

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: P884660

Luminaire Tested: **NAV-SB5C-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884660
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-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 23378 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

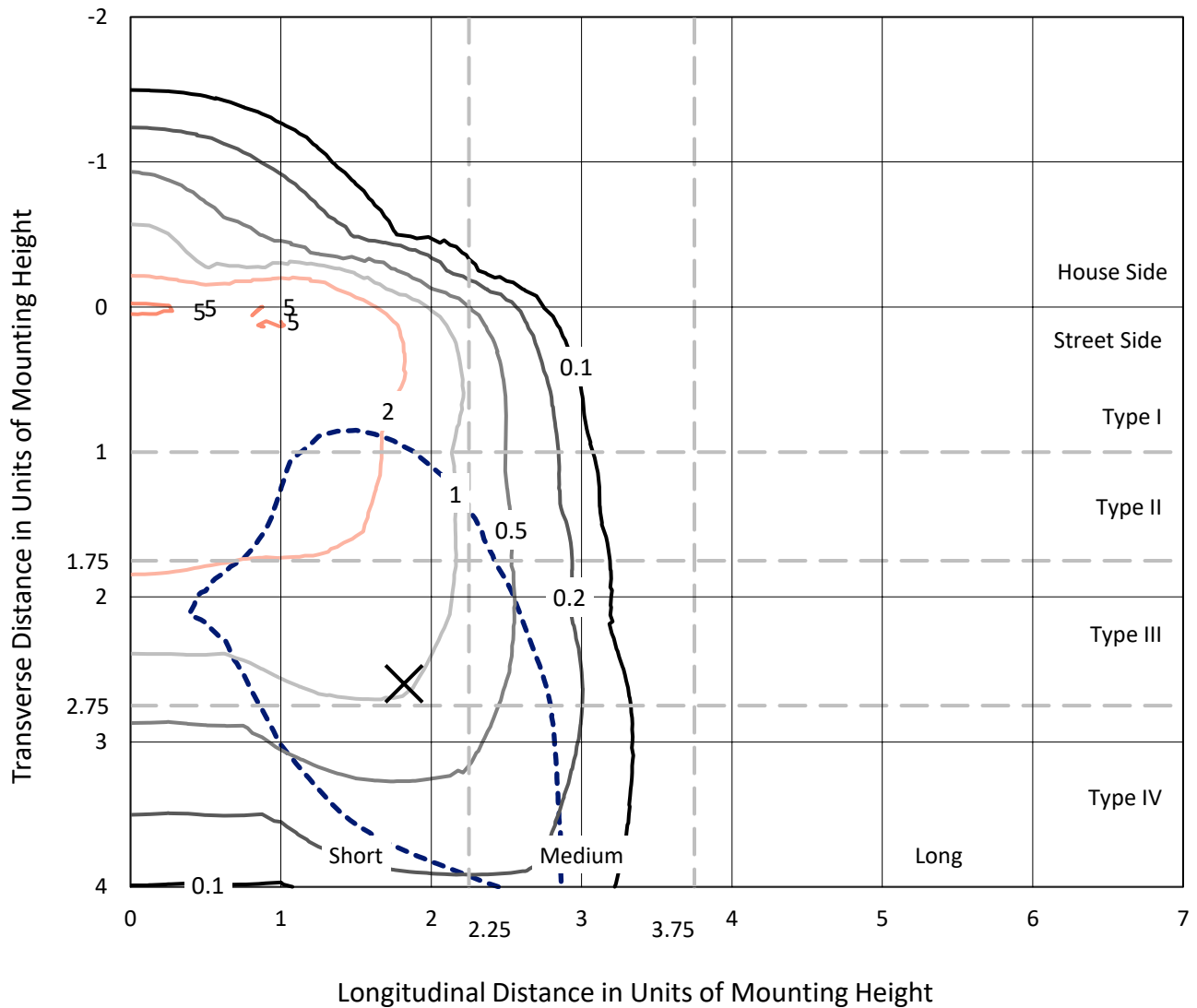
Input Watts (W): 249.5
Input Voltage (V): 120.0
Input Current (Ain): 2.116
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 7.885
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

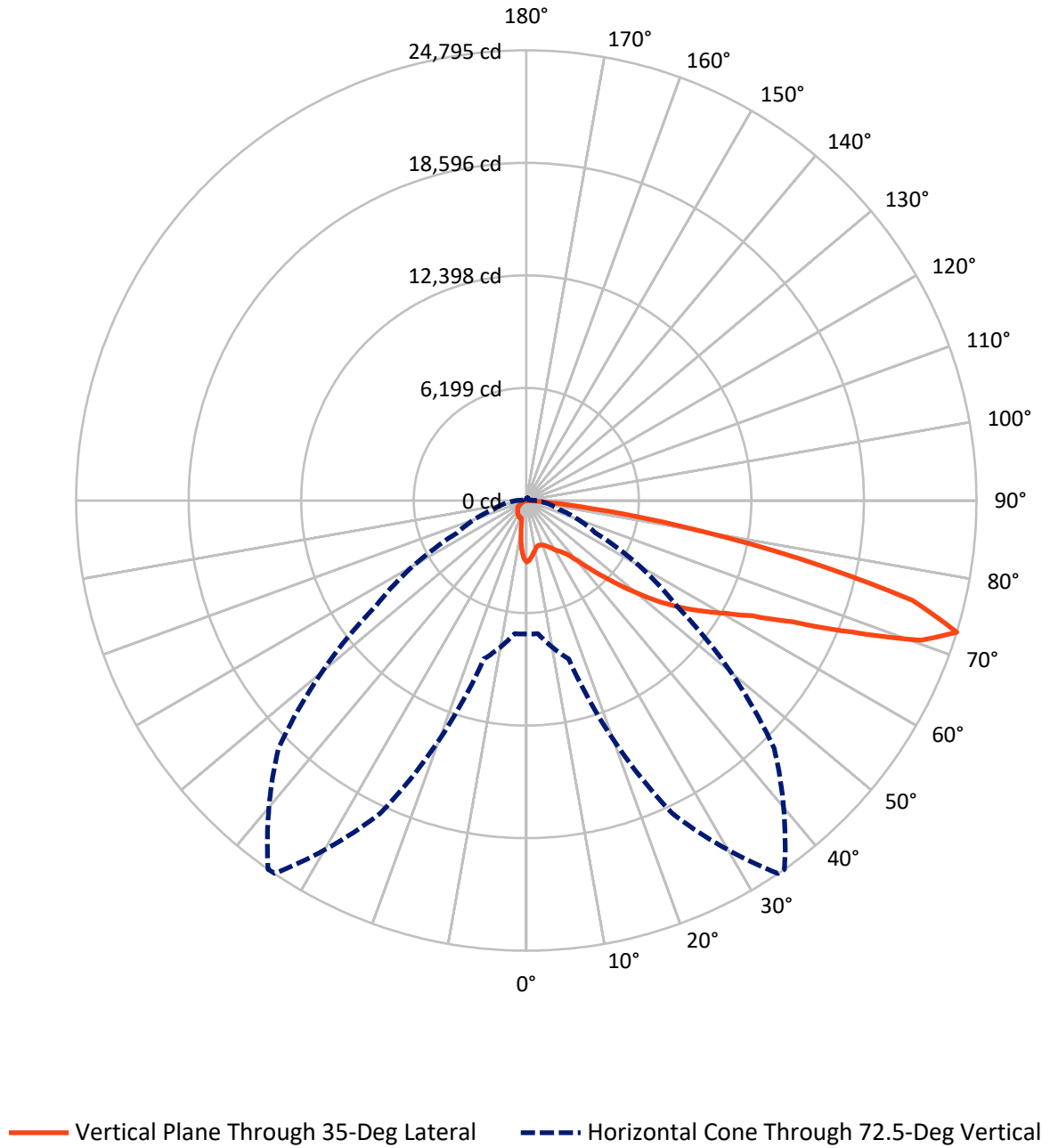
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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	2631.1	0.0	2631.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	20746.9	0.0	20746.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	23378.0	0.0	23378.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.4	1.2
10°-20°	651.3	2.8
20°-30°	1058.1	4.5
30°-40°	1765.4	7.6
40°-50°	3340.2	14.3
50°-60°	5307.5	22.7
60°-70°	6565.8	28.1
70°-80°	4081.4	17.5
80°-90°	329.8	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°	23378.0	100.0
0°-180°	23378.0	100.0

Coefficient of Utilization



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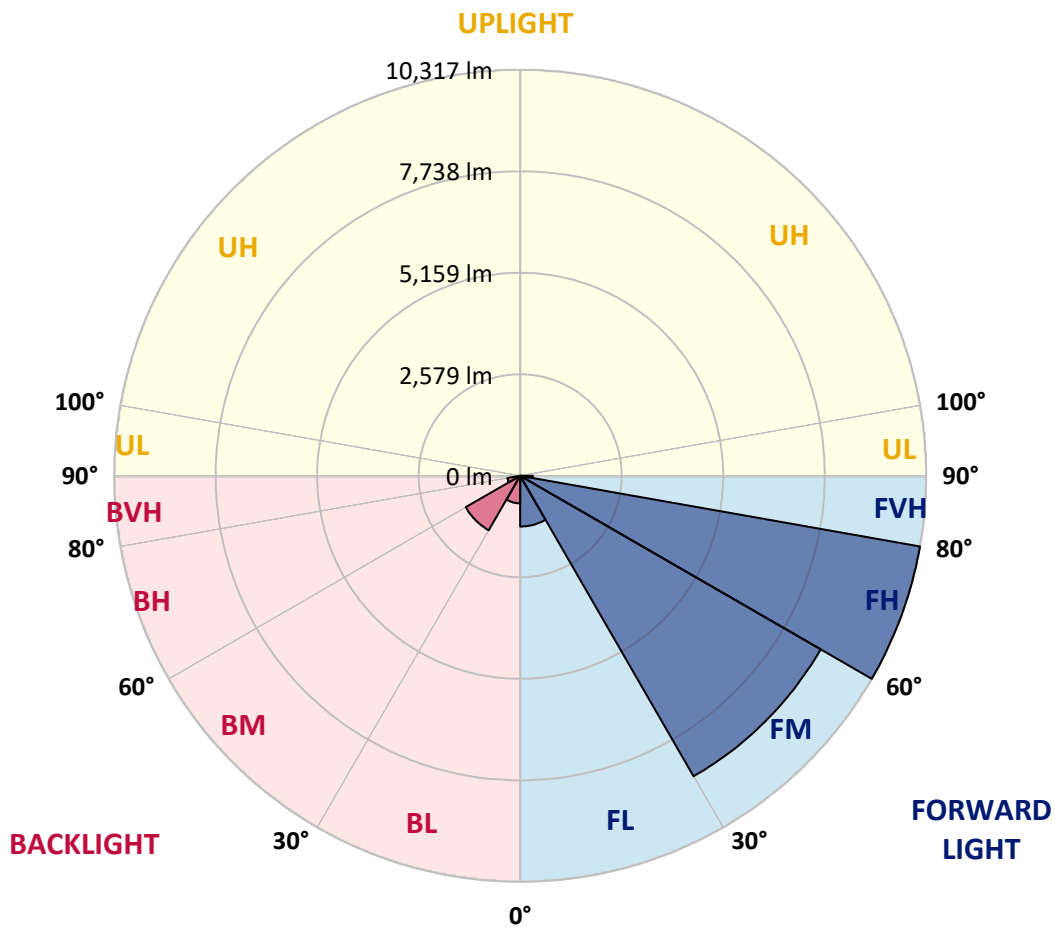
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1288.7	5.5			
FM (30°-60°)	8815.8	37.7			
FH (60°-80°)	10317.0	44.1			G4/12000
FVH (80°-90°)	325.4	1.4			G3/500
BL (0°-30°)	699.1	3.0	B2/1000		
BM (30°-60°)	1597.3	6.8	B2/2500		
BH (60°-80°)	330.2	1.4	B1/500		G1/500
BVH (80°-90°)	4.5	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°	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3
2.5°	3237.5	3264.9	3270.1	3278.6	3278.6	3288.9	3306.0	3330.0	3369.4	3390.0	3403.7
5°	2984.0	3004.6	3030.2	3050.8	3090.2	3095.3	3162.1	3227.2	3318.0	3386.5	3434.5
7.5°	2728.8	2752.7	2787.0	2836.7	2888.1	2903.5	3004.6	3114.2	3258.1	3386.5	3467.1
10°	2548.9	2550.6	2581.4	2631.1	2713.3	2732.2	2855.5	3011.4	3191.3	3366.0	3497.9
12.5°	2447.8	2459.8	2473.5	2511.2	2590.0	2602.0	2733.9	2917.2	3124.5	3354.0	3533.9
15°	2447.8	2456.4	2465.0	2483.8	2547.2	2557.5	2673.9	2857.2	3090.2	3359.1	3592.1
17.5°	2473.5	2487.2	2480.4	2502.7	2569.5	2576.3	2679.1	2840.1	3088.5	3391.7	3681.2
20°	2535.2	2545.5	2531.8	2545.5	2612.3	2626.0	2732.2	2872.7	3117.6	3448.2	3792.5
22.5°	2632.8	2638.0	2605.4	2615.7	2684.2	2701.4	2824.7	2965.2	3187.8	3539.0	3941.5
25°	2756.2	2766.4	2716.8	2728.8	2793.9	2814.4	2956.6	3103.9	3299.2	3664.0	4131.7
27.5°	2898.3	2903.5	2860.7	2858.9	2942.9	2972.0	3115.9	3275.2	3448.2	3821.6	4371.5
30°	3061.1	3076.5	3035.4	3028.5	3134.7	3158.7	3300.9	3485.9	3667.5	4058.0	4712.4
32.5°	3189.6	3201.5	3177.6	3194.7	3302.6	3321.5	3525.3	3784.0	4011.8	4393.8	5176.6
35°	3374.6	3381.4	3326.6	3357.4	3480.8	3528.7	3831.9	4201.9	4445.2	4815.2	5783.0
37.5°	4044.3	4044.3	3811.4	3658.9	3777.1	3819.9	4251.6	4727.8	4979.6	5380.4	6547.0
40°	4971.0	4955.6	4614.7	4303.0	4287.6	4371.5	4849.4	5390.7	5669.9	6058.8	7406.9
42.5°	5959.4	5935.4	5471.2	5162.9	5111.5	5140.6	5539.7	6207.8	6492.2	6886.1	8331.9
45°	6836.5	6829.6	6404.8	5990.3	5897.8	5990.3	6401.4	7163.6	7367.5	7782.0	9255.2
47.5°	7571.3	7571.3	7261.3	6990.6	6942.7	6997.5	7567.9	8224.0	8205.1	8736.2	10154.5
50°	8417.5	8410.7	8116.1	7999.6	8049.2	8126.3	8910.9	9340.8	9071.9	9673.1	10957.9
52.5°	9010.2	9051.3	8950.3	8931.4	9184.9	9318.6	10274.4	10433.7	9847.9	10562.2	11559.1
55°	9479.6	9527.5	9644.0	9775.9	10264.1	10438.8	11595.1	11470.1	10497.1	11333.0	11905.1
57.5°	10144.2	10075.7	10255.6	10515.9	11305.6	11516.3	12874.7	12448.2	11019.5	11958.2	11942.8
60°	10951.0	10961.3	10992.1	11321.0	12345.4	12616.0	14135.4	13373.2	11355.3	12342.0	11524.9
62.5°	11920.6	11936.0	11999.4	12504.7	13741.5	13996.7	15478.4	14130.3	11509.5	12234.0	10445.7
65°	11853.8	11918.9	12626.3	14354.7	15863.8	16115.6	17045.8	14661.3	11276.5	11247.4	8504.9
67.5°	10798.6	10904.8	12088.4	16564.4	19063.7	19344.6	18940.3	14765.8	10271.0	8746.4	5548.3
70°	9414.5	9452.2	10875.7	18551.5	22768.8	23053.2	20636.2	13616.4	7794.0	4878.5	2485.5
72.5°	7352.1	7360.6	9030.8	19012.3	24779.8	24795.3	19305.2	10108.2	4191.6	1874.0	863.3
75°	5252.0	5200.6	6048.5	15418.4	21801.0	21975.7	14472.9	4741.5	1601.6	885.6	430.0
77.5°	2816.1	2872.7	3422.5	9143.8	15060.4	15358.5	7896.8	1367.0	815.4	603.0	284.4
80°	870.2	918.2	1402.9	4186.5	8530.6	8710.5	2927.5	608.1	568.7	430.0	186.7
82.5°	274.1	284.4	654.4	1759.2	3540.7	3622.9	847.9	344.3	388.8	284.4	109.6
85°	78.8	80.5	291.2	656.1	875.3	892.5	238.1	133.6	222.7	176.4	56.5
87.5°	8.6	27.4	109.6	109.6	77.1	75.4	25.7	29.1	63.4	22.3	10.3
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°	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3	3388.3
2.5°	3395.1	3396.8	3374.6	3336.9	3295.8	3261.5	3218.7	3184.4	3160.4	3153.6	3165.6
5°	3419.1	3407.1	3343.7	3228.9	3091.9	2973.7	2841.8	2737.3	2668.8	2639.7	2650.0
7.5°	3455.1	3420.8	3282.1	3055.9	2793.9	2560.9	2324.5	2141.2	2024.7	1966.5	1975.1
10°	3485.9	3417.4	3179.3	2805.8	2405.0	2052.1	1733.5	1512.6	1389.2	1331.0	1332.7
12.5°	3515.0	3415.7	3045.7	2509.5	1966.5	1534.8	1238.5	1128.8	1094.6	1082.6	1079.2
15°	3569.8	3420.8	2877.8	2170.3	1529.7	1159.7	1051.8	1050.1	1056.9	1053.5	1051.8
17.5°	3645.2	3425.9	2687.7	1810.6	1180.2	1022.6	1017.5	1032.9	1043.2	1038.1	1036.3
20°	3742.8	3446.5	2485.5	1454.3	1014.1	988.4	1000.4	1014.1	1022.6	1014.1	1012.4
22.5°	3879.9	3482.5	2264.5	1168.2	961.0	967.8	978.1	993.5	1002.1	990.1	988.4
25°	4047.7	3539.0	2047.0	1015.8	935.3	943.8	959.3	976.4	986.7	974.7	973.0
27.5°	4265.3	3629.8	1846.6	981.5	909.6	914.7	937.0	962.7	976.4	961.0	961.0
30°	4580.5	3778.8	1673.6	996.9	894.2	882.2	913.0	949.0	964.4	950.7	949.0
32.5°	4998.4	3989.5	1567.4	1020.9	887.3	844.5	873.6	919.9	945.6	937.0	937.0
35°	5546.6	4309.8	1526.3	1048.3	882.2	805.1	825.7	875.3	919.9	928.4	928.4
37.5°	6211.2	4755.2	1538.2	1060.3	866.8	772.5	782.8	825.7	883.9	911.3	918.2
40°	6966.7	5274.2	1606.8	1048.3	849.6	745.1	746.9	779.4	830.8	871.9	885.6
42.5°	7746.1	5880.6	1733.5	1003.8	834.2	721.2	716.0	738.3	772.5	801.7	813.7
45°	8487.8	6504.1	1858.6	942.1	815.4	697.2	685.2	693.8	700.6	712.6	719.4
47.5°	9135.3	6942.7	1822.6	885.6	789.7	669.8	649.2	645.8	625.2	623.5	621.8
50°	9582.4	7038.6	1618.8	829.1	752.0	638.9	606.4	585.8	549.9	532.7	534.4
52.5°	9724.5	6660.0	1322.4	772.5	690.3	597.8	551.6	519.0	474.5	459.1	457.4
55°	9536.1	5918.3	1056.9	704.0	604.7	543.0	491.6	448.8	412.8	394.0	394.0
57.5°	9075.3	4974.5	835.9	623.5	513.9	481.3	430.0	387.1	356.3	337.5	334.0
60°	8311.3	3950.1	661.2	527.6	438.5	414.5	361.4	334.0	306.6	284.4	279.2
62.5°	7151.7	2819.5	519.0	418.0	366.6	339.2	308.3	287.8	255.2	224.4	219.3
65°	5580.9	1725.0	400.8	306.6	294.6	280.9	262.1	243.2	203.8	173.0	167.9
67.5°	3520.2	817.1	286.1	231.3	233.0	226.1	217.5	202.1	173.0	145.6	142.2
70°	1550.2	395.7	188.4	176.4	173.0	173.0	179.9	174.7	147.3	121.6	116.5
72.5°	527.6	212.4	140.5	133.6	125.0	123.3	150.7	145.6	118.2	94.2	89.1
75°	275.8	142.2	102.8	95.9	75.4	90.8	119.9	113.1	83.9	61.7	56.5
77.5°	179.9	101.1	70.2	61.7	42.8	60.0	89.1	78.8	49.7	30.8	27.4
80°	113.1	66.8	41.1	29.1	20.6	32.5	48.0	34.3	18.8	6.9	5.1
82.5°	60.0	34.3	15.4	10.3	8.6	10.3	12.0	8.6	3.4	0.0	0.0
85°	24.0	12.0	5.1	3.4	1.7	0.0	3.4	1.7	0.0	0.0	0.0
87.5°	8.6	1.7	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)