

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: P967227

Luminaire Tested: **NAV-SB4D-740-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967227
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-SB4D-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 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: 43840.3 lumens
Efficiency: N/A
Efficacy: 149.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 293.6
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

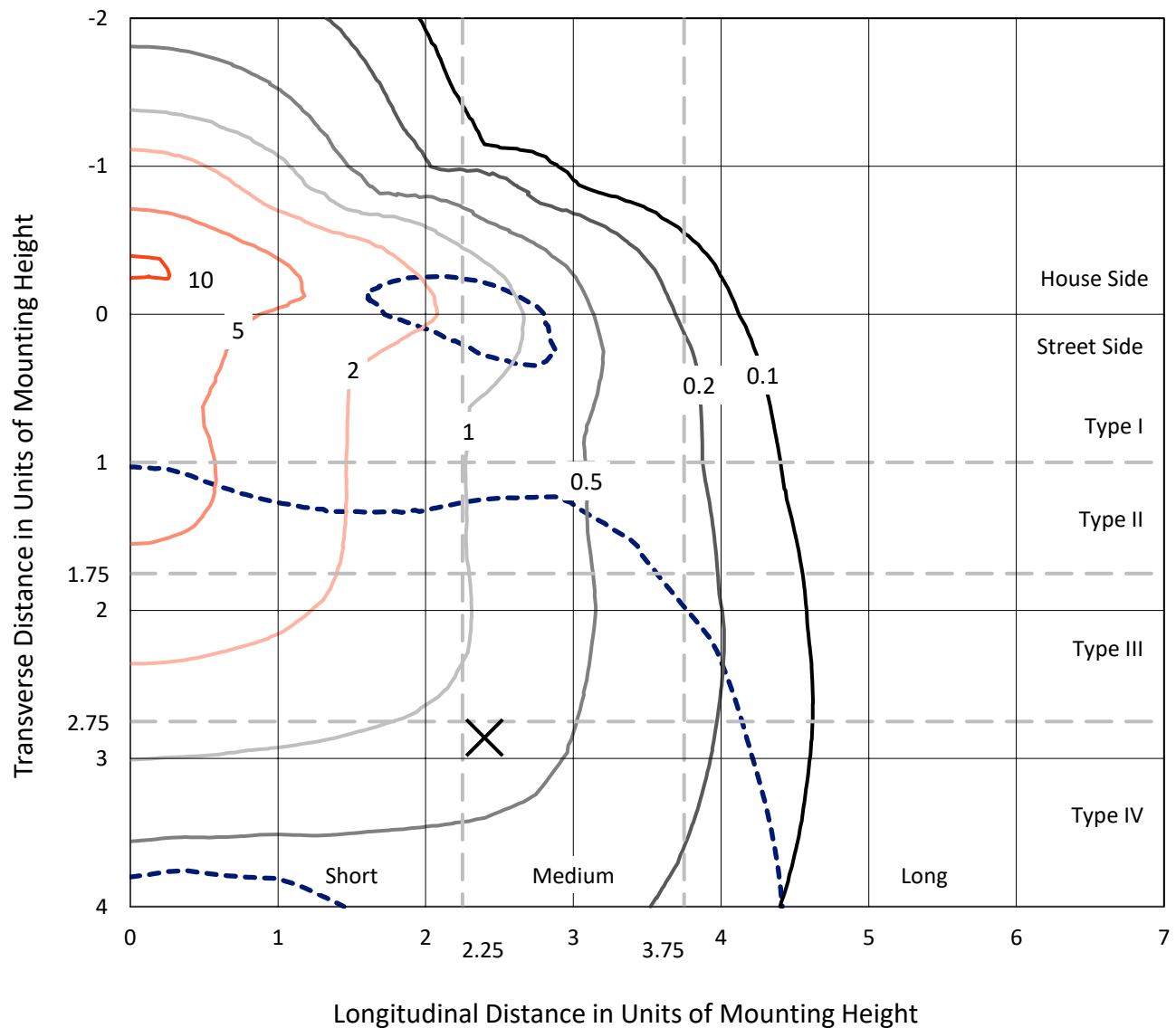


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Iso-Footcandle Lines of Horizontal Illumination

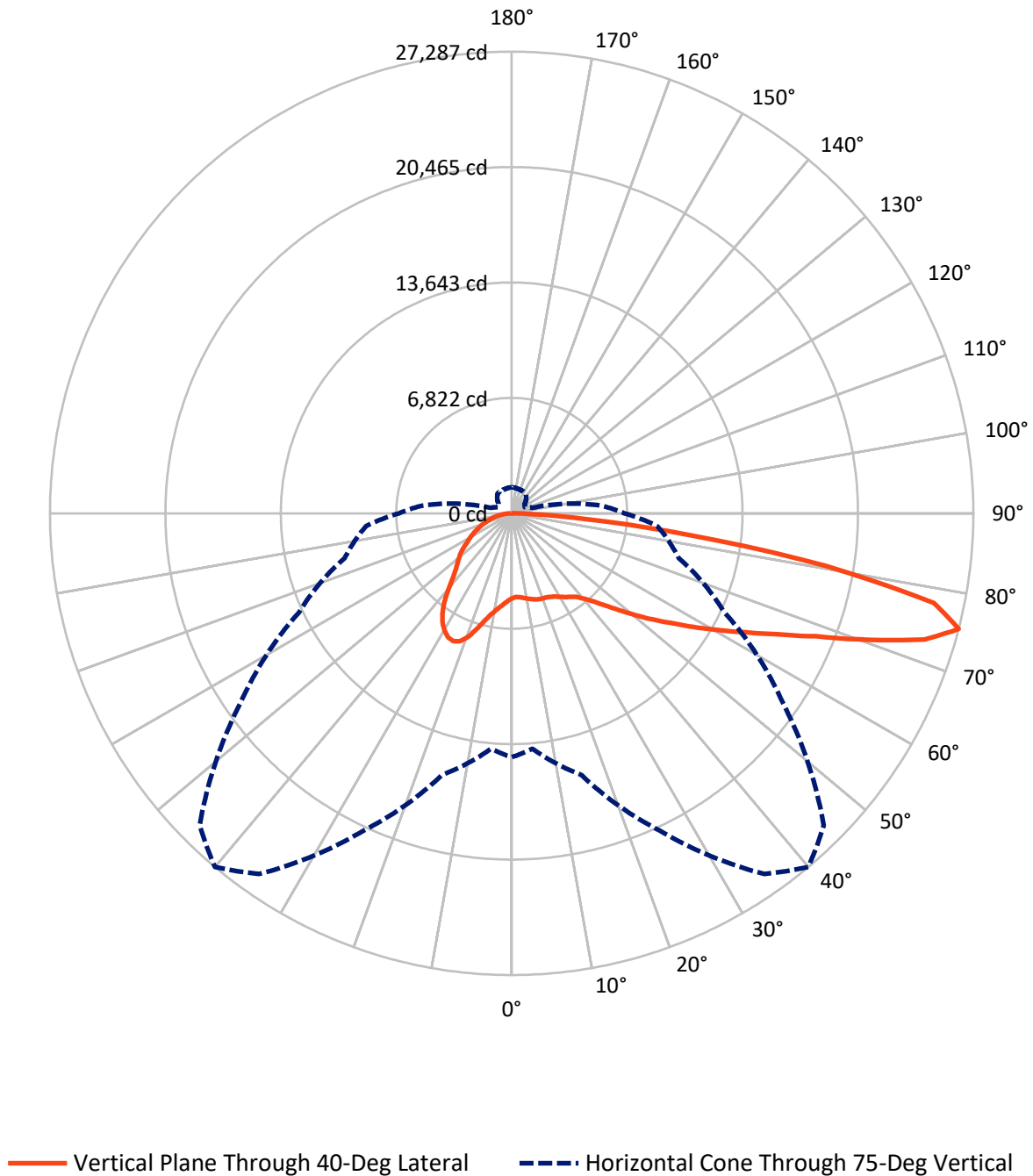
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 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	13583.2	0.0	13583.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	30257.1	0.0	30257.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	43840.3	0.0	43840.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	500.4	1.1
10°-20°	1680.1	3.8
20°-30°	3067.8	7.0
30°-40°	4350.9	9.9
40°-50°	5875.0	13.4
50°-60°	7903.5	18.0
60°-70°	10031.4	22.9
70°-80°	9104.1	20.8
80°-90°	1327.1	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°	43840.3	100.0
0°-180°	43840.3	100.0

Coefficient of Utilization



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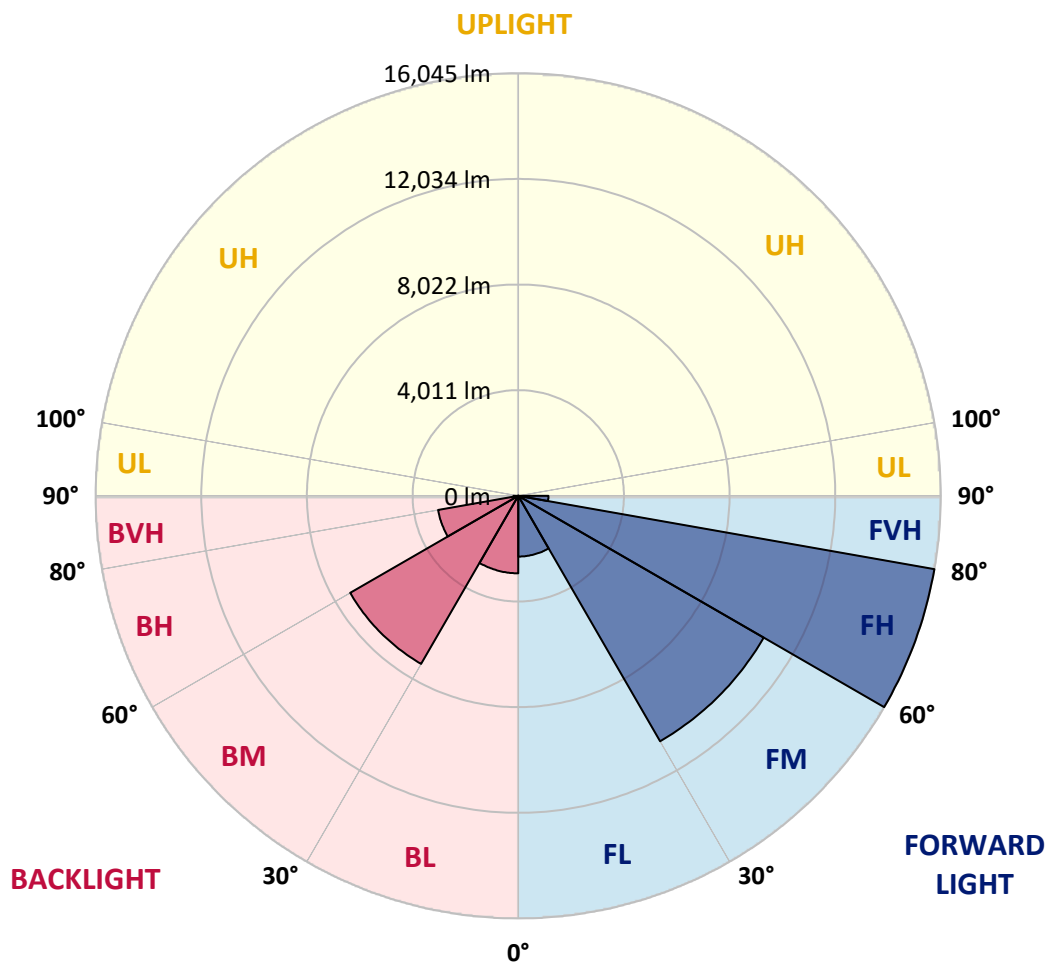
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2306.0	5.3			
FM	(30°-60°)	10761.8	24.5			
FH	(60°-80°)	16044.9	36.6			G5
FVH	(80°-90°)	1144.4	2.6			G5
BL	(0°-30°)	2942.2	6.7	B4/5000		
BM	(30°-60°)	7367.7	16.8	B4/8500		
BH	(60°-80°)	3090.6	7.0	B4/5000		G4/5000
BVH	(80°-90°)	182.7	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°	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2
2.5°	4936.5	4964.4	4957.4	4948.1	4948.1	4950.4	4948.1	4964.4	4980.7	4996.9	5022.5
5°	4987.6	5015.5	5001.6	4989.9	4980.7	4978.3	4971.4	4969.0	4978.3	4999.2	5034.1
7.5°	5087.6	5115.5	5094.6	5073.6	5055.1	5045.8	5036.4	5022.5	5015.5	5027.1	5076.0
10°	5199.2	5227.1	5201.6	5164.4	5134.1	5122.4	5113.2	5099.3	5089.9	5096.9	5150.4
12.5°	5310.8	5338.7	5303.9	5252.7	5213.2	5206.2	5194.6	5189.9	5187.6	5185.3	5238.8
15°	5415.5	5438.8	5394.6	5334.1	5292.2	5280.6	5269.0	5276.0	5287.6	5301.5	5362.0
17.5°	5496.9	5520.1	5454.9	5375.9	5336.4	5331.7	5324.8	5348.0	5380.5	5415.5	5489.9
20°	5571.3	5594.4	5510.8	5403.8	5357.4	5357.4	5359.6	5408.5	5454.9	5506.1	5608.5
22.5°	5675.8	5694.5	5592.2	5445.7	5378.3	5382.9	5401.5	5450.3	5508.5	5578.3	5720.0
25°	5831.6	5845.6	5720.0	5524.7	5448.0	5461.9	5478.2	5501.5	5557.3	5638.7	5829.4
27.5°	6082.8	6094.4	5929.3	5664.3	5548.0	5571.3	5594.4	5578.3	5603.8	5673.6	5917.7
30°	6436.3	6443.3	6233.9	5882.8	5717.8	5729.3	5734.1	5666.6	5617.7	5673.6	5980.5
32.5°	6854.8	6852.4	6603.7	6148.0	5910.8	5899.1	5859.6	5727.1	5613.1	5661.9	6036.3
35°	7503.5	7477.9	7157.1	6519.9	6129.3	6057.2	5964.2	5794.4	5636.4	5650.3	6085.1
37.5°	8577.8	8498.7	8054.6	7129.2	6454.8	6271.2	6133.9	5903.8	5687.5	5645.7	6143.2
40°	9789.3	9689.2	9200.9	7963.9	6943.1	6647.8	6427.0	6059.6	5771.3	5666.6	6229.3
42.5°	11226.2	11084.3	10558.8	8947.5	7561.6	7133.8	6801.3	6257.2	5894.5	5734.1	6345.6
45°	12991.1	12802.7	12058.6	10056.6	8340.6	7770.9	7326.8	6557.1	6082.8	5864.2	6519.9
47.5°	14774.6	14821.0	13763.0	11326.1	9275.3	8556.8	7984.9	7008.2	6357.2	6073.5	6801.3
50°	16669.6	16702.2	15458.1	12733.0	10335.7	9445.1	8724.3	7512.8	6738.6	6371.1	7222.2
52.5°	18148.4	18153.1	16997.5	14204.9	11440.1	10421.7	9521.8	8089.5	7180.3	6766.4	7782.5
55°	19073.8	19062.2	18076.3	15597.6	12709.7	11447.1	10405.4	8745.2	7719.8	7231.5	8487.1
57.5°	19745.8	19711.0	18820.4	16795.1	14063.0	12658.5	11405.3	9489.2	8356.8	7784.9	9414.8
60°	20001.6	19980.7	19324.9	17829.9	15486.0	13997.9	12558.6	10321.6	9080.1	8438.2	10607.7
62.5°	20099.3	20138.8	19820.2	18832.0	17009.1	15481.4	13825.8	11316.9	9893.8	9177.6	11865.6
65°	20443.4	20515.5	20450.4	20143.5	18729.7	17218.4	15506.9	12500.4	10782.1	9970.6	13179.3
67.5°	21124.7	21196.8	21224.7	21713.0	20831.7	19383.2	17604.3	13974.6	11821.4	10793.8	14167.7
70°	21108.4	21087.5	21580.5	22961.6	23463.9	22380.4	20431.8	15788.3	13060.9	11477.3	14293.2
72.5°	19213.3	19045.9	20210.8	22947.7	25654.2	25510.1	23884.8	18127.5	14130.4	11561.1	12402.8
75°	14414.1	13967.7	16025.5	20680.6	26019.3	27286.5	26079.8	19578.4	13877.0	10214.7	8631.2
77.5°	6164.1	5715.4	8140.7	15309.3	23287.2	25507.7	24066.1	17081.1	11077.4	6754.7	4238.9
80°	1613.8	1611.4	2460.1	6940.8	15837.2	18836.6	16525.4	11030.8	6329.3	2413.6	1169.6
82.5°	667.4	651.1	904.6	2699.5	7738.3	10570.5	8626.6	4920.2	2285.8	653.4	388.3
85°	248.8	246.5	439.4	932.4	2729.8	4359.8	3155.4	1258.0	569.7	318.6	174.4
87.5°	69.8	67.4	95.3	323.2	665.0	1009.1	539.5	206.9	160.4	125.6	51.1
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°	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2	5013.2
2.5°	5029.5	5041.1	5062.1	5078.3	5099.3	5122.4	5155.0	5175.9	5196.9	5210.8	5201.6
5°	5050.4	5076.0	5129.4	5182.9	5245.7	5303.9	5371.3	5420.1	5459.7	5471.2	5476.0
7.5°	5096.9	5138.7	5229.4	5320.2	5420.1	5515.4	5613.1	5696.8	5764.3	5789.8	5792.2
10°	5178.3	5234.1	5362.0	5489.9	5622.4	5768.9	5894.5	6015.4	6110.7	6150.2	6152.6
12.5°	5280.6	5350.4	5517.8	5694.5	5878.2	6080.5	6243.3	6392.1	6510.6	6564.1	6564.1
15°	5413.1	5503.8	5717.8	5954.9	6224.6	6506.0	6712.9	6878.1	7010.6	7075.7	7071.1
17.5°	5557.3	5678.2	5948.0	6306.0	6692.0	7061.7	7303.5	7424.5	7561.6	7624.5	7622.1
20°	5696.8	5845.6	6231.6	6752.5	7266.3	7659.3	7854.6	7887.2	7896.5	7903.5	7922.0
22.5°	5841.0	6040.9	6587.4	7315.2	7866.3	8138.3	8166.2	8026.7	7831.4	7740.7	7766.2
25°	5999.1	6264.2	7052.4	7936.0	8382.4	8415.0	8201.1	7861.6	7491.9	7322.2	7347.7
27.5°	6152.6	6522.3	7610.5	8528.9	8754.5	8468.4	8008.1	7526.8	7080.3	6901.3	6922.2
30°	6306.0	6817.6	8226.6	9047.5	8924.3	8335.9	7703.5	7166.4	6717.5	6529.2	6550.2
32.5°	6461.8	7161.7	8935.8	9421.8	8894.0	8054.6	7324.4	6761.7	6366.5	6168.9	6194.4
35°	6638.5	7584.9	9607.8	9626.5	8691.7	7640.7	6824.6	6278.1	5934.0	5775.9	5810.7
37.5°	6868.7	8122.0	10200.8	9677.6	8338.3	7033.9	6203.7	5706.1	5422.5	5350.4	5401.5
40°	7154.7	8768.5	10654.2	9596.3	7815.1	6296.7	5524.7	5127.2	4966.7	4982.9	5038.8
42.5°	7526.8	9491.6	10972.7	9386.9	7087.3	5536.3	4929.5	4752.7	4829.5	4894.6	4955.1
45°	8010.4	10242.6	11170.4	9031.2	6264.2	4892.3	4578.4	4620.2	4678.4	4685.4	4731.8
47.5°	8629.0	11003.0	11300.6	8494.1	5424.7	4438.9	4355.1	4364.4	4352.9	4304.0	4341.2
50°	9400.9	11742.4	11416.9	7782.5	4710.9	4155.1	4043.5	4011.0	3850.6	3692.5	3713.4
52.5°	10279.8	12421.4	11465.8	6899.0	4155.1	3918.0	3736.6	3532.0	3232.0	3183.2	3199.5
55°	11256.4	13049.2	11340.2	5813.1	3687.8	3613.4	3339.0	3092.5	3060.0	3018.1	3025.1
57.5°	12423.7	13725.9	11084.3	4601.6	3208.9	3257.7	2990.2	3018.1	2960.0	2894.9	2883.3
60°	13700.3	14425.7	10635.6	3497.1	2713.6	2813.5	2899.5	2897.3	2881.0	2827.5	2808.9
62.5°	14848.9	14886.1	9752.1	2678.6	2278.7	2469.4	2704.3	2701.9	2688.0	2657.7	2646.1
65°	15532.5	14816.4	8277.8	2108.9	1920.6	2185.7	2439.2	2457.7	2460.1	2457.7	2457.7
67.5°	15411.6	14000.2	6254.9	1678.8	1625.3	1897.4	2176.4	2202.0	2220.6	2225.3	2229.9
70°	14044.3	12207.4	4078.5	1339.4	1362.6	1643.9	1927.6	1953.2	1969.4	1988.1	1997.4
72.5°	10947.2	8975.4	2334.5	1083.5	1132.4	1425.4	1681.1	1711.3	1720.7	1755.5	1769.5
75°	6671.1	5278.2	1260.2	853.3	930.1	1218.4	1436.9	1471.9	1488.2	1530.0	1534.6
77.5°	3171.7	2285.8	718.5	665.0	748.8	995.2	1213.8	1253.3	1209.1	1232.4	1213.8
80°	1071.9	848.7	453.5	506.9	572.1	776.6	971.9	1011.5	918.5	913.8	904.6
82.5°	374.3	344.1	288.3	337.1	369.7	555.8	734.8	786.0	683.6	681.3	648.7
85°	146.5	139.5	160.4	183.7	220.9	341.8	483.7	509.2	420.9	339.5	334.9
87.5°	30.2	32.6	39.6	41.8	67.4	118.6	174.4	213.9	169.7	144.1	132.5
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)