

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: P884000

Luminaire Tested: **NAV-SB4C-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884000
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-SB4C-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 19389 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

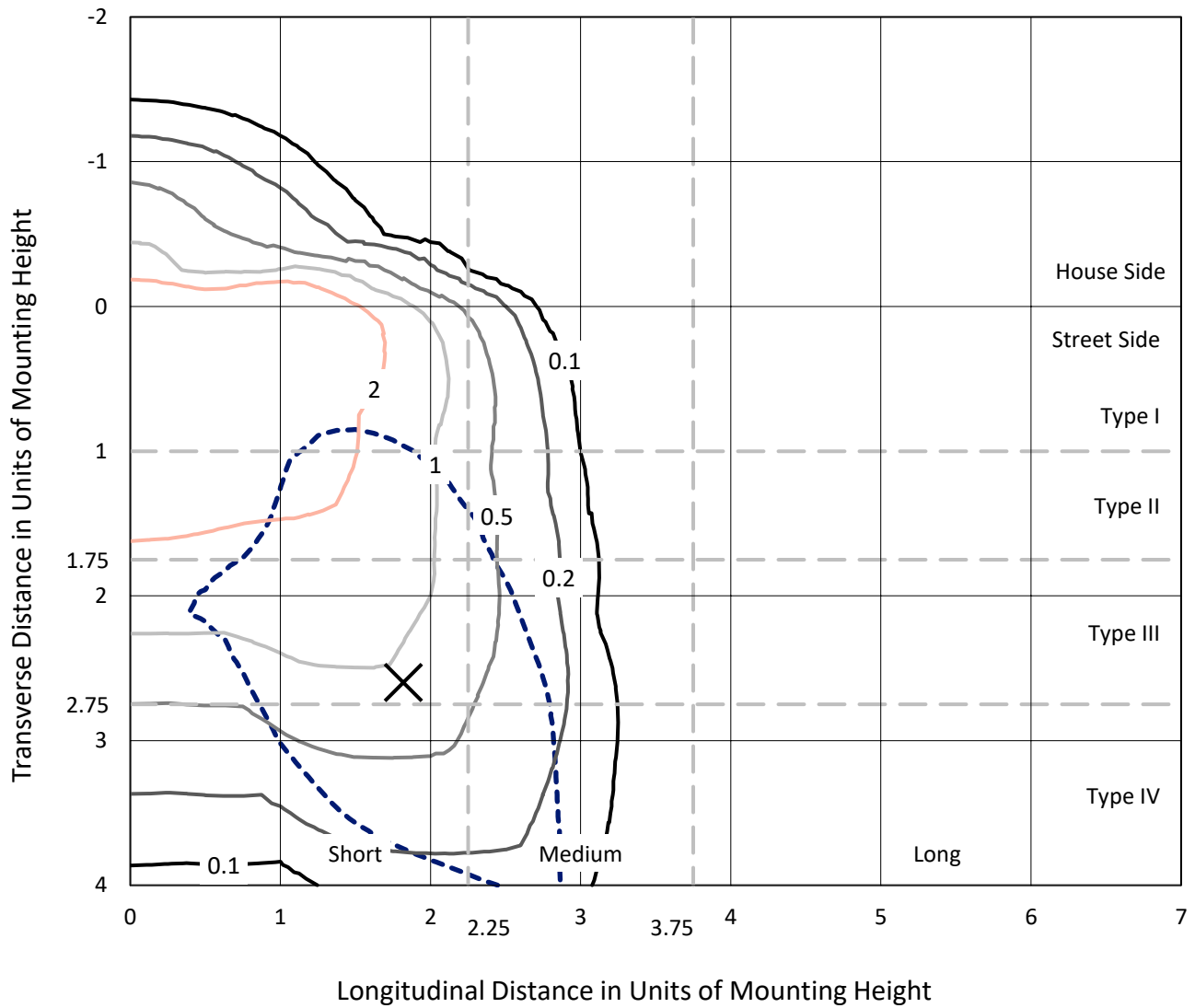
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

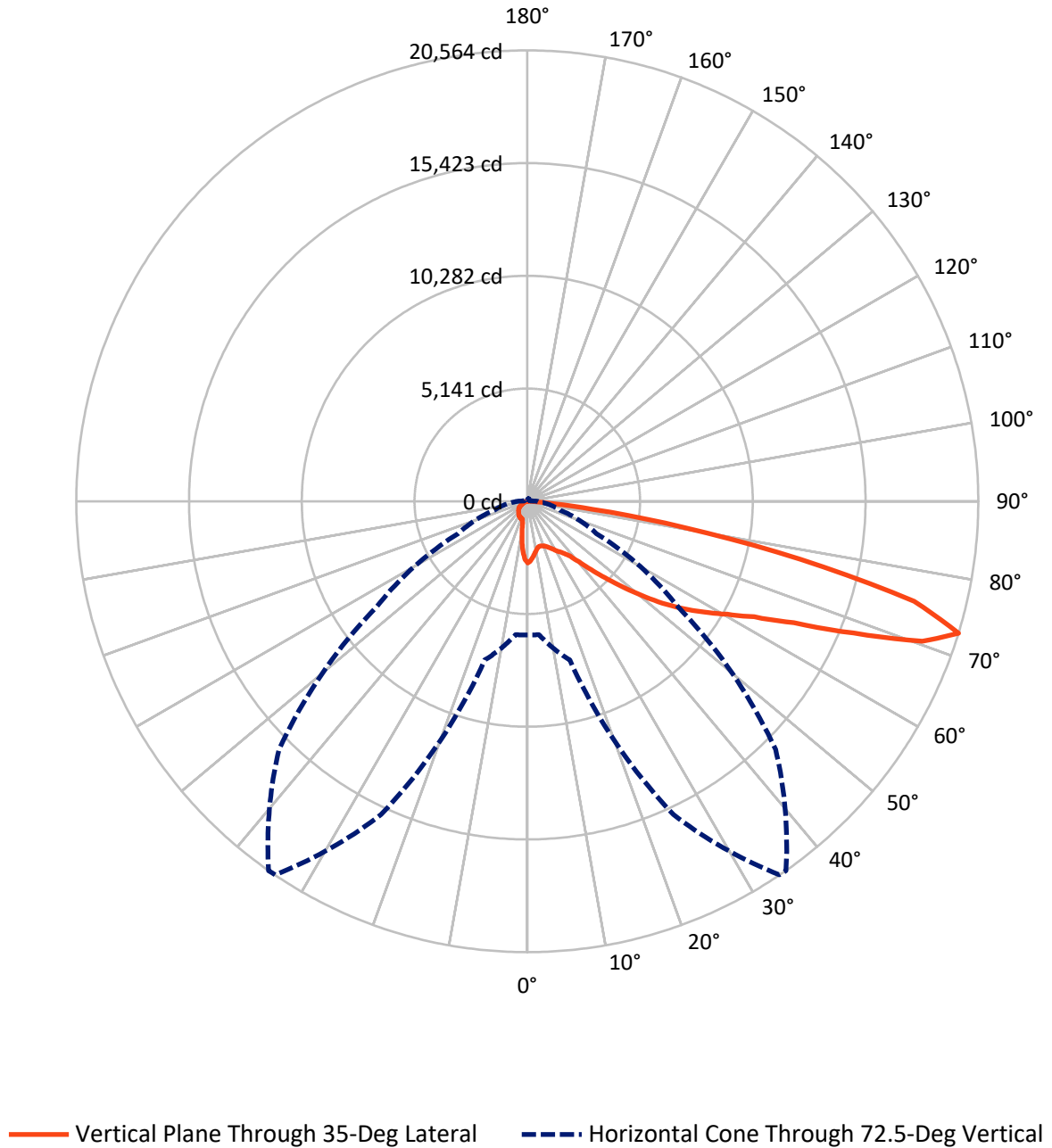
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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	2182.1	0.0	2182.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	17206.9	0.0	17206.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	19389.0	0.0	19389.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.9	1.2
10°-20°	540.2	2.8
20°-30°	877.5	4.5
30°-40°	1464.2	7.6
40°-50°	2770.3	14.3
50°-60°	4401.9	22.7
60°-70°	5445.5	28.1
70°-80°	3384.9	17.5
80°-90°	273.6	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°	19389.0	100.0
0°-180°	19389.0	100.0

Coefficient of Utilization



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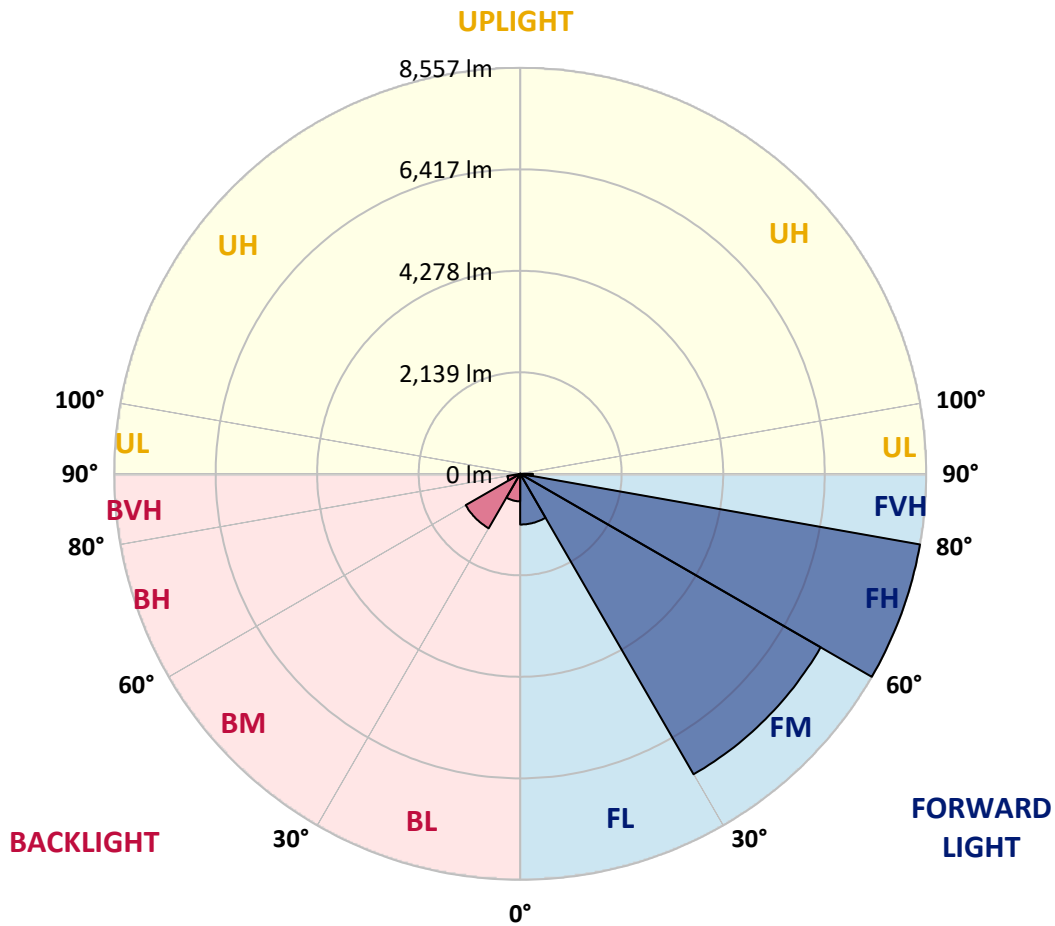
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1068.8	5.5			
FM (30°-60°)	7311.6	37.7			
FH (60°-80°)	8556.6	44.1			G4/12000
FVH (80°-90°)	269.8	1.4			G3/500
BL (0°-30°)	579.8	3.0	B2/1000		
BM (30°-60°)	1324.8	6.8	B2/2500		
BH (60°-80°)	273.8	1.4	B1/500		G1/500
BVH (80°-90°)	3.7	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°	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1
2.5°	2685.1	2707.8	2712.1	2719.2	2719.2	2727.7	2741.9	2761.8	2794.5	2811.5	2822.9
5°	2474.8	2491.9	2513.2	2530.2	2562.9	2567.2	2622.6	2676.6	2751.9	2808.7	2848.5
7.5°	2263.2	2283.0	2311.5	2352.7	2395.3	2408.1	2491.9	2582.8	2702.1	2808.7	2875.5
10°	2114.0	2115.4	2141.0	2182.2	2250.4	2266.0	2368.3	2497.6	2646.7	2791.6	2901.0
12.5°	2030.2	2040.1	2051.5	2082.7	2148.1	2158.0	2267.4	2419.4	2591.3	2781.7	2930.9
15°	2030.2	2037.3	2044.4	2060.0	2112.6	2121.1	2217.7	2369.7	2562.9	2786.0	2979.2
17.5°	2051.5	2062.8	2057.2	2075.6	2131.0	2136.7	2222.0	2355.5	2561.5	2813.0	3053.1
20°	2102.6	2111.1	2099.8	2111.1	2166.5	2177.9	2266.0	2382.5	2585.6	2859.8	3145.4
22.5°	2183.6	2187.9	2160.9	2169.4	2226.2	2240.4	2342.7	2459.2	2643.9	2935.1	3269.0
25°	2285.9	2294.4	2253.2	2263.2	2317.1	2334.2	2452.1	2574.3	2736.2	3038.8	3426.7
27.5°	2403.8	2408.1	2372.5	2371.1	2440.7	2464.9	2584.2	2716.4	2859.8	3169.5	3625.6
30°	2538.8	2551.6	2517.5	2511.8	2599.9	2619.7	2737.7	2891.1	3041.7	3365.6	3908.3
32.5°	2645.3	2655.3	2635.4	2649.6	2739.1	2754.7	2923.8	3138.3	3327.2	3644.1	4293.3
35°	2798.8	2804.4	2759.0	2784.5	2886.8	2926.6	3178.1	3484.9	3686.7	3993.5	4796.2
37.5°	3354.2	3354.2	3161.0	3034.6	3132.6	3168.1	3526.1	3921.1	4129.9	4462.4	5429.9
40°	4122.8	4110.0	3827.3	3568.8	3556.0	3625.6	4022.0	4470.9	4702.5	5025.0	6143.0
42.5°	4942.6	4922.7	4537.7	4281.9	4239.3	4263.5	4594.5	5148.6	5384.4	5711.2	6910.2
45°	5670.0	5664.3	5311.9	4968.1	4891.4	4968.1	5309.1	5941.3	6110.4	6454.2	7676.0
47.5°	6279.4	6279.4	6022.3	5797.8	5758.0	5803.5	6276.6	6820.7	6805.1	7245.5	8421.8
50°	6981.2	6975.6	6731.2	6634.6	6675.8	6739.7	7390.4	7747.0	7524.0	8022.6	9088.1
52.5°	7472.8	7506.9	7423.1	7407.5	7617.7	7728.5	8521.3	8653.4	8167.5	8759.9	9586.8
55°	7862.1	7901.9	7998.5	8107.9	8512.7	8657.7	9616.6	9512.9	8706.0	9399.3	9873.8
57.5°	8413.3	8356.5	8505.6	8721.6	9376.5	9551.3	10677.9	10324.1	9139.3	9917.8	9905.0
60°	9082.4	9091.0	9116.5	9389.3	10238.9	10463.3	11723.5	11091.3	9417.7	10236.0	9558.4
62.5°	9886.6	9899.3	9951.9	10371.0	11396.7	11608.4	12837.3	11719.2	9545.6	10146.5	8663.3
65°	9831.1	9885.1	10471.9	11905.3	13157.0	13365.8	14137.2	12159.6	9352.4	9328.2	7053.7
67.5°	8956.0	9044.1	10025.8	13738.0	15810.8	16043.8	15708.5	12246.3	8518.4	7254.0	4601.6
70°	7808.1	7839.3	9019.9	15386.0	18883.8	19119.6	17115.0	11293.0	6464.1	4046.1	2061.4
72.5°	6097.6	6104.7	7489.9	15768.2	20551.6	20564.4	16011.1	8383.5	3476.4	1554.2	716.0
75°	4355.8	4313.2	5016.4	12787.6	18081.1	18226.0	12003.4	3932.5	1328.3	734.5	356.6
77.5°	2335.6	2382.5	2838.5	7583.6	12490.7	12737.9	6549.4	1133.7	676.2	500.1	235.8
80°	721.7	761.5	1163.5	3472.2	7075.0	7224.2	2428.0	504.3	471.7	356.6	154.9
82.5°	227.3	235.8	542.7	1459.0	2936.6	3004.8	703.2	285.6	322.5	235.8	90.9
85°	65.4	66.8	241.5	544.1	726.0	740.2	197.5	110.8	184.7	146.3	46.9
87.5°	7.1	22.7	90.9	90.9	63.9	62.5	21.3	24.2	52.6	18.5	8.5
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°	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1
2.5°	2815.8	2817.2	2798.8	2767.5	2733.4	2705.0	2669.5	2641.1	2621.2	2615.5	2625.4
5°	2835.7	2825.7	2773.2	2678.0	2564.3	2466.3	2356.9	2270.3	2213.4	2189.3	2197.8
7.5°	2865.5	2837.1	2722.0	2534.5	2317.1	2123.9	1927.9	1775.9	1679.3	1630.9	1638.1
10°	2891.1	2834.3	2636.8	2327.1	1994.6	1702.0	1437.7	1254.5	1152.2	1103.9	1105.3
12.5°	2915.2	2832.8	2526.0	2081.3	1630.9	1272.9	1027.2	936.2	907.8	897.9	895.0
15°	2960.7	2837.1	2386.8	1800.0	1268.7	961.8	872.3	870.9	876.6	873.7	872.3
17.5°	3023.2	2841.4	2229.1	1501.7	978.9	848.1	843.9	856.7	865.2	860.9	859.5
20°	3104.2	2858.4	2061.4	1206.2	841.0	819.7	829.7	841.0	848.1	841.0	839.6
22.5°	3217.9	2888.3	1878.1	968.9	797.0	802.7	811.2	824.0	831.1	821.2	819.7
25°	3357.1	2935.1	1697.7	842.5	775.7	782.8	795.6	809.8	818.3	808.4	806.9
27.5°	3537.5	3010.4	1531.5	814.1	754.4	758.6	777.1	798.4	809.8	797.0	797.0
30°	3798.9	3134.0	1388.0	826.8	741.6	731.7	757.2	787.1	799.8	788.5	787.1
32.5°	4145.6	3308.8	1299.9	846.7	735.9	700.4	724.5	762.9	784.2	777.1	777.1
35°	4600.2	3574.4	1265.8	869.5	731.7	667.7	684.8	726.0	762.9	770.0	770.0
37.5°	5151.4	3943.8	1275.8	879.4	718.9	640.7	649.3	684.8	733.1	755.8	761.5
40°	5777.9	4374.3	1332.6	869.5	704.7	618.0	619.4	646.4	689.0	723.1	734.5
42.5°	6424.3	4877.2	1437.7	832.5	691.9	598.1	593.8	612.3	640.7	664.9	674.8
45°	7039.5	5394.3	1541.4	781.4	676.2	578.2	568.3	575.4	581.1	591.0	596.7
47.5°	7576.5	5758.0	1511.6	734.5	654.9	555.5	538.4	535.6	518.6	517.1	515.7
50°	7947.3	5837.6	1342.5	687.6	623.7	529.9	502.9	485.9	456.0	441.8	443.3
52.5°	8065.2	5523.6	1096.8	640.7	572.5	495.8	457.5	430.5	393.5	380.7	379.3
55°	7909.0	4908.5	876.6	583.9	501.5	450.4	407.7	372.2	342.4	326.8	326.8
57.5°	7526.8	4125.7	693.3	517.1	426.2	399.2	356.6	321.1	295.5	279.9	277.0
60°	6893.2	3276.1	548.4	437.6	363.7	343.8	299.8	277.0	254.3	235.8	231.6
62.5°	5931.4	2338.4	430.5	346.6	304.0	281.3	255.7	238.7	211.7	186.1	181.8
65°	4628.6	1430.6	332.4	254.3	244.4	233.0	217.4	201.7	169.1	143.5	139.2
67.5°	2919.5	677.7	237.3	191.8	193.2	187.5	180.4	167.6	143.5	120.8	117.9
70°	1285.7	328.2	156.3	146.3	143.5	143.5	149.2	144.9	122.2	100.9	96.6
72.5°	437.6	176.2	116.5	110.8	103.7	102.3	125.0	120.8	98.0	78.1	73.9
75°	228.7	117.9	85.2	79.6	62.5	75.3	99.4	93.8	69.6	51.1	46.9
77.5°	149.2	83.8	58.2	51.1	35.5	49.7	73.9	65.4	41.2	25.6	22.7
80°	93.8	55.4	34.1	24.2	17.0	27.0	39.8	28.4	15.6	5.7	4.3
82.5°	49.7	28.4	12.8	8.5	7.1	8.5	9.9	7.1	2.8	0.0	0.0
85°	19.9	9.9	4.3	2.8	1.4	0.0	2.8	1.4	0.0	0.0	0.0
87.5°	7.1	1.4	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)