

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: P967209

Luminaire Tested: **NAV-SB4D-735-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967209
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34802.9 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

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

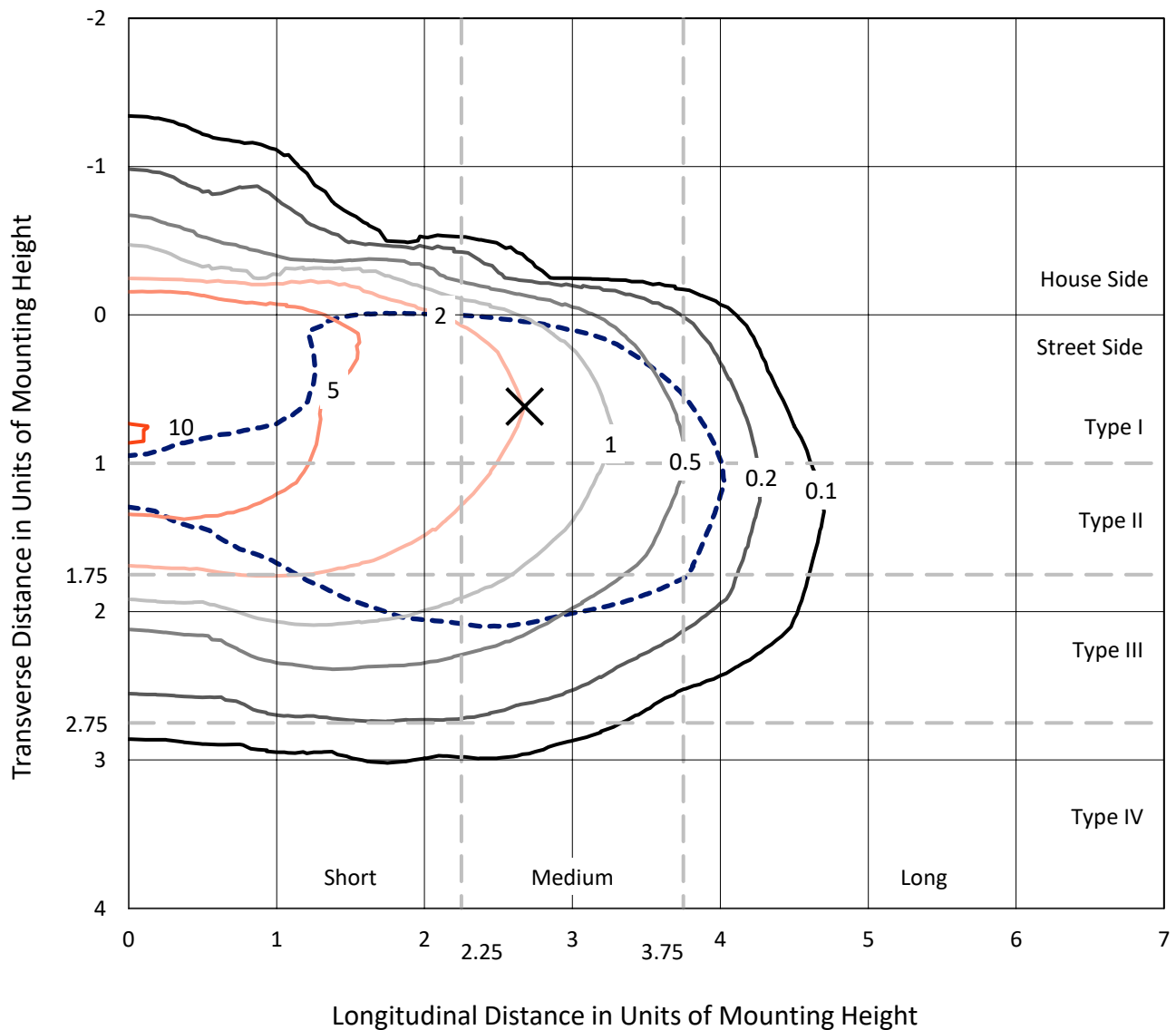


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Iso-Footcandle Lines of Horizontal Illumination

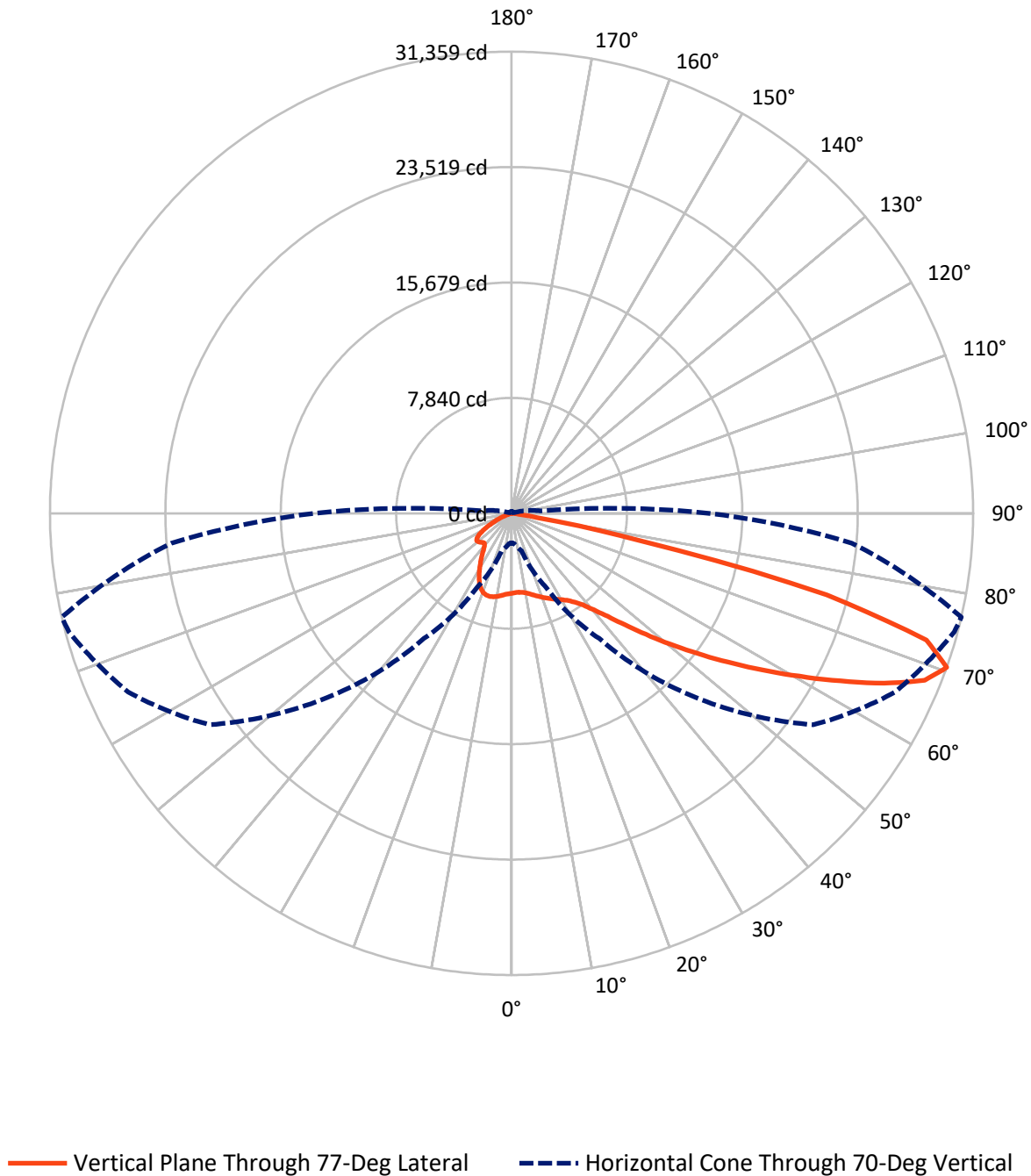
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3668.7	0.0	3668.7
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	31134.1	0.0	31134.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	34802.9	0.0	34802.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.9	1.3
10°-20°	1110.6	3.2
20°-30°	1717.9	4.9
30°-40°	3117.2	9.0
40°-50°	5884.0	16.9
50°-60°	8501.9	24.4
60°-70°	9050.0	26.0
70°-80°	4795.9	13.8
80°-90°	157.5	0.5
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°	34802.9	100.0
0°-180°	34802.9	100.0

Coefficient of Utilization



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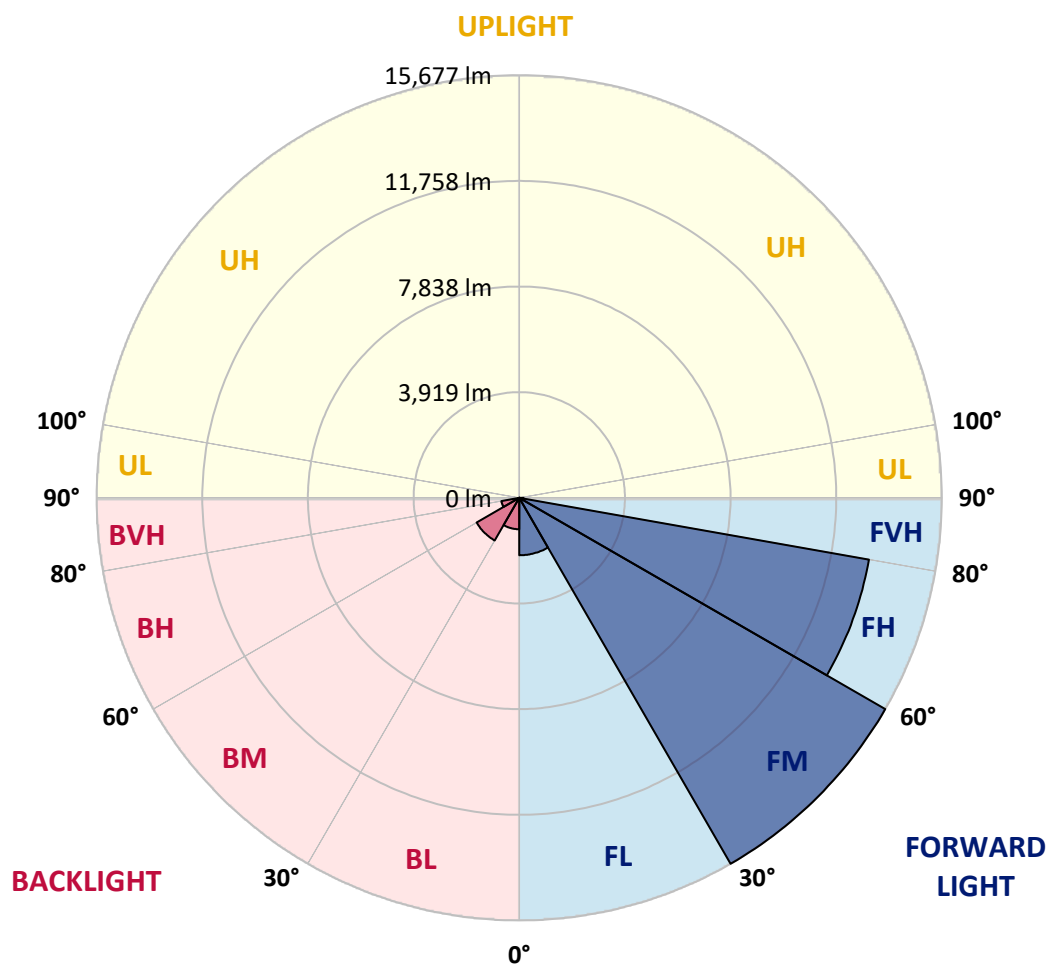
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2130.8	6.1			
FM	(30°-60°)	15676.8	45.0			
FH	(60°-80°)	13173.4	37.9			G5
FVH	(80°-90°)	153.2	0.4			G2/225
BL	(0°-30°)	1165.6	3.3	B3/2500		
BM	(30°-60°)	1826.3	5.2	B2/2500		
BH	(60°-80°)	672.6	1.9	B2/1000		G2/1000
BVH	(80°-90°)	4.2	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6
2.5°	5096.7	5142.9	5136.3	5167.0	5178.1	5222.1	5265.9	5325.3	5391.3	5389.0	5433.0
5°	4808.8	4855.0	4866.0	4907.7	4960.5	5028.6	5118.7	5237.4	5360.4	5380.2	5468.2
7.5°	4468.2	4516.6	4545.1	4628.6	4725.4	4866.0	5013.3	5186.8	5391.3	5419.8	5589.0
10°	4127.5	4171.4	4208.9	4327.5	4481.4	4690.2	4929.7	5180.2	5454.9	5496.8	5736.3
12.5°	3916.5	3958.2	4000.1	4103.3	4294.5	4549.5	4874.8	5211.0	5560.5	5619.9	5936.3
15°	3841.8	3879.1	3912.1	4004.5	4182.4	4472.6	4863.7	5274.8	5694.6	5773.7	6178.1
17.5°	3852.8	3872.6	3894.5	3964.9	4138.5	4437.4	4883.5	5384.6	5852.7	5923.2	6419.9
20°	3916.5	3927.5	3929.7	3978.0	4131.9	4433.0	4923.1	5490.1	6002.3	6096.8	6659.4
22.5°	3997.8	4002.2	3997.8	4030.8	4173.7	4465.9	4975.9	5617.6	6169.3	6257.2	6901.1
25°	4378.1	4294.5	4189.1	4125.3	4244.0	4529.7	5055.0	5789.1	6351.7	6437.4	7136.4
27.5°	5558.3	5318.7	4940.7	4516.6	4389.0	4622.0	5164.9	5962.7	6536.3	6613.2	7389.1
30°	7474.8	7160.5	6518.7	5562.7	4855.0	4815.4	5307.8	6136.3	6731.9	6815.4	7659.4
32.5°	9395.7	9318.8	8578.1	7255.1	5903.4	5246.2	5545.1	6371.5	6991.2	7057.2	8024.2
35°	11338.6	11182.5	10575.9	9268.3	7518.8	6123.1	5940.7	6679.2	7331.9	7406.6	8556.1
37.5°	12826.4	12731.9	12356.2	11279.2	9435.2	7477.0	6617.6	7156.1	7826.4	7909.9	9237.4
40°	14140.8	14096.8	13969.3	13259.4	11578.1	9248.5	7670.4	7894.6	8512.1	8611.0	10072.6
42.5°	15173.8	15277.0	15349.6	15151.8	13787.0	11270.4	9085.8	8932.0	9468.2	9569.3	11136.3
45°	16230.9	16266.0	16558.4	16844.1	15980.4	13384.8	10681.4	10147.3	10657.2	10782.5	12411.1
47.5°	16910.0	17050.7	17565.0	18068.3	17824.3	15481.4	12395.7	11582.5	12035.2	12270.5	13839.7
50°	16960.6	17226.6	17934.2	18811.1	19167.2	17477.1	14259.5	13217.7	13699.0	13958.3	15365.0
52.5°	16118.8	16532.0	17628.7	18912.3	19892.5	19167.2	16186.9	14852.9	15470.4	15808.9	16947.4
55°	12358.3	12899.0	16479.2	18362.8	19921.1	20448.5	18063.9	16556.2	17444.1	17826.5	18657.3
57.5°	10767.1	11039.7	12956.1	17408.9	19391.4	20965.0	19760.6	18178.2	19591.3	20066.1	20272.7
60°	8958.3	9316.5	10866.0	15848.4	18672.6	21015.6	21259.5	20270.5	21918.9	22452.9	21754.0
62.5°	6088.0	6477.0	8017.7	13167.2	17690.3	20991.4	22488.1	22424.3	24505.7	25079.3	23009.0
65°	3771.5	4015.4	5030.8	10751.7	16316.7	21017.7	23773.8	25039.7	27235.4	27817.8	23980.4
67.5°	2980.3	3092.3	3622.0	8255.0	13949.5	20424.4	25057.4	27499.1	29804.6	30266.2	24277.1
70°	2002.2	2070.4	2635.2	5534.1	10378.1	17685.9	25033.2	28734.3	31127.7	31358.5	23195.7
72.5°	1054.9	1107.7	1540.7	2562.7	6268.2	12571.5	21101.3	27257.4	29811.2	29463.9	19826.6
75°	527.5	615.4	1037.4	1301.1	2677.0	7011.0	13103.4	21490.3	23463.9	22118.9	12721.0
77.5°	400.0	483.5	857.1	857.1	931.8	2360.5	5549.5	11721.0	10811.1	9002.3	3734.1
80°	254.9	329.6	749.5	648.3	389.0	600.0	1446.2	3283.6	2296.7	1747.3	679.2
82.5°	149.4	215.4	624.2	428.6	217.6	222.0	408.8	698.9	595.6	463.7	208.8
85°	59.3	140.6	428.6	169.2	85.7	54.9	123.1	149.4	123.1	92.4	52.8
87.5°	0.0	33.0	74.7	0.0	6.6	4.4	8.8	11.0	11.0	8.8	17.6
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°	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6	5428.6
2.5°	5452.8	5457.2	5470.4	5472.6	5441.8	5402.3	5386.9	5380.2	5353.9	5351.7	5356.1
5°	5518.7	5538.5	5518.7	5461.6	5325.3	5134.1	4989.1	4870.4	4762.7	4729.8	4710.0
7.5°	5650.6	5670.4	5611.1	5386.9	5044.0	4663.8	4320.9	4079.2	3861.6	3780.2	3747.3
10°	5839.6	5866.0	5679.2	5226.4	4619.8	4008.8	3428.6	3019.9	2701.1	2571.4	2516.5
12.5°	6077.0	6088.0	5716.5	4982.4	4068.1	3195.6	2373.7	1936.3	1652.7	1547.2	1514.3
15°	6338.5	6323.1	5720.9	4650.6	3316.5	2259.4	1549.5	1272.5	1158.2	1123.1	1123.1
17.5°	6613.2	6549.5	5633.0	4171.4	2492.3	1545.1	1149.4	1083.5	1063.7	1054.9	1052.8
20°	6883.6	6740.7	5472.6	3545.1	1789.0	1153.8	1044.0	1024.2	1013.2	1008.8	1004.4
22.5°	7129.7	6885.7	5197.9	2817.6	1298.9	1019.8	986.9	969.2	949.5	940.6	938.5
25°	7369.3	6969.3	4811.0	2138.5	1039.6	953.9	927.5	894.5	868.2	857.1	852.8
27.5°	7602.2	7022.1	4327.5	1582.4	927.5	892.4	844.0	797.9	778.1	773.7	769.3
30°	7850.6	7039.6	3778.0	1180.2	859.4	815.4	745.1	692.3	681.3	683.6	683.6
32.5°	8153.9	7066.0	3224.2	967.1	802.2	723.0	639.6	584.7	575.8	584.7	582.4
35°	8516.5	7118.7	2690.1	890.1	751.6	628.5	538.4	492.3	483.5	490.2	487.9
37.5°	9008.8	7204.4	2191.2	874.7	709.9	549.5	452.7	415.4	415.4	417.6	415.4
40°	9663.8	7433.0	1745.1	863.8	687.9	490.2	382.4	367.1	373.6	378.0	378.0
42.5°	10461.7	7918.7	1443.9	850.5	663.8	463.7	347.3	340.7	351.7	356.1	356.1
45°	11356.2	8534.2	1338.4	828.6	641.8	481.3	331.9	323.1	336.3	338.5	340.7
47.5°	12281.4	9136.3	1325.3	804.4	619.8	507.7	327.5	307.7	323.1	325.2	327.5
50°	13217.7	9529.7	1338.4	767.0	584.7	507.7	329.6	292.3	305.4	312.1	314.3
52.5°	14160.6	9709.9	1329.7	685.7	523.1	476.9	329.6	279.1	292.3	296.7	296.7
55°	15074.9	9674.8	1195.7	564.9	443.9	422.0	320.9	268.1	277.0	279.1	279.1
57.5°	15797.9	9184.7	947.3	439.5	360.5	351.7	292.3	254.9	261.6	259.3	259.3
60°	16175.9	8107.7	676.9	338.5	283.5	277.0	257.2	237.4	241.8	230.7	228.6
62.5°	16180.3	6683.6	452.7	268.1	226.4	219.8	219.8	213.2	208.8	186.9	180.2
65°	15835.3	5103.4	301.1	213.2	182.4	171.4	184.6	182.4	167.1	136.2	131.9
67.5°	15052.8	3345.1	228.6	167.1	140.6	134.1	147.3	153.9	142.9	114.3	112.1
70°	13444.1	1947.3	189.0	129.7	105.5	98.9	118.7	131.9	118.7	92.4	87.9
72.5°	11167.2	1050.5	153.9	96.7	72.6	65.9	94.5	107.7	94.5	68.2	65.9
75°	7246.2	562.6	118.7	63.8	37.4	41.7	70.3	79.1	65.9	44.0	39.6
77.5°	2432.9	248.4	74.7	30.7	17.6	17.6	41.7	48.4	30.7	15.4	13.2
80°	542.8	103.3	30.7	13.2	6.6	6.6	8.8	8.8	4.4	0.0	0.0
82.5°	178.0	41.7	13.2	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	68.2	15.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	26.3	2.2	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)