

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: P884680

Luminaire Tested: **NAV-SB5C-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24277 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

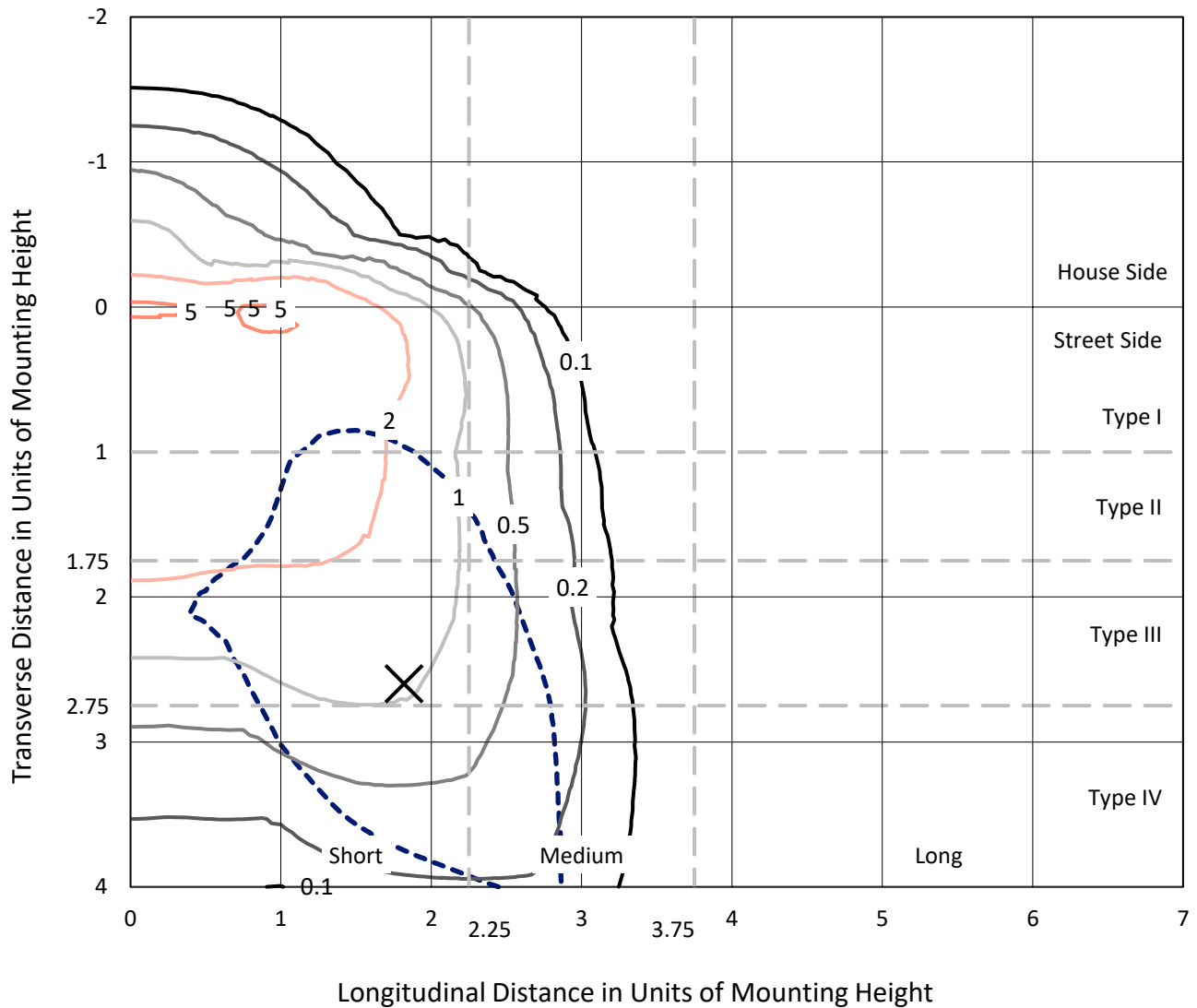
Input Watts (W): 249.5
Input Voltage (V): 120.0
Input Current (Ain): 2.116
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 7.885
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

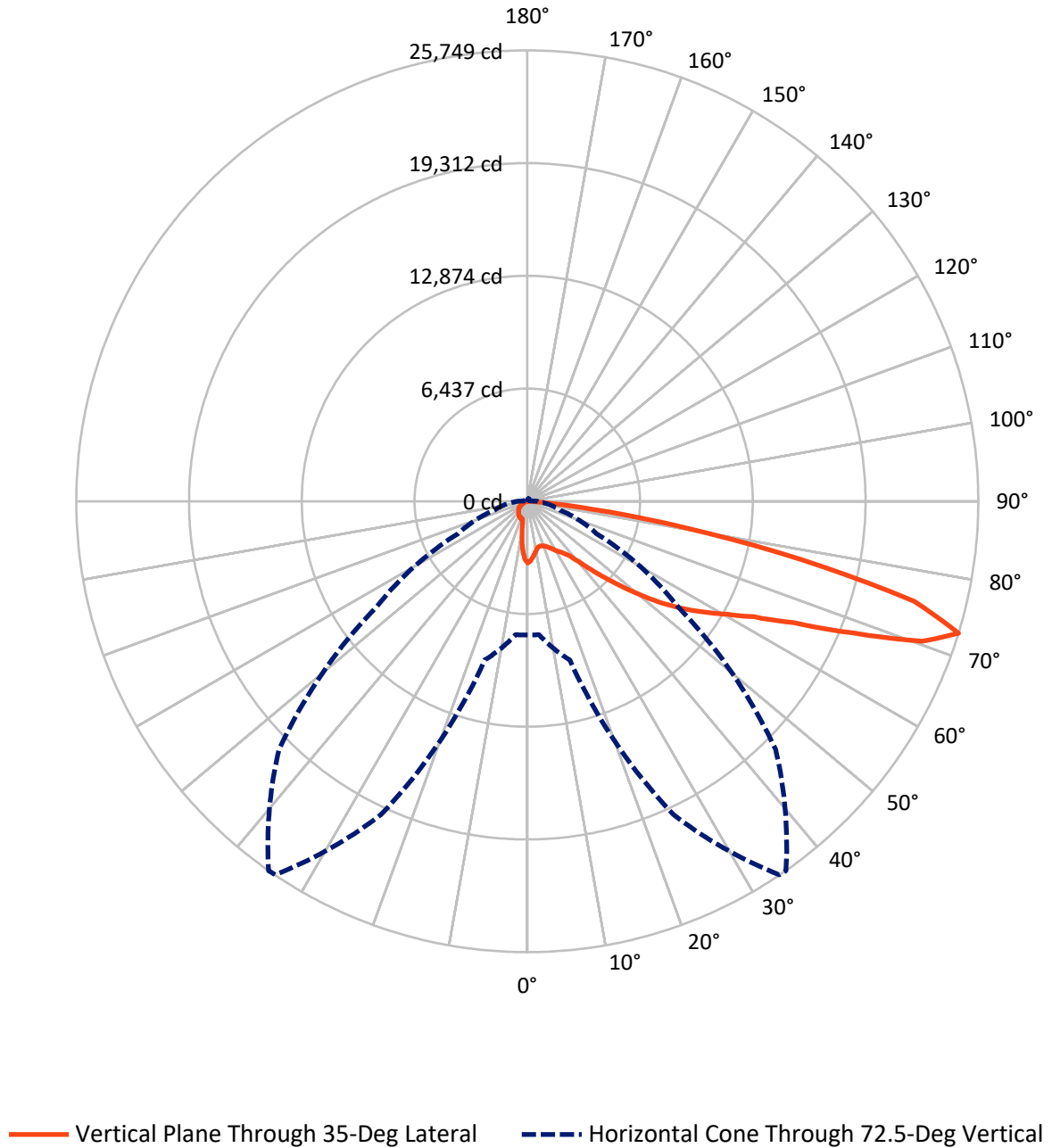
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 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	2732.3	0.0	2732.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	21544.7	0.0	21544.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	24277.0	0.0	24277.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.1	1.2
10°-20°	676.4	2.8
20°-30°	1098.8	4.5
30°-40°	1833.3	7.6
40°-50°	3468.6	14.3
50°-60°	5511.7	22.7
60°-70°	6818.3	28.1
70°-80°	4238.3	17.5
80°-90°	342.5	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°	24277.0	100.0
0°-180°	24277.0	100.0

Coefficient of Utilization



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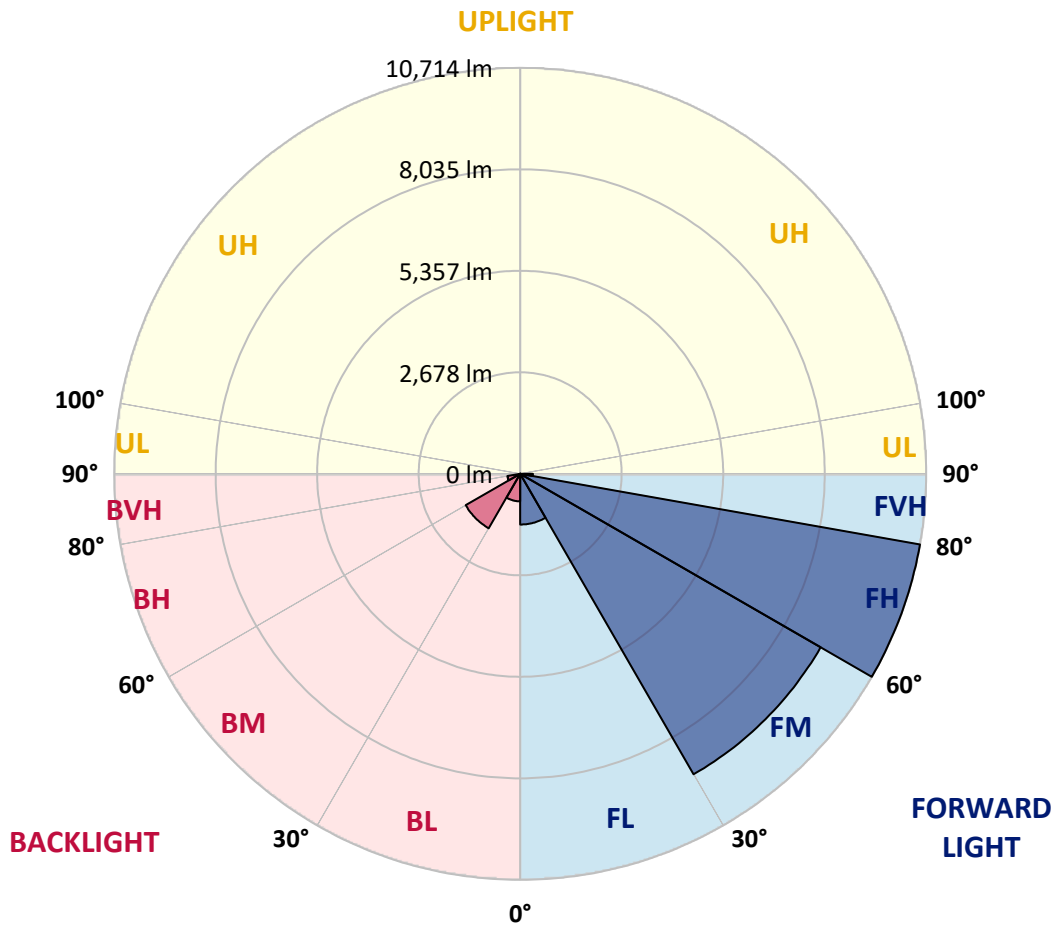
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1338.3	5.5			
FM (30°-60°)	9154.9	37.7			
FH (60°-80°)	10713.7	44.1			G4/12000
FVH (80°-90°)	337.9	1.4			G3/500
BL (0°-30°)	726.0	3.0	B2/1000		
BM (30°-60°)	1658.7	6.8	B2/2500		
BH (60°-80°)	342.9	1.4	B1/500		G1/500
BVH (80°-90°)	4.7	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6
2.5°	3362.0	3390.5	3395.8	3404.7	3404.7	3415.4	3433.2	3458.1	3499.0	3520.3	3534.6
5°	3098.7	3120.1	3146.8	3168.1	3209.0	3214.4	3283.7	3351.3	3445.6	3516.8	3566.6
7.5°	2833.7	2858.6	2894.2	2945.8	2999.1	3015.1	3120.1	3233.9	3383.4	3516.8	3600.4
10°	2646.9	2648.7	2680.7	2732.3	2817.7	2837.3	2965.3	3127.2	3314.0	3495.4	3632.4
12.5°	2542.0	2554.4	2568.6	2607.8	2689.6	2702.1	2839.0	3029.4	3244.6	3483.0	3669.8
15°	2542.0	2550.9	2559.8	2579.3	2645.1	2655.8	2776.8	2967.1	3209.0	3488.3	3730.2
17.5°	2568.6	2582.9	2575.8	2598.9	2668.3	2675.4	2782.1	2949.3	3207.3	3522.1	3822.7
20°	2632.7	2643.4	2629.1	2643.4	2712.7	2727.0	2837.3	2983.1	3237.5	3580.8	3938.4
22.5°	2734.1	2739.4	2705.6	2716.3	2787.4	2805.2	2933.3	3079.2	3310.4	3675.1	4093.1
25°	2862.2	2872.8	2821.2	2833.7	2901.3	2922.6	3070.3	3223.3	3426.1	3804.9	4290.6
27.5°	3009.8	3015.1	2970.7	2968.9	3056.1	3086.3	3235.7	3401.1	3580.8	3968.6	4539.6
30°	3178.8	3194.8	3152.1	3145.0	3255.3	3280.2	3427.8	3619.9	3808.5	4214.1	4893.6
32.5°	3312.2	3324.7	3299.8	3317.5	3429.6	3449.2	3660.9	3929.5	4166.1	4562.7	5375.7
35°	3504.3	3511.4	3454.5	3486.5	3614.6	3664.4	3979.3	4363.5	4616.1	5000.3	6005.4
37.5°	4199.8	4199.8	3957.9	3799.6	3922.3	3966.8	4415.1	4909.6	5171.1	5587.3	6798.7
40°	5162.2	5146.2	4792.2	4468.5	4452.4	4539.6	5035.9	5598.0	5888.0	6291.8	7691.7
42.5°	6188.6	6163.7	5681.6	5361.4	5308.1	5338.3	5752.8	6446.5	6741.8	7150.9	8652.3
45°	7099.4	7092.2	6651.1	6220.6	6124.6	6220.6	6647.5	7439.1	7650.8	8081.3	9611.1
47.5°	7862.5	7862.5	7540.5	7259.5	7209.7	7266.6	7858.9	8540.2	8520.7	9072.1	10545.0
50°	8741.2	8734.1	8428.2	8307.2	8358.8	8438.8	9253.5	9700.0	9420.8	10045.1	11379.3
52.5°	9356.7	9399.4	9294.5	9274.9	9538.2	9676.9	10669.5	10834.9	10226.6	10968.3	12003.6
55°	9844.1	9893.9	10014.9	10151.9	10658.8	10840.3	12041.0	11911.1	10900.7	11768.8	12363.0
57.5°	10534.3	10463.2	10649.9	10920.3	11740.4	11959.2	13369.8	12926.9	11443.3	12418.1	12402.1
60°	11372.1	11382.8	11414.8	11756.4	12820.1	13101.2	14679.0	13887.4	11791.9	12816.6	11968.1
62.5°	12379.0	12395.0	12460.8	12985.6	14269.9	14534.9	16073.6	14673.7	11952.0	12704.5	10847.4
65°	12309.6	12377.2	13111.9	14906.7	16473.9	16735.4	17701.3	15225.1	11710.1	11679.9	8832.0
67.5°	11213.8	11324.1	12553.3	17201.4	19796.7	20088.5	19668.7	15333.6	10665.9	9082.8	5761.7
70°	9776.5	9815.7	11293.9	19264.9	23644.4	23939.7	21429.7	14140.0	8093.7	5066.1	2581.1
72.5°	7634.8	7643.7	9378.1	19743.4	25732.7	25748.8	20047.6	10497.0	4352.8	1946.1	896.5
75°	5453.9	5400.6	6281.1	16011.4	22639.3	22820.8	15029.4	4923.8	1663.2	919.7	446.5
77.5°	2924.4	2983.1	3554.1	9495.5	15639.6	15949.1	8200.5	1419.5	846.7	626.2	295.3
80°	903.7	953.5	1456.9	4347.5	8858.6	9045.4	3040.0	631.5	590.6	446.5	193.9
82.5°	284.6	295.3	679.5	1826.9	3676.9	3762.3	880.5	357.5	403.8	295.3	113.8
85°	81.8	83.6	302.4	681.3	909.0	926.8	247.3	138.7	231.2	183.2	58.7
87.5°	8.9	28.5	113.8	113.8	80.0	78.3	26.7	30.2	65.8	23.1	10.7
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°	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6	3518.6
2.5°	3525.7	3527.4	3504.3	3465.2	3422.5	3386.9	3342.4	3306.9	3282.0	3274.8	3287.3
5°	3550.6	3538.1	3472.3	3353.1	3210.8	3088.1	2951.1	2842.6	2771.4	2741.2	2751.9
7.5°	3587.9	3552.3	3408.3	3173.5	2901.3	2659.4	2413.9	2223.6	2102.6	2042.1	2051.0
10°	3619.9	3548.8	3301.5	2913.7	2497.5	2131.1	1800.2	1570.7	1442.6	1382.2	1383.9
12.5°	3650.2	3547.0	3162.8	2606.0	2042.1	1593.8	1286.1	1172.3	1136.7	1124.2	1120.7
15°	3707.1	3552.3	2988.5	2253.8	1588.5	1204.3	1092.2	1090.4	1097.5	1094.0	1092.2
17.5°	3785.4	3557.7	2791.0	1880.2	1225.6	1062.0	1056.6	1072.6	1083.3	1078.0	1076.2
20°	3886.8	3579.0	2581.1	1510.2	1053.1	1026.4	1038.8	1053.1	1062.0	1053.1	1051.3
22.5°	4029.1	3616.4	2351.6	1213.2	997.9	1005.0	1015.7	1031.7	1040.6	1028.2	1026.4
25°	4203.4	3675.1	2125.7	1054.9	971.2	980.1	996.2	1013.9	1024.6	1012.2	1010.4
27.5°	4429.3	3769.4	1917.6	1019.3	944.6	949.9	973.0	999.7	1013.9	997.9	997.9
30°	4756.6	3924.1	1737.9	1035.3	928.6	916.1	948.1	985.5	1001.5	987.3	985.5
32.5°	5190.7	4142.9	1627.6	1060.2	921.4	877.0	907.2	955.2	981.9	973.0	973.0
35°	5759.9	4475.6	1584.9	1088.7	916.1	836.1	857.4	909.0	955.2	964.1	964.1
37.5°	6450.1	4938.1	1597.4	1101.1	900.1	802.3	812.9	857.4	917.9	946.3	953.5
40°	7234.6	5477.1	1668.6	1088.7	882.3	773.8	775.6	809.4	862.7	905.4	919.7
42.5°	8043.9	6106.8	1800.2	1042.4	866.3	748.9	743.6	766.7	802.3	832.5	845.0
45°	8814.2	6754.3	1930.0	978.4	846.7	724.0	711.5	720.4	727.5	740.0	747.1
47.5°	9486.6	7209.7	1892.7	919.7	820.0	695.5	674.2	670.6	649.3	647.5	645.7
50°	9950.8	7309.3	1681.0	861.0	780.9	663.5	629.7	608.4	571.0	553.2	555.0
52.5°	10098.5	6916.1	1373.3	802.3	716.9	620.8	572.8	539.0	492.7	476.7	475.0
55°	9902.8	6145.9	1097.5	731.1	627.9	563.9	510.5	466.1	428.7	409.1	409.1
57.5°	9424.3	5165.8	868.1	647.5	533.7	499.9	446.5	402.0	370.0	350.4	346.9
60°	8630.9	4102.0	686.6	547.9	455.4	430.5	375.3	346.9	318.4	295.3	290.0
62.5°	7426.7	2928.0	539.0	434.0	380.7	352.2	320.2	298.8	265.0	233.0	227.7
65°	5795.5	1791.3	416.2	318.4	306.0	291.7	272.2	252.6	211.7	179.7	174.3
67.5°	3655.5	848.5	297.1	240.1	241.9	234.8	225.9	209.9	179.7	151.2	147.6
70°	1609.9	410.9	195.7	183.2	179.7	179.7	186.8	181.4	153.0	126.3	121.0
72.5°	547.9	220.6	145.9	138.7	129.9	128.1	156.5	151.2	122.7	97.8	92.5
75°	286.4	147.6	106.7	99.6	78.3	94.3	124.5	117.4	87.2	64.0	58.7
77.5°	186.8	105.0	72.9	64.0	44.5	62.3	92.5	81.8	51.6	32.0	28.5
80°	117.4	69.4	42.7	30.2	21.3	33.8	49.8	35.6	19.6	7.1	5.3
82.5°	62.3	35.6	16.0	10.7	8.9	10.7	12.5	8.9	3.6	0.0	0.0
85°	24.9	12.5	5.3	3.6	1.8	0.0	3.6	1.8	0.0	0.0	0.0
87.5°	8.9	1.8	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)