

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: P967336

Luminaire Tested: **NAV-SB4D-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27522.3 lumens
Efficiency: N/A
Efficacy: 93.7 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



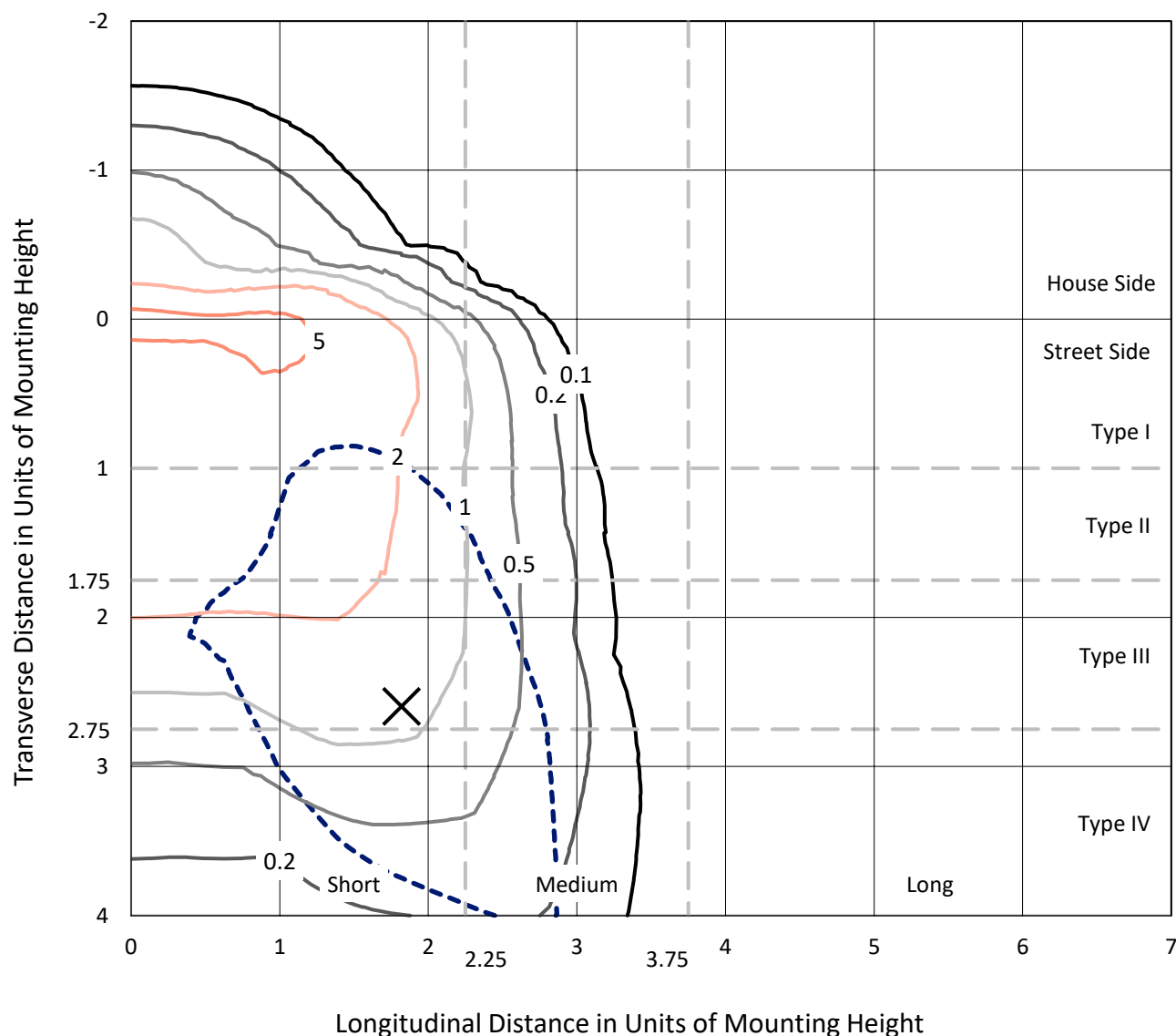
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

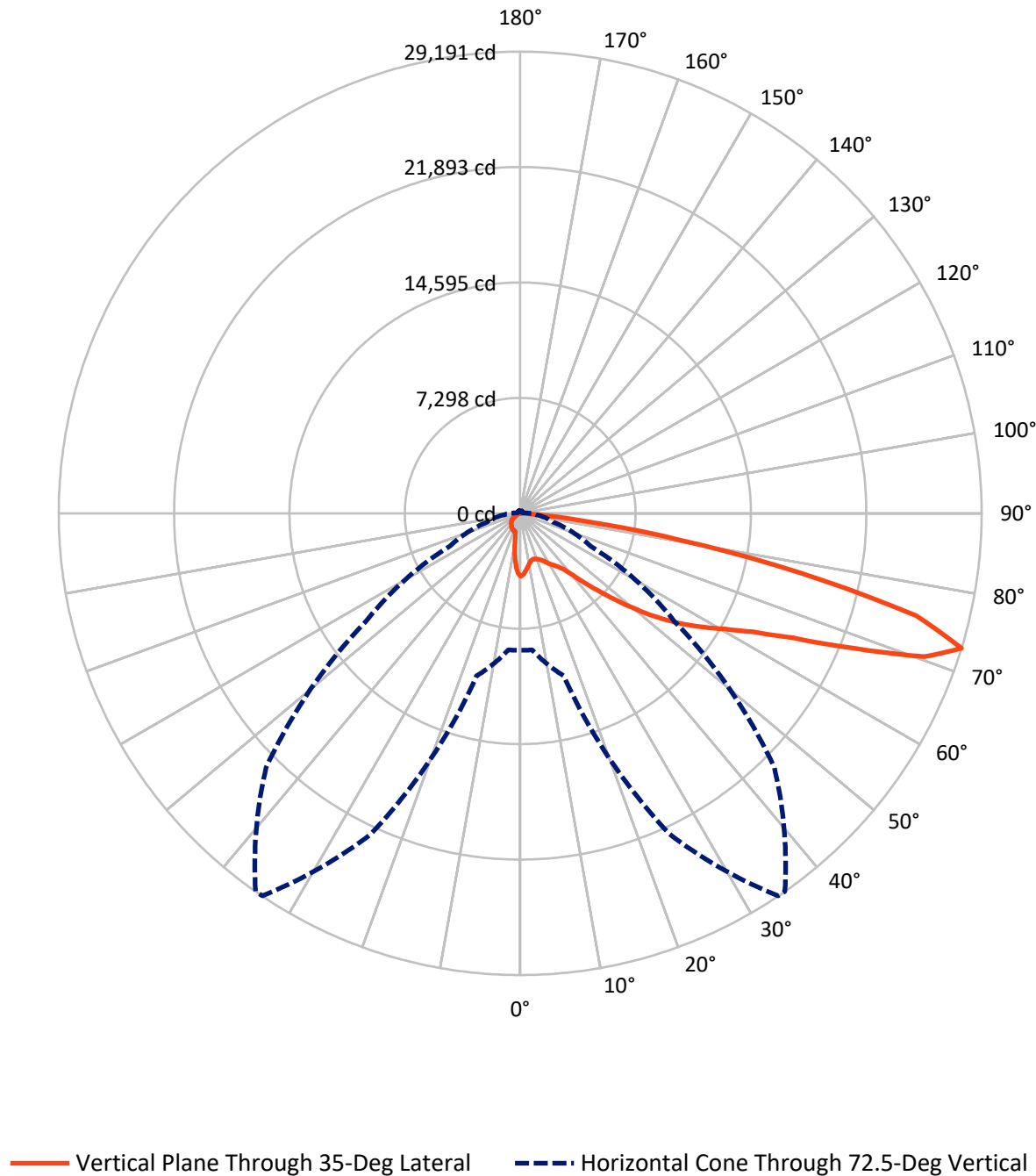


Based on 25 foot mounting height. Maximum calculated value = 6.4 fc

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	3097.5	0.0	3097.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	24424.8	0.0	24424.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	27522.3	0.0	27522.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.8	1.2
10°-20°	766.8	2.8
20°-30°	1245.7	4.5
30°-40°	2078.4	7.6
40°-50°	3932.3	14.3
50°-60°	6248.4	22.7
60°-70°	7729.8	28.1
70°-80°	4804.9	17.5
80°-90°	388.3	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°	27522.3	100.0
0°-180°	27522.3	100.0

Coefficient of Utilization



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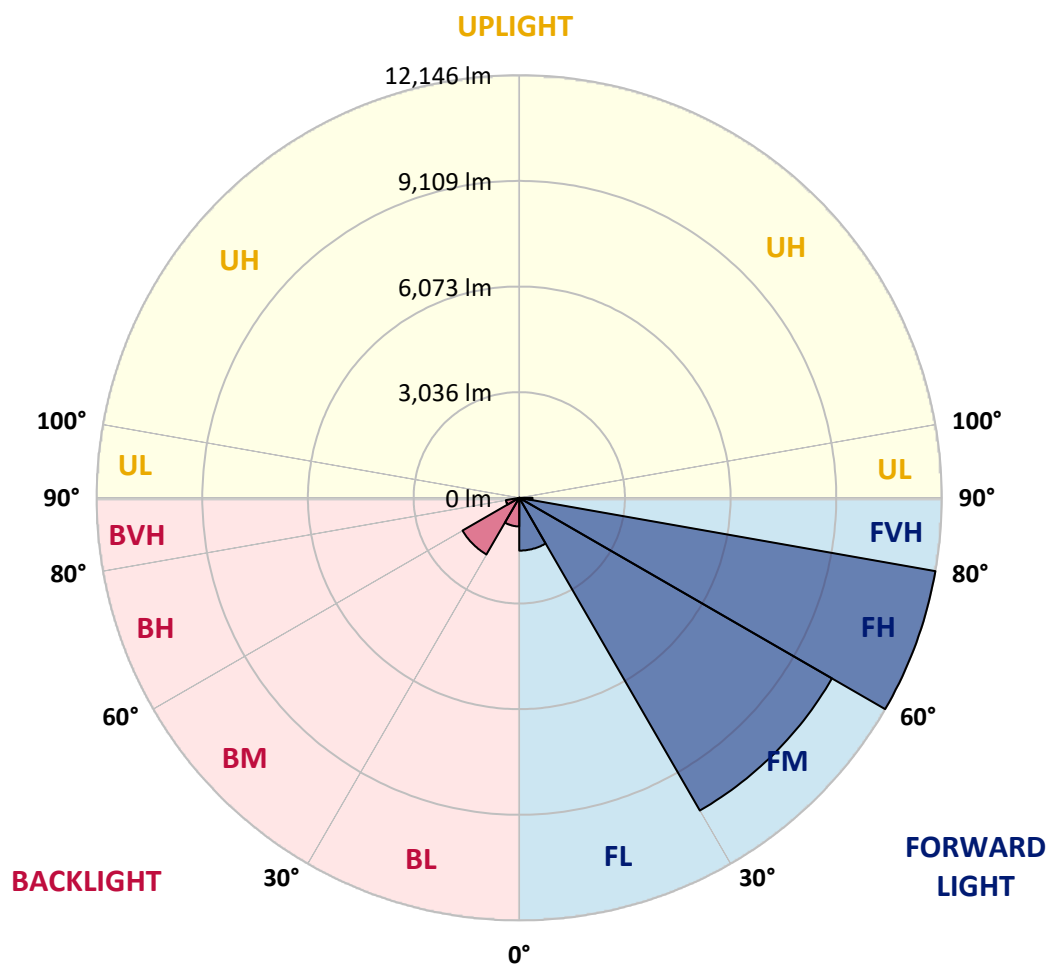
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1517.2	5.5			
FM	(30°-60°)	10378.6	37.7			
FH	(60°-80°)	12145.9	44.1			G5
FVH	(80°-90°)	383.0	1.4			G3/500
BL	(0°-30°)	823.1	3.0	B2/1000		
BM	(30°-60°)	1880.5	6.8	B2/2500		
BH	(60°-80°)	388.7	1.4	B1/500		G1/500
BVH	(80°-90°)	5.3	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°	34°	35°	45°	55°	65°	75°	85°
0°	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9
2.5°	3811.5	3843.7	3849.8	3859.8	3859.8	3871.9	3892.1	3920.3	3966.7	3990.9	4007.0
5°	3513.0	3537.2	3567.4	3591.6	3638.0	3644.1	3722.7	3799.4	3906.2	3986.8	4043.3
7.5°	3212.5	3240.7	3281.0	3339.6	3400.0	3418.2	3537.2	3666.2	3835.7	3986.8	4081.7
10°	3000.8	3002.7	3039.0	3097.5	3194.3	3216.6	3361.7	3545.3	3757.0	3962.6	4117.9
12.5°	2881.8	2895.9	2912.0	2956.4	3049.2	3063.3	3218.5	3434.4	3678.3	3948.6	4160.3
15°	2881.8	2891.8	2902.0	2924.1	2998.7	3010.8	3148.0	3363.7	3638.0	3954.7	4228.8
17.5°	2912.0	2928.1	2920.1	2946.3	3025.0	3033.0	3154.0	3343.6	3636.0	3992.9	4333.7
20°	2984.6	2996.7	2980.6	2996.7	3075.4	3091.5	3216.6	3381.9	3670.3	4059.5	4464.8
22.5°	3099.6	3105.6	3067.3	3079.4	3160.1	3180.3	3325.4	3490.8	3752.9	4166.3	4640.3
25°	3244.7	3256.8	3198.4	3212.5	3289.1	3313.3	3480.7	3654.1	3884.0	4313.6	4864.1
27.5°	3412.1	3418.2	3367.7	3365.8	3464.6	3498.8	3668.3	3855.8	4059.5	4499.1	5146.4
30°	3603.7	3621.8	3573.5	3565.4	3690.4	3718.7	3886.1	4103.9	4317.6	4777.4	5547.7
32.5°	3755.0	3769.1	3740.8	3761.0	3888.0	3910.3	4150.2	4454.8	4723.0	5172.7	6094.2
35°	3972.8	3980.8	3916.3	3952.6	4097.8	4154.2	4511.2	4946.8	5233.1	5668.8	6808.2
37.5°	4761.2	4761.2	4487.0	4307.6	4446.7	4497.1	5005.3	5566.0	5862.4	6334.3	7707.6
40°	5852.2	5834.1	5432.8	5065.8	5047.6	5146.4	5709.0	6346.4	6675.0	7132.9	8719.9
42.5°	7015.8	6987.6	6441.1	6078.1	6017.7	6051.9	6521.8	7308.2	7643.0	8106.8	9808.9
45°	8048.4	8040.3	7540.2	7052.2	6943.2	7052.2	7536.1	8433.6	8673.6	9161.6	10895.9
47.5°	8913.5	8913.5	8548.5	8229.9	8173.5	8237.9	8909.5	9681.8	9659.7	10284.8	11954.6
50°	9909.7	9901.7	9554.8	9417.7	9476.1	9566.9	10490.6	10996.7	10680.1	11388.0	12900.4
52.5°	10607.5	10655.9	10536.9	10514.8	10813.2	10970.5	12095.7	12283.3	11593.7	12434.6	13608.2
55°	11160.1	11216.5	11353.6	11508.9	12083.6	12289.3	13650.5	13503.4	12357.9	13342.0	14015.6
57.5°	11942.5	11861.8	12073.6	12380.2	13309.8	13557.8	15157.0	14654.8	12973.0	14078.1	14059.9
60°	12892.3	12904.4	12940.7	13328.0	14533.9	14852.5	16641.3	15743.9	13368.3	14529.9	13567.9
62.5°	14033.8	14051.9	14126.6	14721.5	16177.5	16477.9	18222.3	16635.2	13549.8	14402.8	12297.4
65°	13955.1	14031.7	14864.7	16899.4	18676.0	18972.4	20067.6	17260.4	13275.5	13241.3	10012.6
67.5°	12712.9	12837.9	14231.4	19500.8	22443.1	22773.9	22298.0	17383.4	12091.7	10296.9	6531.9
70°	11083.4	11127.8	12803.6	21840.2	26805.1	27139.8	24294.3	16030.2	9175.7	5743.4	2926.2
72.5°	8655.4	8665.5	10631.7	22382.6	29172.6	29190.8	22727.4	11900.1	4934.7	2206.2	1016.4
75°	6183.0	6122.5	7120.8	18151.7	25665.7	25871.4	17038.6	5582.0	1885.6	1042.6	506.1
77.5°	3315.4	3381.9	4029.3	10764.8	17730.2	18081.1	9296.6	1609.2	959.9	709.8	334.8
80°	1024.5	1081.0	1651.6	4928.6	10042.8	10254.6	3446.5	715.9	669.5	506.1	219.9
82.5°	322.7	334.8	770.4	2071.1	4168.4	4265.2	998.2	405.4	457.8	334.8	129.0
85°	92.8	94.8	342.9	772.3	1030.5	1050.6	280.3	157.3	262.2	207.7	66.5
87.5°	10.0	32.3	129.0	129.0	90.7	88.8	30.2	34.2	74.6	26.2	12.1
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°	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9	3988.9
2.5°	3997.0	3998.9	3972.8	3928.4	3880.0	3839.6	3789.2	3748.9	3720.6	3712.7	3726.7
5°	4025.2	4011.1	3936.5	3801.3	3640.0	3500.9	3345.6	3222.6	3141.9	3107.6	3119.7
7.5°	4067.5	4027.2	3863.8	3597.6	3289.1	3014.8	2736.5	2520.8	2383.6	2315.1	2325.2
10°	4103.9	4023.2	3742.9	3303.3	2831.4	2415.9	2040.9	1780.7	1635.5	1566.9	1569.0
12.5°	4138.1	4021.2	3585.6	2954.4	2315.1	1806.9	1458.1	1328.9	1288.6	1274.5	1270.5
15°	4202.7	4027.2	3387.9	2555.1	1800.8	1365.3	1238.2	1236.1	1244.2	1240.2	1238.2
17.5°	4291.4	4033.3	3164.1	2131.6	1389.5	1204.0	1197.9	1216.1	1228.2	1222.1	1220.1
20°	4406.4	4057.5	2926.2	1712.2	1193.8	1163.6	1177.7	1193.8	1204.0	1193.8	1191.9
22.5°	4567.7	4099.8	2666.0	1375.3	1131.3	1139.4	1151.5	1169.6	1179.8	1165.6	1163.6
25°	4765.3	4166.3	2409.9	1195.9	1101.1	1111.2	1129.3	1149.4	1161.5	1147.5	1145.4
27.5°	5021.4	4273.2	2173.9	1155.5	1070.8	1076.9	1103.1	1133.3	1149.4	1131.3	1131.3
30°	5392.5	4448.7	1970.3	1173.7	1052.7	1038.5	1074.8	1117.2	1135.4	1119.2	1117.2
32.5°	5884.5	4696.8	1845.2	1201.9	1044.6	994.2	1028.5	1082.9	1113.1	1103.1	1103.1
35°	6529.9	5073.9	1796.8	1234.2	1038.5	947.8	972.0	1030.5	1082.9	1093.1	1093.1
37.5°	7312.4	5598.1	1811.0	1248.2	1020.4	909.5	921.6	972.0	1040.6	1072.9	1081.0
40°	8201.6	6209.2	1891.6	1234.2	1000.3	877.2	879.2	917.6	978.1	1026.4	1042.6
42.5°	9119.2	6923.1	2040.9	1181.7	982.1	849.0	843.0	869.2	909.5	943.8	957.9
45°	9992.4	7657.2	2188.1	1109.2	959.9	820.8	806.7	816.7	824.8	839.0	847.0
47.5°	10754.7	8173.5	2145.7	1042.6	929.7	788.5	764.3	760.2	736.1	734.1	732.1
50°	11281.0	8286.3	1905.7	976.0	885.3	752.2	713.9	689.7	647.4	627.2	629.1
52.5°	11448.4	7840.6	1556.9	909.5	812.7	703.8	649.3	611.0	558.6	540.5	538.4
55°	11226.6	6967.4	1244.2	828.8	711.9	639.3	578.8	528.4	486.1	463.8	463.8
57.5°	10684.1	5856.3	984.1	734.1	605.0	566.7	506.1	455.7	419.4	397.3	393.3
60°	9784.8	4650.3	778.4	621.2	516.3	488.0	425.5	393.3	361.0	334.8	328.7
62.5°	8419.5	3319.4	611.0	492.1	431.5	399.3	363.0	338.8	300.4	264.1	258.1
65°	6570.1	2030.7	471.9	361.0	346.9	330.8	308.5	286.4	240.0	203.7	197.6
67.5°	4144.2	962.0	336.8	272.2	274.3	266.2	256.1	238.0	203.7	171.4	167.4
70°	1825.0	465.9	221.8	207.7	203.7	203.7	211.8	205.7	173.4	143.2	137.1
72.5°	621.2	250.1	165.3	157.3	147.2	145.2	177.4	171.4	139.2	110.9	104.9
75°	324.7	167.4	121.0	113.0	88.8	106.9	141.1	133.1	98.8	72.6	66.5
77.5°	211.8	119.0	82.7	72.6	50.4	70.6	104.9	92.8	58.5	36.3	32.3
80°	133.1	78.6	48.4	34.2	24.2	38.3	56.5	40.3	22.1	8.1	6.0
82.5°	70.6	40.3	18.1	12.1	10.0	12.1	14.1	10.0	4.0	0.0	0.0
85°	28.2	14.1	6.0	4.0	2.0	0.0	4.0	2.0	0.0	0.0	0.0
87.5°	10.0	2.0	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)