

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: P884420

Luminaire Tested: **NAV-SB5B-722-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884420
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-722-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17240 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

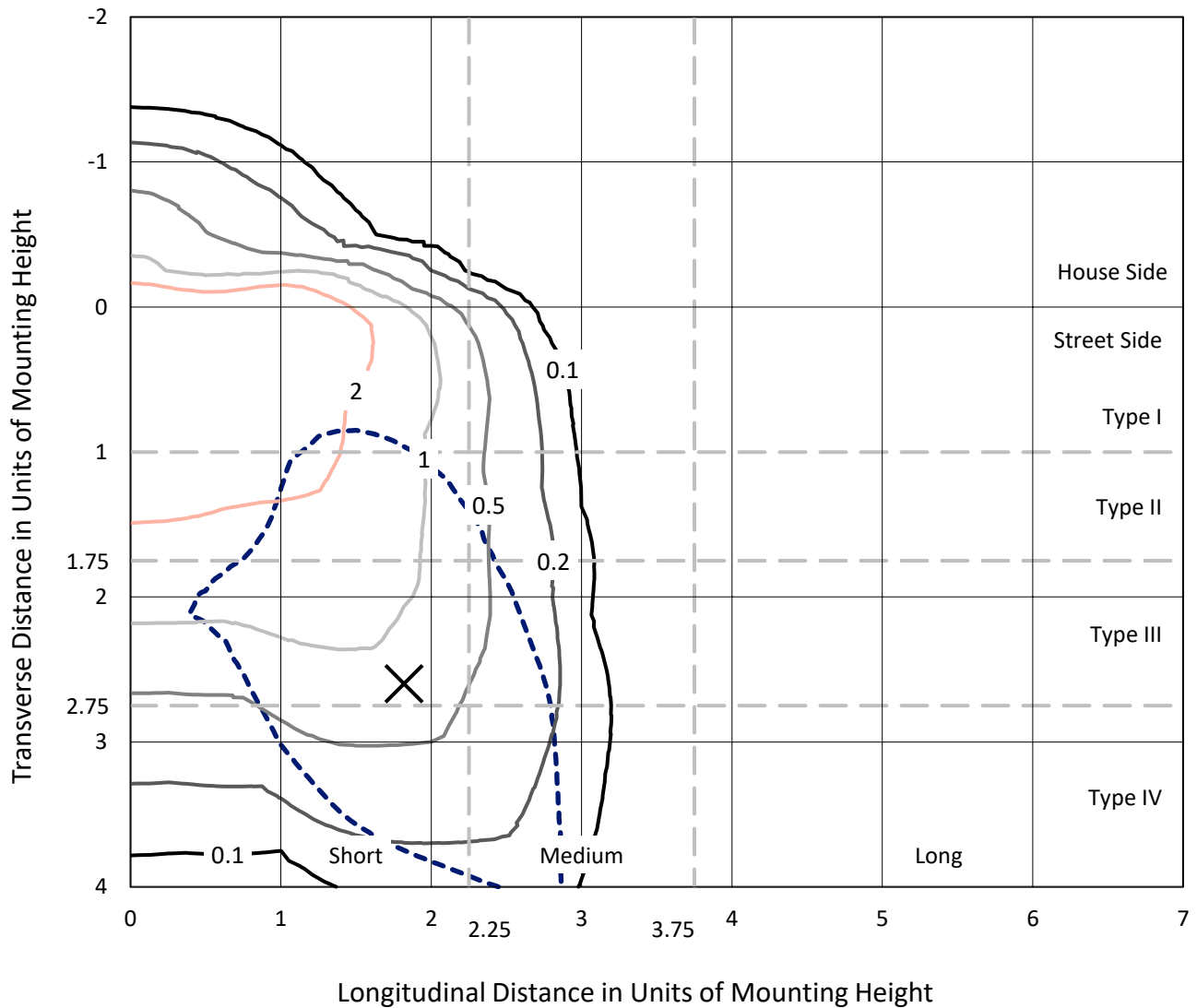
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

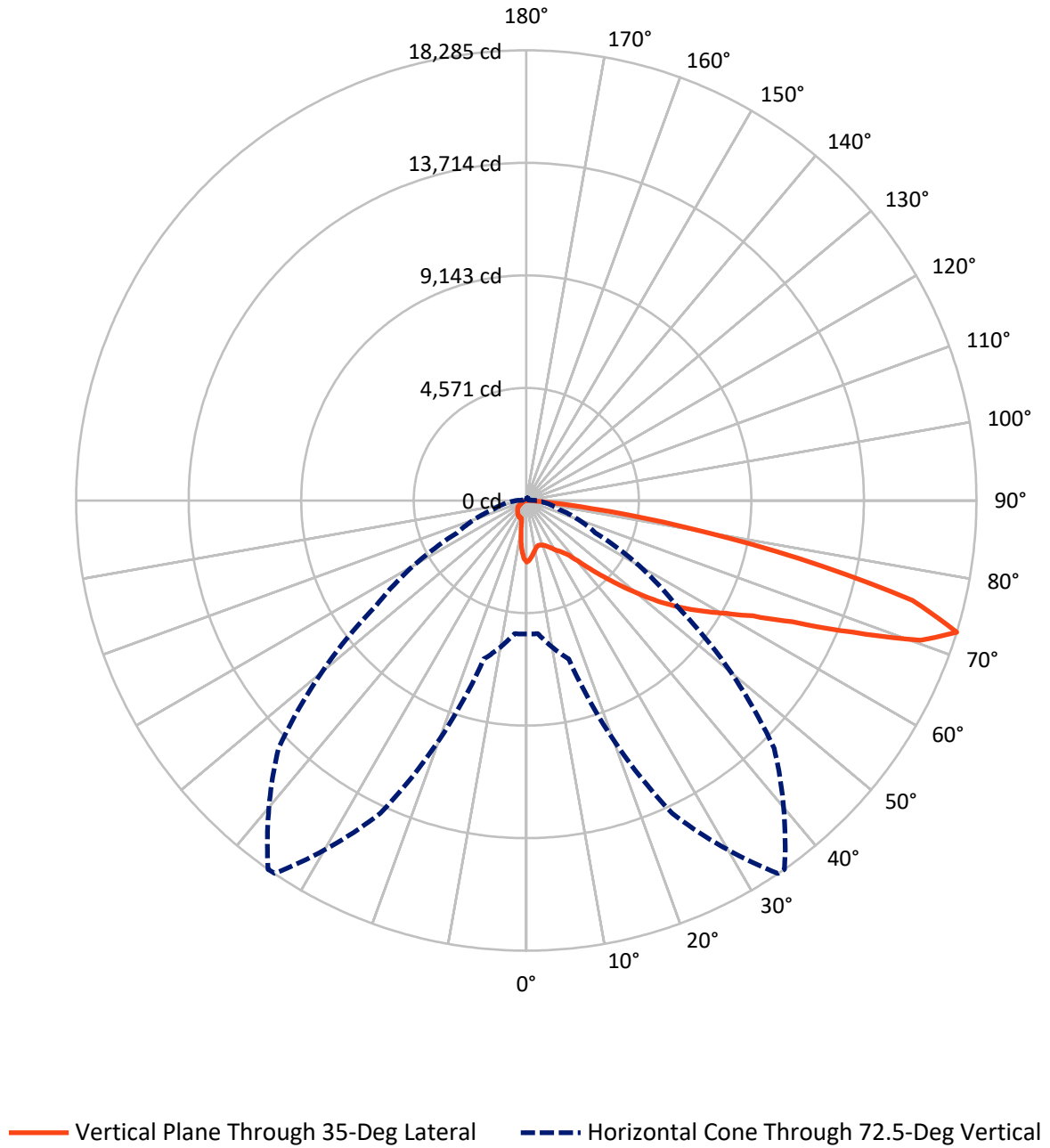
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1940.3	0.0	1940.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15299.7	0.0	15299.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	17240.0	0.0	17240.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	1.2
10°-20°	480.3	2.8
20°-30°	780.3	4.5
30°-40°	1301.9	7.6
40°-50°	2463.2	14.3
50°-60°	3914.0	22.7
60°-70°	4841.9	28.1
70°-80°	3009.8	17.5
80°-90°	243.2	1.4
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°	17240.0	100.0
0°-180°	17240.0	100.0

Coefficient of Utilization



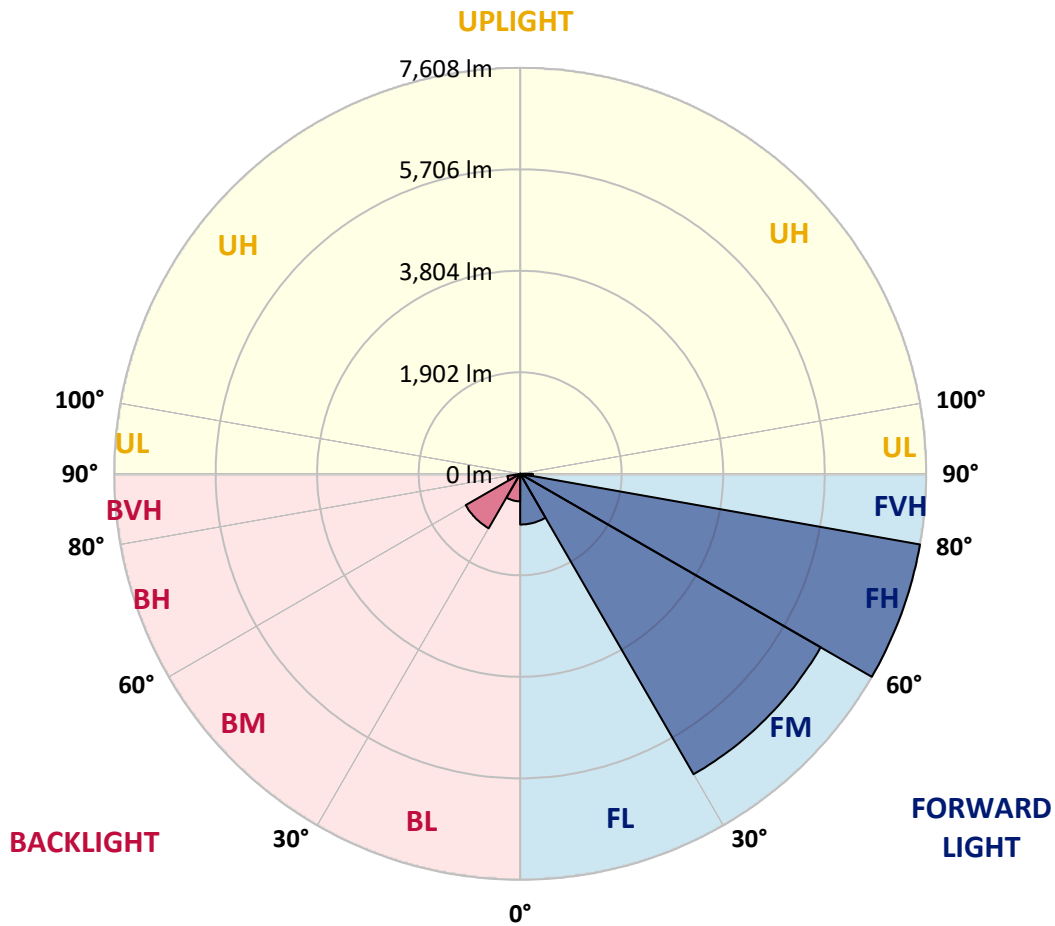
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	950.4	5.5			
FM (30°-60°)	6501.2	37.7			
FH (60°-80°)	7608.2	44.1			G4/12000
FVH (80°-90°)	239.9	1.4			G3/500
BL (0°-30°)	515.6	3.0	B2/1000		
BM (30°-60°)	1177.9	6.8	B2/2500		
BH (60°-80°)	243.5	1.4	B1/500		G1/500
BVH (80°-90°)	3.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7
2.5°	2387.5	2407.7	2411.5	2417.8	2417.8	2425.4	2438.0	2455.7	2484.8	2499.9	2510.0
5°	2200.5	2215.7	2234.6	2249.8	2278.9	2282.6	2331.9	2379.9	2446.9	2497.4	2532.8
7.5°	2012.3	2030.0	2055.3	2091.9	2129.8	2141.2	2215.7	2296.5	2402.6	2497.4	2556.8
10°	1879.7	1880.9	1903.7	1940.3	2000.9	2014.8	2105.8	2220.7	2353.4	2482.2	2579.5
12.5°	1805.1	1814.0	1824.1	1851.9	1910.0	1918.8	2016.1	2151.3	2304.1	2473.4	2606.0
15°	1805.1	1811.5	1817.8	1831.7	1878.4	1886.0	1971.9	2107.1	2278.9	2477.2	2649.0
17.5°	1824.1	1834.2	1829.1	1845.6	1894.8	1899.9	1975.7	2094.4	2277.6	2501.2	2714.7
20°	1869.6	1877.1	1867.0	1877.1	1926.4	1936.5	2014.8	2118.4	2299.1	2542.9	2796.8
22.5°	1941.6	1945.4	1921.4	1928.9	1979.5	1992.1	2083.1	2186.6	2350.9	2609.8	2906.7
25°	2032.5	2040.1	2003.5	2012.3	2060.3	2075.5	2180.3	2289.0	2433.0	2702.0	3046.9
27.5°	2137.4	2141.2	2109.6	2108.3	2170.2	2191.7	2297.8	2415.3	2542.9	2818.2	3223.7
30°	2257.4	2268.7	2238.4	2233.4	2311.7	2329.4	2434.2	2570.7	2704.6	2992.6	3475.1
32.5°	2352.1	2361.0	2343.3	2355.9	2435.5	2449.4	2599.7	2790.5	2958.5	3240.2	3817.5
35°	2488.5	2493.6	2453.2	2475.9	2566.9	2602.2	2825.8	3098.7	3278.1	3550.9	4264.6
37.5°	2982.5	2982.5	2810.7	2698.2	2785.4	2817.0	3135.3	3486.5	3672.2	3967.8	4828.0
40°	3665.9	3654.5	3403.1	3173.2	3161.8	3223.7	3576.2	3975.4	4181.3	4468.0	5462.2
42.5°	4394.8	4377.1	4034.7	3807.4	3769.5	3790.9	4085.3	4577.9	4787.6	5078.2	6144.3
45°	5041.5	5036.5	4723.2	4417.5	4349.3	4417.5	4720.7	5282.8	5433.1	5738.8	6825.2
47.5°	5583.4	5583.4	5354.8	5155.2	5119.8	5160.3	5580.9	6064.7	6050.8	6442.4	7488.4
50°	6207.5	6202.4	5985.1	5899.2	5935.9	5992.7	6571.3	6888.4	6690.0	7133.4	8080.8
52.5°	6644.6	6674.9	6600.3	6586.4	6773.4	6871.9	7576.8	7694.3	7262.3	7789.0	8524.2
55°	6990.7	7026.0	7111.9	7209.2	7569.2	7698.1	8550.8	8458.5	7741.0	8357.5	8779.4
57.5°	7480.8	7430.3	7562.9	7754.9	8337.3	8492.6	9494.4	9179.8	8126.3	8818.6	8807.2
60°	8075.8	8083.4	8106.1	8348.6	9104.0	9303.6	10424.1	9862.0	8373.9	9101.5	8499.0
62.5°	8790.8	8802.1	8848.9	9221.5	10133.6	10321.8	11414.5	10420.3	8487.6	9021.9	7703.1
65°	8741.5	8789.5	9311.2	10585.8	11698.7	11884.4	12570.3	10811.9	8315.8	8294.3	6271.9
67.5°	7963.4	8041.7	8914.6	12215.4	14058.4	14265.6	13967.5	10889.0	7574.3	6450.0	4091.6
70°	6942.7	6970.5	8020.2	13680.7	16790.8	17000.4	15218.0	10041.4	5747.7	3597.7	1832.9
72.5°	5421.8	5428.1	6659.7	14020.5	18273.8	18285.1	14236.5	7454.3	3091.1	1382.0	636.7
75°	3873.0	3835.1	4460.4	11370.3	16077.0	16205.9	10673.0	3496.6	1181.1	653.1	317.1
77.5°	2076.7	2118.4	2523.9	6743.1	11106.3	11326.1	5823.5	1008.1	601.3	444.7	209.7
80°	641.7	677.1	1034.6	3087.3	6290.8	6423.5	2158.8	448.4	419.4	317.1	137.7
82.5°	202.1	209.7	482.6	1297.3	2611.1	2671.7	625.3	253.9	286.8	209.7	80.8
85°	58.1	59.4	214.7	483.8	645.5	658.1	175.6	98.5	164.2	130.1	41.7
87.5°	6.3	20.2	80.8	80.8	56.8	55.6	18.9	21.5	46.7	16.4	7.6
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°	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7	2498.7
2.5°	2503.7	2505.0	2488.5	2460.8	2430.4	2405.2	2373.6	2348.3	2330.6	2325.6	2334.4
5°	2521.4	2512.5	2465.8	2381.2	2280.1	2193.0	2095.7	2018.6	1968.1	1946.6	1954.2
7.5°	2547.9	2522.7	2420.3	2253.6	2060.3	1888.5	1714.2	1579.0	1493.1	1450.2	1456.5
10°	2570.7	2520.1	2344.5	2069.2	1773.6	1513.3	1278.4	1115.4	1024.5	981.5	982.8
12.5°	2592.1	2518.9	2246.0	1850.6	1450.2	1131.8	913.3	832.5	807.2	798.4	795.8
15°	2632.6	2522.7	2122.2	1600.5	1128.1	855.2	775.6	774.4	779.4	776.9	775.6
17.5°	2688.1	2526.4	1982.0	1335.2	870.4	754.1	750.4	761.7	769.3	765.5	764.2
20°	2760.1	2541.6	1832.9	1072.5	747.8	728.9	737.7	747.8	754.1	747.8	746.6
22.5°	2861.2	2568.1	1670.0	861.5	708.7	713.7	721.3	732.7	739.0	730.1	728.9
25°	2985.0	2609.8	1509.6	749.1	689.7	696.0	707.4	720.0	727.6	718.8	717.5
27.5°	3145.4	2676.8	1361.8	723.8	670.8	674.6	691.0	709.9	720.0	708.7	708.7
30°	3377.9	2786.7	1234.2	735.2	659.4	650.6	673.3	699.8	711.2	701.1	699.8
32.5°	3686.1	2942.0	1155.8	752.9	654.3	622.8	644.2	678.4	697.3	691.0	691.0
35°	4090.3	3178.3	1125.5	773.1	650.6	593.7	608.9	645.5	678.4	684.7	684.7
37.5°	4580.4	3506.7	1134.4	781.9	639.2	569.7	577.3	608.9	651.8	672.0	677.1
40°	5137.5	3889.5	1184.9	773.1	626.6	549.5	550.8	574.8	612.7	643.0	653.1
42.5°	5712.3	4336.6	1278.4	740.2	615.2	531.8	528.0	544.4	569.7	591.2	600.0
45°	6259.3	4796.5	1370.6	694.8	601.3	514.1	505.3	511.6	516.7	525.5	530.6
47.5°	6736.8	5119.8	1344.1	653.1	582.3	493.9	478.8	476.2	461.1	459.8	458.5
50°	7066.5	5190.6	1193.7	611.4	554.6	471.2	447.2	432.0	405.5	392.9	394.1
52.5°	7171.3	4911.4	975.2	569.7	509.1	440.9	406.8	382.8	349.9	338.5	337.3
55°	7032.4	4364.4	779.4	519.2	445.9	400.4	362.5	331.0	304.4	290.5	290.5
57.5°	6692.6	3668.4	616.5	459.8	379.0	355.0	317.1	285.5	262.8	248.9	246.3
60°	6129.2	2913.0	487.6	389.1	323.4	305.7	266.5	246.3	226.1	209.7	205.9
62.5°	5274.0	2079.3	382.8	308.2	270.3	250.1	227.4	212.2	188.2	165.5	161.7
65°	4115.6	1272.1	295.6	226.1	217.3	207.2	193.3	179.4	150.3	127.6	123.8
67.5°	2595.9	602.6	211.0	170.5	171.8	166.7	160.4	149.1	127.6	107.4	104.8
70°	1143.2	291.8	139.0	130.1	127.6	127.6	132.6	128.8	108.6	89.7	85.9
72.5°	389.1	156.6	103.6	98.5	92.2	91.0	111.2	107.4	87.2	69.5	65.7
75°	203.4	104.8	75.8	70.7	55.6	67.0	88.4	83.4	61.9	45.5	41.7
77.5°	132.6	74.5	51.8	45.5	31.6	44.2	65.7	58.1	36.6	22.7	20.2
80°	83.4	49.3	30.3	21.5	15.2	24.0	35.4	25.3	13.9	5.1	3.8
82.5°	44.2	25.3	11.4	7.6	6.3	7.6	8.8	6.3	2.5	0.0	0.0
85°	17.7	8.8	3.8	2.5	1.3	0.0	2.5	1.3	0.0	0.0	0.0
87.5°	6.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)