

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: P884510

Luminaire Tested: **NAV-SB5B-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884510
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-SB5B-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA 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: 18254 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

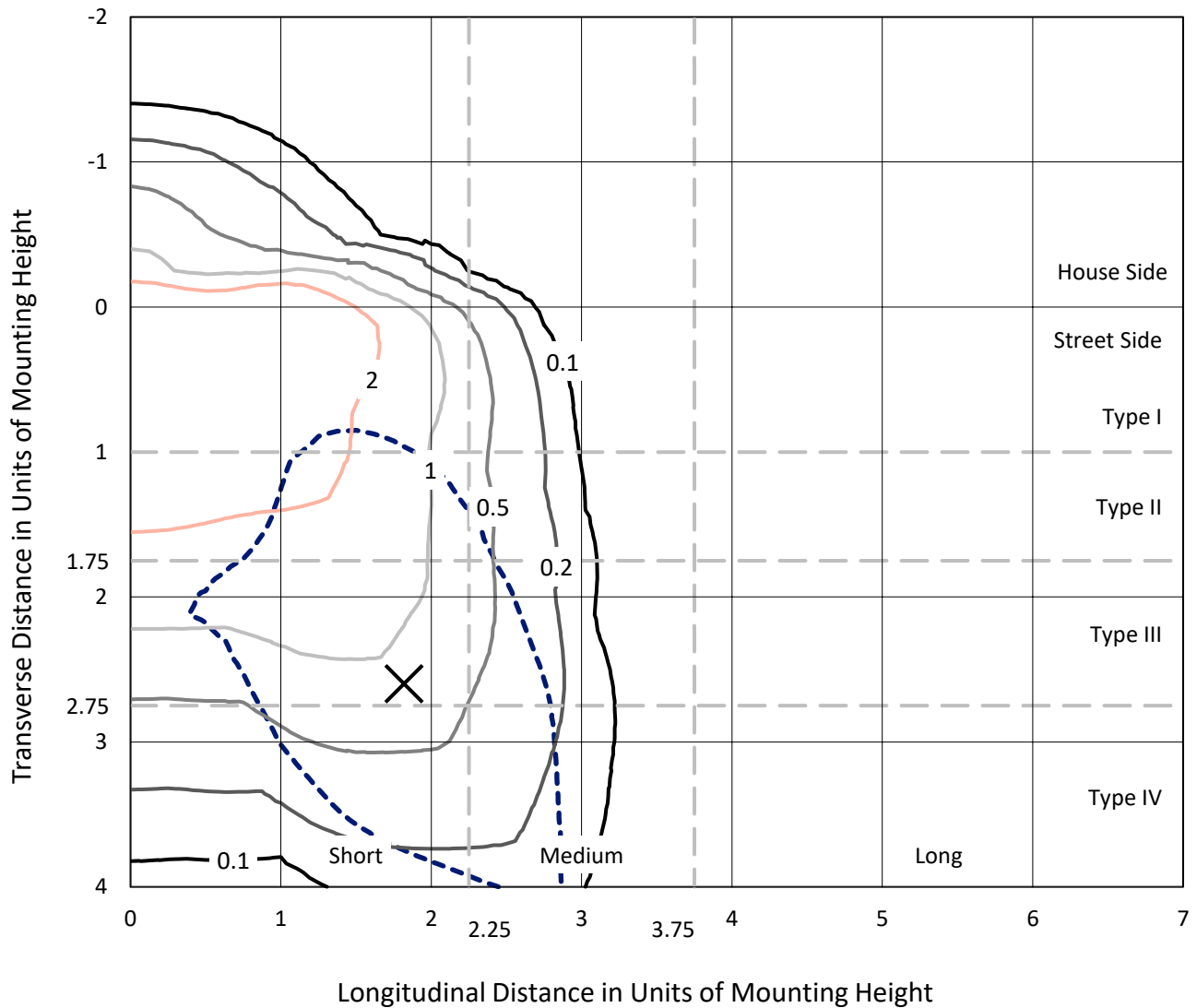
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

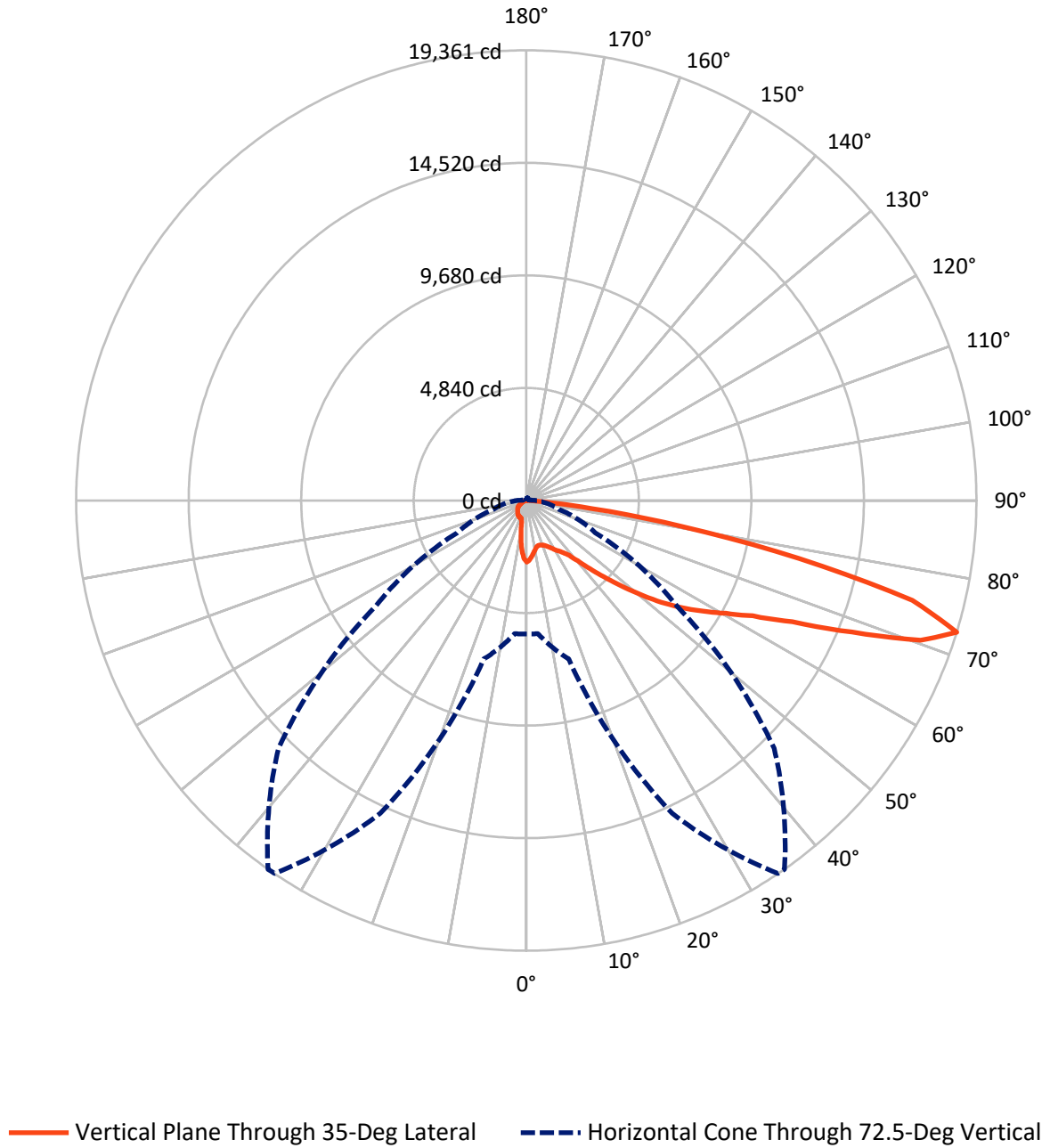
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	2054.4	0.0	2054.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16199.6	0.0	16199.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	18254.0	0.0	18254.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.4	1.2
10°-20°	508.6	2.8
20°-30°	826.2	4.5
30°-40°	1378.5	7.6
40°-50°	2608.1	14.3
50°-60°	4144.2	22.7
60°-70°	5126.7	28.1
70°-80°	3186.8	17.5
80°-90°	257.5	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°	18254.0	100.0
0°-180°	18254.0	100.0

Coefficient of Utilization



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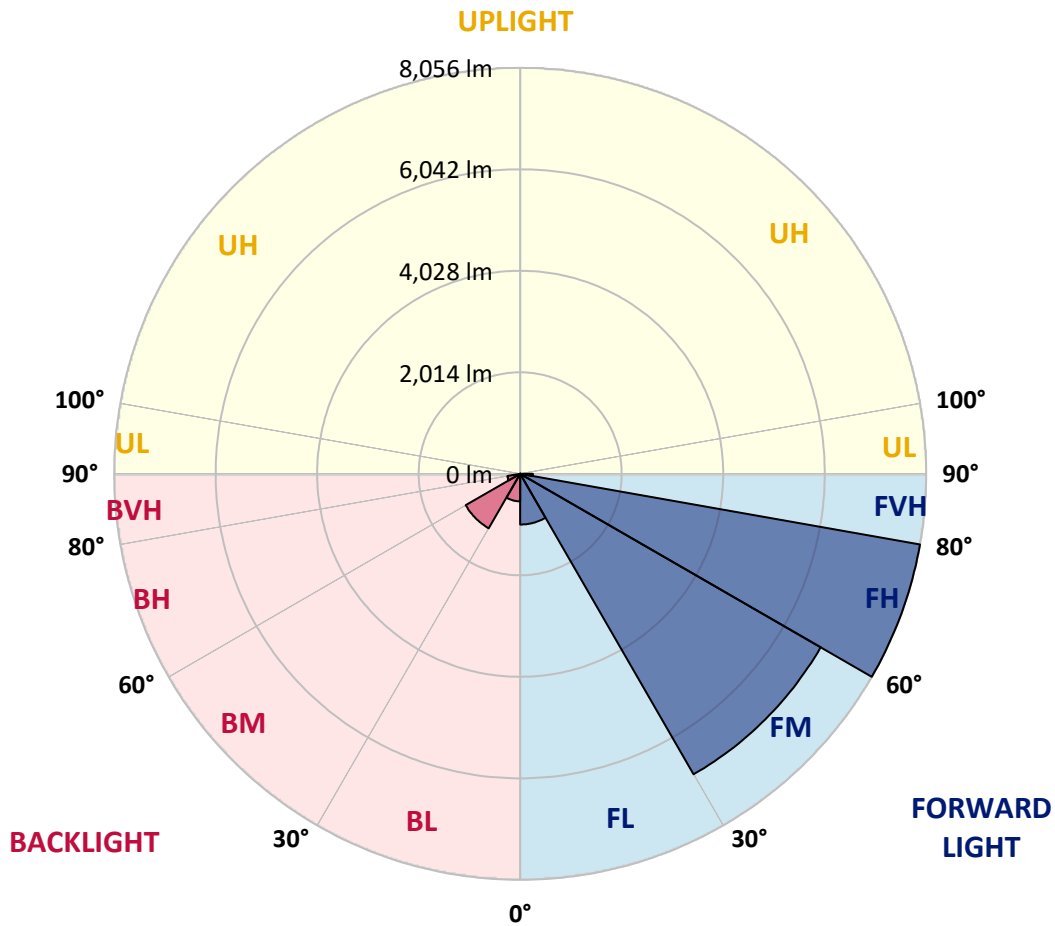
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1006.3	5.5			
FM (30°-60°)	6883.6	37.7			
FH (60°-80°)	8055.7	44.1			G4/12000
FVH (80°-90°)	254.0	1.4			G3/500
BL (0°-30°)	545.9	3.0	B2/1000		
BM (30°-60°)	1247.2	6.8	B2/2500		
BH (60°-80°)	257.8	1.4	B1/500		G1/500
BVH (80°-90°)	3.5	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6
2.5°	2527.9	2549.3	2553.3	2560.0	2560.0	2568.0	2581.4	2600.1	2630.9	2647.0	2657.7
5°	2330.0	2346.0	2366.1	2382.1	2412.9	2416.9	2469.1	2519.9	2590.8	2644.3	2681.7
7.5°	2130.7	2149.4	2176.1	2214.9	2255.1	2267.1	2346.0	2431.6	2544.0	2644.3	2707.1
10°	1990.2	1991.6	2015.6	2054.4	2118.6	2133.3	2229.6	2351.4	2491.8	2628.2	2731.2
12.5°	1911.3	1920.7	1931.4	1960.8	2022.3	2031.7	2134.7	2277.8	2439.6	2618.9	2759.3
15°	1911.3	1918.0	1924.7	1939.4	1988.9	1996.9	2087.9	2231.0	2412.9	2622.9	2804.8
17.5°	1931.4	1942.1	1936.7	1954.1	2006.3	2011.6	2091.9	2217.6	2411.6	2648.3	2874.3
20°	1979.5	1987.6	1976.9	1987.6	2039.7	2050.4	2133.3	2243.0	2434.3	2692.4	2961.3
22.5°	2055.8	2059.8	2034.4	2042.4	2095.9	2109.3	2205.6	2315.2	2489.1	2763.3	3077.6
25°	2152.1	2160.1	2121.3	2130.7	2181.5	2197.5	2308.6	2423.6	2576.1	2861.0	3226.1
27.5°	2263.1	2267.1	2233.7	2232.3	2297.9	2320.6	2433.0	2557.3	2692.4	2984.0	3413.4
30°	2390.2	2402.2	2370.1	2364.7	2447.7	2466.4	2577.4	2721.9	2863.6	3168.6	3679.5
32.5°	2490.5	2499.8	2481.1	2494.5	2578.7	2593.5	2752.6	2954.6	3132.5	3430.7	4042.0
35°	2634.9	2640.3	2597.5	2621.5	2717.8	2755.3	2992.0	3280.9	3470.9	3759.8	4515.5
37.5°	3157.9	3157.9	2976.0	2856.9	2949.2	2982.7	3319.7	3691.6	3888.2	4201.2	5112.0
40°	3881.5	3869.4	3603.3	3359.9	3347.8	3413.4	3786.5	4209.2	4427.2	4730.8	5783.4
42.5°	4653.2	4634.5	4272.0	4031.3	3991.2	4013.9	4325.5	4847.2	5069.2	5376.8	6505.7
45°	5338.0	5332.7	5001.0	4677.3	4605.1	4677.3	4998.3	5593.5	5752.7	6076.4	7226.6
47.5°	5911.8	5911.8	5669.8	5458.4	5421.0	5463.8	5909.2	6421.4	6406.7	6821.4	7928.8
50°	6572.6	6567.2	6337.2	6246.2	6285.0	6345.2	6957.8	7293.5	7083.5	7553.0	8556.1
52.5°	7035.4	7067.5	6988.5	6973.8	7171.8	7276.1	8022.5	8146.8	7689.4	8247.2	9025.6
55°	7401.8	7439.3	7530.2	7633.2	8014.4	8150.9	9053.7	8956.0	8196.3	8849.0	9295.8
57.5°	7920.8	7867.3	8007.7	8211.0	8827.6	8992.2	10052.8	9719.8	8604.3	9337.2	9325.2
60°	8550.8	8558.8	8582.9	8839.7	9639.5	9850.8	11037.2	10442.0	8866.4	9636.8	8998.8
62.5°	9307.8	9319.8	9369.3	9763.9	10729.6	10928.9	12085.8	11033.2	8986.8	9552.6	8156.2
65°	9255.6	9306.5	9858.9	11208.4	12386.8	12583.4	13309.7	11447.8	8804.9	8782.2	6640.8
67.5°	8431.7	8514.7	9438.9	12933.8	14885.3	15104.6	14789.0	11529.4	8019.8	6829.4	4332.2
70°	7351.0	7380.4	8491.9	14485.4	17778.3	18000.4	16113.1	10632.0	6085.7	3809.3	1940.7
72.5°	5740.6	5747.3	7051.4	14845.1	19348.6	19360.6	15073.9	7892.7	3272.9	1463.2	674.1
75°	4100.8	4060.7	4722.8	12039.0	17022.6	17159.1	11300.7	3702.3	1250.6	691.5	335.7
77.5°	2198.9	2243.0	2672.4	7139.7	11759.5	11992.2	6166.0	1067.3	636.7	470.8	222.0
80°	679.5	716.9	1095.4	3268.9	6660.9	6801.3	2285.8	474.8	444.1	335.7	145.8
82.5°	214.0	222.0	510.9	1373.6	2764.7	2828.9	662.1	268.8	303.6	222.0	85.6
85°	61.5	62.9	227.4	512.3	683.5	696.8	185.9	104.3	173.9	137.8	44.1
87.5°	6.7	21.4	85.6	85.6	60.2	58.9	20.1	22.7	49.5	17.4	8.0
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°	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6	2645.6
2.5°	2651.0	2652.3	2634.9	2605.5	2573.4	2546.6	2513.2	2486.5	2467.7	2462.4	2471.7
5°	2669.7	2660.3	2610.8	2521.2	2414.2	2321.9	2218.9	2137.4	2083.9	2061.1	2069.1
7.5°	2697.8	2671.0	2562.7	2386.1	2181.5	1999.6	1815.0	1671.9	1580.9	1535.5	1542.2
10°	2721.9	2668.4	2482.4	2190.9	1877.9	1602.4	1353.6	1181.0	1084.7	1039.3	1040.6
12.5°	2744.6	2667.0	2378.1	1959.5	1535.5	1198.4	967.0	881.4	854.7	845.3	842.6
15°	2787.4	2671.0	2247.0	1694.6	1194.4	905.5	821.2	819.9	825.3	822.6	821.2
17.5°	2846.2	2675.0	2098.6	1413.8	921.6	798.5	794.5	806.5	814.6	810.5	809.2
20°	2922.5	2691.1	1940.7	1135.6	791.8	771.7	781.1	791.8	798.5	791.8	790.5
22.5°	3029.5	2719.2	1768.2	912.2	750.3	755.7	763.7	775.8	782.4	773.1	771.7
25°	3160.6	2763.3	1598.3	793.1	730.3	737.0	749.0	762.4	770.4	761.0	759.7
27.5°	3330.4	2834.2	1441.8	766.4	710.2	714.2	731.6	751.7	762.4	750.3	750.3
30°	3576.5	2950.6	1306.8	778.4	698.2	688.8	712.9	741.0	753.0	742.3	741.0
32.5°	3902.9	3115.1	1223.8	797.2	692.8	659.4	682.1	718.2	738.3	731.6	731.6
35°	4330.9	3365.2	1191.7	818.6	688.8	628.6	644.7	683.5	718.2	724.9	724.9
37.5°	4849.9	3713.0	1201.1	827.9	676.8	603.2	611.2	644.7	690.2	711.6	716.9
40°	5439.7	4118.2	1254.6	818.6	663.4	581.8	583.2	608.6	648.7	680.8	691.5
42.5°	6048.3	4591.7	1353.6	783.8	651.4	563.1	559.1	576.5	603.2	626.0	635.3
45°	6627.4	5078.6	1451.2	735.6	636.7	544.4	535.0	541.7	547.0	556.4	561.8
47.5°	7133.0	5421.0	1423.1	691.5	616.6	523.0	506.9	504.2	488.2	486.9	485.5
50°	7482.1	5495.9	1264.0	647.4	587.2	498.9	473.5	457.4	429.3	416.0	417.3
52.5°	7593.1	5200.3	1032.6	603.2	539.0	466.8	430.7	405.3	370.5	358.5	357.1
55°	7446.0	4621.1	825.3	549.7	472.1	424.0	383.9	350.4	322.3	307.6	307.6
57.5°	7086.2	3884.2	652.7	486.9	401.3	375.8	335.7	302.3	278.2	263.5	260.8
60°	6489.7	3084.3	516.3	412.0	342.4	323.7	282.2	260.8	239.4	222.0	218.0
62.5°	5584.2	2201.6	405.3	326.4	286.2	264.8	240.8	224.7	199.3	175.2	171.2
65°	4357.6	1346.9	313.0	239.4	230.1	219.4	204.6	189.9	159.2	135.1	131.1
67.5°	2748.6	638.0	223.4	180.6	181.9	176.6	169.9	157.8	135.1	113.7	111.0
70°	1210.5	309.0	147.1	137.8	135.1	135.1	140.4	136.4	115.0	95.0	91.0
72.5°	412.0	165.9	109.7	104.3	97.6	96.3	117.7	113.7	92.3	73.6	69.6
75°	215.3	111.0	80.3	74.9	58.9	70.9	93.6	88.3	65.5	48.2	44.1
77.5°	140.4	78.9	54.8	48.2	33.4	46.8	69.6	61.5	38.8	24.1	21.4
80°	88.3	52.2	32.1	22.7	16.1	25.4	37.5	26.8	14.7	5.4	4.0
82.5°	46.8	26.8	12.0	8.0	6.7	8.0	9.4	6.7	2.7	0.0	0.0
85°	18.7	9.4	4.0	2.7	1.3	0.0	2.7	1.3	0.0	0.0	0.0
87.5°	6.7	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)