

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: P966805

Luminaire Tested: **NAV-SB4C-827-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20980.7 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 200.7
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



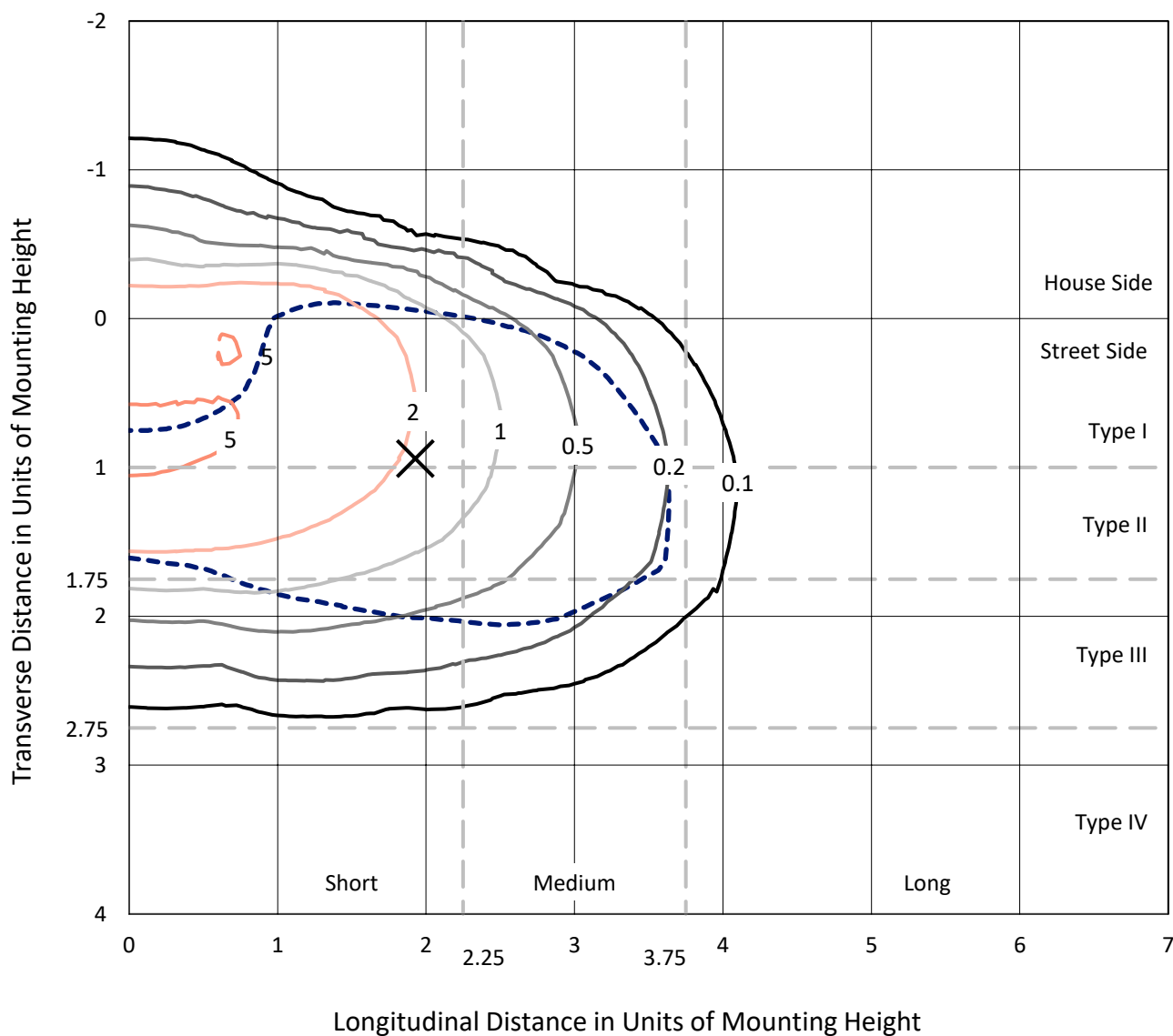
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



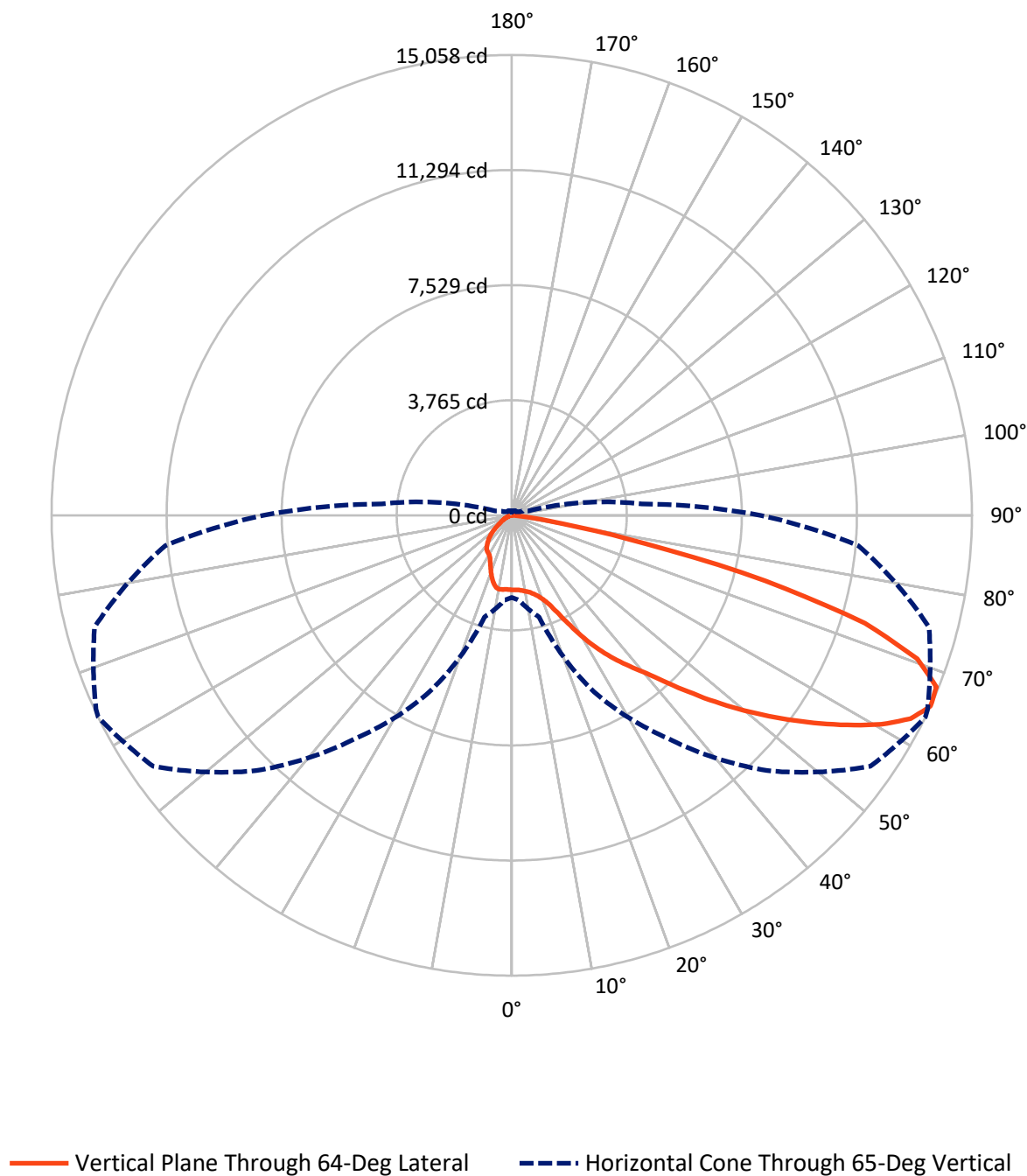
Based on 25 foot mounting height. Maximum calculated value = 6.1 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2805.8	0.0	2805.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	18175.0	0.0	18175.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	20980.7	0.0	20980.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.1	1.1
10°-20°	610.6	2.9
20°-30°	1157.1	5.5
30°-40°	2341.5	11.2
40°-50°	3988.7	19.0
50°-60°	5424.3	25.9
60°-70°	5093.7	24.3
70°-80°	2040.8	9.7
80°-90°	98.9	0.5
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°	20980.7	100.0
0°-180°	20980.7	100.0

Coefficient of Utilization



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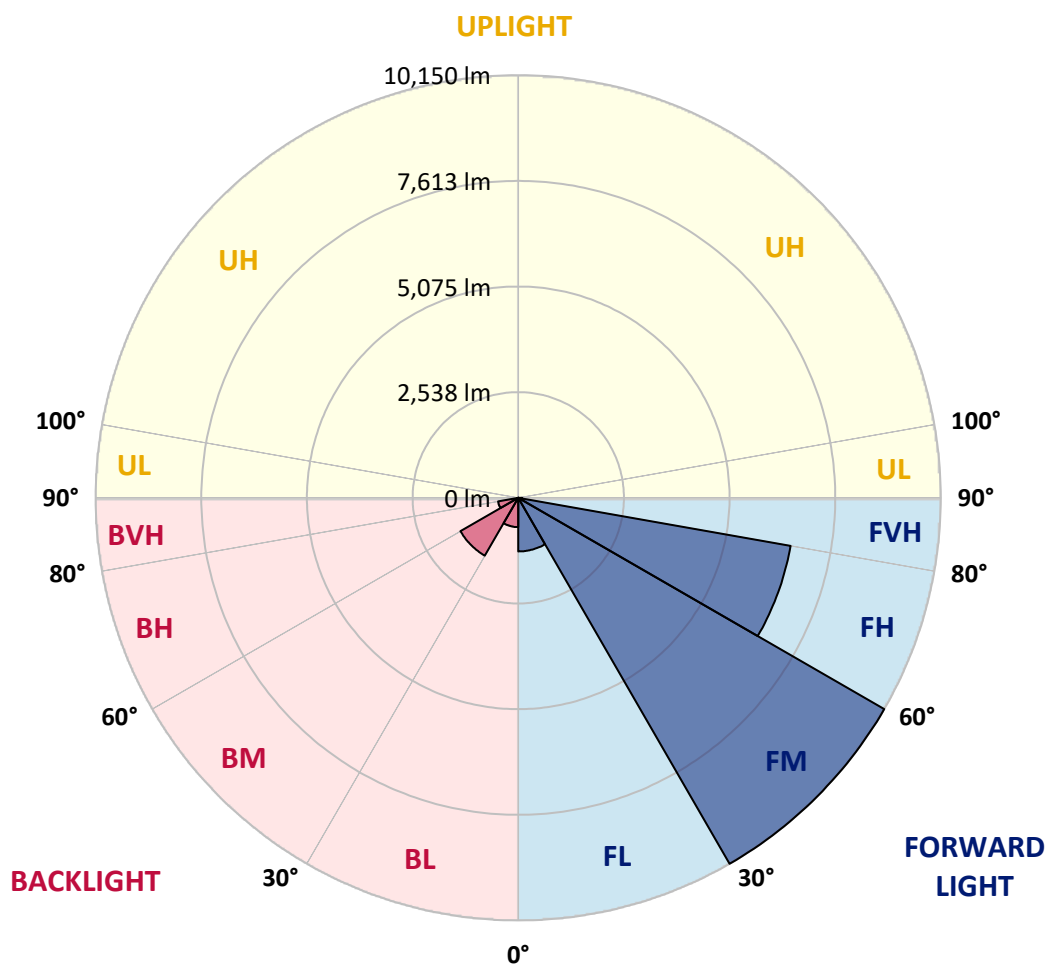
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1288.5	6.1			
FM	(30°-60°)	10150.5	48.4			
FH	(60°-80°)	6642.0	31.7			G3/7500
FVH	(80°-90°)	94.0	0.4			G1/100
BL	(0°-30°)	704.4	3.4	B2/1000		
BM	(30°-60°)	1604.0	7.6	B2/2500		
BH	(60°-80°)	492.5	2.3	B1/500		G1/500
BVH	(80°-90°)	4.8	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3
2.5°	2431.8	2448.7	2444.5	2440.3	2438.9	2441.7	2443.1	2441.7	2441.7	2441.7	2443.1
5°	2385.4	2399.5	2399.5	2409.4	2423.4	2440.3	2452.9	2455.8	2458.6	2462.8	2461.3
7.5°	2296.8	2308.1	2316.5	2348.9	2384.0	2429.0	2467.0	2486.6	2489.5	2505.0	2510.6
10°	2236.3	2250.4	2264.4	2298.3	2348.9	2416.3	2481.1	2528.9	2536.0	2572.4	2589.4
12.5°	2233.5	2247.6	2265.9	2302.5	2361.5	2433.2	2512.0	2581.0	2593.6	2647.1	2682.2
15°	2263.1	2279.9	2296.8	2341.8	2405.2	2492.3	2576.7	2662.5	2675.1	2751.1	2789.1
17.5°	2323.6	2346.0	2358.7	2403.7	2471.2	2568.2	2679.4	2777.9	2789.1	2877.7	2925.6
20°	2443.1	2469.8	2474.0	2510.6	2576.7	2680.8	2813.0	2935.4	2949.4	3050.7	3104.1
22.5°	2690.6	2728.7	2694.8	2713.2	2772.2	2876.3	3019.8	3174.4	3194.2	3309.5	3357.3
25°	3126.7	3180.1	3092.9	3062.0	3087.3	3195.5	3375.6	3571.1	3593.6	3686.4	3710.3
27.5°	3983.3	3914.3	3782.0	3652.7	3576.7	3638.6	3841.2	4083.1	4111.2	4201.2	4173.1
30°	4924.2	4863.6	4685.1	4398.2	4218.1	4208.2	4395.3	4665.4	4697.7	4783.5	4697.7
32.5°	5866.5	5808.9	5614.7	5261.7	4949.5	4794.7	4924.2	5223.7	5240.6	5295.5	5168.9
35°	6793.4	6734.4	6540.2	6178.7	5794.7	5443.2	5417.8	5755.4	5761.0	5818.7	5630.2
37.5°	7725.9	7676.6	7469.9	7115.4	6737.1	6251.9	6017.0	6259.0	6265.9	6322.2	6126.7
40°	8391.2	8412.3	8270.2	7995.9	7671.0	7140.8	6689.4	6794.8	6752.6	6846.8	6730.2
42.5°	8962.2	9004.4	8880.6	8742.8	8554.3	8087.4	7522.0	7503.7	7436.2	7486.8	7365.9
45°	9455.9	9491.1	9380.0	9347.6	9343.4	9015.7	8432.0	8322.3	8228.0	8218.1	8073.3
47.5°	9637.4	9704.8	9752.7	9861.0	10072.0	9934.1	9372.9	9202.8	9097.3	9019.9	8790.6
50°	9706.2	9778.0	9941.2	10256.2	10755.5	10814.6	10309.7	10118.4	9988.9	9848.3	9510.8
52.5°	9613.4	9741.4	9960.8	10491.1	11215.4	11520.6	11208.4	11041.0	10893.3	10664.1	10163.4
55°	9066.3	9194.2	9643.0	10488.3	11444.6	12015.8	12057.9	11983.4	11817.4	11455.9	10690.7
57.5°	7913.0	8102.8	8813.2	10131.0	11440.4	12441.9	12890.6	12944.0	12758.4	12240.8	11105.7
60°	6315.2	6572.6	7438.9	9339.2	11087.4	12672.6	13620.5	13887.7	13690.8	13014.3	11441.9
62.5°	4406.6	4704.8	5524.7	8098.6	10280.1	12506.6	14153.6	14647.2	14498.2	13706.3	11571.2
65°	2687.9	2783.5	3444.5	6372.8	8907.4	11811.8	14318.1	15058.0	15008.8	14129.7	11380.0
67.5°	1790.5	1870.6	2060.6	4370.0	6914.3	10423.5	13924.3	14986.2	15000.4	14060.7	10679.6
70°	1078.8	1147.7	1271.5	2541.6	4481.1	8250.5	12704.9	14072.0	14153.6	13139.5	9351.8
72.5°	444.4	490.9	603.4	1151.9	2320.7	5236.4	10117.0	12081.8	12271.7	11048.1	7177.4
75°	251.7	275.7	354.4	578.1	1007.1	2440.3	6128.2	8576.8	8856.7	7614.8	4317.9
77.5°	167.4	178.7	229.3	374.1	566.8	832.6	2618.9	4468.5	5002.9	4159.0	1869.2
80°	112.5	122.4	157.5	250.4	368.5	357.2	834.0	1655.5	2036.6	1429.0	455.7
82.5°	76.0	77.4	112.5	164.5	233.5	173.0	246.1	514.8	647.0	413.5	173.0
85°	43.6	42.2	83.0	95.6	104.0	71.8	74.5	154.7	202.5	174.5	98.5
87.5°	5.6	8.4	32.4	25.3	14.0	15.5	15.5	26.8	39.4	42.2	21.1
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°	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3	2440.3
2.5°	2443.1	2441.7	2437.4	2433.2	2423.4	2417.8	2420.5	2417.8	2416.3	2417.8	2423.4
5°	2461.3	2457.1	2445.9	2431.8	2412.1	2388.2	2372.8	2350.2	2329.2	2316.5	2319.3
7.5°	2510.6	2506.4	2491.0	2451.5	2388.2	2288.4	2197.0	2116.8	2056.3	2021.1	2022.5
10°	2589.4	2582.3	2558.4	2471.2	2305.2	2087.2	1905.8	1755.3	1656.8	1610.5	1606.2
12.5°	2682.2	2673.7	2631.6	2452.9	2147.7	1807.4	1557.0	1389.6	1298.2	1257.4	1253.2
15°	2791.9	2780.6	2697.7	2365.7	1918.5	1497.9	1268.6	1143.5	1084.4	1047.9	1049.3
17.5°	2928.3	2908.6	2746.9	2234.9	1669.5	1261.7	1091.4	997.2	945.2	910.0	907.2
20°	3105.5	3073.2	2786.3	2078.8	1440.2	1112.5	971.9	893.1	853.7	822.8	817.1
22.5°	3353.1	3306.6	2834.1	1910.0	1278.5	1009.8	883.2	825.6	793.2	758.1	752.5
25°	3659.7	3604.8	2893.2	1753.9	1167.4	921.3	818.6	770.8	732.8	692.0	687.8
27.5°	4088.7	3990.2	2963.5	1626.0	1071.7	845.3	759.5	706.0	662.5	628.7	621.7
30°	4566.9	4405.1	3025.4	1548.6	984.5	775.0	682.1	628.7	587.9	564.0	559.8
32.5°	5019.8	4800.4	3066.2	1514.8	905.8	694.8	597.8	540.1	509.1	502.1	506.4
35°	5447.4	5157.6	3062.0	1482.5	835.5	614.6	514.8	455.7	431.8	436.0	436.0
37.5°	5939.7	5538.8	3032.5	1431.8	777.8	541.5	443.0	391.0	369.9	371.4	376.9
40°	6512.1	5979.0	3014.1	1336.2	714.5	474.0	384.0	341.7	326.3	320.7	319.3
42.5°	7122.5	6405.2	3017.0	1227.8	635.7	413.5	343.2	308.0	294.0	289.8	288.3
45°	7735.8	6811.6	3021.2	1115.4	552.8	367.1	313.6	284.1	275.7	270.1	270.1
47.5°	8312.4	7157.7	2942.4	994.4	471.2	331.9	289.8	270.1	263.0	255.9	255.9
50°	8849.6	7388.3	2752.5	853.7	406.5	303.8	271.4	257.4	250.4	243.3	243.3
52.5°	9267.4	7424.9	2438.9	708.9	361.5	282.7	260.2	247.5	239.1	232.1	230.6
55°	9453.1	7195.6	1993.0	573.9	326.3	264.4	249.0	236.3	226.4	219.5	218.0
57.5°	9405.3	6713.2	1554.2	461.4	292.5	246.1	234.9	226.4	215.1	204.0	202.5
60°	9170.4	6067.6	1171.6	384.0	261.6	226.4	219.5	212.4	196.9	180.0	177.2
62.5°	8763.9	5256.1	835.5	317.9	227.9	204.0	201.1	195.5	173.0	142.1	139.2
65°	8142.2	4270.2	562.6	264.4	195.5	178.7	180.0	170.1	140.6	105.5	102.7
67.5°	7233.6	3122.5	360.1	216.6	163.2	149.1	150.5	144.8	119.5	90.0	85.8
70°	6076.1	2067.5	234.9	164.5	130.8	115.3	123.8	125.2	101.3	73.2	70.3
72.5°	4454.3	1220.9	164.5	122.4	95.6	80.2	101.3	104.0	81.6	54.8	52.1
75°	2538.7	579.4	123.8	88.6	59.0	56.3	78.7	78.7	56.3	36.6	33.7
77.5°	1066.1	241.9	87.2	57.7	33.7	32.4	53.4	49.2	28.1	16.9	16.9
80°	308.0	108.3	46.4	28.1	14.0	12.6	21.1	15.5	7.1	2.8	2.8
82.5°	121.0	47.9	18.2	11.3	5.6	5.6	2.8	0.0	0.0	0.0	0.0
85°	71.8	19.7	8.4	4.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	18.2	4.2	2.8	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)