

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: P969323

Luminaire Tested: **NAV-SB5D-735-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52585.6 lumens
Efficiency: N/A
Efficacy: 144.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
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



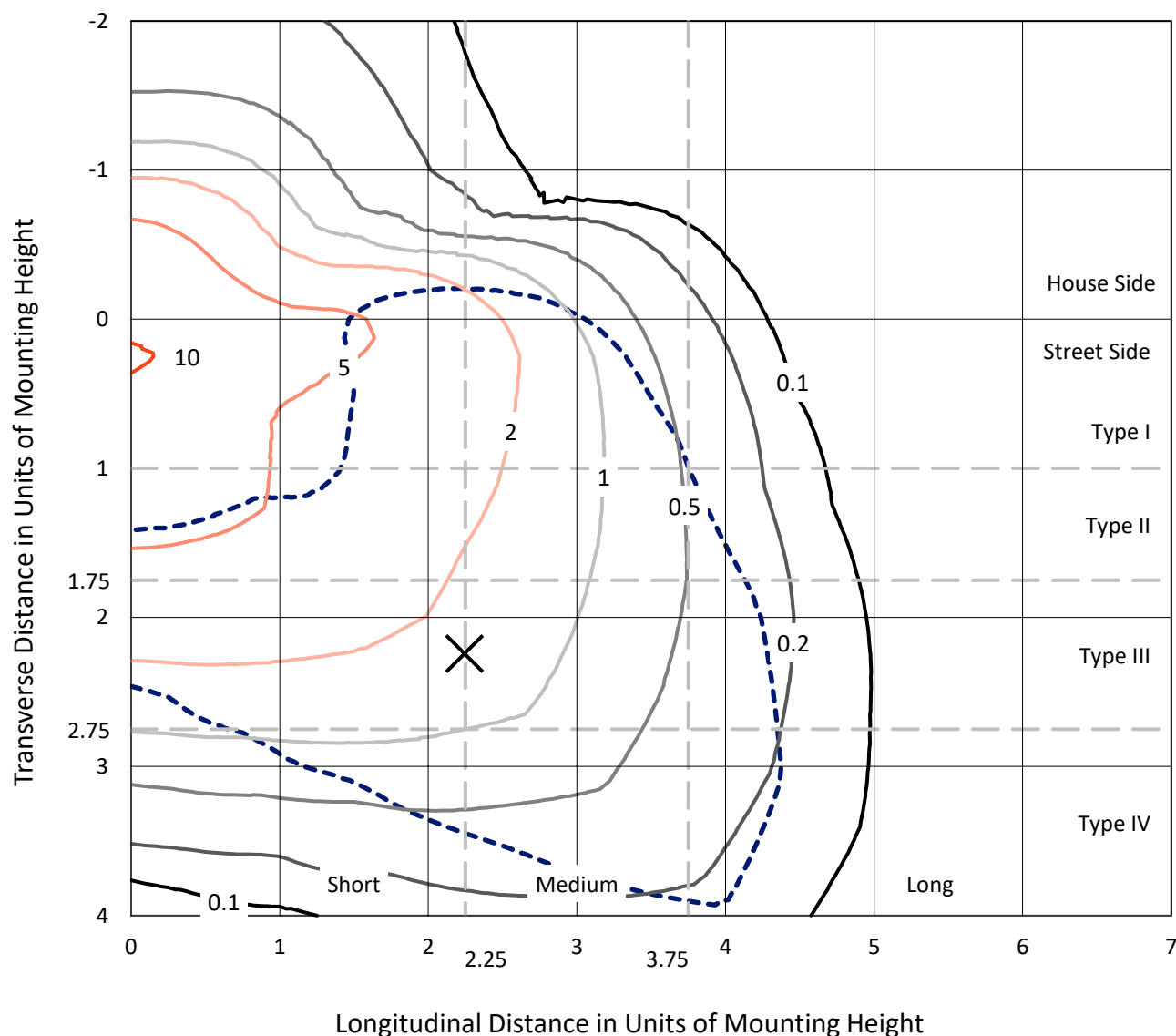
REPORT NUMBER: P969323

CATALOG NUMBER: NAV-SB5D-735-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

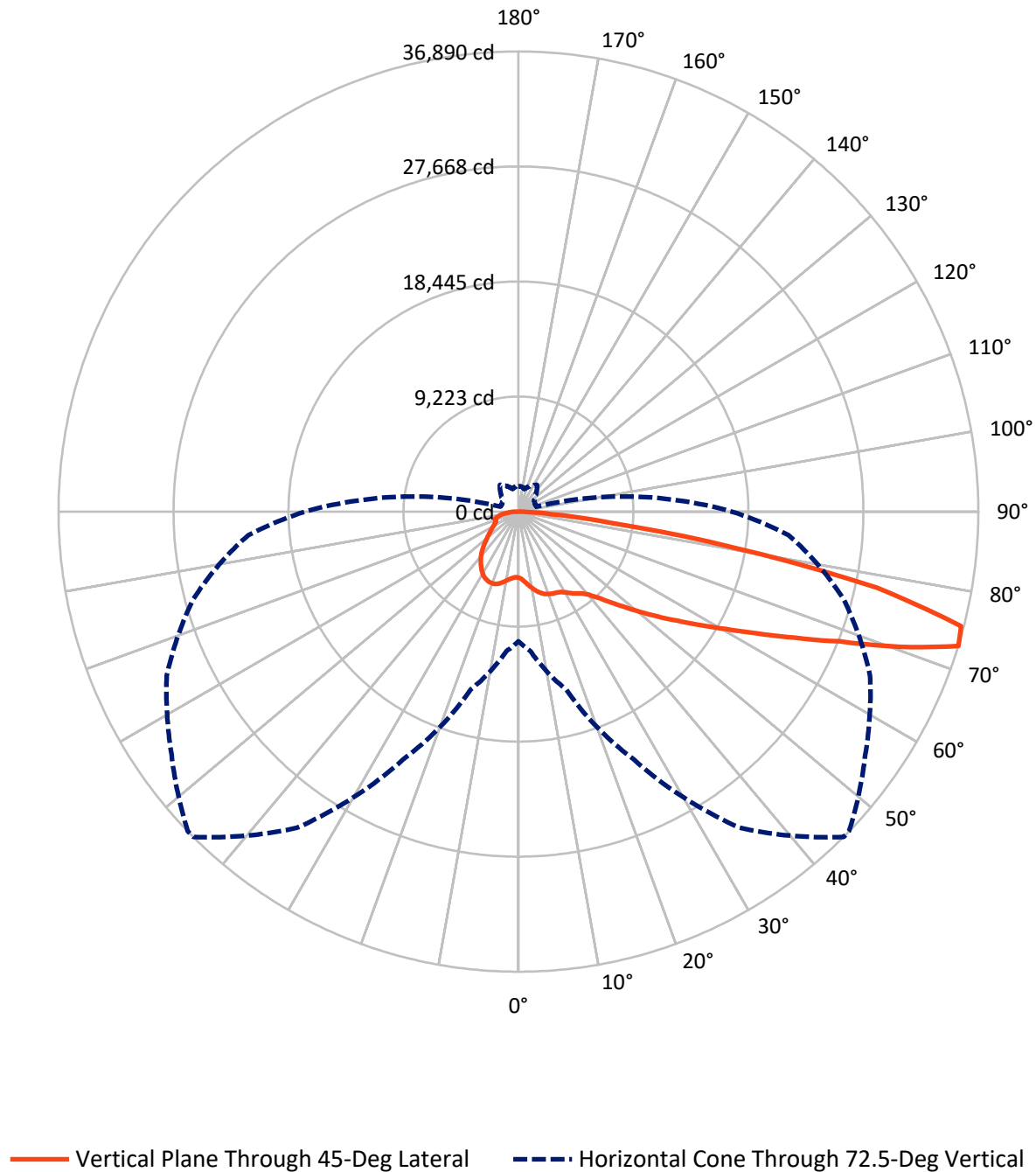
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
Type IV - Short - N/A

REPORT NUMBER: P969323
CATALOG NUMBER: NAV-SB5D-735-U-T4W

Luminous Intensity Polar Plot



REPORT NUMBER: P969323

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11887.8	0.0	11887.8
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	40697.8	0.0	40697.8
	% Fixture	77.4	0.0	77.4
Total	Lumens	52585.6	0.0	52585.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.9	1.0
10°-20°	1800.2	3.4
20°-30°	3131.5	6.0
30°-40°	4489.2	8.5
40°-50°	6321.1	12.0
50°-60°	9682.1	18.4
60°-70°	14025.9	26.7
70°-80°	11200.5	21.3
80°-90°	1395.0	2.7
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°	52585.6	100.0
0°-180°	52585.6	100.0

Coefficient of Utilization



REPORT NUMBER: P969323

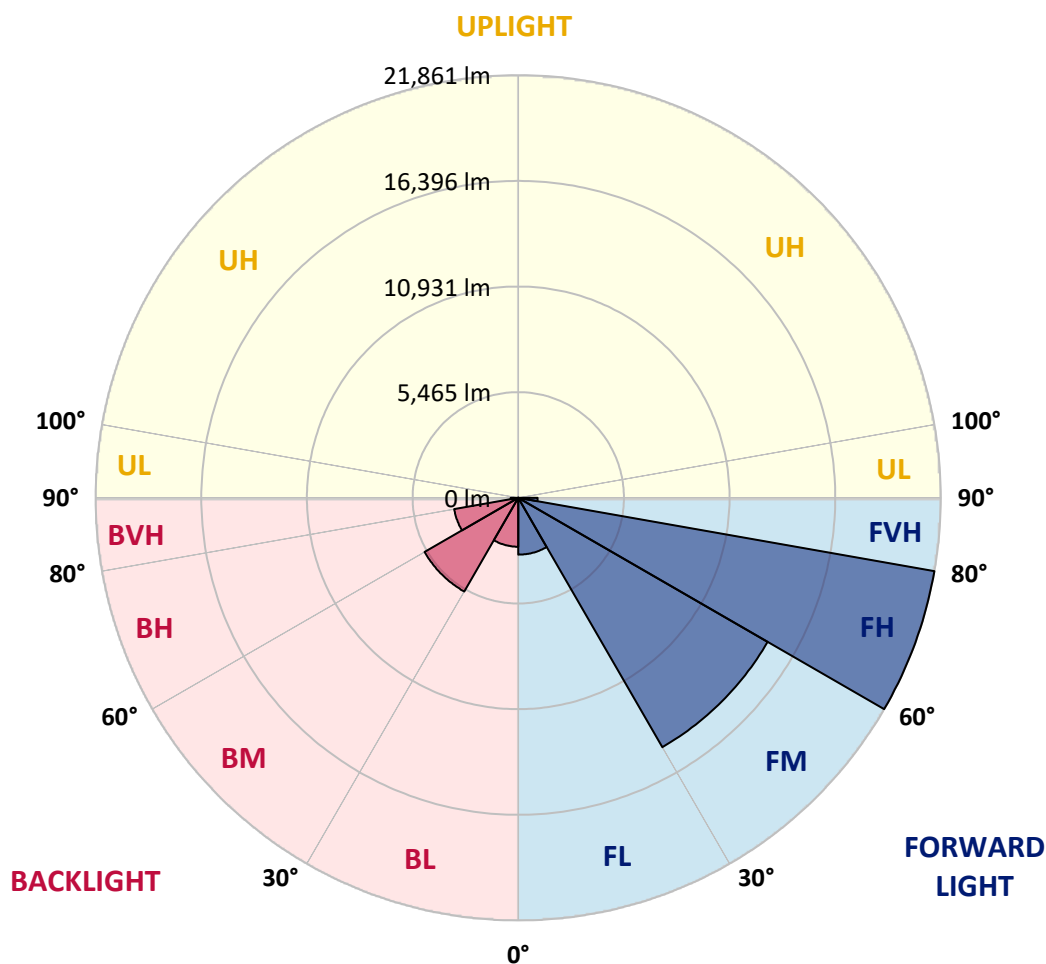
CATALOG NUMBER: NAV-SB5D-735-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2940.7	5.6			
FM	(30°-60°)	14895.0	28.3			
FH	(60°-80°)	21861.4	41.6			G5
FVH	(80°-90°)	1000.8	1.9			G5
BL	(0°-30°)	2531.0	4.8	B4/5000		
BM	(30°-60°)	5597.5	10.6	B4/8500		
BH	(60°-80°)	3365.1	6.4	B4/5000		G4/5000
BVH	(80°-90°)	394.2	0.7			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 IV Short



REPORT NUMBER: P969323

CATALOG NUMBER: NAV-SB5D-735-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9
2.5°	5512.7	5548.6	5515.4	5484.9	5471.0	5435.1	5432.3	5410.2	5396.3	5357.5	5346.4
5°	5897.6	5944.8	5889.3	5828.5	5773.0	5684.3	5673.3	5609.6	5537.6	5454.4	5407.4
7.5°	6332.6	6374.2	6310.4	6219.0	6122.0	5975.2	5972.5	5856.1	5742.6	5601.3	5521.0
10°	6712.1	6767.5	6681.7	6556.9	6435.1	6268.9	6249.5	6116.5	5972.5	5789.6	5667.7
12.5°	7047.3	7086.0	7003.0	6850.6	6709.3	6543.1	6518.2	6371.4	6210.7	6002.9	5847.8
15°	7313.3	7363.1	7252.3	7088.8	6939.2	6775.9	6753.6	6620.7	6460.1	6241.2	6041.8
17.5°	7487.7	7529.3	7415.8	7232.9	7088.8	6953.1	6936.5	6825.7	6684.4	6462.8	6249.5
20°	7554.2	7598.5	7479.4	7293.8	7160.9	7055.6	7047.3	6966.9	6870.0	6667.8	6451.7
22.5°	7620.7	7662.3	7507.1	7313.3	7196.8	7130.4	7127.6	7075.0	7036.2	6870.0	6659.4
25°	7889.4	7900.5	7692.7	7413.0	7246.7	7188.5	7185.8	7183.0	7199.7	7069.4	6883.9
27.5°	8122.1	8119.3	7942.0	7678.9	7421.3	7299.3	7296.6	7324.3	7376.9	7268.9	7116.6
30°	8462.8	8432.4	8221.8	7947.6	7712.1	7523.8	7507.1	7482.2	7523.8	7437.9	7349.2
32.5°	9185.8	9088.9	8748.2	8260.6	7953.2	7809.1	7786.9	7631.8	7648.4	7595.8	7551.5
35°	10221.9	10094.5	9640.1	8853.4	8252.3	8047.3	8036.2	7839.6	7806.3	7759.2	7775.9
37.5°	11454.6	11296.7	10767.6	9712.2	8767.5	8324.3	8307.7	8130.4	7994.7	7944.8	8039.0
40°	12692.9	12493.4	12055.7	10759.3	9526.6	8786.9	8734.3	8465.6	8310.5	8227.4	8426.8
42.5°	13895.1	13729.0	13354.9	11933.9	10462.9	9462.9	9346.6	8886.6	8770.3	8692.8	9052.9
45°	14958.8	14809.3	14535.0	13188.8	11559.8	10382.5	10269.0	9518.3	9482.3	9482.3	10003.1
47.5°	15823.1	15789.9	15499.0	14468.6	12853.6	11429.7	11233.0	10396.4	10493.3	10643.0	11352.1
50°	16781.6	16690.2	16380.0	15728.9	14374.4	12629.1	12468.5	11474.1	11836.9	12246.9	13302.3
52.5°	17662.6	17712.4	17366.2	17042.1	16091.9	13967.2	13684.6	12745.6	13529.5	14208.1	15587.7
55°	18568.4	18571.2	18474.2	18429.9	17892.5	15446.4	15136.2	14274.7	15521.3	16363.3	18252.6
57.5°	19418.8	19424.4	19568.4	19959.0	19981.1	17152.9	16801.1	16152.8	17734.6	18593.3	21000.6
60°	20177.8	20216.7	20610.0	21524.2	21817.8	19108.6	18776.2	18371.7	20022.8	20887.0	23889.9
62.5°	20432.8	20574.0	21449.4	22748.5	23632.3	21507.6	21180.7	20939.6	22427.2	23230.6	26305.5
65°	20000.6	20324.7	22017.2	23759.7	25499.3	24358.0	24033.9	23770.8	24925.9	25682.2	28288.9
67.5°	18939.6	19357.9	21984.0	24820.7	27765.3	27787.5	27485.6	26867.8	27604.7	27895.6	28934.3
70°	16144.5	16770.5	20047.7	25216.7	30366.5	32477.4	32186.5	30596.5	30277.9	28870.7	27117.1
72.5°	10402.0	11244.0	14762.2	21956.3	30945.5	36890.3	36873.7	33962.1	31122.8	26975.8	21748.6
75°	3795.2	4310.3	6858.9	13781.5	25975.9	36665.9	36773.9	33386.0	28410.7	20837.1	13548.9
77.5°	1382.3	1512.5	2238.3	5296.6	15975.5	29419.1	29643.5	26690.5	20222.2	10457.4	5368.5
80°	725.8	797.8	1146.9	2055.4	6845.1	17471.4	17823.2	15862.0	9504.4	3149.7	1609.5
82.5°	401.7	434.9	642.7	1116.3	3083.2	7471.1	7681.7	6266.1	3343.6	1335.3	664.8
85°	216.1	229.9	302.0	609.5	1507.0	2590.1	2648.3	1872.7	1332.4	783.9	321.3
87.5°	63.8	77.6	99.7	193.9	590.1	581.7	595.6	371.2	526.3	396.2	105.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P969323

CATALOG NUMBER: NAV-SB5D-735-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9	5304.9
2.5°	5329.8	5321.5	5291.0	5277.1	5260.5	5257.7	5271.6	5274.3	5277.1	5280.0	5291.0
5°	5379.6	5351.9	5324.3	5307.7	5313.2	5316.0	5343.6	5363.0	5376.8	5388.0	5393.5
7.5°	5476.6	5454.4	5407.4	5404.6	5412.9	5437.8	5473.8	5518.2	5543.1	5562.5	5568.0
10°	5620.7	5579.1	5523.7	5532.0	5548.6	5584.6	5659.4	5695.4	5737.0	5773.0	5764.7
12.5°	5767.5	5731.5	5667.7	5673.3	5700.9	5764.7	5836.8	5881.0	5908.7	5936.5	5947.6
15°	5958.6	5894.9	5825.7	5825.7	5875.5	5944.8	5978.0	6014.0	6030.7	6061.1	6072.2
17.5°	6155.3	6072.2	5980.8	5975.2	6036.2	6069.4	6088.8	6094.3	6099.9	6133.2	6144.3
20°	6352.0	6260.6	6130.3	6119.2	6133.2	6127.6	6124.8	6119.2	6127.6	6169.2	6185.8
22.5°	6545.9	6440.6	6260.6	6210.7	6171.9	6119.2	6116.5	6113.7	6119.2	6160.9	6188.5
25°	6773.1	6645.6	6404.6	6255.1	6124.8	6052.8	6061.1	6063.9	6069.4	6102.6	6147.0
27.5°	7019.6	6878.3	6537.6	6241.2	6005.7	5955.9	5942.0	5950.3	5969.7	6022.3	6075.0
30°	7266.1	7100.0	6659.4	6185.8	5856.1	5786.8	5742.6	5761.9	5822.9	5875.5	5933.7
32.5°	7490.5	7324.3	6756.4	6063.9	5665.0	5556.9	5498.8	5523.7	5584.6	5604.1	5673.3
35°	7753.7	7565.3	6798.0	5870.0	5457.2	5291.0	5213.5	5177.5	5207.9	5188.5	5249.4
37.5°	8047.3	7850.7	6792.5	5615.2	5213.5	5022.3	4914.3	4778.5	4714.8	4648.4	4689.9
40°	8482.3	8199.7	6725.9	5307.7	4911.5	4736.9	4543.1	4313.1	4169.1	4038.9	4047.2
42.5°	9075.0	8684.4	6604.1	4969.7	4570.8	4407.3	4144.2	3875.4	3648.3	3432.2	3412.8
45°	9958.7	9318.8	6451.7	4609.5	4202.3	4041.7	3756.3	3454.4	3196.8	2919.7	2886.5
47.5°	11233.0	10172.0	6307.6	4199.5	3814.5	3667.7	3410.1	3130.2	2825.5	2556.9	2526.4
50°	12983.8	11396.5	6174.7	3800.7	3432.2	3321.4	3116.4	2831.2	2523.7	2307.6	2293.7
52.5°	15211.0	13061.3	6119.2	3415.6	3074.9	3033.3	2869.9	2603.9	2313.1	2130.3	2116.4
55°	17767.9	15053.0	6119.2	3047.2	2761.9	2775.7	2662.1	2415.6	2163.5	2000.1	1983.5
57.5°	20377.3	17069.7	6008.4	2706.4	2495.9	2554.1	2482.0	2266.0	2038.8	1869.9	1842.1
60°	22781.9	18759.6	5559.7	2396.1	2260.4	2351.9	2304.8	2119.2	1842.1	1700.9	1678.7
62.5°	24629.5	19712.5	4695.4	2149.6	2066.5	2171.8	2146.9	1925.3	1806.2	1747.9	1728.6
65°	25554.8	19557.3	3590.2	1930.8	1903.1	2066.5	2013.9	2005.6	1911.4	1844.9	1822.8
67.5°	24986.8	18222.1	2603.9	1770.2	1808.9	1969.5	2171.8	2205.1	2030.5	1900.4	1878.2
70°	22496.5	15806.5	1939.1	1617.8	1689.8	1972.3	2476.5	2307.6	1991.8	1839.4	1814.5
72.5°	17114.0	11787.1	1504.2	1457.1	1534.6	1986.2	2612.2	2260.4	1881.0	2033.3	2016.7
75°	9787.0	6471.1	1207.8	1260.4	1340.8	1856.0	2543.0	2138.6	1795.1	1867.1	1867.1
77.5°	3731.4	2487.6	997.2	1066.5	1077.6	1620.5	2432.2	2130.3	1709.2	1667.7	1520.8
80°	1293.7	972.3	825.5	847.7	833.8	1440.5	2332.5	1853.2	1398.9	1252.1	1210.5
82.5°	529.1	484.8	653.7	626.1	592.9	1119.1	1883.7	1515.3	1144.1	1011.1	1000.0
85°	229.9	307.5	432.1	379.6	343.5	775.6	1509.7	1282.6	966.8	833.8	831.1
87.5°	47.0	116.3	182.9	171.8	177.3	518.0	1072.0	911.4	684.2	512.5	401.7
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)