

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: P965042

Luminaire Tested: **NAV-SB3D-727-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965042
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-SB3D-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 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: 21978 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

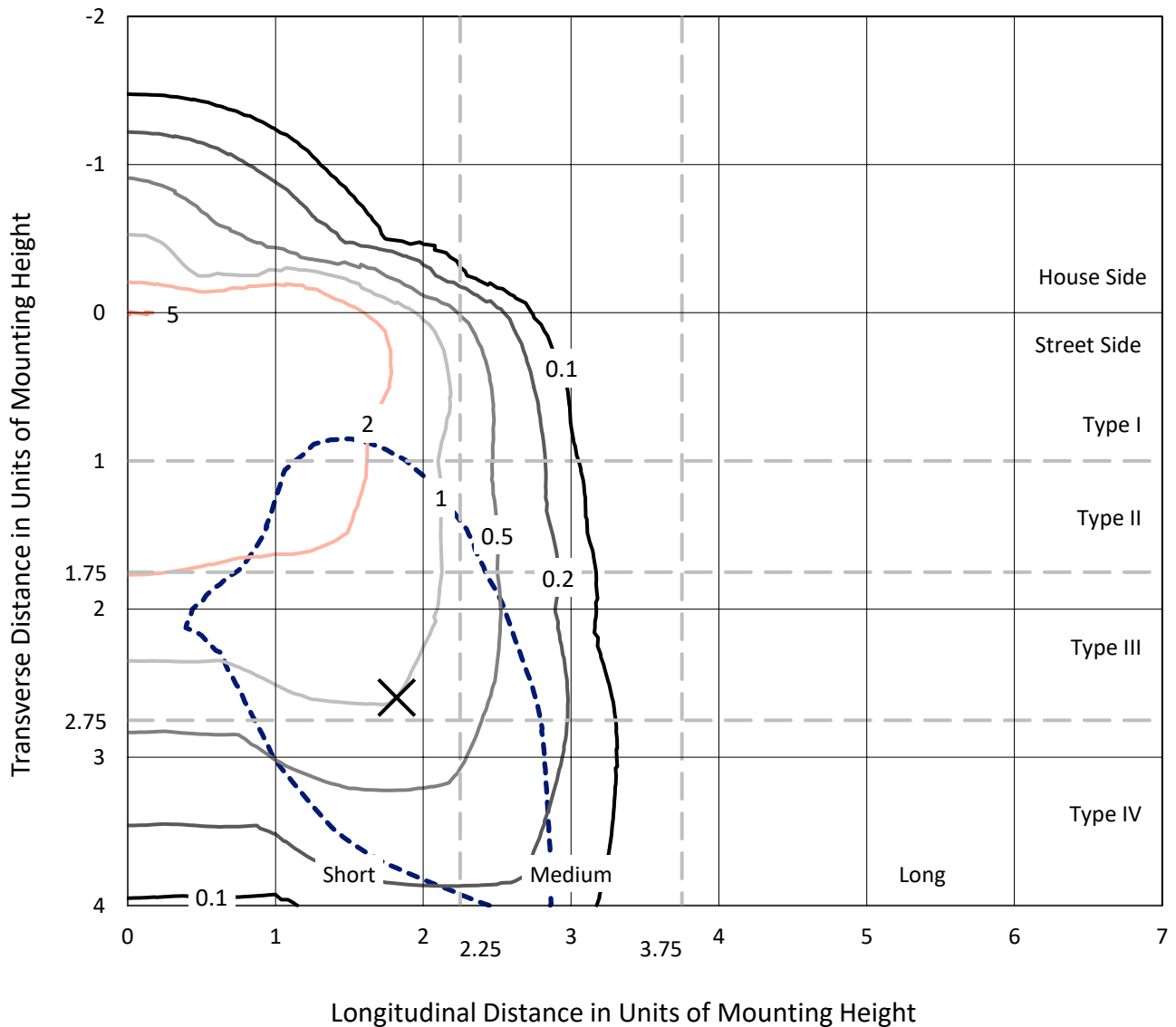
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

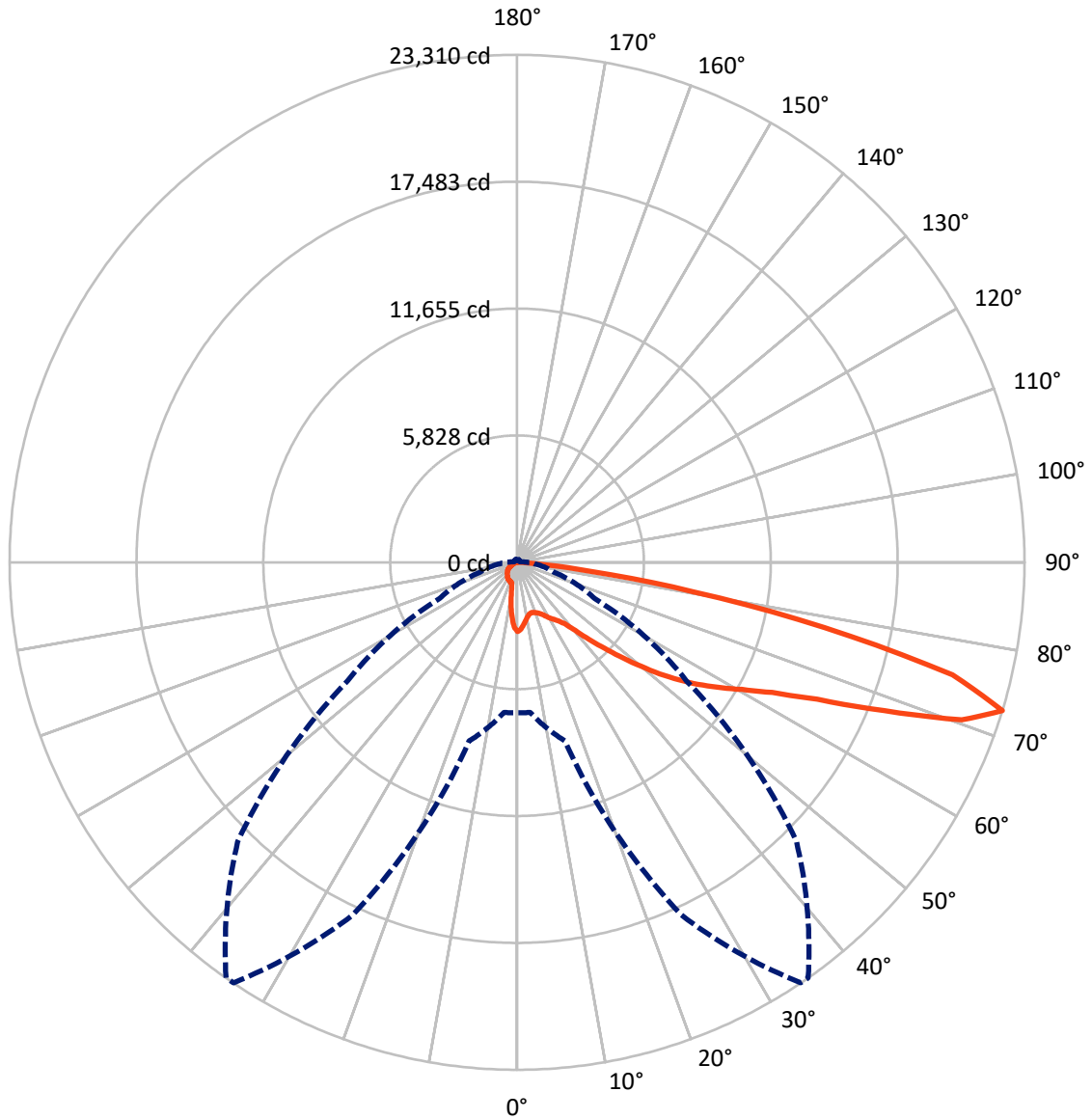
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P965042
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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2473.5	0.0	2473.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	19504.5	0.0	19504.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	21978.0	0.0	21978.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.8	1.2
10°-20°	612.3	2.8
20°-30°	994.7	4.5
30°-40°	1659.7	7.6
40°-50°	3140.2	14.3
50°-60°	4989.7	22.7
60°-70°	6172.6	28.1
70°-80°	3836.9	17.5
80°-90°	310.1	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°	21978.0	100.0
0°-180°	21978.0	100.0

Coefficient of Utilization



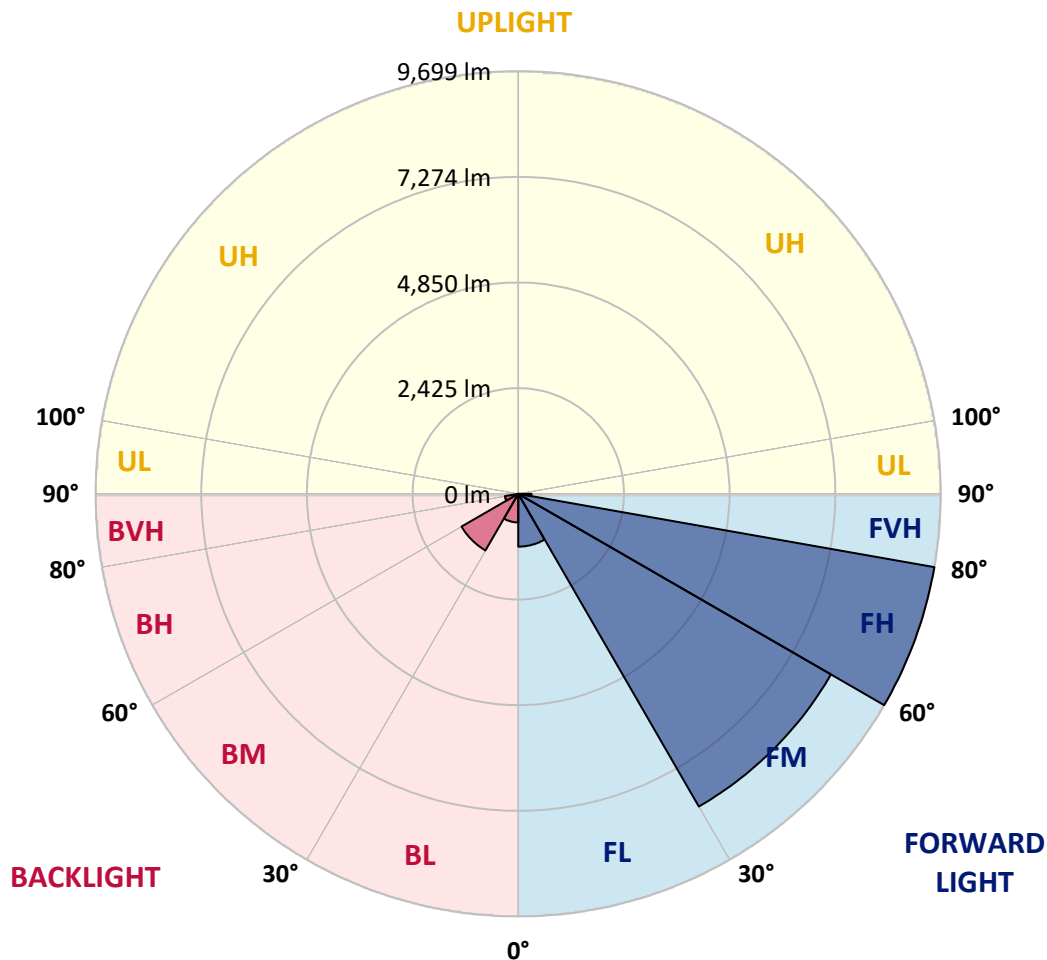
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1211.5	5.5			
FM	(30°-60°)	8287.9	37.7			
FH	(60°-80°)	9699.2	44.1			G4/12000
FVH	(80°-90°)	305.9	1.4			G3/500
BL	(0°-30°)	657.3	3.0	B2/1000		
BM	(30°-60°)	1501.6	6.8	B2/2500		
BH	(60°-80°)	310.4	1.4	B1/500		G1/500
BVH	(80°-90°)	4.2	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°	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4
2.5°	3043.6	3069.4	3074.3	3082.3	3082.3	3091.9	3108.1	3130.6	3167.7	3186.9	3199.8
5°	2805.3	2824.6	2848.8	2868.2	2905.2	2910.0	2972.8	3034.0	3119.3	3183.8	3228.9
7.5°	2565.4	2587.9	2620.1	2666.8	2715.1	2729.6	2824.6	2927.7	3063.0	3183.8	3259.4
10°	2396.2	2397.9	2426.9	2473.5	2550.8	2568.5	2684.5	2831.0	3000.2	3164.4	3288.4
12.5°	2301.2	2312.5	2325.4	2360.9	2434.9	2446.2	2570.2	2742.5	2937.3	3153.1	3322.2
15°	2301.2	2309.3	2317.3	2335.1	2394.6	2404.3	2513.8	2686.1	2905.2	3158.0	3377.0
17.5°	2325.4	2338.3	2331.9	2352.8	2415.6	2422.1	2518.6	2670.0	2903.5	3188.6	3460.7
20°	2383.3	2393.1	2380.2	2393.1	2455.8	2468.7	2568.5	2700.7	2930.9	3241.8	3565.4
22.5°	2475.2	2480.0	2449.4	2459.1	2523.4	2539.5	2655.6	2787.6	2996.9	3327.0	3705.5
25°	2591.1	2600.8	2554.1	2565.4	2626.6	2645.8	2779.5	2918.1	3101.6	3444.6	3884.2
27.5°	2724.8	2729.6	2689.4	2687.8	2766.7	2794.0	2929.3	3079.1	3241.8	3592.8	4109.7
30°	2877.8	2892.2	2853.6	2847.1	2947.0	2969.5	3103.2	3277.1	3447.9	3815.0	4430.2
32.5°	2998.5	3009.8	2987.3	3003.4	3104.8	3122.6	3314.2	3557.4	3771.6	4130.6	4866.6
35°	3172.5	3178.9	3127.4	3156.4	3272.3	3317.4	3602.5	3950.2	4178.9	4526.8	5436.7
37.5°	3802.1	3802.1	3583.1	3439.8	3550.9	3591.2	3997.0	4444.7	4681.4	5058.3	6154.9
40°	4673.4	4658.8	4338.4	4045.3	4030.8	4109.7	4559.0	5067.9	5330.4	5695.9	6963.3
42.5°	5602.5	5580.0	5143.6	4853.7	4805.4	4832.8	5208.0	5836.0	6103.4	6473.8	7832.9
45°	6427.1	6420.6	6021.3	5631.6	5544.5	5631.6	6018.1	6734.7	6926.3	7316.0	8700.9
47.5°	7117.9	7117.9	6826.5	6572.0	6526.9	6578.4	7114.7	7731.5	7713.7	8213.0	9546.4
50°	7913.5	7907.1	7630.0	7520.5	7567.3	7639.7	8377.2	8781.5	8528.6	9093.9	10301.7
52.5°	8470.7	8509.3	8414.3	8396.6	8634.9	8760.6	9659.1	9808.9	9258.1	9929.7	10866.9
55°	8911.9	8957.0	9066.5	9190.6	9649.5	9813.8	10900.8	10783.2	9868.5	10654.4	11192.2
57.5°	9536.7	9472.3	9641.5	9886.2	10628.6	10826.7	12103.7	11702.7	10359.7	11242.2	11227.6
60°	10295.2	10304.9	10333.8	10643.1	11606.1	11860.6	13288.9	12572.3	10675.3	11602.9	10834.8
62.5°	11206.7	11221.2	11280.8	11755.8	12918.6	13158.5	14551.5	13284.1	10820.2	11501.4	9820.2
65°	11143.9	11205.1	11870.2	13495.0	14913.9	15150.5	16025.1	13783.4	10601.2	10573.8	7995.6
67.5°	10151.9	10251.7	11364.6	15572.5	17922.0	18186.2	17806.1	13881.6	9655.9	8222.7	5216.0
70°	8850.7	8886.1	10224.4	17440.6	21405.4	21672.7	19400.4	12801.0	7327.3	4586.4	2336.7
72.5°	6911.8	6919.9	8490.0	17873.7	23295.9	23310.4	18149.2	9502.9	3940.6	1761.8	811.6
75°	4937.4	4889.1	5686.3	14495.1	20495.5	20659.7	13606.2	4457.5	1505.7	832.6	404.2
77.5°	2647.5	2700.7	3217.6	8596.3	14158.5	14438.8	7423.9	1285.0	766.6	566.8	267.3
80°	818.1	863.2	1318.9	3935.8	8019.8	8188.8	2752.1	571.6	534.6	404.2	175.6
82.5°	257.7	267.3	615.2	1653.8	3328.7	3406.0	797.1	323.7	365.5	267.3	103.1
85°	74.1	75.6	273.8	616.7	822.9	839.1	223.9	125.6	209.3	165.8	53.1
87.5°	8.1	25.7	103.1	103.1	72.5	70.8	24.2	27.4	59.6	20.9	9.6
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°	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4	3185.4
2.5°	3191.7	3193.4	3172.5	3137.0	3098.4	3066.2	3025.9	2993.7	2971.2	2964.7	2976.0
5°	3214.3	3203.0	3143.5	3035.6	2906.8	2795.7	2671.7	2573.4	2509.0	2481.6	2491.3
7.5°	3248.1	3215.9	3085.6	2873.0	2626.6	2407.5	2185.3	2013.0	1903.5	1848.7	1856.8
10°	3277.1	3212.8	2988.9	2637.8	2260.9	1929.3	1629.7	1422.0	1306.1	1251.3	1252.9
12.5°	3304.5	3211.1	2863.2	2359.2	1848.7	1442.9	1164.3	1061.3	1029.0	1017.7	1014.5
15°	3356.1	3215.9	2705.5	2040.4	1438.1	1090.2	988.8	987.2	993.6	990.4	988.8
17.5°	3426.9	3220.8	2526.7	1702.2	1109.6	961.4	956.5	971.1	980.7	975.9	974.3
20°	3518.7	3240.1	2336.7	1367.2	953.4	929.2	940.4	953.4	961.4	953.4	951.7
22.5°	3647.6	3274.0	2128.9	1098.3	903.4	909.9	919.5	934.0	942.1	930.8	929.2
25°	3805.3	3327.0	1924.4	955.0	879.2	887.3	901.8	917.9	927.6	916.4	914.7
27.5°	4009.9	3412.4	1736.0	922.7	855.2	860.0	880.9	905.1	917.9	903.4	903.4
30°	4306.2	3552.5	1573.4	937.3	840.6	829.3	858.3	892.2	906.6	893.8	892.2
32.5°	4699.1	3750.6	1473.5	959.8	834.1	794.0	821.3	864.8	889.0	880.9	880.9
35°	5214.5	4051.7	1434.9	985.5	829.3	756.9	776.2	822.9	864.8	872.8	872.8
37.5°	5839.3	4470.4	1446.2	996.8	814.9	726.3	735.9	776.2	831.0	856.7	863.2
40°	6549.4	4958.4	1510.5	985.5	798.8	700.5	702.1	732.8	781.0	819.7	832.6
42.5°	7282.2	5528.4	1629.7	943.7	784.2	677.9	673.1	694.1	726.3	753.7	765.0
45°	7979.5	6114.6	1747.3	885.7	766.6	655.4	644.1	652.2	658.7	669.9	676.4
47.5°	8588.3	6526.9	1713.5	832.6	742.4	629.7	610.4	607.1	587.8	586.2	584.6
50°	9008.5	6617.1	1521.8	779.4	706.9	600.6	570.1	550.7	516.9	500.8	502.5
52.5°	9142.2	6261.2	1243.2	726.3	649.0	562.0	518.5	487.9	446.1	431.6	430.0
55°	8965.1	5563.9	993.6	661.8	568.5	510.4	462.2	421.9	388.1	370.4	370.4
57.5°	8531.9	4676.6	785.9	586.2	483.1	452.5	404.2	364.0	335.0	317.2	314.1
60°	7813.6	3713.6	621.7	496.0	412.3	389.7	339.8	314.1	288.2	267.3	262.5
62.5°	6723.4	2650.8	487.9	393.0	344.6	318.9	289.9	270.5	240.0	210.9	206.1
65°	5246.7	1621.7	376.8	288.2	277.0	264.1	246.4	228.7	191.7	162.7	157.8
67.5°	3309.3	768.1	269.0	217.4	219.0	212.6	204.5	190.0	162.7	136.8	133.7
70°	1457.4	372.0	177.1	165.8	162.7	162.7	169.1	164.3	138.5	114.3	109.5
72.5°	496.0	199.7	132.0	125.6	117.6	115.9	141.8	136.8	111.1	88.6	83.7
75°	259.2	133.7	96.7	90.2	70.8	85.4	112.7	106.3	78.9	58.0	53.1
77.5°	169.1	95.0	66.0	58.0	40.3	56.4	83.7	74.1	46.7	29.0	25.7
80°	106.3	62.8	38.6	27.4	19.4	30.6	45.1	32.2	17.7	6.5	4.8
82.5°	56.4	32.2	14.5	9.6	8.1	9.6	11.3	8.1	3.2	0.0	0.0
85°	22.5	11.3	4.8	3.2	1.6	0.0	3.2	1.6	0.0	0.0	0.0
87.5°	8.1	1.6	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)