

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: P883947

Luminaire Tested: **NAV-SB4C-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883947
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-SB4C-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32422 lumens
Efficiency: N/A
Efficacy: 161.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

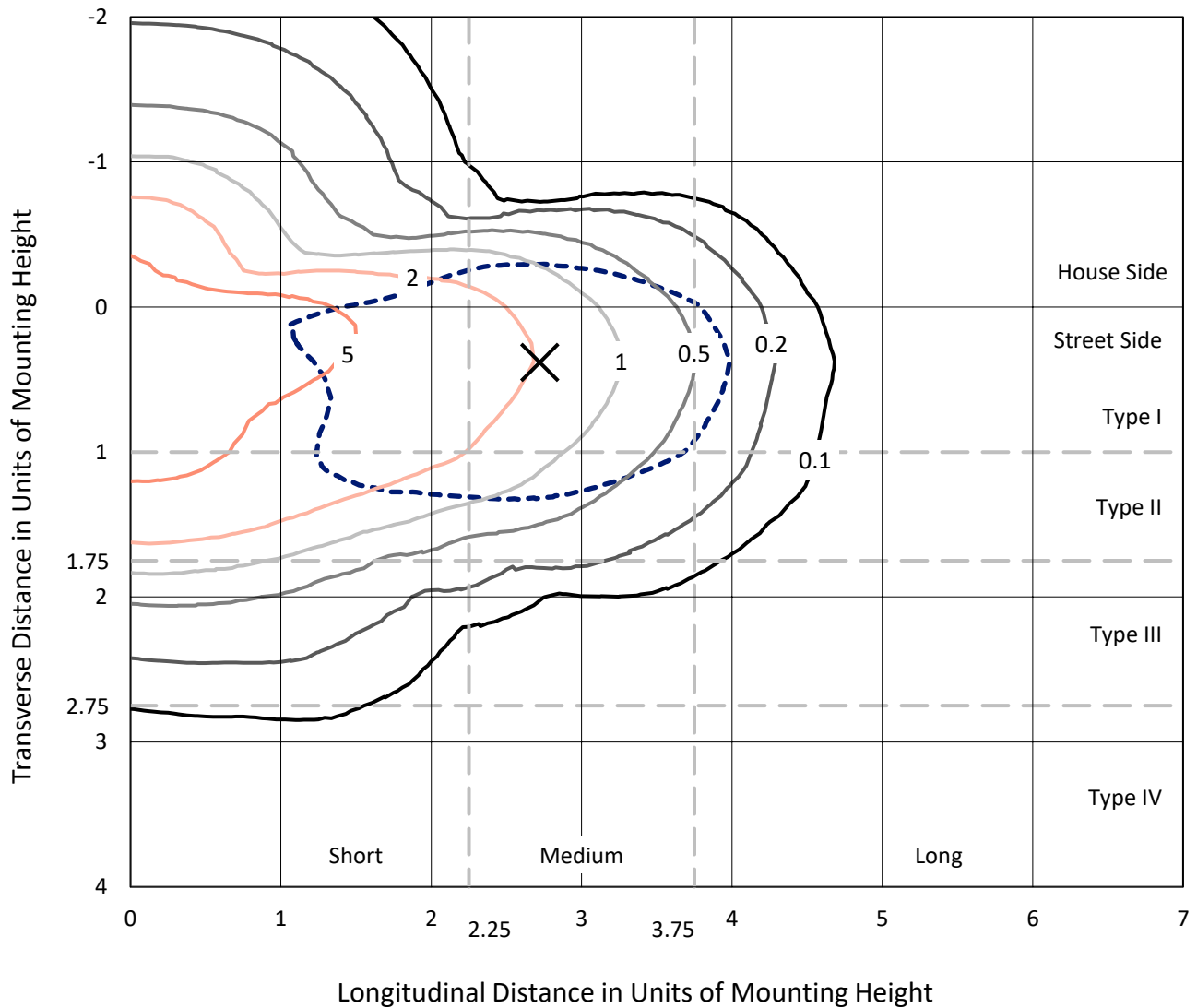
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

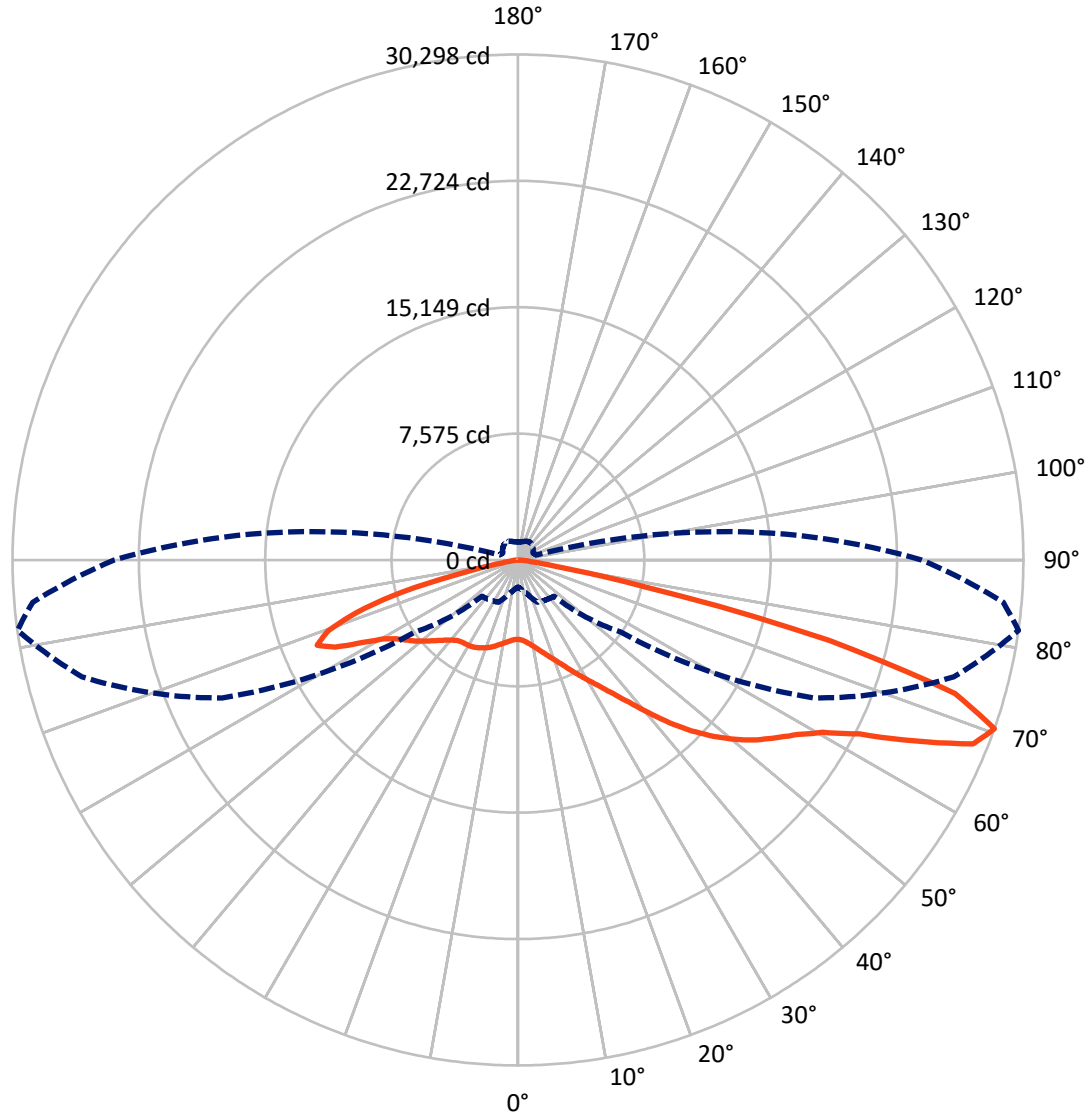
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 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	7992.8	0.0	7992.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	24429.2	0.0	24429.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	32422.0	0.0	32422.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	448.8	1.4
10°-20°	1289.5	4.0
20°-30°	2157.1	6.7
30°-40°	3370.0	10.4
40°-50°	5367.1	16.6
50°-60°	7469.0	23.0
60°-70°	7812.9	24.1
70°-80°	4083.5	12.6
80°-90°	424.0	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°	32422.0	100.0
0°-180°	32422.0	100.0

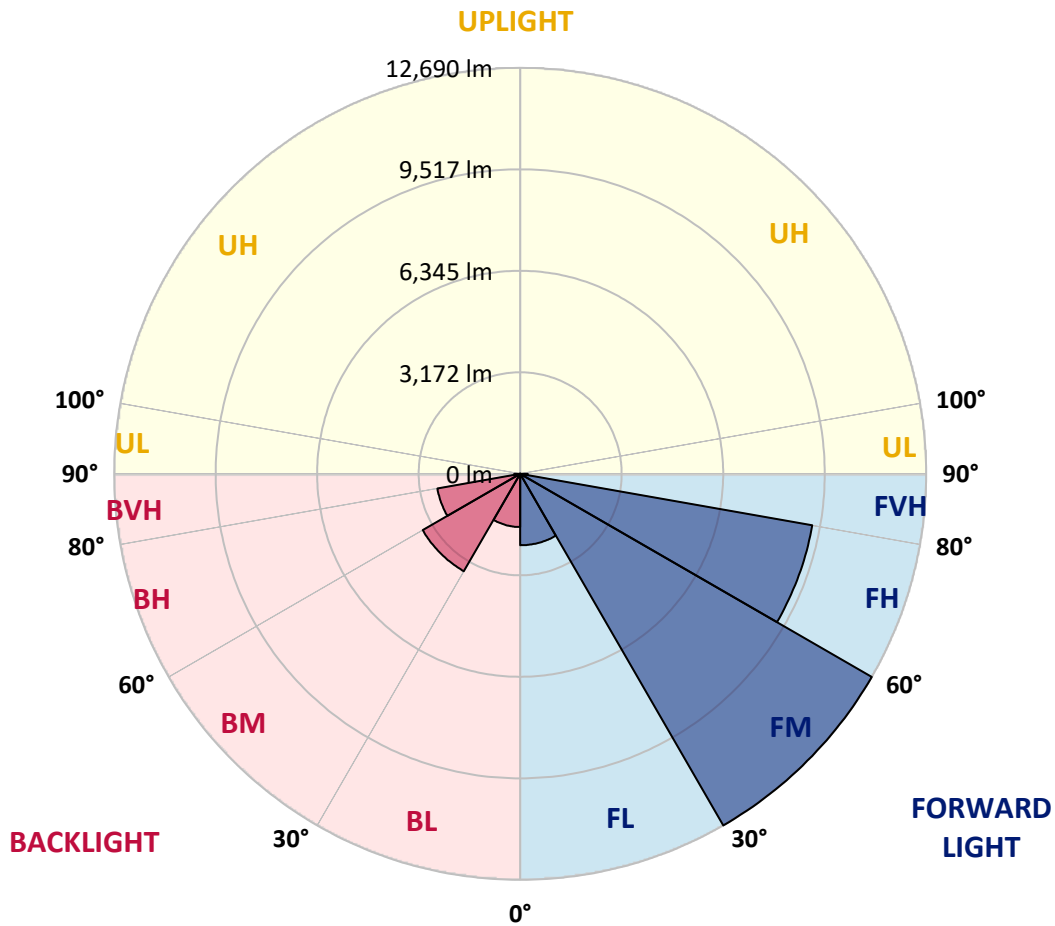


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2232.6	6.9			
FM (30°-60°)	12689.6	39.1			
FH (60°-80°)	9269.5	28.6			G4/12000
FVH (80°-90°)	237.4	0.7			G3/500
BL (0°-30°)	1662.8	5.1	B3/2500		
BM (30°-60°)	3516.5	10.8	B3/5000		
BH (60°-80°)	2626.8	8.1	B4/5000		G4/5000
BVH (80°-90°)	186.7	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5
2.5°	4867.0	4894.5	4885.9	4877.3	4877.3	4865.3	4863.6	4846.4	4832.6	4810.2	4805.1
5°	4929.0	4958.2	4954.8	4961.6	4984.0	4989.2	4994.3	4984.0	4956.5	4929.0	4916.9
7.5°	4873.9	4906.6	4916.9	4958.2	5027.0	5088.9	5135.4	5154.3	5128.5	5088.9	5070.0
10°	4688.1	4724.2	4760.4	4858.4	4980.6	5126.8	5250.7	5324.6	5319.5	5281.6	5248.9
12.5°	4311.3	4349.2	4426.6	4617.6	4841.2	5099.3	5329.8	5484.6	5538.0	5510.4	5453.7
15°	4010.3	4042.9	4101.4	4297.6	4588.3	4980.6	5359.1	5660.1	5796.0	5780.6	5711.7
17.5°	4001.7	4015.4	4051.5	4144.4	4368.1	4794.8	5328.1	5832.2	6091.9	6090.2	6004.2
20°	4153.1	4158.2	4178.9	4197.8	4325.1	4653.7	5248.9	5975.0	6424.0	6424.0	6331.1
22.5°	4362.9	4359.5	4380.1	4362.9	4424.9	4641.6	5199.1	6100.5	6793.9	6821.4	6704.4
25°	4677.8	4660.6	4655.4	4615.8	4627.9	4753.5	5254.1	6243.3	7232.6	7289.3	7143.1
27.5°	5097.6	5070.0	5051.1	4959.9	4929.0	4984.0	5422.7	6415.4	7721.2	7819.2	7633.4
30°	5644.6	5594.7	5567.2	5408.9	5297.1	5305.7	5677.3	6644.2	8232.1	8390.4	8154.7
32.5°	6391.3	6313.9	6239.9	5980.1	5775.4	5708.3	6005.9	6960.7	8786.1	9039.0	8736.2
35°	7227.4	7165.5	7086.3	6685.5	6370.6	6215.8	6449.8	7402.9	9434.7	9835.5	9441.6
37.5°	8032.6	7979.2	8017.1	7476.9	7070.9	6845.5	7031.3	7996.4	10234.7	10826.5	10325.9
40°	8865.2	8823.9	8829.1	8313.0	7839.9	7587.0	7736.6	8741.4	11151.6	12005.0	11389.1
42.5°	9770.2	9739.2	9636.0	9178.3	8646.7	8411.0	8548.7	9601.6	12135.7	13346.9	12555.5
45°	10783.5	10764.6	10668.2	10143.5	9534.5	9269.5	9455.3	10551.2	13124.9	14609.7	13727.1
47.5°	11659.2	11674.6	11662.6	11220.5	10589.1	10200.3	10422.2	11542.2	14045.4	15796.7	14850.5
50°	12080.7	12161.5	12280.2	12142.6	11750.3	11354.7	11397.7	12498.7	14922.8	16909.8	15927.5
52.5°	11860.5	12013.6	12337.0	12557.2	12708.6	12626.0	12510.8	13448.4	15748.6	17914.5	16946.0
55°	11039.8	11254.9	11791.6	12323.2	13095.7	13696.1	13847.5	14501.3	16553.7	18798.8	17909.4
57.5°	9544.8	9894.0	10375.7	11451.0	12751.6	14214.0	15406.2	15961.9	17407.0	19743.3	18917.5
60°	6981.4	7449.3	8048.0	9648.0	11547.3	13937.0	16732.6	18205.3	18619.9	20966.5	20230.2
62.5°	4467.9	4756.9	5307.4	6814.5	8997.7	12517.6	17138.6	21009.5	20675.8	22972.5	22198.3
65°	3058.9	3244.7	3748.8	4595.2	5816.7	9317.7	16051.4	23111.9	23941.1	26151.8	25563.5
67.5°	2222.8	2363.8	2793.9	3535.4	3790.0	5513.9	12455.7	23015.5	27115.3	29427.5	28512.2
70°	1620.6	1720.4	2081.7	2793.9	2916.1	3067.5	7545.7	19564.4	27046.4	30298.0	29202.1
72.5°	1200.8	1269.7	1512.2	2167.7	2360.4	2071.4	3735.0	14219.1	23240.9	27404.3	26525.2
75°	868.8	920.4	1099.3	1658.5	1889.0	1577.6	1863.2	8309.5	16211.3	19277.1	19431.9
77.5°	664.1	703.6	820.6	1214.6	1512.2	1183.6	1156.1	3822.7	7686.8	7724.6	8158.1
80°	533.3	559.1	622.8	855.0	1159.6	886.0	753.5	1543.2	2429.2	2055.9	2157.4
82.5°	392.3	435.3	526.4	600.4	829.2	610.7	459.3	779.3	923.9	794.8	801.7
85°	223.7	252.9	318.3	430.1	529.9	373.3	263.2	345.8	430.1	352.7	314.8
87.5°	79.1	103.2	111.8	168.6	230.5	154.8	101.5	99.8	141.1	104.9	87.7
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°	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5	4753.5
2.5°	4787.9	4779.3	4744.9	4698.4	4650.2	4603.8	4588.3	4555.6	4533.3	4521.2	4535.0
5°	4884.2	4856.7	4775.8	4672.6	4564.2	4447.2	4364.7	4289.0	4233.9	4182.3	4202.9
7.5°	5021.9	4973.7	4834.3	4653.7	4461.0	4266.6	4122.1	4012.0	3938.0	3889.8	3900.2
10°	5181.9	5107.9	4894.5	4624.4	4326.8	4048.1	3877.8	3783.2	3736.7	3710.9	3717.8
12.5°	5365.9	5261.0	4956.5	4557.3	4122.1	3803.8	3686.8	3659.3	3661.0	3662.7	3666.2
15°	5593.0	5446.8	5006.4	4411.1	3855.4	3616.3	3595.6	3640.4	3686.8	3709.2	3707.5
17.5°	5849.4	5642.9	5015.0	4170.3	3593.9	3495.9	3561.2	3657.6	3728.1	3759.1	3766.0
20°	6124.6	5842.5	4953.0	3829.6	3378.9	3397.8	3514.8	3638.7	3716.1	3755.6	3766.0
22.5°	6439.5	6055.8	4805.1	3471.8	3203.4	3291.1	3428.8	3549.2	3630.0	3669.6	3679.9
25°	6799.0	6295.0	4572.8	3170.7	3052.0	3170.7	3308.3	3408.1	3473.5	3509.6	3519.9
27.5°	7198.2	6544.4	4263.2	2931.6	2919.5	3046.8	3160.4	3237.8	3272.2	3299.7	3310.1
30°	7599.0	6771.5	3888.1	2750.9	2804.3	2924.7	3005.5	3040.0	3050.3	3055.4	3067.5
32.5°	8032.6	6967.6	3494.1	2601.2	2694.1	2806.0	2854.1	2869.6	2821.5	2788.8	2799.1
35°	8557.3	7177.5	3108.8	2482.5	2585.8	2682.1	2697.6	2683.8	2627.1	2560.0	2563.4
37.5°	9205.9	7439.0	2800.8	2398.2	2484.3	2547.9	2529.0	2525.6	2530.7	2451.6	2456.7
40°	10000.7	7779.7	2575.4	2332.9	2401.7	2415.4	2362.1	2391.4	2417.2	2296.7	2300.2
42.5°	10883.3	8190.8	2432.6	2288.1	2332.9	2300.2	2217.6	2250.3	2246.8	2088.6	2086.8
45°	11783.0	8638.1	2382.8	2255.4	2269.2	2203.8	2112.7	2121.3	2049.0	1906.2	1911.4
47.5°	12677.6	9118.1	2413.7	2227.9	2190.1	2116.1	2045.6	2007.7	1901.0	1794.4	1794.4
50°	13555.0	9622.2	2527.3	2172.9	2081.7	2038.7	1987.1	1920.0	1806.4	1715.2	1708.4
52.5°	14368.8	10129.7	2654.6	2081.7	1945.8	1971.6	1938.9	1861.5	1749.6	1656.7	1658.5
55°	15139.5	10637.2	2704.5	1956.1	1818.5	1913.1	1894.2	1751.4	1617.2	1541.5	1534.6
57.5°	15979.1	11248.0	2649.4	1796.1	1715.2	1846.0	1773.7	1615.5	1538.0	1481.3	1476.1
60°	17142.1	12206.3	2530.7	1598.3	1617.2	1746.2	1622.3	1557.0	1472.7	1409.0	1405.6
62.5°	19074.1	13993.7	2339.7	1402.1	1501.9	1598.3	1550.1	1484.7	1398.7	1336.8	1336.8
65°	21930.0	16478.0	1980.2	1249.0	1372.9	1453.7	1472.7	1407.3	1317.8	1252.5	1255.9
67.5°	24338.5	18036.7	1498.5	1121.7	1240.4	1336.8	1390.1	1326.4	1231.8	1168.2	1169.9
70°	24206.1	16904.7	1144.1	996.1	1123.4	1221.5	1290.3	1240.4	1138.9	1078.7	1083.9
72.5°	21499.9	14141.7	925.6	868.8	1004.7	1101.1	1183.6	1145.8	1042.6	984.1	984.1
75°	15795.0	10038.5	739.8	739.8	856.8	975.5	1066.6	1042.6	947.9	906.7	894.6
77.5°	6658.0	4211.5	579.8	614.2	712.2	837.8	951.4	960.0	877.4	929.0	843.0
80°	1770.3	1161.3	442.1	483.4	559.1	691.6	827.5	824.1	734.6	686.4	638.3
82.5°	674.4	457.6	314.8	340.6	404.3	529.9	655.5	676.1	586.7	507.5	507.5
85°	259.8	196.1	194.4	204.7	235.7	351.0	495.5	512.7	442.1	375.0	387.1
87.5°	67.1	58.5	72.3	68.8	108.4	187.5	283.9	294.2	270.1	156.6	223.7
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)