

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: P967298

Luminaire Tested: **NAV-SB4D-760-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967298
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-SB4D-760-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 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: 33799.4 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

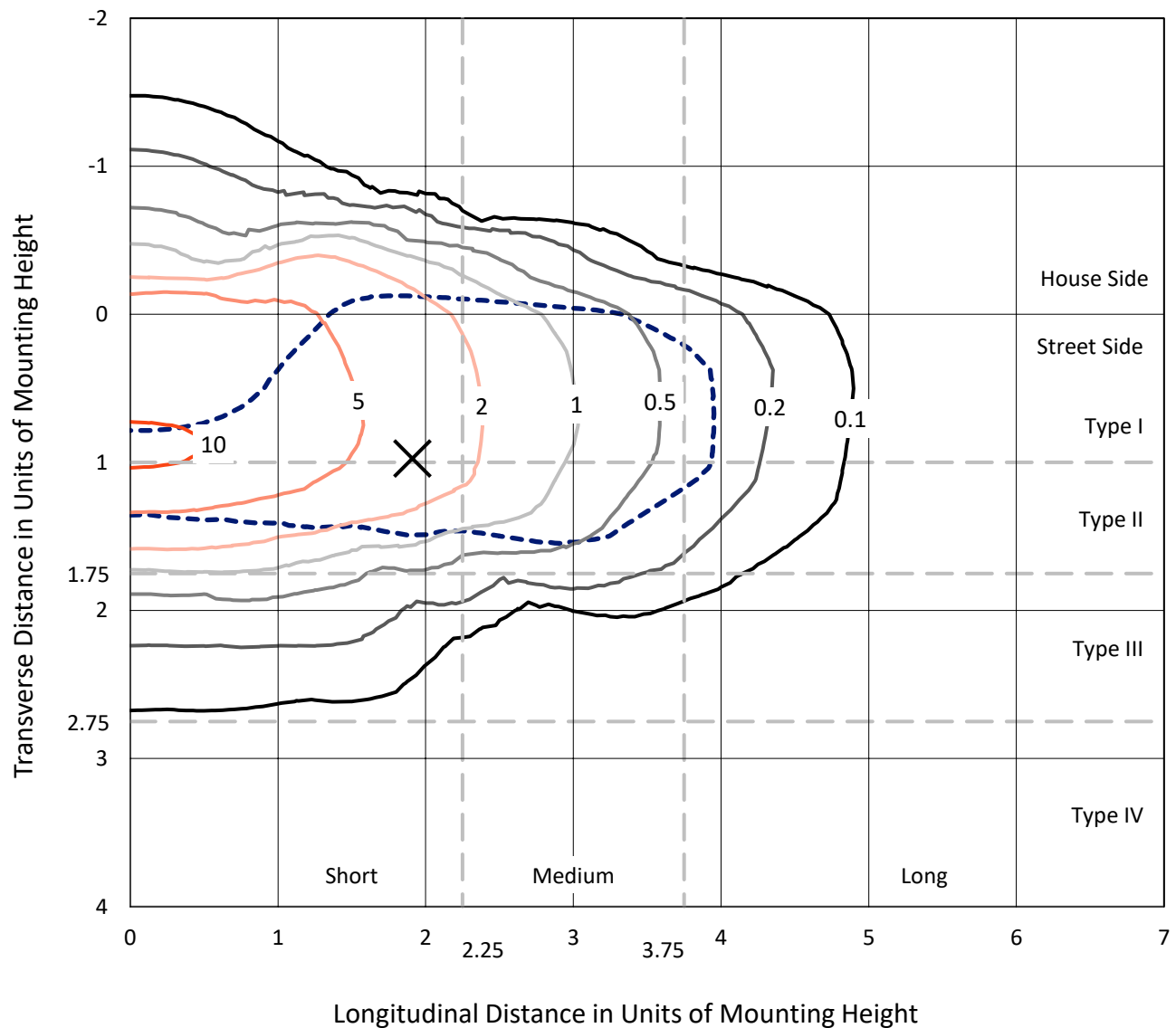
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

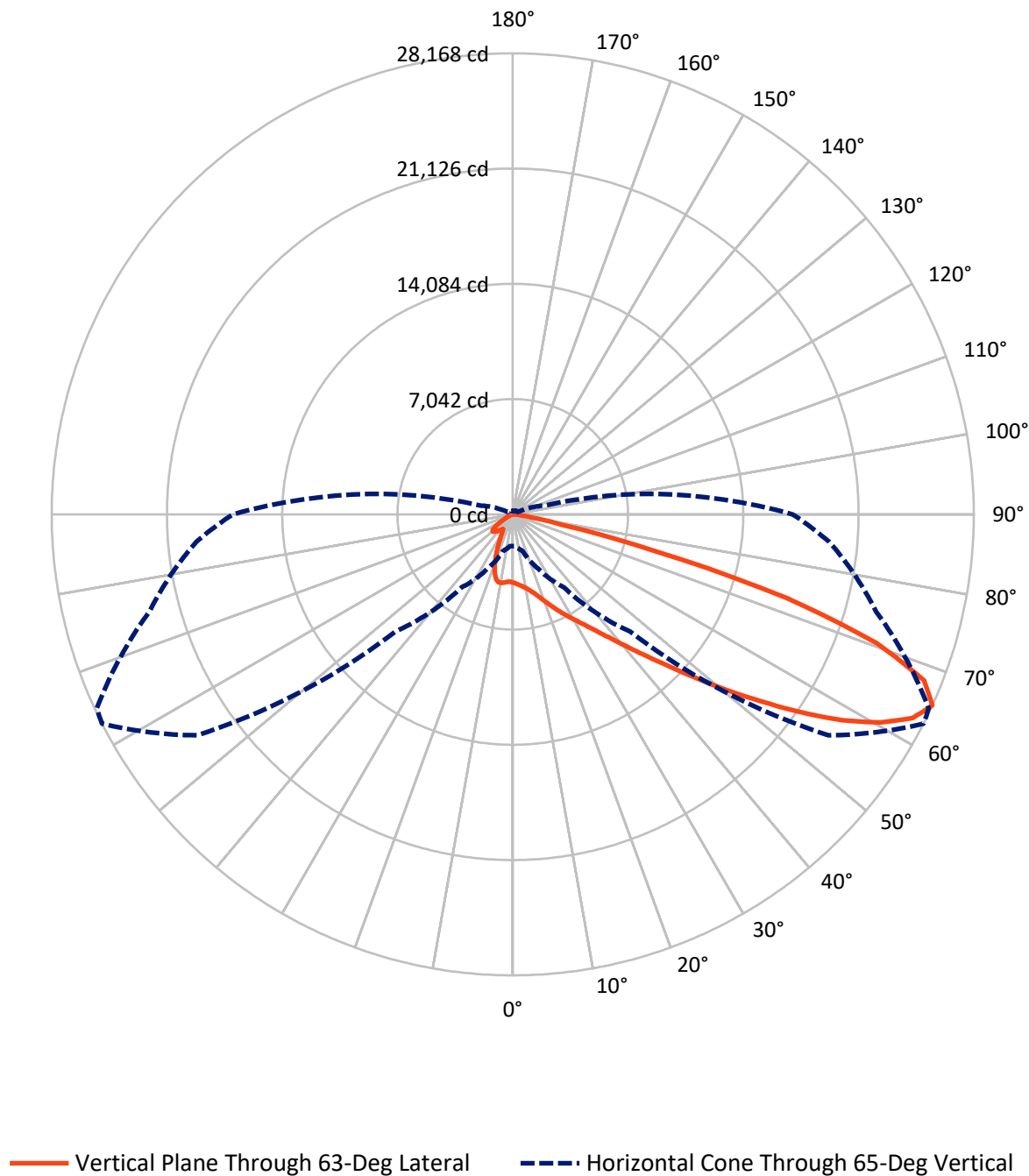
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4968.2	0.0	4968.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	28831.1	0.0	28831.1
	% Fixture	85.3	0.0	85.3
Total	Lumens	33799.4	0.0	33799.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.0	1.2
10°-20°	1090.5	3.2
20°-30°	1898.9	5.6
30°-40°	3422.5	10.1
40°-50°	6787.9	20.1
50°-60°	9246.3	27.4
60°-70°	7380.3	21.8
70°-80°	3339.8	9.9
80°-90°	240.1	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°	33799.4	100.0
0°-180°	33799.4	100.0

Coefficient of Utilization



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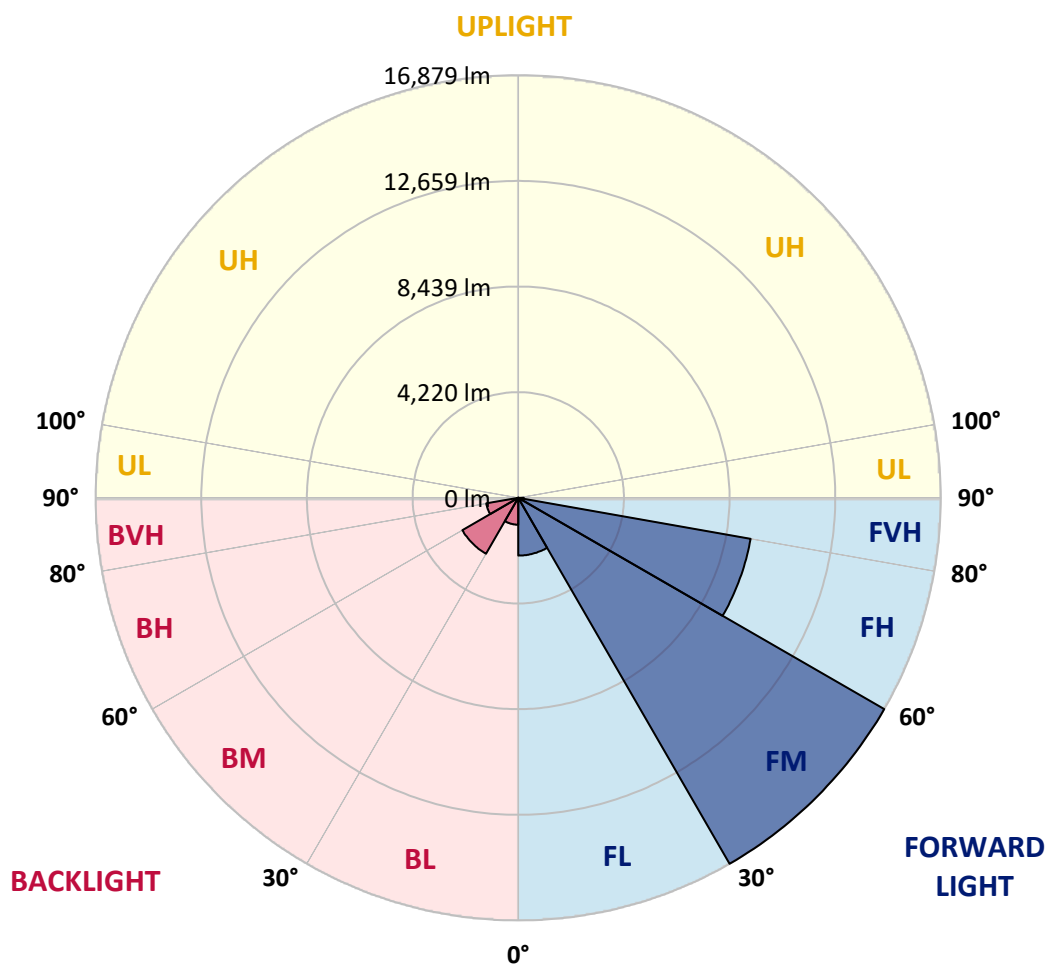
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2307.2	6.8			
FM	(30°-60°)	16878.6	49.9			
FH	(60°-80°)	9423.1	27.9			G4/12000
FVH	(80°-90°)	222.2	0.7			G2/225
BL	(0°-30°)	1075.2	3.2	B3/2500		
BM	(30°-60°)	2578.2	7.6	B3/5000		
BH	(60°-80°)	1297.0	3.8	B3/2500		G3/2500
BVH	(80°-90°)	17.8	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°	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4
2.5°	4269.1	4257.5	4273.8	4266.8	4262.2	4252.8	4248.2	4243.6	4234.3	4227.3	4199.4
5°	4280.8	4273.8	4290.0	4304.0	4318.0	4332.0	4338.9	4348.2	4338.9	4320.3	4292.4
7.5°	4183.1	4178.4	4213.4	4255.2	4318.0	4371.4	4429.5	4462.1	4464.5	4457.5	4427.3
10°	4176.2	4164.5	4199.4	4250.6	4332.0	4427.3	4529.6	4599.3	4608.6	4638.8	4606.3
12.5°	4285.4	4273.8	4322.6	4378.4	4462.1	4562.2	4687.7	4785.3	4799.3	4841.2	4817.9
15°	4469.1	4452.8	4508.7	4580.7	4687.7	4801.6	4934.1	5022.5	5034.2	5085.3	5043.4
17.5°	4683.0	4666.7	4731.9	4808.6	4924.8	5080.6	5234.2	5331.7	5345.7	5378.3	5301.5
20°	4957.4	4936.5	4987.6	5057.3	5180.7	5366.7	5550.4	5689.9	5687.5	5687.5	5562.0
22.5°	5276.0	5243.4	5287.6	5343.4	5459.7	5685.2	5929.3	6094.4	6094.4	6029.4	5822.4
25°	5617.8	5585.2	5634.0	5685.2	5787.6	6043.3	6329.3	6534.0	6543.2	6431.6	6101.4
27.5°	6045.7	6003.7	6040.9	6101.4	6161.9	6422.3	6761.8	6999.0	7003.6	6831.5	6366.5
30°	6868.7	6750.1	6633.9	6568.8	6596.7	6854.8	7217.5	7480.3	7503.5	7266.3	6654.8
32.5°	8375.5	8352.3	7943.0	7408.2	7129.2	7319.8	7726.8	8043.0	8056.9	7752.4	7029.2
35°	10717.0	10689.1	10031.1	9012.6	8103.4	7943.0	8345.2	8719.7	8710.3	8366.3	7515.2
37.5°	13512.0	13486.4	12619.1	11256.4	9784.6	8884.7	9142.8	9535.8	9593.9	9142.8	8143.0
40°	15900.0	15804.7	15255.9	13942.2	12016.8	10447.3	10277.6	10538.0	10598.4	10063.7	8940.6
42.5°	17709.0	17627.6	17348.6	16527.8	14718.8	12758.6	11614.6	11714.5	11782.0	11140.2	9856.7
45°	18646.1	18627.5	18739.2	18662.4	17471.8	15595.4	13525.9	13109.7	13135.3	12333.1	10896.1
47.5°	18778.6	18769.4	19278.6	19999.4	19839.0	18794.9	15979.0	14849.0	14758.3	13679.3	12026.1
50°	17997.4	17978.8	18955.3	20306.3	21420.1	21482.9	18764.7	16809.2	16609.2	15072.2	13205.1
52.5°	15502.4	15497.7	17102.1	19350.7	21975.9	23836.1	21517.8	18962.3	18627.5	16546.4	14451.4
55°	11928.4	12014.5	13853.8	16511.5	20962.1	24968.4	23989.5	21352.7	20838.8	18030.0	15600.0
57.5°	8449.9	8575.5	10393.8	12760.9	17818.3	24298.8	25661.4	23747.7	23194.3	19508.7	16765.0
60°	4538.9	4650.5	6471.1	9296.3	13256.2	21801.4	26542.6	25826.4	25303.3	20913.2	17816.0
62.5°	2704.3	2741.5	3494.8	6001.5	8966.1	16655.7	26168.2	27409.9	26979.7	22092.1	18729.8
65°	1941.6	1948.5	2327.6	3664.6	5443.4	10119.4	23543.0	28167.9	28035.4	22980.4	19406.4
67.5°	1634.7	1630.0	1788.1	2434.5	3708.8	5069.0	18043.9	27096.0	27658.7	23543.0	19790.1
70°	1402.1	1409.1	1595.1	1783.5	2788.0	2869.4	8970.8	23591.9	24791.7	23691.8	19766.9
72.5°	1044.1	1067.3	1239.3	1625.3	2104.3	1974.2	3097.2	17492.8	19662.3	22322.3	18741.4
75°	737.1	748.8	872.0	1367.2	1569.6	1436.9	1581.2	9042.9	11823.9	17113.8	15339.6
77.5°	567.3	588.2	660.4	955.7	1546.3	1009.1	967.3	3129.7	4808.6	10338.0	10517.0
80°	306.9	344.1	476.6	690.6	1085.9	713.8	479.0	1246.3	1630.0	4834.2	4055.2
82.5°	158.2	176.7	332.5	497.6	618.5	623.2	237.2	518.5	672.0	1492.8	555.8
85°	62.8	76.8	223.2	274.4	318.6	306.9	107.0	209.3	241.8	413.9	169.7
87.5°	13.9	23.3	81.4	62.8	60.5	65.1	25.6	48.8	46.5	48.8	30.2
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°	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4	4171.4
2.5°	4197.1	4187.7	4162.2	4134.2	4101.7	4083.1	4071.5	4069.1	4052.8	4041.3	4052.8
5°	4266.8	4257.5	4208.6	4150.5	4087.8	4038.9	3992.5	3950.6	3890.1	3878.5	3873.9
7.5°	4406.4	4380.7	4301.7	4222.6	4104.1	3962.2	3790.1	3592.5	3415.8	3362.3	3336.7
10°	4578.4	4543.5	4443.6	4304.0	4041.3	3655.3	3239.1	2853.1	2546.1	2460.1	2427.5
12.5°	4773.7	4743.5	4611.0	4352.9	3778.6	3078.6	2441.5	1962.5	1664.9	1590.5	1569.6
15°	5006.2	4962.0	4778.3	4278.5	3308.8	2339.2	1676.5	1392.8	1285.9	1271.9	1258.0
17.5°	5252.7	5180.7	4927.2	4011.0	2676.4	1662.6	1295.2	1213.8	1167.3	1153.3	1146.4
20°	5478.3	5385.2	5015.5	3606.5	1999.7	1295.2	1160.3	1106.8	1065.0	1048.7	1039.4
22.5°	5703.8	5571.3	5015.5	3055.3	1499.8	1148.7	1065.0	1016.1	967.3	946.4	934.7
25°	5938.6	5761.9	4927.2	2441.5	1206.8	1053.3	974.3	920.8	878.9	853.3	844.1
27.5°	6166.5	5922.3	4724.8	1860.2	1074.3	969.6	890.5	839.4	799.9	781.3	781.3
30°	6382.8	6080.5	4441.2	1411.4	988.2	888.3	813.8	769.7	730.1	711.6	713.8
32.5°	6675.7	6280.5	4139.0	1157.9	913.8	811.5	744.0	702.2	667.4	653.4	653.4
35°	7082.6	6575.8	3878.5	1137.0	851.1	748.8	681.3	641.8	606.9	595.2	595.2
37.5°	7659.3	7052.4	3741.4	1276.5	799.9	692.9	630.2	588.2	555.8	546.4	544.1
40°	8370.9	7698.9	3815.8	1416.0	765.0	644.1	583.6	541.8	513.8	502.2	499.9
42.5°	9215.0	8496.4	4227.3	1523.0	741.8	602.2	539.5	492.9	474.4	469.7	469.7
45°	10184.5	9373.0	4857.5	1636.9	704.6	562.7	495.3	460.4	446.5	444.1	441.8
47.5°	11286.7	10335.7	5587.6	1778.8	667.4	525.5	460.4	437.2	425.5	420.9	420.9
50°	12379.5	11305.3	6338.6	1857.9	637.1	490.7	432.4	413.9	404.6	402.3	402.3
52.5°	13523.6	12302.9	6945.5	1783.5	611.5	462.7	409.3	395.2	386.0	383.7	383.7
55°	14614.1	13109.7	7050.2	1513.7	560.4	434.8	383.7	376.7	365.1	365.1	362.7
57.5°	15553.6	13514.3	6310.7	1111.5	509.2	393.0	358.1	351.1	341.8	339.5	337.1
60°	16416.2	13398.1	4871.4	748.8	453.5	351.1	325.5	320.9	311.6	299.9	297.7
62.5°	16902.1	12886.5	3332.1	488.3	397.6	306.9	288.3	286.0	265.1	241.8	237.2
65°	17085.8	11835.5	2078.8	355.8	332.5	262.7	248.8	244.2	213.9	188.4	186.0
67.5°	16925.4	10105.5	1048.7	281.4	262.7	218.5	204.6	204.6	183.7	160.4	158.2
70°	16283.7	7575.7	441.8	225.5	202.3	167.4	167.4	176.7	155.8	130.2	127.9
72.5°	14890.8	5096.9	234.8	172.1	151.2	118.6	137.1	144.1	123.2	97.7	97.7
75°	11837.8	3108.8	162.8	127.9	95.3	83.7	104.7	109.3	83.7	65.1	62.8
77.5°	8096.5	1785.8	109.3	81.4	60.5	48.8	72.1	67.4	44.2	30.2	32.6
80°	3555.3	744.0	62.8	37.2	23.3	18.6	25.6	18.6	13.9	9.3	9.3
82.5°	416.3	174.4	23.3	13.9	9.3	4.6	2.4	0.0	0.0	0.0	0.0
85°	86.0	20.9	11.6	4.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.3	4.6	2.4	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)