

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: P969251

Luminaire Tested: **NAV-SB5D-727-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969251
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-727-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37348.9 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

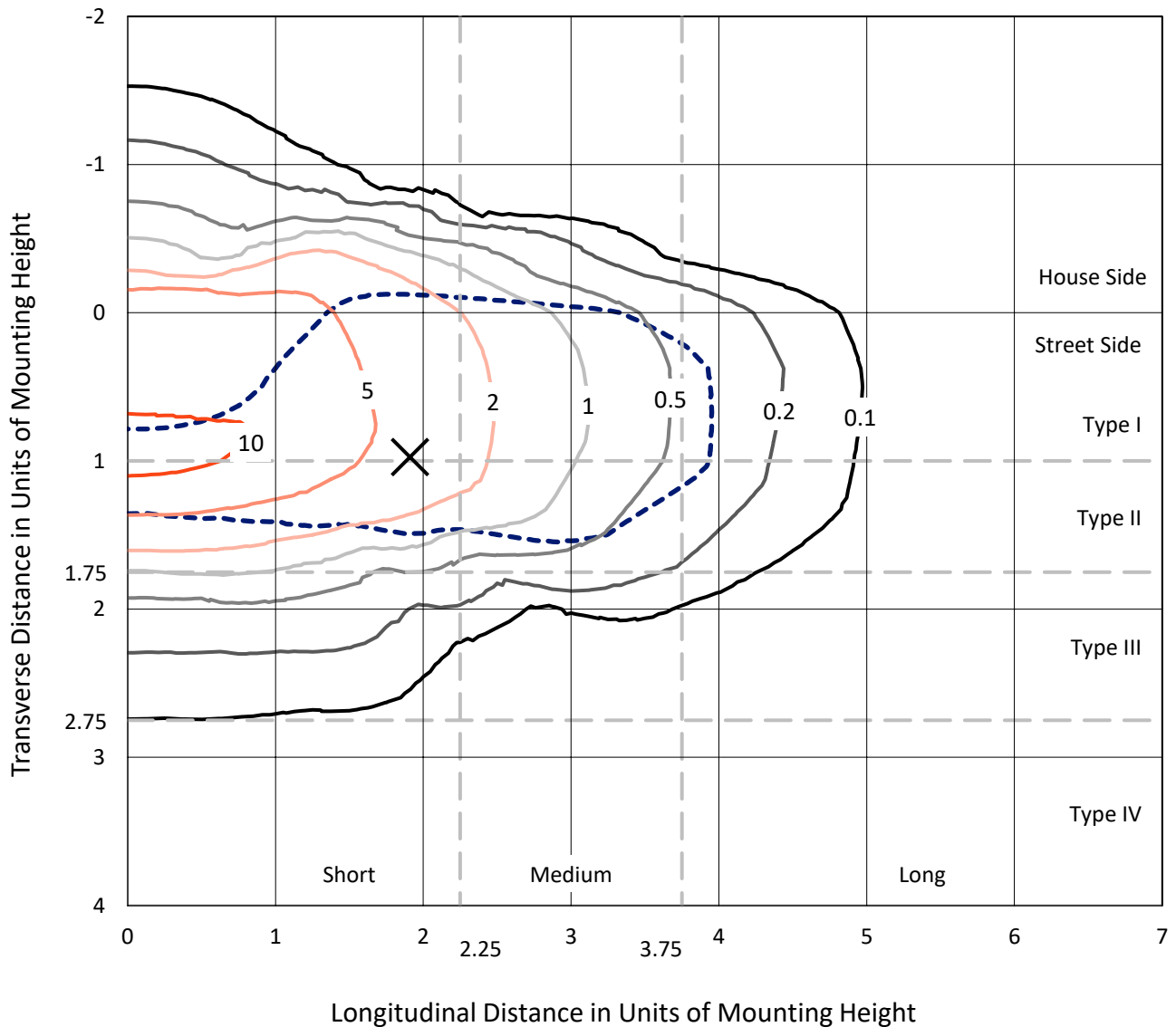
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

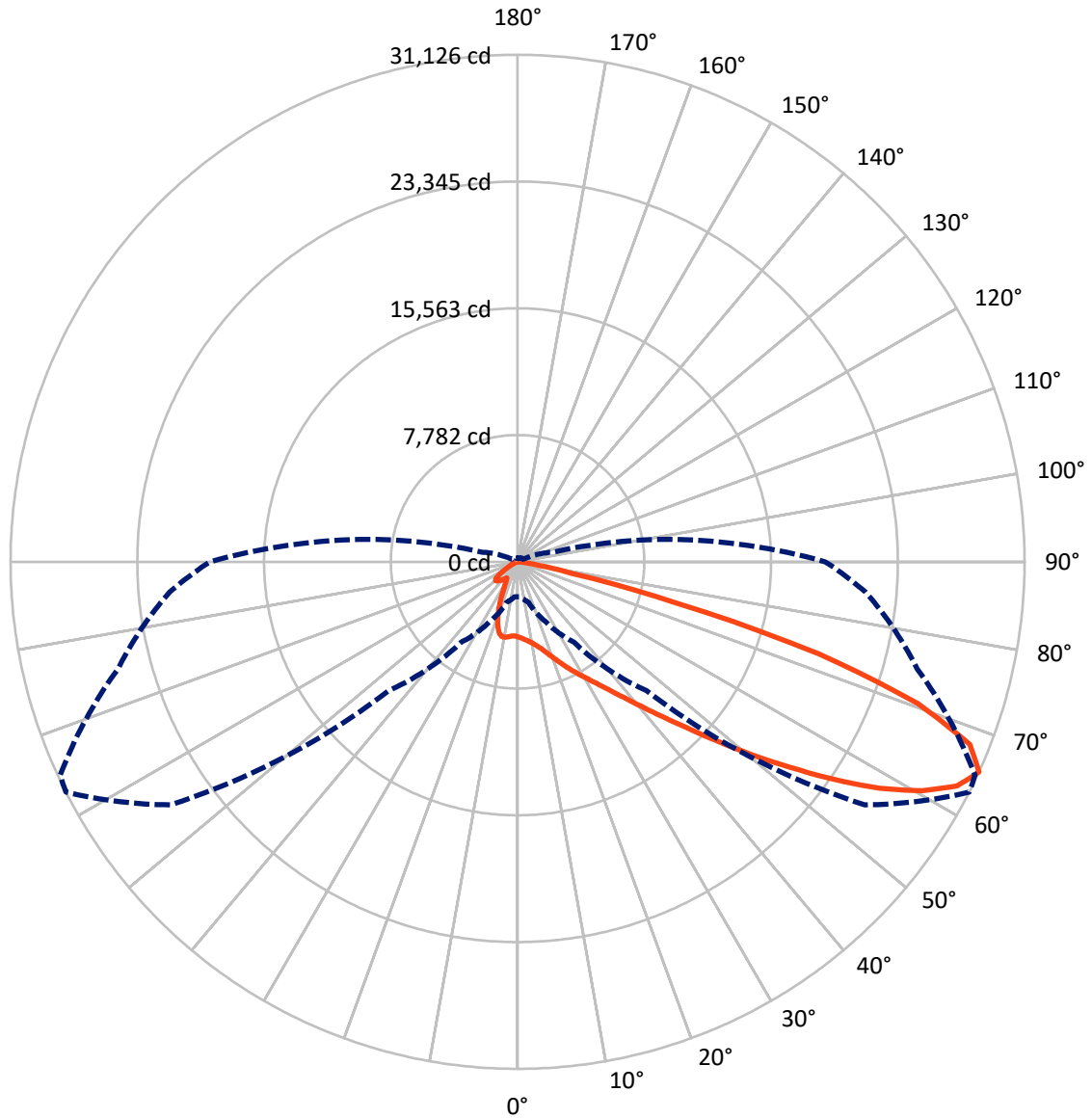
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5490.0	0.0	5490.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	31858.9	0.0	31858.9
	% Fixture	85.3	0.0	85.3
Total	Lumens	37348.9	0.0	37348.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	434.3	1.2
10°-20°	1205.0	3.2
20°-30°	2098.3	5.6
30°-40°	3781.9	10.1
40°-50°	7500.8	20.1
50°-60°	10217.3	27.4
60°-70°	8155.4	21.8
70°-80°	3690.5	9.9
80°-90°	265.3	0.7
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°	37348.9	100.0
0°-180°	37348.9	100.0

Coefficient of Utilization

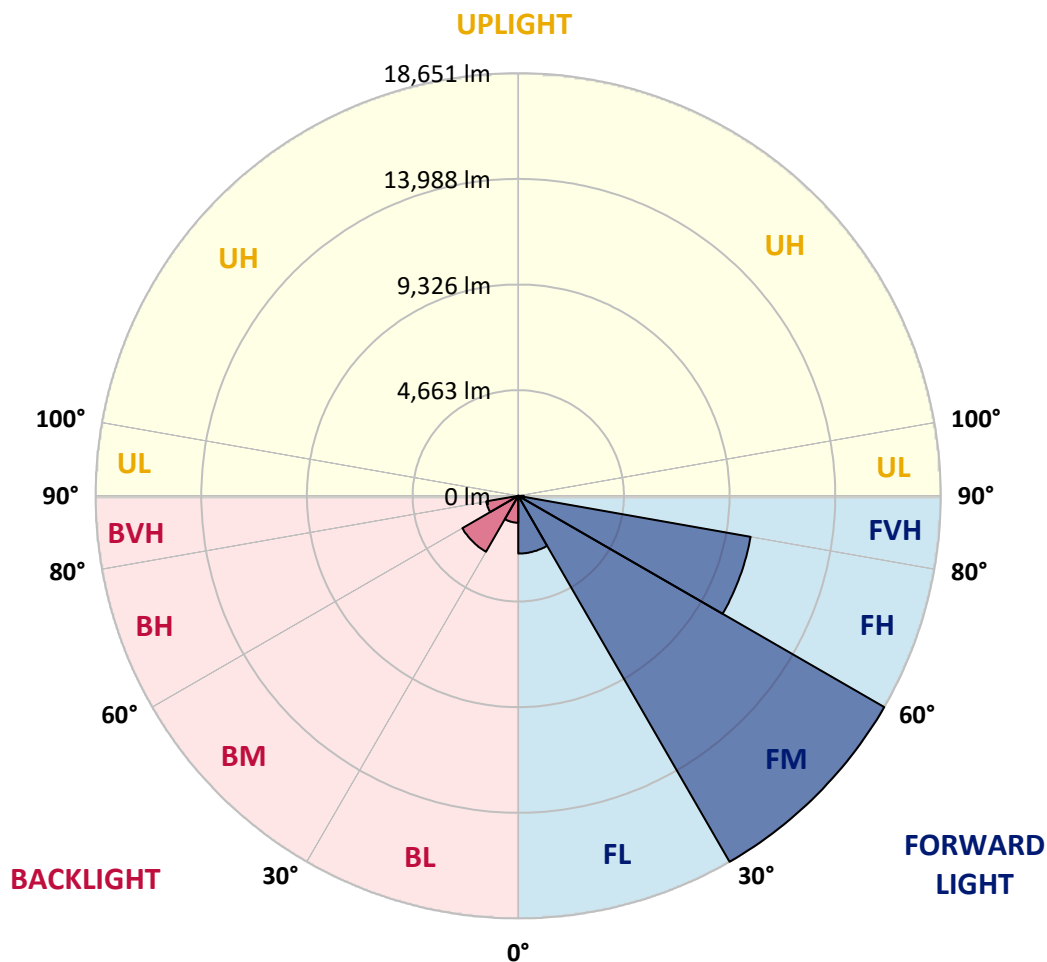


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2549.5	6.8			
FM (30°-60°)	18651.1	49.9			
FH (60°-80°)	10412.7	27.9			G4/12000
FVH (80°-90°)	245.6	0.7			G3/500
BL (0°-30°)	1188.1	3.2	B3/2500		
BM (30°-60°)	2849.0	7.6	B3/5000		
BH (60°-80°)	1433.2	3.8	B3/2500		G3/2500
BVH (80°-90°)	19.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5
2.5°	4717.5	4704.6	4722.6	4714.9	4709.8	4699.5	4694.4	4689.2	4678.9	4671.2	4640.4
5°	4730.4	4722.6	4740.6	4756.0	4771.5	4786.9	4794.5	4804.9	4794.5	4774.0	4743.2
7.5°	4622.4	4617.3	4655.9	4702.1	4771.5	4830.5	4894.8	4930.8	4933.3	4925.6	4892.2
10°	4614.8	4601.8	4640.4	4697.0	4786.9	4892.2	5005.3	5082.4	5092.6	5126.0	5090.0
12.5°	4735.5	4722.6	4776.6	4838.2	4930.8	5041.3	5179.9	5287.9	5303.3	5349.6	5323.8
15°	4938.4	4920.5	4982.1	5061.8	5179.9	5305.9	5452.4	5550.0	5562.8	5619.4	5573.1
17.5°	5174.8	5156.9	5228.8	5313.6	5442.0	5614.2	5783.8	5891.7	5907.2	5943.1	5858.3
20°	5478.0	5454.9	5511.4	5588.5	5724.7	5930.2	6133.2	6287.5	6284.8	6284.8	6146.1
22.5°	5830.1	5794.1	5842.9	5904.5	6033.0	6282.2	6552.1	6734.5	6734.5	6662.5	6433.8
25°	6207.7	6171.8	6225.7	6282.2	6395.3	6678.0	6994.0	7220.1	7230.4	7107.0	6742.2
27.5°	6680.5	6634.3	6675.4	6742.2	6809.0	7096.8	7471.9	7734.0	7739.2	7549.0	7035.1
30°	7590.1	7459.0	7330.6	7258.6	7289.5	7574.6	7975.5	8265.9	8291.5	8029.4	7353.8
32.5°	9255.1	9229.4	8777.2	8186.3	7877.8	8088.6	8538.2	8887.7	8903.0	8566.5	7767.4
35°	11842.5	11811.7	11084.6	9959.1	8954.5	8777.2	9221.7	9635.4	9625.1	9244.8	8304.4
37.5°	14931.0	14902.7	13944.3	12438.7	10812.2	9817.9	10103.0	10537.2	10601.5	10103.0	8998.2
40°	17569.8	17464.5	16858.1	15406.4	13278.9	11544.5	11356.9	11644.7	11711.4	11120.5	9879.5
42.5°	19568.8	19478.9	19170.6	18263.6	16264.5	14098.5	12834.3	12944.8	13019.3	12310.1	10891.9
45°	20604.3	20583.7	20707.0	20622.3	19306.7	17233.2	14946.4	14486.4	14514.7	13628.3	12040.4
47.5°	20750.7	20740.5	21303.2	22099.7	21922.4	20768.8	17657.2	16408.4	16308.2	15116.0	13289.1
50°	19887.5	19866.9	20946.1	22438.9	23669.6	23739.0	20735.3	18574.4	18353.4	16655.1	14591.8
52.5°	17130.4	17125.3	18898.2	21382.8	24283.7	26339.3	23777.5	20953.8	20583.7	18284.1	15969.0
55°	13181.2	13276.3	15308.7	18245.5	23163.5	27590.6	26508.9	23595.1	23027.2	19923.4	17238.3
57.5°	9337.3	9476.1	11485.3	14101.0	19689.5	26850.6	28356.3	26241.6	25630.1	21557.6	18525.6
60°	5015.5	5138.8	7150.7	10272.6	14648.4	24091.0	29330.1	28538.7	27960.6	23109.5	19687.0
62.5°	2988.3	3029.4	3861.9	6631.7	9907.8	18404.9	28916.4	30288.5	29813.2	24412.2	20696.8
65°	2145.4	2153.2	2572.0	4049.5	6015.0	11182.1	26015.5	31126.2	30979.7	25393.8	21444.5
67.5°	1806.4	1801.1	1975.9	2690.2	4098.3	5601.3	19938.8	29941.6	30563.4	26015.5	21868.5
70°	1549.4	1557.1	1762.6	1970.8	3080.7	3170.6	9912.9	26069.4	27395.3	26179.9	21842.7
72.5°	1153.6	1179.4	1369.5	1796.0	2325.3	2181.4	3422.5	19329.9	21727.1	24666.6	20709.6
75°	814.5	827.4	963.5	1510.8	1734.4	1587.9	1747.2	9992.5	13065.6	18911.0	16950.5
77.5°	627.0	650.1	729.7	1056.1	1708.7	1115.1	1068.9	3458.5	5313.6	11423.7	11621.6
80°	339.2	380.3	526.7	763.1	1200.0	788.8	529.3	1377.2	1801.1	5341.9	4481.1
82.5°	174.8	195.3	367.5	549.8	683.5	688.6	262.1	573.0	742.6	1649.5	614.1
85°	69.4	84.8	246.6	303.2	352.0	339.2	118.2	231.2	267.2	457.4	187.6
87.5°	15.4	25.7	89.9	69.4	66.8	72.0	28.3	53.9	51.4	53.9	33.4
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°	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5	4609.5
2.5°	4637.8	4627.6	4599.3	4568.4	4532.4	4511.9	4499.0	4496.5	4478.5	4465.7	4478.5
5°	4714.9	4704.6	4650.6	4586.5	4517.1	4463.2	4411.7	4365.5	4298.6	4285.8	4280.7
7.5°	4869.1	4840.8	4753.4	4666.1	4535.0	4378.3	4188.2	3969.8	3774.5	3715.4	3687.1
10°	5059.2	5020.7	4910.2	4756.0	4465.7	4039.1	3579.2	3152.7	2813.5	2718.5	2682.5
12.5°	5275.1	5241.6	5095.2	4810.0	4175.3	3402.0	2697.9	2168.6	1839.7	1757.5	1734.4
15°	5532.0	5483.1	5280.2	4727.7	3656.3	2584.8	1852.6	1539.1	1420.9	1405.5	1390.1
17.5°	5804.4	5724.7	5444.6	4432.3	2957.4	1837.1	1431.2	1341.2	1289.9	1274.5	1266.7
20°	6053.5	5950.8	5542.3	3985.2	2209.7	1431.2	1282.2	1223.0	1176.8	1158.9	1148.5
22.5°	6302.8	6156.4	5542.3	3376.2	1657.3	1269.3	1176.8	1122.9	1068.9	1045.8	1032.9
25°	6562.4	6367.1	5444.6	2697.9	1333.5	1164.0	1076.6	1017.5	971.3	943.0	932.7
27.5°	6814.1	6544.3	5221.0	2055.5	1187.1	1071.4	984.1	927.5	883.9	863.4	863.4
30°	7053.1	6719.1	4907.6	1559.6	1092.0	981.5	899.3	850.4	806.8	786.3	788.8
32.5°	7376.8	6940.1	4573.5	1279.6	1009.8	896.8	822.3	775.9	737.4	722.0	722.0
35°	7826.5	7266.3	4285.8	1256.4	940.4	827.4	752.9	709.2	670.7	657.7	657.7
37.5°	8463.7	7793.1	4134.2	1410.6	883.9	765.7	696.3	650.1	614.1	603.8	601.3
40°	9250.0	8507.4	4216.4	1564.8	845.3	711.8	644.9	598.7	567.8	555.0	552.5
42.5°	10182.7	9388.7	4671.2	1682.9	819.7	665.5	596.1	544.7	524.2	519.1	519.1
45°	11254.1	10357.4	5367.5	1808.9	778.6	621.8	547.2	508.7	493.3	490.8	488.2
47.5°	12472.0	11421.2	6174.4	1965.6	737.4	580.7	508.7	483.1	470.2	465.0	465.0
50°	13679.6	12492.6	7004.2	2053.0	704.1	542.1	478.0	457.4	447.1	444.5	444.5
52.5°	14943.8	13594.9	7674.9	1970.8	675.8	511.3	452.2	436.9	426.5	423.9	423.9
55°	16148.9	14486.4	7790.5	1672.7	619.2	480.5	423.9	416.3	403.4	403.4	400.9
57.5°	17187.0	14933.5	6973.5	1228.2	562.7	434.2	395.6	388.0	377.7	375.2	372.6
60°	18140.2	14805.1	5383.0	827.4	501.0	388.0	359.7	354.5	344.3	331.5	328.9
62.5°	18677.2	14239.8	3682.0	539.6	439.4	339.2	318.6	316.0	292.9	267.2	262.1
65°	18880.2	13078.4	2297.0	393.1	367.5	290.4	274.9	269.8	236.4	208.1	205.5
67.5°	18702.9	11166.8	1158.9	310.9	290.4	241.5	226.1	226.1	203.0	177.3	174.8
70°	17993.8	8371.2	488.2	249.3	223.6	185.0	185.0	195.3	172.2	143.9	141.3
72.5°	16454.6	5632.2	259.5	190.1	167.0	131.0	151.6	159.3	136.2	107.9	107.9
75°	13080.9	3435.3	179.9	141.3	105.4	92.5	115.6	120.7	92.5	72.0	69.4
77.5°	8946.8	1973.3	120.7	89.9	66.8	53.9	79.6	74.5	48.8	33.4	36.0
80°	3928.6	822.3	69.4	41.1	25.7	20.6	28.3	20.6	15.4	10.2	10.2
82.5°	459.9	192.7	25.7	15.4	10.2	5.1	2.6	0.0	0.0	0.0	0.0
85°	95.1	23.2	12.8	5.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.9	5.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)