

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: P884769

Luminaire Tested: **NAV-SB5D-727-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884769
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-727-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46827 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

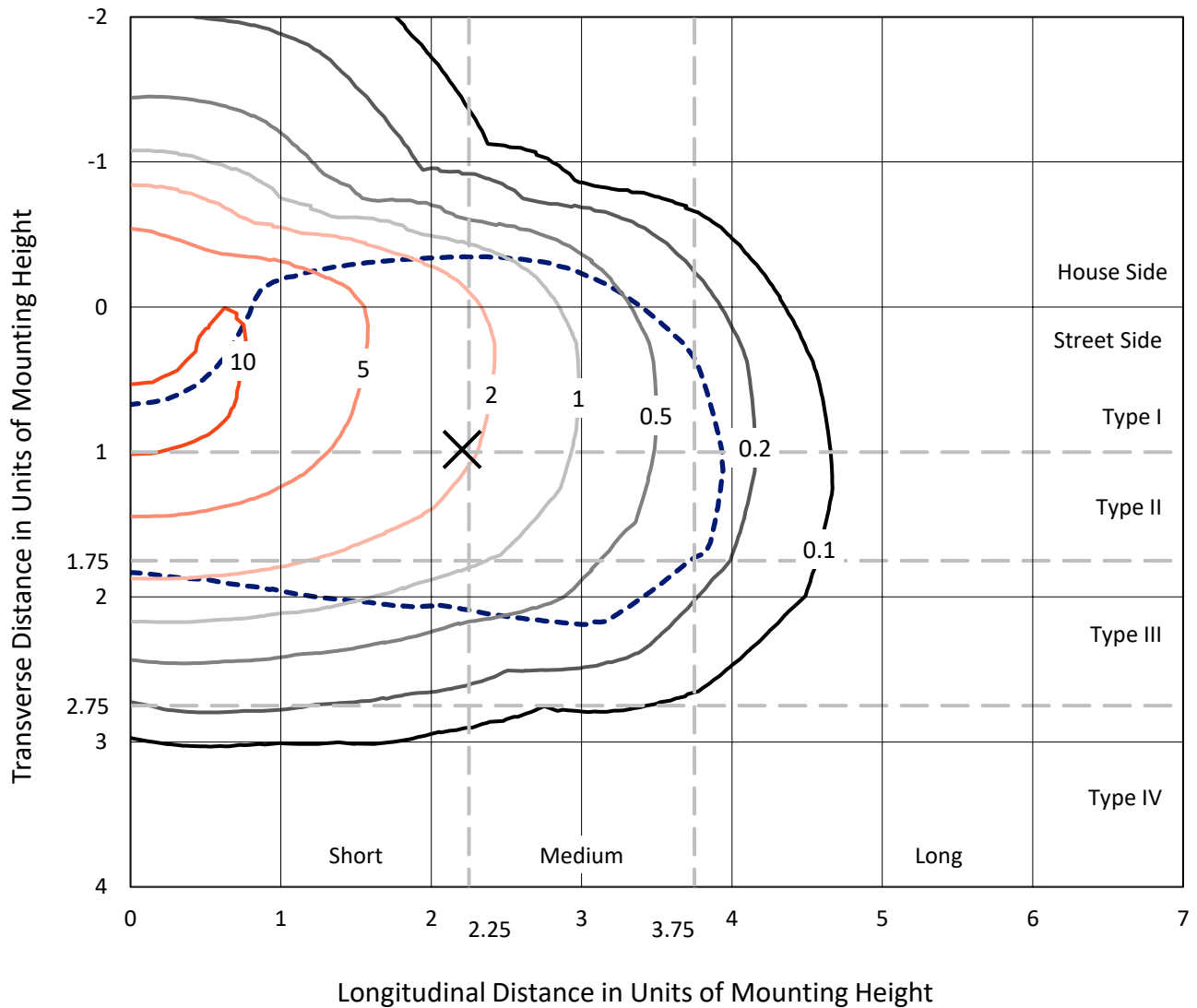
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

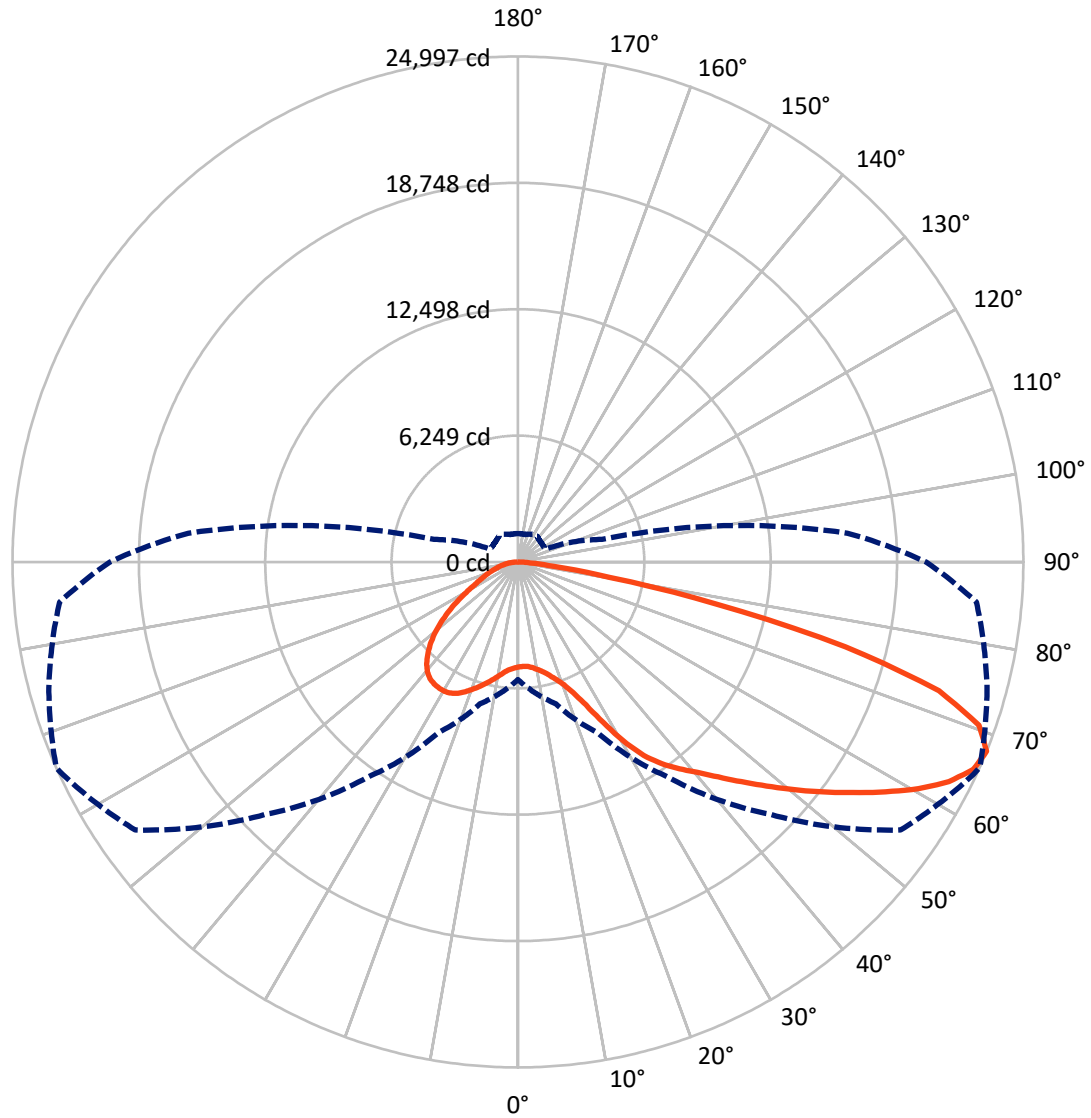
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.8 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	11643.4	0.0	11643.4
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	35183.6	0.0	35183.6
	% Fixture	75.1	0.0	75.1
Total	Lumens	46827.0	0.0	46827.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	514.9	1.1
10°-20°	1701.3	3.6
20°-30°	3279.1	7.0
30°-40°	5749.5	12.3
40°-50°	8547.7	18.3
50°-60°	10835.0	23.1
60°-70°	10601.8	22.6
70°-80°	5057.2	10.8
80°-90°	540.5	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°	46827.0	100.0
0°-180°	46827.0	100.0

Coefficient of Utilization



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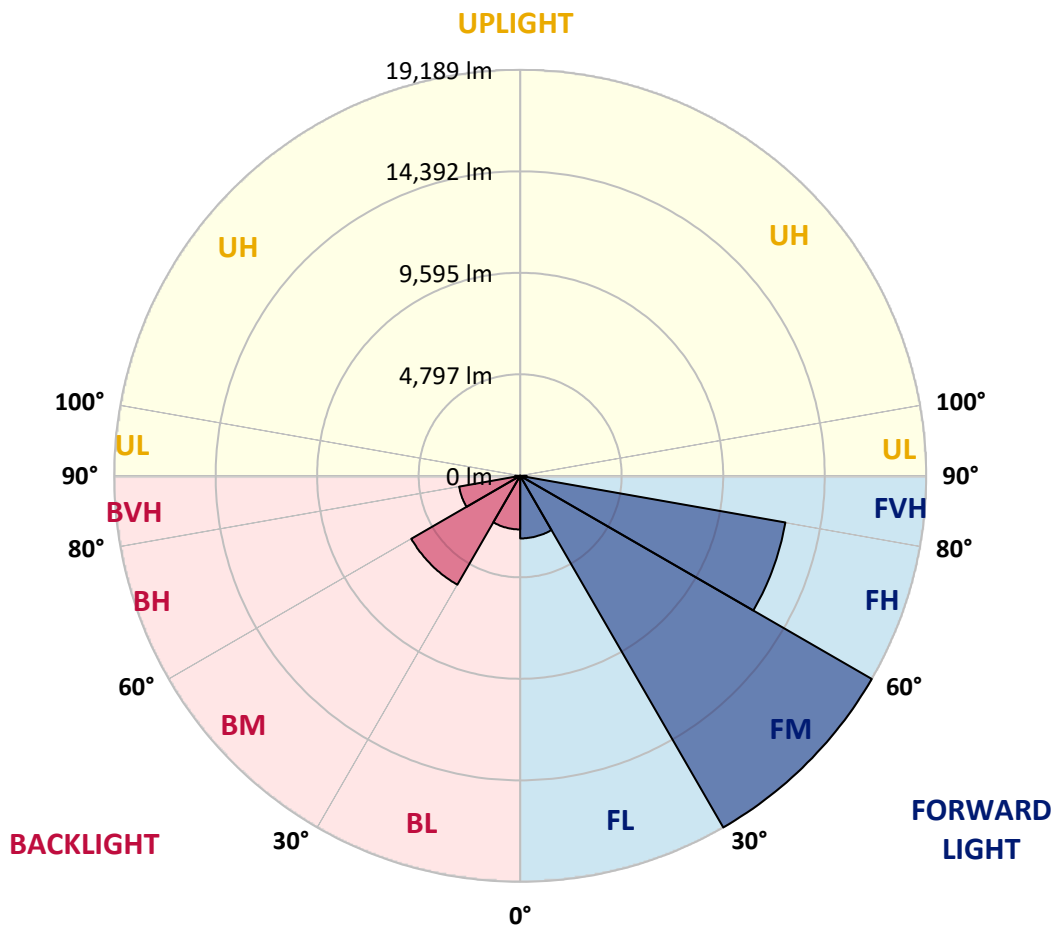
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2959.0	6.3			
FM (30°-60°)	19189.3	41.0			
FH (60°-80°)	12728.9	27.2			G5
FVH (80°-90°)	306.4	0.7			G3/500
BL (0°-30°)	2536.4	5.4	B4/5000		
BM (30°-60°)	5942.9	12.7	B4/8500		
BH (60°-80°)	2930.1	6.3	B4/5000		G4/5000
BVH (80°-90°)	234.0	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°	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7
2.5°	5139.6	5169.1	5161.7	5149.4	5147.0	5151.9	5159.3	5166.7	5164.2	5176.5	5196.2
5°	5124.8	5154.4	5151.9	5151.9	5161.7	5181.4	5193.7	5206.0	5193.7	5208.5	5235.6
7.5°	5134.7	5156.8	5166.7	5176.5	5201.1	5238.0	5267.5	5294.6	5279.8	5297.1	5331.5
10°	5260.2	5277.4	5287.2	5287.2	5304.4	5346.3	5375.8	5425.0	5412.7	5439.8	5484.1
12.5°	5489.0	5506.2	5506.2	5496.4	5508.7	5535.7	5545.6	5599.7	5577.5	5621.8	5666.1
15°	5769.4	5803.9	5776.8	5759.6	5764.5	5791.6	5789.1	5831.0	5808.8	5845.7	5885.1
17.5°	6079.4	6123.7	6079.4	6077.0	6067.1	6096.7	6099.1	6136.0	6096.7	6123.7	6150.8
20°	6446.0	6507.5	6470.6	6482.9	6460.8	6473.1	6485.4	6539.5	6478.0	6497.7	6490.3
22.5°	6962.7	7036.5	6997.1	7043.9	7029.1	7019.3	7016.8	7112.8	7016.8	7024.2	6952.9
25°	7715.6	7804.1	7735.2	7799.2	7799.2	7831.2	7868.1	7991.1	7831.2	7784.4	7599.9
27.5°	8827.6	8916.2	8780.9	8820.2	8807.9	8886.7	8847.3	9152.4	8980.2	8903.9	8532.4
30°	10166.0	10323.5	10067.6	10057.8	10045.5	10171.0	10227.5	10429.3	10254.6	10178.3	9730.6
32.5°	11612.7	11777.5	11472.5	11383.9	11337.1	11413.4	11366.7	11529.1	11408.5	11290.4	10736.8
35°	13143.0	13305.4	13015.1	12842.9	12655.9	12496.0	12328.7	12370.5	12257.3	12077.7	11504.5
37.5°	14589.7	14887.4	14579.8	14395.3	14050.9	13738.4	13271.0	13076.6	12970.8	12806.0	12227.8
40°	16063.4	16233.2	15999.5	15842.0	15468.0	14978.4	14230.5	13819.6	13676.9	13517.0	13027.4
42.5°	17148.4	17310.8	17185.3	17077.1	16784.3	16216.0	15249.1	14734.8	14528.2	14348.6	13932.8
45°	18009.5	18130.1	18051.4	18090.7	17965.2	17414.1	16304.5	15716.5	15502.5	15283.5	14956.3
47.5°	18356.4	18484.4	18609.9	18843.6	19057.6	18651.7	17438.7	16779.4	16553.0	16329.1	16006.8
50°	18317.1	18447.5	18811.6	19308.6	19972.9	19837.6	18634.5	17911.1	17702.0	17446.1	17148.4
52.5°	18002.2	18149.8	18617.2	19443.9	20501.8	20725.7	19852.3	19079.8	18882.9	18577.9	18280.2
55°	17175.5	17264.1	17965.2	19136.4	20627.3	21345.7	21045.6	20324.7	20127.9	19702.2	19377.5
57.5°	15642.7	15770.6	16791.7	18307.2	20312.4	21766.4	22093.7	21633.6	21444.1	20831.5	20492.0
60°	13642.5	13846.7	15015.3	16914.7	19510.3	21764.0	23045.8	22920.3	22762.9	21943.6	21589.3
62.5°	11379.0	11615.2	12739.5	14946.4	18107.9	21146.4	23641.2	23998.0	23916.8	22969.5	22516.8
65°	8739.1	8901.4	10020.9	12400.0	15925.6	19820.3	23710.1	24733.6	24748.3	23749.5	23001.5
67.5°	5818.7	6286.1	7257.9	9304.9	13002.8	17652.8	23104.9	24854.1	24996.8	24017.6	22757.9
70°	2839.2	3454.3	4406.4	6047.5	9304.9	14328.9	21522.9	23865.1	24182.5	23235.3	21306.4
72.5°	1178.5	1377.8	1896.9	2984.4	5341.4	9669.1	18344.1	21183.3	21771.4	20587.9	17913.6
75°	794.7	861.1	1085.0	1530.3	2433.3	4768.1	13229.1	15795.2	16742.5	15549.2	12710.0
77.5°	612.6	654.4	789.8	1070.2	1446.7	1803.4	7080.8	9519.0	10008.6	9265.6	6613.3
80°	482.2	514.2	590.5	779.9	1026.0	964.4	2413.6	4312.9	4595.9	3855.3	2125.7
82.5°	418.3	430.6	423.2	529.0	681.5	563.4	792.2	1591.8	1756.7	1274.4	693.8
85°	302.6	337.1	351.8	327.2	361.7	285.4	324.8	563.4	620.0	553.6	391.2
87.5°	123.0	182.1	223.9	211.6	132.9	81.2	100.9	164.8	189.4	206.7	127.9
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°	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7	5193.7
2.5°	5198.7	5215.9	5228.2	5242.9	5252.8	5267.5	5297.1	5314.3	5316.7	5329.1	5326.6
5°	5245.4	5270.0	5297.1	5336.4	5380.7	5417.6	5474.2	5513.6	5528.3	5540.6	5538.2
7.5°	5346.3	5380.7	5429.9	5498.8	5562.8	5612.0	5680.9	5727.6	5774.4	5791.6	5794.1
10°	5496.4	5545.6	5616.9	5710.4	5779.3	5843.3	5914.6	5954.0	6000.7	6020.4	6030.2
12.5°	5683.3	5735.0	5828.5	5958.9	6022.9	6067.1	6091.7	6081.9	6091.7	6109.0	6113.9
15°	5897.4	5954.0	6059.8	6200.0	6244.3	6204.9	6150.8	6101.6	6094.2	6099.1	6116.4
17.5°	6150.8	6192.6	6315.6	6433.7	6401.7	6239.4	6121.3	6042.5	6003.2	5990.9	6008.1
20°	6505.1	6505.1	6606.0	6679.8	6465.7	6190.2	6005.6	5877.7	5796.5	5762.1	5754.7
22.5°	6935.6	6896.3	6960.2	6908.6	6453.4	6052.4	5796.5	5575.1	5452.1	5402.9	5395.5
25°	7481.8	7435.1	7417.9	7098.0	6364.8	5833.4	5417.6	5149.4	5041.2	5014.1	5019.1
27.5°	8306.0	8187.9	7964.1	7201.4	6202.5	5489.0	4974.8	4726.3	4664.8	4667.2	4674.6
30°	9403.3	9167.1	8618.5	7218.6	5936.7	5001.8	4522.1	4344.9	4315.4	4327.7	4369.5
32.5°	10419.5	10195.6	9287.7	7139.8	5528.3	4524.5	4116.1	3998.0	3953.7	3968.5	3988.2
35°	11216.6	11155.1	9907.7	7029.1	5026.4	4076.7	3752.0	3651.1	3565.0	3545.3	3560.1
37.5°	11969.5	11944.8	10372.7	6874.1	4529.4	3759.4	3459.2	3326.4	3200.9	3132.0	3134.4
40°	12796.1	12771.5	10677.8	6635.5	4089.0	3483.8	3196.0	3021.3	2866.3	2740.8	2753.1
42.5°	13726.1	13581.0	10822.9	6293.5	3715.1	3250.1	2981.9	2745.7	2541.5	2425.9	2433.3
45°	14742.2	14415.0	10820.5	5858.0	3400.2	3036.0	2753.1	2418.5	2229.0	2120.8	2115.9
47.5°	15819.9	15212.2	10687.6	5375.8	3095.1	2799.8	2398.8	2142.9	2017.5	1951.0	1936.3
50°	16931.9	15957.6	10461.3	4822.2	2782.6	2531.7	2177.4	2002.7	1906.7	1845.2	1823.1
52.5°	17977.5	16634.2	10188.2	4194.8	2465.2	2270.9	2079.0	1943.7	1842.8	1773.9	1744.4
55°	18949.4	17217.3	9801.9	3552.7	2206.9	2096.2	2032.2	1919.0	1803.4	1722.2	1690.2
57.5°	19812.9	17596.2	9135.2	2949.9	2022.4	1975.6	1983.0	1877.2	1744.4	1675.5	1631.2
60°	20531.4	17874.2	8148.6	2391.4	1872.3	1857.5	1906.7	1798.5	1643.5	1564.8	1530.3
62.5°	20961.9	17869.3	6938.1	1958.4	1744.4	1749.3	1805.9	1700.1	1542.6	1468.8	1446.7
65°	20925.0	17431.4	5609.5	1675.5	1621.4	1626.3	1700.1	1591.8	1459.0	1414.7	1412.2
67.5°	20184.5	16363.6	4303.1	1491.0	1486.0	1508.2	1594.3	1518.0	1407.3	1402.4	1409.8
70°	18179.3	14146.8	3100.0	1343.3	1345.8	1377.8	1491.0	1471.3	1380.2	1390.1	1387.6
72.5°	14577.4	10786.0	2081.4	1188.3	1190.8	1242.5	1392.5	1434.4	1353.2	1483.6	1503.3
75°	9708.4	6726.5	1338.4	1023.5	1026.0	1092.4	1306.4	1363.0	1279.4	1478.7	1491.0
77.5°	4664.8	3023.7	969.4	861.1	861.1	922.6	1129.3	1220.3	1089.9	1149.0	1053.0
80°	1611.5	1136.7	762.7	693.8	679.0	720.9	952.1	1057.9	939.8	866.0	811.9
82.5°	634.8	590.5	612.6	538.8	489.6	516.7	740.6	873.4	691.3	624.9	622.5
85°	364.1	383.8	433.0	356.7	282.9	317.4	543.7	627.4	521.6	460.1	469.9
87.5°	98.4	135.3	199.3	184.5	127.9	135.3	258.3	346.9	300.2	231.3	238.7
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)