

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: P883736

Luminaire Tested: **NAV-SB4B-722-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883736
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13279 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

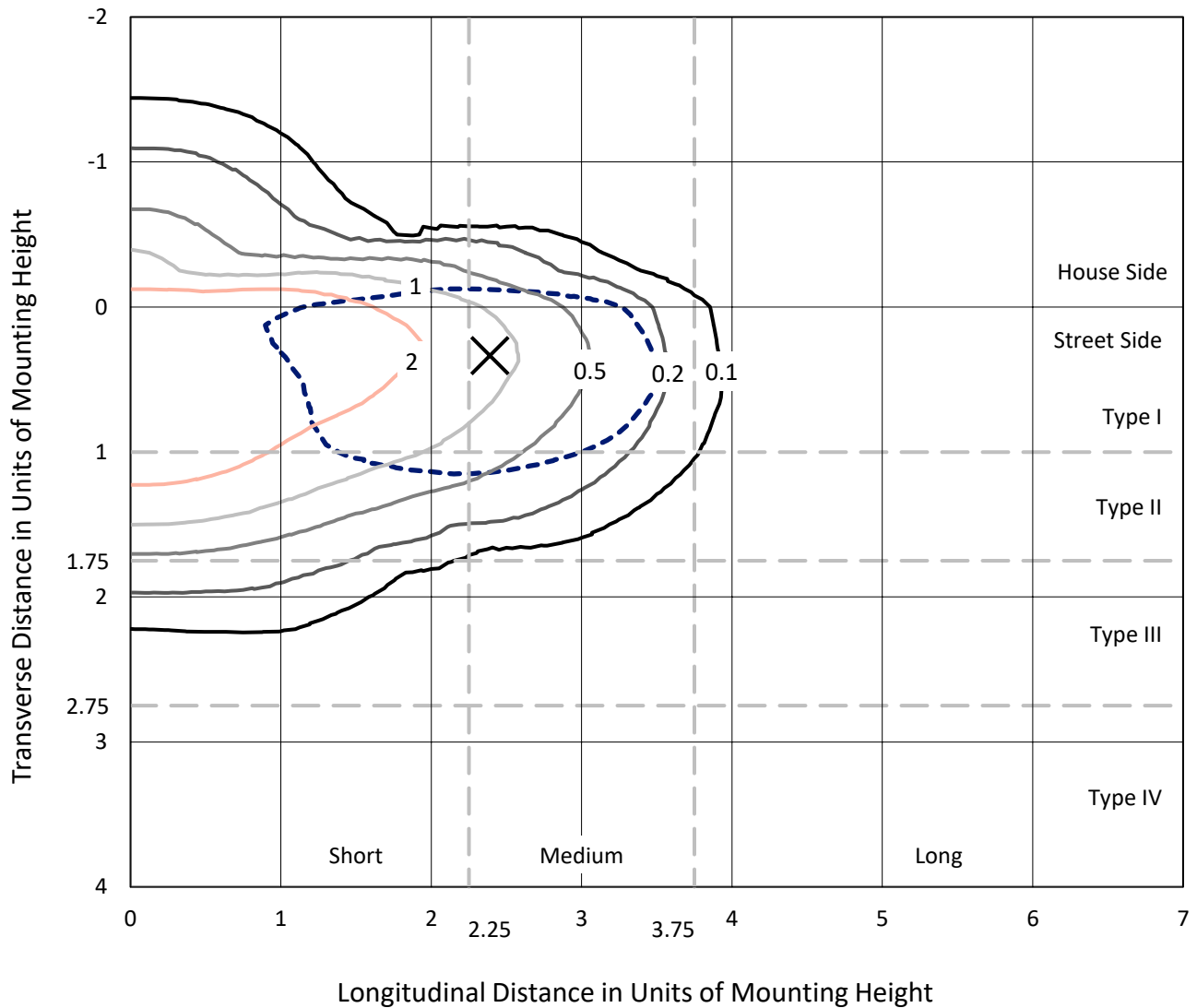
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

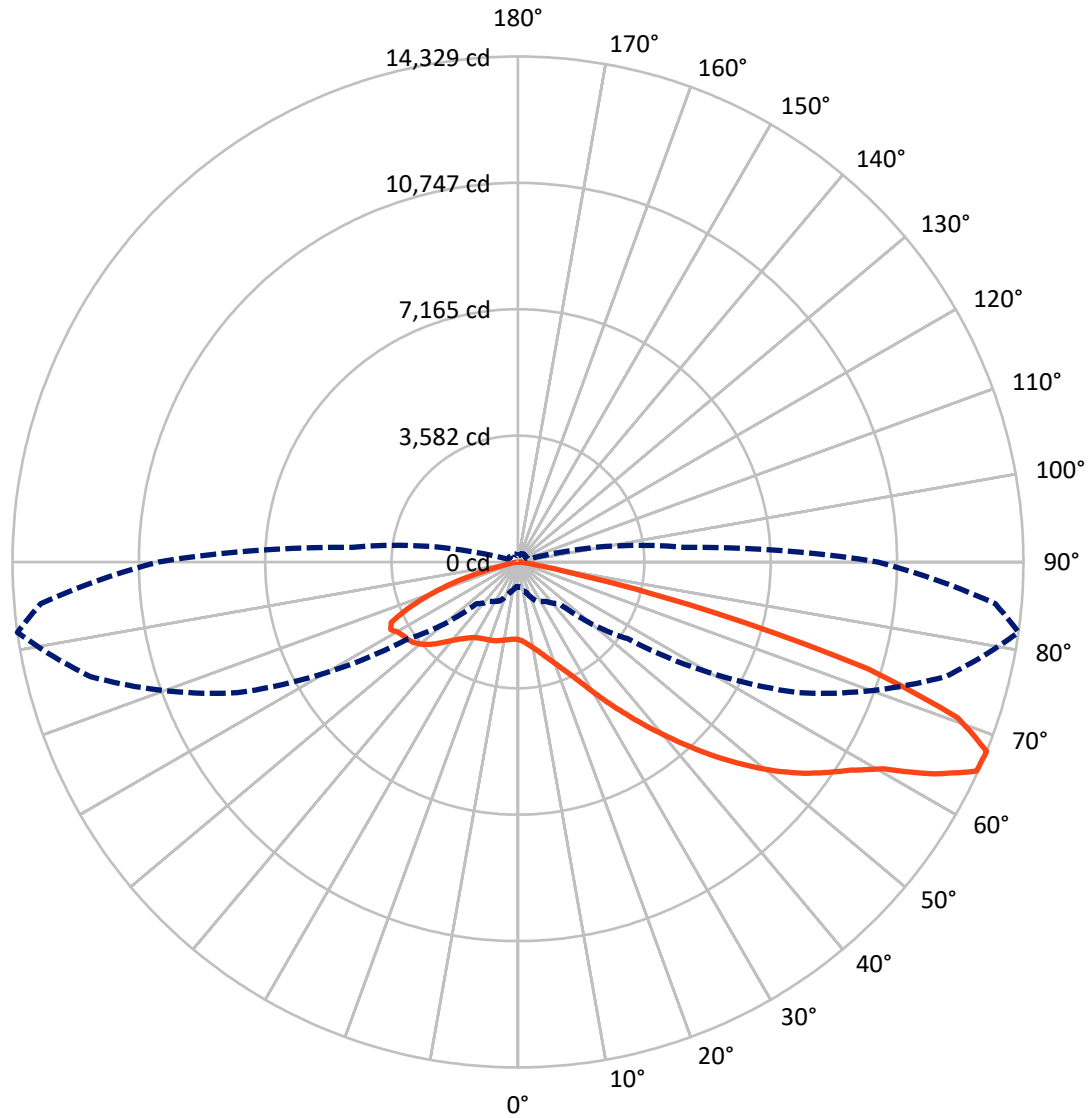
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2405.4	0.0	2405.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10873.6	0.0	10873.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	13279.0	0.0	13279.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	1.5
10°-20°	509.3	3.8
20°-30°	815.7	6.1
30°-40°	1442.5	10.9
40°-50°	2527.4	19.0
50°-60°	3370.8	25.4
60°-70°	3138.1	23.6
70°-80°	1204.4	9.1
80°-90°	74.8	0.6
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°	13279.0	100.0
0°-180°	13279.0	100.0

Coefficient of Utilization



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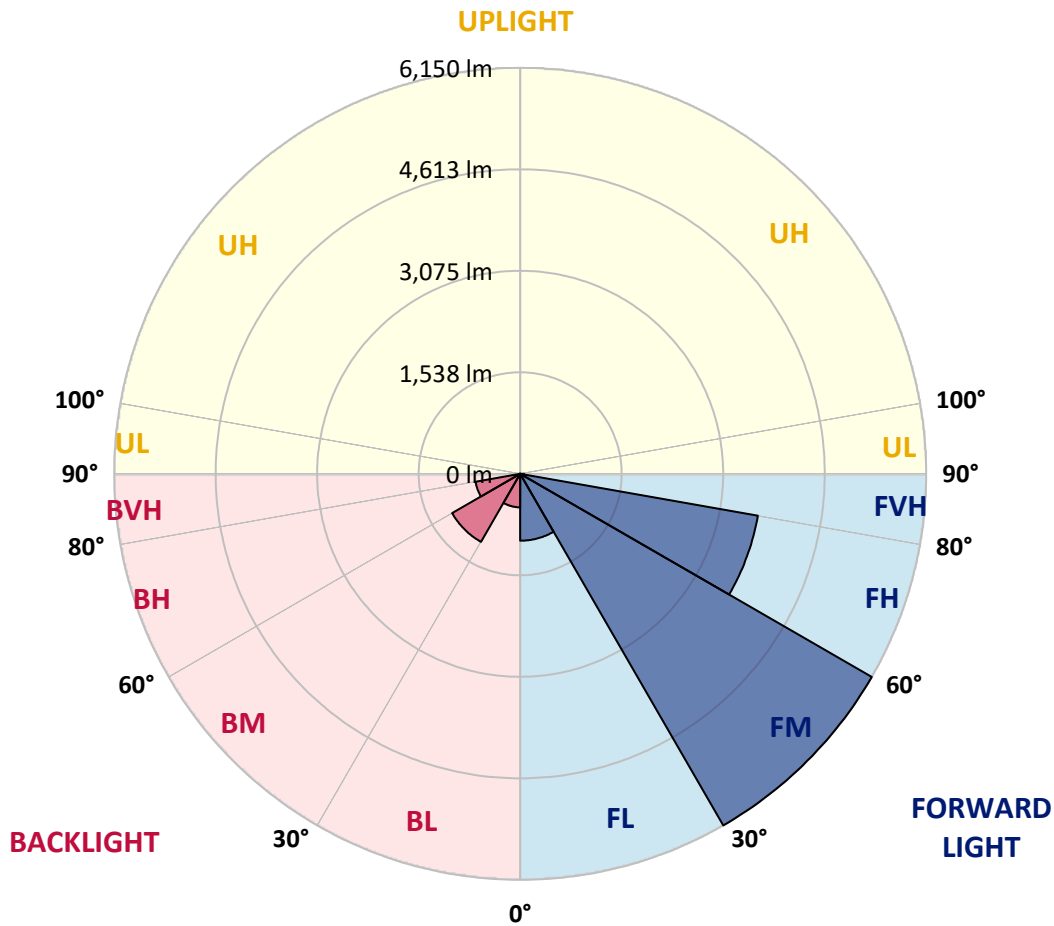
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1013.0	7.6			
FM (30°-60°)	6150.3	46.3			
FH (60°-80°)	3655.9	27.5			G2/5000
FVH (80°-90°)	54.4	0.4			G1/100
BL (0°-30°)	508.0	3.8	B2/1000		
BM (30°-60°)	1190.4	9.0	B2/2500		
BH (60°-80°)	686.5	5.2	B2/1000		G2/1000
BVH (80°-90°)	20.4	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9
2.5°	2325.1	2338.5	2330.9	2327.0	2320.3	2310.8	2303.1	2279.2	2254.4	2238.1	2232.4
5°	2372.0	2385.4	2384.4	2388.2	2393.0	2395.9	2394.0	2367.2	2331.8	2304.1	2287.8
7.5°	2331.8	2347.1	2359.5	2378.7	2412.1	2447.5	2464.7	2459.0	2422.6	2384.4	2364.3
10°	2218.0	2234.3	2263.9	2308.9	2379.6	2456.1	2520.2	2549.8	2526.9	2484.8	2457.1
12.5°	2009.6	2025.9	2084.2	2181.7	2300.3	2433.2	2555.5	2634.9	2640.6	2598.6	2566.0
15°	1775.4	1791.6	1853.8	1976.2	2156.9	2370.1	2574.7	2724.8	2775.4	2739.1	2699.9
17.5°	1630.1	1644.4	1691.3	1789.7	1978.1	2243.9	2568.0	2820.4	2936.0	2907.4	2860.5
20°	1586.1	1598.5	1620.5	1689.3	1846.1	2112.9	2524.0	2910.2	3109.1	3092.8	3040.3
22.5°	1632.9	1644.4	1651.1	1681.7	1780.2	2026.8	2468.5	3002.0	3309.9	3311.8	3247.7
25°	1741.0	1752.4	1744.8	1763.9	1806.9	2000.1	2447.5	3110.0	3562.3	3583.3	3510.6
27.5°	1918.8	1919.8	1901.6	1900.6	1907.3	2040.2	2469.5	3225.7	3880.6	3919.8	3830.0
30°	2275.4	2261.1	2191.3	2115.7	2081.3	2160.7	2530.7	3362.4	4256.4	4326.1	4213.3
32.5°	2825.1	2804.1	2676.0	2495.3	2313.7	2354.8	2640.6	3518.3	4665.5	4791.7	4654.1
35°	3421.7	3416.0	3282.1	3013.5	2696.1	2631.1	2819.4	3722.9	5112.0	5312.8	5149.3
37.5°	3976.2	3973.4	3896.9	3580.4	3194.2	3016.4	3106.2	3990.6	5590.0	5880.7	5687.6
40°	4482.9	4491.5	4415.1	4132.1	3743.0	3510.6	3496.3	4321.4	6121.6	6499.3	6269.8
42.5°	4920.8	4930.4	4852.9	4643.6	4285.0	4057.5	3975.3	4726.7	6640.8	7163.7	6892.2
45°	5218.1	5277.4	5265.9	5098.6	4841.5	4605.3	4550.8	5235.4	7232.6	7868.3	7550.0
47.5°	5302.3	5356.8	5442.8	5465.8	5309.0	5076.6	5141.7	5848.2	7831.0	8573.9	8211.6
50°	5094.8	5145.5	5324.3	5562.3	5671.3	5599.6	5716.2	6505.0	8443.9	9277.6	8860.7
52.5°	4685.6	4737.2	4962.9	5339.6	5784.1	6009.8	6292.7	7152.2	9037.6	9943.9	9475.5
55°	4093.8	4148.3	4438.0	4864.4	5569.0	6179.0	6773.6	7798.5	9581.6	10543.4	10030.0
57.5°	3288.8	3329.0	3630.1	4226.7	5027.9	6010.7	7128.3	8504.1	10094.0	11132.3	10579.7
60°	2143.5	2178.8	2528.8	3194.2	4131.1	5448.6	7199.1	9290.9	10774.7	11898.1	11320.6
62.5°	1425.5	1449.4	1656.8	2145.4	2909.3	4369.2	6785.1	9919.1	11772.9	13230.8	12591.2
65°	978.0	1001.9	1209.4	1549.8	1879.6	2890.2	5594.8	9835.9	12677.3	14289.2	13532.9
67.5°	697.9	718.0	893.9	1215.1	1360.5	1678.8	3792.7	8772.8	12547.3	14329.3	13583.6
70°	500.0	511.5	656.8	946.5	1081.3	1008.6	2109.1	6709.6	10986.0	13231.8	12549.2
72.5°	349.9	353.7	456.0	720.9	871.0	736.2	1003.9	4473.4	8309.1	10385.6	9728.8
75°	237.1	241.9	306.9	528.7	698.9	562.2	531.6	2398.7	4877.8	5748.8	5153.1
77.5°	145.3	147.2	197.9	361.4	523.0	428.3	342.3	1016.3	1887.3	1852.8	1579.4
80°	82.2	82.2	126.2	224.7	356.6	276.3	240.0	432.1	597.5	524.9	462.7
82.5°	45.9	46.8	91.8	139.6	236.1	163.5	131.9	199.8	258.1	228.5	198.9
85°	19.1	21.0	56.4	66.0	112.8	81.3	53.5	84.1	95.6	85.1	62.1
87.5°	1.9	2.9	17.2	12.4	13.4	16.3	7.6	16.3	13.4	13.4	9.6
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°	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9	2199.9
2.5°	2214.2	2199.9	2163.6	2121.5	2066.0	2039.3	2002.9	1978.1	1957.0	1959.0	1939.8
5°	2257.2	2220.9	2139.6	2038.3	1912.1	1822.2	1726.6	1660.7	1607.1	1595.7	1569.8
7.5°	2316.5	2259.2	2116.7	1934.1	1720.9	1559.3	1415.0	1322.2	1256.3	1235.2	1214.2
10°	2393.0	2309.8	2087.1	1803.1	1496.2	1290.7	1135.8	1063.1	1018.2	1002.9	991.4
12.5°	2481.9	2368.1	2047.9	1643.5	1264.9	1067.0	968.5	932.2	917.8	913.0	910.2
15°	2593.8	2440.8	1988.6	1454.2	1068.9	930.2	888.2	883.4	885.3	883.4	882.4
17.5°	2726.7	2520.2	1892.0	1259.1	936.9	860.4	845.2	849.0	853.8	852.8	850.9
20°	2872.0	2598.6	1768.7	1086.1	847.1	810.7	802.1	806.0	809.8	807.9	806.9
22.5°	3037.4	2682.7	1632.0	951.3	786.8	764.8	755.3	756.2	756.2	752.4	750.5
25°	3235.3	2775.4	1488.6	855.7	740.9	723.7	712.3	708.4	702.7	691.2	689.3
27.5°	3471.4	2873.9	1350.9	788.7	704.6	688.4	675.0	665.4	651.1	632.0	630.0
30°	3737.2	2993.4	1234.3	746.7	675.9	659.7	644.4	630.0	609.0	585.1	583.2
32.5°	4049.8	3121.5	1149.2	719.0	650.1	632.9	614.7	597.5	574.6	550.7	551.6
35°	4422.7	3276.4	1099.5	699.8	630.0	607.1	587.0	567.9	550.7	529.7	527.7
37.5°	4827.1	3440.8	1084.2	690.3	616.7	581.3	558.3	545.0	543.0	530.6	529.7
40°	5269.8	3635.9	1095.6	684.5	602.3	556.4	531.6	528.7	533.5	511.5	512.4
42.5°	5738.2	3867.2	1114.8	677.8	582.2	531.6	507.7	507.7	503.8	473.2	473.2
45°	6244.9	4134.0	1133.9	661.6	558.3	506.7	488.5	481.9	465.6	436.0	435.0
47.5°	6755.5	4405.5	1148.2	632.0	529.7	485.7	469.4	454.1	430.2	403.5	402.5
50°	7240.2	4649.3	1132.9	588.0	497.1	465.6	448.4	427.4	401.5	383.4	380.5
52.5°	7673.3	4860.6	1067.9	536.3	462.7	444.6	429.3	407.3	386.2	367.1	365.2
55°	8050.0	5031.7	953.2	487.6	432.1	426.4	411.1	383.4	354.7	338.4	336.5
57.5°	8411.4	5161.7	809.8	447.4	404.4	406.3	383.4	358.5	331.8	314.5	312.6
60°	8892.3	5335.7	664.5	410.1	374.8	380.5	355.7	337.5	304.0	282.0	279.2
62.5°	9660.9	5606.3	527.7	364.3	340.4	342.3	331.8	309.8	269.6	243.8	241.9
65°	10270.9	5506.9	415.9	314.5	301.2	304.0	304.0	280.1	237.1	207.5	204.6
67.5°	10202.1	4715.3	331.8	265.8	263.9	265.8	272.5	252.4	210.3	186.4	182.6
70°	9398.0	3750.6	265.8	220.8	229.5	224.7	243.8	230.4	189.3	165.4	162.5
72.5°	7668.5	2701.8	202.7	182.6	175.9	183.6	219.9	207.5	157.7	131.0	128.1
75°	4481.0	1441.7	151.1	144.4	127.2	153.0	195.0	176.9	120.5	96.6	93.7
77.5°	1458.9	502.9	110.9	106.1	94.6	123.3	166.4	149.1	98.5	76.5	73.6
80°	391.0	152.0	75.5	69.8	61.2	91.8	131.9	118.6	70.7	49.7	48.8
82.5°	156.8	64.1	44.0	39.2	33.5	63.1	104.2	95.6	52.6	31.5	31.5
85°	50.7	21.0	16.3	12.4	15.3	39.2	62.1	65.0	37.3	16.3	12.4
87.5°	6.7	2.9	2.9	3.8	2.9	6.7	19.1	18.2	10.5	1.9	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)