

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: P969353

Luminaire Tested: **NAV-SB5D-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969353
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42938.3 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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



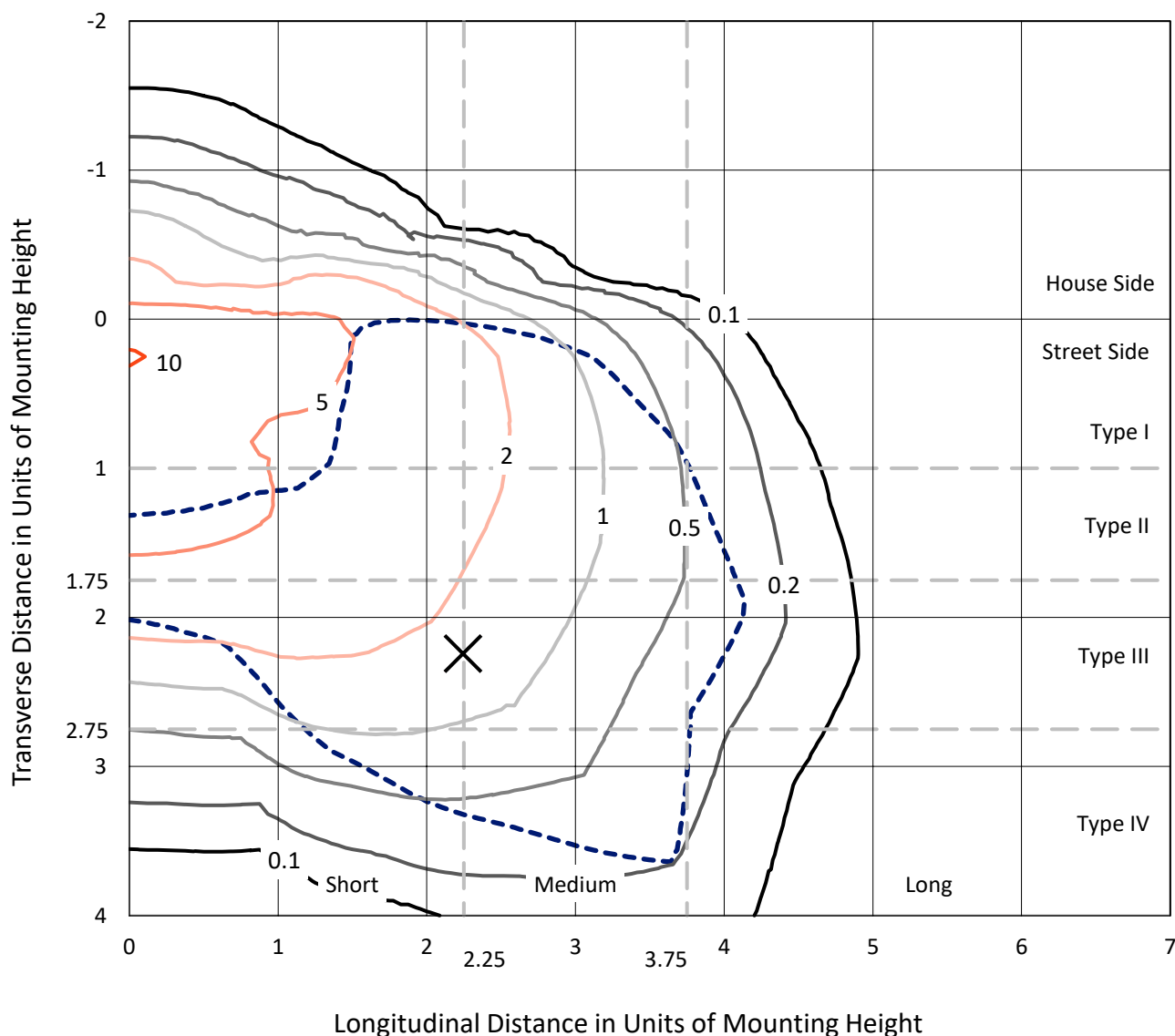
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

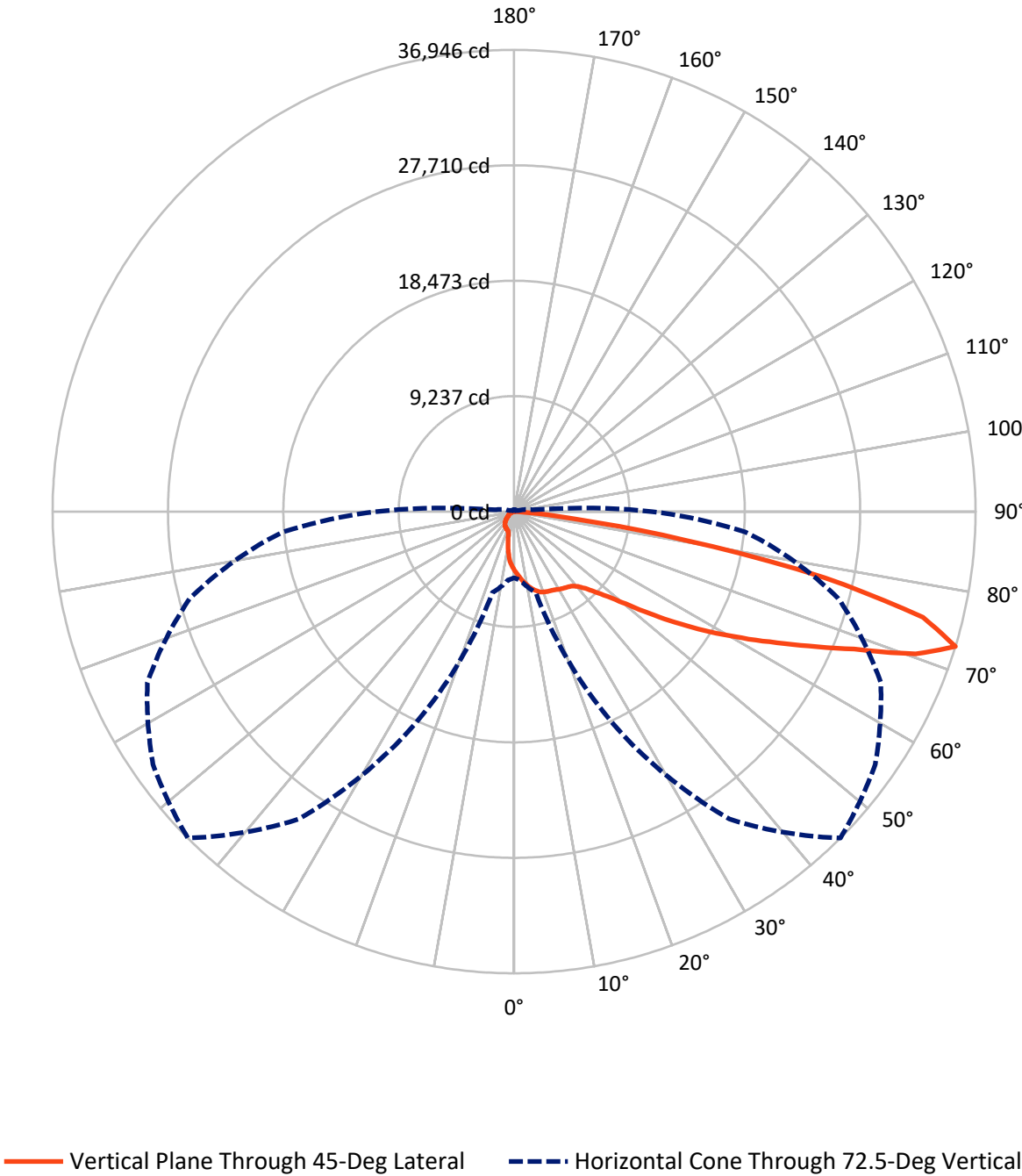


Based on 25 foot mounting height. Maximum calculated value = 10.3 fc

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	4511.6	0.0	4511.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	38426.6	0.0	38426.6
	% Fixture	89.5	0.0	89.5
Total	Lumens	42938.3	0.0	42938.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.2	1.0
10°-20°	1295.3	3.0
20°-30°	2127.1	5.0
30°-40°	3016.7	7.0
40°-50°	4986.4	11.6
50°-60°	8957.4	20.9
60°-70°	12437.9	29.0
70°-80°	9022.0	21.0
80°-90°	652.3	1.5
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°	42938.3	100.0
0°-180°	42938.3	100.0

Coefficient of Utilization



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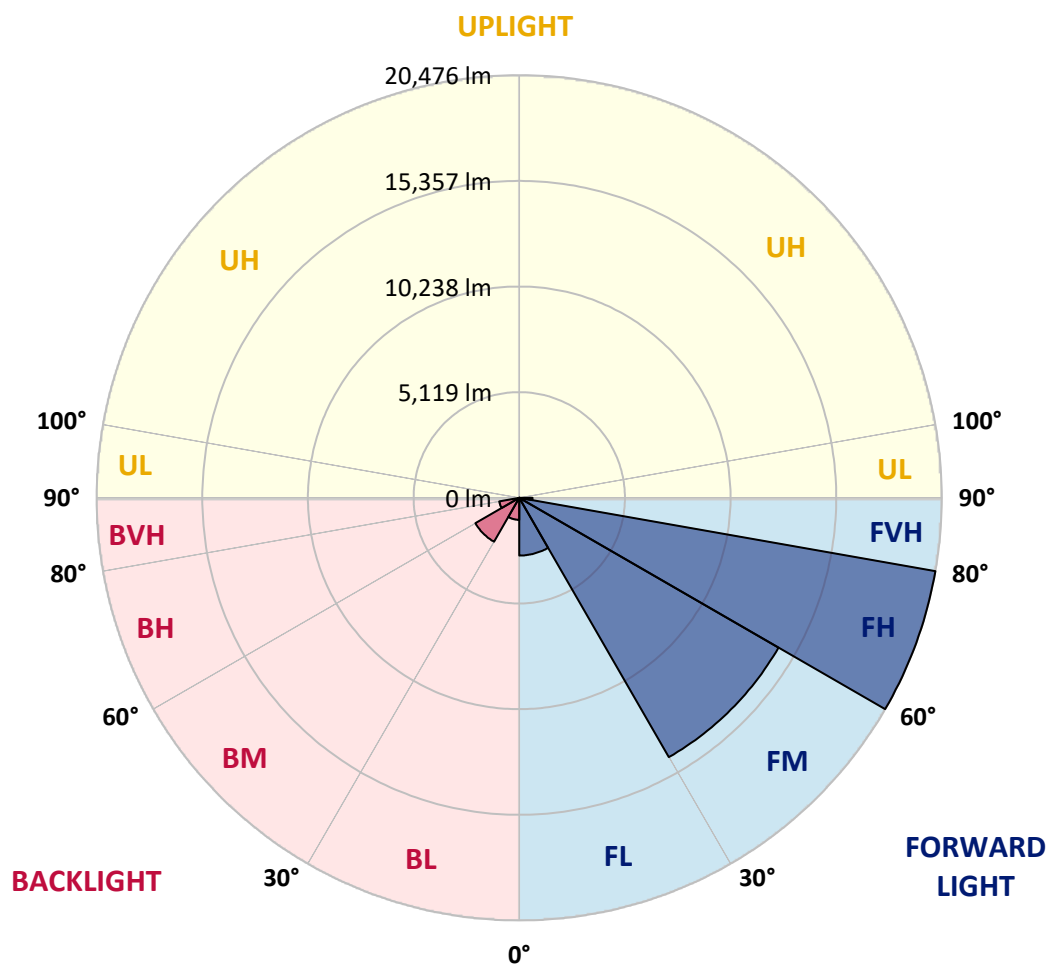
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2797.0	6.5			
FM	(30°-60°)	14506.8	33.8			
FH	(60°-80°)	20476.0	47.7			G5
FVH	(80°-90°)	646.8	1.5			G4/750
BL	(0°-30°)	1068.6	2.5	B3/2500		
BM	(30°-60°)	2453.7	5.7	B2/2500		
BH	(60°-80°)	983.8	2.3	B2/1000		G2/1000
BVH	(80°-90°)	5.5	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°	35°	45°	46°	55°	65°	75°	85°
0°	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9
2.5°	5137.7	5146.5	5140.7	5105.5	5046.9	5014.6	4997.1	4938.4	4900.3	4833.0	4762.6
5°	5609.6	5644.8	5624.3	5554.0	5442.5	5363.4	5339.9	5219.8	5111.4	4985.3	4838.8
7.5°	6110.7	6128.4	6090.2	5999.4	5850.0	5715.1	5694.6	5527.5	5354.6	5161.2	4961.9
10°	6544.5	6565.0	6506.4	6374.6	6204.5	6037.5	6008.2	5823.5	5618.4	5381.0	5126.0
12.5°	6908.0	6928.5	6852.2	6694.0	6506.4	6333.5	6304.3	6110.7	5885.1	5621.3	5304.8
15°	7183.5	7221.5	7118.9	6949.0	6746.8	6573.8	6559.2	6368.7	6148.9	5855.8	5518.7
17.5°	7344.6	7382.8	7286.0	7080.9	6908.0	6761.4	6743.9	6585.5	6380.4	6099.1	5726.9
20°	7371.1	7406.2	7303.6	7124.9	6981.3	6864.0	6855.2	6740.9	6591.5	6321.8	5952.5
22.5°	7291.8	7335.8	7242.0	7098.4	6998.8	6937.3	6925.5	6861.0	6776.1	6547.5	6163.5
25°	7209.8	7245.0	7174.7	7048.6	6995.9	6990.0	6998.8	6987.1	6969.5	6776.1	6409.7
27.5°	7204.0	7242.0	7162.9	7042.8	7013.5	7075.1	7083.8	7139.5	7154.2	6984.1	6647.1
30°	7253.8	7280.2	7204.0	7077.9	7063.3	7204.0	7206.9	7306.5	7330.0	7160.0	6881.5
32.5°	7362.3	7391.6	7315.3	7130.7	7110.2	7306.5	7315.3	7447.2	7485.4	7347.6	7127.7
35°	7617.2	7652.3	7564.5	7277.3	7204.0	7403.3	7429.6	7585.0	7661.2	7546.9	7382.8
37.5°	8253.2	8150.6	8030.5	7573.2	7417.9	7555.7	7599.7	7781.4	7916.2	7784.3	7687.6
40°	9832.9	9510.6	9135.4	8077.4	7793.1	7881.0	7916.2	8097.9	8282.5	8153.6	8106.6
42.5°	12204.0	11823.0	11219.2	9238.0	8358.8	8402.6	8429.1	8587.3	8848.2	8745.6	8757.3
45°	14317.1	14179.3	13563.8	11219.2	9416.8	9199.9	9232.1	9314.2	9698.1	9660.0	9736.2
47.5°	15940.8	15861.7	15386.9	13493.5	11204.6	10175.8	10266.7	10304.8	10858.7	10993.5	11198.7
50°	17189.4	17160.0	16735.1	15515.8	13540.5	11614.9	11647.1	11565.1	12394.5	12728.6	13118.4
52.5°	18367.5	18467.1	18153.6	17394.5	16034.6	13499.4	13493.5	13106.7	14226.3	14730.4	15395.6
55°	19431.4	19466.6	19498.8	19311.2	18543.4	15644.8	15589.1	14956.0	16351.1	16872.7	17593.7
57.5°	20430.8	20445.5	20732.7	21116.6	21154.7	17948.4	17845.8	17086.8	18672.3	19044.5	19487.1
60°	21102.0	21169.3	21776.0	22842.8	23308.9	20325.3	20269.6	19495.9	21034.5	21207.5	21125.5
62.5°	20134.8	20545.1	22075.0	24191.0	25342.9	22960.1	22933.8	22206.9	23519.9	23379.2	22675.8
65°	16298.3	16993.0	19683.5	25102.6	27338.8	25902.7	25940.8	25167.0	26072.6	25615.5	23936.1
67.5°	11401.0	12133.6	15316.5	25175.8	29569.1	29358.2	29577.9	28364.5	28783.6	27757.9	24235.0
70°	7883.9	8262.0	10334.0	23599.0	31307.1	34117.7	34111.9	32291.9	31480.0	28733.8	22711.0
72.5°	5301.9	5498.2	6711.6	18722.1	30029.2	36946.0	36776.1	35293.0	32388.6	26872.7	18555.1
75°	2236.2	2379.8	3106.7	10521.6	23757.2	33801.2	33341.1	31189.8	28777.8	21160.6	11576.8
77.5°	709.3	770.8	1225.1	3766.2	13086.2	25407.4	24920.8	19478.3	19287.7	10615.4	4232.1
80°	337.0	392.8	688.7	1512.3	5149.5	13818.8	13751.4	8836.4	8297.2	2866.3	849.9
82.5°	146.6	172.9	381.0	808.9	2303.6	4929.6	5029.3	3007.0	2488.3	1087.3	260.9
85°	46.8	61.5	175.9	372.2	973.0	1225.1	1210.4	715.1	1002.3	592.0	90.8
87.5°	0.0	0.0	58.6	85.0	99.6	70.3	79.1	61.5	278.4	164.1	32.3
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°	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9	4703.9
2.5°	4727.4	4680.6	4598.5	4522.3	4454.9	4387.4	4346.4	4287.8	4281.9	4281.9	4296.6
5°	4759.7	4683.4	4537.0	4381.6	4202.8	4032.9	3862.8	3698.7	3645.9	3607.9	3625.4
7.5°	4853.5	4733.2	4501.8	4205.8	3865.8	3493.5	3232.7	2951.4	2842.9	2784.3	2793.1
10°	4988.3	4824.2	4472.5	3953.7	3402.7	2895.6	2523.4	2218.6	2101.5	2051.5	2051.5
12.5°	5137.7	4935.5	4419.7	3640.1	2895.6	2288.9	1925.6	1784.8	1767.3	1767.3	1767.3
15°	5316.6	5070.4	4328.9	3270.8	2365.2	1811.3	1682.3	1688.2	1705.7	1717.5	1717.5
17.5°	5501.2	5214.0	4185.2	2857.6	1896.2	1629.5	1632.5	1641.2	1655.9	1667.7	1667.7
20°	5700.4	5357.6	3994.7	2418.0	1626.6	1576.8	1585.6	1594.4	1606.1	1611.9	1614.9
22.5°	5914.5	5492.4	3769.0	1987.1	1535.8	1532.8	1535.8	1544.6	1559.2	1559.2	1565.1
25°	6143.0	5641.8	3511.1	1673.5	1488.8	1488.8	1494.8	1500.6	1512.3	1512.3	1515.3
27.5°	6377.4	5779.6	3238.6	1509.4	1447.8	1444.9	1444.9	1453.7	1459.6	1462.5	1465.4
30°	6635.4	5940.8	2966.0	1474.3	1415.6	1401.0	1392.2	1398.0	1403.8	1406.8	1412.7
32.5°	6899.2	6096.1	2722.7	1488.8	1383.3	1357.0	1327.7	1321.8	1321.8	1333.5	1342.3
35°	7192.2	6266.1	2535.1	1538.7	1365.8	1292.5	1245.6	1219.2	1222.1	1239.7	1248.6
37.5°	7544.0	6471.2	2397.4	1582.6	1354.0	1219.2	1143.0	1110.8	1090.3	1110.8	1104.9
40°	8004.1	6773.1	2297.7	1617.9	1339.4	1134.3	1031.7	978.9	940.7	952.5	946.7
42.5°	8681.1	7248.0	2259.7	1620.7	1307.2	1034.5	917.4	847.1	791.3	794.3	782.5
45°	9630.7	7998.3	2456.0	1582.6	1236.8	926.2	797.1	703.4	668.2	659.5	647.7
47.5°	10932.0	9091.4	2910.3	1503.5	1134.3	820.6	680.0	600.9	574.4	559.8	551.0
50°	12675.9	10495.3	3414.4	1415.6	1031.7	721.0	583.2	533.4	515.8	501.1	498.3
52.5°	14698.1	11919.7	3827.7	1327.7	929.1	633.0	521.7	492.4	477.8	466.0	463.1
55°	16553.3	12901.5	3804.2	1233.9	829.4	562.7	477.8	460.1	442.6	430.8	425.0
57.5°	17708.1	13039.2	3136.0	1131.3	715.1	507.1	436.6	425.0	404.5	389.8	386.8
60°	18238.5	12253.8	2198.1	996.5	600.9	454.3	392.8	386.8	360.5	340.0	334.2
62.5°	18335.3	10794.3	1465.4	829.4	501.1	404.5	348.8	340.0	304.8	269.7	252.0
65°	17942.5	8707.5	1014.0	647.7	427.9	351.7	299.0	281.4	243.2	208.1	196.4
67.5°	16699.8	6113.7	706.3	466.0	363.5	278.4	237.4	231.5	202.2	172.9	164.1
70°	14422.6	3484.8	471.9	348.8	287.2	190.5	187.6	193.4	164.1	140.6	128.9
72.5°	11058.0	1594.4	293.0	255.0	196.4	128.9	149.4	152.4	126.1	105.5	93.8
75°	6509.4	682.9	184.6	164.1	99.6	85.0	108.4	111.4	85.0	67.4	58.6
77.5°	2215.7	257.9	117.3	96.8	49.8	46.8	70.3	70.3	46.8	26.3	20.5
80°	504.1	96.8	58.6	38.1	23.5	20.5	23.5	20.5	11.7	3.0	0.0
82.5°	143.6	38.1	23.5	14.7	8.8	8.8	3.0	0.0	0.0	0.0	0.0
85°	41.0	17.6	5.8	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.6	3.0	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)