

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: P967770

Luminaire Tested: **NAV-SB5A-740-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967770
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-SB5A-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA 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: 18604.8 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 141.7
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



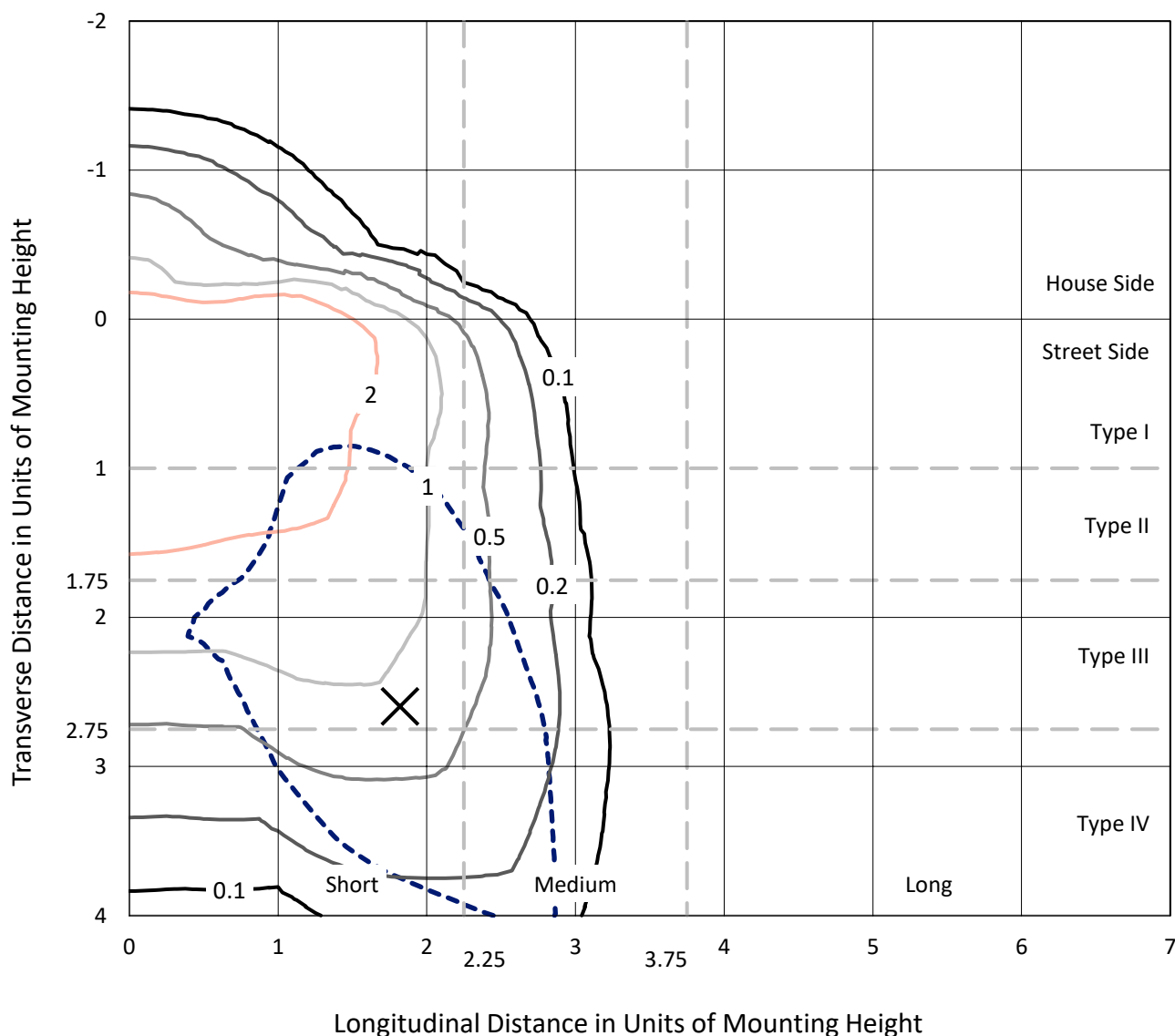
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

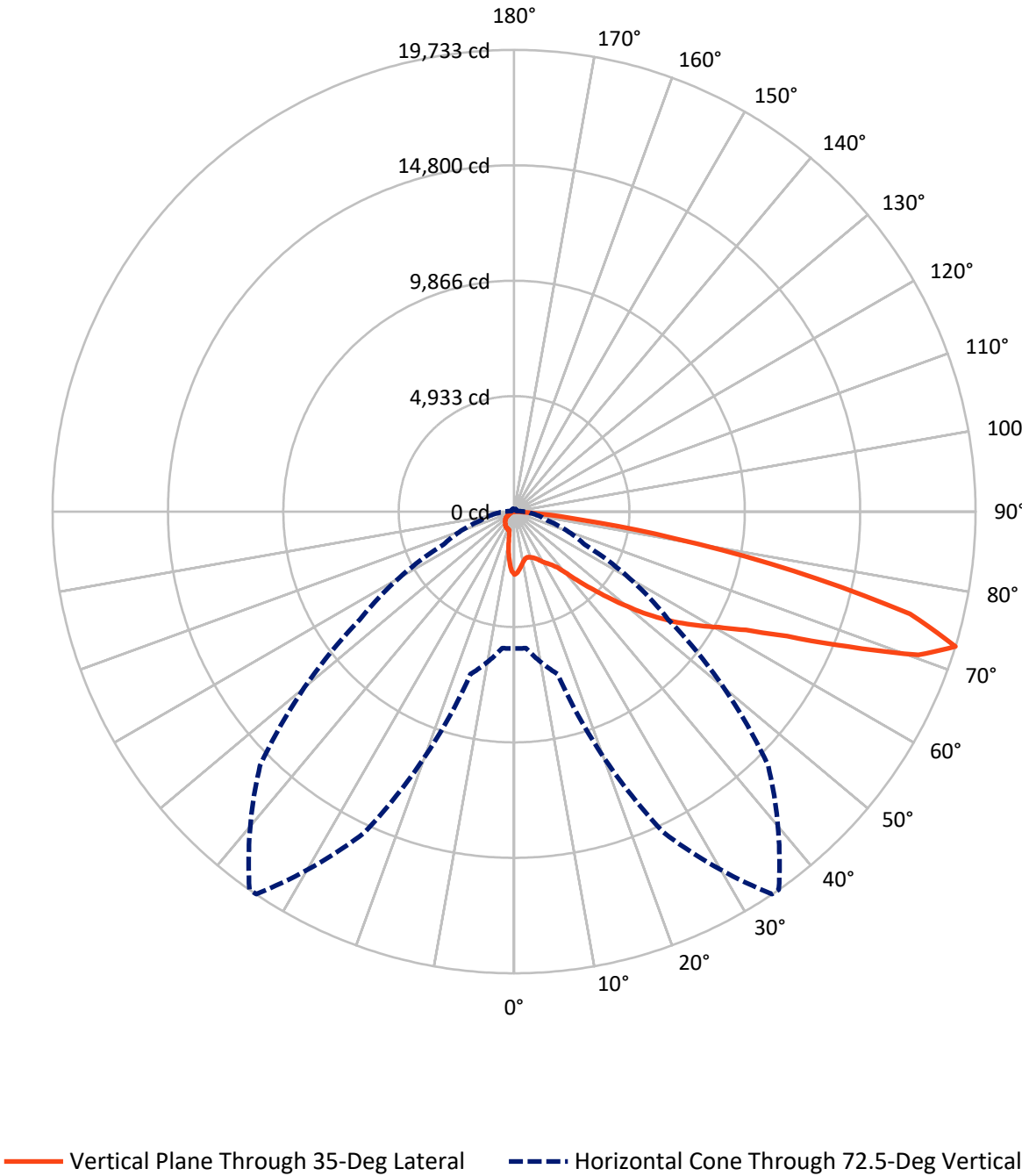


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc

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	2093.9	0.0	2093.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16510.9	0.0	16510.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	18604.8	0.0	18604.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.6	1.2
10°-20°	518.4	2.8
20°-30°	842.1	4.5
30°-40°	1405.0	7.6
40°-50°	2658.2	14.3
50°-60°	4223.9	22.7
60°-70°	5225.2	28.1
70°-80°	3248.0	17.5
80°-90°	262.5	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°	18604.8	100.0
0°-180°	18604.8	100.0

Coefficient of Utilization



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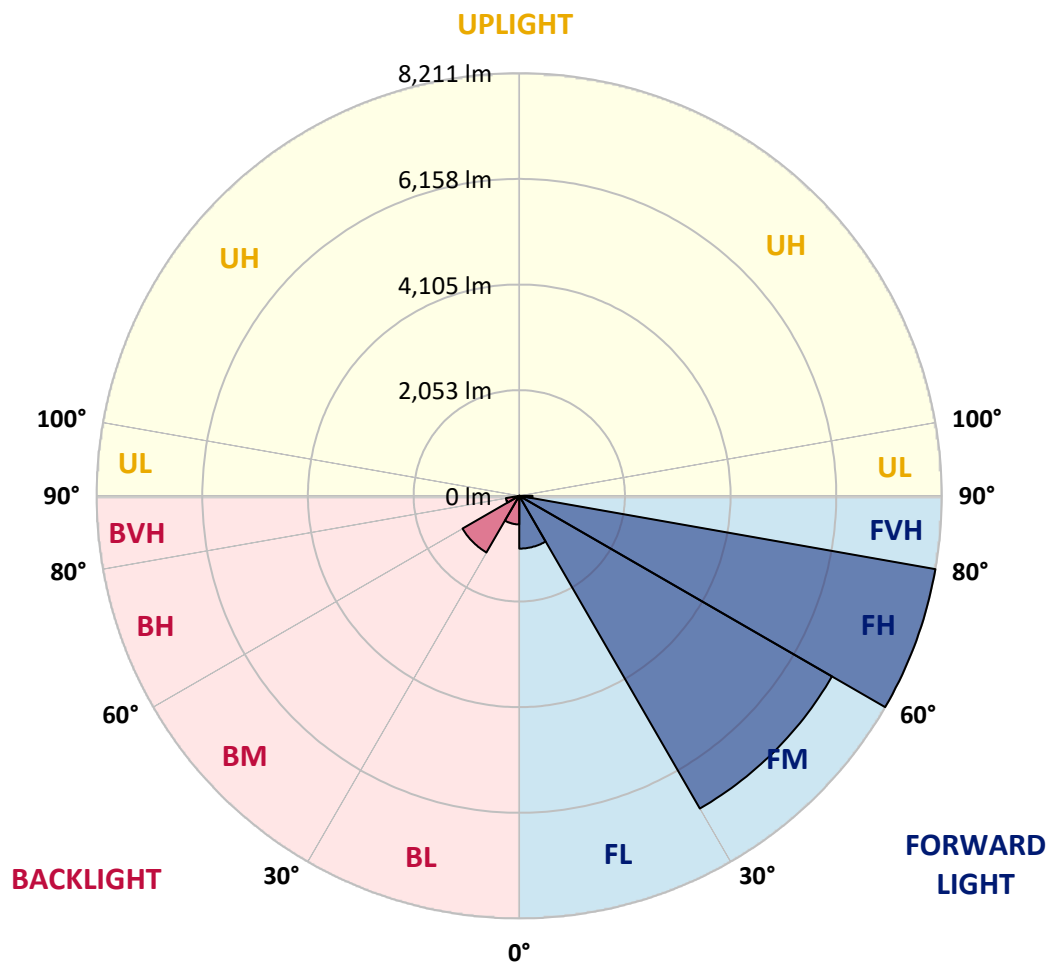
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1025.6	5.5			
FM	(30°-60°)	7015.9	37.7			
FH	(60°-80°)	8210.5	44.1			G4/12000
FVH	(80°-90°)	258.9	1.4			G3/500
BL	(0°-30°)	556.4	3.0	B2/1000		
BM	(30°-60°)	1271.2	6.8	B2/2500		
BH	(60°-80°)	262.8	1.4	B1/500		G1/500
BVH	(80°-90°)	3.6	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°	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5
2.5°	2576.5	2598.3	2602.4	2609.2	2609.2	2617.3	2631.0	2650.1	2681.5	2697.8	2708.8
5°	2374.7	2391.1	2411.5	2427.9	2459.3	2463.4	2516.5	2568.3	2640.6	2695.1	2733.3
7.5°	2171.6	2190.7	2218.0	2257.5	2298.4	2310.7	2391.1	2478.3	2592.8	2695.1	2759.2
10°	2028.5	2029.8	2054.4	2093.9	2159.4	2174.3	2272.5	2396.6	2539.6	2678.7	2783.7
12.5°	1948.0	1957.5	1968.5	1998.4	2061.2	2070.7	2175.7	2321.5	2486.5	2669.2	2812.3
15°	1948.0	1954.9	1961.6	1976.7	2027.1	2035.3	2128.0	2273.9	2459.3	2673.3	2858.7
17.5°	1968.5	1979.4	1973.9	1991.7	2044.9	2050.3	2132.1	2260.2	2457.8	2699.1	2929.6
20°	2017.6	2025.7	2014.8	2025.7	2078.9	2089.9	2174.3	2286.2	2481.1	2744.1	3018.2
22.5°	2095.3	2099.4	2073.5	2081.7	2136.2	2149.8	2247.9	2359.8	2537.0	2816.4	3136.8
25°	2193.4	2201.6	2162.0	2171.6	2223.4	2239.7	2352.9	2470.1	2625.5	2915.9	3288.1
27.5°	2306.6	2310.7	2276.6	2275.2	2342.0	2365.2	2479.7	2606.5	2744.1	3041.4	3479.0
30°	2436.1	2448.3	2415.6	2410.2	2494.7	2513.8	2627.0	2774.2	2918.7	3229.5	3750.3
32.5°	2538.3	2547.8	2528.8	2542.4	2628.3	2643.3	2805.5	3011.3	3192.7	3496.7	4119.7
35°	2685.5	2691.0	2647.4	2671.9	2770.1	2808.2	3049.6	3344.0	3537.6	3832.1	4602.2
37.5°	3218.6	3218.6	3033.2	2911.8	3005.9	3039.9	3383.5	3762.5	3962.9	4281.8	5210.3
40°	3956.1	3943.8	3672.5	3424.4	3412.1	3479.0	3859.3	4290.0	4512.3	4821.7	5894.6
42.5°	4742.7	4723.6	4354.1	4108.7	4067.8	4091.1	4408.6	4940.3	5166.6	5480.2	6630.7
45°	5440.6	5435.2	5097.1	4767.2	4693.6	4767.2	5094.4	5701.0	5863.2	6193.2	7365.4
47.5°	6025.5	6025.5	5778.7	5563.3	5525.2	5568.7	6022.7	6544.8	6529.9	6952.5	8081.2
50°	6698.9	6693.5	6458.9	6366.3	6405.7	6467.1	7091.5	7433.6	7219.6	7698.2	8720.5
52.5°	7170.6	7203.3	7122.8	7107.9	7309.6	7416.0	8176.6	8303.4	7837.2	8405.6	9199.1
55°	7544.1	7582.2	7675.0	7780.0	8168.4	8307.5	9227.7	9128.1	8353.9	9019.1	9474.4
57.5°	8073.0	8018.5	8161.7	8368.8	8997.2	9164.9	10246.0	9906.5	8769.6	9516.6	9504.4
60°	8715.1	8723.3	8747.8	9009.5	9824.7	10040.2	11249.3	10642.7	9036.8	9822.1	9171.8
62.5°	9486.7	9499.0	9549.4	9951.5	10935.8	11138.9	12318.0	11245.3	9159.5	9736.2	8313.0
65°	9433.5	9485.3	10048.3	11423.8	12624.8	12825.2	13565.5	11667.8	8974.1	8950.9	6768.4
67.5°	8593.8	8678.3	9620.2	13182.3	15171.3	15394.9	15073.1	11751.0	8173.9	6960.6	4415.5
70°	7492.2	7522.3	8655.1	14763.7	18119.9	18346.3	16422.8	10836.3	6202.7	3882.5	1978.0
72.5°	5850.9	5857.8	7186.9	15130.4	19720.4	19732.7	15363.5	8044.4	3335.8	1491.4	687.1
75°	4179.6	4138.7	4813.5	12270.4	17349.8	17488.8	11517.8	3773.4	1274.6	704.8	342.1
77.5°	2241.2	2286.2	2723.7	7276.9	11985.4	12222.6	6284.5	1087.8	648.9	479.9	226.3
80°	692.5	730.7	1116.4	3331.8	6788.9	6932.0	2329.7	483.9	452.6	342.1	148.6
82.5°	218.1	226.3	520.8	1400.0	2817.8	2883.2	674.8	274.0	309.4	226.3	87.2
85°	62.7	64.1	231.8	522.1	696.6	710.2	189.5	106.3	177.2	140.4	45.0
87.5°	6.8	21.8	87.2	87.2	61.3	60.0	20.4	23.2	50.4	17.7	8.2
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°	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5	2696.5
2.5°	2701.9	2703.2	2685.5	2655.6	2622.9	2595.6	2561.5	2534.2	2515.1	2509.7	2519.2
5°	2721.0	2711.4	2661.0	2569.7	2460.6	2366.5	2261.6	2178.4	2123.9	2100.7	2108.9
7.5°	2749.7	2722.4	2611.9	2432.0	2223.4	2038.0	1849.9	1704.1	1611.3	1565.0	1571.8
10°	2774.2	2719.6	2530.1	2233.0	1914.0	1633.1	1379.5	1203.8	1105.6	1059.2	1060.6
12.5°	2797.3	2718.3	2423.8	1997.1	1565.0	1221.5	985.6	898.4	871.1	861.5	858.8
15°	2841.0	2722.4	2290.3	1727.2	1217.4	922.9	837.0	835.7	841.1	838.3	837.0
17.5°	2901.0	2726.4	2138.9	1440.9	939.3	813.8	809.7	822.0	830.2	826.2	824.7
20°	2978.6	2742.8	1978.0	1157.3	807.0	786.6	796.1	807.0	813.8	807.0	805.6
22.5°	3087.7	2771.4	1802.2	929.7	764.8	770.2	778.4	790.7	797.4	787.9	786.6
25°	3221.3	2816.4	1629.0	808.4	744.4	751.1	763.4	777.1	785.3	775.7	774.3
27.5°	3394.4	2888.7	1469.5	781.2	723.9	728.0	745.7	766.1	777.1	764.8	764.8
30°	3645.3	3007.2	1331.9	793.3	711.6	702.0	726.6	755.2	767.5	756.6	755.2
32.5°	3977.9	3174.9	1247.3	812.5	706.1	672.1	695.3	732.1	752.5	745.7	745.7
35°	4414.2	3429.9	1214.6	834.2	702.0	640.7	657.0	696.6	732.1	738.8	738.8
37.5°	4943.1	3784.3	1224.2	843.9	689.8	614.8	623.0	657.0	703.5	725.2	730.7
40°	5544.2	4197.4	1278.7	834.2	676.2	593.0	594.4	620.2	661.1	693.9	704.8
42.5°	6164.5	4679.9	1379.5	798.9	663.9	573.9	569.8	587.5	614.8	638.0	647.5
45°	6754.7	5176.1	1479.1	749.8	648.9	554.8	545.3	552.1	557.6	567.1	572.6
47.5°	7270.1	5525.2	1450.5	704.8	628.4	533.0	516.7	513.9	497.5	496.2	494.9
50°	7625.9	5601.5	1288.2	659.8	598.5	508.5	482.6	466.3	437.6	423.9	425.4
52.5°	7739.1	5300.2	1052.4	614.8	549.4	475.8	439.0	413.1	377.6	365.3	364.0
55°	7589.1	4710.0	841.1	560.3	481.2	432.1	391.2	357.2	328.5	313.5	313.5
57.5°	7222.4	3958.8	665.2	496.2	409.0	383.0	342.1	308.1	283.5	268.5	265.8
60°	6614.3	3143.6	526.2	419.8	349.0	329.9	287.6	265.8	244.1	226.3	222.2
62.5°	5691.4	2243.8	413.1	332.6	291.7	269.9	245.4	229.0	203.2	178.6	174.5
65°	4441.4	1372.8	319.0	244.1	234.5	223.6	208.6	193.6	162.3	137.7	133.6
67.5°	2801.4	650.3	227.7	184.0	185.4	180.0	173.1	160.8	137.7	115.8	113.2
70°	1233.7	314.9	150.0	140.4	137.7	137.7	143.1	139.1	117.3	96.8	92.7
72.5°	419.8	169.0	111.8	106.3	99.5	98.2	119.9	115.8	94.1	74.9	70.9
75°	219.5	113.2	81.8	76.4	60.0	72.3	95.4	90.0	66.8	49.1	45.0
77.5°	143.1	80.5	55.9	49.1	34.0	47.7	70.9	62.7	39.6	24.5	21.8
80°	90.0	53.2	32.7	23.2	16.4	25.9	38.1	27.3	15.0	5.4	4.1
82.5°	47.7	27.3	12.3	8.2	6.8	8.2	9.5	6.8	2.8	0.0	0.0
85°	19.1	9.5	4.1	2.8	1.3	0.0	2.8	1.3	0.0	0.0	0.0
87.5°	6.8	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)