

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: P882290

Luminaire Tested: **NAV-SB2A-830-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882290
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-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 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: 6057 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

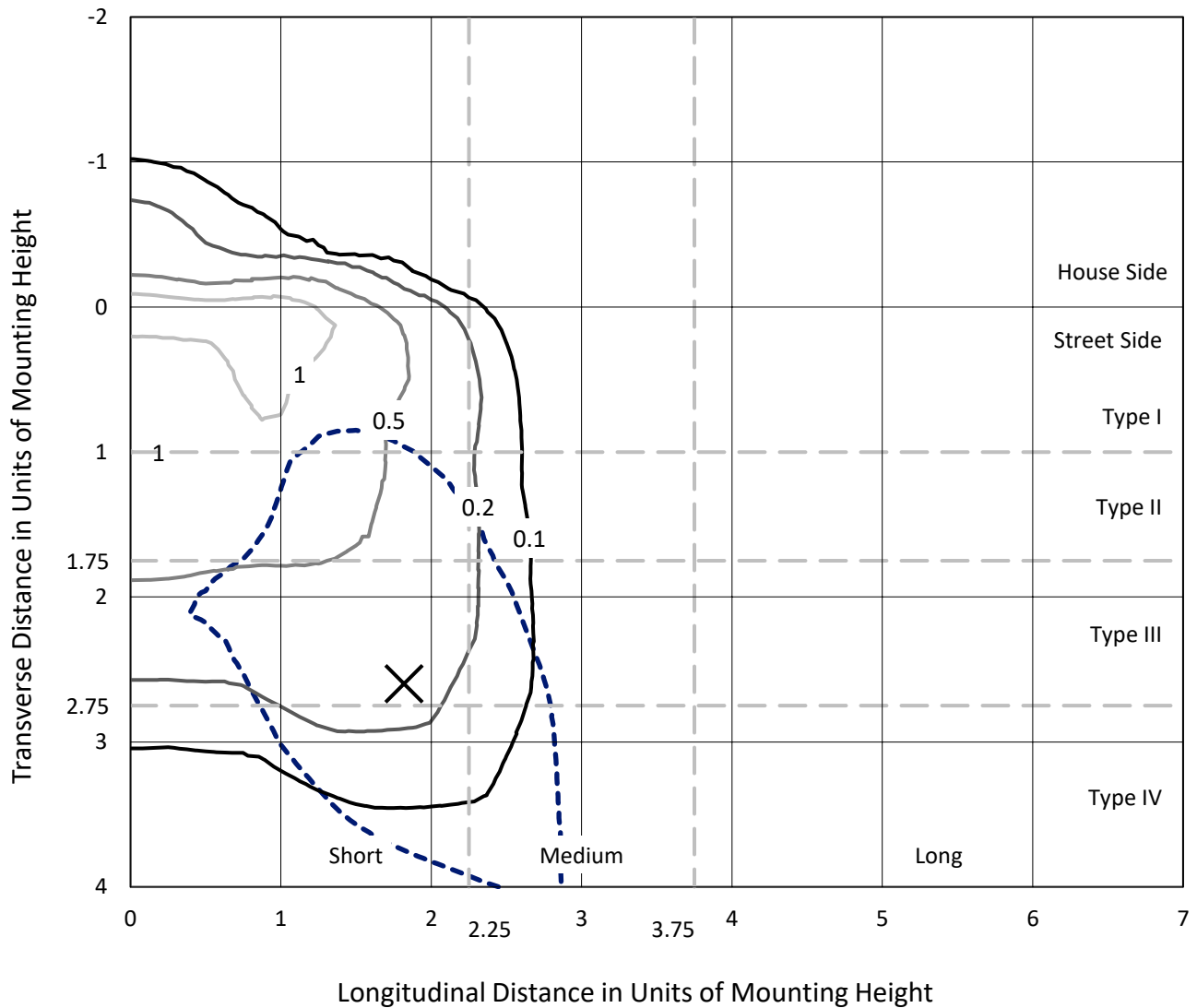
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

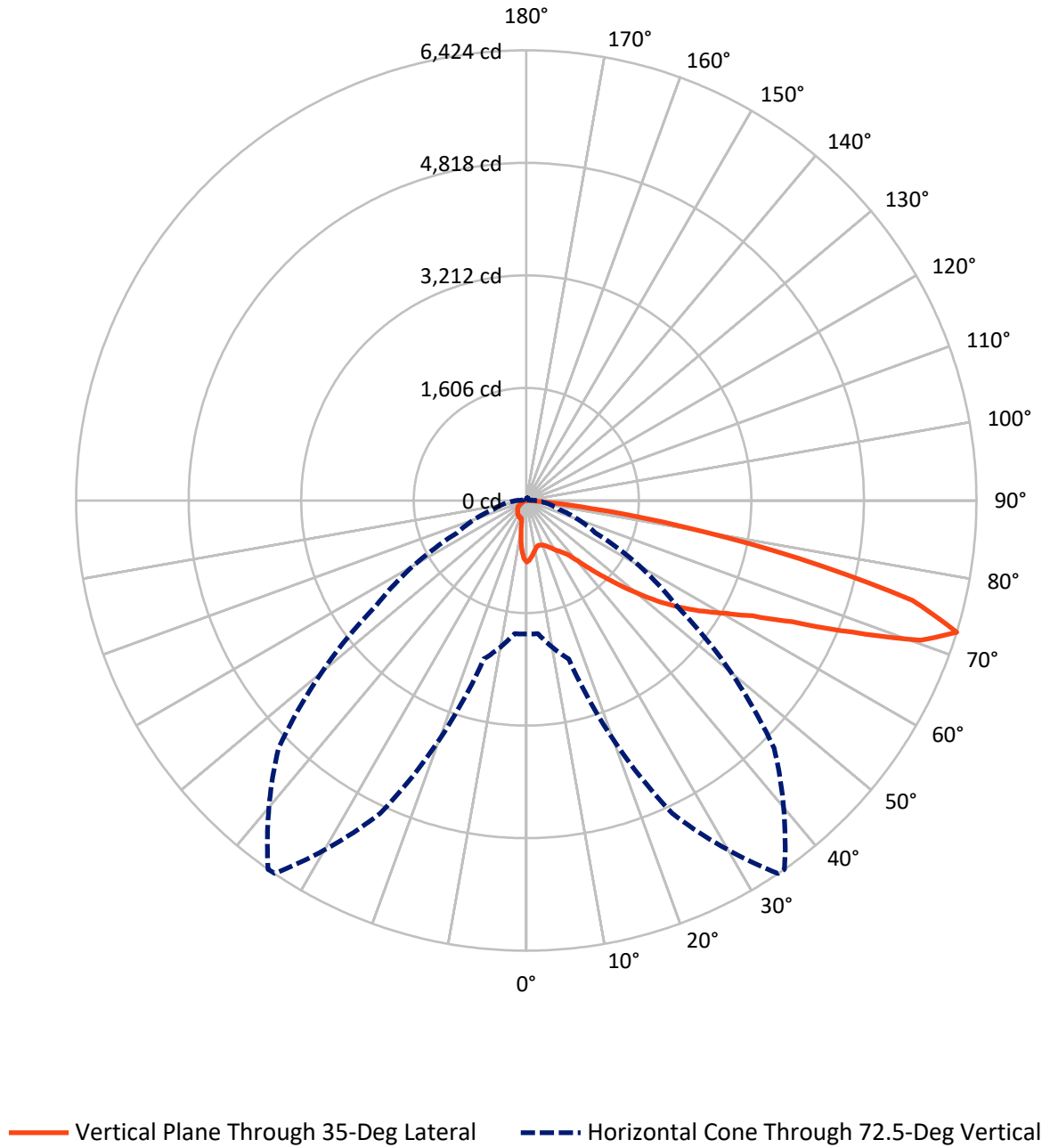
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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	681.7	0.0	681.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	5375.3	0.0	5375.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	6057.0	0.0	6057.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	1.2
10°-20°	168.8	2.8
20°-30°	274.1	4.5
30°-40°	457.4	7.6
40°-50°	865.4	14.3
50°-60°	1375.1	22.7
60°-70°	1701.1	28.1
70°-80°	1057.4	17.5
80°-90°	85.5	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°	6057.0	100.0
0°-180°	6057.0	100.0

Coefficient of Utilization



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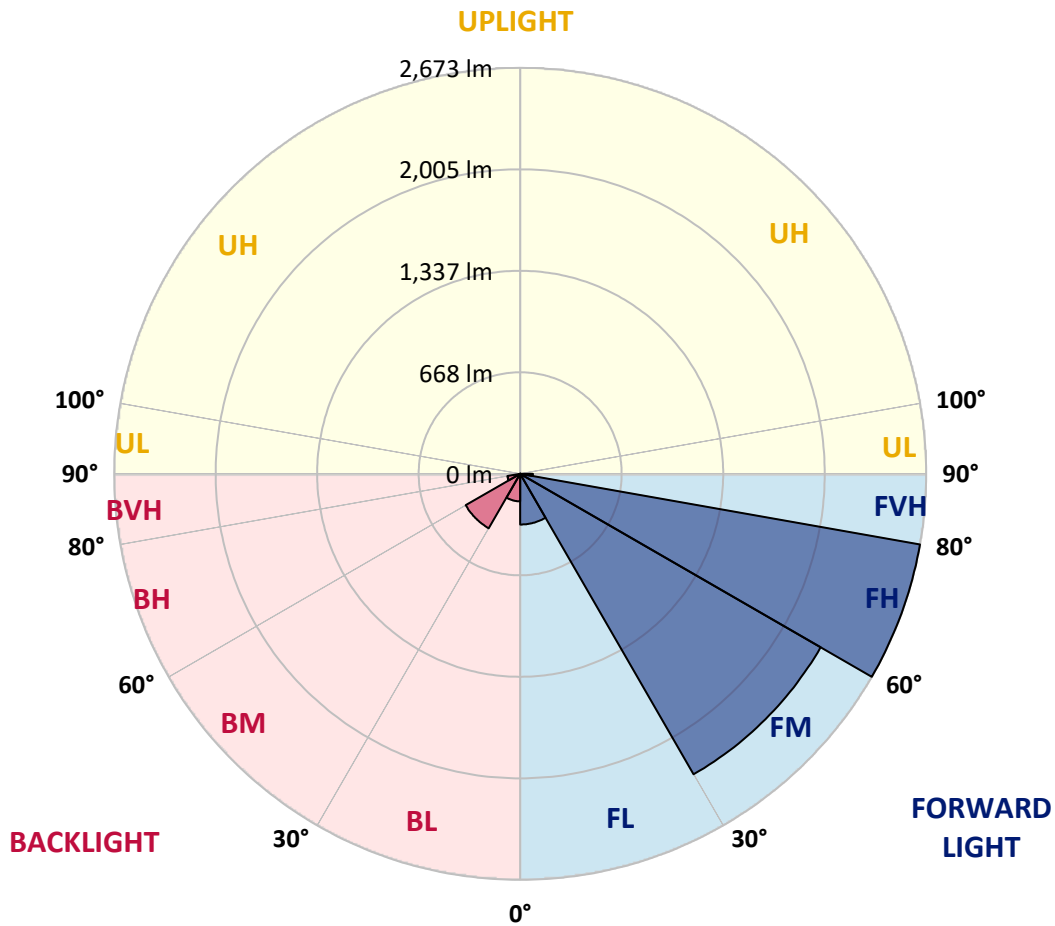
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	333.9	5.5			
FM (30°-60°)	2284.1	37.7			
FH (60°-80°)	2673.0	44.1			G2/5000
FVH (80°-90°)	84.3	1.4			G1/100
BL (0°-30°)	181.1	3.0	B1/500		
BM (30°-60°)	413.8	6.8	B1/1000		
BH (60°-80°)	85.5	1.4	B0/110		G0/110
BVH (80°-90°)	1.2	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°	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9
2.5°	838.8	845.9	847.2	849.5	849.5	852.1	856.6	862.8	873.0	878.3	881.9
5°	773.1	778.4	785.1	790.4	800.6	802.0	819.3	836.1	859.7	877.4	889.8
7.5°	707.0	713.2	722.1	735.0	748.3	752.3	778.4	806.9	844.1	877.4	898.3
10°	660.4	660.8	668.8	681.7	703.0	707.9	739.8	780.2	826.8	872.1	906.3
12.5°	634.2	637.3	640.9	650.6	671.0	674.2	708.3	755.8	809.5	869.0	915.6
15°	634.2	636.4	638.6	643.5	660.0	662.6	692.8	740.3	800.6	870.3	930.7
17.5°	640.9	644.4	642.6	648.4	665.7	667.5	694.1	735.8	800.2	878.8	953.8
20°	656.8	659.5	656.0	659.5	676.8	680.4	707.9	744.3	807.7	893.4	982.6
22.5°	682.1	683.5	675.0	677.7	695.5	699.9	731.8	768.2	825.9	916.9	1021.2
25°	714.1	716.8	703.9	707.0	723.9	729.2	766.0	804.2	854.8	949.3	1070.5
27.5°	750.9	752.3	741.2	740.7	762.5	770.0	807.3	848.6	893.4	990.1	1132.6
30°	793.1	797.1	786.4	784.7	812.2	818.4	855.2	903.2	950.2	1051.4	1220.9
32.5°	826.4	829.5	823.3	827.7	855.7	860.6	913.4	980.4	1039.4	1138.4	1341.2
35°	874.3	876.1	861.9	869.9	901.8	914.3	992.8	1088.7	1151.7	1247.6	1498.3
37.5°	1047.8	1047.8	987.5	948.0	978.6	989.7	1101.5	1224.9	1290.2	1394.0	1696.3
40°	1287.9	1284.0	1195.6	1114.9	1110.9	1132.6	1256.4	1396.7	1469.0	1569.8	1919.0
42.5°	1544.0	1537.8	1417.5	1337.7	1324.3	1331.9	1435.3	1608.4	1682.1	1784.1	2158.7
45°	1771.3	1769.5	1659.4	1552.0	1528.0	1552.0	1658.5	1856.0	1908.8	2016.2	2397.9
47.5°	1961.7	1961.7	1881.3	1811.2	1798.8	1813.0	1960.8	2130.7	2125.9	2263.4	2630.9
50°	2180.9	2179.1	2102.8	2072.6	2085.5	2105.4	2308.7	2420.1	2350.4	2506.2	2839.1
52.5°	2334.5	2345.1	2318.9	2314.0	2379.7	2414.3	2662.0	2703.3	2551.5	2736.6	2994.9
55°	2456.1	2468.5	2498.7	2532.8	2659.3	2704.6	3004.2	2971.8	2719.7	2936.3	3084.5
57.5°	2628.3	2610.5	2657.1	2724.6	2929.2	2983.8	3335.7	3225.2	2855.0	3098.3	3094.3
60°	2837.3	2840.0	2847.9	2933.2	3198.6	3268.7	3662.3	3464.8	2942.0	3197.7	2986.0
62.5°	3088.5	3092.5	3108.9	3239.8	3560.3	3626.4	4010.3	3661.0	2982.0	3169.7	2706.4
65°	3071.2	3088.1	3271.3	3719.2	4110.2	4175.4	4416.4	3798.6	2921.6	2914.1	2203.5
67.5°	2797.8	2825.3	3132.0	4291.7	4939.2	5012.0	4907.2	3825.7	2661.1	2266.1	1437.5
70°	2439.2	2449.0	2817.8	4806.5	5899.2	5972.8	5346.6	3527.9	2019.3	1264.0	644.0
72.5°	1904.8	1907.1	2339.8	4925.9	6420.2	6424.2	5001.8	2618.9	1086.0	485.5	223.7
75°	1360.7	1347.4	1567.1	3994.8	5648.4	5693.7	3749.8	1228.5	415.0	229.5	111.4
77.5°	729.6	744.3	886.7	2369.1	3902.0	3979.2	2046.0	354.2	211.3	156.2	73.7
80°	225.5	237.9	363.5	1084.7	2210.2	2256.8	758.5	157.6	147.3	111.4	48.4
82.5°	71.0	73.7	169.5	455.8	917.4	938.7	219.7	89.2	100.7	73.7	28.4
85°	20.4	20.9	75.4	170.0	226.8	231.2	61.7	34.6	57.7	45.7	14.6
87.5°	2.2	7.1	28.4	28.4	20.0	19.5	6.7	7.5	16.4	5.8	2.7
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°	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9
2.5°	879.6	880.1	874.3	864.5	853.9	845.0	833.9	825.0	818.8	817.1	820.2
5°	885.9	882.7	866.3	836.6	801.1	770.5	736.3	709.2	691.5	683.9	686.6
7.5°	895.2	886.3	850.3	791.8	723.9	663.5	602.3	554.8	524.6	509.5	511.7
10°	903.2	885.4	823.7	727.0	623.1	531.7	449.1	391.9	359.9	344.8	345.3
12.5°	910.7	885.0	789.1	650.2	509.5	397.7	320.9	292.5	283.6	280.5	279.6
15°	924.9	886.3	745.6	562.3	396.3	300.5	272.5	272.1	273.8	272.9	272.5
17.5°	944.4	887.6	696.3	469.1	305.8	265.0	263.6	267.6	270.3	269.0	268.5
20°	969.7	893.0	644.0	376.8	262.7	256.1	259.2	262.7	265.0	262.7	262.3
22.5°	1005.2	902.3	586.7	302.7	249.0	250.8	253.4	257.4	259.6	256.5	256.1
25°	1048.7	916.9	530.4	263.2	242.3	244.5	248.5	253.0	255.6	252.5	252.1
27.5°	1105.1	940.4	478.4	254.3	235.7	237.0	242.8	249.4	253.0	249.0	249.0
30°	1186.8	979.1	433.6	258.3	231.7	228.6	236.6	245.9	249.9	246.3	245.9
32.5°	1295.0	1033.6	406.1	264.5	229.9	218.8	226.3	238.3	245.0	242.8	242.8
35°	1437.1	1116.6	395.4	271.6	228.6	208.6	213.9	226.8	238.3	240.5	240.5
37.5°	1609.3	1232.0	398.5	274.7	224.6	200.2	202.8	213.9	229.0	236.1	237.9
40°	1805.0	1366.5	416.3	271.6	220.1	193.1	193.5	201.9	215.2	225.9	229.5
42.5°	2006.9	1523.6	449.1	260.1	216.1	186.8	185.5	191.3	200.2	207.7	210.8
45°	2199.1	1685.2	481.5	244.1	211.3	180.6	177.5	179.7	181.5	184.6	186.4
47.5°	2366.9	1798.8	472.2	229.5	204.6	173.5	168.2	167.3	162.0	161.5	161.1
50°	2482.7	1823.6	419.4	214.8	194.8	165.5	157.1	151.8	142.5	138.0	138.5
52.5°	2519.5	1725.5	342.6	200.2	178.9	154.9	142.9	134.5	122.9	118.9	118.5
55°	2470.7	1533.4	273.8	182.4	156.7	140.7	127.4	116.3	107.0	102.1	102.1
57.5°	2351.3	1288.8	216.6	161.5	133.1	124.7	111.4	100.3	92.3	87.4	86.5
60°	2153.4	1023.4	171.3	136.7	113.6	107.4	93.6	86.5	79.4	73.7	72.3
62.5°	1852.9	730.5	134.5	108.3	95.0	87.9	79.9	74.6	66.1	58.1	56.8
65°	1445.9	446.9	103.9	79.4	76.3	72.8	67.9	63.0	52.8	44.8	43.5
67.5°	912.0	211.7	74.1	59.9	60.4	58.6	56.4	52.4	44.8	37.7	36.8
70°	401.7	102.5	48.8	45.7	44.8	44.8	46.6	45.3	38.2	31.5	30.2
72.5°	136.7	55.0	36.4	34.6	32.4	32.0	39.1	37.7	30.6	24.4	23.1
75°	71.5	36.8	26.6	24.9	19.5	23.5	31.1	29.3	21.7	16.0	14.6
77.5°	46.6	26.2	18.2	16.0	11.1	15.5	23.1	20.4	12.9	8.0	7.1
80°	29.3	17.3	10.7	7.5	5.3	8.4	12.4	8.9	4.9	1.8	1.3
82.5°	15.5	8.9	4.0	2.7	2.2	2.7	3.1	2.2	0.9	0.0	0.0
85°	6.2	3.1	1.3	0.9	0.4	0.0	0.9	0.4	0.0	0.0	0.0
87.5°	2.2	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)