

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: P969438

Luminaire Tested: **NAV-SB5D-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46430.5 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

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

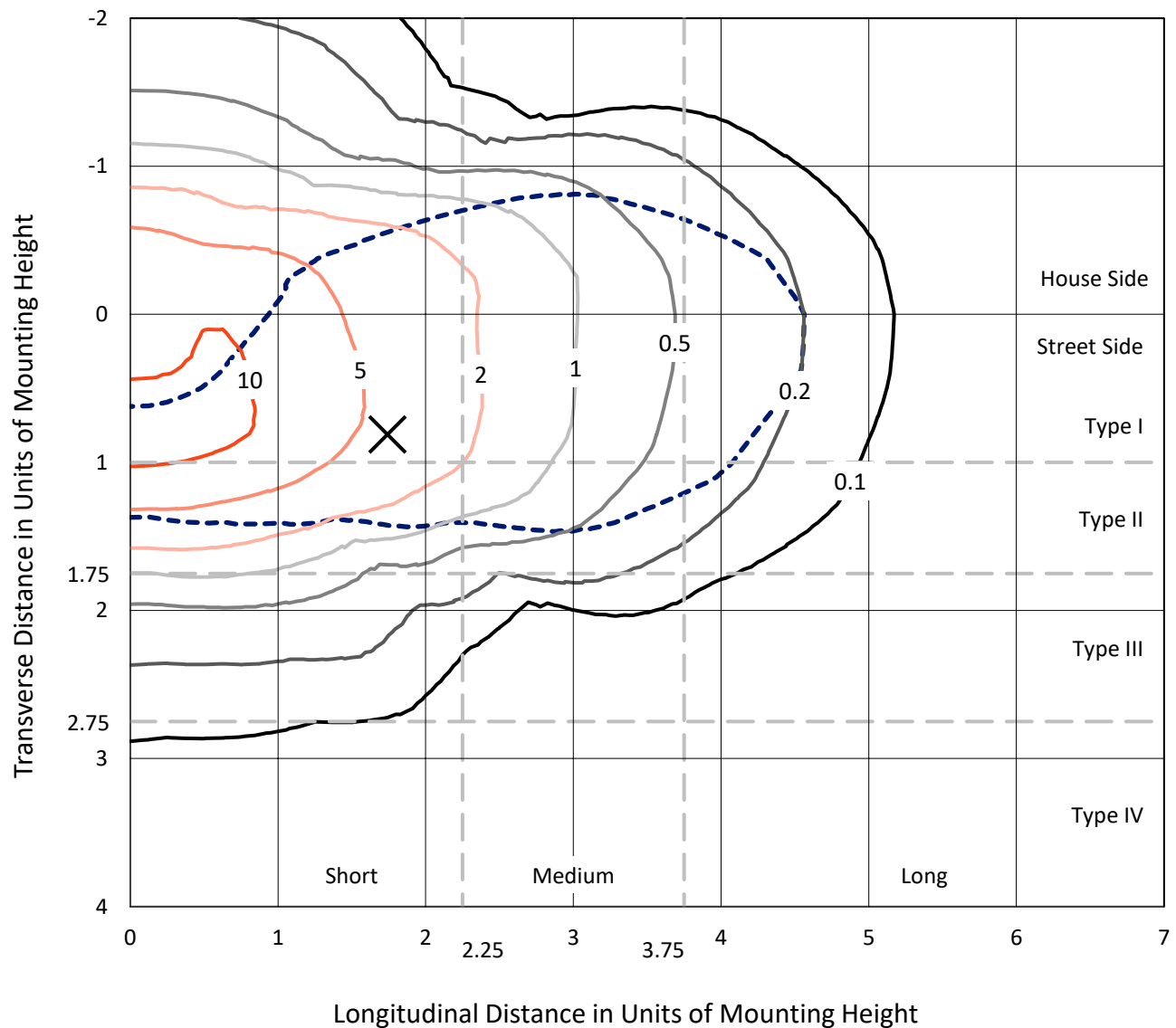


REPORT NUMBER: P969438

CATALOG NUMBER: NAV-SB5D-827-U-T2U

Iso-Footcandle Lines of Horizontal Illumination

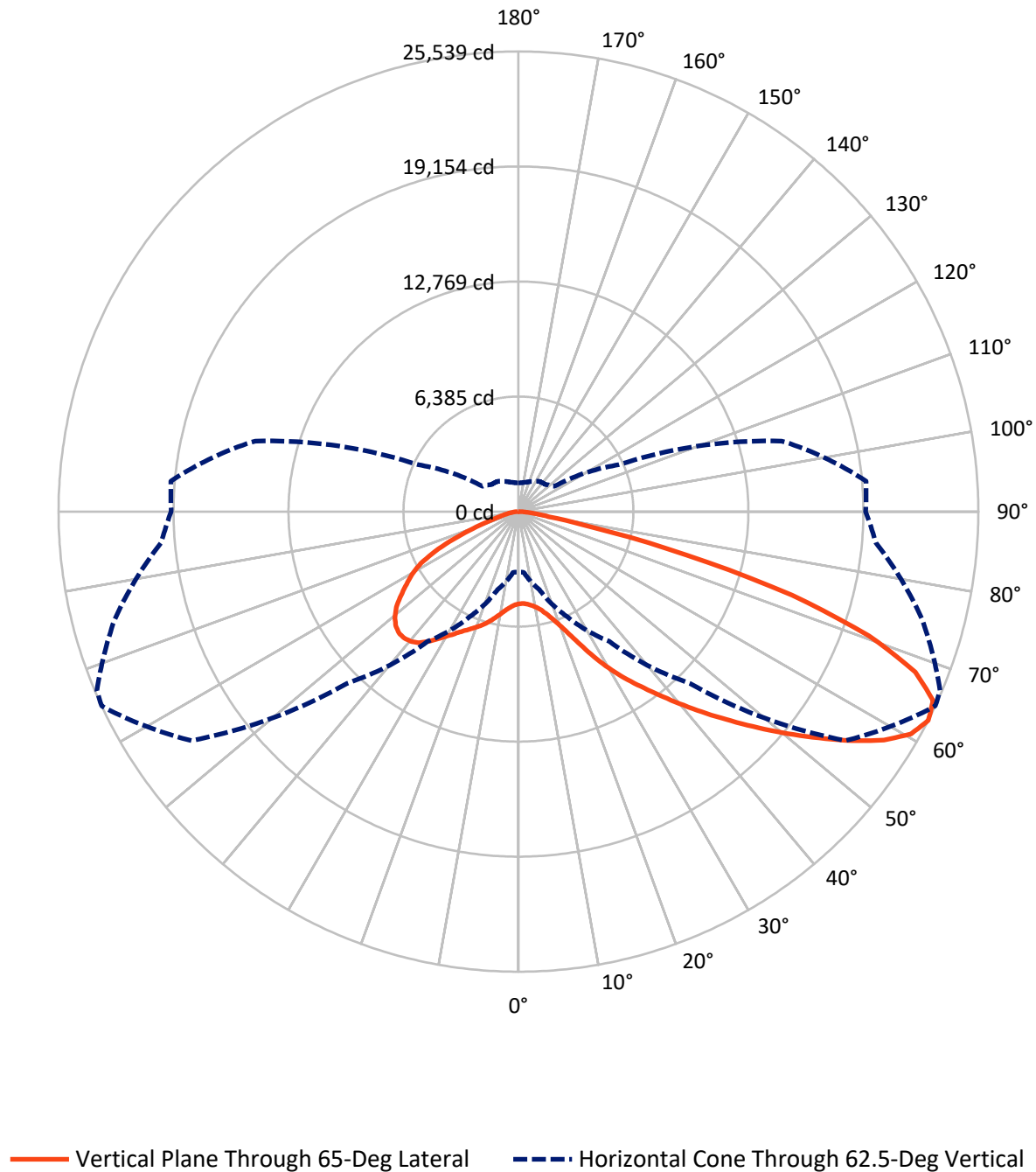
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
Type II - Short - N/A

REPORT NUMBER: P969438
CATALOG NUMBER: NAV-SB5D-827-U-T2U

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14651.4	0.0	14651.4
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	31779.0	0.0	31779.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	46430.5	0.0	46430.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	510.1	1.1
10°-20°	1729.8	3.7
20°-30°	3507.4	7.6
30°-40°	6069.4	13.1
40°-50°	9184.9	19.8
50°-60°	10768.7	23.2
60°-70°	9028.3	19.4
70°-80°	4984.3	10.7
80°-90°	647.5	1.4
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°	46430.5	100.0
0°-180°	46430.5	100.0

Coefficient of Utilization



REPORT NUMBER: P969438

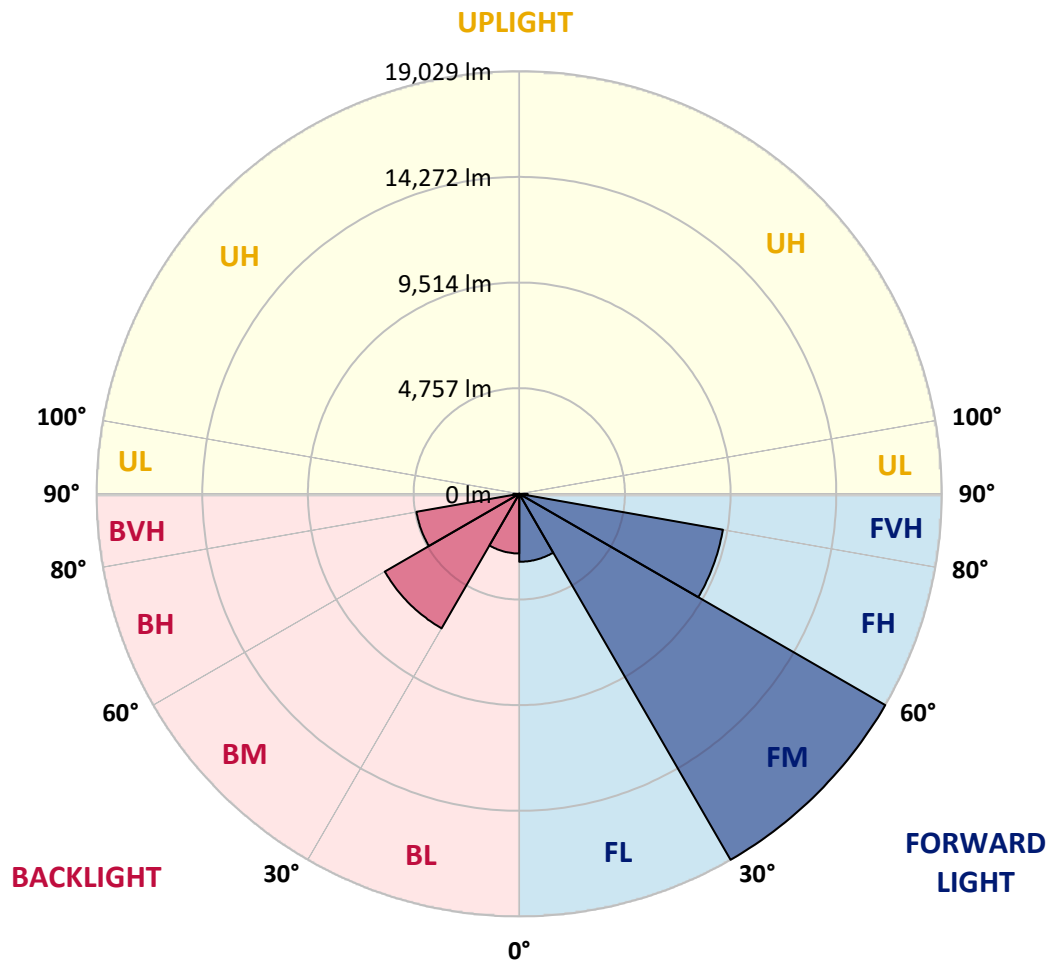
CATALOG NUMBER: NAV-SB5D-827-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3060.4	6.6			
FM	(30°-60°)	19028.7	41.0			
FH	(60°-80°)	9312.6	20.1			G4/12000
FVH	(80°-90°)	377.3	0.8			G3/500
BL	(0°-30°)	2686.9	5.8	B4/5000		
BM	(30°-60°)	6994.4	15.1	B4/8500		
BH	(60°-80°)	4700.0	10.1	B4/5000		G4/5000
BVH	(80°-90°)	270.1	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



REPORT NUMBER: P969438

CATALOG NUMBER: NAV-SB5D-827-U-T2U

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4
2.5°	5082.7	5068.2	5080.3	5080.3	5085.1	5082.7	5099.6	5104.4	5111.6	5126.0	5126.0
5°	5032.1	5029.7	5051.4	5070.7	5089.9	5106.8	5128.5	5159.7	5164.6	5181.5	5203.1
7.5°	5015.2	5000.8	5034.5	5058.6	5104.4	5145.3	5203.1	5256.1	5277.8	5285.1	5326.0
10°	5145.3	5121.2	5152.6	5167.0	5205.6	5246.5	5314.0	5398.3	5422.4	5451.3	5497.1
12.5°	5367.0	5340.5	5386.3	5407.9	5444.1	5480.2	5526.0	5607.9	5619.9	5672.9	5716.2
15°	5670.5	5639.1	5668.0	5694.6	5754.8	5788.5	5834.3	5913.7	5913.7	5954.7	5986.0
17.5°	6082.3	6041.5	6063.1	6072.7	6111.3	6161.9	6239.0	6308.8	6345.0	6330.5	6287.1
20°	6696.6	6646.1	6646.1	6597.9	6583.5	6624.4	6725.5	6821.9	6860.4	6785.8	6679.8
22.5°	7619.2	7547.0	7506.1	7342.2	7277.2	7282.0	7383.2	7501.3	7532.5	7400.1	7161.6
25°	8792.3	8679.2	8623.7	8382.9	8235.9	8108.3	8187.7	8339.5	8382.9	8219.1	7833.7
27.5°	9965.5	9972.7	9919.7	9630.7	9387.4	9153.7	9112.8	9271.7	9317.5	9132.0	8655.1
30°	11610.8	11439.7	11338.6	10991.7	10644.8	10317.1	10148.5	10213.6	10225.6	10004.0	9450.0
32.5°	13029.6	12986.2	12769.4	12465.8	12020.3	11507.2	11225.3	11121.8	11102.5	10786.9	10129.3
35°	14645.9	14621.8	14392.9	14031.6	13549.9	12836.9	12328.6	12032.3	12008.2	11565.0	10801.3
37.5°	16288.8	16288.8	16064.7	15669.7	15171.0	14279.8	13506.5	13036.8	12959.7	12381.6	11485.4
40°	17599.1	17519.7	17560.6	17394.5	16823.5	15876.8	14814.5	14132.8	14029.3	13335.5	12213.0
42.5°	18343.5	18317.1	18562.8	18748.2	18514.6	17758.1	16255.1	15320.4	15175.8	14385.8	13051.2
45°	18509.8	18480.9	18919.2	19598.5	19926.1	19615.4	17820.8	16570.6	16394.8	15484.2	13949.7
47.5°	18126.7	18068.9	18712.1	19784.0	20834.3	21381.1	19516.6	17926.8	17671.4	16553.8	14872.3
50°	16975.3	16919.9	17893.1	19316.7	21140.2	22580.7	21357.0	19364.9	18974.7	17700.3	15804.6
52.5°	14472.5	14498.9	16023.8	17979.8	20737.9	23327.5	22942.1	20880.1	20410.3	18873.4	16679.0
55°	11273.5	11331.3	13205.4	15358.9	19128.9	23214.3	24023.6	22441.0	21973.6	19976.7	17582.3
57.5°	8072.1	8327.4	10083.5	12215.3	16038.3	21419.6	24259.7	23924.8	23472.0	21181.2	18466.4
60°	5232.0	5277.8	7084.5	9233.2	12213.0	18230.3	23780.3	25049.8	24695.7	22409.7	19205.9
62.5°	3353.2	3384.4	4485.3	6458.2	8790.0	13487.3	22166.4	25538.8	25430.5	23221.5	19916.5
65°	2464.3	2440.2	3013.5	4268.5	5921.0	8317.8	19032.5	25302.7	25517.2	23729.8	20504.3
67.5°	2057.2	2023.5	2305.3	2955.7	4362.5	4723.8	14082.3	23768.3	24553.6	23672.0	20935.4
70°	1874.1	1845.2	2016.2	2194.5	3403.7	3162.8	7098.9	20663.3	21872.5	23014.3	20865.6
72.5°	1587.4	1536.9	1770.5	1948.7	2647.4	2425.8	2934.0	15872.0	17346.3	20906.5	19882.7
75°	1230.9	1197.2	1397.2	1715.1	1989.7	1893.4	1854.8	9637.9	11247.0	16168.4	17394.5
77.5°	975.6	929.8	1112.9	1336.9	1789.8	1428.4	1351.4	4150.4	5745.1	10322.0	13015.1
80°	734.7	693.7	845.5	1057.5	1375.4	1076.8	874.4	1693.4	2165.6	5229.7	6544.9
82.5°	522.8	486.6	590.2	775.6	925.0	966.0	537.2	949.0	1067.1	2016.2	1462.2
85°	334.9	313.1	395.0	486.6	587.7	621.5	327.6	496.2	544.4	831.1	609.5
87.5°	183.1	149.3	212.0	226.4	272.2	248.2	156.6	180.7	195.2	301.1	257.8
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: P969438

CATALOG NUMBER: NAV-SB5D-827-U-T2U

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4	5116.4
2.5°	5135.7	5142.9	5167.0	5174.2	5191.1	5212.7	5227.2	5241.6	5241.6	5256.1	5256.1
5°	5205.6	5222.4	5273.0	5299.6	5342.9	5386.3	5412.7	5444.1	5463.4	5473.0	5477.8
7.5°	5340.5	5367.0	5439.3	5485.0	5559.7	5619.9	5660.9	5704.2	5713.9	5740.3	5730.7
10°	5523.5	5554.9	5636.8	5723.5	5812.6	5887.3	5925.8	5957.1	5969.2	5974.0	5961.9
12.5°	5733.1	5778.8	5884.8	5990.8	6084.8	6149.8	6159.4	6152.3	6118.5	6089.6	6089.6
15°	5990.8	6031.8	6149.8	6265.4	6357.0	6369.0	6308.8	6270.2	6229.3	6222.1	6222.1
17.5°	6299.1	6320.9	6429.3	6542.5	6549.7	6508.7	6419.7	6383.5	6345.0	6318.5	6320.9
20°	6658.1	6650.9	6728.0	6776.2	6725.5	6600.3	6465.4	6405.2	6366.7	6335.3	6337.8
22.5°	7086.8	7031.5	7021.9	7009.8	6874.9	6612.4	6429.3	6352.2	6292.0	6248.6	6263.1
25°	7710.8	7498.8	7351.8	7269.9	6966.4	6547.3	6313.7	6142.6	6029.4	5954.7	5983.6
27.5°	8491.3	8134.7	7763.8	7563.9	6966.4	6414.9	6034.2	5757.2	5571.7	5494.6	5533.2
30°	9235.6	8862.3	8315.4	7917.9	6949.6	6198.0	5583.8	5198.3	4981.5	4904.4	4950.2
32.5°	9871.6	9464.4	8900.8	8305.8	6908.6	5846.3	5024.9	4598.6	4388.9	4297.4	4343.2
35°	10461.7	10028.1	9488.5	8732.2	6800.3	5330.8	4410.7	4085.4	3851.7	3704.9	3753.0
37.5°	11066.3	10550.8	10045.0	9117.6	6605.1	4728.6	3938.5	3661.5	3386.9	3189.4	3242.4
40°	11723.9	11107.3	10640.0	9346.4	6284.7	4155.2	3572.3	3319.5	3028.0	2818.3	2859.3
42.5°	12492.4	11774.6	11302.4	9464.4	5846.3	3748.2	3333.9	3085.8	2811.2	2640.1	2673.8
45°	13294.6	12509.2	11907.0	9462.0	5357.4	3557.9	3256.8	3011.0	2707.5	2529.3	2558.2
47.5°	14135.3	13277.6	12429.8	9307.8	4933.3	3584.4	3213.5	2849.7	2514.8	2341.4	2365.5
50°	14978.3	14118.4	12935.6	9018.8	4752.7	3526.6	3052.0	2623.3	2228.2	2071.6	2081.3
52.5°	15814.2	15012.0	13371.6	8606.9	4569.7	3312.2	2844.9	2329.4	2110.2	2001.7	2001.7
55°	16654.9	15896.1	13846.2	8007.1	4111.9	3061.7	2498.0	2218.6	2016.2	1917.5	1907.8
57.5°	17498.0	16917.5	14296.6	7407.3	3536.2	2753.4	2307.7	2083.6	1922.3	1837.9	1823.5
60°	18374.9	18085.8	14761.5	6855.6	2967.7	2358.3	2168.0	1975.3	1811.5	1717.5	1710.3
62.5°	19278.2	19372.1	15125.3	6145.0	2445.0	2117.4	2042.7	1845.2	1686.2	1597.1	1594.7
65°	20188.7	20612.6	15363.7	5159.7	1982.5	1888.6	1907.8	1703.0	1541.7	1464.6	1462.2
67.5°	20875.3	21506.3	15296.3	3904.7	1626.0	1671.8	1739.2	1553.7	1402.0	1341.7	1344.2
70°	20952.3	21400.4	14631.5	2673.8	1361.0	1459.8	1551.3	1406.8	1250.2	1206.8	1209.3
72.5°	19926.1	19955.0	12779.1	1746.4	1151.5	1281.6	1353.8	1257.5	1105.7	1062.3	1060.0
75°	17235.5	16503.1	9382.5	1151.5	963.5	1100.8	1168.3	1100.8	953.9	963.5	929.8
77.5°	13058.5	11687.9	5697.0	819.0	804.5	925.0	1016.5	968.3	843.1	946.7	833.4
80°	6728.0	6323.3	2541.4	611.8	635.9	739.5	835.9	773.3	667.3	635.9	580.6
82.5°	1541.7	1792.2	1002.0	438.4	460.1	532.4	638.4	580.6	479.4	404.7	399.9
85°	539.6	590.2	443.2	274.6	269.8	332.4	433.6	387.9	325.2	260.1	274.6
87.5°	171.1	224.1	166.3	110.8	115.6	149.3	200.0	183.1	151.8	98.8	103.6
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)