

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: P967358

Luminaire Tested: **NAV-SB4D-830-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31802.7 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - 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

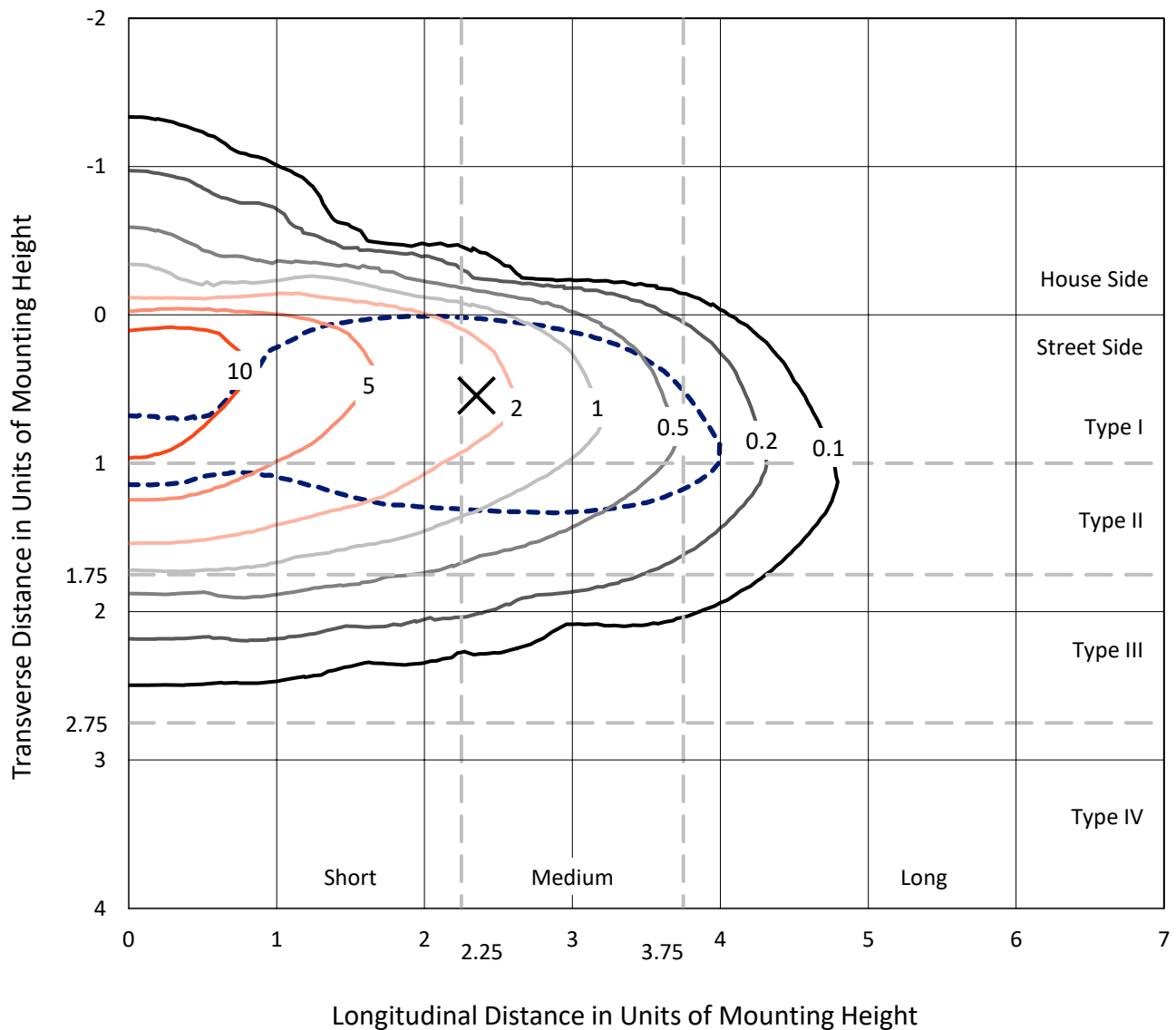


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Iso-Footcandle Lines of Horizontal Illumination

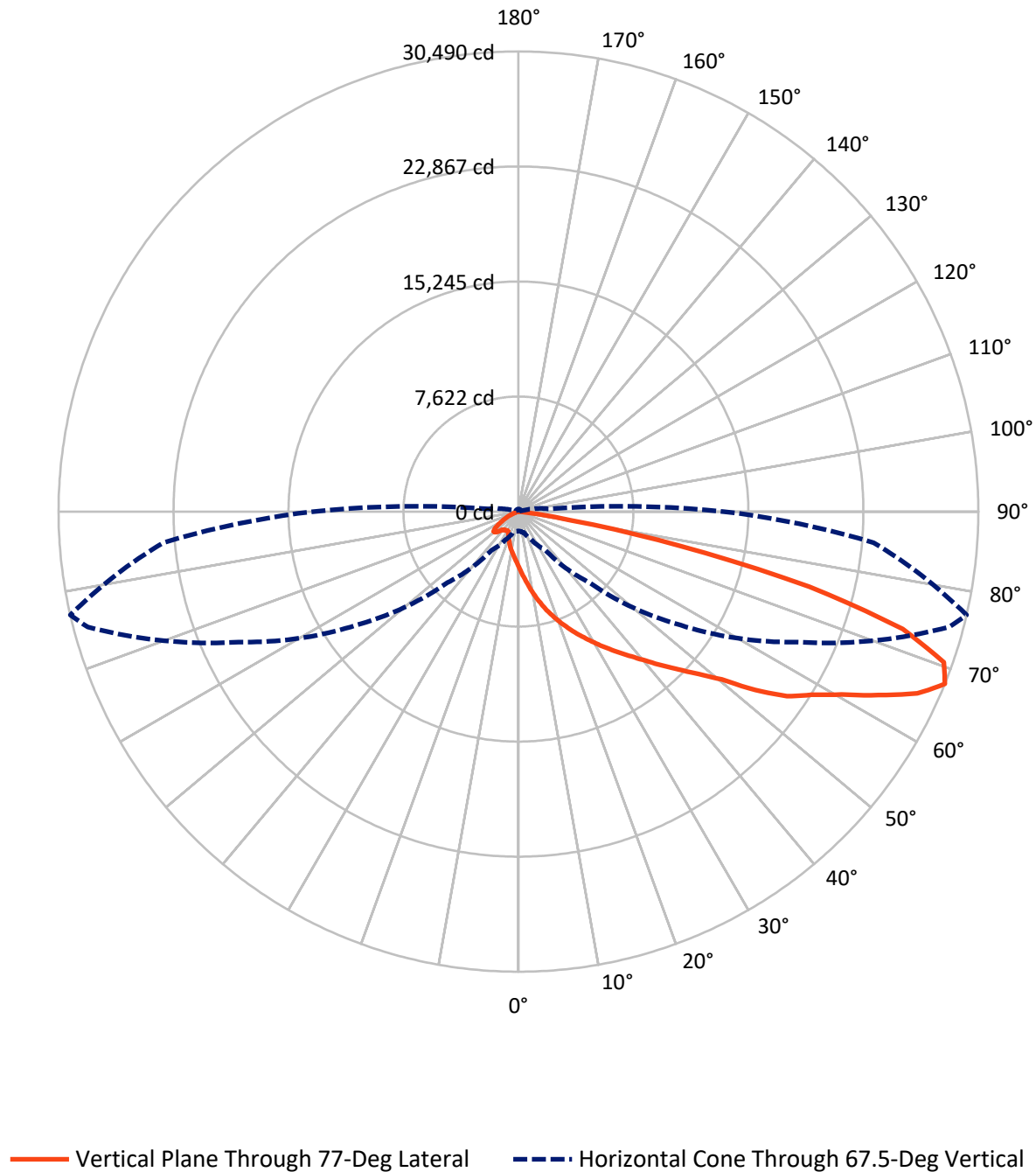
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.7 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2339.7	0.0	2339.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	29462.9	0.0	29462.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	31802.7	0.0	31802.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.3	1.2
10°-20°	1310.8	4.1
20°-30°	2529.5	8.0
30°-40°	4391.3	13.8
40°-50°	6375.9	20.0
50°-60°	7321.9	23.0
60°-70°	6356.8	20.0
70°-80°	2994.1	9.4
80°-90°	148.1	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°	31802.7	100.0
0°-180°	31802.7	100.0

Coefficient of Utilization



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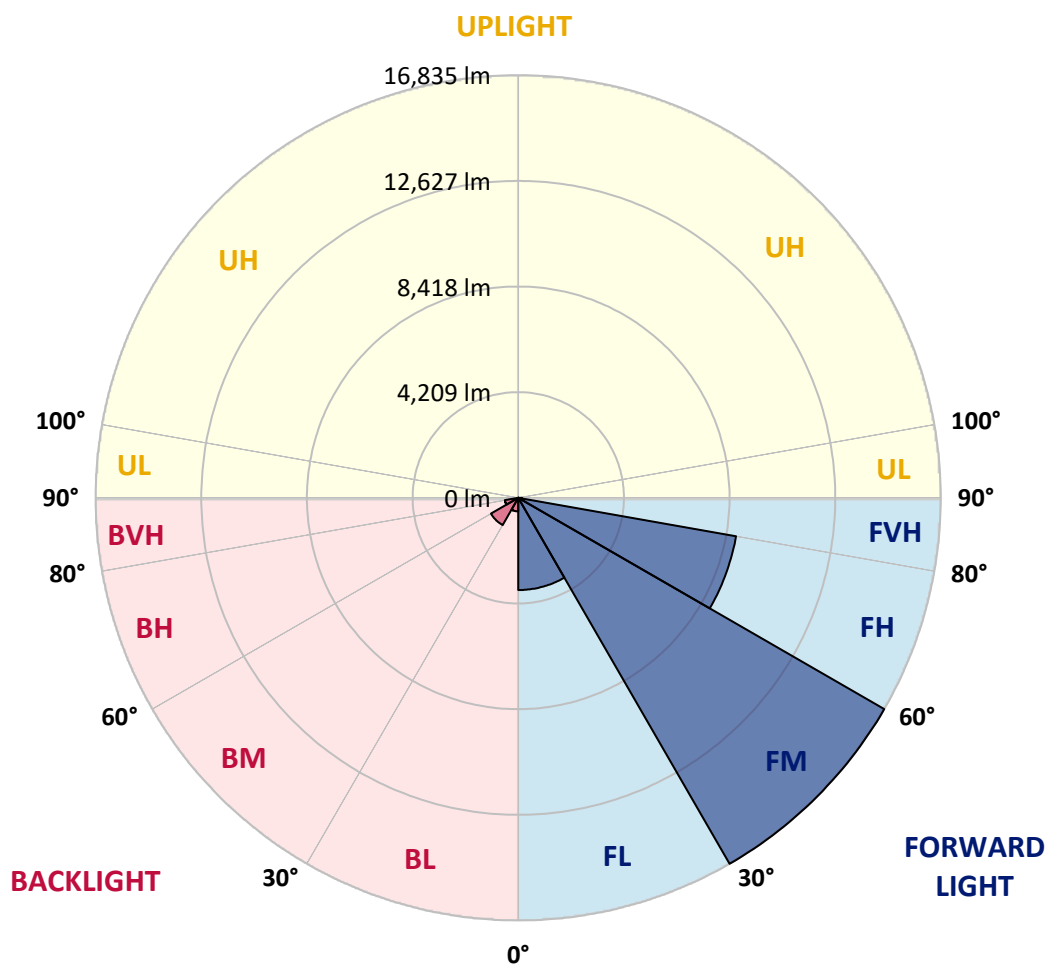
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3672.9	11.5			
FM	(30°-60°)	16835.5	52.9			
FH	(60°-80°)	8809.2	27.7			G4/12000
FVH	(80°-90°)	145.3	0.5			G2/225
BL	(0°-30°)	541.7	1.7	B2/1000		
BM	(30°-60°)	1253.7	3.9	B2/2500		
BH	(60°-80°)	541.7	1.7	B2/1000		G2/1000
BVH	(80°-90°)	2.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3
2.5°	5077.3	5109.0	5063.5	4976.7	4846.3	4761.4	4554.1	4358.5	4141.3	4072.1	3854.9
5°	6189.3	6216.8	6165.5	6070.8	5896.9	5731.1	5458.5	5049.8	4625.1	4488.9	4103.8
7.5°	7012.7	7028.5	7008.7	6921.9	6756.0	6568.4	6264.3	5780.4	5150.4	5000.4	4409.9
10°	7605.2	7656.5	7650.6	7617.1	7506.5	7354.4	7030.5	6479.5	5739.0	5545.5	4755.5
12.5°	7998.2	8055.5	8089.0	8164.0	8158.2	8061.4	7777.0	7194.4	6325.5	6098.3	5144.5
15°	8112.8	8174.0	8302.3	8476.1	8630.1	8679.5	8480.0	7895.5	6971.2	6681.0	5543.4
17.5°	8047.6	8142.4	8296.3	8570.8	8908.6	9131.7	9110.0	8572.9	7557.8	7226.0	5934.4
20°	8191.7	8282.6	8403.1	8634.1	9027.1	9431.9	9593.9	9220.6	8140.3	7792.8	6345.3
22.5°	8989.6	8973.8	8985.7	9023.2	9258.1	9659.1	9992.8	9809.1	8717.0	8361.5	6779.7
25°	10253.5	10182.3	10061.9	9858.6	9799.3	9992.8	10340.4	10330.5	9325.2	8944.2	7224.0
27.5°	11703.0	11691.2	11408.8	10919.0	10642.5	10567.4	10733.4	10838.0	9927.6	9520.8	7670.4
30°	13091.3	13123.0	12741.8	12196.8	11689.2	11394.9	11244.9	11319.9	10539.9	10142.9	8130.5
32.5°	14300.0	14333.5	13918.8	13280.9	12652.9	12297.4	11981.4	11795.8	11207.3	10774.8	8636.0
35°	15321.0	15354.5	14878.6	14173.6	13504.1	13182.2	12824.7	12317.2	11878.8	11475.9	9198.9
37.5°	16233.3	16223.5	15585.6	14874.7	14217.1	13962.2	13774.7	12959.1	12570.0	12180.9	9823.0
40°	16772.5	16814.0	16268.9	15484.9	14847.0	14661.4	14649.5	13754.9	13367.8	12990.6	10506.2
42.5°	16930.4	17003.5	16608.6	15964.8	15386.2	15184.7	15494.7	14616.0	14296.0	13928.7	11278.4
45°	16646.1	16717.2	16537.5	16091.2	15753.4	15623.2	16221.5	15508.6	15287.4	14924.0	12149.3
47.5°	15816.7	15905.5	15949.0	15854.2	15850.2	15982.5	16873.2	16448.6	16464.4	16093.1	13158.5
50°	14211.1	14361.2	14760.1	15095.8	15615.3	16267.0	17507.1	17467.6	17791.5	17471.6	14473.7
52.5°	11292.2	11505.5	12880.0	13798.3	14965.5	16213.7	18204.3	19102.8	20119.8	19651.8	16328.1
55°	9074.5	9074.5	10192.3	11910.4	13697.6	15862.1	18508.4	20165.3	21705.7	21595.1	17633.5
57.5°	7397.8	7486.7	8199.6	9718.3	11862.9	15024.8	18696.0	20832.8	22983.5	22902.5	18909.3
60°	4565.9	4757.4	6104.3	7603.2	9775.5	13533.7	18577.5	21508.2	24533.7	24598.9	20445.8
62.5°	2571.3	2642.3	3242.7	5470.3	7601.2	11529.2	17671.1	21885.4	26516.4	26792.9	22029.6
65°	1775.4	1811.0	2042.0	3404.6	5268.9	9179.2	15899.6	21650.4	28503.2	29062.0	23372.5
67.5°	1289.6	1307.4	1451.5	2079.5	3126.2	6655.3	13123.0	20465.5	29555.8	30489.9	23629.2
70°	991.4	1003.3	1107.9	1366.6	1846.5	4107.7	9530.7	18109.5	28793.5	29909.3	22313.9
72.5°	805.8	817.6	898.5	1011.2	1224.4	2429.0	5776.5	14706.8	25428.3	26633.0	18996.2
75°	679.4	695.2	768.2	841.3	959.8	1560.2	2709.5	10241.6	19122.6	19912.5	13209.9
77.5°	377.2	347.6	624.0	697.1	809.6	987.4	1267.8	6027.3	10709.7	10928.9	5861.4
80°	235.0	242.9	495.7	560.9	622.1	497.6	580.6	2320.5	3712.8	3527.1	1135.5
82.5°	13.8	31.6	381.2	404.9	426.6	213.3	219.2	788.0	894.6	821.5	201.4
85°	0.0	0.0	173.7	140.2	148.1	61.2	63.2	183.7	120.4	130.4	39.5
87.5°	0.0	0.0	0.0	4.0	0.0	5.9	11.9	15.8	5.9	7.9	13.8
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°	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3	3667.3
2.5°	3716.6	3578.5	3298.0	3023.5	2800.4	2592.9	2444.8	2304.7	2233.6	2229.6	2225.7
5°	3829.3	3538.9	2978.1	2482.4	2083.5	1763.5	1556.2	1408.0	1333.0	1307.4	1303.4
7.5°	3987.2	3550.8	2697.7	2008.4	1538.4	1263.9	1145.4	1098.0	1082.2	1064.5	1060.5
10°	4186.7	3578.5	2446.9	1617.4	1212.6	1074.3	1026.9	1007.2	995.4	983.5	979.5
12.5°	4409.9	3604.1	2198.0	1343.0	1066.4	995.4	961.8	938.1	922.3	908.5	904.5
15°	4627.1	3619.9	1939.3	1151.4	991.4	934.1	898.5	872.9	851.2	835.4	833.4
17.5°	4842.4	3641.6	1696.4	1036.8	930.2	872.9	837.3	805.8	788.0	770.2	768.2
20°	5081.3	3637.7	1467.3	955.8	868.9	811.7	774.2	744.6	726.7	707.0	705.0
22.5°	5302.5	3617.9	1265.9	886.7	805.8	750.4	709.0	679.4	661.5	645.8	643.8
25°	5557.2	3602.2	1098.0	823.5	746.5	691.2	645.8	618.2	598.4	584.6	582.6
27.5°	5802.1	3578.5	975.6	766.3	689.2	635.9	592.4	560.9	543.0	533.2	533.2
30°	6043.1	3572.5	930.2	710.9	637.9	584.6	541.1	511.5	497.6	493.7	491.7
32.5°	6333.4	3588.3	949.9	691.2	590.5	537.2	495.7	474.0	460.1	460.1	460.1
35°	6643.4	3584.3	979.5	709.0	558.9	489.7	458.2	444.3	430.5	430.5	430.5
37.5°	7032.5	3590.3	1003.3	738.6	547.0	450.3	432.4	414.7	406.8	406.8	406.8
40°	7613.1	3785.8	991.4	764.2	543.0	422.6	387.0	381.2	375.3	375.3	375.3
42.5°	8324.0	4210.4	1007.2	766.3	541.1	402.8	355.5	367.4	353.5	351.6	349.5
45°	9102.1	4674.5	1107.9	724.8	539.2	393.0	339.7	353.5	331.8	331.8	331.8
47.5°	9874.3	5134.6	1210.6	665.5	533.2	391.0	325.8	318.0	312.0	314.0	314.0
50°	10938.8	5509.9	1250.1	584.6	519.4	387.0	300.2	302.2	298.2	302.2	302.2
52.5°	12098.0	5588.8	1202.7	493.7	479.9	375.3	282.4	290.3	288.3	292.3	292.3
55°	12820.8	5503.9	993.3	410.8	418.7	327.8	264.7	280.4	280.4	280.4	280.4
57.5°	13567.3	5142.5	705.0	333.7	347.6	268.5	248.9	270.6	268.5	266.6	266.6
60°	14104.4	4558.0	464.1	274.5	276.4	221.2	231.0	254.7	252.8	242.9	242.9
62.5°	14505.4	3912.2	298.2	233.0	211.4	199.5	211.4	231.0	223.1	201.4	197.5
65°	14459.9	3017.6	229.1	199.5	173.7	173.7	183.7	201.4	177.7	142.2	138.3
67.5°	13616.6	2042.0	189.6	167.9	146.2	144.1	152.1	167.9	152.1	120.4	116.5
70°	12109.9	1335.0	152.1	130.4	116.5	106.6	122.5	144.1	128.3	96.8	92.9
72.5°	9828.9	813.6	114.5	94.8	84.9	69.1	96.8	118.5	102.7	71.1	67.1
75°	6359.1	414.7	79.0	61.2	45.4	41.5	71.1	88.9	71.1	43.5	37.5
77.5°	2433.0	173.7	43.5	27.7	23.7	19.8	39.5	53.3	29.6	9.8	7.9
80°	468.0	73.1	21.7	13.8	11.9	7.9	5.9	4.0	0.0	0.0	0.0
82.5°	81.0	23.7	7.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	27.7	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.8	0.0	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)