

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: P969428

Luminaire Tested: **NAV-SB5D-827-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45415.7 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

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



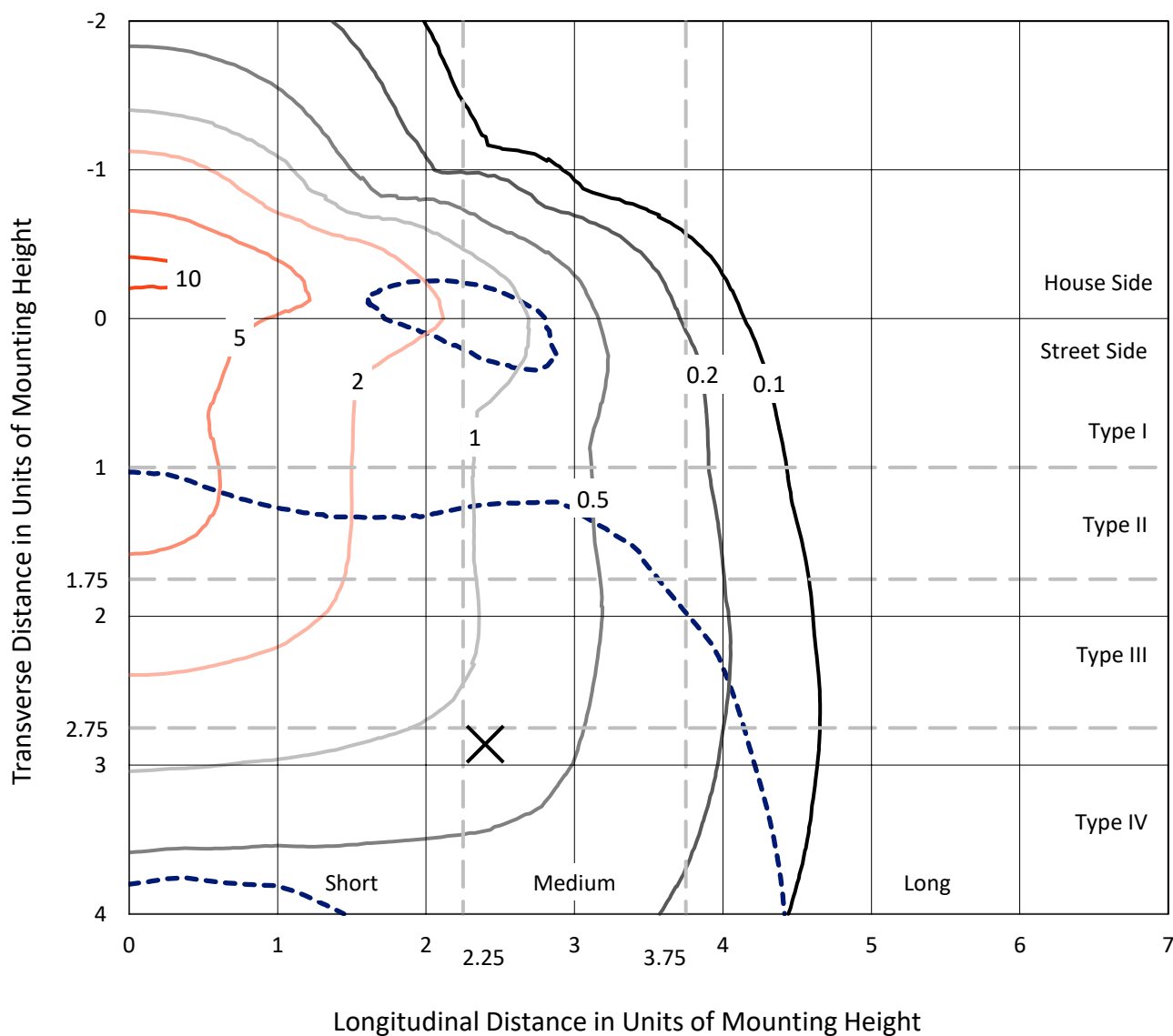
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

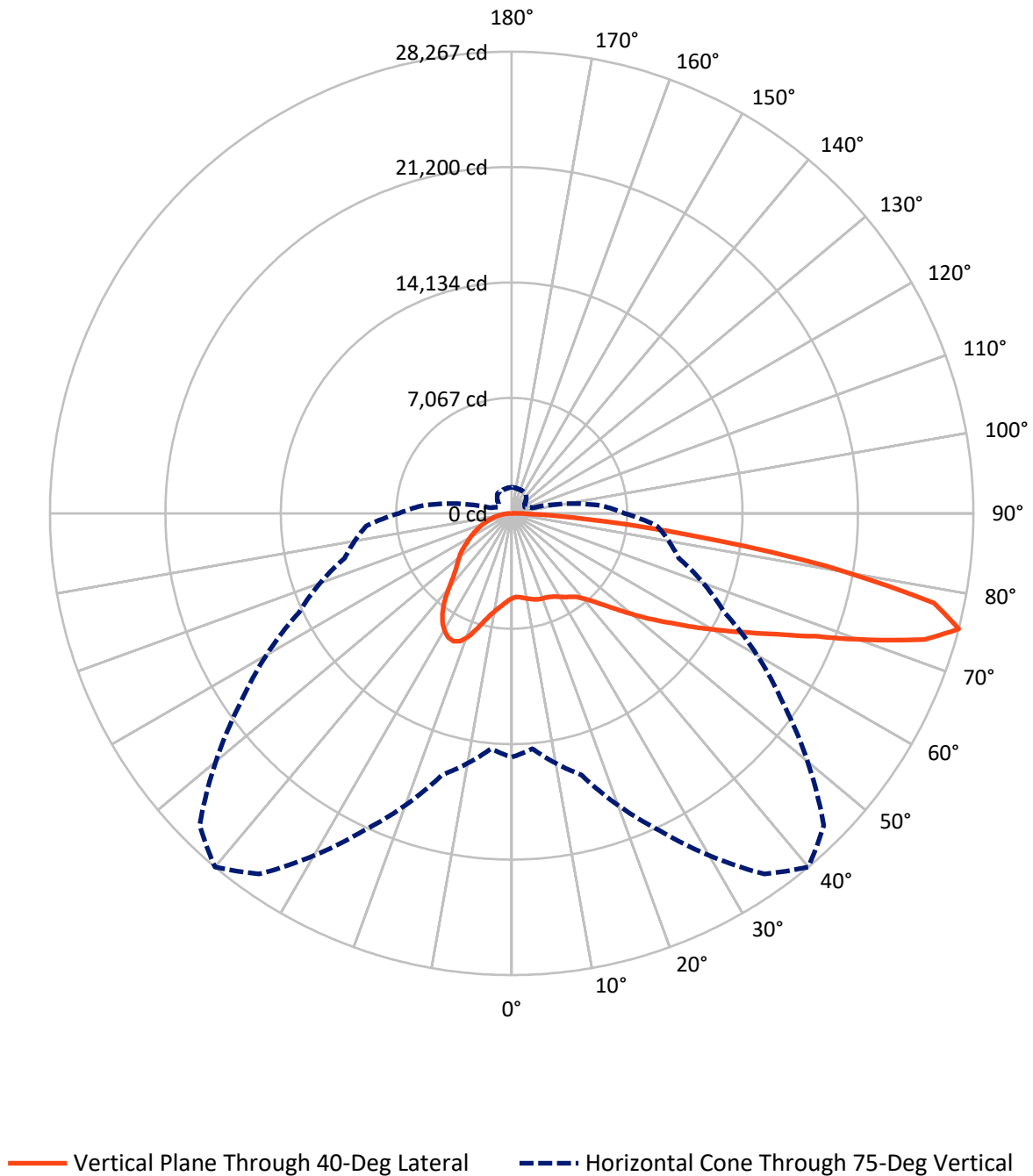
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14071.3	0.0	14071.3
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	31344.4	0.0	31344.4
	% Fixture	69.0	0.0	69.0
Total	Lumens	45415.7	0.0	45415.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.4	1.1
10°-20°	1740.5	3.8
20°-30°	3178.0	7.0
30°-40°	4507.3	9.9
40°-50°	6086.2	13.4
50°-60°	8187.5	18.0
60°-70°	10391.8	22.9
70°-80°	9431.2	20.8
80°-90°	1374.8	3.0
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°	45415.7	100.0
0°-180°	45415.7	100.0

Coefficient of Utilization



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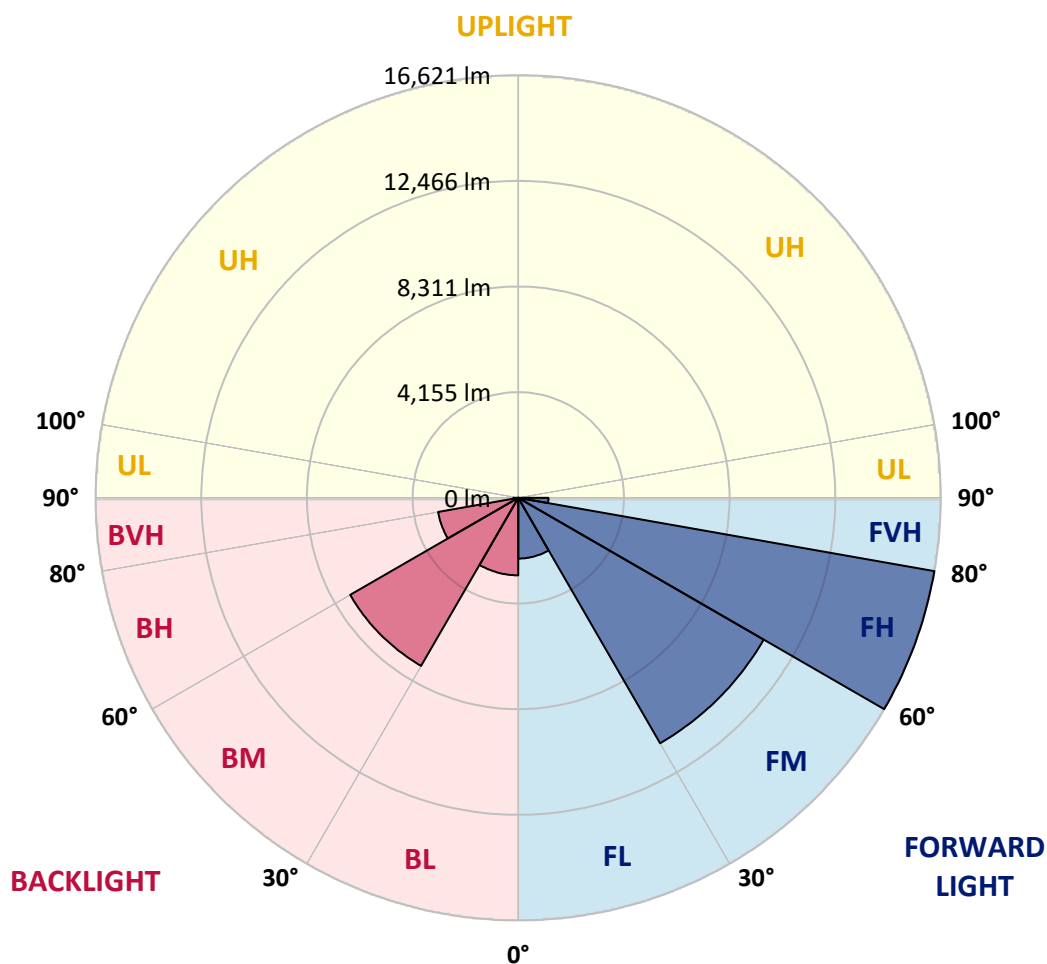
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2388.9	5.3			
FM	(30°-60°)	11148.5	24.5			
FH	(60°-80°)	16621.5	36.6			G5
FVH	(80°-90°)	1185.5	2.6			G5
BL	(0°-30°)	3048.0	6.7	B4/5000		
BM	(30°-60°)	7632.4	16.8	B4/8500		
BH	(60°-80°)	3201.6	7.0	B4/5000		G4/5000
BVH	(80°-90°)	189.3	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4
2.5°	5113.8	5142.7	5135.6	5125.9	5125.9	5128.3	5125.9	5142.7	5159.6	5176.5	5203.0
5°	5166.8	5195.7	5181.3	5169.3	5159.6	5157.2	5150.0	5147.5	5157.2	5178.9	5215.0
7.5°	5270.4	5299.4	5277.6	5256.0	5236.7	5227.1	5217.5	5203.0	5195.7	5207.8	5258.4
10°	5386.1	5415.0	5388.4	5349.9	5318.6	5306.5	5296.9	5282.4	5272.8	5280.1	5335.4
12.5°	5501.7	5530.6	5494.4	5441.4	5400.5	5393.2	5381.2	5376.4	5374.0	5371.6	5427.0
15°	5610.0	5634.1	5588.4	5525.8	5482.4	5470.3	5458.3	5465.5	5477.6	5492.1	5554.7
17.5°	5694.4	5718.5	5651.0	5569.1	5528.1	5523.3	5516.1	5540.2	5574.0	5610.0	5687.1
20°	5771.5	5795.6	5708.8	5598.0	5549.9	5549.9	5552.2	5602.9	5651.0	5704.0	5810.0
22.5°	5879.8	5899.1	5793.1	5641.4	5571.5	5576.3	5595.6	5646.2	5706.4	5778.6	5925.6
25°	6041.2	6055.7	5925.6	5723.3	5643.8	5658.2	5675.1	5699.2	5757.0	5841.3	6038.8
27.5°	6301.4	6313.4	6142.4	5867.8	5747.4	5771.5	5795.6	5778.6	5805.2	5877.5	6130.3
30°	6667.5	6674.8	6457.9	6094.2	5923.2	5935.3	5940.1	5870.2	5819.6	5877.5	6195.4
32.5°	7101.1	7098.7	6841.0	6368.8	6123.1	6111.0	6070.2	5932.8	5814.8	5865.4	6253.2
35°	7773.2	7746.6	7414.2	6754.2	6349.6	6274.8	6178.5	6002.7	5838.9	5853.4	6303.7
37.5°	8886.0	8804.1	8344.0	7385.3	6686.8	6496.4	6354.4	6115.9	5891.9	5848.5	6364.0
40°	10141.0	10037.4	9531.6	8250.1	7192.6	6886.8	6657.9	6277.3	5978.6	5870.2	6453.1
42.5°	11629.6	11482.7	10938.3	9269.0	7833.4	7390.1	7045.7	6482.0	6106.2	5940.1	6573.5
45°	13457.9	13262.8	12492.0	10418.0	8640.3	8050.1	7590.1	6792.8	6301.4	6075.0	6754.2
47.5°	15305.4	15353.6	14257.6	11733.2	9608.7	8864.3	8271.8	7260.1	6585.6	6291.8	7045.7
50°	17268.6	17302.3	16013.6	13190.5	10707.0	9784.4	9037.7	7782.8	6980.7	6600.1	7481.7
52.5°	18800.6	18805.4	17608.3	14715.3	11851.3	10796.2	9864.0	8380.2	7438.3	7009.6	8062.2
55°	19759.2	19747.2	18725.9	16158.1	13166.4	11858.4	10779.3	9059.5	7997.2	7491.3	8792.0
57.5°	20455.4	20419.3	19496.7	17398.7	14568.3	13113.4	11815.1	9830.3	8657.2	8064.6	9753.2
60°	20720.4	20698.7	20019.5	18470.6	16042.5	14500.9	13009.8	10692.6	9406.3	8741.5	10988.9
62.5°	20821.5	20862.5	20532.5	19508.7	17620.3	16037.7	14322.6	11723.5	10249.4	9507.5	12292.0
65°	21178.0	21252.8	21185.3	20867.4	19402.7	17837.0	16064.2	12949.6	11169.5	10328.9	13653.0
67.5°	21883.9	21958.5	21987.4	22493.2	21580.4	20079.6	18236.9	14476.8	12246.3	11181.6	14676.8
70°	21866.9	21845.3	22356.0	23786.8	24307.1	23184.6	21166.0	16355.6	13530.2	11889.8	14806.8
72.5°	19903.9	19730.3	20937.2	23772.3	26576.2	26426.9	24743.1	18778.9	14638.2	11976.5	12848.5
75°	14932.1	14469.6	16601.4	21423.7	26954.3	28267.1	27017.0	20282.0	14375.6	10581.8	8941.4
77.5°	6385.6	5920.8	8433.2	15859.4	24124.0	26424.4	24931.0	17695.0	11475.5	6997.6	4391.2
80°	1671.7	1669.3	2548.5	7190.3	16406.3	19513.5	17119.2	11427.3	6556.7	2500.3	1211.7
82.5°	691.4	674.4	937.1	2796.6	8016.4	10950.4	8936.6	5097.0	2367.9	676.9	402.3
85°	257.8	255.3	455.3	966.0	2827.9	4516.5	3268.7	1303.2	590.2	330.0	180.7
87.5°	72.3	69.9	98.8	334.9	688.9	1045.4	558.8	214.4	166.3	130.1	53.0
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°	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4	5193.4
2.5°	5210.2	5222.3	5243.9	5260.8	5282.4	5306.5	5340.2	5362.0	5383.6	5398.1	5388.4
5°	5231.9	5258.4	5313.8	5369.2	5434.2	5494.4	5564.3	5614.8	5655.8	5667.8	5672.7
7.5°	5280.1	5323.4	5417.3	5511.3	5614.8	5713.7	5814.8	5901.5	5971.3	5997.9	6000.2
10°	5364.3	5422.1	5554.7	5687.1	5824.5	5976.2	6106.2	6231.5	6330.3	6371.2	6373.7
12.5°	5470.3	5542.6	5716.0	5899.1	6089.4	6298.9	6467.5	6621.8	6744.6	6800.1	6800.1
15°	5607.7	5701.6	5923.2	6168.9	6448.3	6739.8	6954.2	7125.2	7262.5	7330.0	7325.2
17.5°	5757.0	5882.3	6161.7	6532.6	6932.5	7315.5	7566.0	7691.3	7833.4	7898.4	7896.0
20°	5901.5	6055.7	6455.6	6995.1	7527.5	7934.5	8136.9	8170.6	8180.2	8187.5	8206.8
22.5°	6050.9	6258.0	6824.1	7578.0	8149.0	8430.7	8459.6	8315.1	8112.8	8018.9	8045.3
25°	6214.7	6489.3	7305.9	8221.2	8683.7	8717.4	8495.8	8144.1	7761.1	7585.3	7611.8
27.5°	6373.7	6756.7	7884.0	8835.4	9069.1	8772.8	8295.8	7797.3	7334.8	7149.3	7171.0
30°	6532.6	7062.6	8522.3	9372.6	9244.9	8635.5	7980.3	7423.9	6959.0	6763.9	6785.6
32.5°	6694.1	7419.1	9257.0	9760.4	9213.6	8344.0	7587.7	7004.7	6595.3	6390.5	6417.0
35°	6877.1	7857.4	9953.2	9972.4	9004.0	7915.3	7069.8	6503.7	6147.2	5983.4	6019.5
37.5°	7115.6	8413.9	10567.3	10025.4	8637.9	7286.6	6426.6	5911.2	5617.3	5542.6	5595.6
40°	7411.9	9083.6	11037.1	9941.1	8096.0	6523.0	5723.3	5311.3	5145.2	5162.0	5219.8
42.5°	7797.3	9832.6	11367.0	9724.3	7342.0	5735.3	5106.7	4923.6	5003.0	5070.5	5133.1
45°	8298.3	10610.7	11571.8	9355.7	6489.3	5068.1	4742.9	4786.2	4846.5	4853.7	4901.9
47.5°	8939.0	11398.4	11706.7	8799.3	5619.7	4598.4	4511.6	4521.3	4509.3	4458.6	4497.2
50°	9738.7	12164.4	11827.2	8062.2	4880.2	4304.5	4188.9	4155.1	3989.0	3825.2	3846.8
52.5°	10649.2	12867.7	11877.7	7146.9	4304.5	4058.8	3870.9	3658.9	3348.3	3297.6	3314.5
55°	11660.9	13518.1	11747.6	6022.0	3820.4	3743.3	3459.1	3203.6	3169.9	3126.6	3133.8
57.5°	12870.1	14219.1	11482.7	4767.0	3324.2	3374.7	3097.7	3126.6	3066.4	2998.9	2986.8
60°	14192.6	14944.1	11017.8	3622.9	2811.1	2914.6	3003.8	3001.3	2984.5	2929.0	2909.8
62.5°	15382.5	15421.0	10102.5	2774.9	2360.6	2558.1	2801.4	2799.0	2784.5	2753.3	2741.2
65°	16090.7	15348.8	8575.3	2184.8	1989.6	2264.2	2526.8	2546.1	2548.5	2546.1	2546.1
67.5°	15965.4	14503.3	6479.6	1739.1	1683.8	1965.5	2254.6	2281.1	2300.4	2305.2	2310.0
70°	14549.1	12646.1	4225.0	1387.4	1411.5	1703.0	1996.9	2023.4	2040.3	2059.5	2069.2
72.5°	11340.6	9297.9	2418.4	1122.5	1173.1	1476.6	1741.6	1772.8	1782.5	1818.7	1833.1
75°	6910.9	5468.0	1305.5	884.1	963.5	1262.2	1488.6	1524.8	1541.6	1585.0	1589.8
77.5°	3285.5	2367.9	744.4	688.9	775.6	1030.9	1257.4	1298.4	1252.6	1276.6	1257.4
80°	1110.5	879.2	469.8	525.1	592.6	804.5	1006.9	1047.9	951.5	946.7	937.1
82.5°	387.9	356.5	298.7	349.3	383.0	575.7	761.2	814.2	708.2	705.8	672.1
85°	151.8	144.5	166.3	190.3	228.9	354.1	501.0	527.6	436.0	351.7	346.9
87.5°	31.4	33.7	41.0	43.4	69.9	122.9	180.7	221.6	175.9	149.3	137.4
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)