

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: P883609

Luminaire Tested: **NAV-SB4A-740-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883609
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-SB4A-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19613 lumens
Efficiency: N/A
Efficacy: 172.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

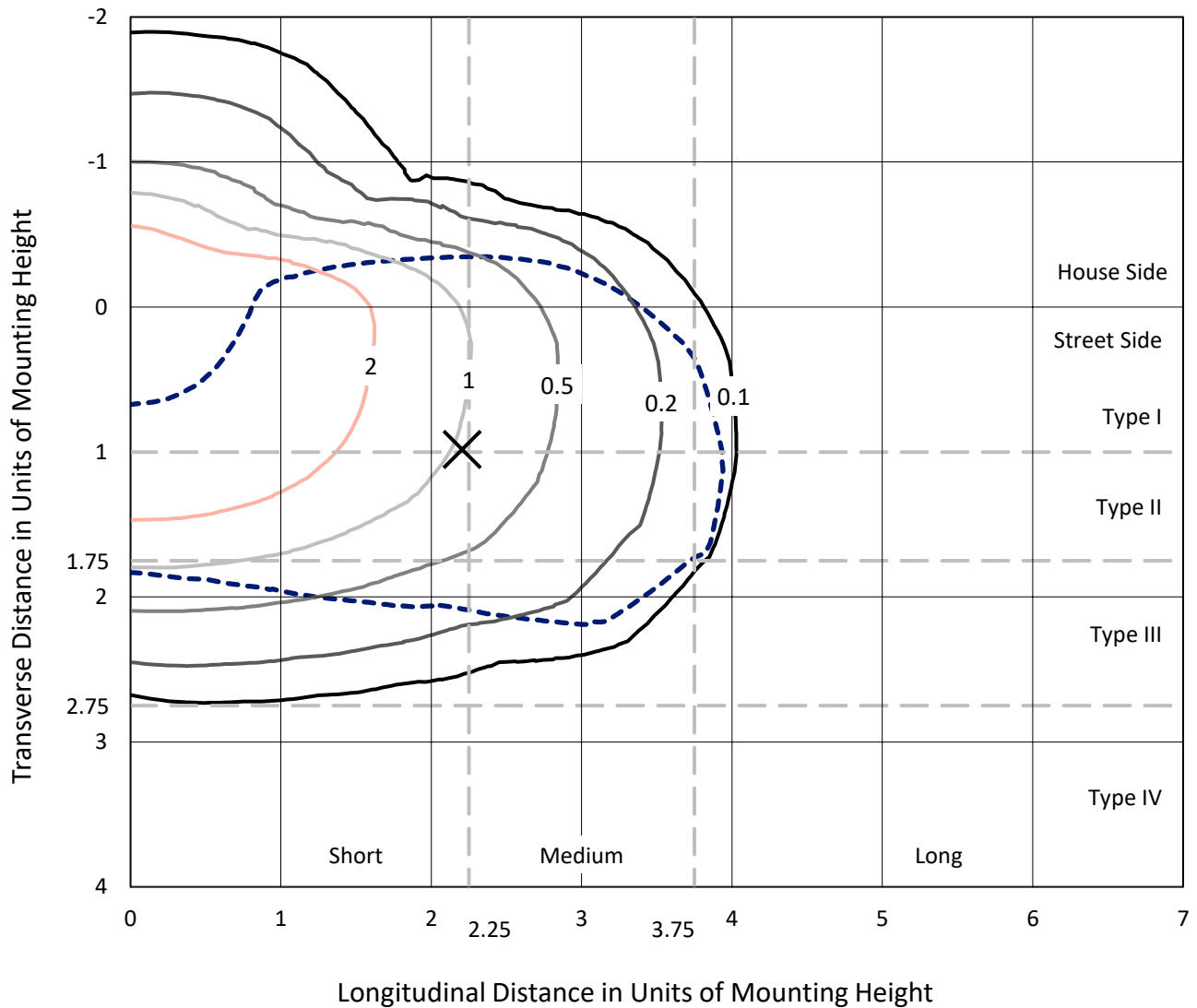
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

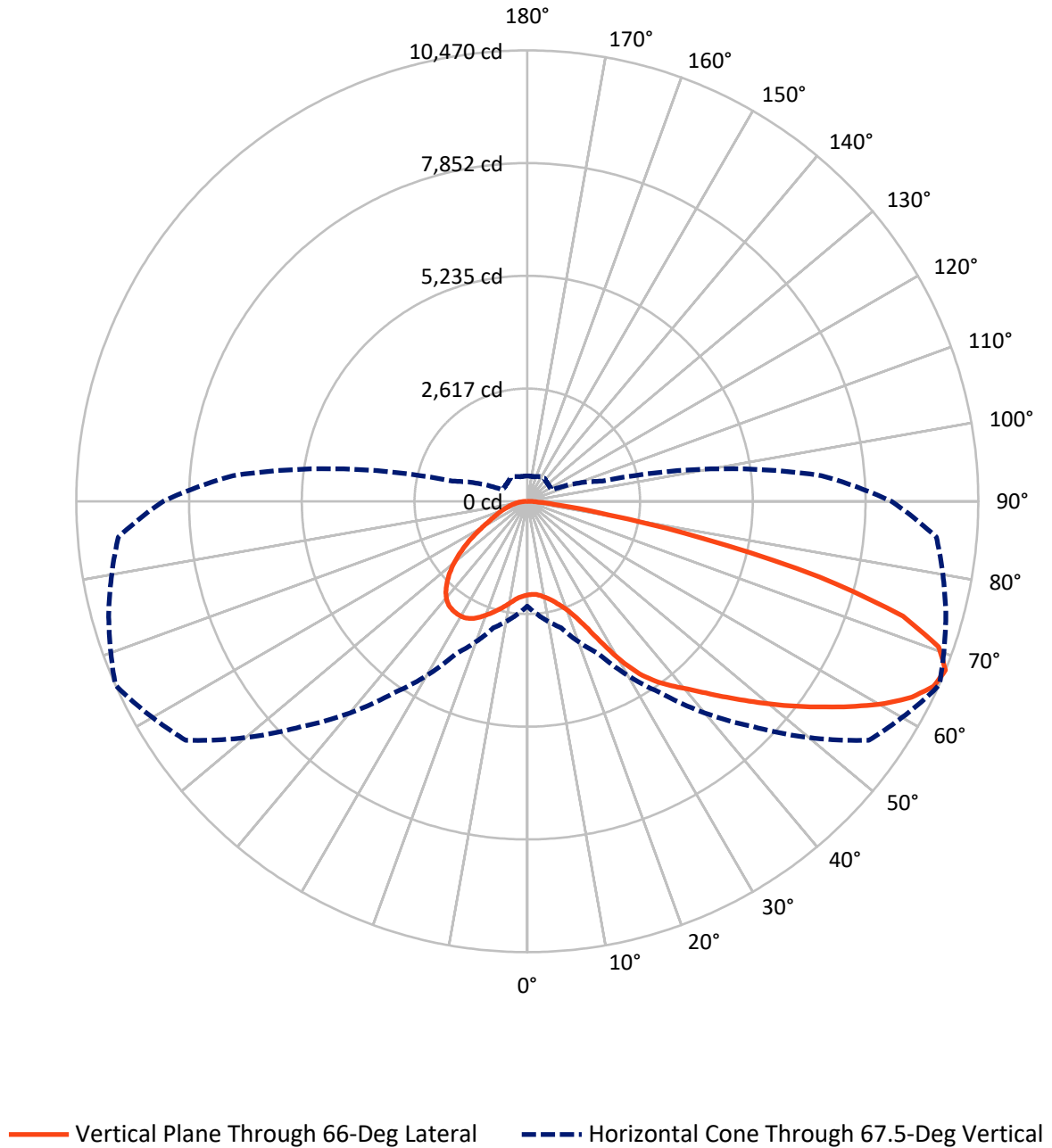
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4876.7	0.0	4876.7
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14736.3	0.0	14736.3
	% Fixture	75.1	0.0	75.1
Total	Lumens	19613.0	0.0	19613.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.7	1.1
10°-20°	712.6	3.6
20°-30°	1373.4	7.0
30°-40°	2408.1	12.3
40°-50°	3580.1	18.3
50°-60°	4538.1	23.1
60°-70°	4440.4	22.6
70°-80°	2118.1	10.8
80°-90°	226.4	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°	19613.0	100.0
0°-180°	19613.0	100.0

Coefficient of Utilization



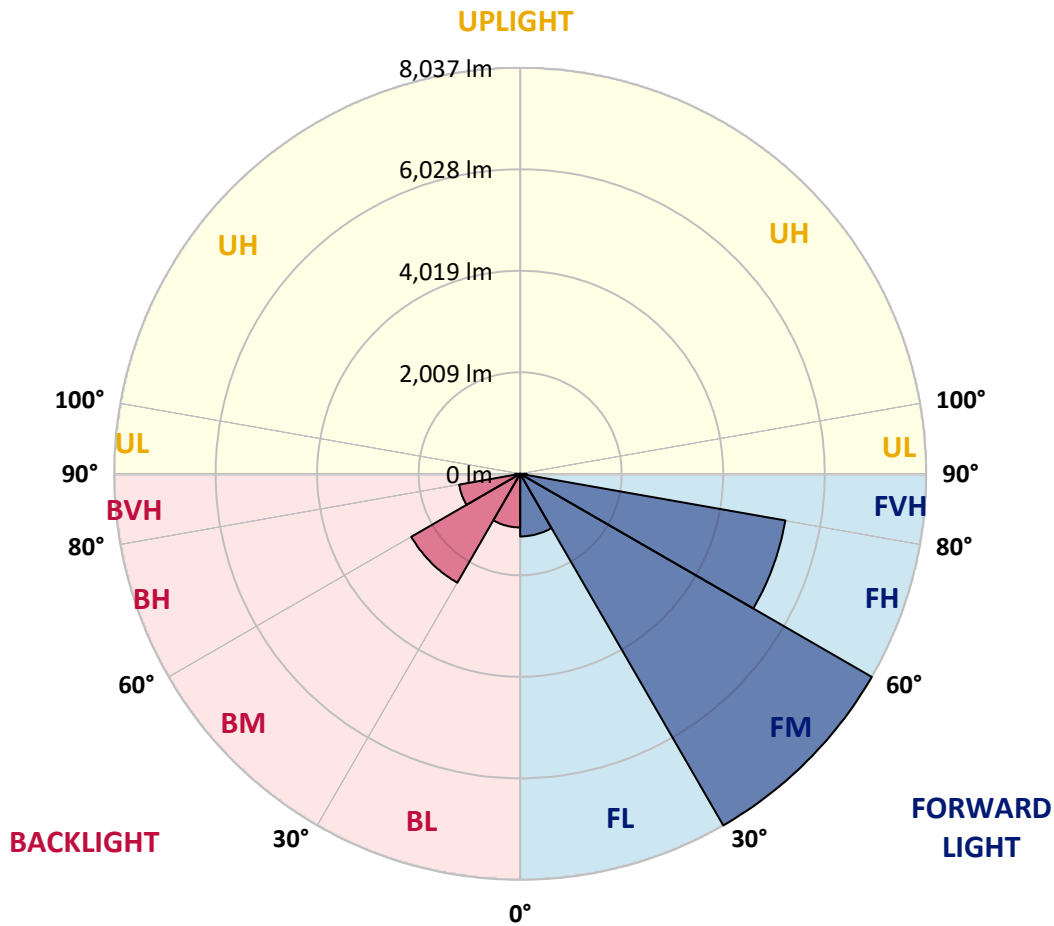
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1239.3	6.3			
FM (30°-60°)	8037.2	41.0			
FH (60°-80°)	5331.3	27.2			G3/7500
FVH (80°-90°)	128.3	0.7			G2/225
BL (0°-30°)	1062.3	5.4	B3/2500		
BM (30°-60°)	2489.1	12.7	B2/2500		
BH (60°-80°)	1227.2	6.3	B3/2500		G3/2500
BVH (80°-90°)	98.0	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°	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3
2.5°	2152.7	2165.0	2161.9	2156.8	2155.8	2157.8	2160.9	2164.0	2163.0	2168.1	2176.4
5°	2146.5	2158.9	2157.8	2157.8	2161.9	2170.2	2175.3	2180.5	2175.3	2181.5	2192.9
7.5°	2150.6	2159.9	2164.0	2168.1	2178.4	2193.9	2206.3	2217.6	2211.4	2218.6	2233.0
10°	2203.2	2210.4	2214.5	2214.5	2221.7	2239.2	2251.6	2272.2	2267.1	2278.4	2296.9
12.5°	2299.0	2306.2	2306.2	2302.1	2307.2	2318.6	2322.7	2345.4	2336.1	2354.6	2373.2
15°	2416.5	2430.9	2419.6	2412.4	2414.4	2425.7	2424.7	2442.2	2433.0	2448.4	2464.9
17.5°	2546.3	2564.9	2546.3	2545.3	2541.2	2553.5	2554.6	2570.0	2553.5	2564.9	2576.2
20°	2699.9	2725.6	2710.2	2715.3	2706.0	2711.2	2716.3	2739.0	2713.3	2721.5	2718.4
22.5°	2916.3	2947.2	2930.7	2950.3	2944.1	2940.0	2938.9	2979.1	2938.9	2942.0	2912.1
25°	3231.6	3268.7	3239.8	3266.6	3266.6	3280.0	3295.5	3347.0	3280.0	3260.4	3183.1
27.5°	3697.4	3734.5	3677.8	3694.3	3689.1	3722.1	3705.6	3833.4	3761.2	3729.3	3573.7
30°	4257.9	4323.9	4216.7	4212.6	4207.4	4260.0	4283.7	4368.2	4295.0	4263.1	4075.5
32.5°	4863.9	4932.9	4805.1	4768.0	4748.4	4780.4	4760.8	4828.8	4778.3	4728.9	4497.0
35°	5504.8	5572.8	5451.2	5379.1	5300.8	5233.8	5163.7	5181.2	5133.8	5058.6	4818.5
37.5°	6110.7	6235.4	6106.6	6029.3	5885.1	5754.2	5558.4	5477.0	5432.7	5363.6	5121.5
40°	6728.0	6799.1	6701.2	6635.3	6478.6	6273.6	5960.3	5788.2	5728.4	5661.5	5456.4
42.5°	7182.4	7250.4	7197.9	7152.6	7029.9	6791.9	6386.9	6171.5	6085.0	6009.8	5835.6
45°	7543.1	7593.6	7560.6	7577.1	7524.6	7293.7	6829.0	6582.7	6493.0	6401.3	6264.3
47.5°	7688.4	7742.0	7794.5	7892.4	7982.1	7812.1	7304.0	7027.9	6933.1	6839.3	6704.3
50°	7671.9	7726.5	7879.0	8087.2	8365.4	8308.8	7804.8	7501.9	7414.3	7307.1	7182.4
52.5°	7540.0	7601.8	7797.6	8143.9	8587.0	8680.8	8314.9	7991.4	7908.9	7781.1	7656.5
55°	7193.8	7230.9	7524.6	8015.1	8639.5	8940.4	8814.7	8512.8	8430.3	8252.1	8116.1
57.5°	6551.8	6605.4	7033.0	7667.8	8507.6	9116.6	9253.7	9061.0	8981.7	8725.1	8582.9
60°	5714.0	5799.5	6289.0	7084.5	8171.7	9115.6	9652.5	9599.9	9534.0	9190.8	9042.5
62.5°	4766.0	4864.9	5335.8	6260.2	7584.3	8857.0	9901.9	10051.3	10017.3	9620.6	9430.9
65°	3660.3	3728.3	4197.1	5193.6	6670.3	8301.5	9930.7	10359.4	10365.6	9947.2	9633.9
67.5°	2437.1	2632.9	3039.9	3897.3	5446.1	7393.7	9677.2	10409.9	10469.7	10059.5	9531.9
70°	1189.2	1446.8	1845.6	2532.9	3897.3	6001.5	9014.6	9995.6	10128.6	9731.8	8923.9
72.5°	493.6	577.1	794.5	1250.0	2237.2	4049.8	7683.3	8872.4	9118.7	8623.0	7502.9
75°	332.8	360.7	454.4	641.0	1019.1	1997.1	5540.9	6615.7	7012.4	6512.6	5323.5
77.5°	256.6	274.1	330.8	448.3	605.9	755.3	2965.7	3986.9	4192.0	3880.8	2769.9
80°	202.0	215.4	247.3	326.7	429.7	403.9	1010.9	1806.4	1924.9	1614.8	890.3
82.5°	175.2	180.3	177.2	221.6	285.4	236.0	331.8	666.7	735.8	533.8	290.6
85°	126.7	141.2	147.4	137.1	151.5	119.5	136.0	236.0	259.7	231.9	163.8
87.5°	51.5	76.3	93.8	88.6	55.6	34.0	42.2	69.0	79.3	86.6	53.6
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°	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3	2175.3
2.5°	2177.4	2184.6	2189.8	2196.0	2200.1	2206.3	2218.6	2225.8	2226.9	2232.0	2231.0
5°	2197.0	2207.3	2218.6	2235.1	2253.7	2269.1	2292.8	2309.3	2315.5	2320.6	2319.6
7.5°	2239.2	2253.7	2274.3	2303.1	2329.9	2350.5	2379.4	2399.0	2418.5	2425.7	2426.8
10°	2302.1	2322.7	2352.6	2391.7	2420.6	2447.4	2477.3	2493.8	2513.3	2521.6	2525.7
12.5°	2380.4	2402.0	2441.2	2495.8	2522.6	2541.2	2551.5	2547.3	2551.5	2558.7	2560.7
15°	2470.1	2493.8	2538.1	2596.8	2615.4	2598.9	2576.2	2555.6	2552.5	2554.6	2561.8
17.5°	2576.2	2593.7	2645.2	2694.7	2681.3	2613.3	2563.8	2530.9	2514.4	2509.2	2516.4
20°	2724.6	2724.6	2766.8	2797.8	2708.1	2592.7	2515.4	2461.8	2427.8	2413.4	2410.3
22.5°	2904.9	2888.4	2915.2	2893.6	2702.9	2535.0	2427.8	2335.1	2283.5	2262.9	2259.8
25°	3133.7	3114.1	3106.9	2972.9	2665.8	2443.3	2269.1	2156.8	2111.5	2100.1	2102.2
27.5°	3478.9	3429.4	3335.7	3016.2	2597.8	2299.0	2083.6	1979.5	1953.8	1954.8	1957.9
30°	3938.5	3839.6	3609.8	3023.4	2486.5	2095.0	1894.0	1819.8	1807.5	1812.6	1830.1
32.5°	4364.1	4270.3	3890.1	2990.4	2315.5	1895.1	1724.0	1674.5	1656.0	1662.2	1670.4
35°	4698.0	4672.2	4149.7	2944.1	2105.3	1707.5	1571.5	1529.2	1493.2	1484.9	1491.1
37.5°	5013.3	5003.0	4344.5	2879.2	1897.1	1574.6	1448.9	1393.2	1340.7	1311.8	1312.8
40°	5359.5	5349.2	4472.3	2779.2	1712.7	1459.2	1338.6	1265.4	1200.5	1148.0	1153.1
42.5°	5749.0	5688.2	4533.1	2636.0	1556.0	1361.3	1248.9	1150.0	1064.5	1016.1	1019.1
45°	6174.6	6037.6	4532.0	2453.6	1424.1	1271.6	1153.1	1013.0	933.6	888.3	886.2
47.5°	6626.0	6371.5	4476.4	2251.6	1296.3	1172.7	1004.7	897.5	845.0	817.2	811.0
50°	7091.8	6683.7	4381.6	2019.7	1165.5	1060.4	912.0	838.8	798.6	772.9	763.6
52.5°	7529.7	6967.1	4267.2	1757.0	1032.5	951.1	870.8	814.1	771.8	743.0	730.6
55°	7936.7	7211.3	4105.4	1488.0	924.3	878.0	851.2	803.8	755.3	721.3	707.9
57.5°	8298.4	7370.0	3826.2	1235.5	847.1	827.5	830.6	786.3	730.6	701.8	683.2
60°	8599.3	7486.4	3412.9	1001.6	784.2	778.0	798.6	753.3	688.4	655.4	641.0
62.5°	8779.7	7484.4	2906.0	820.3	730.6	732.7	756.4	712.1	646.1	615.2	605.9
65°	8764.2	7300.9	2349.5	701.8	679.1	681.1	712.1	666.7	611.1	592.5	591.5
67.5°	8454.0	6853.7	1802.3	624.5	622.4	631.7	667.8	635.8	589.4	587.4	590.5
70°	7614.2	5925.3	1298.4	562.6	563.7	577.1	624.5	616.2	578.1	582.2	581.2
72.5°	6105.6	4517.6	871.8	497.7	498.8	520.4	583.3	600.8	566.8	621.4	629.6
75°	4066.3	2817.3	560.6	428.7	429.7	457.5	547.2	570.9	535.8	619.3	624.5
77.5°	1953.8	1266.5	406.0	360.7	360.7	386.4	473.0	511.1	456.5	481.2	441.0
80°	675.0	476.1	319.4	290.6	284.4	301.9	398.8	443.1	393.6	362.7	340.1
82.5°	265.9	247.3	256.6	225.7	205.1	216.4	310.2	365.8	289.6	261.7	260.7
85°	152.5	160.8	181.4	149.4	118.5	132.9	227.7	262.8	218.5	192.7	196.8
87.5°	41.2	56.7	83.5	77.3	53.6	56.7	108.2	145.3	125.7	96.9	100.0
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)