

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: P883800

Luminaire Tested: **NAV-SB4B-760-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883800
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-SB4B-760-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 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: 18628 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

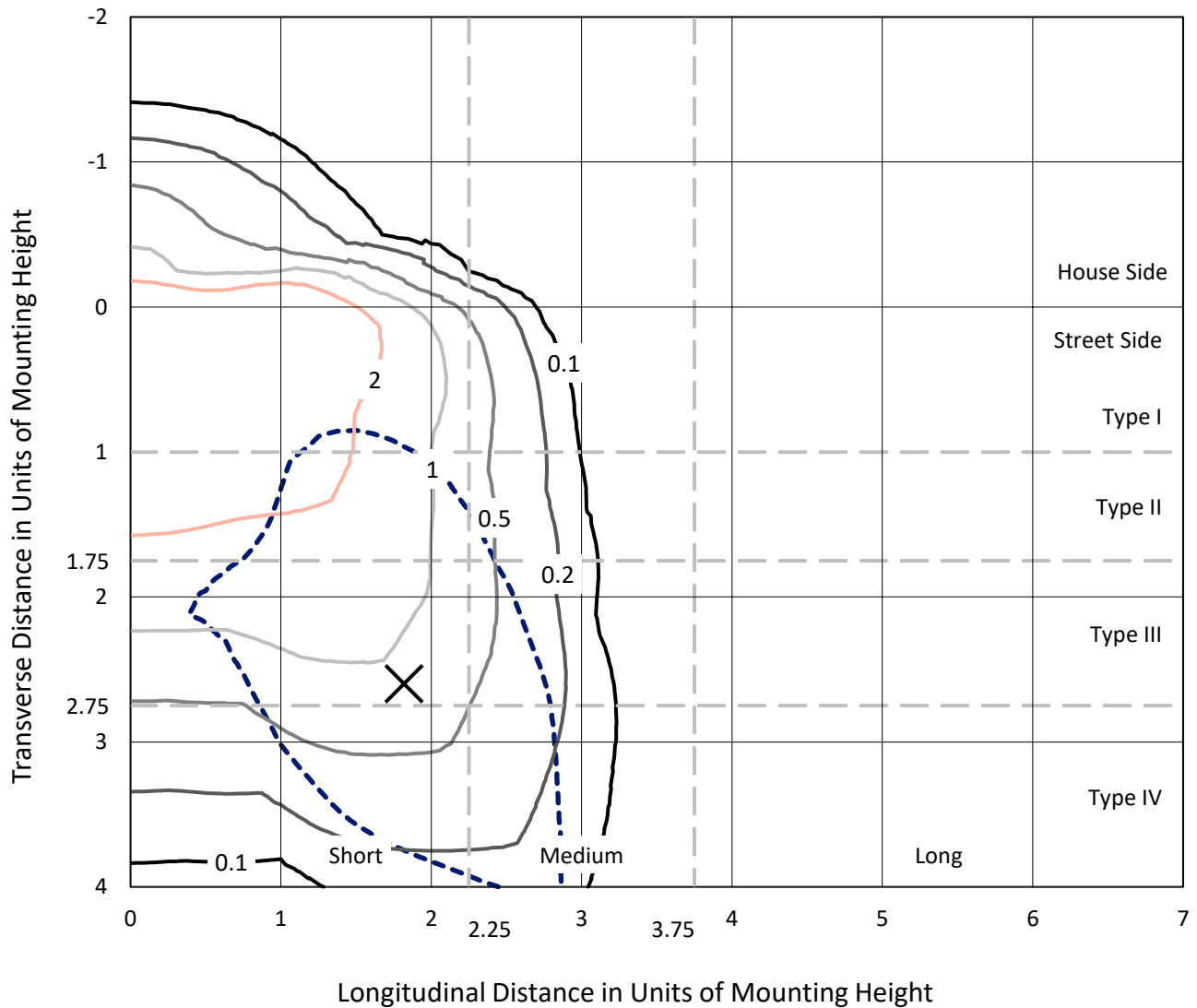
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

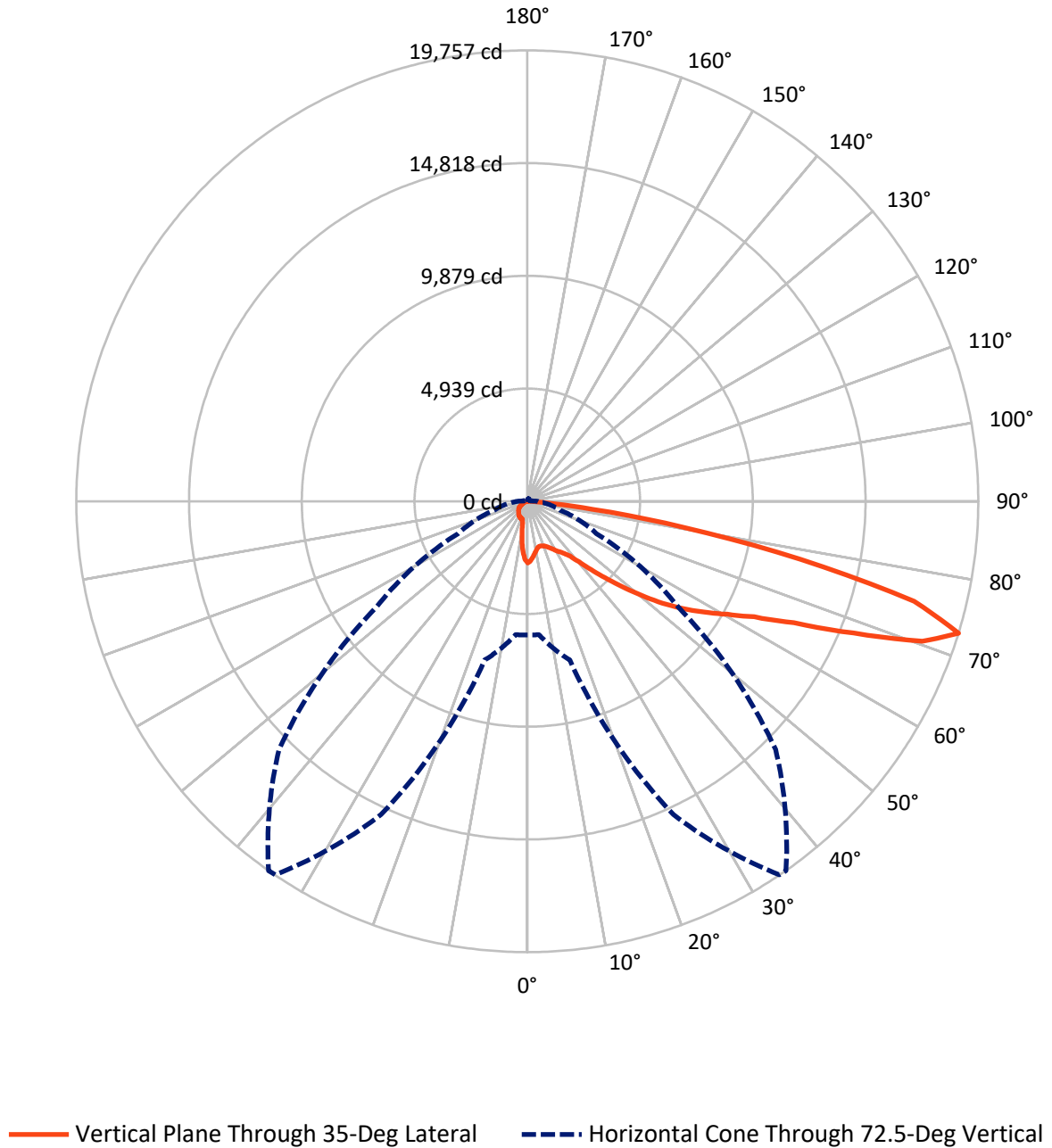
✕ Max cd
 - - - 1/2 Max cd



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	2096.5	0.0	2096.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	16531.5	0.0	16531.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	18628.0	0.0	18628.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.9	1.2
10°-20°	519.0	2.8
20°-30°	843.1	4.5
30°-40°	1406.7	7.6
40°-50°	2661.5	14.3
50°-60°	4229.1	22.7
60°-70°	5231.8	28.1
70°-80°	3252.1	17.5
80°-90°	262.8	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°	18628.0	100.0
0°-180°	18628.0	100.0

Coefficient of Utilization



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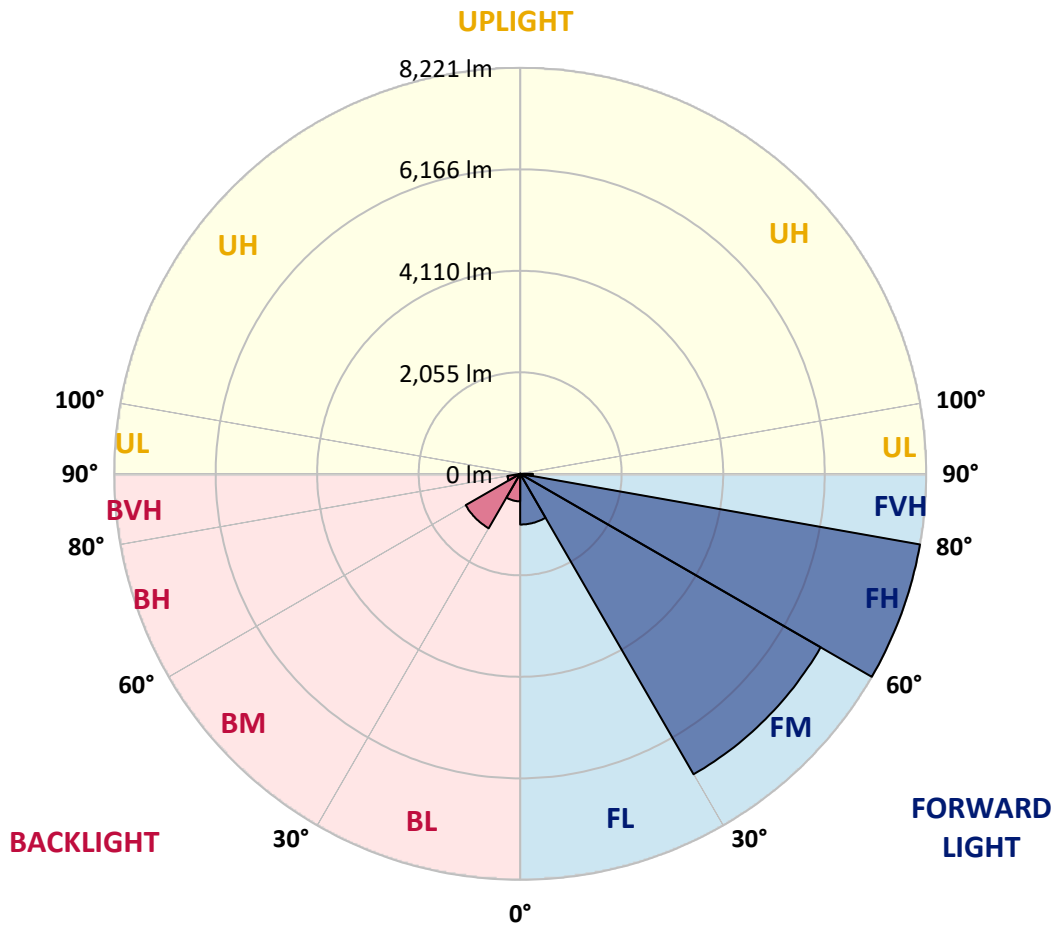
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1026.9	5.5			
FM (30°-60°)	7024.6	37.7			
FH (60°-80°)	8220.8	44.1			G4/12000
FVH (80°-90°)	259.2	1.4			G3/500
BL (0°-30°)	557.1	3.0	B2/1000		
BM (30°-60°)	1272.8	6.8	B2/2500		
BH (60°-80°)	263.1	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°	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8
2.5°	2579.7	2601.5	2605.6	2612.5	2612.5	2620.7	2634.3	2653.4	2684.8	2701.2	2712.1
5°	2377.7	2394.1	2414.6	2430.9	2462.3	2466.4	2519.7	2571.5	2643.9	2698.5	2736.7
7.5°	2174.3	2193.4	2220.7	2260.3	2301.3	2313.5	2394.1	2481.4	2596.1	2698.5	2762.6
10°	2031.0	2032.4	2056.9	2096.5	2162.0	2177.1	2275.3	2399.5	2542.9	2682.1	2787.2
12.5°	1950.5	1960.0	1971.0	2001.0	2063.8	2073.3	2178.4	2324.5	2489.6	2672.5	2815.8
15°	1950.5	1957.3	1964.1	1979.1	2029.6	2037.8	2130.6	2276.7	2462.3	2676.6	2862.2
17.5°	1971.0	1981.9	1976.4	1994.2	2047.4	2052.8	2134.7	2263.0	2461.0	2702.6	2933.2
20°	2020.1	2028.3	2017.4	2028.3	2081.5	2092.4	2177.1	2289.0	2484.2	2747.6	3021.9
22.5°	2097.9	2102.0	2076.1	2084.2	2138.8	2152.5	2250.8	2362.7	2540.1	2819.9	3140.7
25°	2196.2	2204.4	2164.8	2174.3	2226.2	2242.6	2355.9	2473.2	2628.8	2919.6	3292.2
27.5°	2309.5	2313.5	2279.4	2278.1	2344.9	2368.1	2482.8	2609.7	2747.6	3045.1	3483.3
30°	2439.1	2451.4	2418.6	2413.2	2497.8	2516.9	2630.2	2777.6	2922.3	3233.5	3754.9
32.5°	2541.5	2551.0	2531.9	2545.6	2631.6	2646.6	2809.0	3015.1	3196.7	3501.0	4124.8
35°	2688.9	2694.4	2650.7	2675.3	2773.5	2811.7	3053.3	3348.2	3542.0	3836.8	4608.0
37.5°	3222.6	3222.6	3037.0	2915.5	3009.7	3043.8	3387.7	3767.2	3967.8	4287.2	5216.7
40°	3961.0	3948.7	3677.1	3428.7	3416.4	3483.3	3864.1	4295.4	4517.9	4827.7	5901.9
42.5°	4748.6	4729.5	4359.6	4113.9	4072.9	4096.1	4414.2	4946.5	5173.1	5487.0	6639.0
45°	5447.4	5442.0	5103.5	4773.1	4699.4	4773.1	5100.7	5708.1	5870.5	6200.9	7374.7
47.5°	6033.0	6033.0	5785.9	5570.3	5532.0	5575.7	6030.2	6553.0	6538.0	6961.1	8091.3
50°	6707.2	6701.8	6467.0	6374.2	6413.8	6475.2	7100.3	7442.9	7228.6	7707.7	8731.4
52.5°	7179.5	7212.3	7131.7	7116.7	7318.7	7425.2	8186.8	8313.8	7847.0	8416.1	9210.5
55°	7553.5	7591.7	7684.5	7789.6	8178.6	8317.9	9239.2	9139.5	8364.3	9030.3	9486.2
57.5°	8083.1	8028.5	8171.8	8379.3	9008.5	9176.4	10258.8	9918.9	8780.6	9528.5	9516.3
60°	8726.0	8734.2	8758.7	9020.8	9837.0	10052.7	11263.4	10656.0	9048.1	9834.3	9183.2
62.5°	9498.5	9510.8	9561.3	9964.0	10949.4	11152.8	12333.5	11259.3	9170.9	9748.3	8323.3
65°	9445.3	9497.1	10060.9	11438.1	12640.6	12841.2	13582.4	11682.4	8985.3	8962.1	6776.9
67.5°	8604.5	8689.1	9632.3	13198.8	15190.3	15414.1	15092.0	11765.7	8184.1	6969.3	4421.0
70°	7501.6	7531.7	8665.9	14782.1	18142.6	18369.2	16443.3	10849.8	6210.4	3887.3	1980.5
72.5°	5858.3	5865.1	7195.9	15149.3	19745.0	19757.3	15382.7	8054.4	3340.0	1493.2	687.9
75°	4184.9	4143.9	4819.6	12285.7	17371.4	17510.6	11532.3	3778.1	1276.2	705.7	342.6
77.5°	2243.9	2289.0	2727.1	7286.0	12000.4	12237.9	6292.3	1089.2	649.7	480.5	226.6
80°	693.4	731.6	1117.9	3335.9	6797.3	6940.6	2332.7	484.5	453.2	342.6	148.8
82.5°	218.4	226.6	521.4	1401.8	2821.3	2886.8	675.6	274.3	309.8	226.6	87.4
85°	62.8	64.2	232.0	522.8	697.5	711.1	189.7	106.5	177.4	140.6	45.0
87.5°	6.8	21.8	87.4	87.4	61.4	60.1	20.5	23.2	50.5	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°	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8	2699.8
2.5°	2705.3	2706.6	2688.9	2658.9	2626.1	2598.8	2564.7	2537.4	2518.3	2512.8	2522.4
5°	2724.4	2714.8	2664.3	2572.9	2463.7	2369.5	2264.4	2181.2	2126.6	2103.3	2111.5
7.5°	2753.1	2725.8	2615.2	2435.0	2226.2	2040.6	1852.2	1706.2	1613.3	1566.9	1573.8
10°	2777.6	2723.0	2533.3	2235.7	1916.4	1635.2	1381.3	1205.2	1107.0	1060.5	1061.9
12.5°	2800.8	2721.7	2426.8	1999.6	1566.9	1223.0	986.8	899.5	872.2	862.6	859.9
15°	2844.5	2725.8	2293.1	1729.4	1218.9	924.1	838.1	836.7	842.2	839.4	838.1
17.5°	2904.6	2729.9	2141.6	1442.7	940.4	814.9	810.8	823.0	831.2	827.1	825.8
20°	2982.4	2746.2	1980.5	1158.8	808.0	787.6	797.1	808.0	814.9	808.0	806.7
22.5°	3091.6	2774.9	1804.4	930.9	765.7	771.2	779.4	791.7	798.5	788.9	787.6
25°	3225.3	2819.9	1631.1	809.4	745.2	752.1	764.4	778.0	786.2	776.6	775.3
27.5°	3398.7	2892.3	1471.4	782.1	724.8	728.9	746.6	767.1	778.0	765.7	765.7
30°	3649.8	3011.0	1333.5	794.4	712.5	702.9	727.5	756.2	768.5	757.5	756.2
32.5°	3982.9	3178.9	1248.9	813.5	707.0	672.9	696.1	733.0	753.4	746.6	746.6
35°	4419.6	3434.2	1216.1	835.3	702.9	641.5	657.9	697.5	733.0	739.8	739.8
37.5°	4949.2	3789.0	1225.7	844.9	690.7	615.6	623.8	657.9	704.3	726.1	731.6
40°	5551.2	4202.6	1280.3	835.3	677.0	593.7	595.1	621.0	662.0	694.7	705.7
42.5°	6172.2	4685.8	1381.3	799.8	664.7	574.6	570.5	588.3	615.6	638.8	648.3
45°	6763.2	5182.6	1480.9	750.7	649.7	555.5	546.0	552.8	558.3	567.8	573.3
47.5°	7279.1	5532.0	1452.3	705.7	629.2	533.7	517.3	514.6	498.2	496.8	495.5
50°	7635.4	5608.5	1289.9	660.6	599.2	509.1	483.2	466.8	438.1	424.5	425.9
52.5°	7748.7	5306.8	1053.7	615.6	550.1	476.4	439.5	413.6	378.1	365.8	364.4
55°	7598.5	4715.8	842.2	561.0	481.8	432.7	391.7	357.6	328.9	313.9	313.9
57.5°	7231.4	3963.7	666.1	496.8	409.5	383.5	342.6	308.5	283.9	268.9	266.2
60°	6622.6	3147.5	526.9	420.4	349.4	330.3	288.0	266.2	244.3	226.6	222.5
62.5°	5698.6	2246.7	413.6	333.0	292.1	270.3	245.7	229.3	203.4	178.8	174.7
65°	4446.9	1374.5	319.4	244.3	234.8	223.8	208.8	193.8	162.4	137.9	133.8
67.5°	2804.9	651.1	227.9	184.3	185.6	180.2	173.3	161.1	137.9	116.0	113.3
70°	1235.3	315.3	150.1	140.6	137.9	137.9	143.3	139.2	117.4	96.9	92.8
72.5°	420.4	169.3	111.9	106.5	99.6	98.3	120.1	116.0	94.2	75.1	71.0
75°	219.8	113.3	81.9	76.4	60.1	72.3	95.5	90.1	66.9	49.1	45.0
77.5°	143.3	80.5	56.0	49.1	34.1	47.8	71.0	62.8	39.6	24.6	21.8
80°	90.1	53.2	32.8	23.2	16.4	25.9	38.2	27.3	15.0	5.5	4.1
82.5°	47.8	27.3	12.3	8.2	6.8	8.2	9.6	6.8	2.7	0.0	0.0
85°	19.1	9.6	4.1	2.7	1.4	0.0	2.7	1.4	0.0	0.0	0.0
87.5°	6.8	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)