

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: P966186

Luminaire Tested: **NAV-SB4B-740-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966186
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20374.9 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 147
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

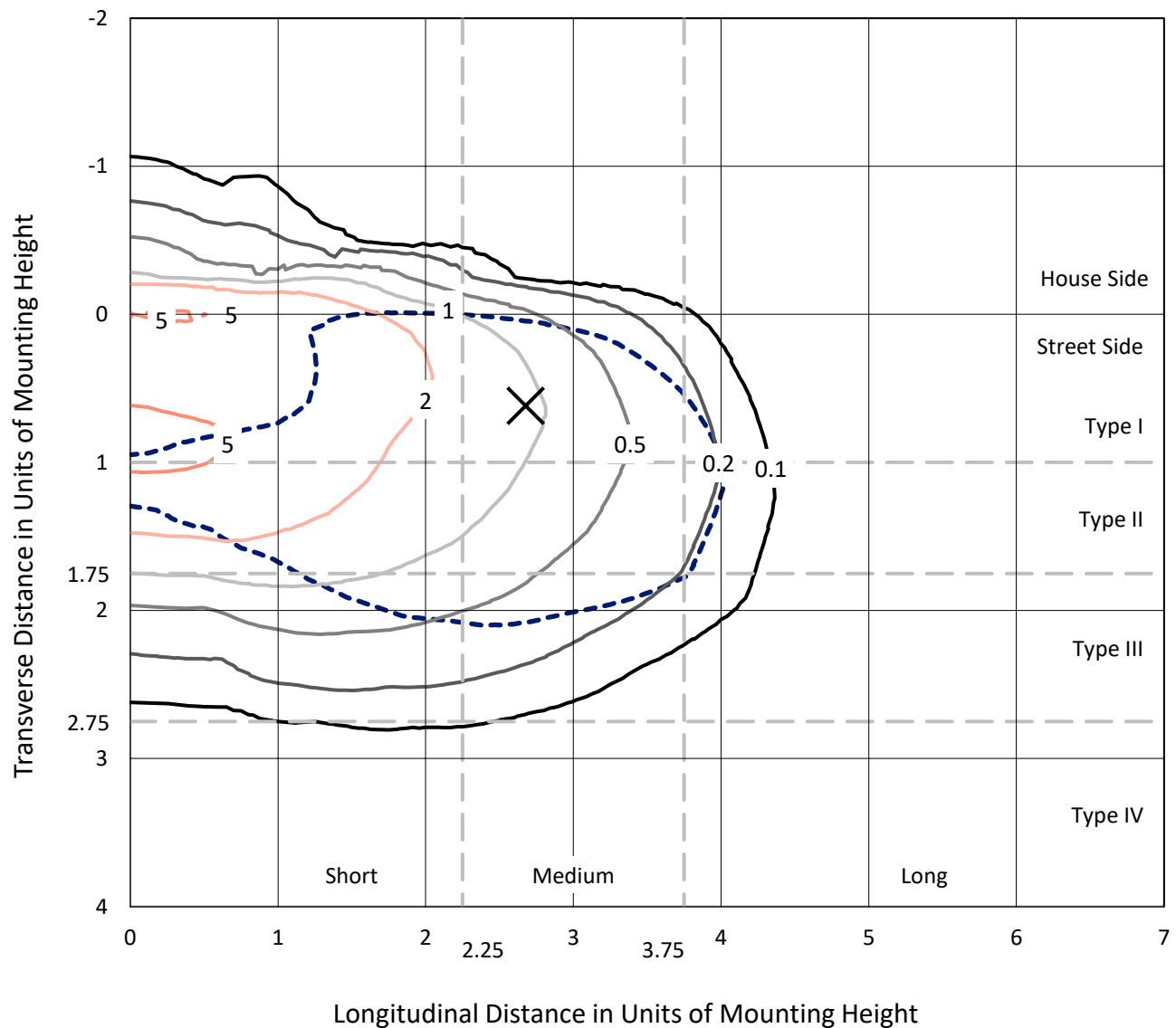


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Iso-Footcandle Lines of Horizontal Illumination

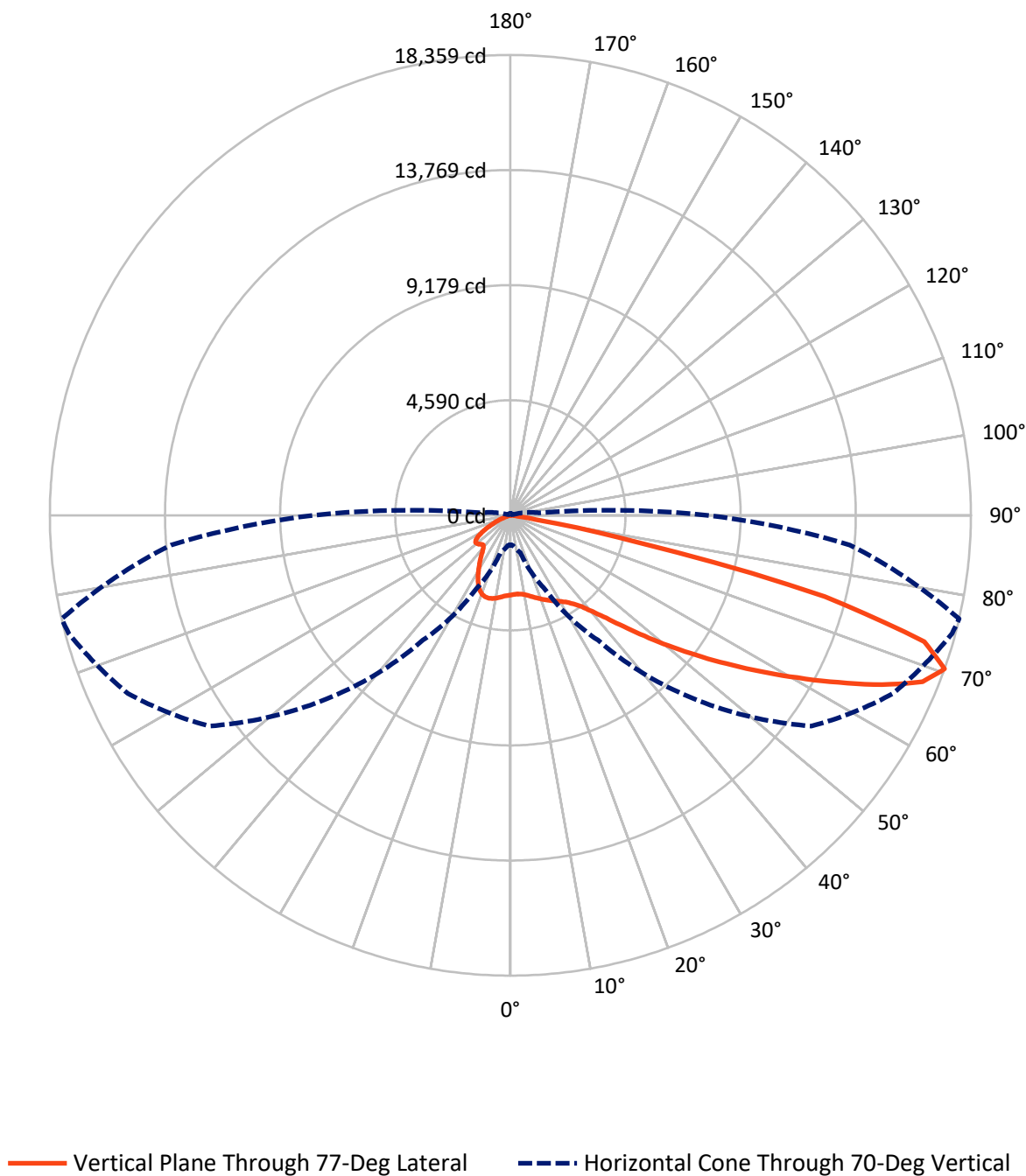
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2147.8	0.0	2147.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	18227.1	0.0	18227.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	20374.9	0.0	20374.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.9	1.3
10°-20°	650.2	3.2
20°-30°	1005.7	4.9
30°-40°	1824.9	9.0
40°-50°	3444.7	16.9
50°-60°	4977.3	24.4
60°-70°	5298.2	26.0
70°-80°	2807.7	13.8
80°-90°	92.2	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°	20374.9	100.0
0°-180°	20374.9	100.0

Coefficient of Utilization



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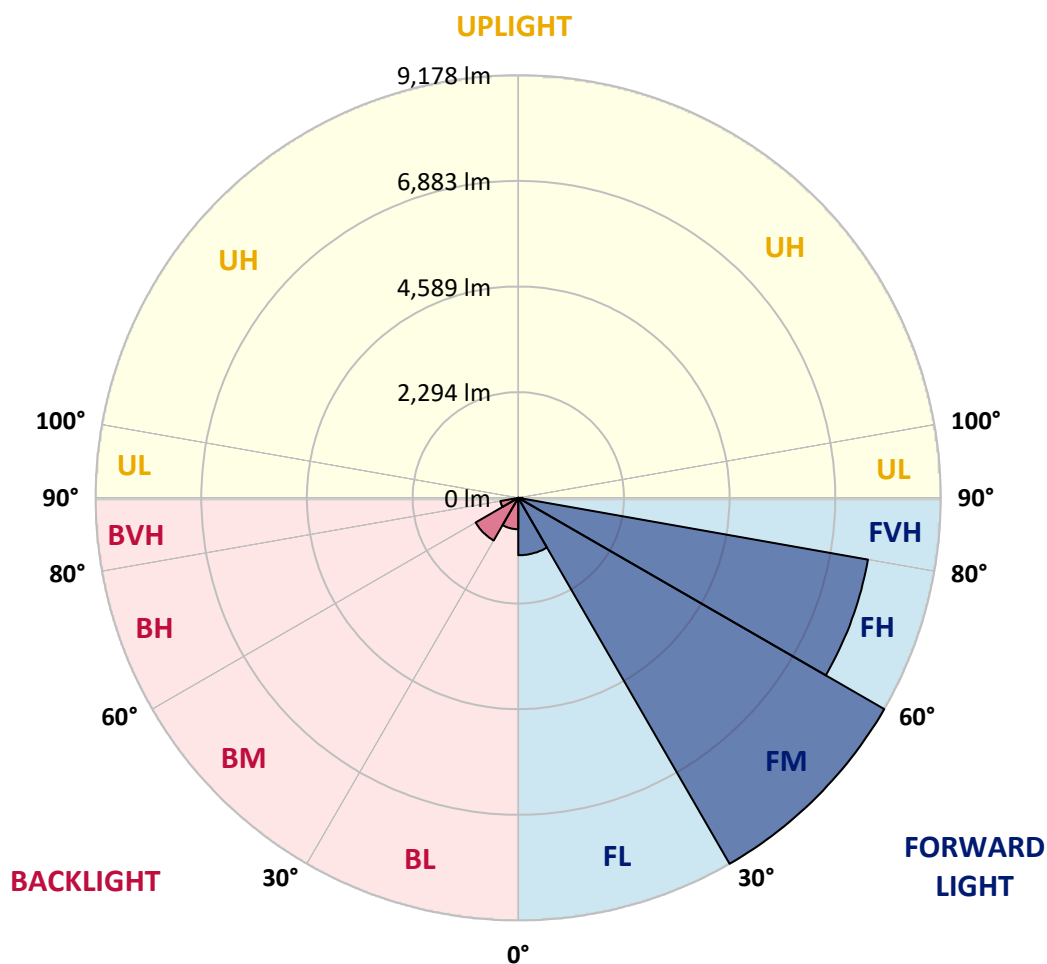
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1247.4	6.1			
FM	(30°-60°)	9177.8	45.0			
FH	(60°-80°)	7712.2	37.9			G4/12000
FVH	(80°-90°)	89.7	0.4			G1/100
BL	(0°-30°)	682.4	3.3	B2/1000		
BM	(30°-60°)	1069.2	5.2	B2/2500		
BH	(60°-80°)	393.7	1.9	B1/500		G1/500
BVH	(80°-90°)	2.5	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1
2.5°	2983.9	3010.8	3007.0	3025.0	3031.4	3057.2	3082.9	3117.6	3156.3	3155.0	3180.7
5°	2815.3	2842.3	2848.8	2873.2	2904.0	2943.9	2996.7	3066.2	3138.2	3149.8	3201.3
7.5°	2615.8	2644.2	2660.9	2709.8	2766.4	2848.8	2935.0	3036.6	3156.3	3173.0	3272.0
10°	2416.4	2442.2	2464.0	2533.5	2623.6	2745.8	2886.1	3032.8	3193.6	3218.0	3358.3
12.5°	2292.9	2317.3	2341.8	2402.3	2514.2	2663.5	2853.9	3050.7	3255.3	3290.0	3475.4
15°	2249.2	2271.0	2290.3	2344.4	2448.5	2618.5	2847.4	3088.0	3333.8	3380.1	3616.9
17.5°	2255.6	2267.2	2280.0	2321.2	2422.8	2597.9	2859.0	3152.4	3426.5	3467.7	3758.5
20°	2292.9	2299.3	2300.6	2328.9	2419.0	2595.3	2882.2	3214.2	3513.9	3569.3	3898.7
22.5°	2340.5	2343.0	2340.5	2359.8	2443.4	2614.6	2913.0	3288.8	3611.7	3663.2	4040.2
25°	2563.1	2514.2	2452.4	2415.1	2484.6	2651.9	2959.4	3389.2	3718.5	3768.7	4177.9
27.5°	3254.1	3113.7	2892.4	2644.2	2569.5	2705.9	3023.7	3490.7	3826.6	3871.6	4325.8
30°	4376.0	4192.0	3816.3	3256.6	2842.3	2819.2	3107.4	3592.4	3941.1	3990.0	4484.1
32.5°	5500.6	5455.6	5022.0	4247.4	3456.1	3071.3	3246.3	3730.1	4092.9	4131.6	4697.7
35°	6638.0	6546.7	6191.5	5425.9	4401.8	3584.7	3477.9	3910.3	4292.4	4336.2	5009.1
37.5°	7509.2	7453.8	7233.7	6603.3	5523.7	4377.4	3874.2	4189.5	4581.9	4630.8	5408.0
40°	8278.5	8252.8	8178.2	7762.6	6778.3	5414.4	4490.5	4621.8	4983.3	5041.3	5896.9
42.5°	8883.3	8943.7	8986.3	8870.5	8071.4	6598.1	5319.1	5229.1	5543.1	5602.2	6519.6
45°	9502.2	9522.8	9693.9	9861.2	9355.5	7835.9	6253.3	5940.7	6239.2	6312.5	7265.9
47.5°	9899.8	9982.2	10283.2	10577.9	10435.0	9063.5	7256.9	6780.9	7046.0	7183.6	8102.3
50°	9929.4	10085.1	10499.4	11012.8	11221.2	10231.8	8348.0	7738.1	8019.9	8171.8	8995.3
52.5°	9436.6	9678.5	10320.5	11071.9	11645.8	11221.2	9476.4	8695.5	9057.0	9255.1	9921.7
55°	7235.1	7551.6	9647.6	10750.3	11662.6	11971.4	10575.3	9692.6	10212.5	10436.3	10922.7
57.5°	6303.5	6463.0	7585.0	10191.9	11352.5	12273.8	11568.7	10642.2	11469.5	11747.5	11868.5
60°	5244.5	5454.2	6361.4	9278.3	10931.7	12303.3	12446.2	11867.1	12832.2	13144.8	12735.6
62.5°	3564.1	3791.9	4693.9	7708.5	10356.6	12289.1	13165.4	13128.1	14346.6	14682.4	13470.3
65°	2208.0	2350.7	2945.2	6294.5	9552.4	12304.6	13918.2	14659.2	15944.7	16285.6	14039.1
67.5°	1744.8	1810.4	2120.4	4832.8	8166.6	11957.2	14669.6	16099.1	17448.8	17719.0	14212.8
70°	1172.2	1212.1	1542.7	3239.9	6075.8	10354.0	14655.3	16822.2	18223.4	18358.5	13579.7
72.5°	617.6	648.5	902.0	1500.3	3669.6	7359.9	12353.5	15957.5	17452.7	17249.3	11607.2
75°	308.8	360.3	607.3	761.7	1567.2	4104.5	7671.2	12581.3	13736.7	12949.2	7447.3
77.5°	234.2	283.1	501.8	501.8	545.6	1381.9	3248.9	6862.0	6329.3	5270.2	2186.1
80°	149.2	193.0	438.8	379.6	227.8	351.3	846.6	1922.3	1344.6	1023.0	397.6
82.5°	87.5	126.1	365.4	250.9	127.4	130.0	239.3	409.2	348.7	271.5	122.3
85°	34.7	82.3	250.9	99.1	50.2	32.2	72.1	87.5	72.1	54.0	30.9
87.5°	0.0	19.3	43.8	0.0	3.9	2.6	5.1	6.5	6.5	5.1	10.2
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°	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1	3178.1
2.5°	3192.3	3194.8	3202.6	3203.8	3185.8	3162.6	3153.7	3149.8	3134.3	3133.1	3135.7
5°	3230.9	3242.5	3230.9	3197.4	3117.6	3005.7	2920.7	2851.3	2788.3	2768.9	2757.4
7.5°	3308.1	3319.7	3284.9	3153.7	2952.9	2730.4	2529.6	2388.1	2260.7	2213.1	2193.8
10°	3418.8	3434.2	3324.8	3059.7	2704.7	2346.9	2007.3	1767.9	1581.4	1505.4	1473.2
12.5°	3557.7	3564.1	3346.7	2916.9	2381.7	1870.8	1389.6	1133.5	967.6	905.8	886.5
15°	3710.8	3701.8	3349.3	2722.6	1941.7	1322.8	907.1	745.0	678.0	657.5	657.5
17.5°	3871.6	3834.3	3297.8	2442.2	1459.1	904.6	672.9	634.4	622.8	617.6	616.3
20°	4029.9	3946.2	3203.8	2075.4	1047.3	675.5	611.2	599.6	593.2	590.6	588.0
22.5°	4174.0	4031.2	3043.0	1649.5	760.4	597.1	577.7	567.4	555.9	550.7	549.4
25°	4314.2	4080.1	2816.6	1251.9	608.6	558.4	542.9	523.7	508.2	501.8	499.3
27.5°	4450.7	4111.0	2533.5	926.4	542.9	522.4	494.0	467.1	455.5	452.9	450.4
30°	4596.1	4121.2	2211.8	691.0	503.1	477.3	436.1	405.3	398.8	400.2	400.2
32.5°	4773.6	4136.7	1887.5	566.1	469.7	423.3	374.4	342.2	337.1	342.2	341.0
35°	4985.9	4167.5	1574.9	521.1	440.0	368.0	315.3	288.2	283.1	286.9	285.7
37.5°	5274.1	4217.8	1282.8	512.1	415.6	321.6	265.1	243.2	243.2	244.5	243.2
40°	5657.6	4351.5	1021.6	505.6	402.7	286.9	223.9	214.8	218.7	221.3	221.3
42.5°	6124.7	4636.0	845.3	497.9	388.6	271.5	203.3	199.5	205.8	208.5	208.5
45°	6648.4	4996.3	783.6	485.1	375.7	281.8	194.3	189.1	196.9	198.1	199.5
47.5°	7190.1	5348.8	775.9	470.9	362.8	297.2	191.7	180.1	189.1	190.4	191.7
50°	7738.1	5579.1	783.6	449.1	342.2	297.2	193.0	171.2	178.9	182.8	184.0
52.5°	8290.1	5684.5	778.5	401.5	306.3	279.2	193.0	163.4	171.2	173.7	173.7
55°	8825.5	5664.0	700.0	330.7	259.9	247.0	187.9	156.9	162.2	163.4	163.4
57.5°	9248.7	5377.0	554.5	257.4	211.0	205.8	171.2	149.2	153.1	151.8	151.8
60°	9470.1	4746.6	396.3	198.1	165.9	162.2	150.6	139.0	141.6	135.1	133.9
62.5°	9472.6	3912.8	265.1	156.9	132.5	128.6	128.6	124.8	122.3	109.4	105.5
65°	9270.6	2987.7	176.3	124.8	106.8	100.3	108.0	106.8	97.8	79.7	77.2
67.5°	8812.5	1958.4	133.9	97.8	82.3	78.5	86.2	90.1	83.6	66.9	65.6
70°	7870.7	1140.0	110.7	76.0	61.8	57.9	69.5	77.2	69.5	54.0	51.5
72.5°	6537.7	615.0	90.1	56.6	42.4	38.6	55.4	63.0	55.4	39.9	38.6
75°	4242.2	329.4	69.5	37.3	21.8	24.5	41.2	46.3	38.6	25.7	23.2
77.5°	1424.3	145.3	43.8	18.0	10.2	10.2	24.5	28.3	18.0	9.0	7.7
80°	317.9	60.5	18.0	7.7	3.9	3.9	5.1	5.1	2.6	0.0	0.0
82.5°	104.2	24.5	7.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	39.9	9.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.5	1.3	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)