

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: P882741

Luminaire Tested: **NAV-SB2D-730-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882741
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-SB2D-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 900mA 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: 20178 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

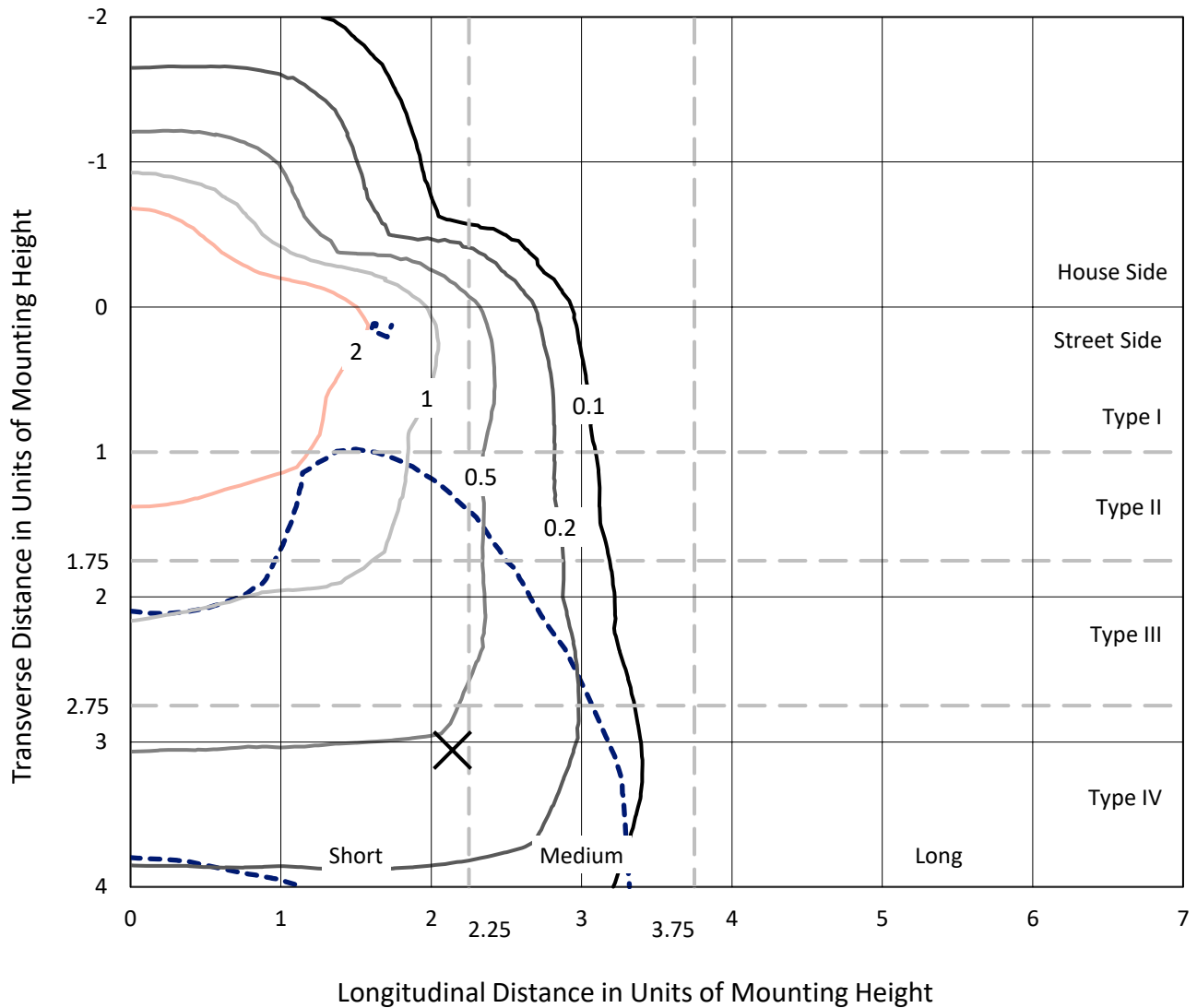
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

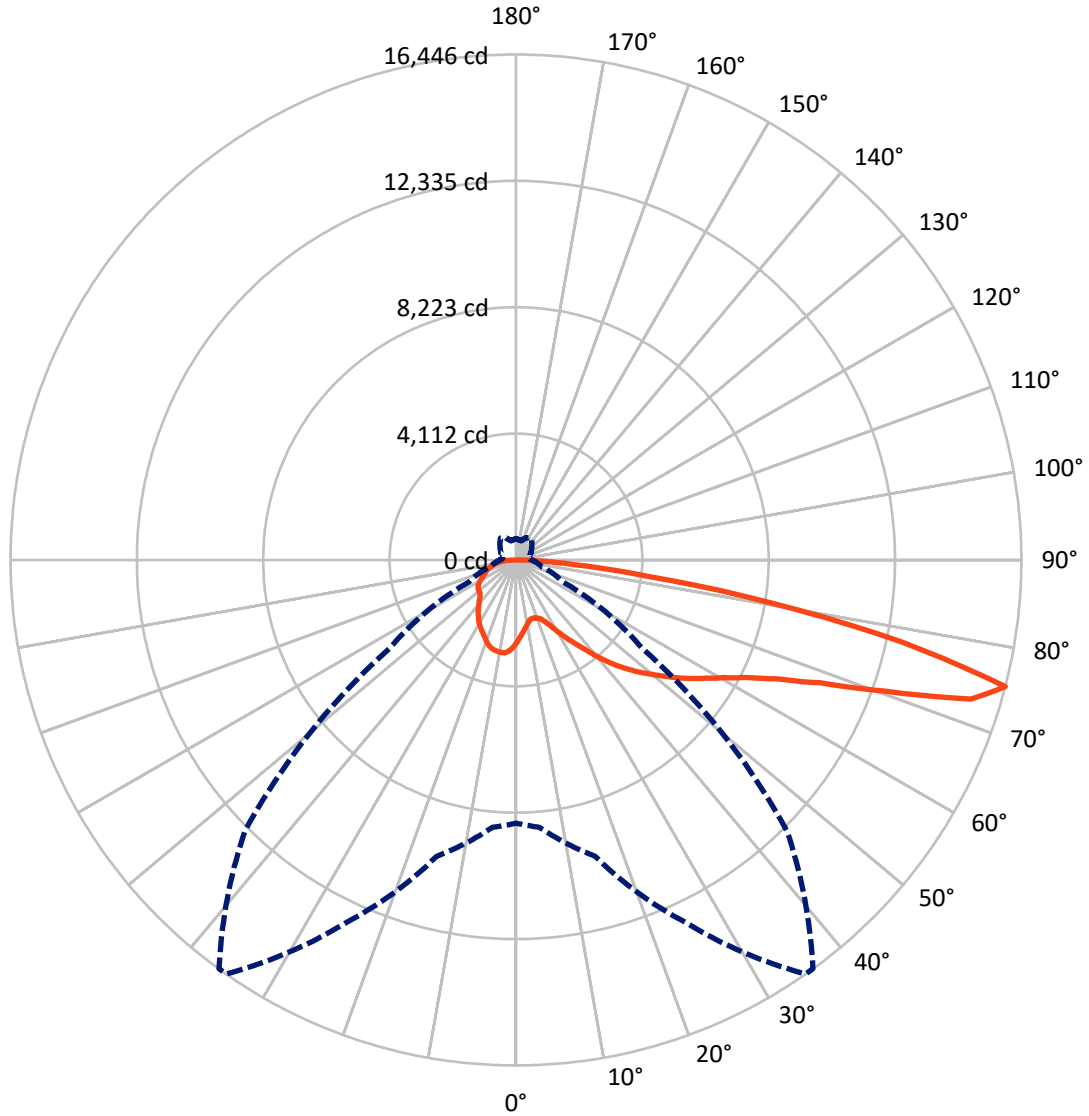
× Max cd
 - - - 1/2 Max cd



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	4801.9	0.0	4801.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15376.1	0.0	15376.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	20178.0	0.0	20178.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.6	1.3
10°-20°	734.3	3.6
20°-30°	1233.1	6.1
30°-40°	1916.4	9.5
40°-50°	2844.5	14.1
50°-60°	3927.0	19.5
60°-70°	4764.4	23.6
70°-80°	3937.4	19.5
80°-90°	566.3	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°	20178.0	100.0
0°-180°	20178.0	100.0

Coefficient of Utilization



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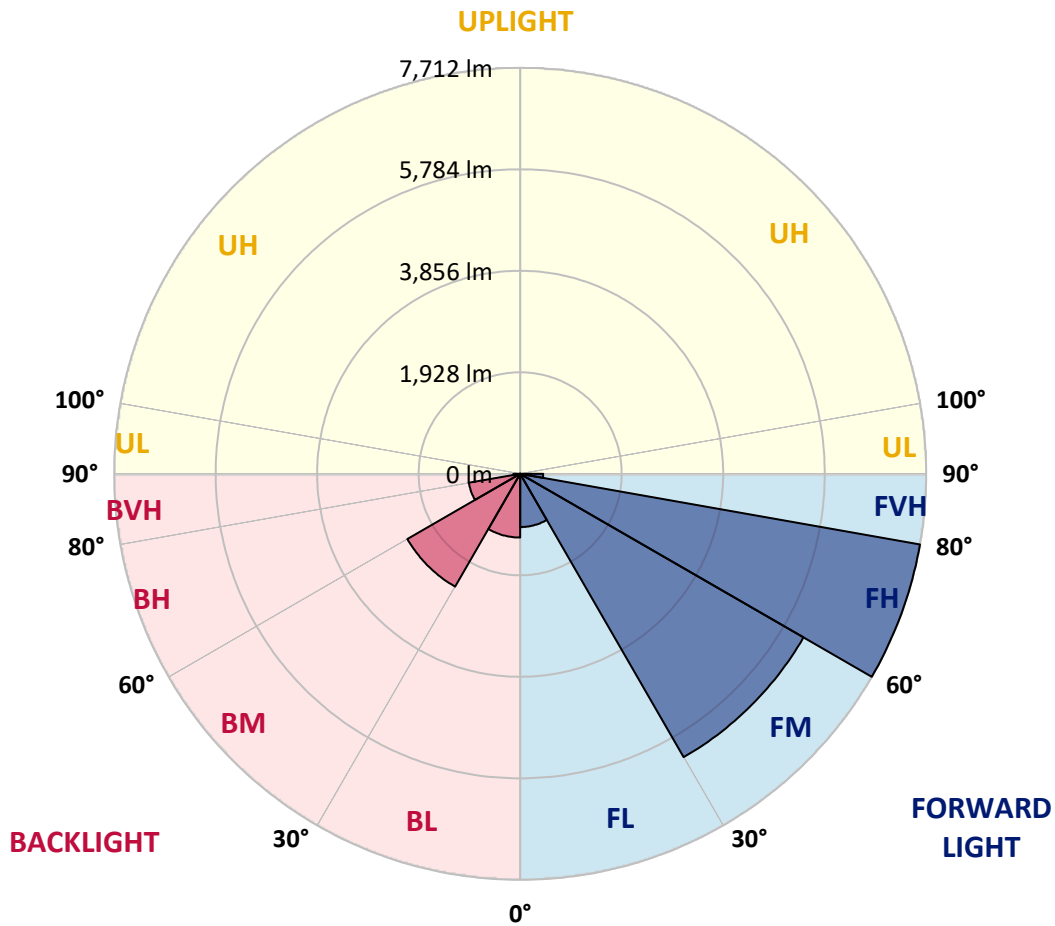
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1011.9	5.0			
FM (30°-60°)	6213.7	30.8			
FH (60°-80°)	7711.7	38.2			G4/12000
FVH (80°-90°)	438.8	2.2			G3/500
BL (0°-30°)	1210.1	6.0	B3/2500		
BM (30°-60°)	2474.2	12.3	B2/2500		
BH (60°-80°)	990.0	4.9	B2/1000		G2/1000
BVH (80°-90°)	127.5	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°	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9
2.5°	2479.4	2494.7	2501.2	2498.0	2514.3	2512.1	2535.1	2563.4	2602.7	2640.9	2696.5
5°	2288.5	2304.9	2319.1	2332.2	2363.8	2373.6	2409.6	2464.1	2536.1	2609.2	2700.9
7.5°	2110.7	2124.9	2146.7	2170.7	2224.2	2234.0	2294.0	2379.1	2479.4	2586.3	2712.9
10°	1965.6	1979.8	2002.7	2030.0	2096.5	2108.5	2184.9	2298.3	2429.2	2564.5	2725.9
12.5°	1903.5	1907.8	1920.9	1948.2	2006.0	2013.6	2097.6	2227.4	2380.2	2548.1	2745.6
15°	1900.2	1908.9	1910.0	1924.2	1972.2	1975.5	2052.9	2181.6	2349.6	2544.9	2775.0
17.5°	1932.9	1939.5	1929.6	1938.4	1978.7	1984.2	2045.3	2159.8	2339.8	2559.0	2825.2
20°	2020.2	2025.6	1996.2	1984.2	2013.6	2018.0	2078.0	2174.0	2349.6	2588.5	2893.9
22.5°	2205.6	2208.9	2136.9	2087.8	2090.0	2092.2	2144.5	2231.8	2387.8	2642.0	2981.2
25°	2494.7	2492.5	2378.0	2283.1	2228.5	2216.5	2251.4	2325.6	2452.1	2712.9	3093.5
27.5°	2832.8	2816.5	2701.9	2560.1	2441.2	2423.8	2416.2	2447.8	2543.8	2806.7	3231.0
30°	3214.6	3199.4	3076.1	2890.7	2725.9	2697.6	2625.6	2609.2	2680.1	2934.3	3421.9
32.5°	3633.5	3623.7	3476.4	3251.7	3031.4	2998.6	2877.6	2833.9	2889.6	3127.4	3688.0
35°	3984.7	3976.0	3853.8	3622.6	3353.2	3312.8	3189.5	3140.5	3168.8	3375.0	4036.0
37.5°	4302.2	4297.8	4193.1	4010.9	3732.8	3683.7	3545.1	3528.8	3523.3	3701.1	4458.2
40°	4596.7	4585.8	4476.7	4380.7	4174.5	4129.8	4007.6	3993.5	3952.0	4102.5	4935.9
42.5°	4922.8	4894.5	4736.3	4691.6	4636.0	4598.9	4525.8	4528.0	4436.3	4555.2	5442.1
45°	5189.0	5172.6	5010.1	4983.9	5043.9	5028.6	5091.9	5108.3	4930.5	5029.7	5967.8
47.5°	5474.8	5459.5	5322.1	5303.5	5466.1	5470.4	5694.0	5699.5	5412.6	5522.8	6494.7
50°	5827.1	5805.3	5669.0	5691.9	5874.0	5890.4	6299.4	6262.4	5856.6	6023.5	7017.2
52.5°	6059.5	6072.6	6043.1	6080.2	6328.9	6344.2	6895.0	6800.1	6296.2	6517.6	7529.9
55°	6230.7	6256.9	6348.5	6433.6	6808.9	6824.1	7456.8	7311.7	6660.5	6975.8	8012.0
57.5°	6451.1	6414.0	6585.2	6751.0	7264.8	7305.2	8003.3	7804.8	6983.4	7370.6	8342.5
60°	6767.4	6741.2	6874.3	7119.7	7775.3	7839.7	8581.4	8248.7	7220.1	7683.7	8406.9
62.5°	7408.8	7343.4	7364.1	7581.2	8418.9	8504.0	9233.7	8636.0	7337.9	7805.9	8062.2
65°	8367.6	8255.3	8150.6	8301.1	9325.4	9409.4	9970.0	8940.3	7294.3	7569.2	7147.0
67.5°	9575.2	9463.9	9335.2	9477.0	10660.5	10727.1	10878.7	9111.6	6950.7	6657.2	5529.3
70°	10571.1	10529.6	10683.4	11267.0	12793.1	12795.2	12043.7	8969.8	6009.3	4719.9	3199.4
72.5°	10439.1	10414.0	11224.5	13028.7	15480.8	15423.0	13146.5	7896.4	4048.0	2129.3	1198.8
75°	8564.0	8726.5	9982.0	12997.0	16446.2	16438.6	12471.3	5019.9	1674.4	882.5	619.6
77.5°	4592.3	4849.8	6480.5	9595.9	12838.9	13031.9	8768.0	1756.2	718.8	565.0	428.7
80°	1497.7	1722.4	2583.0	4885.8	8342.5	8306.5	3757.9	689.4	492.0	400.3	296.7
82.5°	635.9	662.1	1154.1	2307.1	4281.4	4214.9	1196.6	396.0	345.8	273.8	183.3
85°	248.7	278.2	509.4	1066.8	1854.4	1814.0	432.0	196.3	221.4	178.9	109.1
87.5°	81.8	99.3	182.2	365.4	577.0	556.3	105.8	67.6	96.0	81.8	39.3
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°	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9	2688.9
2.5°	2711.8	2729.2	2749.9	2780.5	2806.7	2828.5	2851.4	2865.6	2871.0	2887.4	2886.3
5°	2731.4	2769.6	2820.8	2871.0	2920.1	2949.6	2975.7	2988.8	3000.8	3009.6	3011.7
7.5°	2764.1	2813.2	2893.9	2959.4	3000.8	3024.8	3042.3	3037.9	3042.3	3044.5	3047.7
10°	2792.5	2861.2	2957.2	3019.4	3051.0	3052.1	3047.7	3032.5	3024.8	3025.9	3028.1
12.5°	2826.3	2902.7	3006.3	3058.6	3067.4	3043.4	3024.8	2998.6	2988.8	2984.5	2982.3
15°	2872.1	2959.4	3059.7	3079.4	3057.5	3027.0	2995.4	2952.8	2931.0	2913.6	2919.0
17.5°	2927.7	3023.7	3101.2	3087.0	3040.1	2989.9	2938.7	2874.3	2829.6	2811.0	2812.1
20°	3005.2	3091.4	3132.8	3070.6	2999.7	2923.4	2836.1	2757.6	2716.1	2697.6	2695.4
22.5°	3099.0	3181.9	3163.4	3042.3	2941.9	2819.8	2710.7	2652.9	2632.1	2619.0	2621.2
25°	3211.4	3282.3	3185.2	3000.8	2847.0	2682.3	2598.3	2579.8	2570.0	2560.1	2560.1
27.5°	3357.5	3395.7	3201.5	2939.7	2698.7	2536.1	2505.6	2508.9	2505.6	2489.2	2492.5
30°	3550.6	3543.0	3216.8	2840.5	2528.5	2404.2	2406.3	2420.5	2422.7	2411.8	2417.2
32.5°	3804.8	3727.3	3224.4	2711.8	2366.0	2288.5	2290.7	2306.0	2316.9	2298.3	2307.1
35°	4112.4	3942.2	3212.4	2550.3	2240.5	2178.4	2162.0	2166.4	2169.6	2152.2	2164.2
37.5°	4471.2	4183.3	3159.0	2371.4	2136.9	2070.4	2035.5	2006.0	1988.6	1972.2	1983.1
40°	4865.0	4446.2	3060.8	2196.9	2021.3	1955.8	1903.5	1847.8	1788.9	1767.1	1776.9
42.5°	5277.4	4716.7	2941.9	2030.0	1888.2	1834.7	1779.1	1698.4	1610.0	1565.3	1570.8
45°	5705.0	4993.7	2825.2	1865.3	1751.8	1728.9	1664.6	1567.5	1471.5	1414.8	1410.4
47.5°	6123.8	5255.5	2653.9	1699.5	1624.2	1649.3	1599.1	1509.7	1402.8	1313.3	1303.5
50°	6524.2	5501.0	2373.6	1531.5	1520.6	1625.3	1577.3	1448.6	1326.4	1211.9	1202.1
52.5°	6921.2	5699.5	2014.7	1378.8	1465.0	1618.8	1549.0	1407.1	1257.7	1137.7	1124.6
55°	7258.3	5802.0	1668.9	1247.9	1384.2	1563.1	1515.1	1358.1	1160.6	1033.0	1022.1
57.5°	7450.3	5719.1	1381.0	1119.2	1273.0	1471.5	1457.3	1253.3	1045.0	946.8	933.7
60°	7367.4	5383.2	1145.4	1006.8	1167.2	1372.2	1357.0	1149.7	956.6	863.9	850.8
62.5°	6910.3	4742.9	958.8	908.6	1071.2	1270.8	1256.6	1070.1	889.0	799.6	785.4
65°	5989.7	3858.2	813.7	826.8	974.1	1148.6	1169.4	1003.5	835.6	748.3	734.1
67.5°	4568.3	2794.7	700.3	755.9	879.2	1028.6	1088.6	955.6	790.8	707.9	694.8
70°	2603.8	1587.1	604.3	687.2	795.2	917.4	1026.5	917.4	742.8	674.1	665.4
72.5°	987.2	728.7	522.5	618.5	714.5	823.6	957.7	857.4	687.2	635.9	627.2
75°	526.9	444.0	439.6	537.8	621.8	731.9	871.6	798.5	645.8	671.9	693.8
77.5°	358.9	314.2	367.6	460.3	520.3	630.5	779.9	709.0	559.6	557.4	513.8
80°	248.7	222.5	298.9	370.9	402.5	530.1	680.7	608.7	456.0	425.4	406.9
82.5°	149.4	145.1	223.6	277.1	284.7	409.1	564.0	510.5	373.1	325.1	327.2
85°	81.8	86.2	142.9	162.5	165.8	285.8	441.8	394.9	286.9	241.1	243.3
87.5°	22.9	29.5	52.4	64.4	79.6	148.4	262.9	234.5	144.0	100.4	100.4
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)