

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: P884839

Luminaire Tested: **NAV-SB5D-830-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45213 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

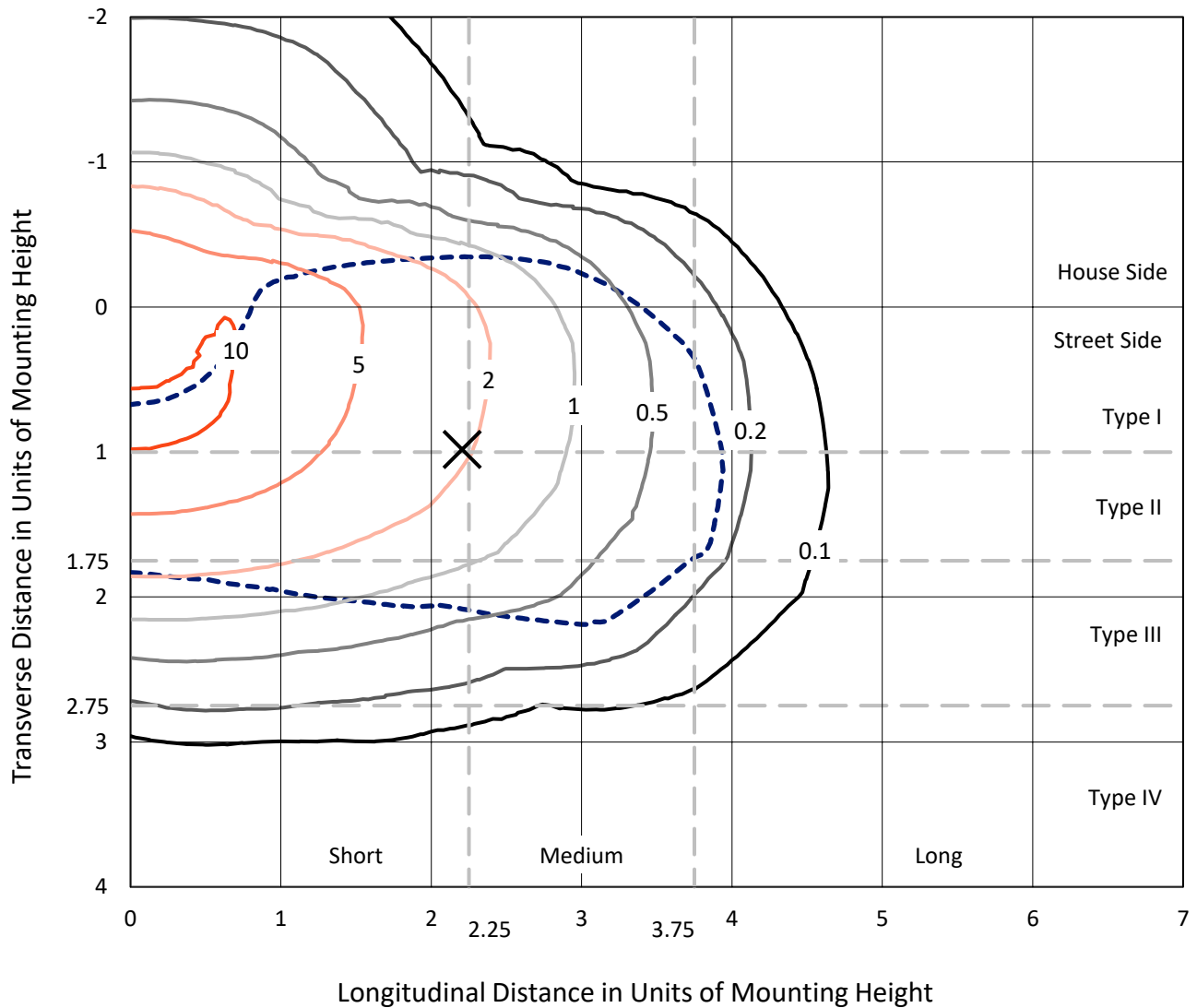
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

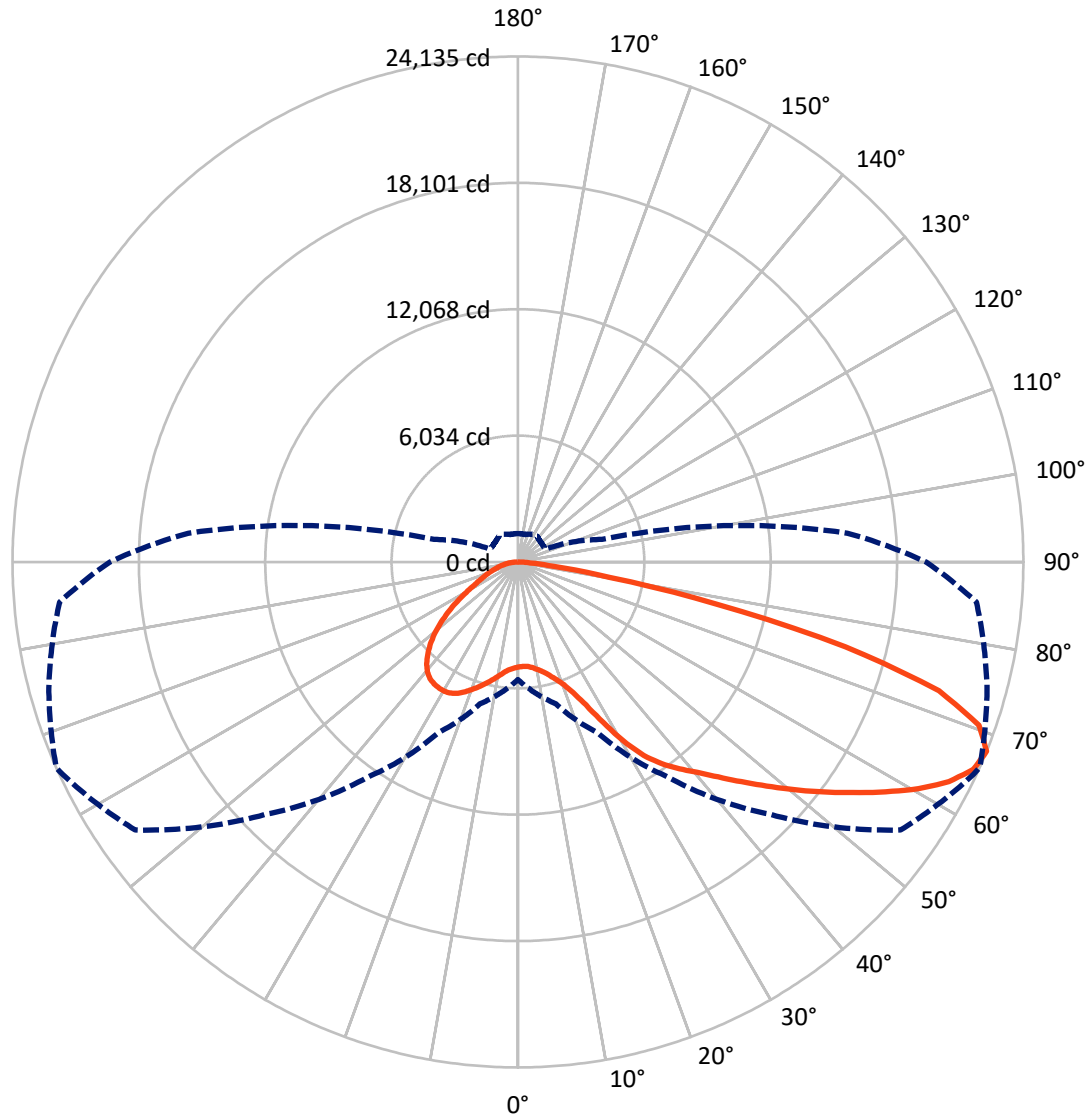
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11242.1	0.0	11242.1
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	33970.9	0.0	33970.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	45213.0	0.0	45213.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.2	1.1
10°-20°	1642.6	3.6
20°-30°	3166.1	7.0
30°-40°	5551.4	12.3
40°-50°	8253.1	18.3
50°-60°	10461.6	23.1
60°-70°	10236.4	22.6
70°-80°	4882.9	10.8
80°-90°	521.8	1.2
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°	45213.0	100.0
0°-180°	45213.0	100.0

Coefficient of Utilization



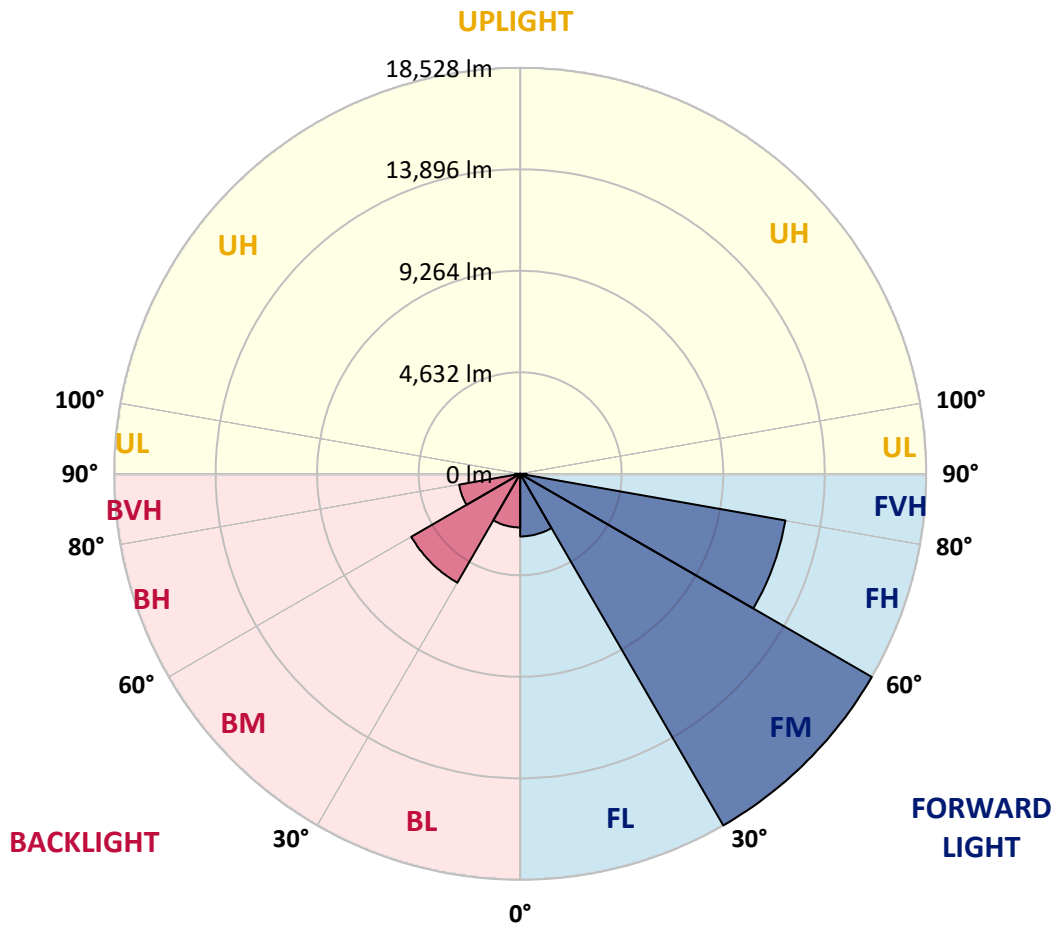
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2857.0	6.3			
FM (30°-60°)	18527.9	41.0			
FH (60°-80°)	12290.1	27.2			G5
FVH (80°-90°)	295.9	0.7			G3/500
BL (0°-30°)	2448.9	5.4	B3/2500		
BM (30°-60°)	5738.1	12.7	B4/8500		
BH (60°-80°)	2829.1	6.3	B4/5000		G4/5000
BVH (80°-90°)	226.0	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7
2.5°	4962.5	4991.0	4983.8	4972.0	4969.6	4974.3	4981.5	4988.6	4986.2	4998.1	5017.1
5°	4948.2	4976.7	4974.3	4974.3	4983.8	5002.8	5014.7	5026.6	5014.7	5029.0	5055.1
7.5°	4957.7	4979.1	4988.6	4998.1	5021.8	5057.5	5086.0	5112.1	5097.9	5114.5	5147.7
10°	5078.9	5095.5	5105.0	5105.0	5121.6	5162.0	5190.5	5238.0	5226.1	5252.3	5295.0
12.5°	5299.8	5316.4	5316.4	5306.9	5318.8	5344.9	5354.4	5406.7	5385.3	5428.1	5470.8
15°	5570.6	5603.8	5577.7	5561.1	5565.8	5592.0	5589.6	5630.0	5608.6	5644.2	5682.2
17.5°	5869.9	5912.7	5869.9	5867.5	5858.0	5886.5	5888.9	5924.5	5886.5	5912.7	5938.8
20°	6223.9	6283.2	6247.6	6259.5	6238.1	6250.0	6261.9	6314.1	6254.7	6273.7	6266.6
22.5°	6722.7	6794.0	6756.0	6801.1	6786.9	6777.4	6775.0	6867.6	6775.0	6782.1	6713.2
25°	7449.6	7535.1	7468.6	7530.4	7530.4	7561.3	7596.9	7715.7	7561.3	7516.1	7338.0
27.5°	8523.4	8608.9	8478.2	8516.2	8504.4	8580.4	8542.4	8836.9	8670.6	8597.0	8238.3
30°	9815.6	9967.7	9720.6	9711.1	9699.2	9820.4	9875.0	10069.8	9901.2	9827.5	9395.2
32.5°	11212.4	11371.6	11077.0	10991.5	10946.4	11020.0	10974.9	11131.7	11015.3	10901.3	10366.8
35°	12690.0	12846.8	12566.5	12400.2	12219.7	12065.3	11903.7	11944.1	11834.8	11661.4	11107.9
37.5°	14086.8	14374.3	14077.3	13899.2	13566.6	13264.9	12813.5	12625.9	12523.7	12364.6	11806.3
40°	15509.8	15673.7	15448.0	15296.0	14934.9	14462.2	13740.0	13343.3	13205.5	13051.1	12578.4
42.5°	16557.4	16714.1	16593.0	16488.5	16205.8	15657.0	14723.5	14227.0	14027.4	13854.0	13452.6
45°	17388.8	17505.2	17429.2	17467.2	17346.0	16813.9	15742.6	15174.8	14968.1	14756.7	14440.8
47.5°	17723.7	17847.3	17968.4	18194.1	18400.8	18008.8	16837.7	16201.0	15982.5	15766.3	15455.1
50°	17685.7	17811.6	18163.2	18643.1	19284.5	19153.8	17992.2	17293.8	17091.9	16844.8	16557.4
52.5°	17381.7	17524.2	17975.5	18773.7	19795.2	20011.4	19168.1	18422.1	18232.1	17937.5	17650.1
55°	16583.5	16669.0	17346.0	18476.8	19916.3	20610.0	20320.2	19624.2	19434.1	19023.2	18709.6
57.5°	15103.5	15227.1	16212.9	17676.2	19612.3	21016.2	21332.2	20887.9	20705.0	20113.5	19785.7
60°	13172.2	13369.4	14497.8	16331.7	18837.9	21013.8	22251.5	22130.3	21978.3	21187.2	20845.2
62.5°	10986.8	11214.8	12300.4	14431.3	17483.8	20417.6	22826.4	23170.8	23092.4	22177.8	21740.7
65°	8437.8	8594.6	9675.5	11972.6	15376.7	19137.2	22892.9	23881.1	23895.3	22930.9	22208.7
67.5°	5618.1	6069.4	7007.8	8984.2	12554.6	17044.3	22308.5	23997.5	24135.3	23189.8	21973.5
70°	2741.3	3335.2	4254.6	5839.0	8984.2	13835.0	20781.0	23042.5	23349.0	22434.4	20572.0
72.5°	1137.9	1330.3	1831.5	2881.5	5157.3	9335.8	17711.9	20453.2	21021.0	19878.3	17296.1
75°	767.3	831.4	1047.6	1477.6	2349.4	4603.8	12773.2	15250.8	16165.4	15013.3	12271.9
77.5°	591.5	631.9	762.5	1033.4	1396.8	1741.3	6836.7	9190.9	9663.6	8946.2	6385.4
80°	465.6	496.5	570.1	753.0	990.6	931.2	2330.4	4164.3	4437.5	3722.4	2052.4
82.5°	403.8	415.7	408.6	510.7	658.0	544.0	764.9	1537.0	1696.1	1230.5	669.9
85°	292.2	325.4	339.7	315.9	349.2	275.6	313.6	544.0	598.6	534.5	377.7
87.5°	118.8	175.8	216.2	204.3	128.3	78.4	97.4	159.2	182.9	199.5	123.5
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°	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7	5014.7
2.5°	5019.5	5036.1	5048.0	5062.2	5071.7	5086.0	5114.5	5131.1	5133.5	5145.4	5143.0
5°	5064.6	5088.4	5114.5	5152.5	5195.3	5230.9	5285.5	5323.5	5337.8	5349.7	5347.3
7.5°	5162.0	5195.3	5242.8	5309.3	5371.0	5418.6	5485.1	5530.2	5575.3	5592.0	5594.3
10°	5306.9	5354.4	5423.3	5513.6	5580.1	5641.9	5710.7	5748.8	5793.9	5812.9	5822.4
12.5°	5487.4	5537.3	5627.6	5753.5	5815.3	5858.0	5881.8	5872.3	5881.8	5898.4	5903.2
15°	5694.1	5748.8	5850.9	5986.3	6029.1	5991.1	5938.8	5891.3	5884.2	5888.9	5905.5
17.5°	5938.8	5979.2	6098.0	6212.0	6181.1	6024.3	5910.3	5834.3	5796.3	5784.4	5801.0
20°	6280.9	6280.9	6378.3	6449.5	6242.9	5976.8	5798.6	5675.1	5596.7	5563.5	5556.3
22.5°	6696.6	6658.6	6720.3	6670.5	6231.0	5843.8	5596.7	5382.9	5264.1	5216.6	5209.5
25°	7224.0	7178.8	7162.2	6853.4	6145.5	5632.4	5230.9	4972.0	4867.4	4841.3	4846.1
27.5°	8019.7	7905.7	7689.6	6953.1	5988.7	5299.8	4803.3	4563.4	4504.0	4506.4	4513.5
30°	9079.2	8851.2	8321.4	6969.8	5732.1	4829.4	4366.2	4195.2	4166.7	4178.5	4218.9
32.5°	10060.3	9844.1	8967.6	6893.8	5337.8	4368.6	3974.2	3860.2	3817.5	3831.7	3850.7
35°	10830.0	10770.6	9566.2	6786.9	4853.2	3936.2	3622.7	3525.3	3442.1	3423.1	3437.4
37.5°	11556.9	11533.1	10015.2	6637.2	4373.3	3629.8	3340.0	3211.7	3090.5	3024.0	3026.4
40°	12355.1	12331.3	10309.7	6406.8	3948.1	3363.7	3085.8	2917.1	2767.5	2646.3	2658.2
42.5°	13253.0	13112.9	10449.9	6076.6	3587.0	3138.1	2879.1	2651.1	2453.9	2342.3	2349.4
45°	14234.1	13918.2	10447.5	5656.1	3283.0	2931.4	2658.2	2335.1	2152.2	2047.7	2042.9
47.5°	15274.6	14687.8	10319.3	5190.5	2988.4	2703.3	2316.1	2069.1	1947.9	1883.8	1869.5
50°	16348.3	15407.6	10100.7	4656.0	2686.7	2444.4	2102.3	1933.7	1841.0	1781.6	1760.3
52.5°	17357.9	16060.9	9837.0	4050.3	2380.3	2192.6	2007.3	1876.7	1779.3	1712.7	1684.2
55°	18296.2	16623.9	9464.1	3430.2	2130.8	2023.9	1962.2	1852.9	1741.3	1662.9	1632.0
57.5°	19130.0	16989.7	8820.3	2848.2	1952.7	1907.5	1914.7	1812.5	1684.2	1617.7	1575.0
60°	19823.7	17258.1	7867.7	2309.0	1807.8	1793.5	1841.0	1736.5	1586.8	1510.8	1477.6
62.5°	20239.4	17253.4	6699.0	1890.9	1684.2	1689.0	1743.6	1641.5	1489.4	1418.2	1396.8
65°	20203.8	16830.5	5416.2	1617.7	1565.5	1570.2	1641.5	1537.0	1408.7	1365.9	1363.5
67.5°	19488.8	15799.6	4154.8	1439.6	1434.8	1456.2	1539.3	1465.7	1358.8	1354.0	1361.2
70°	17552.7	13659.2	2993.2	1297.0	1299.4	1330.3	1439.6	1420.6	1332.7	1342.2	1339.8
72.5°	14074.9	10414.3	2009.7	1147.4	1149.8	1199.6	1344.5	1384.9	1306.5	1432.4	1451.4
75°	9373.8	6494.7	1292.3	988.2	990.6	1054.7	1261.4	1316.0	1235.3	1427.7	1439.6
77.5°	4504.0	2919.5	936.0	831.4	831.4	890.8	1090.4	1178.3	1052.4	1109.4	1016.7
80°	1556.0	1097.5	736.4	669.9	655.6	696.0	919.3	1021.5	907.4	836.2	783.9
82.5°	612.9	570.1	591.5	520.2	472.7	498.9	715.0	843.3	667.5	603.4	601.0
85°	351.6	370.6	418.1	344.5	273.2	306.4	525.0	605.8	503.6	444.2	453.7
87.5°	95.0	130.7	192.4	178.2	123.5	130.7	249.4	334.9	289.8	223.3	230.4
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)