

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: P960896

Luminaire Tested: **NAV-SB1D-740-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960896
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11226.8 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 79.6
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

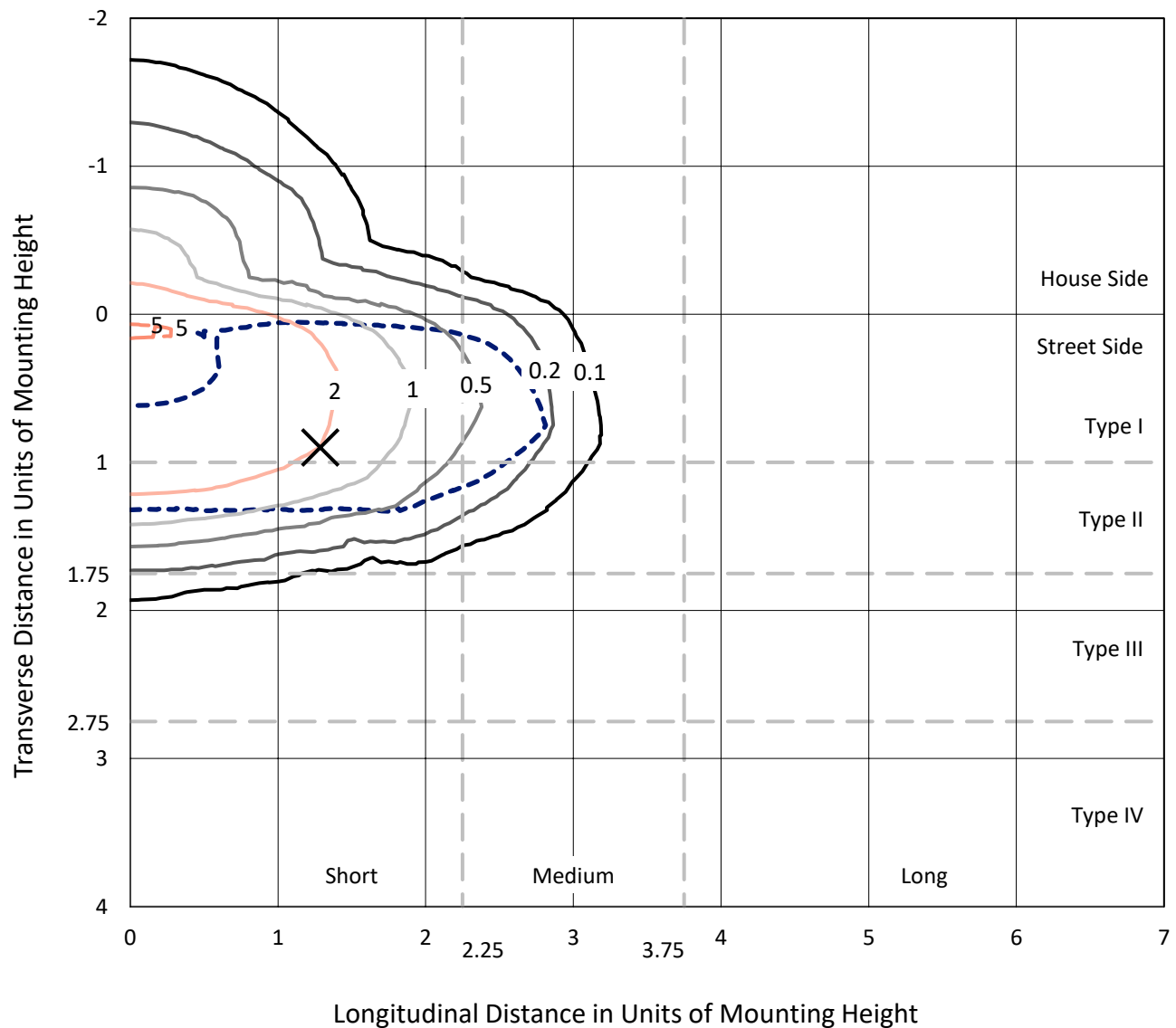


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Iso-Footcandle Lines of Horizontal Illumination

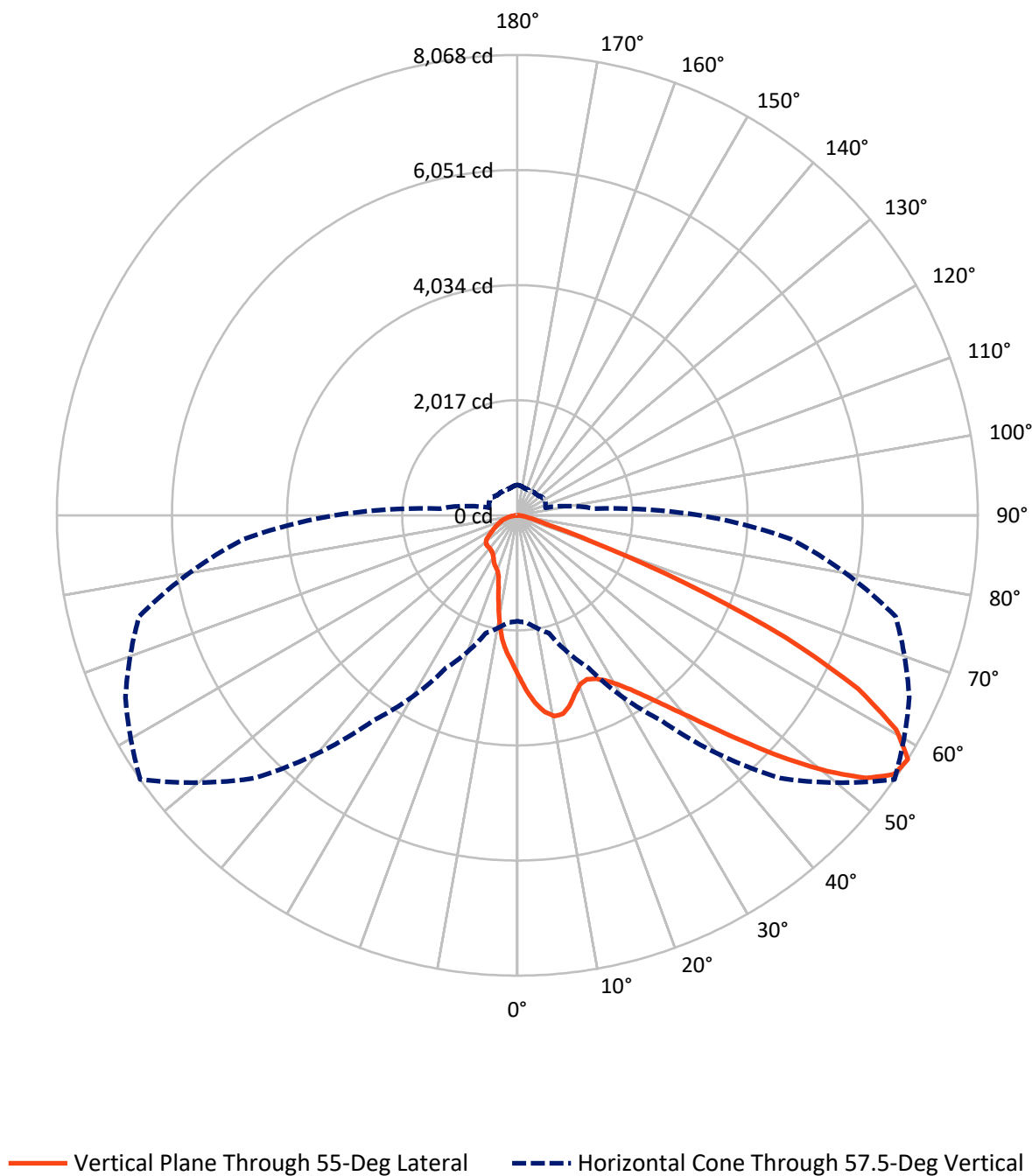
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2031.4	0.0	2031.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9195.4	0.0	9195.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	11226.8	0.0	11226.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.0	2.3
10°-20°	658.9	5.9
20°-30°	1051.4	9.4
30°-40°	1664.6	14.8
40°-50°	2547.8	22.7
50°-60°	2728.9	24.3
60°-70°	1716.8	15.3
70°-80°	507.7	4.5
80°-90°	89.8	0.8
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°	11226.8	100.0
0°-180°	11226.8	100.0

Coefficient of Utilization



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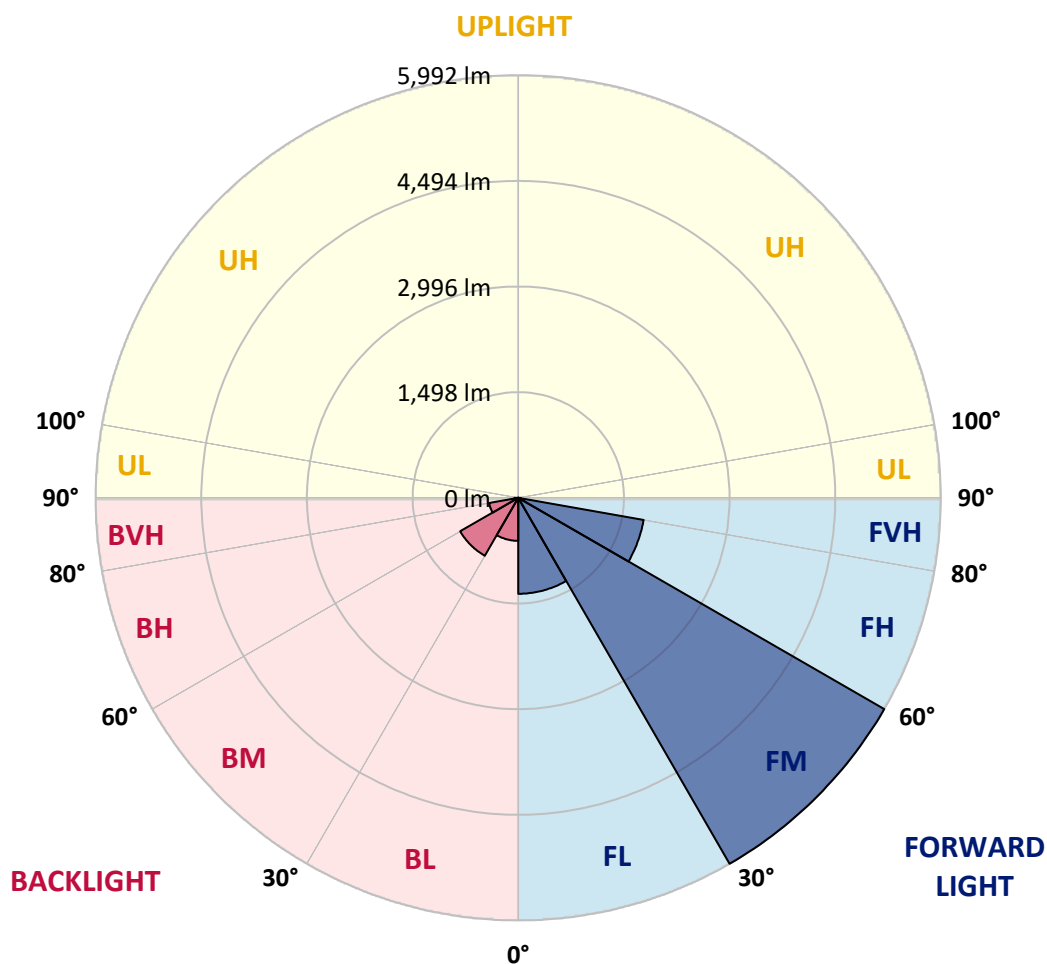
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1360.7	12.1			
FM	(30°-60°)	5991.8	53.4			
FH	(60°-80°)	1804.9	16.1			G2/5000
FVH	(80°-90°)	37.9	0.3			G1/100
BL	(0°-30°)	610.6	5.4	B2/1000		
BM	(30°-60°)	949.5	8.5	B1/1000		
BH	(60°-80°)	419.5	3.7	B1/500		G1/500
BVH	(80°-90°)	51.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1
2.5°	3227.4	3225.2	3237.9	3194.4	3164.8	3124.7	3071.9	3004.6	2932.0	2855.4	2822.3
5°	3518.2	3497.9	3511.2	3478.7	3446.3	3385.9	3307.6	3197.9	3063.8	2911.2	2829.9
7.5°	3472.4	3458.5	3492.7	3521.7	3546.1	3538.5	3481.1	3366.2	3193.2	2971.5	2853.7
10°	3102.7	3087.0	3135.2	3235.6	3383.0	3511.2	3580.9	3509.5	3325.5	3037.7	2877.0
12.5°	2776.5	2768.9	2800.9	2882.1	3045.8	3291.9	3568.1	3634.9	3463.1	3116.0	2908.2
15°	2637.2	2627.9	2648.3	2689.5	2793.9	3023.1	3452.1	3720.7	3598.4	3206.6	2958.1
17.5°	2606.5	2596.0	2604.7	2626.2	2693.5	2868.3	3276.8	3763.2	3739.4	3307.6	3000.0
20°	2663.4	2654.6	2655.8	2654.6	2701.7	2840.4	3155.0	3746.9	3862.4	3400.4	3040.6
22.5°	2800.9	2786.4	2787.0	2756.2	2781.7	2889.1	3123.0	3703.3	3972.1	3481.7	3071.3
25°	3024.9	2998.8	3004.1	2925.7	2918.7	2998.2	3172.9	3669.7	4081.2	3546.7	3077.2
27.5°	3331.4	3301.7	3286.0	3169.4	3113.7	3153.2	3274.5	3681.3	4184.5	3603.0	3062.6
30°	3714.4	3678.4	3646.5	3481.1	3380.1	3365.6	3432.3	3758.0	4306.3	3662.1	3037.7
32.5°	4183.9	4142.1	4084.1	3864.8	3722.5	3646.5	3636.6	3894.3	4449.1	3737.7	3024.9
35°	4742.8	4688.2	4605.8	4322.0	4142.1	3986.6	3906.0	4091.1	4644.8	3851.3	3039.4
37.5°	5318.5	5257.0	5181.6	4843.8	4622.6	4393.5	4234.4	4358.0	4905.3	4005.7	3077.8
40°	5849.6	5780.5	5710.3	5409.6	5172.3	4896.0	4636.6	4695.8	5223.9	4190.3	3142.8
42.5°	6163.0	6112.0	6085.2	5922.8	5739.3	5459.0	5136.9	5096.3	5582.0	4402.7	3217.1
45°	6149.1	6128.2	6210.6	6277.9	6234.4	6078.9	5723.1	5539.1	5941.3	4586.7	3285.5
47.5°	5820.6	5834.5	6018.5	6396.9	6563.5	6644.7	6390.5	5973.8	6253.5	4724.2	3316.3
50°	4926.8	4938.4	5364.4	6180.4	6648.2	7106.1	7052.7	6398.0	6495.5	4808.4	3309.3
52.5°	4219.3	4226.9	4409.7	5538.5	6368.4	7338.3	7649.4	6797.9	6672.5	4831.6	3270.4
55°	3178.1	3204.3	3409.2	4345.3	5640.7	7154.3	8012.6	7210.0	6784.6	4833.9	3229.8
57.5°	1856.6	1885.1	2138.1	2949.4	4384.1	6513.0	8067.8	7575.7	6860.6	4815.3	3205.4
60°	909.5	921.7	1031.9	1550.2	2703.4	5277.3	7624.4	7752.7	6903.0	4805.5	3204.3
62.5°	612.8	611.1	615.8	765.0	1332.0	3390.6	6700.4	7442.7	6880.3	4767.8	3192.7
65°	527.0	520.6	503.2	536.9	690.0	1550.7	5177.0	6517.6	6708.0	4673.2	3113.1
67.5°	455.6	456.1	456.7	446.3	492.7	715.6	3163.7	5134.0	6089.3	4225.2	2806.7
70°	377.2	382.4	384.8	384.8	401.6	469.6	1350.5	3518.8	4803.2	3312.8	2260.5
72.5°	343.6	332.5	333.7	327.9	327.9	357.5	543.8	1994.8	3026.1	1863.6	1379.5
75°	280.3	287.3	288.4	284.3	271.0	272.8	322.7	836.9	1294.8	773.1	681.9
77.5°	242.0	242.0	244.4	241.4	231.0	204.3	215.4	324.4	440.5	316.9	340.7
80°	194.4	193.8	203.7	209.5	193.3	150.9	137.6	179.4	195.6	139.3	177.0
82.5°	94.6	100.4	139.9	159.6	146.9	109.1	84.2	111.4	104.4	61.5	79.5
85°	55.1	52.3	62.7	88.8	84.2	60.4	40.6	58.0	54.5	31.4	31.9
87.5°	17.4	16.3	12.8	30.1	24.4	16.8	11.1	16.8	15.1	7.0	7.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1	2813.1
2.5°	2781.1	2712.7	2644.8	2582.7	2545.0	2520.6	2496.2	2468.9	2458.5	2442.8
5°	2753.3	2620.9	2503.2	2401.6	2309.3	2236.8	2163.7	2104.4	2077.8	2095.7
7.5°	2737.1	2545.5	2363.9	2177.6	1998.2	1854.8	1730.1	1642.5	1603.0	1612.8
10°	2722.5	2460.2	2183.4	1889.1	1631.4	1453.9	1326.1	1259.4	1234.4	1239.6
12.5°	2709.2	2364.5	1965.7	1578.6	1304.7	1187.5	1150.9	1151.5	1156.1	1159.6
15°	2706.8	2249.0	1722.5	1307.0	1128.2	1120.7	1160.2	1185.1	1198.4	1202.5
17.5°	2703.4	2110.8	1474.8	1121.9	1085.3	1136.4	1172.9	1189.2	1199.7	1200.2
20°	2689.5	1935.5	1246.1	1033.6	1076.0	1120.1	1142.8	1155.5	1164.2	1167.2
22.5°	2646.5	1740.6	1067.8	994.1	1038.8	1074.3	1101.0	1115.5	1120.7	1124.2
25°	2569.4	1522.3	944.8	956.4	987.2	1031.9	1053.4	1056.3	1054.5	1059.7
27.5°	2468.3	1288.4	868.3	905.4	944.8	983.2	994.8	993.0	989.5	995.4
30°	2346.4	1078.3	819.5	847.9	901.9	936.7	947.2	943.1	936.1	942.5
32.5°	2217.6	906.5	779.4	807.9	866.5	900.8	911.2	907.1	901.9	907.1
35°	2097.5	786.4	742.3	781.2	838.7	872.3	885.7	886.2	886.2	892.6
37.5°	1987.2	716.2	711.6	764.3	819.5	849.6	868.8	870.0	845.0	846.8
40°	1885.1	686.5	697.6	753.4	800.9	829.9	831.1	766.1	720.3	719.0
42.5°	1801.4	680.8	701.7	752.1	787.6	788.7	706.9	656.4	643.6	644.2
45°	1723.1	679.1	710.9	752.1	767.8	681.3	626.3	612.8	614.1	618.7
47.5°	1635.5	672.1	712.7	741.7	710.9	605.9	589.7	583.8	581.6	582.7
50°	1539.8	647.1	690.6	720.8	613.5	573.4	553.1	551.3	554.2	556.0
52.5°	1438.8	606.5	652.9	683.1	568.8	545.0	522.3	526.4	539.2	543.2
55°	1372.6	558.9	603.0	607.6	537.4	518.2	499.1	508.4	532.2	539.8
57.5°	1355.2	508.4	546.1	540.9	497.4	495.1	483.5	491.6	521.7	532.8
60°	1349.9	463.1	490.5	486.4	458.5	469.6	466.6	470.7	481.1	484.6
62.5°	1309.3	427.1	440.5	434.7	423.6	442.8	449.8	441.1	449.3	453.3
65°	1206.0	398.1	391.8	387.7	392.4	409.8	423.6	406.3	413.8	425.4
67.5°	1035.4	358.6	341.2	345.9	360.4	369.7	387.7	368.0	374.3	394.1
70°	837.5	308.7	293.0	306.5	320.4	339.5	342.5	329.0	344.2	366.2
72.5°	592.6	258.3	247.2	274.5	279.2	304.1	297.8	291.3	312.2	319.8
75°	410.9	208.4	201.9	222.8	239.6	261.2	256.6	264.0	308.2	311.7
77.5°	260.0	162.0	157.8	171.2	194.4	218.2	225.8	311.7	526.4	547.2
80°	150.9	120.7	116.0	126.5	146.9	168.9	217.6	382.4	347.1	343.0
82.5°	84.2	83.0	77.2	80.1	98.1	121.9	307.6	269.3	218.8	225.8
85°	39.5	48.8	41.8	40.1	55.1	142.8	205.4	153.8	102.2	99.8
87.5°	10.5	9.3	9.3	10.5	23.2	123.0	81.8	65.6	38.8	37.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)