

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: P882727

Luminaire Tested: **NAV-SB2D-727-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882727
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-SB2D-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18623 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

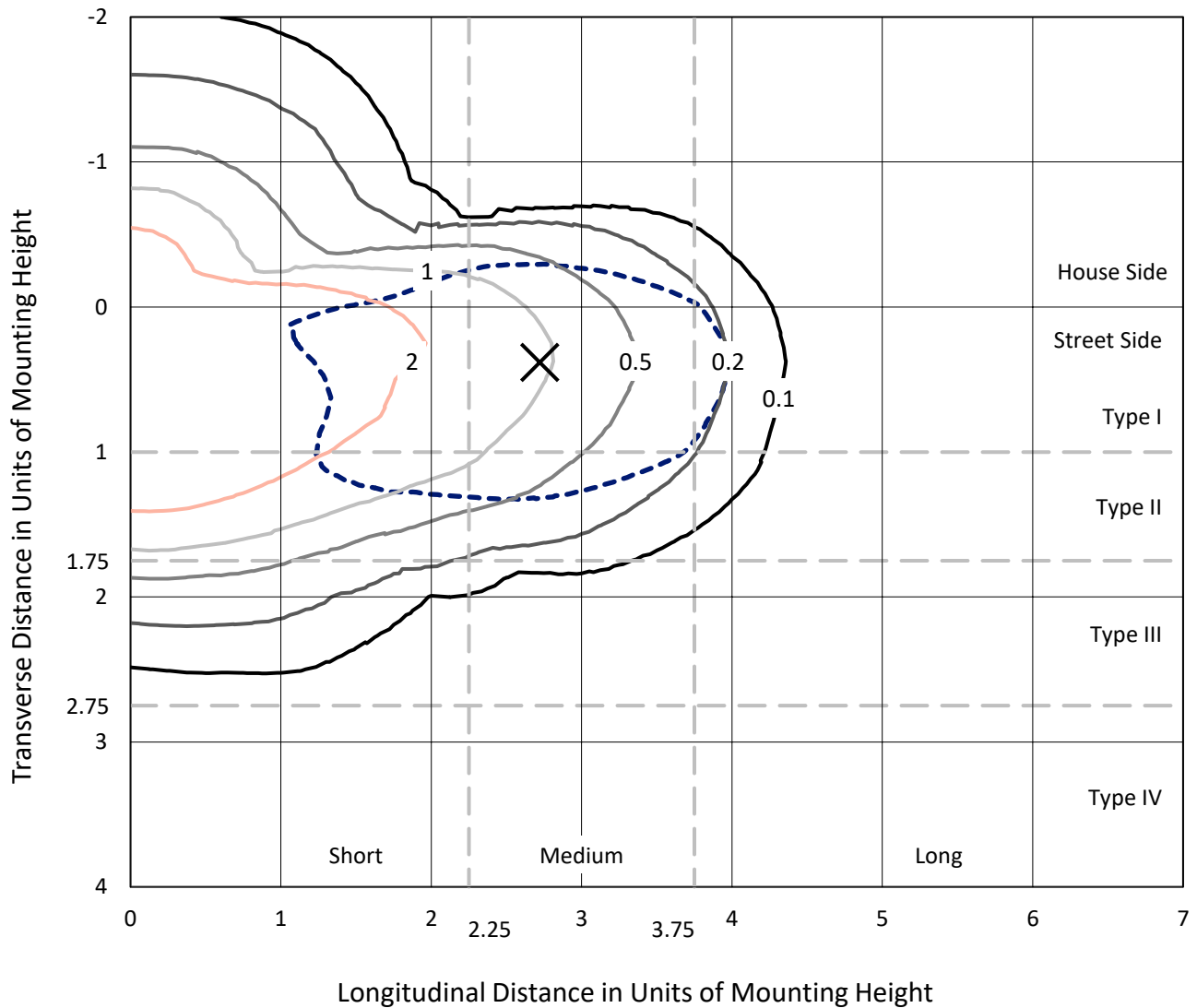
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

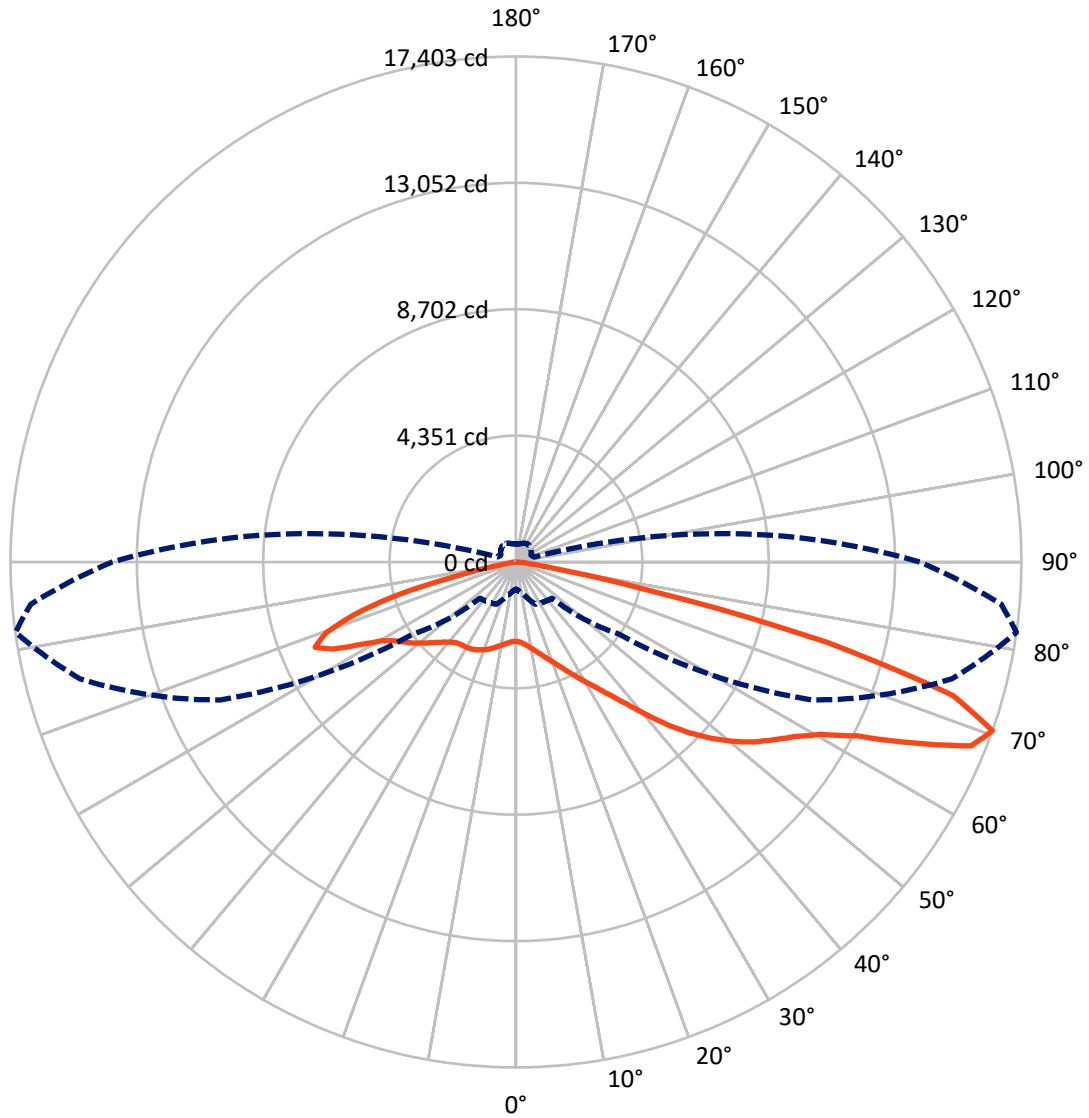
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4591.0	0.0	4591.0
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	14032.0	0.0	14032.0
	% Fixture	75.3	0.0	75.3
Total	Lumens	18623.0	0.0	18623.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.8	1.4
10°-20°	740.7	4.0
20°-30°	1239.0	6.7
30°-40°	1935.7	10.4
40°-50°	3082.9	16.6
50°-60°	4290.2	23.0
60°-70°	4487.7	24.1
70°-80°	2345.5	12.6
80°-90°	243.6	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°	18623.0	100.0
0°-180°	18623.0	100.0

Coefficient of Utilization



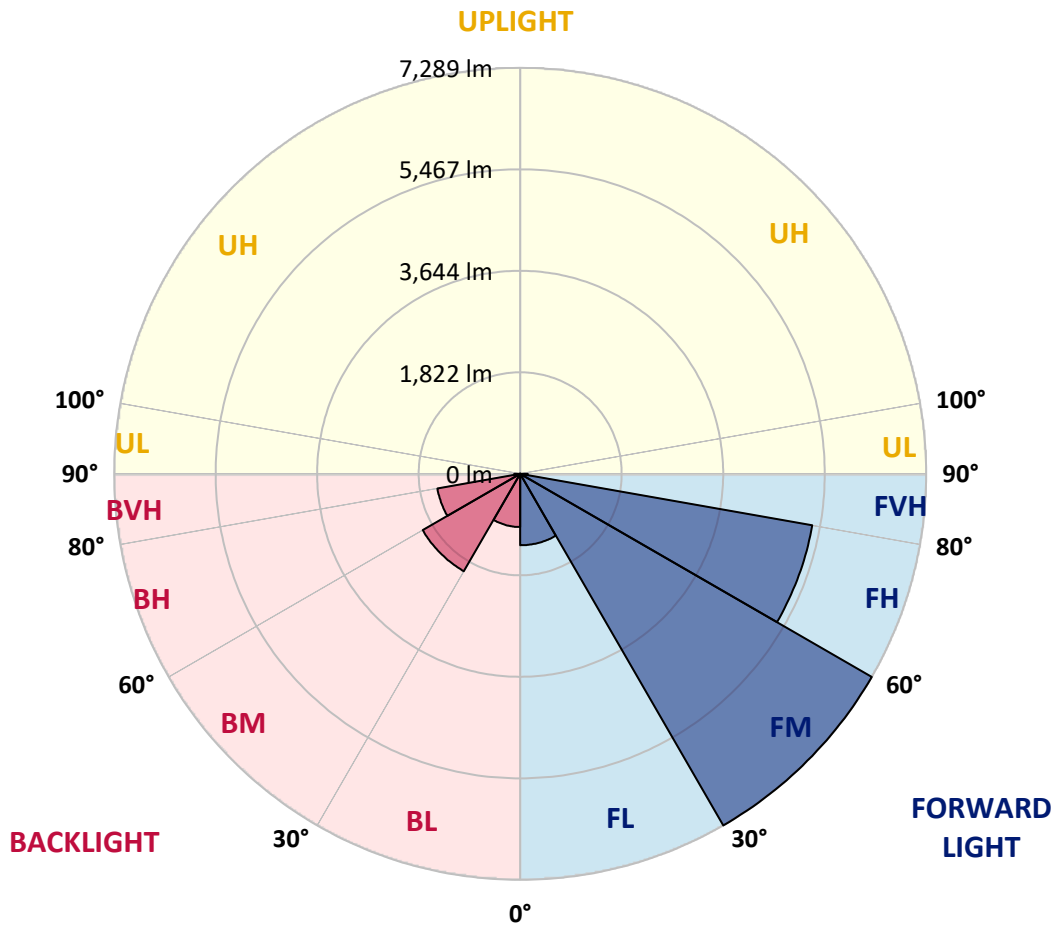
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1282.4	6.9			
FM (30°-60°)	7288.9	39.1			
FH (60°-80°)	5324.4	28.6			G3/7500
FVH (80°-90°)	136.3	0.7			G2/225
BL (0°-30°)	955.1	5.1	B2/1000		
BM (30°-60°)	2019.9	10.8	B2/2500		
BH (60°-80°)	1508.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	107.2	0.6			G2/225
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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4
2.5°	2795.6	2811.4	2806.5	2801.5	2801.5	2794.6	2793.6	2783.7	2775.8	2763.0	2760.0
5°	2831.2	2848.0	2846.0	2849.9	2862.8	2865.7	2868.7	2862.8	2847.0	2831.2	2824.2
7.5°	2799.5	2818.3	2824.2	2848.0	2887.5	2923.1	2949.7	2960.6	2945.8	2923.1	2912.2
10°	2692.8	2713.6	2734.3	2790.6	2860.8	2944.8	3016.0	3058.4	3055.5	3033.7	3015.0
12.5°	2476.4	2498.1	2542.6	2652.3	2780.8	2929.0	3061.4	3150.3	3181.0	3165.2	3132.6
15°	2303.5	2322.2	2355.8	2468.5	2635.5	2860.8	3078.2	3251.1	3329.2	3320.3	3280.8
17.5°	2298.5	2306.4	2327.2	2380.5	2509.0	2754.1	3060.4	3350.0	3499.2	3498.2	3448.8
20°	2385.5	2388.5	2400.3	2411.2	2484.3	2673.0	3015.0	3432.0	3689.9	3689.9	3636.5
22.5°	2506.0	2504.1	2515.9	2506.0	2541.6	2666.1	2986.3	3504.1	3902.4	3918.2	3851.0
25°	2686.9	2677.0	2674.0	2651.3	2658.2	2730.4	3017.9	3586.1	4154.3	4187.0	4103.0
27.5°	2928.0	2912.2	2901.3	2848.9	2831.2	2862.8	3114.8	3685.0	4435.0	4491.3	4384.6
30°	3242.2	3213.6	3197.8	3106.9	3042.6	3047.6	3261.0	3816.4	4728.5	4819.4	4684.0
32.5°	3671.1	3626.7	3584.2	3434.9	3317.3	3278.8	3449.8	3998.2	5046.7	5191.9	5018.0
35°	4151.4	4115.8	4070.3	3840.1	3659.3	3570.3	3704.7	4252.2	5419.2	5649.5	5423.2
37.5°	4613.9	4583.2	4605.0	4294.7	4061.5	3932.0	4038.7	4593.1	5878.7	6218.7	5931.1
40°	5092.1	5068.4	5071.4	4774.9	4503.2	4357.9	4443.9	5021.0	6405.4	6895.6	6541.8
42.5°	5611.9	5594.1	5534.8	5272.0	4966.6	4831.3	4910.3	5515.1	6970.7	7666.4	7211.8
45°	6194.0	6183.1	6127.8	5826.4	5476.5	5324.4	5431.1	6060.6	7538.9	8391.7	7884.8
47.5°	6697.0	6705.8	6698.9	6445.0	6082.3	5859.0	5986.4	6629.8	8067.6	9073.5	8530.0
50°	6939.1	6985.5	7053.7	6974.6	6749.3	6522.0	6546.7	7179.2	8571.5	9712.9	9148.6
52.5°	6812.6	6900.5	7086.3	7212.8	7299.7	7252.3	7186.1	7724.7	9045.9	10290.0	9733.7
55°	6341.2	6464.7	6773.0	7078.4	7522.1	7867.0	7953.9	8329.4	9508.3	10797.9	10287.0
57.5°	5482.5	5683.1	5959.8	6577.4	7324.5	8164.4	8849.2	9168.4	9998.5	11340.5	10866.1
60°	4010.1	4278.9	4622.7	5541.8	6632.7	8005.3	9611.1	10457.0	10695.2	12043.1	11620.1
62.5°	2566.3	2732.3	3048.6	3914.2	5168.2	7190.1	9844.3	12067.8	11876.0	13195.3	12750.6
65°	1757.0	1863.7	2153.3	2639.5	3341.1	5352.0	9219.8	13275.3	13751.6	15021.5	14683.5
67.5°	1276.7	1357.8	1604.8	2030.7	2177.0	3167.1	7154.5	13220.0	15574.8	16903.0	16377.2
70°	930.9	988.2	1195.7	1604.8	1675.0	1761.9	4334.2	11237.7	15535.3	17403.0	16773.5
72.5°	689.8	729.3	868.6	1245.1	1355.8	1189.8	2145.4	8167.4	13349.4	15740.9	15235.9
75°	499.0	528.7	631.5	952.6	1085.0	906.2	1070.2	4773.0	9311.7	11072.7	11161.6
77.5°	381.4	404.2	471.4	697.7	868.6	679.9	664.1	2195.8	4415.2	4437.0	4686.0
80°	306.3	321.2	357.7	491.1	666.0	508.9	432.8	886.4	1395.3	1180.9	1239.2
82.5°	225.3	250.0	302.4	344.9	476.3	350.8	263.8	447.6	530.7	456.5	460.5
85°	128.5	145.3	182.8	247.0	304.4	214.4	151.2	198.6	247.0	202.6	180.8
87.5°	45.5	59.3	64.2	96.8	132.4	88.9	58.3	57.3	81.0	60.3	50.4
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°	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4	2730.4
2.5°	2750.1	2745.2	2725.4	2698.7	2671.1	2644.4	2635.5	2616.7	2603.9	2597.0	2604.9
5°	2805.5	2789.7	2743.2	2683.9	2621.7	2554.5	2507.0	2463.6	2431.9	2402.3	2414.1
7.5°	2884.5	2856.9	2776.8	2673.0	2562.4	2450.7	2367.7	2304.5	2262.0	2234.3	2240.2
10°	2976.4	2933.9	2811.4	2656.3	2485.3	2325.2	2227.4	2173.0	2146.3	2131.5	2135.5
12.5°	3082.2	3021.9	2847.0	2617.7	2367.7	2184.9	2117.7	2101.9	2102.9	2103.9	2105.8
15°	3212.6	3128.6	2875.6	2533.7	2214.5	2077.2	2065.3	2091.0	2117.7	2130.5	2129.5
17.5°	3359.8	3241.3	2880.6	2395.4	2064.3	2008.0	2045.6	2100.9	2141.4	2159.2	2163.1
20°	3518.0	3355.9	2845.0	2199.7	1940.8	1951.7	2018.9	2090.0	2134.5	2157.2	2163.1
22.5°	3698.8	3478.4	2760.0	1994.2	1840.0	1890.4	1969.5	2038.6	2085.1	2107.8	2113.7
25°	3905.3	3615.8	2626.6	1821.2	1753.0	1821.2	1900.3	1957.6	1995.2	2015.9	2021.8
27.5°	4134.6	3759.1	2448.7	1683.9	1677.0	1750.1	1815.3	1859.8	1879.5	1895.3	1901.3
30°	4364.8	3889.5	2233.3	1580.1	1610.7	1679.9	1726.4	1746.1	1752.1	1755.0	1761.9
32.5°	4613.9	4002.2	2007.0	1494.1	1547.5	1611.7	1639.4	1648.3	1620.6	1601.9	1607.8
35°	4915.2	4122.7	1785.7	1426.0	1485.2	1540.6	1549.5	1541.6	1509.0	1470.4	1472.4
37.5°	5287.8	4272.9	1608.8	1377.5	1426.9	1463.5	1452.6	1450.7	1453.6	1408.2	1411.1
40°	5744.3	4468.6	1479.3	1340.0	1379.5	1387.4	1356.8	1373.6	1388.4	1319.2	1321.2
42.5°	6251.3	4704.8	1397.3	1314.3	1340.0	1321.2	1273.8	1292.6	1290.6	1199.7	1198.7
45°	6768.1	4961.7	1368.6	1295.5	1303.4	1265.9	1213.5	1218.4	1176.9	1094.9	1097.9
47.5°	7282.0	5237.4	1386.4	1279.7	1258.0	1215.5	1175.0	1153.2	1091.9	1030.7	1030.7
50°	7785.9	5526.9	1451.6	1248.1	1195.7	1171.0	1141.4	1102.8	1037.6	985.2	981.3
52.5°	8253.3	5818.5	1524.8	1195.7	1117.6	1132.5	1113.7	1069.2	1005.0	951.6	952.6
55°	8696.1	6110.0	1553.4	1123.6	1044.5	1098.9	1088.0	1006.0	928.9	885.4	881.5
57.5°	9178.3	6460.8	1521.8	1031.7	985.2	1060.3	1018.8	927.9	883.4	850.8	847.9
60°	9846.3	7011.2	1453.6	918.0	928.9	1003.0	931.9	894.3	845.9	809.3	807.3
62.5°	10956.0	8037.9	1343.9	805.4	862.7	918.0	890.4	852.8	803.4	767.8	767.8
65°	12596.4	9464.9	1137.4	717.4	788.6	835.0	845.9	808.3	757.0	719.4	721.4
67.5°	13979.9	10360.2	860.7	644.3	712.5	767.8	798.5	761.9	707.5	671.0	672.0
70°	13903.8	9709.9	657.1	572.2	645.3	701.6	741.1	712.5	654.2	619.6	622.6
72.5°	12349.4	8122.9	531.6	499.0	577.1	632.4	679.9	658.1	598.8	565.2	565.2
75°	9072.6	5766.1	424.9	424.9	492.1	560.3	612.7	598.8	544.5	520.8	513.9
77.5°	3824.3	2419.1	333.0	352.8	409.1	481.2	546.5	551.4	504.0	533.6	484.2
80°	1016.8	667.0	254.0	277.7	321.2	397.3	475.3	473.3	422.0	394.3	366.6
82.5°	387.4	262.9	180.8	195.7	232.2	304.4	376.5	388.4	337.0	291.5	291.5
85°	149.2	112.7	111.7	117.6	135.4	201.6	284.6	294.5	254.0	215.4	222.3
87.5°	38.5	33.6	41.5	39.5	62.3	107.7	163.1	169.0	155.1	89.9	128.5
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)