

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: P965530

Luminaire Tested: **NAV-SB4A-722-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-722-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15505.2 lumens
Efficiency: N/A
Efficacy: 136.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

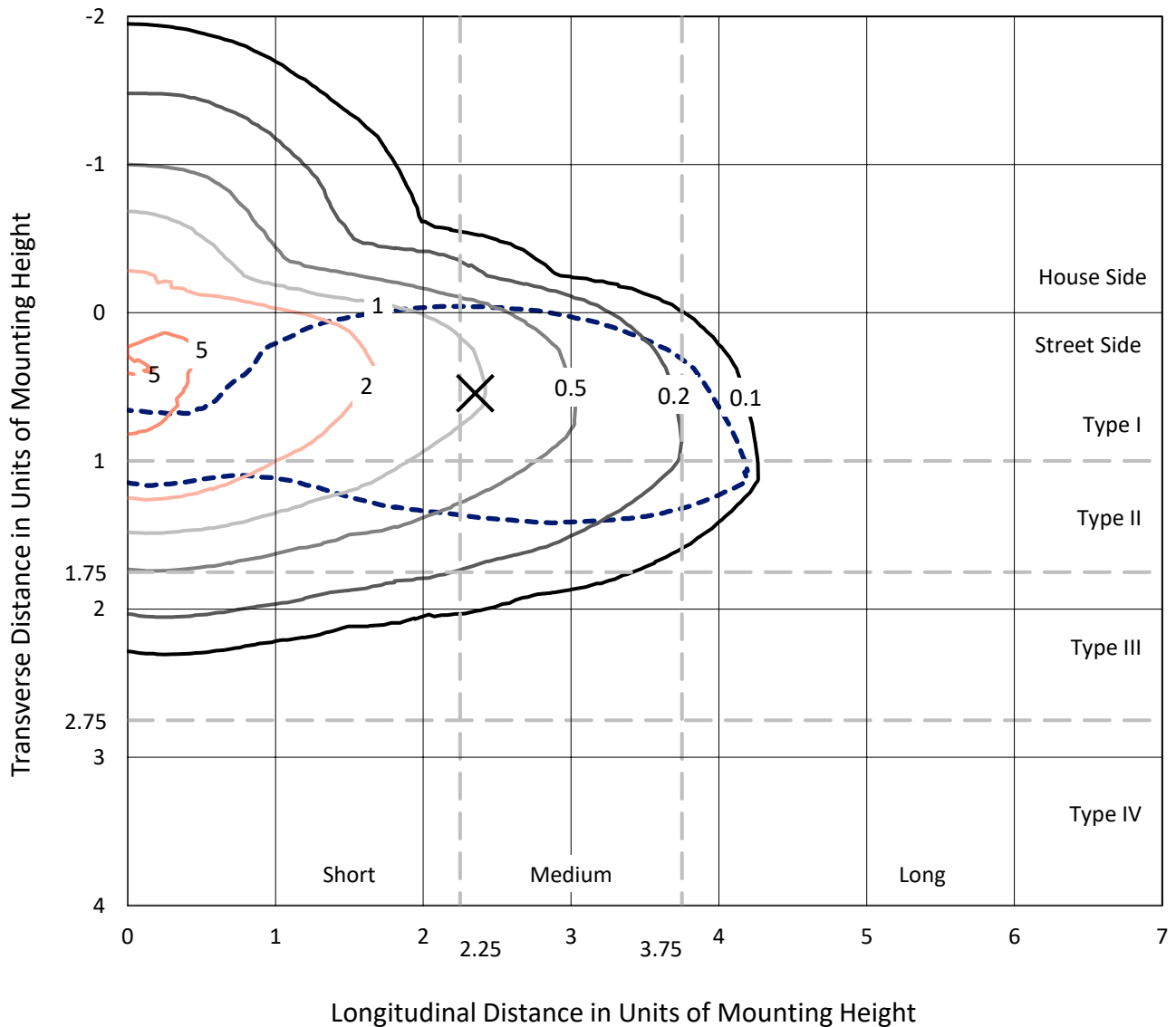
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

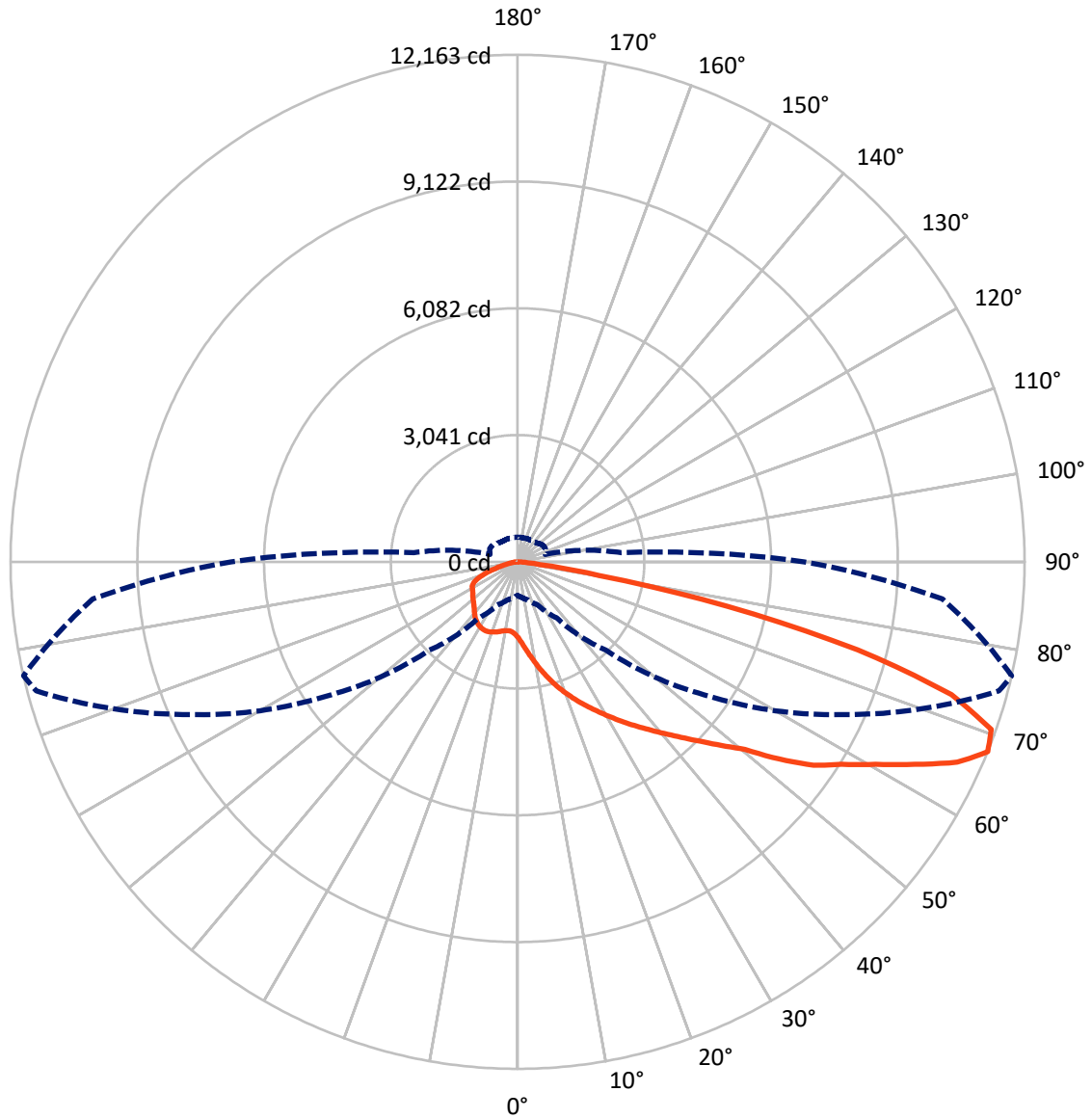
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2933.0	0.0	2933.0
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	12572.2	0.0	12572.2
	% Fixture	81.1	0.0	81.1
Total	Lumens	15505.2	0.0	15505.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	1.3
10°-20°	700.5	4.5
20°-30°	1322.7	8.5
30°-40°	2130.9	13.7
40°-50°	2914.6	18.8
50°-60°	3287.7	21.2
60°-70°	3068.7	19.8
70°-80°	1682.1	10.8
80°-90°	202.9	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°	15505.2	100.0
0°-180°	15505.2	100.0

Coefficient of Utilization

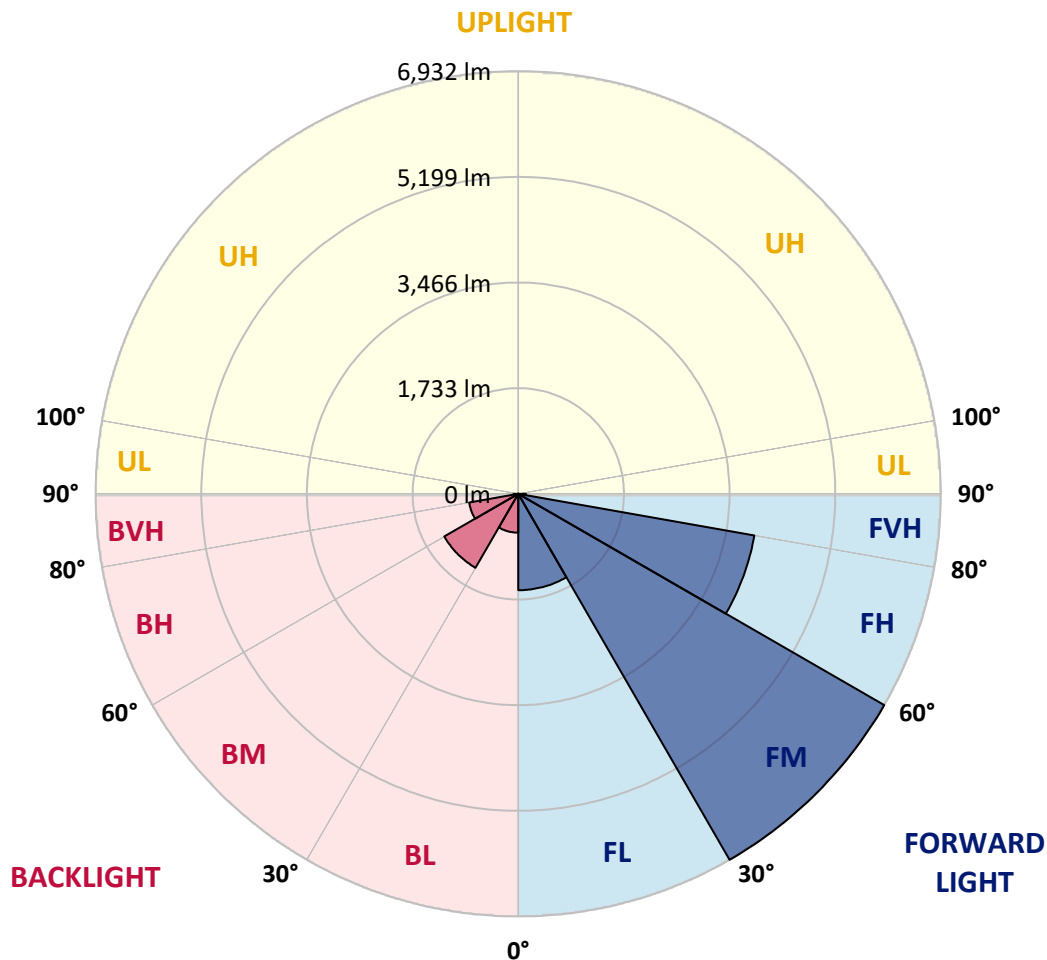


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1580.6	10.2			
FM (30°-60°)	6932.2	44.7			
FH (60°-80°)	3932.6	25.4			G2/5000
FVH (80°-90°)	126.9	0.8			G2/225
BL (0°-30°)	637.7	4.1	B2/1000		
BM (30°-60°)	1401.0	9.0	B2/2500		
BH (60°-80°)	818.3	5.3	B2/1000		G2/1000
BVH (80°-90°)	76.0	0.5			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°	77°	85°
0°	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3
2.5°	2277.9	2293.8	2273.9	2273.9	2206.6	2171.4	2104.1	2053.0	1960.9	1944.9	1884.1
5°	2692.5	2712.5	2684.5	2672.5	2593.1	2520.4	2407.5	2296.3	2132.2	2115.4	1972.1
7.5°	3013.4	3039.0	3014.2	3001.4	2931.0	2849.3	2717.3	2562.0	2330.6	2297.8	2090.6
10°	3275.1	3279.1	3271.1	3275.9	3220.7	3153.4	3018.2	2837.3	2548.4	2503.6	2233.8
12.5°	3423.2	3441.5	3457.6	3486.4	3476.8	3435.2	3313.5	3097.4	2778.9	2721.3	2389.9
15°	3492.8	3524.9	3560.8	3627.3	3680.9	3691.3	3598.5	3376.8	3013.4	2943.8	2547.5
17.5°	3517.6	3548.0	3604.8	3700.9	3816.2	3893.8	3852.2	3648.1	3245.5	3165.5	2713.3
20°	3643.3	3652.1	3686.5	3777.7	3902.6	4031.4	4062.7	3909.0	3475.2	3384.8	2884.6
22.5°	3912.2	3894.6	3904.2	3945.8	4035.4	4160.3	4231.5	4139.5	3711.3	3607.3	3057.4
25°	4356.5	4305.2	4254.0	4206.0	4251.6	4322.0	4402.8	4370.0	3958.7	3826.5	3231.9
27.5°	4917.4	4855.0	4742.2	4584.5	4529.3	4554.1	4590.2	4583.7	4187.5	4053.9	3412.0
30°	5469.7	5396.9	5262.5	5034.3	4888.6	4823.0	4795.8	4777.4	4436.4	4293.9	3593.6
32.5°	5910.8	5853.1	5721.0	5465.7	5254.5	5142.3	5051.9	4986.3	4696.5	4554.1	3785.7
35°	6296.5	6242.9	6091.6	5813.1	5583.4	5464.1	5345.7	5205.6	4967.0	4823.0	3992.3
37.5°	6648.7	6595.1	6387.7	6098.0	5866.7	5784.3	5678.6	5440.9	5238.4	5102.3	4210.7
40°	6871.2	6859.2	6665.5	6337.4	6097.2	6056.4	6021.2	5713.9	5539.3	5412.9	4450.9
42.5°	6928.0	6954.4	6800.8	6531.0	6302.1	6269.3	6351.7	6022.8	5877.1	5756.3	4723.0
45°	6791.1	6867.2	6766.3	6583.1	6447.8	6430.1	6644.7	6360.5	6250.9	6140.5	5051.1
47.5°	6444.6	6573.4	6531.8	6506.2	6487.0	6563.1	6902.4	6719.1	6674.3	6578.2	5425.7
50°	5745.0	5989.2	6062.0	6223.7	6409.3	6666.3	7136.9	7110.5	7169.0	7072.1	5882.0
52.5°	4535.7	4871.8	5294.4	5699.4	6170.8	6631.9	7394.7	7672.3	7918.8	7866.1	6607.0
55°	3744.1	3895.4	4220.3	4963.0	5708.2	6487.0	7510.7	8126.1	8663.2	8615.9	7156.9
57.5°	3135.9	3271.1	3471.2	4091.5	5008.7	6158.0	7582.7	8403.1	9173.0	9168.2	7699.6
60°	2483.6	2626.8	2831.7	3271.1	4191.5	5589.7	7566.7	8718.4	9823.7	9863.8	8361.4
62.5°	1747.2	1904.9	2132.2	2542.0	3356.8	4853.5	7240.1	8946.5	10589.7	10698.5	9157.9
65°	1148.5	1252.6	1423.8	1777.7	2501.1	3906.6	6616.7	8976.1	11409.3	11593.4	9905.4
67.5°	805.1	845.2	946.1	1138.2	1648.7	2995.8	5623.4	8669.6	11955.9	12163.2	10229.5
70°	628.3	648.3	699.6	776.3	1035.7	2014.5	4309.2	7872.4	11839.1	12055.1	9890.9
72.5°	542.6	561.9	581.1	590.7	694.7	1243.7	2919.0	6582.2	10738.5	10885.0	8600.0
75°	492.2	497.0	513.0	509.8	529.8	806.8	1684.8	4795.8	8472.8	8422.3	6348.5
77.5°	413.8	420.1	446.6	442.6	470.6	551.4	874.8	3095.0	5493.0	5150.4	3533.6
80°	350.5	353.7	382.5	377.8	409.0	399.3	446.6	1577.6	2329.8	1973.7	1018.8
82.5°	121.7	150.5	292.1	300.9	312.1	241.7	257.7	643.5	711.6	545.1	213.7
85°	59.2	63.2	148.8	211.3	210.5	121.7	125.7	229.7	224.1	176.1	71.2
87.5°	9.6	12.0	17.6	82.4	65.6	32.0	43.3	44.8	46.4	40.0	16.0
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°	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3	1819.3
2.5°	1839.3	1799.2	1715.2	1637.5	1576.8	1518.3	1485.5	1457.4	1441.5	1438.3	1438.3
5°	1888.9	1806.5	1653.5	1524.7	1440.6	1378.2	1345.4	1324.6	1314.3	1307.8	1307.0
7.5°	1960.1	1839.3	1621.6	1475.1	1387.0	1342.2	1325.4	1322.2	1321.4	1322.2	1324.6
10°	2058.5	1892.9	1618.4	1463.1	1389.5	1364.6	1363.9	1364.6	1367.9	1368.6	1369.4
12.5°	2165.0	1948.1	1631.2	1473.4	1419.8	1406.2	1403.8	1403.0	1405.5	1407.0	1407.8
15°	2281.0	2020.9	1652.8	1495.9	1453.4	1439.1	1436.6	1431.8	1431.1	1430.3	1429.5
17.5°	2400.3	2092.9	1676.8	1519.9	1475.1	1455.1	1446.3	1435.1	1426.3	1423.8	1426.3
20°	2521.2	2164.2	1693.6	1531.9	1476.7	1448.6	1431.1	1411.8	1396.7	1387.8	1391.0
22.5°	2650.0	2238.6	1704.0	1528.7	1462.3	1423.8	1391.8	1369.4	1346.2	1331.0	1331.8
25°	2775.7	2303.5	1703.1	1511.9	1434.3	1385.4	1344.6	1315.8	1283.8	1267.8	1267.8
27.5°	2896.5	2361.9	1683.2	1482.3	1394.2	1339.8	1291.0	1256.5	1225.4	1210.1	1209.4
30°	3021.4	2410.7	1652.0	1439.1	1347.1	1287.0	1233.4	1203.8	1175.8	1161.3	1160.5
32.5°	3145.4	2455.5	1607.9	1385.4	1292.6	1234.9	1182.1	1155.0	1138.2	1138.2	1138.9
35°	3276.7	2486.8	1549.5	1323.0	1234.9	1179.8	1138.2	1122.1	1120.5	1110.9	1108.5
37.5°	3415.2	2506.7	1478.3	1259.0	1178.1	1126.2	1113.4	1094.1	1078.1	1057.3	1054.1
40°	3560.8	2526.7	1392.7	1192.6	1118.1	1089.3	1083.7	1058.1	1012.5	961.2	954.1
42.5°	3737.8	2540.4	1303.8	1126.2	1054.9	1045.3	1053.3	1009.2	936.4	898.0	898.8
45°	3942.7	2562.8	1222.2	1060.5	990.0	990.0	1023.7	966.1	906.0	882.0	886.0
47.5°	4208.3	2614.8	1146.2	988.4	930.0	946.1	958.1	914.0	880.4	850.7	850.0
50°	4592.5	2739.6	1067.7	915.6	884.4	916.5	899.6	874.0	834.8	810.8	808.4
52.5°	5069.5	2813.3	998.0	850.0	845.2	877.2	853.2	829.2	799.6	767.5	761.2
55°	5394.5	2827.0	939.6	802.0	818.8	815.6	806.8	785.2	769.2	726.7	727.5
57.5°	5757.8	2854.1	891.6	773.2	802.0	766.8	763.5	745.2	724.4	695.6	685.9
60°	6192.4	2896.5	850.0	762.0	787.6	734.7	718.7	711.6	690.7	676.3	680.3
62.5°	6666.3	2935.0	807.6	763.5	770.8	703.6	679.5	677.1	664.3	659.5	659.5
65°	6989.6	2830.1	754.7	762.0	744.4	671.5	641.1	640.3	629.9	628.3	627.5
67.5°	6876.7	2497.9	683.5	739.5	717.1	639.5	605.9	602.7	589.1	589.9	589.9
70°	6311.7	2024.2	585.1	684.3	683.5	610.7	569.1	558.6	540.3	543.5	546.6
72.5°	5252.0	1499.9	453.0	592.2	629.9	584.2	526.6	509.8	486.7	489.8	489.0
75°	3792.9	1019.7	329.7	450.6	548.3	553.1	485.0	456.2	428.2	433.0	434.6
77.5°	1940.9	577.9	242.5	310.6	430.6	502.7	447.4	409.0	402.6	447.4	441.0
80°	633.1	289.8	168.1	217.7	282.5	411.4	392.2	348.2	346.6	357.0	306.6
82.5°	188.9	122.5	108.0	143.3	156.1	315.4	338.6	263.3	226.5	238.5	246.5
85°	64.8	59.2	61.6	71.2	74.4	184.9	236.9	174.5	164.9	181.7	179.3
87.5°	15.2	20.8	17.6	16.0	16.0	44.8	92.0	72.9	100.9	67.2	64.8
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)