

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: P884790

Luminaire Tested: **NAV-SB5D-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39096 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

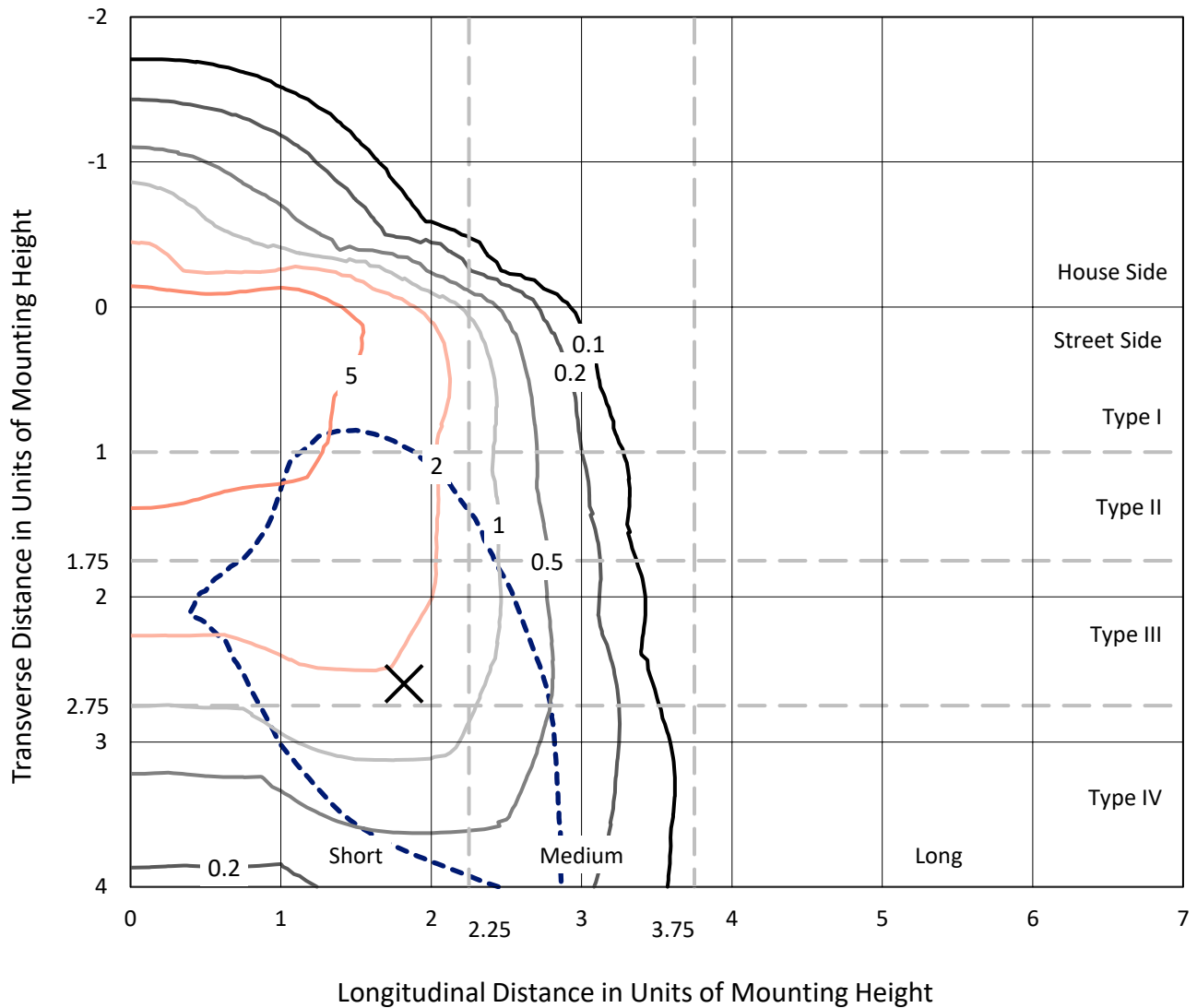
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

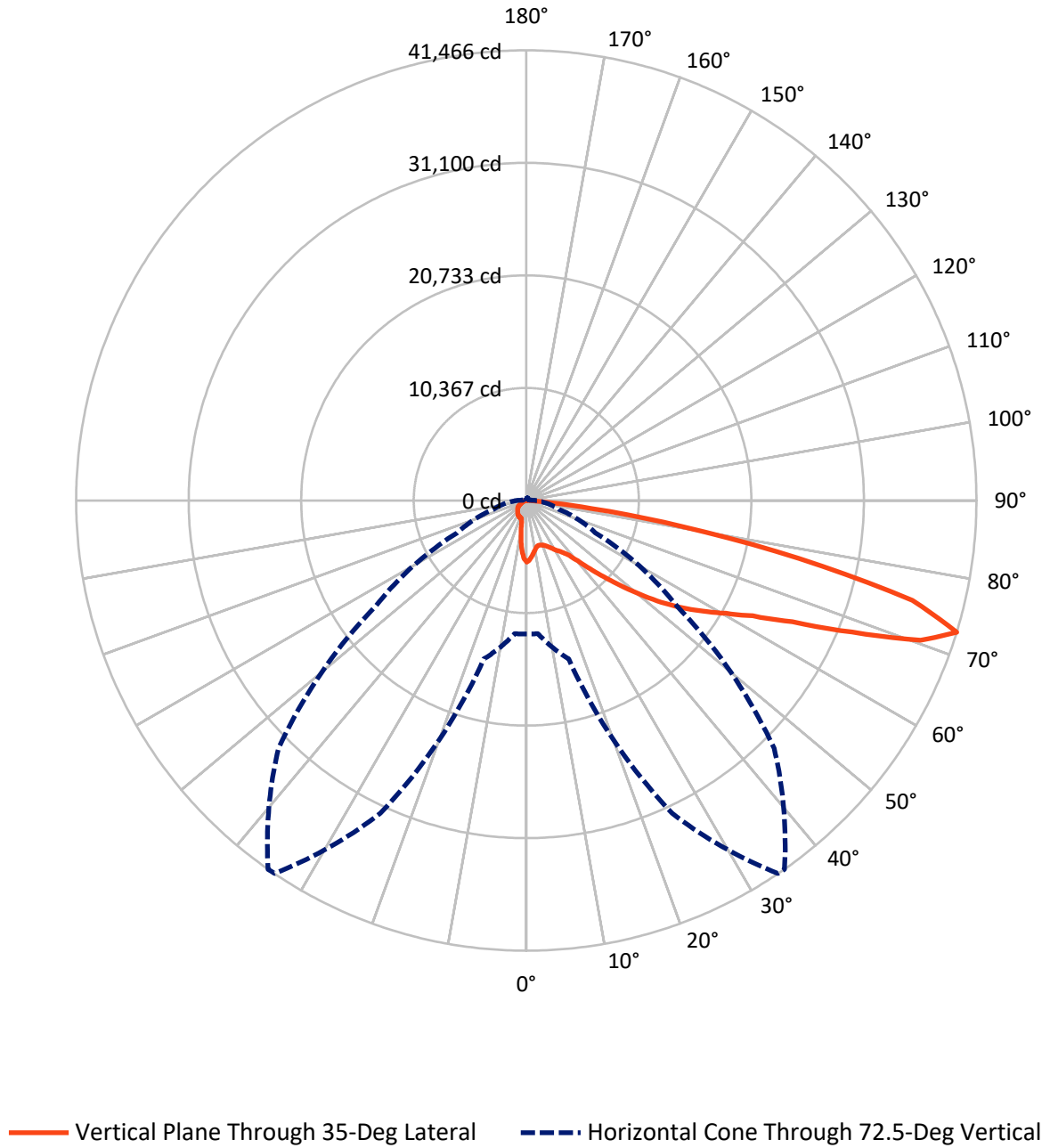
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4400.1	0.0	4400.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	34695.9	0.0	34695.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	39096.0	0.0	39096.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.6	1.2
10°-20°	1089.3	2.8
20°-30°	1769.5	4.5
30°-40°	2952.4	7.6
40°-50°	5586.0	14.3
50°-60°	8876.0	22.7
60°-70°	10980.3	28.1
70°-80°	6825.4	17.5
80°-90°	551.6	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°	39096.0	100.0
0°-180°	39096.0	100.0

Coefficient of Utilization



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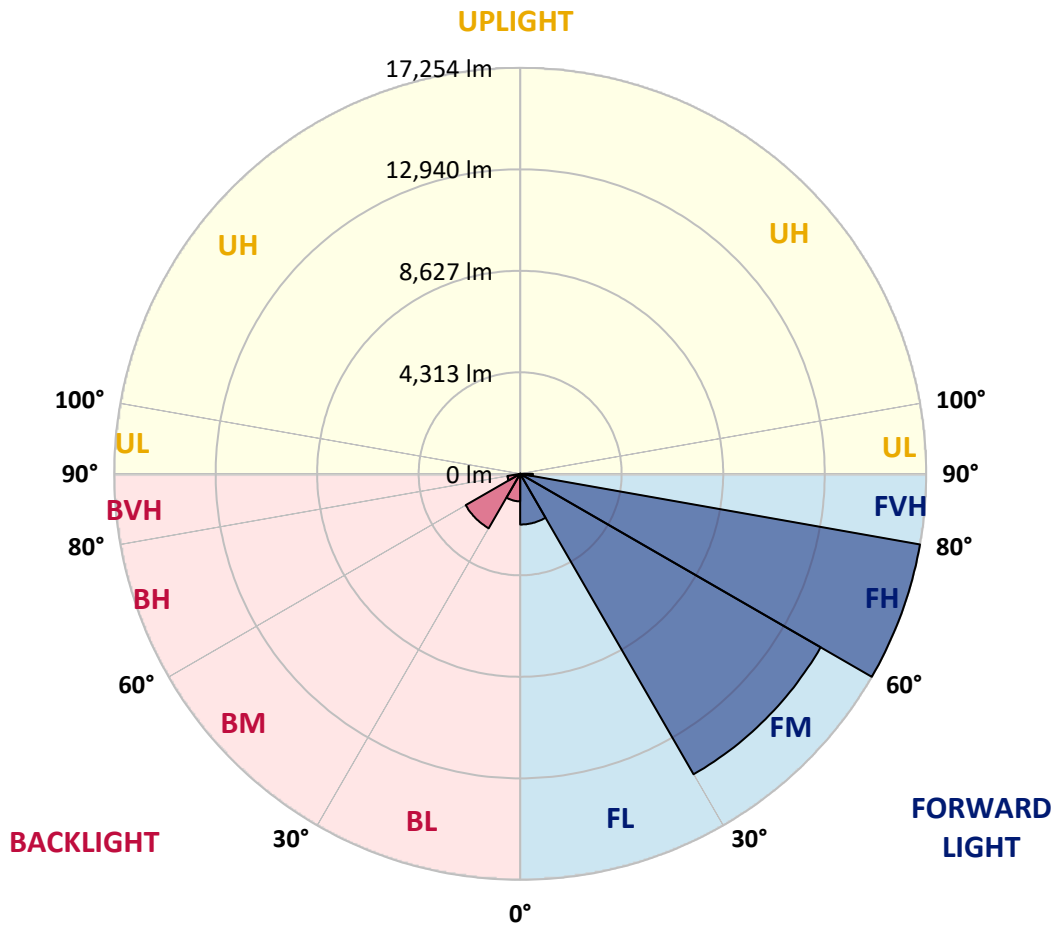
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2155.2	5.5			
FM (30°-60°)	14743.1	37.7			
FH (60°-80°)	17253.5	44.1			G5
FVH (80°-90°)	544.1	1.4			G4/750
BL (0°-30°)	1169.2	3.0	B3/2500		
BM (30°-60°)	2671.2	6.8	B3/5000		
BH (60°-80°)	552.1	1.4	B2/1000		G2/1000
BVH (80°-90°)	7.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3
2.5°	5414.2	5460.1	5468.7	5483.0	5483.0	5500.2	5528.8	5568.9	5634.8	5669.2	5692.1
5°	4990.3	5024.6	5067.6	5102.0	5167.9	5176.5	5288.2	5397.0	5548.9	5663.5	5743.7
7.5°	4563.4	4603.5	4660.8	4743.9	4829.8	4855.6	5024.6	5208.0	5448.6	5663.5	5798.1
10°	4262.6	4265.5	4317.1	4400.1	4537.6	4569.2	4775.4	5036.1	5336.9	5629.1	5849.7
12.5°	4093.6	4113.7	4136.6	4199.6	4331.4	4351.4	4572.0	4878.5	5225.2	5609.0	5909.8
15°	4093.6	4107.9	4122.3	4153.8	4259.8	4277.0	4471.8	4778.3	5167.9	5617.6	6007.2
17.5°	4136.6	4159.5	4148.0	4185.3	4297.0	4308.5	4480.3	4749.6	5165.0	5672.1	6156.2
20°	4239.7	4256.9	4234.0	4256.9	4368.6	4391.5	4569.2	4804.1	5213.7	5766.6	6342.4
22.5°	4403.0	4411.6	4357.2	4374.4	4488.9	4517.6	4723.8	4958.7	5331.2	5918.4	6591.6
25°	4609.3	4626.4	4543.4	4563.4	4672.3	4706.7	4944.4	5190.8	5517.4	6127.5	6909.6
27.5°	4847.0	4855.6	4784.0	4781.1	4921.5	4970.2	5210.8	5477.3	5766.6	6391.1	7310.6
30°	5119.2	5145.0	5076.2	5064.7	5242.3	5282.5	5520.2	5829.6	6133.3	6786.4	7880.7
32.5°	5334.0	5354.1	5314.0	5342.6	5523.1	5554.6	5895.5	6328.1	6709.1	7347.9	8657.0
35°	5643.4	5654.9	5563.2	5614.8	5821.0	5901.2	6408.3	7027.0	7433.8	8052.6	9671.1
37.5°	6763.5	6763.5	6373.9	6118.9	6316.6	6388.2	7110.1	7906.5	8327.6	8997.9	10948.8
40°	8313.3	8287.5	7717.4	7196.1	7170.3	7310.6	8109.9	9015.1	9482.1	10132.3	12386.8
42.5°	9966.2	9926.1	9149.8	8634.1	8548.2	8596.9	9264.3	10381.6	10857.1	11516.0	13933.8
45°	11432.9	11421.4	10711.0	10017.8	9863.1	10017.8	10705.3	11980.1	12321.0	13014.2	15477.8
47.5°	12661.9	12661.9	12143.3	11690.7	11610.5	11702.2	12656.1	13753.3	13721.8	14609.8	16981.8
50°	14077.0	14065.5	13572.8	13378.0	13461.1	13590.0	14902.0	15621.1	15171.3	16176.8	18325.3
52.5°	15068.2	15136.9	14967.9	14936.4	15360.4	15583.8	17182.3	17448.7	16469.0	17663.6	19330.8
55°	15853.1	15933.3	16128.1	16348.7	17165.1	17457.3	19391.0	19181.8	17554.7	18952.7	19909.5
57.5°	16964.6	16850.0	17150.8	17586.2	18906.8	19259.2	21530.9	20817.6	18428.4	19998.3	19972.5
60°	18313.8	18331.0	18382.6	18932.6	20645.7	21098.3	23639.3	22364.5	18989.9	20640.0	19273.5
62.5°	19935.3	19961.0	20067.0	20912.1	22980.4	23407.2	25885.2	23630.7	19247.7	20459.5	17468.8
65°	19823.5	19932.4	21115.5	24006.0	26529.7	26950.8	28506.4	24518.7	18858.1	18809.4	14223.1
67.5°	18058.9	18236.5	20216.0	27701.4	31880.9	32350.7	31674.7	24693.5	17176.6	14627.0	9278.7
70°	15744.2	15807.3	18187.8	31024.4	38077.2	38552.8	34510.7	22771.3	13034.3	8158.6	4156.6
72.5°	12295.2	12309.5	15102.6	31795.0	41440.3	41466.1	32284.9	16904.4	7009.9	3134.0	1443.8
75°	8783.1	8697.1	10115.2	25784.9	36458.7	36750.9	24203.6	7929.4	2678.5	1481.0	719.0
77.5°	4709.5	4804.1	5723.6	15291.6	25186.2	25684.6	13206.1	2286.0	1363.6	1008.4	475.5
80°	1455.3	1535.5	2346.2	7001.3	14266.1	14566.9	4895.7	1017.0	951.1	719.0	312.2
82.5°	458.3	475.5	1094.3	2942.0	5921.3	6058.8	1418.0	575.8	650.3	475.5	183.3
85°	131.8	134.6	487.0	1097.2	1463.8	1492.5	398.2	223.4	372.4	295.1	94.5
87.5°	14.3	45.8	183.3	183.3	128.9	126.0	43.0	48.7	106.0	37.2	17.2
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°	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3	5666.3
2.5°	5677.8	5680.6	5643.4	5580.4	5511.6	5454.3	5382.7	5325.4	5285.3	5273.9	5293.9
5°	5717.9	5697.8	5591.8	5399.9	5170.7	4973.1	4752.5	4577.7	4463.2	4414.5	4431.6
7.5°	5778.0	5720.7	5488.7	5110.6	4672.3	4282.7	3887.4	3580.8	3386.0	3288.6	3303.0
10°	5829.6	5715.0	5316.8	4692.3	4022.0	3431.9	2899.0	2529.5	2323.2	2225.9	2228.7
12.5°	5878.3	5712.2	5093.4	4196.7	3288.6	2566.7	2071.2	1887.8	1830.5	1810.5	1804.7
15°	5970.0	5720.7	4812.6	3629.5	2558.2	1939.4	1758.9	1756.0	1767.5	1761.8	1758.9
17.5°	6096.0	5729.3	4494.7	3028.0	1973.8	1710.2	1701.6	1727.4	1744.6	1736.0	1733.1
20°	6259.3	5763.7	4156.6	2432.1	1695.9	1652.9	1673.0	1695.9	1710.2	1695.9	1693.0
22.5°	6488.5	5823.9	3787.1	1953.7	1607.1	1618.5	1635.7	1661.5	1675.8	1655.8	1652.9
25°	6769.2	5918.4	3423.3	1698.8	1564.1	1578.4	1604.2	1632.9	1650.1	1630.0	1627.1
27.5°	7133.0	6070.2	3088.1	1641.5	1521.1	1529.7	1567.0	1609.9	1632.9	1607.1	1607.1
30°	7660.1	6319.5	2798.8	1667.2	1495.4	1475.3	1526.9	1587.0	1612.8	1589.9	1587.0
32.5°	8359.1	6671.8	2621.2	1707.3	1483.9	1412.3	1461.0	1538.3	1581.3	1567.0	1567.0
35°	9275.8	7207.5	2552.4	1753.2	1475.3	1346.4	1380.8	1463.8	1538.3	1552.7	1552.7
37.5°	10387.3	7952.3	2572.5	1773.2	1449.5	1292.0	1309.2	1380.8	1478.2	1524.0	1535.5
40°	11650.6	8820.3	2687.1	1753.2	1420.9	1246.1	1249.0	1303.4	1389.4	1458.1	1481.0
42.5°	12954.0	9834.4	2899.0	1678.7	1395.1	1206.0	1197.4	1234.7	1292.0	1340.7	1360.7
45°	14194.4	10877.2	3108.2	1575.6	1363.6	1165.9	1145.9	1160.2	1171.7	1191.7	1203.2
47.5°	15277.3	11610.5	3048.0	1481.0	1320.6	1120.1	1085.7	1080.0	1045.6	1042.7	1039.9
50°	16025.0	11770.9	2707.1	1386.5	1257.6	1068.5	1014.1	979.7	919.6	890.9	893.8
52.5°	16262.7	11137.8	2211.5	1292.0	1154.5	999.8	922.4	868.0	793.5	767.7	764.9
55°	15947.6	9897.4	1767.5	1177.4	1011.2	908.1	822.2	750.5	690.4	658.9	658.9
57.5°	15177.0	8319.0	1398.0	1042.7	859.4	805.0	719.0	647.4	595.9	564.3	558.6
60°	13899.4	6605.9	1105.8	882.3	733.4	693.3	604.4	558.6	512.8	475.5	466.9
62.5°	11960.0	4715.3	868.0	699.0	613.0	567.2	515.6	481.3	426.8	375.3	366.7
65°	9333.1	2884.7	670.3	512.8	492.7	469.8	438.3	406.8	340.9	289.3	280.7
67.5°	5886.9	1366.4	478.4	386.7	389.6	378.1	363.8	338.0	289.3	243.5	237.8
70°	2592.5	661.7	315.1	295.1	289.3	289.3	300.8	292.2	246.4	203.4	194.8
72.5°	882.3	355.2	234.9	223.4	209.1	206.3	252.1	243.5	197.7	157.6	149.0
75°	461.2	237.8	171.9	160.4	126.0	151.8	200.5	189.1	140.4	103.1	94.5
77.5°	300.8	169.0	117.5	103.1	71.6	100.3	149.0	131.8	83.1	51.6	45.8
80°	189.1	111.7	68.8	48.7	34.4	54.4	80.2	57.3	31.5	11.5	8.6
82.5°	100.3	57.3	25.8	17.2	14.3	17.2	20.1	14.3	5.7	0.0	0.0
85°	40.1	20.1	8.6	5.7	2.9	0.0	5.7	2.9	0.0	0.0	0.0
87.5°	14.3	2.9	0.0	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)