

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: P883637

Luminaire Tested: **NAV-SB4A-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883637
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14635 lumens
Efficiency: N/A
Efficacy: 128.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

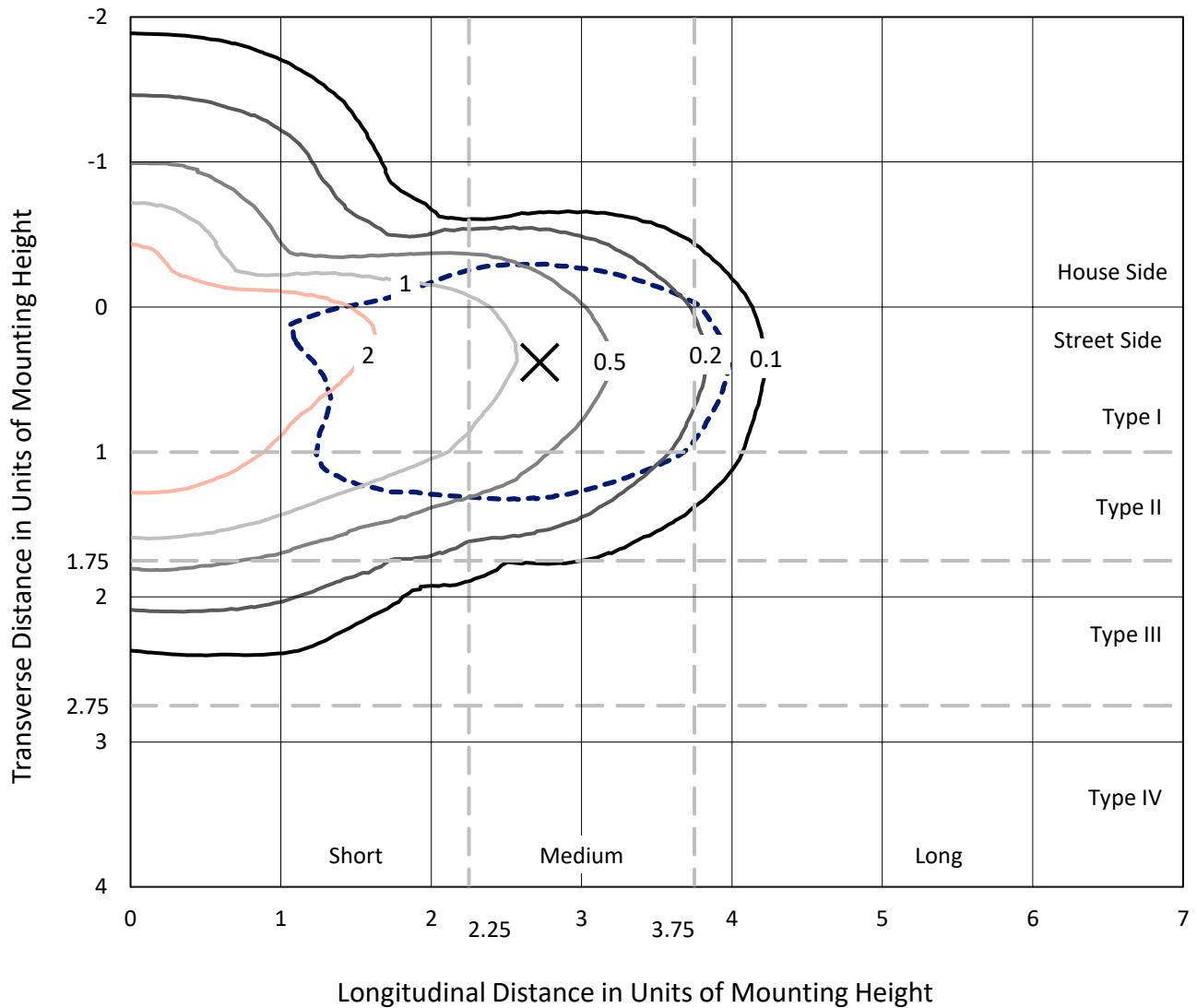
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883637
 CATALOG NUMBER: NAV-SB4A-827-U-T2

Iso-Footcandle Lines of Horizontal Illumination

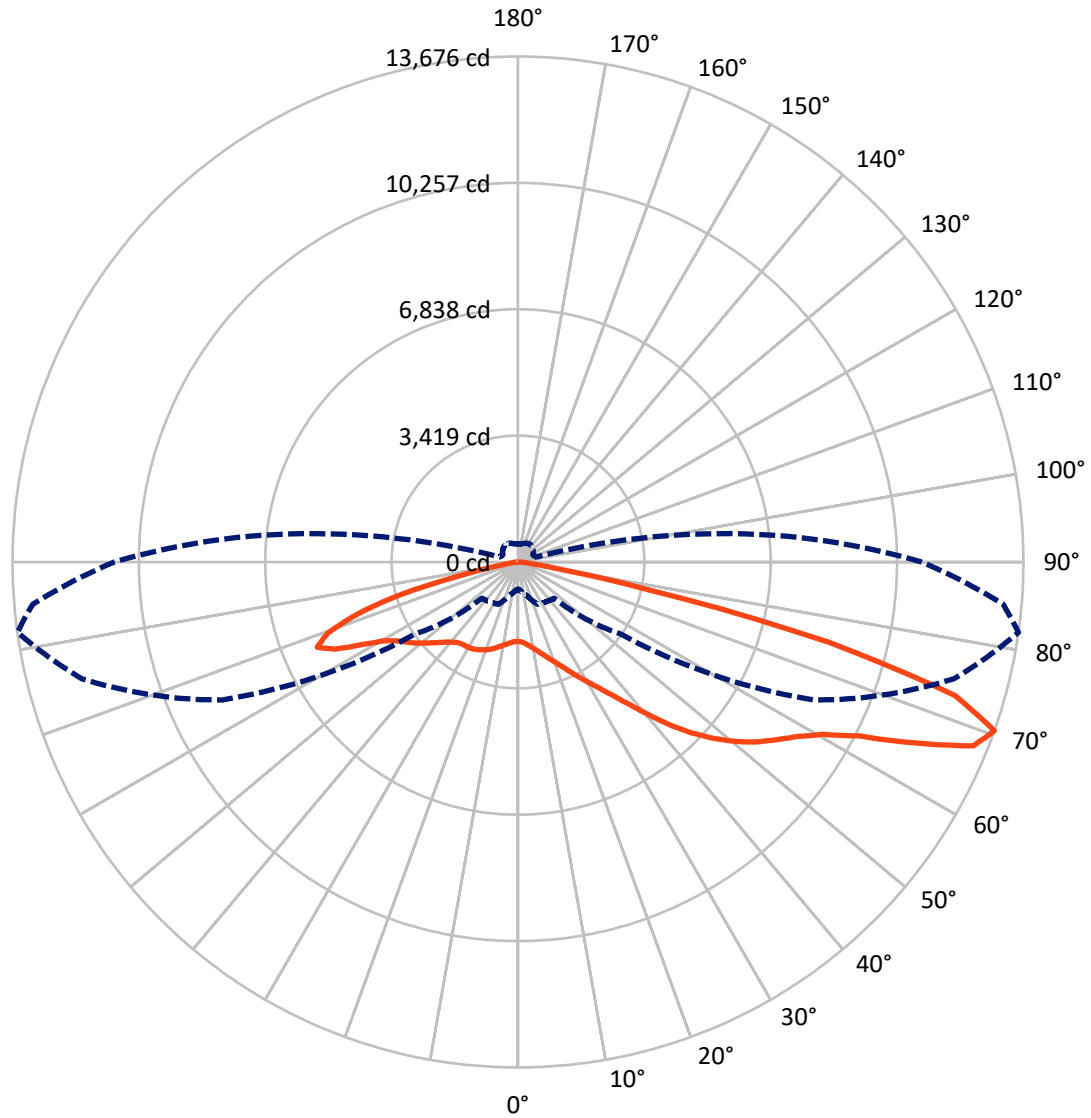
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Medium - N/A

REPORT NUMBER: P883637
CATALOG NUMBER: NAV-SB4A-827-U-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P883637
 CATALOG NUMBER: NAV-SB4A-827-U-T2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3607.9	0.0	3607.9
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	11027.1	0.0	11027.1
	% Fixture	75.3	0.0	75.3
Total	Lumens	14635.0	0.0	14635.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.6	1.4
10°-20°	582.0	4.0
20°-30°	973.7	6.7
30°-40°	1521.2	10.4
40°-50°	2422.7	16.6
50°-60°	3371.5	23.0
60°-70°	3526.7	24.1
70°-80°	1843.2	12.6
80°-90°	191.4	1.3
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°	14635.0	100.0
0°-180°	14635.0	100.0

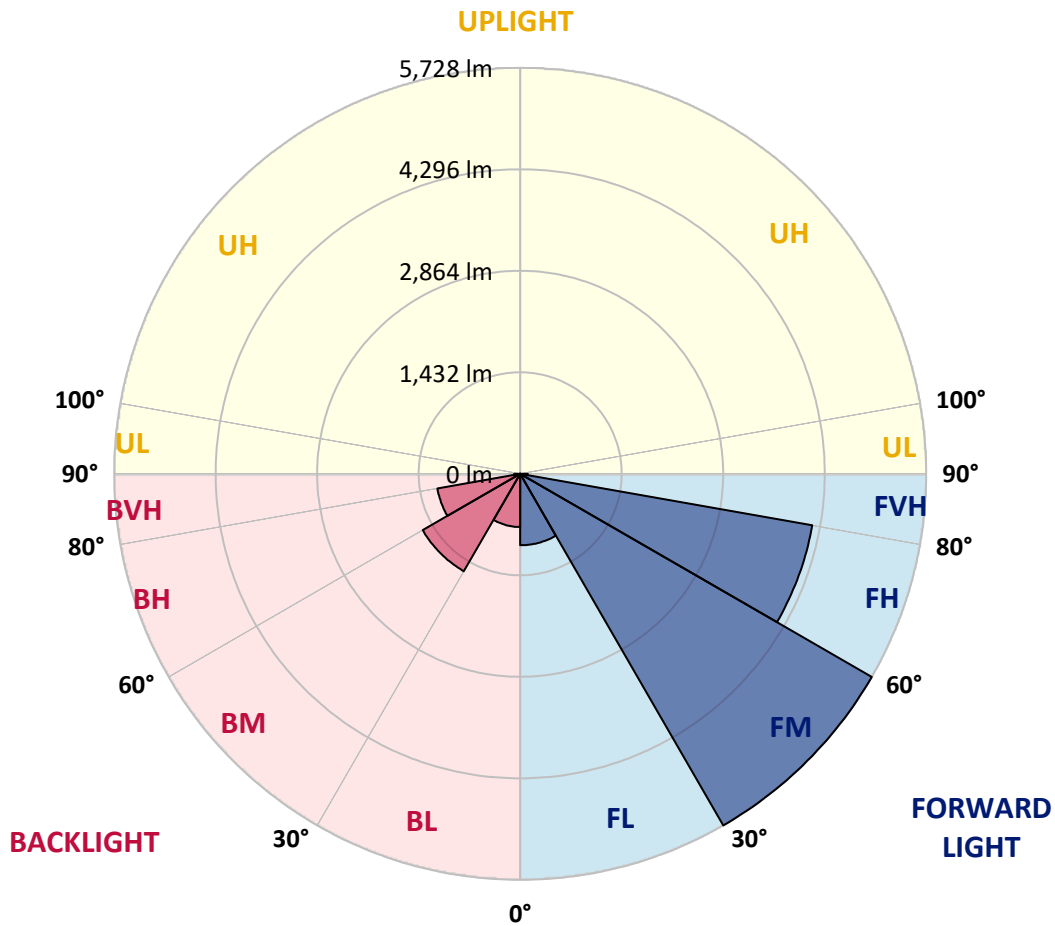


REPORT NUMBER: P883637
 CATALOG NUMBER: NAV-SB4A-827-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1007.8	6.9			
FM (30°-60°)	5728.0	39.1			
FH (60°-80°)	4184.2	28.6			G2/5000
FVH (80°-90°)	107.1	0.7			G2/225
BL (0°-30°)	750.6	5.1	B2/1000		
BM (30°-60°)	1587.3	10.8	B2/2500		
BH (60°-80°)	1185.7	8.1	B3/2500		G3/2500
BVH (80°-90°)	84.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Medium



REPORT NUMBER: P883637
 CATALOG NUMBER: NAV-SB4A-827-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7
2.5°	2196.9	2209.4	2205.5	2201.6	2201.6	2196.2	2195.4	2187.6	2181.4	2171.3	2169.0
5°	2224.9	2238.1	2236.5	2239.6	2249.7	2252.1	2254.4	2249.7	2237.3	2224.9	2219.4
7.5°	2200.0	2214.8	2219.4	2238.1	2269.1	2297.1	2318.1	2326.6	2315.0	2297.1	2288.6
10°	2116.2	2132.5	2148.8	2193.0	2248.2	2314.2	2370.1	2403.5	2401.2	2384.1	2369.3
12.5°	1946.1	1963.2	1998.1	2084.3	2185.3	2301.8	2405.8	2475.7	2499.8	2487.4	2461.7
15°	1810.2	1824.9	1851.4	1939.9	2071.1	2248.2	2419.0	2554.9	2616.3	2609.3	2578.2
17.5°	1806.3	1812.5	1828.8	1870.8	1971.7	2164.3	2405.0	2632.6	2749.8	2749.1	2710.2
20°	1874.6	1877.0	1886.3	1894.8	1952.3	2100.6	2369.3	2697.0	2899.7	2899.7	2857.8
22.5°	1969.4	1967.8	1977.2	1969.4	1997.3	2095.2	2346.8	2753.7	3066.7	3079.1	3026.3
25°	2111.5	2103.7	2101.4	2083.5	2089.0	2145.7	2371.7	2818.2	3264.7	3290.3	3224.3
27.5°	2301.0	2288.6	2280.0	2238.9	2224.9	2249.7	2447.8	2895.8	3485.3	3529.5	3445.7
30°	2547.9	2525.4	2513.0	2441.5	2391.1	2395.0	2562.7	2999.1	3715.9	3787.4	3681.0
32.5°	2885.0	2850.0	2816.6	2699.4	2607.0	2576.7	2711.0	3142.0	3966.0	4080.1	3943.4
35°	3262.4	3234.4	3198.7	3017.8	2875.7	2805.8	2911.4	3341.6	4258.7	4439.7	4261.8
37.5°	3625.8	3601.8	3618.8	3375.0	3191.7	3090.0	3173.9	3609.5	4619.8	4887.0	4661.0
40°	4001.7	3983.0	3985.4	3752.4	3538.8	3424.7	3492.3	3945.8	5033.8	5418.9	5140.9
42.5°	4410.2	4396.2	4349.6	4143.0	3903.1	3796.7	3858.8	4334.1	5478.0	6024.7	5667.4
45°	4867.6	4859.0	4815.5	4578.7	4303.8	4184.2	4268.1	4762.7	5924.5	6594.7	6196.3
47.5°	5262.8	5269.8	5264.4	5064.8	4779.8	4604.3	4704.5	5210.0	6340.0	7130.5	6703.4
50°	5453.1	5489.6	5543.2	5481.1	5304.0	5125.4	5144.8	5641.8	6736.0	7632.9	7189.5
52.5°	5353.7	5422.8	5568.8	5668.2	5736.6	5699.3	5647.2	6070.5	7108.8	8086.5	7649.3
55°	4983.3	5080.3	5322.6	5562.6	5911.3	6182.3	6250.6	6545.7	7472.2	8485.6	8084.1
57.5°	4308.4	4466.1	4683.5	5168.9	5756.0	6416.1	6954.2	7205.1	7857.4	8912.0	8539.2
60°	3151.3	3362.6	3632.8	4355.0	5212.4	6291.0	7553.0	8217.7	8404.9	9464.1	9131.7
62.5°	2016.8	2147.2	2395.7	3076.0	4061.5	5650.4	7736.2	9483.5	9332.9	10369.6	10020.1
65°	1380.7	1464.6	1692.2	2074.2	2625.6	4205.9	7245.4	10432.5	10806.8	11804.7	11539.1
67.5°	1003.3	1067.0	1261.2	1595.9	1710.8	2488.9	5622.4	10389.0	12239.6	13283.3	12870.2
70°	731.5	776.6	939.7	1261.2	1316.3	1384.6	3406.1	8831.2	12208.5	13676.2	13181.6
72.5°	542.0	573.1	682.6	978.5	1065.5	935.0	1685.9	6418.4	10490.7	12370.0	11973.2
75°	392.2	415.5	496.2	748.6	852.7	712.1	841.0	3750.9	7317.7	8701.5	8771.4
77.5°	299.8	317.6	370.4	548.3	682.6	534.3	521.9	1725.5	3469.7	3486.8	3682.5
80°	240.7	252.4	281.1	386.0	523.4	399.9	340.1	696.6	1096.5	928.0	973.8
82.5°	177.1	196.5	237.6	271.0	374.3	275.7	207.3	351.8	417.0	358.8	361.9
85°	101.0	114.2	143.7	194.1	239.2	168.5	118.8	156.1	194.1	159.2	142.1
87.5°	35.7	46.6	50.5	76.1	104.1	69.9	45.8	45.0	63.7	47.4	39.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883637
 CATALOG NUMBER: NAV-SB4A-827-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7	2145.7
2.5°	2161.2	2157.3	2141.8	2120.8	2099.1	2078.1	2071.1	2056.4	2046.3	2040.8	2047.0
5°	2204.7	2192.3	2155.8	2109.2	2060.3	2007.4	1970.2	1936.0	1911.1	1887.9	1897.2
7.5°	2266.8	2245.1	2182.2	2100.6	2013.7	1925.9	1860.7	1811.0	1777.6	1755.8	1760.5
10°	2339.0	2305.6	2209.4	2087.4	1953.1	1827.3	1750.4	1707.7	1686.7	1675.1	1678.2
12.5°	2422.1	2374.8	2237.3	2057.1	1860.7	1717.0	1664.2	1651.8	1652.5	1653.3	1654.9
15°	2524.6	2458.6	2259.8	1991.1	1740.3	1632.4	1623.0	1643.2	1664.2	1674.3	1673.5
17.5°	2640.4	2547.2	2263.7	1882.4	1622.3	1578.0	1607.5	1651.0	1682.8	1696.8	1699.9
20°	2764.6	2637.2	2235.8	1728.7	1525.2	1533.7	1586.5	1642.5	1677.4	1695.3	1699.9
22.5°	2906.7	2733.5	2169.0	1567.1	1446.0	1485.6	1547.7	1602.1	1638.6	1656.4	1661.1
25°	3069.0	2841.5	2064.1	1431.2	1377.6	1431.2	1493.4	1538.4	1567.9	1584.2	1588.9
27.5°	3249.2	2954.1	1924.4	1323.3	1317.8	1375.3	1426.6	1461.5	1477.0	1489.5	1494.1
30°	3430.1	3056.6	1755.1	1241.7	1265.8	1320.2	1356.7	1372.2	1376.9	1379.2	1384.6
32.5°	3625.8	3145.1	1577.2	1174.2	1216.1	1266.6	1288.3	1295.3	1273.6	1258.8	1263.5
35°	3862.7	3239.9	1403.3	1120.6	1167.2	1210.7	1217.7	1211.5	1185.8	1155.5	1157.1
37.5°	4155.4	3357.9	1264.3	1082.5	1121.4	1150.1	1141.6	1140.0	1142.3	1106.6	1108.9
40°	4514.2	3511.7	1162.5	1053.0	1084.1	1090.3	1066.2	1079.4	1091.1	1036.7	1038.3
42.5°	4912.6	3697.3	1098.1	1032.8	1053.0	1038.3	1001.0	1015.8	1014.2	942.8	942.0
45°	5318.8	3899.2	1075.6	1018.1	1024.3	994.8	953.6	957.5	924.9	860.4	862.8
47.5°	5722.6	4115.8	1089.5	1005.7	988.6	955.2	923.3	906.3	858.1	810.0	810.0
50°	6118.6	4343.4	1140.8	980.8	939.7	920.2	896.9	866.7	815.4	774.2	771.1
52.5°	6485.9	4572.5	1198.3	939.7	878.3	890.0	875.2	840.3	789.8	747.8	748.6
55°	6833.9	4801.6	1220.8	883.0	820.8	863.6	855.0	790.6	730.0	695.8	692.7
57.5°	7212.8	5077.2	1195.9	810.7	774.2	833.3	800.6	729.2	694.3	668.6	666.3
60°	7737.8	5509.8	1142.3	721.4	730.0	788.2	732.3	702.8	664.7	636.0	634.5
62.5°	8609.9	6316.7	1056.1	632.9	677.9	721.4	699.7	670.2	631.4	603.4	603.4
65°	9899.0	7438.0	893.8	563.8	619.7	656.2	664.7	635.2	594.9	565.3	566.9
67.5°	10986.2	8141.6	676.4	506.3	559.9	603.4	627.5	598.7	556.0	527.3	528.1
70°	10926.4	7630.6	516.4	449.6	507.1	551.4	582.4	559.9	514.1	486.9	489.2
72.5°	9704.8	6383.4	417.8	392.2	453.5	497.0	534.3	517.2	470.6	444.2	444.2
75°	7129.7	4531.3	333.9	333.9	386.7	440.3	481.5	470.6	427.9	409.3	403.8
77.5°	3005.3	1901.1	261.7	277.2	321.5	378.2	429.4	433.3	396.1	419.3	380.5
80°	799.1	524.2	199.6	218.2	252.4	312.2	373.5	372.0	331.6	309.9	288.1
82.5°	304.4	206.6	142.1	153.8	182.5	239.2	295.9	305.2	264.8	229.1	229.1
85°	117.3	88.5	87.8	92.4	106.4	158.4	223.7	231.4	199.6	169.3	174.7
87.5°	30.3	26.4	32.6	31.1	48.9	84.6	128.1	132.8	121.9	70.7	101.0
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)