

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: P884428

Luminaire Tested: **NAV-SB5B-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20309 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

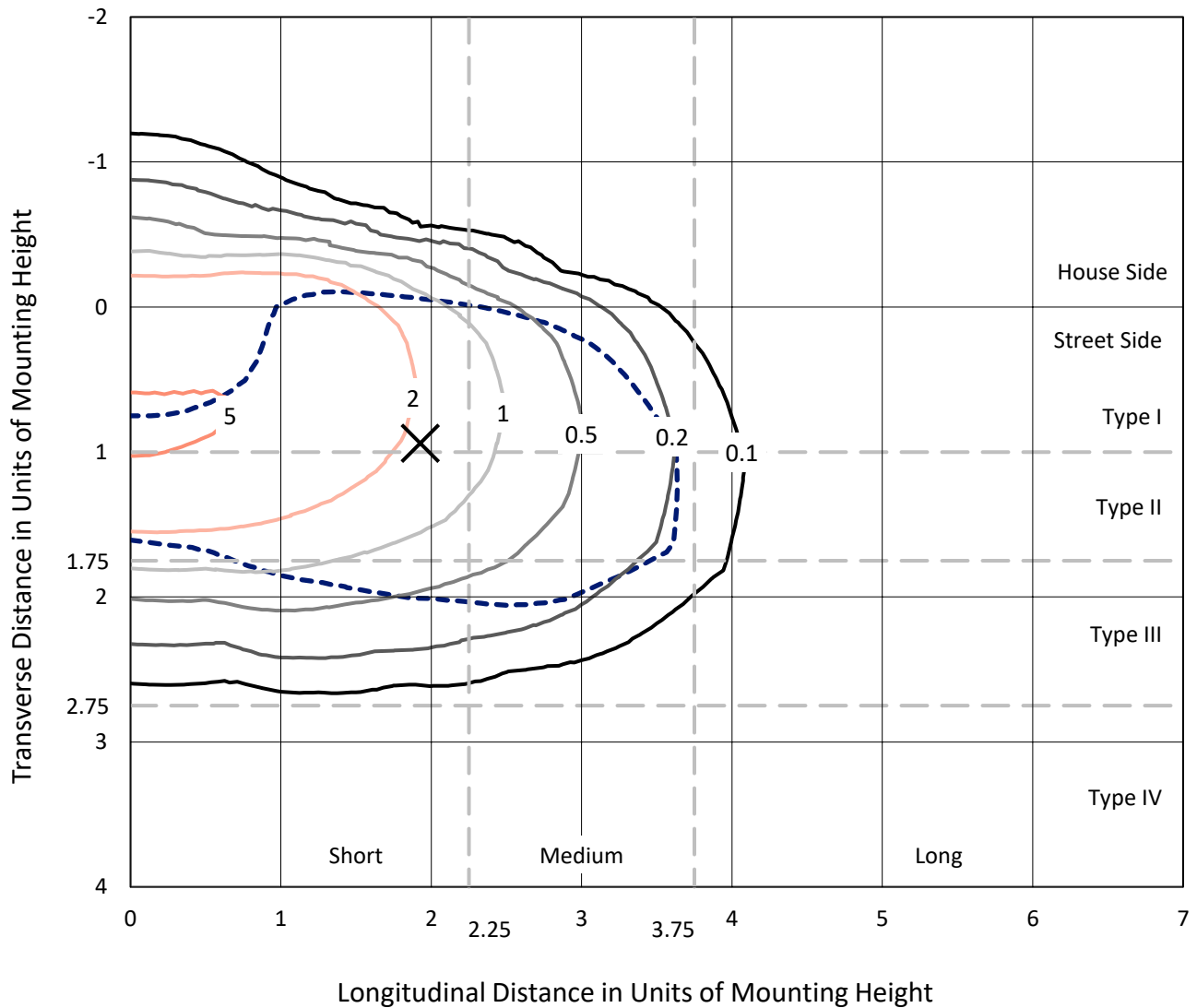
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

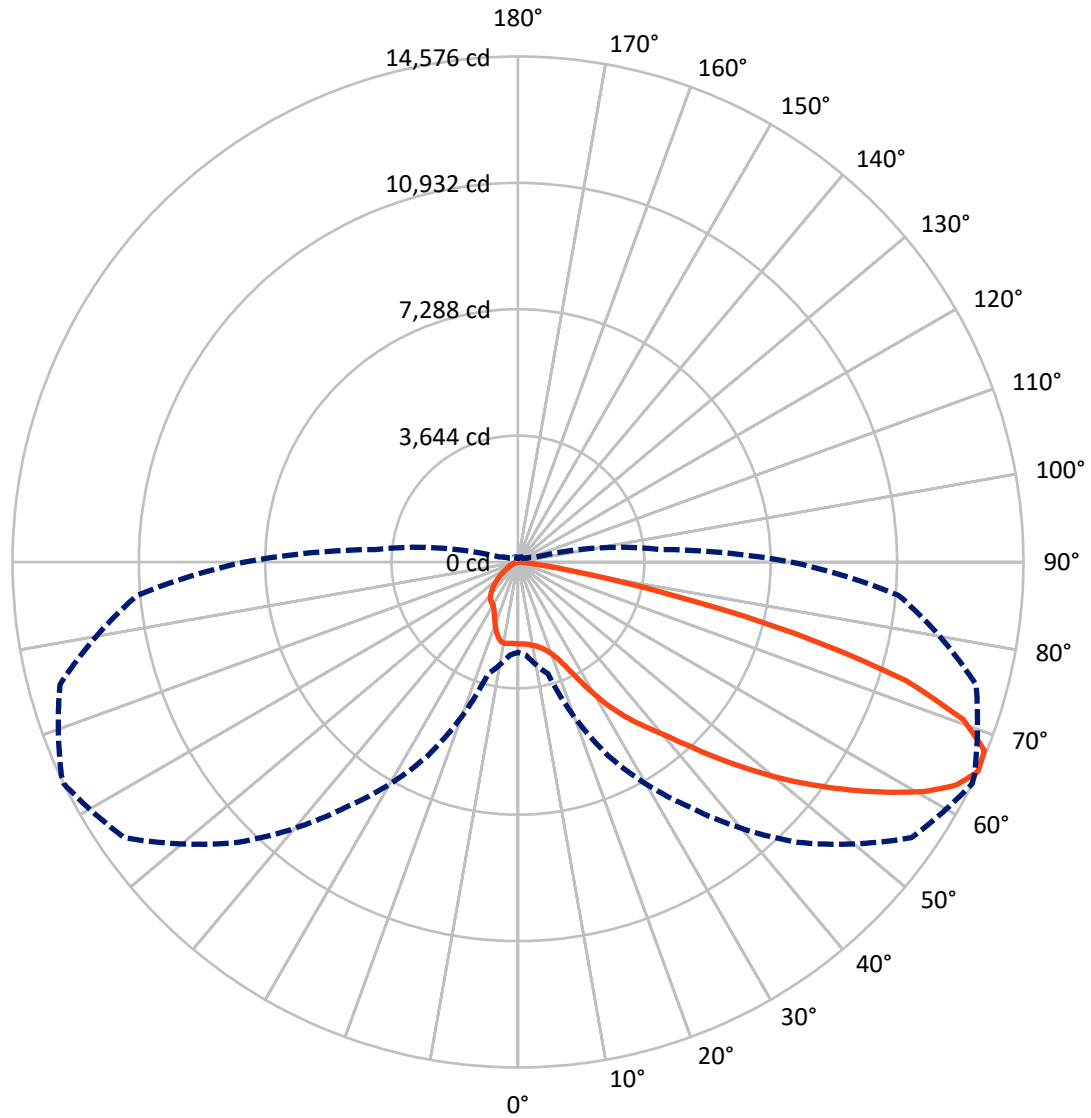
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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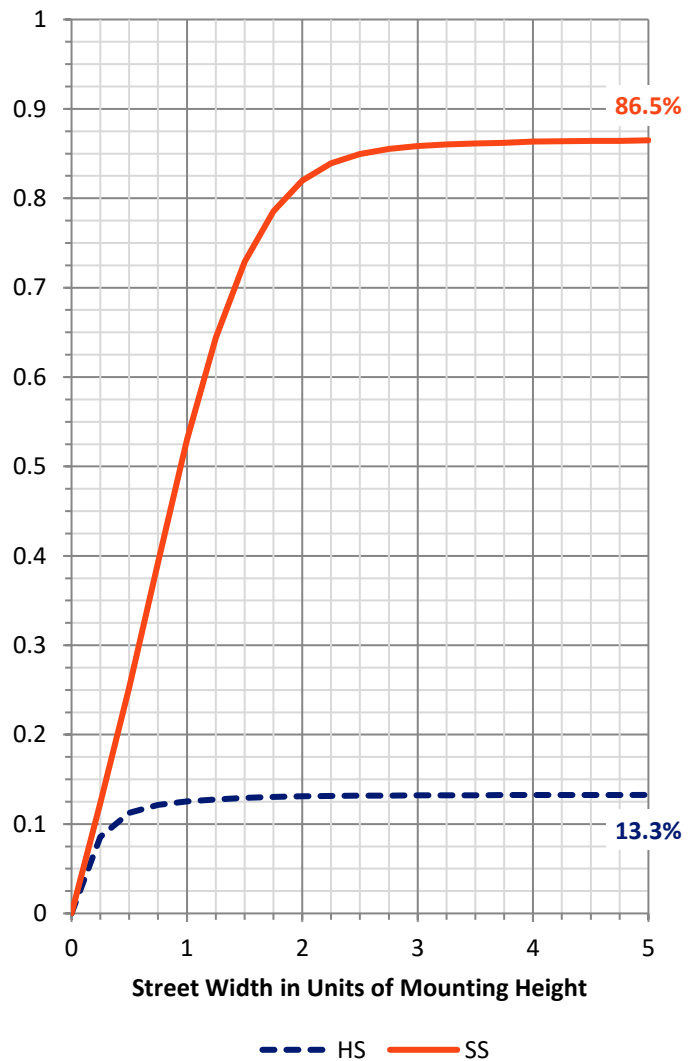
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2715.9	0.0	2715.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	17593.1	0.0	17593.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	20309.0	0.0	20309.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.9	1.1
10°-20°	591.1	2.9
20°-30°	1120.1	5.5
30°-40°	2266.5	11.2
40°-50°	3861.0	19.0
50°-60°	5250.7	25.9
60°-70°	4930.6	24.3
70°-80°	1975.4	9.7
80°-90°	95.7	0.5
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°	20309.0	100.0
0°-180°	20309.0	100.0

Coefficient of Utilization



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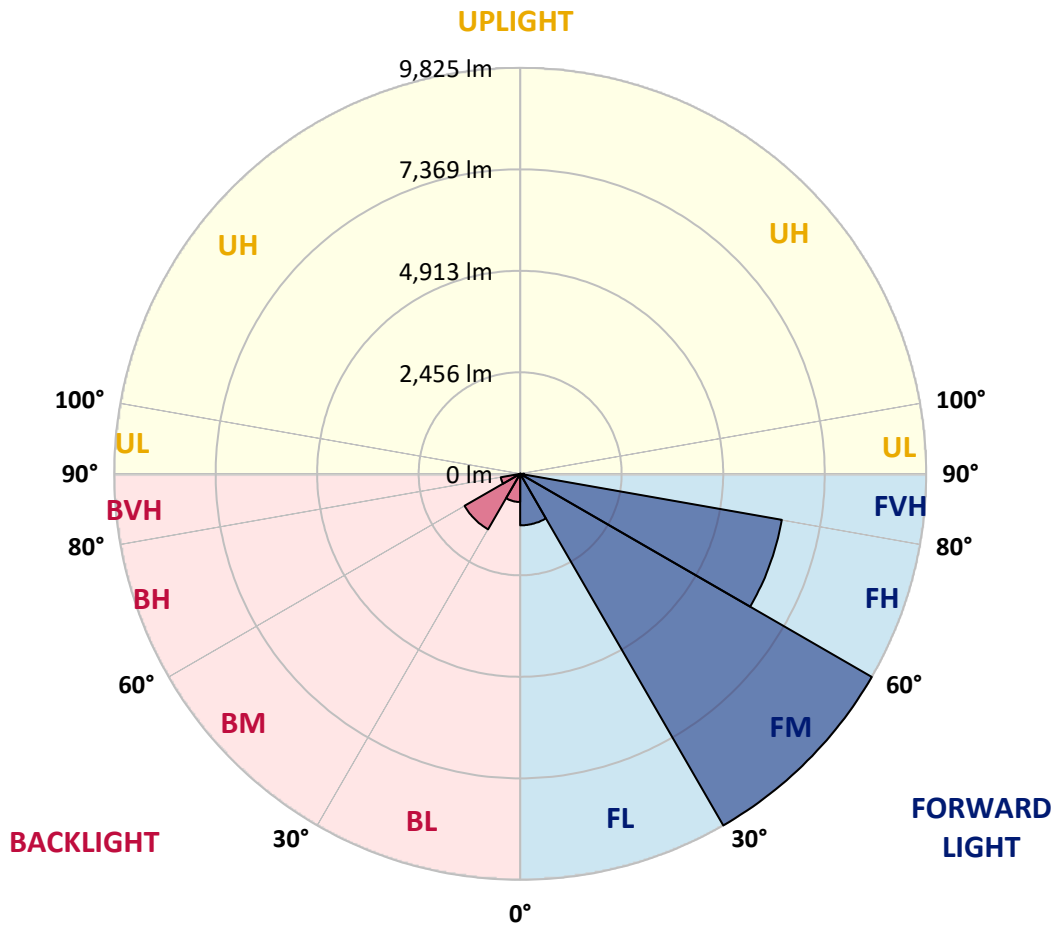
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1247.2	6.1			
FM (30°-60°)	9825.5	48.4			
FH (60°-80°)	6429.4	31.7			G3/7500
FVH (80°-90°)	91.0	0.4			G1/100
BL (0°-30°)	681.9	3.4	B2/1000		
BM (30°-60°)	1552.7	7.6	B2/2500		
BH (60°-80°)	476.7	2.3	B1/500		G1/500
BVH (80°-90°)	4.7	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1
2.5°	2354.0	2370.3	2366.2	2362.1	2360.8	2363.5	2364.9	2363.5	2363.5	2363.5	2364.9
5°	2309.1	2322.7	2322.7	2332.2	2345.8	2362.1	2374.4	2377.1	2379.8	2383.9	2382.6
7.5°	2223.3	2234.2	2242.3	2273.7	2307.7	2351.3	2388.0	2407.1	2409.8	2424.8	2430.2
10°	2164.7	2178.3	2192.0	2224.6	2273.7	2339.0	2401.6	2447.9	2454.7	2490.1	2506.5
12.5°	2162.0	2175.6	2193.3	2228.7	2285.9	2355.3	2431.6	2498.3	2510.5	2562.3	2596.3
15°	2190.6	2206.9	2223.3	2266.8	2328.1	2412.5	2494.2	2577.3	2589.5	2663.0	2699.8
17.5°	2249.1	2270.9	2283.2	2326.7	2392.1	2486.0	2593.6	2688.9	2699.8	2785.6	2831.9
20°	2364.9	2390.7	2394.8	2430.2	2494.2	2595.0	2722.9	2841.4	2855.0	2953.0	3004.8
22.5°	2604.5	2641.2	2608.6	2626.3	2683.5	2784.2	2923.1	3072.8	3091.9	3203.5	3249.8
25°	3026.5	3078.3	2993.9	2963.9	2988.4	3093.3	3267.5	3456.8	3478.6	3568.4	3591.6
27.5°	3855.7	3789.0	3661.0	3535.7	3462.2	3522.1	3718.2	3952.3	3979.6	4066.7	4039.5
30°	4766.5	4708.0	4535.1	4257.3	4083.0	4073.5	4254.6	4516.0	4547.3	4630.4	4547.3
32.5°	5678.7	5622.9	5435.0	5093.3	4791.0	4641.2	4766.5	5056.5	5072.8	5125.9	5003.4
35°	6575.9	6518.7	6330.8	5980.9	5609.2	5268.9	5244.4	5571.1	5576.6	5632.4	5450.0
37.5°	7478.5	7430.9	7230.8	6887.7	6521.4	6051.7	5824.4	6058.5	6065.3	6119.8	5930.6
40°	8122.5	8142.9	8005.4	7739.9	7425.4	6912.2	6475.1	6577.3	6536.4	6627.6	6514.6
42.5°	8675.3	8716.1	8596.3	8462.9	8280.5	7828.4	7281.1	7263.4	7198.1	7247.1	7130.0
45°	9153.2	9187.2	9079.6	9048.3	9044.2	8727.0	8162.0	8055.8	7964.6	7955.1	7814.8
47.5°	9328.8	9394.1	9440.4	9545.3	9749.5	9616.1	9072.8	8908.1	8806.0	8731.1	8509.2
50°	9395.5	9464.9	9622.9	9927.8	10411.1	10468.3	9979.6	9794.4	9669.1	9533.0	9206.2
52.5°	9305.6	9429.5	9641.9	10155.2	10856.3	11151.8	10849.5	10687.5	10544.6	10322.7	9838.0
55°	8776.0	8899.9	9334.2	10152.5	11078.3	11631.0	11671.9	11599.7	11439.1	11089.2	10348.5
57.5°	7659.6	7843.4	8531.0	9806.7	11074.2	12043.5	12477.9	12529.6	12349.9	11848.9	10750.2
60°	6113.0	6362.1	7200.8	9040.1	10732.5	12266.8	13184.5	13443.1	13252.5	12597.7	11075.5
62.5°	4265.5	4554.1	5347.8	7839.3	9951.0	12106.2	13700.5	14178.3	14034.0	13267.5	11200.8
65°	2601.8	2694.3	3334.2	6168.8	8622.2	11433.6	13859.7	14575.9	14528.2	13677.3	11015.6
67.5°	1733.1	1810.8	1994.6	4230.1	6693.0	10089.8	13478.5	14506.4	14520.1	13610.6	10337.6
70°	1044.2	1111.0	1230.8	2460.2	4337.6	7986.4	12298.1	13621.5	13700.5	12718.8	9052.4
72.5°	430.2	475.2	584.1	1115.0	2246.4	5068.7	9793.0	11695.0	11878.8	10694.3	6947.6
75°	243.7	266.8	343.1	559.6	974.8	2362.1	5931.9	8302.2	8573.2	7371.0	4179.7
77.5°	162.0	172.9	221.9	362.2	548.7	806.0	2535.1	4325.4	4842.7	4025.9	1809.4
80°	108.9	118.4	152.5	242.3	356.7	345.8	807.4	1602.4	1971.4	1383.3	441.1
82.5°	73.5	74.9	108.9	159.3	226.0	167.5	238.3	498.3	626.3	400.3	167.5
85°	42.2	40.8	80.3	92.6	100.7	69.4	72.2	149.8	196.1	168.8	95.3
87.5°	5.4	8.2	31.3	24.5	13.6	15.0	15.0	25.9	38.1	40.8	20.4
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°	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1	2362.1
2.5°	2364.9	2363.5	2359.4	2355.3	2345.8	2340.4	2343.1	2340.4	2339.0	2340.4	2345.8
5°	2382.6	2378.5	2367.6	2354.0	2334.9	2311.8	2296.8	2275.0	2254.6	2242.3	2245.1
7.5°	2430.2	2426.1	2411.2	2373.0	2311.8	2215.1	2126.6	2049.0	1990.5	1956.4	1957.8
10°	2506.5	2499.7	2476.5	2392.1	2231.4	2020.4	1844.8	1699.1	1603.8	1558.9	1554.8
12.5°	2596.3	2588.2	2547.3	2374.4	2079.0	1749.5	1507.1	1345.1	1256.6	1217.2	1213.1
15°	2702.5	2691.6	2611.3	2290.0	1857.0	1450.0	1228.0	1106.9	1049.7	1014.3	1015.7
17.5°	2834.6	2815.5	2658.9	2163.4	1616.1	1221.2	1056.5	965.3	914.9	880.9	878.1
20°	3006.1	2974.8	2697.1	2012.3	1394.1	1076.9	940.8	864.5	826.4	796.5	791.0
22.5°	3245.7	3200.8	2743.4	1848.9	1237.6	977.5	855.0	799.2	767.9	733.8	728.4
25°	3542.5	3489.4	2800.5	1697.8	1130.0	891.8	792.4	746.1	709.3	669.8	665.8
27.5°	3957.8	3862.5	2868.6	1573.9	1037.4	818.2	735.2	683.5	641.3	608.6	601.8
30°	4420.7	4264.1	2928.5	1499.0	953.0	750.2	660.3	608.6	569.1	545.9	541.9
32.5°	4859.1	4646.7	2968.0	1466.3	876.8	672.6	578.6	522.8	492.9	486.0	490.1
35°	5273.0	4992.5	2963.9	1435.0	808.7	595.0	498.3	441.1	418.0	422.1	422.1
37.5°	5749.5	5361.5	2935.3	1386.0	752.9	524.2	428.9	378.5	358.1	359.4	364.9
40°	6303.6	5787.6	2917.6	1293.4	691.6	458.8	371.7	330.8	315.9	310.4	309.1
42.5°	6894.5	6200.1	2920.3	1188.6	615.4	400.3	332.2	298.2	284.5	280.5	279.1
45°	7488.1	6593.6	2924.4	1079.6	535.1	355.3	303.6	275.0	266.8	261.4	261.4
47.5°	8046.3	6928.5	2848.2	962.6	456.1	321.3	280.5	261.4	254.6	247.8	247.8
50°	8566.4	7151.8	2664.4	826.4	393.5	294.1	262.8	249.1	242.3	235.5	235.5
52.5°	8970.7	7187.2	2360.8	686.2	349.9	273.7	251.9	239.6	231.4	224.6	223.3
55°	9150.4	6965.3	1929.2	555.5	315.9	256.0	241.0	228.7	219.2	212.4	211.0
57.5°	9104.1	6498.3	1504.4	446.6	283.2	238.3	227.4	219.2	208.3	197.4	196.1
60°	8876.8	5873.4	1134.1	371.7	253.2	219.2	212.4	205.6	190.6	174.3	171.5
62.5°	8483.3	5087.8	808.7	307.7	220.6	197.4	194.7	189.2	167.5	137.5	134.8
65°	7881.5	4133.4	544.6	256.0	189.2	172.9	174.3	164.7	136.1	102.1	99.4
67.5°	7002.0	3022.5	348.5	209.7	157.9	144.3	145.7	140.2	115.7	87.1	83.0
70°	5881.5	2001.4	227.4	159.3	126.6	111.6	119.8	121.2	98.0	70.8	68.1
72.5°	4311.8	1181.8	159.3	118.4	92.6	77.6	98.0	100.7	79.0	53.1	50.4
75°	2457.5	560.9	119.8	85.8	57.2	54.5	76.2	76.2	54.5	35.4	32.7
77.5°	1032.0	234.2	84.4	55.8	32.7	31.3	51.7	47.7	27.2	16.3	16.3
80°	298.2	104.8	44.9	27.2	13.6	12.3	20.4	15.0	6.8	2.7	2.7
82.5°	117.1	46.3	17.7	10.9	5.4	5.4	2.7	0.0	0.0	0.0	0.0
85°	69.4	19.1	8.2	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.7	4.1	2.7	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)