

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: P882210

Luminaire Tested: **NAV-SB2A-722-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882210  
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-SB2A-722-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

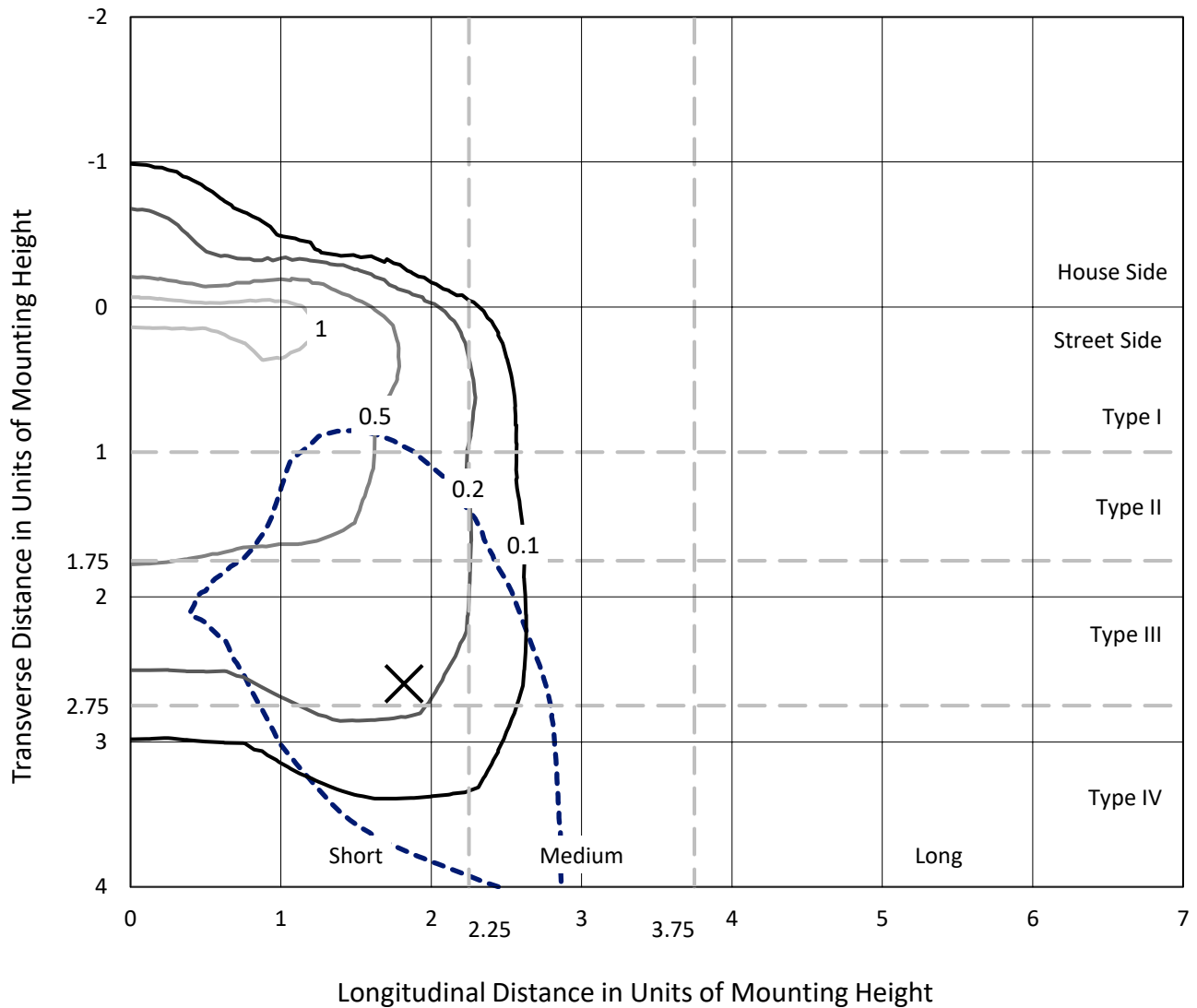
Lumens per Lamp: N/A  
Luminaire Lumens: 5516 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

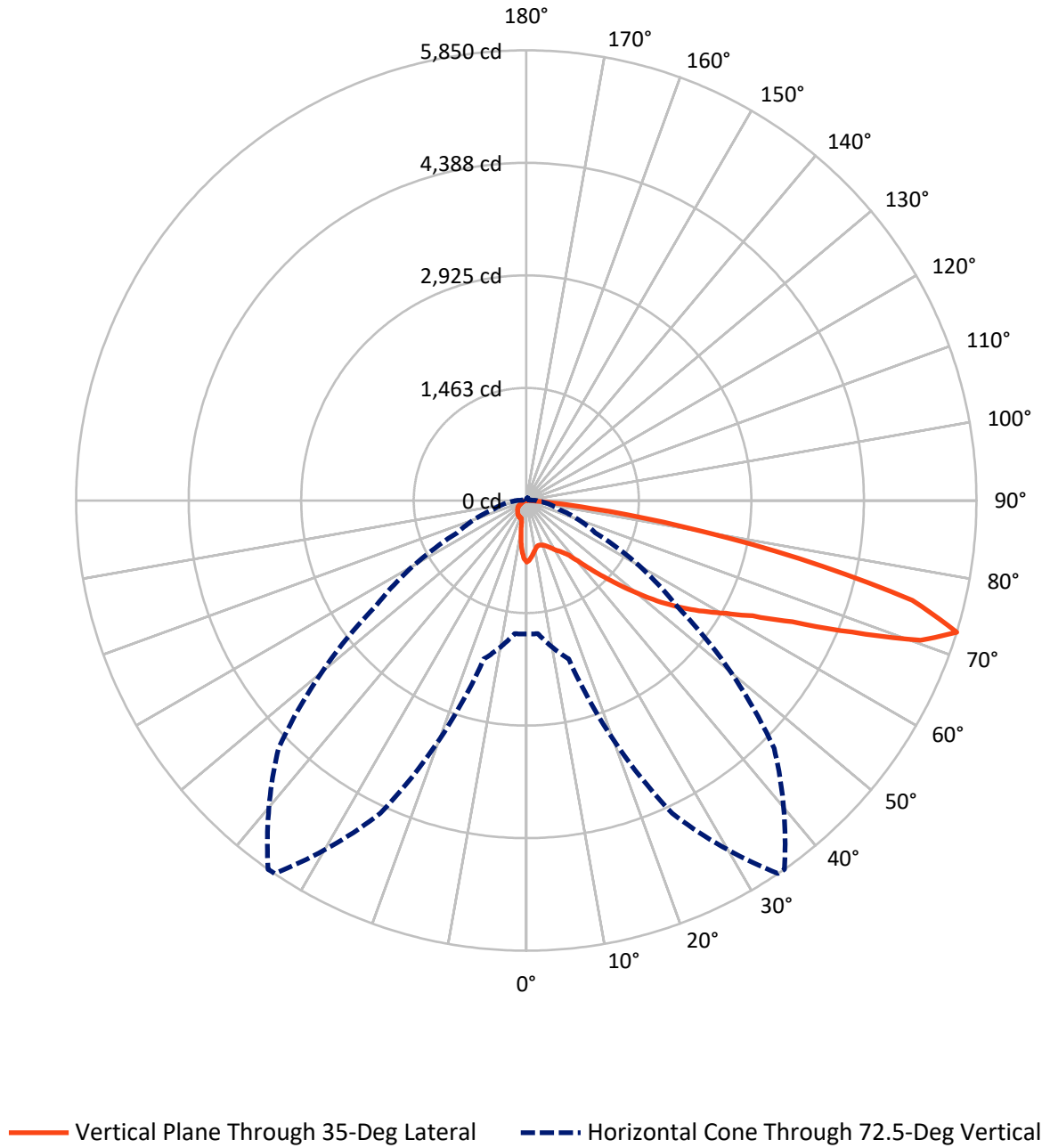
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	620.8	0.0	620.8
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	4895.2	0.0	4895.2
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	5516.0	0.0	5516.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	1.2
10°-20°	153.7	2.8
20°-30°	249.7	4.5
30°-40°	416.5	7.6
40°-50°	788.1	14.3
50°-60°	1252.3	22.7
60°-70°	1549.2	28.1
70°-80°	963.0	17.5
80°-90°	77.8	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°	5516.0	100.0
0°-180°	5516.0	100.0

**Coefficient of Utilization**



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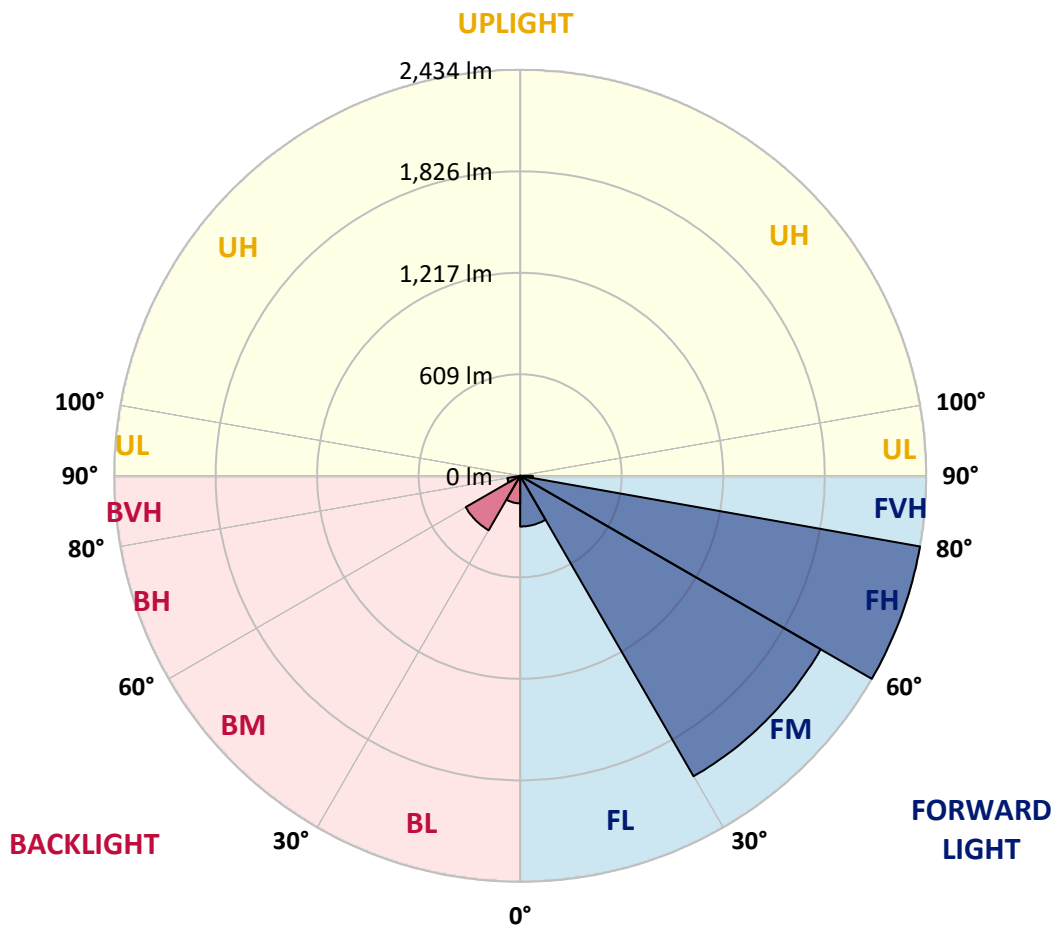
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	304.1	5.5			
FM (30°-60°)	2080.1	37.7			
FH (60°-80°)	2434.3	44.1			G2/5000
FVH (80°-90°)	76.8	1.4			G1/100
BL (0°-30°)	165.0	3.0	B1/500		
BM (30°-60°)	376.9	6.8	B1/1000		
BH (60°-80°)	77.9	1.4	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5
2.5°	763.9	770.4	771.6	773.6	773.6	776.0	780.1	785.7	795.0	799.9	803.1
5°	704.1	708.9	715.0	719.8	729.1	730.3	746.1	761.5	782.9	799.0	810.4
7.5°	643.8	649.5	657.6	669.3	681.4	685.1	708.9	734.8	768.7	799.0	818.0
10°	601.4	601.8	609.1	620.8	640.2	644.7	673.8	710.5	753.0	794.2	825.3
12.5°	577.6	580.4	583.6	592.5	611.1	613.9	645.1	688.3	737.2	791.4	833.8
15°	577.6	579.6	581.6	586.1	601.0	603.4	630.9	674.2	729.1	792.6	847.5
17.5°	583.6	586.9	585.2	590.5	606.3	607.9	632.1	670.1	728.7	800.3	868.6
20°	598.2	600.6	597.4	600.6	616.4	619.6	644.7	677.8	735.6	813.6	894.8
22.5°	621.2	622.4	614.7	617.2	633.3	637.4	666.5	699.6	752.2	835.0	930.0
25°	650.3	652.7	641.0	643.8	659.2	664.1	697.6	732.4	778.4	864.5	974.9
27.5°	683.9	685.1	675.0	674.6	694.4	701.2	735.2	772.8	813.6	901.7	1031.4
30°	722.3	725.9	716.2	714.6	739.6	745.3	778.8	822.5	865.3	957.5	1111.9
32.5°	752.6	755.4	749.7	753.8	779.2	783.7	831.8	892.8	946.6	1036.7	1221.4
35°	796.2	797.8	784.9	792.2	821.3	832.6	904.1	991.4	1048.8	1136.1	1364.5
37.5°	954.3	954.3	899.3	863.3	891.2	901.3	1003.2	1115.5	1174.9	1269.5	1544.7
40°	1172.9	1169.3	1088.8	1015.3	1011.6	1031.4	1144.2	1271.9	1337.8	1429.6	1747.6
42.5°	1406.1	1400.5	1290.9	1218.2	1206.1	1212.9	1307.1	1464.7	1531.8	1624.8	1965.9
45°	1613.1	1611.4	1511.2	1413.4	1391.6	1413.4	1510.4	1690.2	1738.3	1836.2	2183.7
47.5°	1786.4	1786.4	1713.3	1649.4	1638.1	1651.0	1785.6	1940.4	1936.0	2061.3	2395.9
50°	1986.1	1984.5	1915.0	1887.5	1899.2	1917.4	2102.5	2204.0	2140.5	2282.4	2585.5
52.5°	2125.9	2135.6	2111.8	2107.4	2167.2	2198.7	2424.2	2461.8	2323.6	2492.1	2727.4
55°	2236.7	2248.0	2275.5	2306.6	2421.8	2463.0	2735.8	2706.3	2476.8	2674.0	2809.0
57.5°	2393.5	2377.3	2419.8	2481.2	2667.5	2717.3	3037.8	2937.1	2600.0	2821.5	2817.9
60°	2583.9	2586.3	2593.6	2671.2	2912.9	2976.7	3335.2	3155.4	2679.3	2912.1	2719.3
62.5°	2812.6	2816.3	2831.2	2950.5	3242.3	3302.5	3652.1	3334.0	2715.6	2886.6	2464.6
65°	2796.9	2812.2	2979.2	3387.0	3743.0	3802.5	4021.9	3459.3	2660.7	2653.8	2006.7
67.5°	2547.9	2573.0	2852.2	3908.3	4498.0	4564.3	4468.9	3484.0	2423.4	2063.7	1309.1
70°	2221.3	2230.2	2566.1	4377.2	5372.3	5439.4	4869.1	3212.8	1839.0	1151.1	586.5
72.5°	1734.7	1736.7	2130.8	4485.9	5846.8	5850.4	4555.0	2385.0	989.0	442.2	203.7
75°	1239.2	1227.1	1427.1	3638.0	5143.9	5185.1	3414.9	1118.7	377.9	209.0	101.4
77.5°	664.5	677.8	807.5	2157.5	3553.5	3623.8	1863.2	322.5	192.4	142.3	67.1
80°	205.3	216.6	331.0	987.8	2012.8	2055.2	690.7	143.5	134.2	101.4	44.1
82.5°	64.7	67.1	154.4	415.1	835.4	854.8	200.1	81.2	91.7	67.1	25.9
85°	18.6	19.0	68.7	154.8	206.5	210.6	56.2	31.5	52.5	41.6	13.3
87.5°	2.0	6.5	25.9	25.9	18.2	17.8	6.1	6.9	15.0	5.3	2.4
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°	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5
2.5°	801.1	801.5	796.2	787.3	777.6	769.5	759.4	751.4	745.7	744.1	746.9
5°	806.7	803.9	788.9	761.9	729.5	701.6	670.5	645.9	629.7	622.8	625.3
7.5°	815.2	807.1	774.4	721.0	659.2	604.2	548.5	505.2	477.7	464.0	466.0
10°	822.5	806.3	750.1	662.0	567.5	484.2	409.0	356.9	327.8	314.0	314.4
12.5°	829.4	805.9	718.6	592.1	464.0	362.1	292.2	266.3	258.3	255.4	254.6
15°	842.3	807.1	679.0	512.1	360.9	273.6	248.2	247.8	249.4	248.6	248.2
17.5°	860.1	808.3	634.1	427.2	278.5	241.3	240.1	243.7	246.1	244.9	244.5
20°	883.1	813.2	586.5	343.1	239.3	233.2	236.0	239.3	241.3	239.3	238.9
22.5°	915.5	821.7	534.3	275.6	226.7	228.4	230.8	234.4	236.4	233.6	233.2
25°	955.1	835.0	483.0	239.7	220.7	222.7	226.3	230.4	232.8	230.0	229.6
27.5°	1006.4	856.4	435.7	231.6	214.6	215.8	221.1	227.1	230.4	226.7	226.7
30°	1080.8	891.6	394.9	235.2	211.0	208.1	215.4	223.9	227.5	224.3	223.9
32.5°	1179.4	941.3	369.8	240.9	209.4	199.3	206.1	217.0	223.1	221.1	221.1
35°	1308.7	1016.9	360.1	247.4	208.1	190.0	194.8	206.5	217.0	219.1	219.1
37.5°	1465.5	1122.0	362.9	250.2	204.5	182.3	184.7	194.8	208.6	215.0	216.6
40°	1643.8	1244.4	379.1	247.4	200.5	175.8	176.2	183.9	196.0	205.7	209.0
42.5°	1827.7	1387.5	409.0	236.8	196.8	170.2	168.9	174.2	182.3	189.2	192.0
45°	2002.7	1534.6	438.5	222.3	192.4	164.5	161.7	163.7	165.3	168.1	169.8
47.5°	2155.5	1638.1	430.0	209.0	186.3	158.0	153.2	152.4	147.5	147.1	146.7
50°	2260.9	1660.7	381.9	195.6	177.4	150.8	143.1	138.2	129.7	125.7	126.1
52.5°	2294.5	1571.4	312.0	182.3	162.9	141.1	130.1	122.5	112.0	108.3	107.9
55°	2250.0	1396.4	249.4	166.1	142.7	128.1	116.0	105.9	97.4	93.0	93.0
57.5°	2141.3	1173.7	197.2	147.1	121.3	113.6	101.4	91.3	84.1	79.6	78.8
60°	1961.0	932.0	156.0	124.5	103.5	97.8	85.3	78.8	72.3	67.1	65.9
62.5°	1687.4	665.3	122.5	98.6	86.5	80.0	72.8	67.9	60.2	52.9	51.7
65°	1316.8	407.0	94.6	72.3	69.5	66.3	61.8	57.4	48.1	40.8	39.6
67.5°	830.6	192.8	67.5	54.6	55.0	53.4	51.3	47.7	40.8	34.4	33.5
70°	365.8	93.4	44.5	41.6	40.8	40.8	42.4	41.2	34.8	28.7	27.5
72.5°	124.5	50.1	33.1	31.5	29.5	29.1	35.6	34.4	27.9	22.2	21.0
75°	65.1	33.5	24.3	22.6	17.8	21.4	28.3	26.7	19.8	14.6	13.3
77.5°	42.4	23.8	16.6	14.6	10.1	14.1	21.0	18.6	11.7	7.3	6.5
80°	26.7	15.8	9.7	6.9	4.9	7.7	11.3	8.1	4.4	1.6	1.2
82.5°	14.1	8.1	3.6	2.4	2.0	2.4	2.8	2.0	0.8	0.0	0.0
85°	5.7	2.8	1.2	0.8	0.4	0.0	0.8	0.4	0.0	0.0	0.0
87.5°	2.0	0.4	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)