

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: P967369

Luminaire Tested: **NAV-SB4D-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967369
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-SB4D-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 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: 28933.7 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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



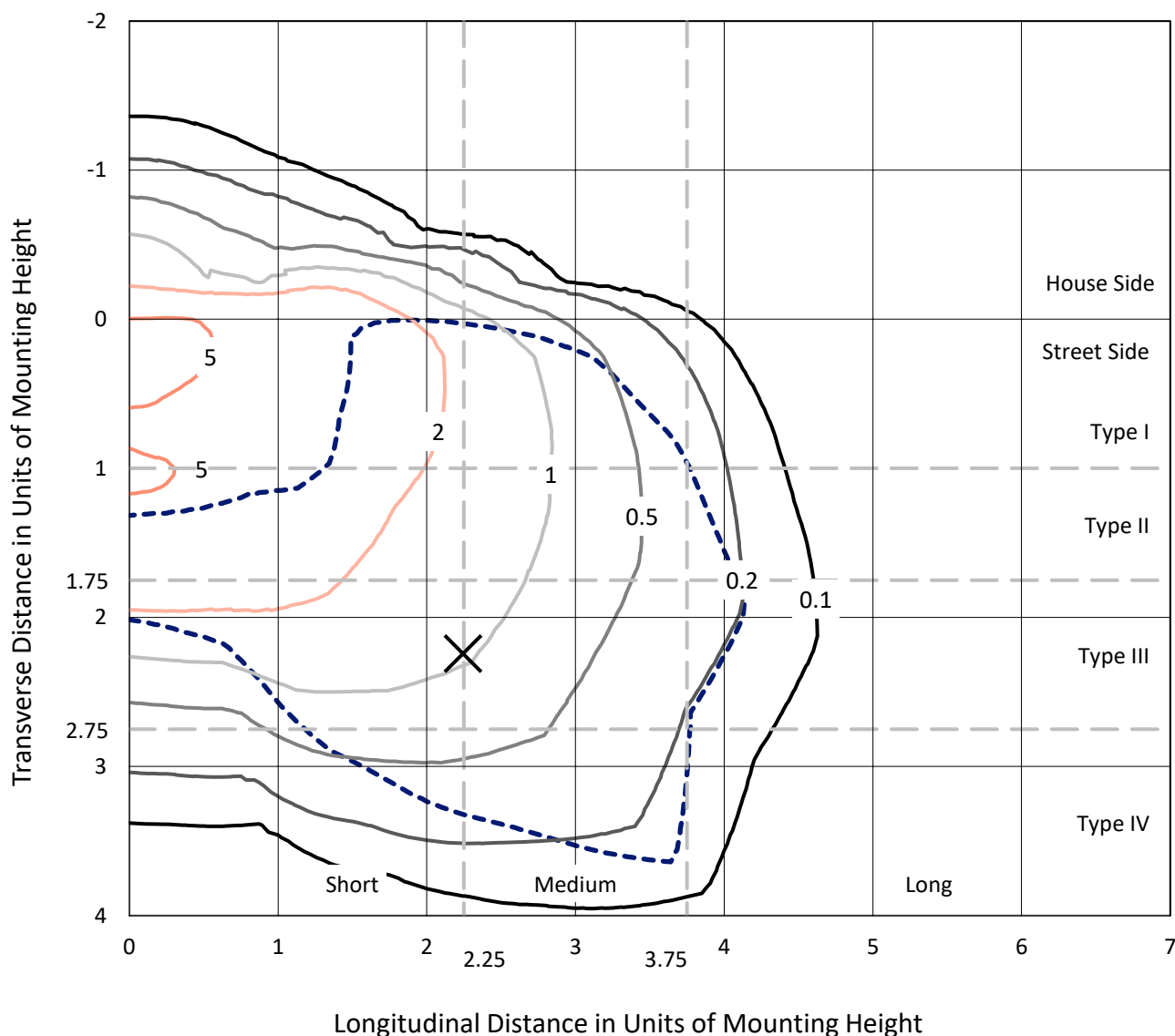
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

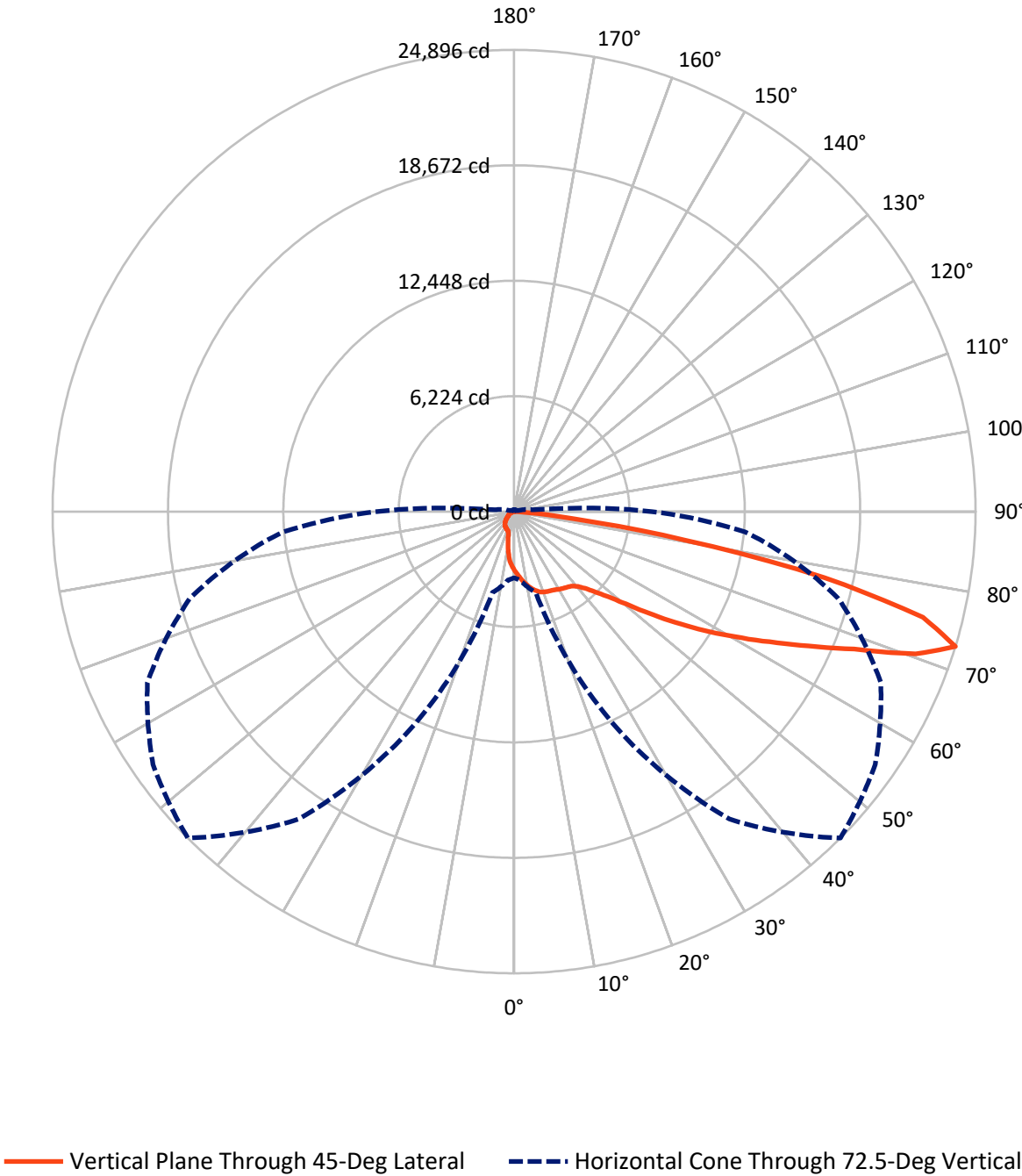


Based on 25 foot mounting height. Maximum calculated value = 7 fc

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	3040.1	0.0	3040.1
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	25893.6	0.0	25893.6
	% Fixture	89.5	0.0	89.5
Total	Lumens	28933.7	0.0	28933.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.6	1.0
10°-20°	872.8	3.0
20°-30°	1433.3	5.0
30°-40°	2032.8	7.0
40°-50°	3360.0	11.6
50°-60°	6035.9	20.9
60°-70°	8381.2	29.0
70°-80°	6079.4	21.0
80°-90°	439.5	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°	28933.7	100.0
0°-180°	28933.7	100.0

Coefficient of Utilization



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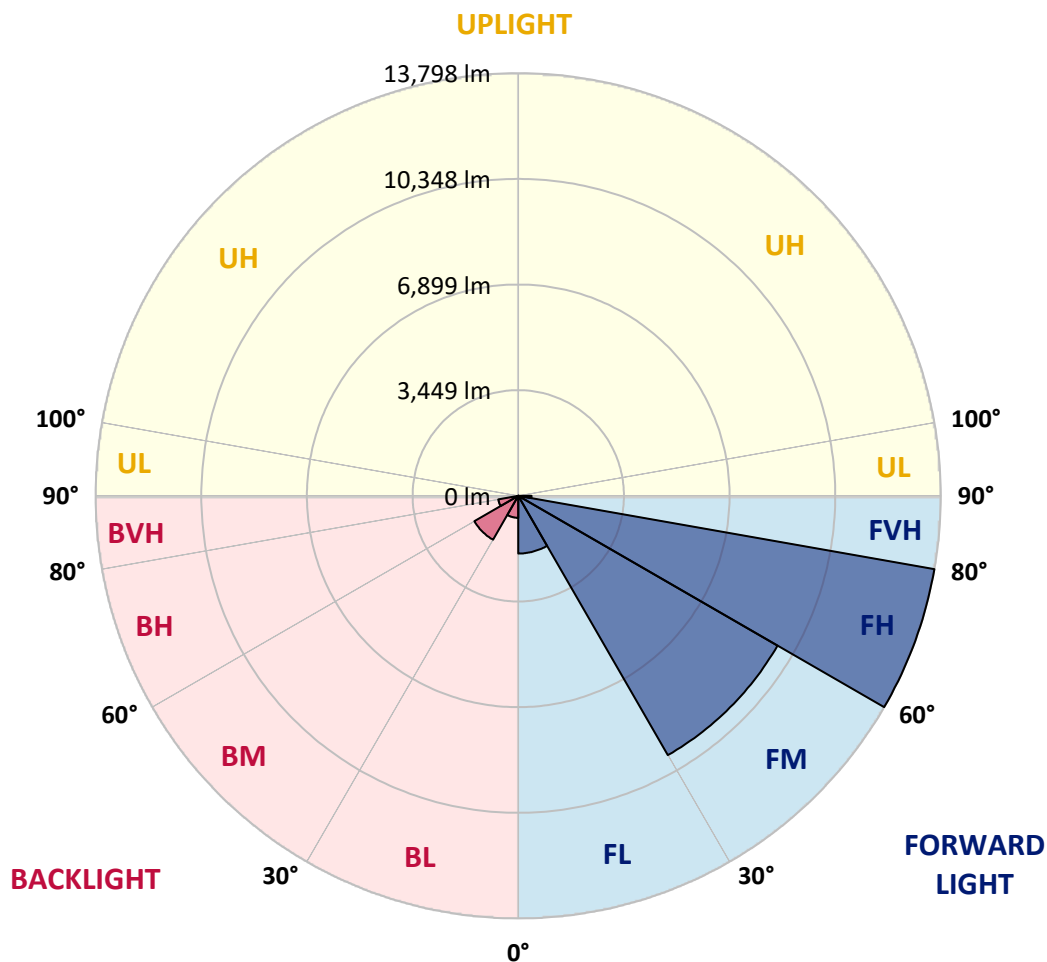
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1884.7	6.5			
FM	(30°-60°)	9775.3	33.8			
FH	(60°-80°)	13797.7	47.7			G5
FVH	(80°-90°)	435.8	1.5			G3/500
BL	(0°-30°)	720.1	2.5	B2/1000		
BM	(30°-60°)	1653.4	5.7	B2/2500		
BH	(60°-80°)	663.0	2.3	B2/1000		G2/1000
BVH	(80°-90°)	3.7	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7
2.5°	3462.0	3468.0	3464.0	3440.3	3400.8	3379.1	3367.2	3327.8	3302.0	3256.6	3209.3
5°	3780.0	3803.7	3789.8	3742.5	3667.4	3614.2	3598.3	3517.3	3444.3	3359.3	3260.6
7.5°	4117.7	4129.5	4103.9	4042.7	3941.9	3851.1	3837.3	3724.7	3608.2	3477.8	3343.6
10°	4410.0	4423.8	4384.3	4295.5	4180.9	4068.3	4048.5	3924.2	3785.9	3625.9	3454.1
12.5°	4654.9	4668.7	4617.3	4510.7	4384.3	4267.8	4248.0	4117.7	3965.6	3787.9	3574.6
15°	4840.6	4866.2	4797.1	4682.5	4546.3	4429.7	4419.9	4291.5	4143.4	3945.9	3718.8
17.5°	4949.1	4974.8	4909.6	4771.4	4654.9	4556.1	4544.3	4437.6	4299.4	4109.8	3859.0
20°	4966.9	4990.6	4921.5	4801.0	4704.2	4625.3	4619.4	4542.3	4441.6	4259.9	4011.0
22.5°	4913.6	4943.3	4880.0	4783.3	4716.1	4674.6	4666.7	4623.3	4566.1	4412.0	4153.3
25°	4858.3	4882.0	4834.6	4749.6	4714.2	4710.2	4716.1	4708.2	4696.3	4566.1	4319.1
27.5°	4854.4	4880.0	4826.7	4745.8	4726.0	4767.5	4773.4	4810.9	4820.8	4706.3	4479.1
30°	4887.9	4905.8	4854.4	4769.4	4759.6	4854.4	4856.3	4923.5	4939.3	4824.8	4637.1
32.5°	4961.0	4980.8	4929.4	4805.0	4791.2	4923.5	4929.4	5018.3	5043.9	4951.2	4803.0
35°	5132.8	5156.6	5097.2	4903.7	4854.4	4988.7	5006.4	5111.1	5162.4	5085.4	4974.8
37.5°	5561.3	5492.3	5411.3	5103.2	4998.5	5091.4	5121.0	5243.4	5334.3	5245.4	5180.2
40°	6625.9	6408.6	6155.8	5442.9	5251.3	5310.5	5334.3	5456.7	5581.1	5494.2	5462.6
42.5°	8223.6	7966.8	7560.0	6224.9	5632.5	5662.1	5679.8	5786.5	5962.3	5893.1	5901.0
45°	9647.5	9554.6	9139.9	7560.0	6345.5	6199.3	6221.0	6276.3	6535.0	6509.4	6560.7
47.5°	10741.6	10688.3	10368.3	9092.6	7550.2	6856.9	6918.1	6943.9	7317.1	7407.9	7546.2
50°	11582.9	11563.1	11276.8	10455.2	9124.1	7826.6	7848.3	7793.1	8351.9	8577.1	8839.7
52.5°	12376.9	12444.0	12232.7	11721.2	10804.8	9096.5	9092.6	8831.8	9586.3	9926.0	10374.2
55°	13093.8	13117.4	13139.2	13012.8	12495.4	10542.1	10504.6	10078.0	11018.1	11369.6	11855.5
57.5°	13767.2	13777.0	13970.5	14229.4	14255.0	12094.4	12025.3	11513.8	12582.2	12833.0	13131.3
60°	14219.4	14264.8	14673.7	15392.5	15706.6	13696.0	13658.5	13137.2	14174.0	14290.6	14235.2
62.5°	13567.7	13844.2	14875.1	16301.0	17077.1	15471.6	15453.7	14964.0	15848.8	15753.9	15280.0
65°	10982.6	11450.6	13263.6	16915.2	18422.0	17454.3	17480.0	16958.6	17568.9	17260.8	16129.2
67.5°	7682.5	8176.2	10320.9	16964.6	19925.0	19782.8	19930.9	19113.3	19395.7	18704.5	16330.6
70°	5312.6	5567.3	6963.5	15902.1	21096.1	22990.0	22986.1	21759.7	21212.6	19362.1	15303.7
72.5°	3572.6	3705.0	4522.6	12615.8	20235.0	24895.8	24781.3	23782.0	21824.8	18108.1	12503.3
75°	1506.9	1603.6	2093.5	7089.9	16008.8	22776.7	22466.7	21017.1	19391.8	14259.0	7801.0
77.5°	478.0	519.4	825.5	2537.8	8818.0	17120.6	16792.8	13125.3	12997.0	7153.2	2851.8
80°	227.1	264.7	464.1	1019.1	3469.9	9311.7	9266.3	5954.4	5591.0	1931.5	572.8
82.5°	98.7	116.5	256.8	545.1	1552.3	3321.8	3389.0	2026.2	1676.7	732.7	175.8
85°	31.6	41.5	118.5	250.8	655.7	825.5	815.6	481.9	675.4	398.9	61.2
87.5°	0.0	0.0	39.5	57.3	67.1	47.4	53.3	41.5	187.6	110.6	21.7
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°	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7	3169.7
2.5°	3185.6	3153.9	3098.7	3047.3	3001.9	2956.4	2928.8	2889.3	2885.4	2885.4	2895.2
5°	3207.2	3156.0	3057.2	2952.5	2832.1	2717.5	2603.0	2492.4	2456.8	2431.1	2443.0
7.5°	3270.5	3189.5	3033.5	2834.0	2604.9	2354.1	2178.3	1988.7	1915.6	1876.2	1882.1
10°	3361.3	3250.7	3013.7	2664.2	2292.9	1951.2	1700.4	1495.1	1416.0	1382.4	1382.4
12.5°	3462.0	3325.8	2978.1	2452.8	1951.2	1542.4	1297.5	1202.7	1190.8	1190.8	1190.8
15°	3582.5	3416.6	2916.9	2204.1	1593.8	1220.5	1133.6	1137.5	1149.4	1157.3	1157.3
17.5°	3706.9	3513.4	2820.2	1925.6	1277.8	1098.1	1100.0	1106.0	1115.8	1123.7	1123.7
20°	3841.2	3610.2	2691.9	1629.3	1096.0	1062.5	1068.5	1074.4	1082.3	1086.2	1088.1
22.5°	3985.4	3701.0	2539.7	1339.0	1034.8	1032.9	1034.8	1040.8	1050.6	1050.6	1054.6
25°	4139.5	3801.7	2365.9	1127.7	1003.3	1003.3	1007.2	1011.2	1019.1	1019.1	1021.0
27.5°	4297.4	3894.6	2182.3	1017.1	975.6	973.6	973.6	979.6	983.5	985.4	987.5
30°	4471.3	4003.1	1998.6	993.4	953.9	944.0	938.1	942.1	946.0	947.9	951.9
32.5°	4649.0	4107.8	1834.7	1003.3	932.1	914.4	894.6	890.7	890.7	898.6	904.6
35°	4846.5	4222.4	1708.3	1036.8	920.3	870.9	839.4	821.5	823.6	835.4	841.3
37.5°	5083.5	4360.7	1615.5	1066.4	912.5	821.5	770.2	748.5	734.7	748.5	744.6
40°	5393.5	4564.0	1548.4	1090.2	902.5	764.3	695.2	659.6	634.0	641.9	637.9
42.5°	5849.7	4884.0	1522.6	1092.1	880.8	697.1	618.2	570.7	533.2	535.2	527.3
45°	6489.6	5389.6	1655.0	1066.4	833.4	624.1	537.2	474.0	450.3	444.3	436.4
47.5°	7366.5	6126.2	1961.1	1013.1	764.3	553.0	458.2	404.9	387.0	377.2	371.3
50°	8541.5	7072.2	2300.8	953.9	695.2	485.8	393.0	359.5	347.6	337.7	335.7
52.5°	9904.3	8032.0	2579.2	894.6	626.1	426.6	351.6	331.8	322.0	314.1	312.0
55°	11154.4	8693.6	2563.4	831.5	558.9	379.1	322.0	310.1	298.2	290.3	286.4
57.5°	11932.4	8786.4	2113.1	762.3	481.9	341.6	294.3	286.4	272.5	262.7	260.7
60°	12290.0	8257.2	1481.2	671.5	404.9	306.1	264.7	260.7	242.9	229.1	225.1
62.5°	12355.1	7273.6	987.5	558.9	337.7	272.5	235.0	229.1	205.4	181.7	169.8
65°	12090.5	5867.5	683.4	436.4	288.3	237.0	201.4	189.6	163.9	140.2	132.3
67.5°	11253.1	4119.7	475.9	314.1	244.9	187.6	160.0	156.0	136.2	116.5	110.6
70°	9718.5	2348.2	318.0	235.0	193.5	128.3	126.4	130.4	110.6	94.8	86.9
72.5°	7451.3	1074.4	197.5	171.8	132.3	86.9	100.8	102.7	85.0	71.1	63.2
75°	4386.3	460.1	124.4	110.6	67.1	57.3	73.1	75.0	57.3	45.4	39.5
77.5°	1493.0	173.8	79.0	65.2	33.6	31.6	47.4	47.4	31.6	17.7	13.8
80°	339.7	65.2	39.5	25.6	15.8	13.8	15.8	13.8	7.9	1.9	0.0
82.5°	96.8	25.6	15.8	9.8	5.9	5.9	1.9	0.0	0.0	0.0	0.0
85°	27.7	11.9	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.9	1.9	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)