

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: P882757

Luminaire Tested: **NAV-SB2D-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882757
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-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22155 lumens
Efficiency: N/A
Efficacy: 150.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

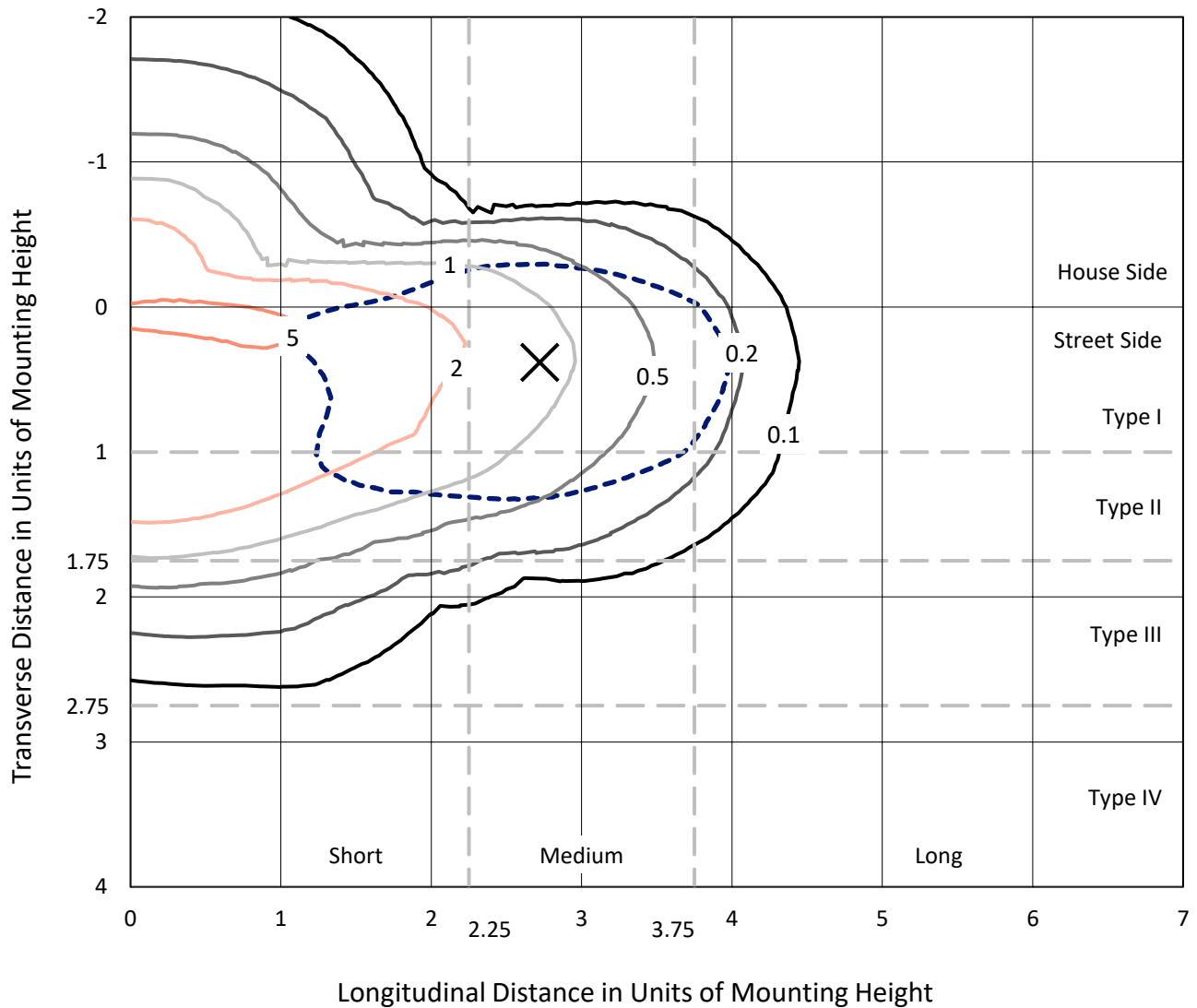
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

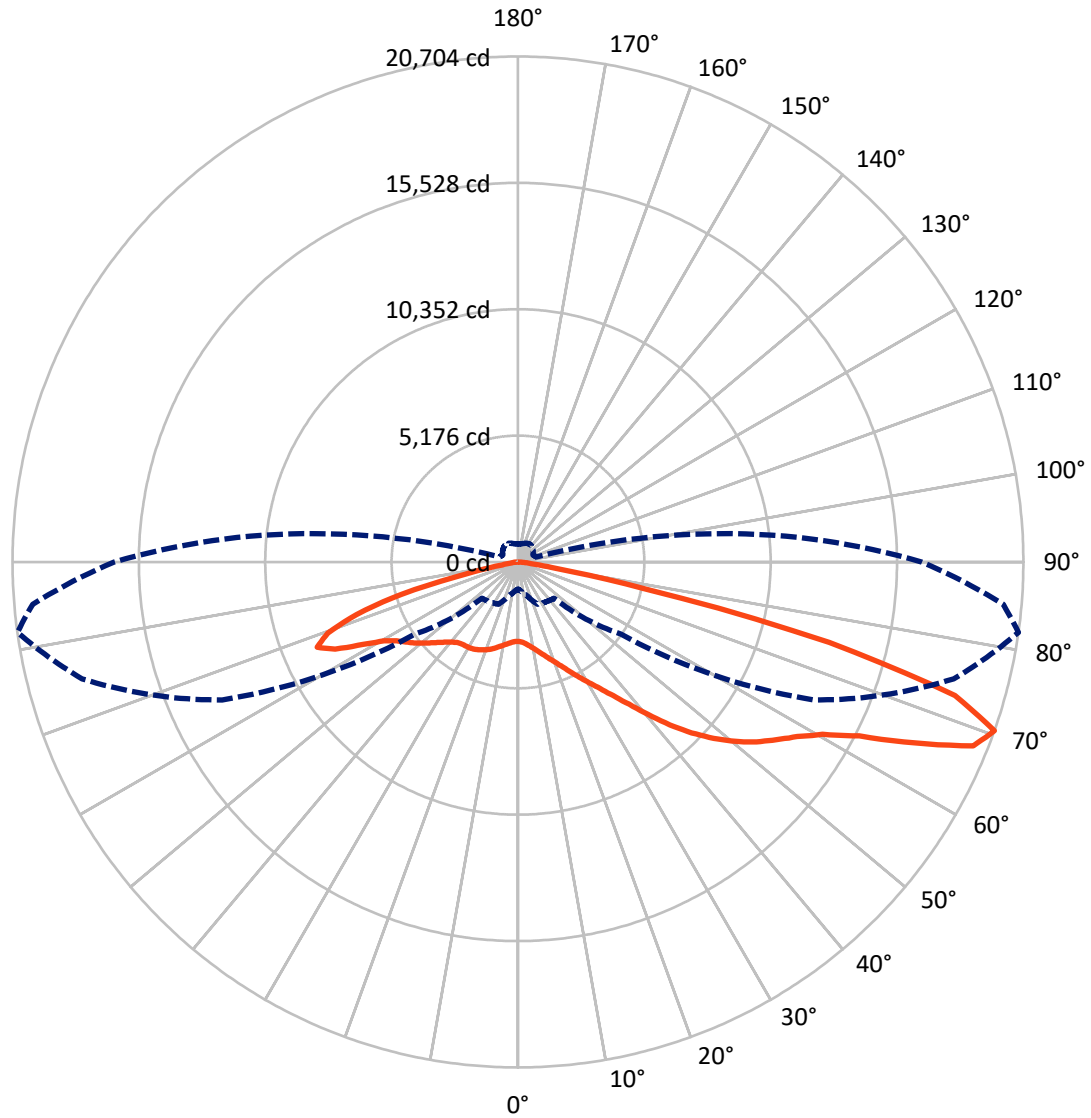
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 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	5461.7	0.0	5461.7
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	16693.2	0.0	16693.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	22155.0	0.0	22155.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.7	1.4
10°-20°	881.1	4.0
20°-30°	1474.0	6.7
30°-40°	2302.8	10.4
40°-50°	3667.5	16.6
50°-60°	5103.8	23.0
60°-70°	5338.8	24.1
70°-80°	2790.4	12.6
80°-90°	289.7	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°	22155.0	100.0
0°-180°	22155.0	100.0

Coefficient of Utilization



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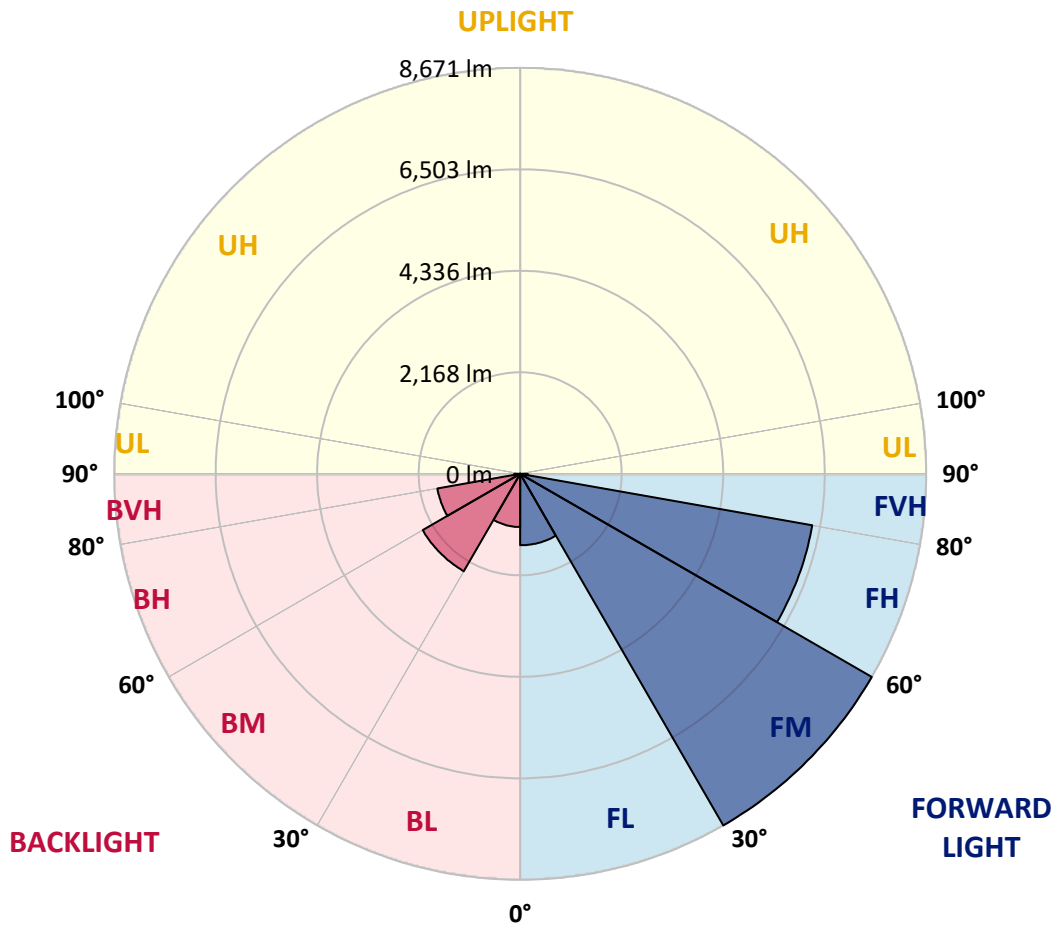
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1525.6	6.9			
FM (30°-60°)	8671.2	39.1			
FH (60°-80°)	6334.2	28.6			G3/7500
FVH (80°-90°)	162.2	0.7			G2/225
BL (0°-30°)	1136.2	5.1	B3/2500		
BM (30°-60°)	2403.0	10.8	B2/2500		
BH (60°-80°)	1795.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	127.5	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°	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2
2.5°	3325.8	3344.6	3338.7	3332.8	3332.8	3324.6	3323.4	3311.7	3302.3	3287.0	3283.5
5°	3368.1	3388.1	3385.7	3390.4	3405.7	3409.3	3412.8	3405.7	3386.9	3368.1	3359.9
7.5°	3330.5	3352.8	3359.9	3388.1	3435.1	3477.4	3509.2	3522.1	3504.5	3477.4	3464.5
10°	3203.5	3228.2	3252.9	3319.9	3403.4	3503.3	3588.0	3638.5	3635.0	3609.1	3586.8
12.5°	2946.1	2971.9	3024.8	3155.3	3308.2	3484.5	3642.0	3747.8	3784.3	3765.5	3726.7
15°	2740.3	2762.7	2802.6	2936.7	3135.3	3403.4	3662.0	3867.7	3960.6	3950.0	3903.0
17.5°	2734.5	2743.9	2768.6	2832.0	2984.9	3276.4	3640.9	3985.3	4162.8	4161.6	4102.9
20°	2837.9	2841.4	2855.5	2868.5	2955.5	3180.0	3586.8	4082.9	4389.7	4389.7	4326.2
22.5°	2981.3	2979.0	2993.1	2981.3	3023.7	3171.8	3552.7	4168.7	4642.5	4661.3	4581.3
25°	3196.5	3184.7	3181.2	3154.2	3162.4	3248.2	3590.3	4266.3	4942.2	4981.0	4881.1
27.5°	3483.3	3464.5	3451.6	3389.3	3368.1	3405.7	3705.5	4383.8	5276.1	5343.1	5216.2
30°	3857.2	3823.1	3804.3	3696.1	3619.7	3625.6	3879.5	4540.2	5625.3	5733.4	5572.4
32.5°	4367.4	4314.5	4263.9	4086.4	3946.5	3900.7	4104.0	4756.5	6003.8	6176.6	5969.7
35°	4938.7	4896.4	4842.3	4568.4	4353.3	4247.5	4407.3	5058.6	6447.0	6720.9	6451.7
37.5°	5488.9	5452.5	5478.3	5109.2	4831.7	4677.7	4804.7	5464.2	6993.7	7398.1	7056.0
40°	6057.9	6029.7	6033.2	5680.5	5357.2	5184.4	5286.7	5973.3	7620.3	8203.4	7782.5
42.5°	6676.3	6655.1	6584.6	6271.9	5908.6	5747.5	5841.6	6561.1	8292.7	9120.4	8579.6
45°	7368.7	7355.8	7289.9	6931.4	6515.2	6334.2	6461.1	7210.0	8968.7	9983.2	9380.2
47.5°	7967.1	7977.7	7969.4	7667.3	7235.9	6970.2	7121.8	7887.1	9597.6	10794.4	10147.8
50°	8255.1	8310.4	8391.5	8297.4	8029.4	7759.0	7788.4	8540.8	10197.2	11555.0	10883.8
52.5°	8104.6	8209.3	8430.3	8580.7	8684.2	8627.8	8549.0	9189.7	10761.5	12241.6	11579.7
55°	7543.9	7690.8	8057.6	8420.9	8948.7	9359.0	9462.5	9909.2	11311.7	12845.8	12238.1
57.5°	6522.3	6760.9	7090.1	7824.8	8713.6	9712.9	10527.6	10907.3	11894.8	13491.3	12927.0
60°	4770.6	5090.4	5499.5	6592.8	7890.7	9523.6	11433.9	12440.3	12723.6	14327.1	13824.0
62.5°	3053.0	3250.6	3626.7	4656.6	6148.4	8553.7	11711.4	14356.5	14128.4	15697.9	15168.8
65°	2090.2	2217.2	2561.6	3140.0	3974.7	6367.1	10968.4	15793.1	16359.7	17870.4	17468.3
67.5°	1518.9	1615.3	1909.2	2415.9	2589.9	3767.8	8511.4	15727.3	18528.7	20108.7	19483.3
70°	1107.4	1175.6	1422.5	1909.2	1992.7	2096.1	5156.2	13369.0	18481.7	20703.6	19954.7
72.5°	820.6	867.6	1033.4	1481.3	1612.9	1415.4	2552.2	9716.4	15881.3	18726.2	18125.5
75°	593.7	628.9	751.2	1133.3	1290.8	1078.0	1273.2	5678.2	11077.7	13172.7	13278.5
77.5°	453.8	480.8	560.8	830.0	1033.4	808.8	790.0	2612.2	5252.6	5278.5	5574.7
80°	364.4	382.1	425.6	584.3	792.4	605.4	514.9	1054.5	1660.0	1404.8	1474.2
82.5°	268.0	297.4	359.7	410.3	566.6	417.3	313.9	532.5	631.3	543.1	547.8
85°	152.8	172.8	217.5	293.9	362.1	255.1	179.9	236.3	293.9	241.0	215.1
87.5°	54.1	70.5	76.4	115.2	157.5	105.8	69.4	68.2	96.4	71.7	60.0
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°	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2	3248.2
2.5°	3271.7	3265.8	3242.3	3210.6	3177.7	3145.9	3135.3	3113.0	3097.7	3089.5	3098.9
5°	3337.5	3318.7	3263.5	3192.9	3118.9	3038.9	2982.5	2930.8	2893.2	2857.9	2872.0
7.5°	3431.6	3398.7	3303.5	3180.0	3048.3	2915.5	2816.8	2741.5	2691.0	2658.0	2665.1
10°	3540.9	3490.4	3344.6	3160.0	2956.6	2766.2	2649.8	2585.2	2553.4	2535.8	2540.5
12.5°	3666.7	3595.0	3386.9	3114.2	2816.8	2599.3	2519.3	2500.5	2501.7	2502.9	2505.2
15°	3821.9	3722.0	3421.0	3014.3	2634.5	2471.1	2457.0	2487.6	2519.3	2534.6	2533.4
17.5°	3997.1	3856.0	3426.9	2849.7	2455.8	2388.8	2433.5	2499.3	2547.5	2568.7	2573.4
20°	4185.2	3992.4	3384.6	2616.9	2308.9	2321.8	2401.8	2486.4	2539.3	2566.3	2573.4
22.5°	4400.3	4138.1	3283.5	2372.4	2189.0	2248.9	2343.0	2425.3	2480.5	2507.6	2514.6
25°	4646.0	4301.5	3124.8	2166.6	2085.5	2166.6	2260.7	2328.9	2373.5	2398.2	2405.3
27.5°	4918.7	4472.0	2913.2	2003.2	1995.0	2082.0	2159.6	2212.5	2236.0	2254.8	2261.9
30°	5192.7	4627.2	2656.9	1879.8	1916.2	1998.5	2053.8	2077.3	2084.3	2087.9	2096.1
32.5°	5488.9	4761.2	2387.7	1777.5	1841.0	1917.4	1950.3	1960.9	1928.0	1905.7	1912.7
35°	5847.5	4904.6	2124.3	1696.4	1766.9	1832.8	1843.4	1833.9	1795.2	1749.3	1751.7
37.5°	6290.7	5083.3	1913.9	1638.8	1697.6	1741.1	1728.1	1725.8	1729.3	1675.2	1678.8
40°	6833.8	5316.1	1759.9	1594.1	1641.1	1650.6	1614.1	1634.1	1651.7	1569.4	1571.8
42.5°	7436.9	5597.1	1662.3	1563.6	1594.1	1571.8	1515.4	1537.7	1535.3	1427.2	1426.0
45°	8051.7	5902.7	1628.2	1541.2	1550.6	1506.0	1443.6	1449.5	1400.1	1302.6	1306.1
47.5°	8663.0	6230.7	1649.4	1522.4	1496.5	1446.0	1397.8	1371.9	1299.0	1226.2	1226.2
50°	9262.6	6575.2	1727.0	1484.8	1422.5	1393.1	1357.8	1312.0	1234.4	1172.1	1167.4
52.5°	9818.7	6922.0	1814.0	1422.5	1329.6	1347.2	1324.9	1272.0	1195.6	1132.1	1133.3
55°	10345.3	7268.8	1848.1	1336.7	1242.6	1307.3	1294.3	1196.8	1105.1	1053.3	1048.6
57.5°	10919.0	7686.1	1810.4	1227.3	1172.1	1261.4	1212.1	1103.9	1051.0	1012.2	1008.7
60°	11713.7	8340.9	1729.3	1092.1	1105.1	1193.2	1108.6	1063.9	1006.3	962.8	960.5
62.5°	13033.9	9562.4	1598.8	958.1	1026.3	1092.1	1059.2	1014.5	955.8	913.4	913.4
65°	14985.5	11260.0	1353.1	853.5	938.1	993.4	1006.3	961.6	900.5	855.8	858.2
67.5°	16631.3	12325.1	1024.0	766.5	847.6	913.4	949.9	906.4	841.7	798.2	799.4
70°	16540.8	11551.5	781.8	680.7	767.7	834.7	881.7	847.6	778.3	737.1	740.6
72.5°	14691.6	9663.5	632.5	593.7	686.6	752.4	808.8	783.0	712.4	672.4	672.4
75°	10793.2	6859.7	505.5	505.5	585.5	666.6	728.9	712.4	647.8	619.5	611.3
77.5°	4549.6	2877.9	396.2	419.7	486.7	572.5	650.1	656.0	599.6	634.8	576.0
80°	1209.7	793.5	302.1	330.3	382.1	472.6	565.5	563.1	502.0	469.1	436.1
82.5°	460.8	312.7	215.1	232.8	276.3	362.1	447.9	462.0	400.9	346.8	346.8
85°	177.5	134.0	132.8	139.9	161.1	239.8	338.6	350.3	302.1	256.3	264.5
87.5°	45.8	40.0	49.4	47.0	74.1	128.1	194.0	201.0	184.6	107.0	152.8
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)