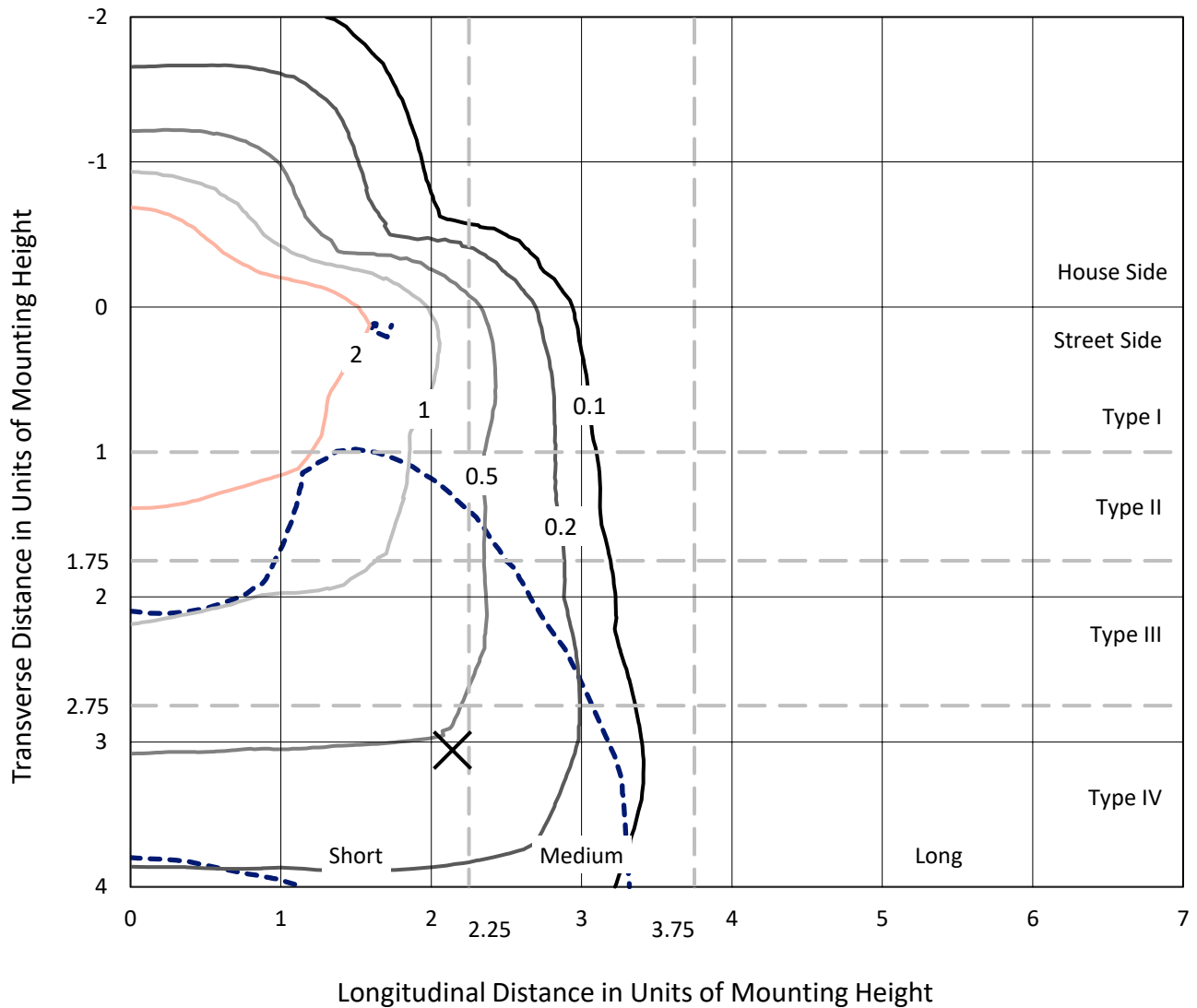
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

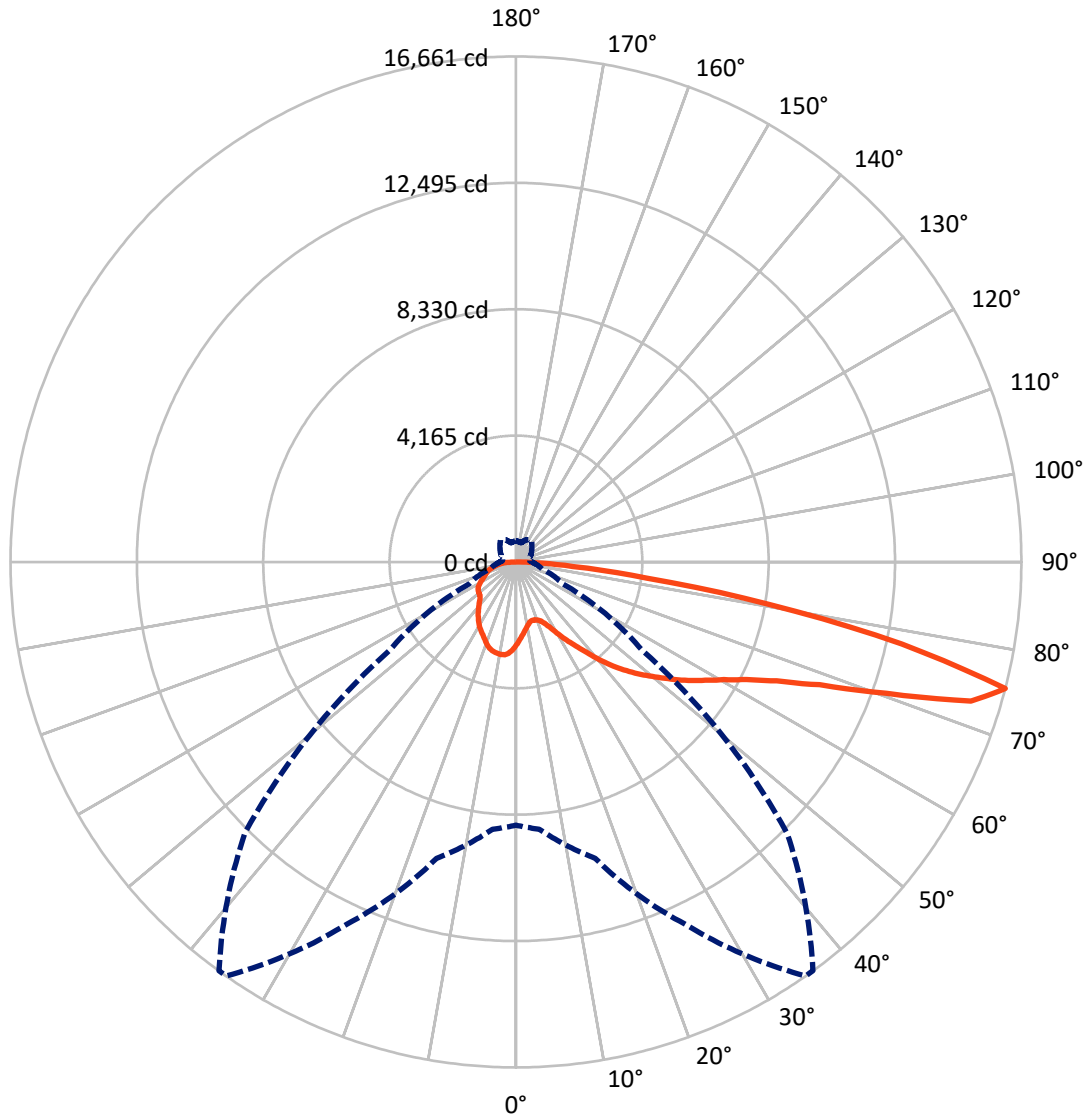
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4864.5	0.0	4864.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15576.6	0.0	15576.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	20441.0	0.0	20441.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.9	1.3
10°-20°	743.9	3.6
20°-30°	1249.2	6.1
30°-40°	1941.4	9.5
40°-50°	2881.6	14.1
50°-60°	3978.2	19.5
60°-70°	4826.5	23.6
70°-80°	3988.7	19.5
80°-90°	573.7	2.8
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°	20441.0	100.0
0°-180°	20441.0	100.0

Coefficient of Utilization



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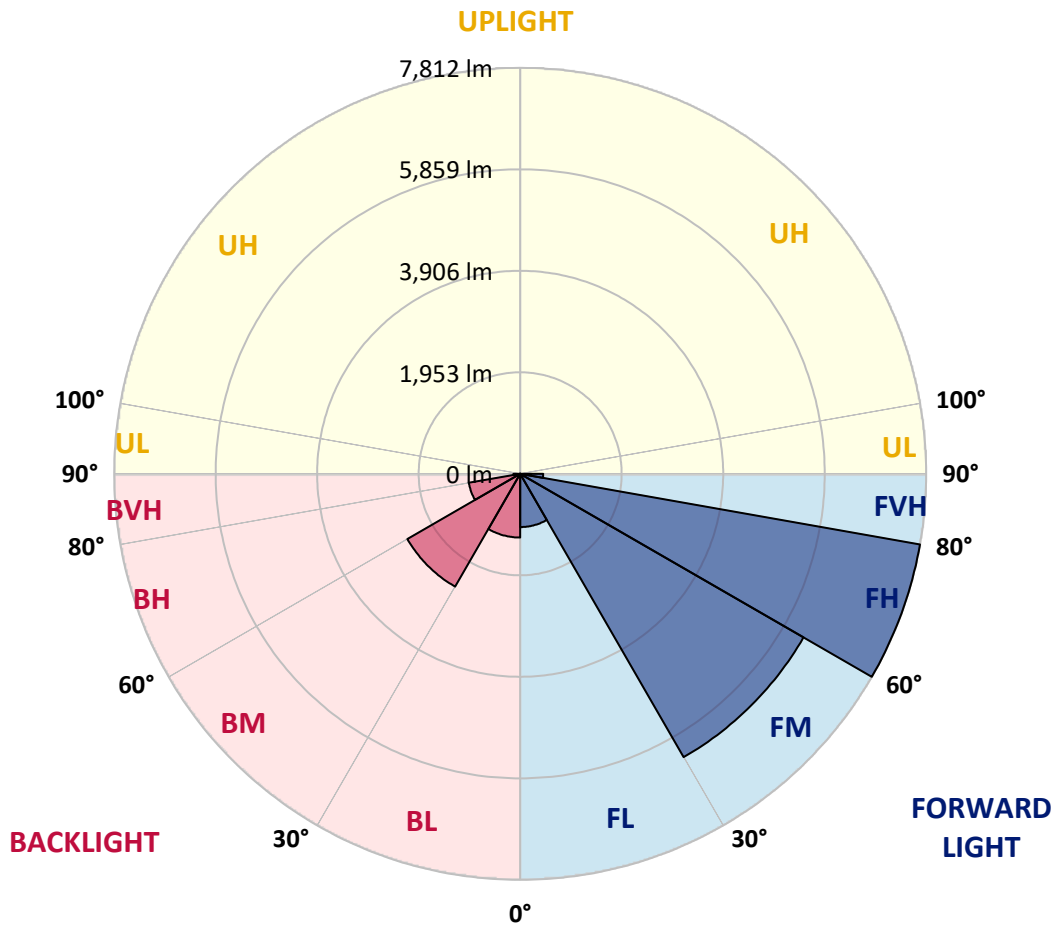
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1025.1	5.0			
FM (30°-60°)	6294.7	30.8			
FH (60°-80°)	7812.2	38.2			G4/12000
FVH (80°-90°)	444.5	2.2			G3/500
BL (0°-30°)	1225.9	6.0	B3/2500		
BM (30°-60°)	2506.5	12.3	B3/5000		
BH (60°-80°)	1002.9	4.9	B3/2500		G3/2500
BVH (80°-90°)	129.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9
2.5°	2511.7	2527.2	2533.8	2530.5	2547.1	2544.9	2568.1	2596.8	2636.6	2675.3	2731.6
5°	2318.4	2334.9	2349.3	2362.6	2394.6	2404.5	2441.0	2496.3	2569.2	2643.2	2736.1
7.5°	2138.2	2152.6	2174.7	2199.0	2253.2	2263.1	2323.9	2410.1	2511.7	2620.0	2748.2
10°	1991.3	2005.6	2028.8	2056.5	2123.9	2136.0	2213.4	2328.3	2460.9	2597.9	2761.5
12.5°	1928.3	1932.7	1946.0	1973.6	2032.2	2039.9	2125.0	2256.5	2411.2	2581.4	2781.4
15°	1925.0	1933.8	1934.9	1949.3	1997.9	2001.2	2079.7	2210.1	2380.2	2578.0	2811.2
17.5°	1958.1	1964.7	1954.8	1963.6	2004.5	2010.1	2071.9	2188.0	2370.3	2592.4	2862.0
20°	2046.5	2052.0	2022.2	2010.1	2039.9	2044.3	2105.1	2202.3	2380.2	2622.2	2931.6
22.5°	2234.4	2237.7	2164.8	2115.0	2117.2	2119.4	2172.5	2260.9	2418.9	2676.4	3020.0
25°	2527.2	2525.0	2409.0	2312.8	2257.6	2245.4	2280.8	2355.9	2484.1	2748.2	3133.9
27.5°	2869.8	2853.2	2737.2	2593.5	2473.1	2455.4	2447.6	2479.7	2576.9	2843.2	3273.1
30°	3256.5	3241.1	3116.2	2928.3	2761.5	2732.7	2659.8	2643.2	2715.1	2972.5	3466.5
32.5°	3680.9	3670.9	3521.7	3294.1	3070.9	3037.7	2915.1	2870.9	2927.2	3168.1	3736.1
35°	4036.7	4027.8	3904.1	3669.8	3396.9	3356.0	3231.1	3181.4	3210.1	3419.0	4088.6
37.5°	4358.2	4353.8	4247.7	4063.2	3781.4	3731.7	3591.4	3574.8	3569.3	3749.4	4516.3
40°	4656.6	4645.6	4535.0	4437.8	4229.0	4183.6	4059.9	4045.5	4003.5	4156.0	5000.3
42.5°	4987.0	4958.3	4798.0	4752.7	4696.4	4658.8	4584.8	4587.0	4494.2	4614.6	5513.0
45°	5256.6	5240.1	5075.4	5048.9	5109.7	5094.2	5158.3	5174.9	4994.7	5095.3	6045.6
47.5°	5546.2	5530.7	5391.4	5372.7	5537.3	5541.7	5768.3	5773.8	5483.2	5594.8	6579.4
50°	5903.1	5881.0	5742.8	5766.1	5950.6	5967.2	6381.6	6344.0	5932.9	6102.0	7108.7
52.5°	6138.4	6151.7	6121.9	6159.4	6411.4	6426.9	6984.9	6888.8	6378.2	6602.6	7628.0
55°	6311.9	6338.5	6431.3	6517.5	6897.6	6913.1	7554.0	7407.0	6747.3	7066.7	8116.5
57.5°	6535.2	6497.6	6671.1	6839.0	7359.5	7400.4	8107.6	7906.5	7074.4	7466.7	8451.3
60°	6855.6	6829.1	6963.9	7212.5	7876.7	7941.9	8693.3	8356.2	7314.2	7783.8	8516.5
62.5°	7505.4	7439.1	7460.1	7680.0	8528.6	8614.8	9354.1	8748.5	7433.5	7907.6	8167.3
65°	8476.7	8362.9	8256.8	8409.3	9446.9	9532.0	10100.0	9056.8	7389.3	7667.8	7240.2
67.5°	9700.0	9587.2	9456.9	9600.5	10799.5	10866.9	11020.5	9230.3	7041.3	6744.0	5601.4
70°	10708.9	10666.9	10822.7	11413.9	12959.8	12962.0	12200.6	9086.7	6087.6	4781.5	3241.1
72.5°	10575.1	10549.7	11370.8	13198.5	15682.6	15624.0	13317.8	7999.3	4100.8	2157.0	1214.4
75°	8675.6	8840.2	10112.1	13166.4	16660.6	16652.8	12633.8	5085.4	1696.2	894.0	627.7
77.5°	4652.2	4913.0	6565.0	9721.0	13006.2	13201.8	8882.2	1779.1	728.2	572.4	434.3
80°	1517.2	1744.8	2616.7	4949.4	8451.3	8414.8	3806.8	698.4	498.4	405.5	300.6
82.5°	644.2	670.8	1169.1	2337.1	4337.2	4269.8	1212.2	401.1	350.3	277.4	185.6
85°	251.9	281.8	516.0	1080.7	1878.6	1837.7	437.6	198.9	224.3	181.2	110.5
87.5°	82.9	100.6	184.5	370.2	584.6	563.6	107.2	68.5	97.2	82.9	39.8
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°	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9	2723.9
2.5°	2747.1	2764.8	2785.8	2816.7	2843.2	2865.3	2888.6	2902.9	2908.4	2925.0	2923.9
5°	2767.0	2805.7	2857.6	2908.4	2958.2	2988.0	3014.5	3027.8	3039.9	3048.8	3051.0
7.5°	2800.1	2849.9	2931.6	2997.9	3039.9	3064.3	3081.9	3077.5	3081.9	3084.1	3087.5
10°	2828.9	2898.5	2995.7	3058.7	3090.8	3091.9	3087.5	3072.0	3064.3	3065.4	3067.6
12.5°	2863.1	2940.5	3045.5	3098.5	3107.3	3083.0	3064.3	3037.7	3027.8	3023.4	3021.2
15°	2909.5	2997.9	3099.6	3119.5	3097.4	3066.5	3034.4	2991.3	2969.2	2951.5	2957.1
17.5°	2965.9	3063.1	3141.6	3127.2	3079.7	3028.9	2977.0	2911.8	2866.5	2847.7	2848.8
20°	3044.4	3131.7	3173.6	3110.7	3038.8	2961.5	2873.1	2793.5	2751.5	2732.7	2730.5
22.5°	3139.4	3223.4	3204.6	3081.9	2980.3	2856.5	2746.0	2687.4	2666.4	2653.2	2655.4
25°	3253.2	3325.0	3226.7	3039.9	2884.1	2717.3	2632.2	2613.4	2603.5	2593.5	2593.5
27.5°	3401.3	3440.0	3243.3	2978.1	2733.8	2569.2	2538.3	2541.6	2538.3	2521.7	2525.0
30°	3596.9	3589.1	3258.7	2877.5	2561.5	2435.5	2437.7	2452.1	2454.3	2443.2	2448.7
32.5°	3854.3	3775.9	3266.5	2747.1	2396.8	2318.4	2320.6	2336.0	2347.1	2328.3	2337.1
35°	4166.0	3993.6	3254.3	2583.6	2269.7	2206.7	2190.2	2194.6	2197.9	2180.2	2192.4
37.5°	4529.5	4237.8	3200.2	2402.3	2164.8	2097.3	2062.0	2032.2	2014.5	1997.9	2008.9
40°	4928.4	4504.1	3100.7	2225.5	2047.6	1981.3	1928.3	1871.9	1812.3	1790.2	1800.1
42.5°	5346.1	4778.2	2980.3	2056.5	1912.8	1858.7	1802.3	1720.5	1631.0	1585.7	1591.2
45°	5779.3	5058.8	2862.0	1889.6	1774.7	1751.5	1686.3	1587.9	1490.7	1433.2	1428.8
47.5°	6203.6	5324.0	2688.5	1721.6	1645.4	1670.8	1620.0	1529.4	1421.1	1330.5	1320.5
50°	6609.2	5572.7	2404.5	1551.5	1540.4	1646.5	1597.9	1467.5	1343.7	1227.7	1217.7
52.5°	7011.4	5773.8	2041.0	1396.8	1484.1	1639.9	1569.1	1425.5	1274.1	1152.5	1139.3
55°	7352.9	5877.7	1690.7	1264.2	1402.3	1583.5	1534.9	1375.8	1175.8	1046.5	1035.4
57.5°	7547.4	5793.7	1399.0	1133.8	1289.6	1490.7	1476.3	1269.7	1058.6	959.2	945.9
60°	7463.4	5453.3	1160.3	1019.9	1182.4	1390.1	1374.7	1164.7	969.1	875.2	861.9
62.5°	7000.4	4804.7	971.3	920.5	1085.1	1287.4	1273.0	1084.0	900.6	810.0	795.6
65°	6067.7	3908.5	824.4	837.6	986.8	1163.6	1184.6	1016.6	846.5	758.1	743.7
67.5°	4627.9	2831.1	709.4	765.8	890.7	1042.0	1102.8	968.0	801.1	717.2	703.9
70°	2637.7	1607.8	612.2	696.2	805.6	929.3	1039.8	929.3	752.5	682.9	674.1
72.5°	1000.1	738.2	529.3	626.6	723.8	834.3	970.2	868.6	696.2	644.2	635.4
75°	533.7	449.7	445.3	544.8	629.9	741.5	882.9	808.9	654.2	680.7	702.8
77.5°	363.6	318.2	372.4	466.3	527.1	638.7	790.1	718.3	566.9	564.7	520.5
80°	251.9	225.4	302.8	375.7	407.8	537.0	689.5	616.6	461.9	431.0	412.2
82.5°	151.4	147.0	226.5	280.7	288.4	414.4	571.3	517.2	377.9	329.3	331.5
85°	82.9	87.3	144.8	164.6	168.0	289.5	447.5	400.0	290.6	244.2	246.4
87.5°	23.2	29.8	53.0	65.2	80.7	150.3	266.3	237.6	145.9	101.7	101.7
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)