

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: STREETWORKS

Report Number: P509944

Luminaire Tested: **VERD-M-CA3-170-740-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509944
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-7)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA3-170-740-U-T4-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 1060mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21973 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

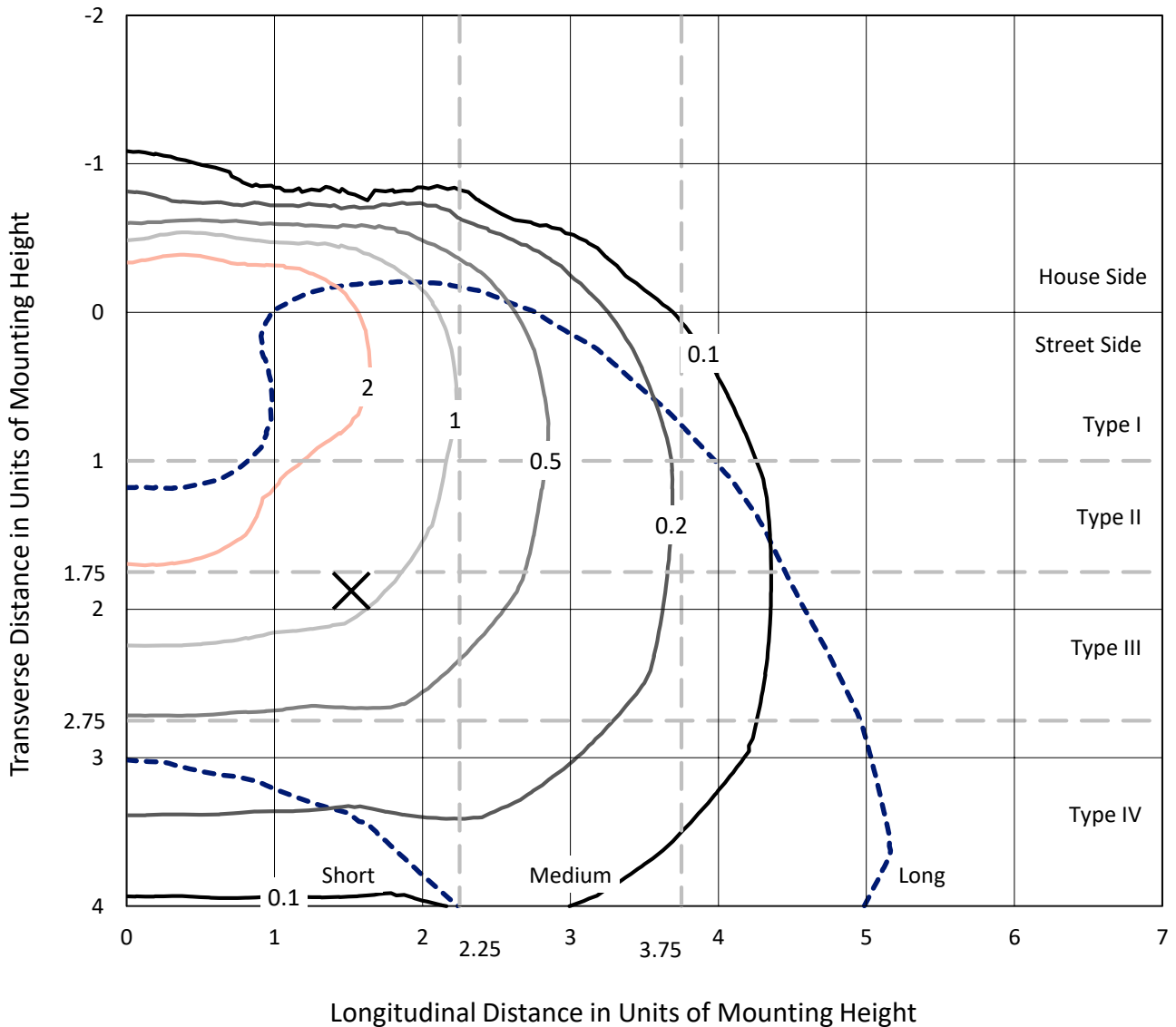
Input Watts (W): 172.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

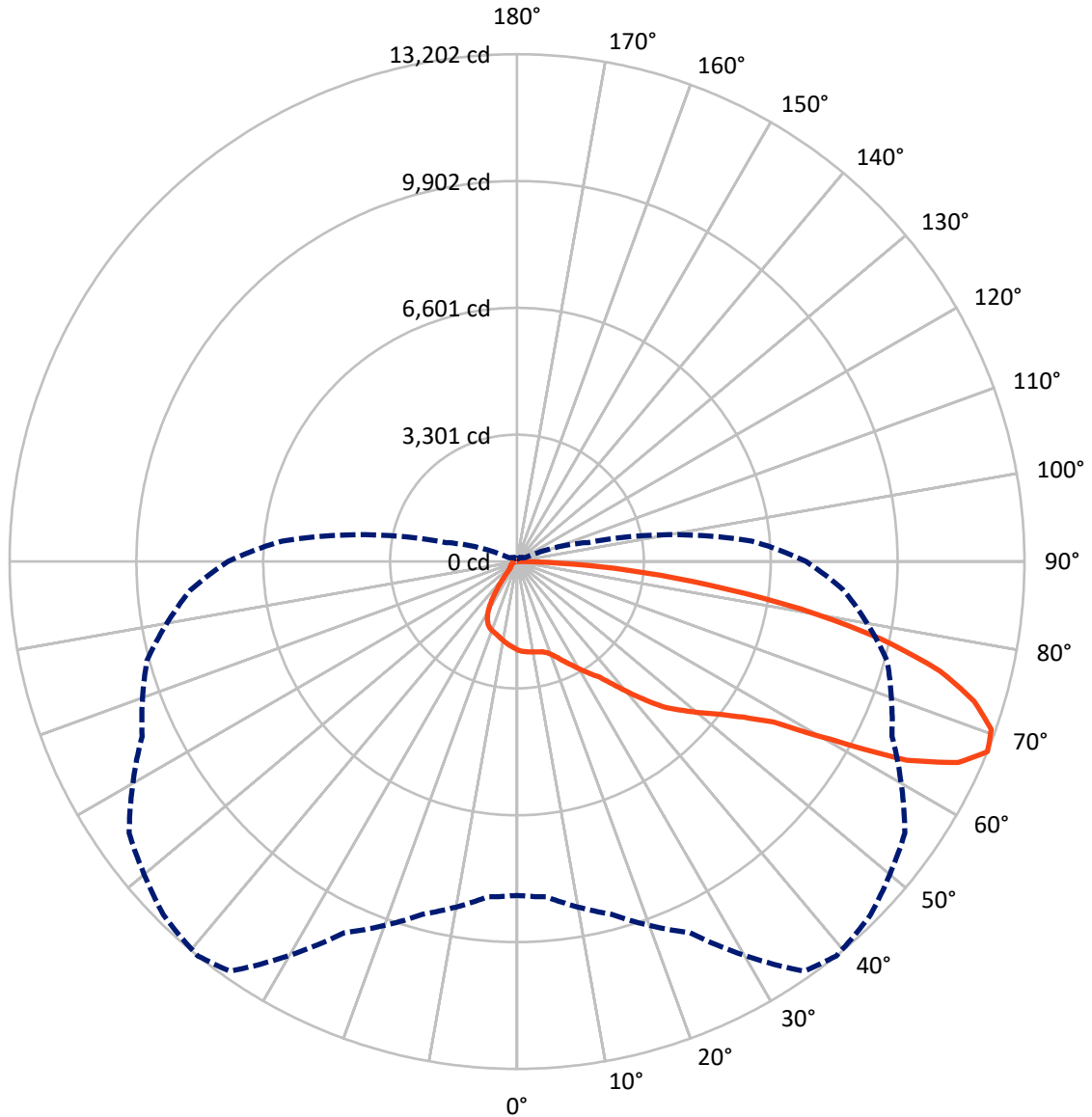
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3528.3	0.0	3528.3
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	18444.7	0.0	18444.7
	% Fixture	83.9	0.0	83.9
Total	Lumens	21973.0	0.0	21973.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.2	1.0
10°-20°	646.5	2.9
20°-30°	1145.4	5.2
30°-40°	1834.5	8.3
40°-50°	2942.9	13.4
50°-60°	4301.7	19.6
60°-70°	5732.2	26.1
70°-80°	4301.5	19.6
80°-90°	851.1	3.9
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°	21973.0	100.0
0°-180°	21973.0	100.0

Coefficient of Utilization



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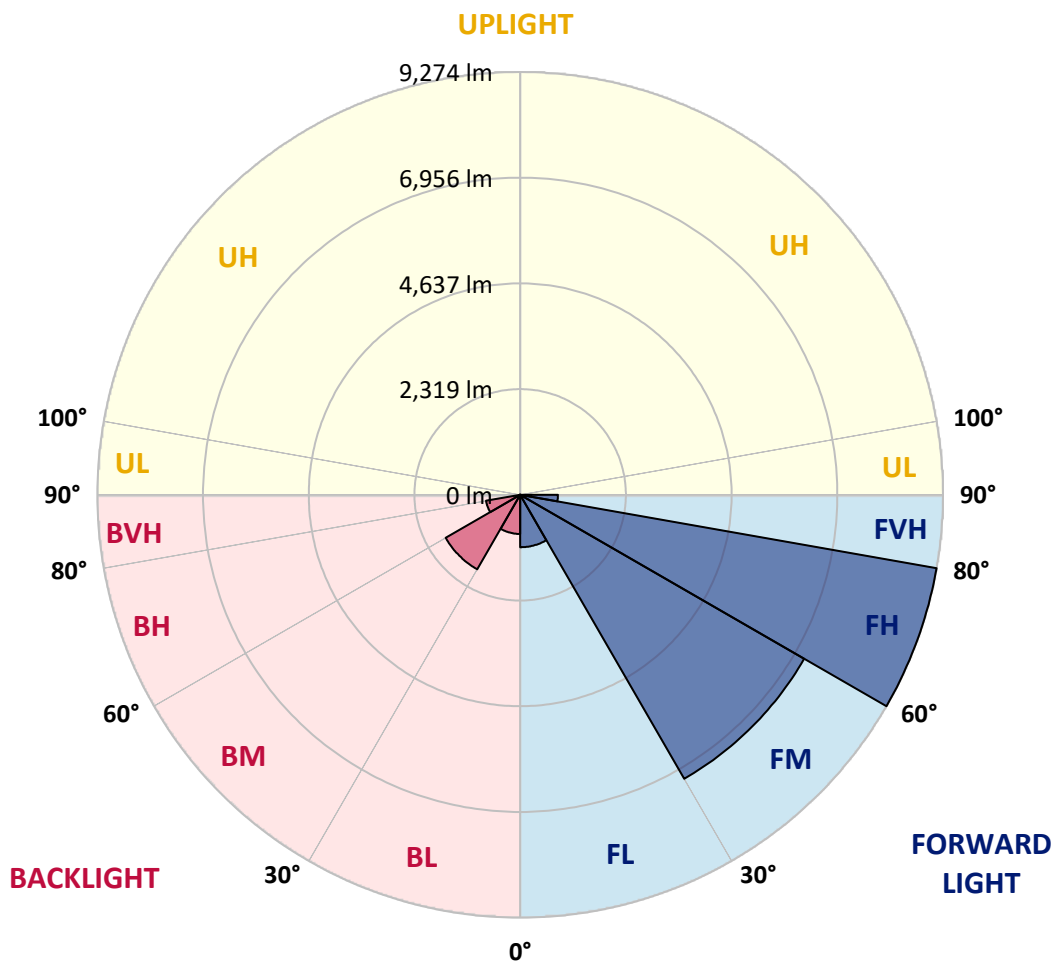
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1149.9	5.2			
FM	(30°-60°)	7192.0	32.7			
FH	(60°-80°)	9274.1	42.2			G4/12000
FVH	(80°-90°)	828.8	3.8			G5
BL	(0°-30°)	859.2	3.9	B2/1000		
BM	(30°-60°)	1887.1	8.6	B2/2500		
BH	(60°-80°)	759.7	3.5	B2/1000		G2/1000
BVH	(80°-90°)	22.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8
2.5°	2303.0	2333.9	2333.9	2325.1	2330.6	2335.0	2301.9	2310.7	2307.4	2306.3	2313.0
5°	2320.7	2354.9	2352.7	2341.7	2346.1	2354.9	2324.0	2337.2	2332.8	2321.8	2324.0
7.5°	2320.7	2349.4	2356.0	2343.9	2364.8	2375.9	2342.8	2354.9	2360.4	2352.7	2345.0
10°	2311.8	2337.2	2346.1	2343.9	2371.5	2389.1	2357.1	2391.3	2395.8	2395.8	2383.6
12.5°	2308.5	2337.2	2349.4	2359.3	2391.3	2410.1	2391.3	2424.5	2446.5	2445.4	2437.7
15°	2310.7	2342.8	2361.5	2378.1	2412.3	2435.5	2427.8	2478.6	2505.1	2512.8	2512.8
17.5°	2365.9	2404.6	2413.4	2431.1	2454.3	2489.6	2479.7	2544.8	2586.8	2600.0	2618.8
20°	2520.5	2550.3	2561.4	2552.5	2562.5	2584.5	2564.7	2627.6	2690.5	2725.9	2756.8
22.5°	2718.1	2740.2	2730.3	2721.4	2715.9	2721.4	2697.2	2739.1	2809.8	2860.6	2913.5
25°	2868.3	2916.9	2909.1	2884.8	2877.1	2883.7	2852.8	2904.7	2969.9	3022.8	3102.3
27.5°	3050.4	3080.3	3059.3	3050.4	3056.0	3054.9	3036.1	3085.8	3145.4	3211.6	3328.7
30°	3248.1	3273.5	3252.5	3243.7	3253.6	3260.2	3239.2	3326.5	3389.4	3461.1	3612.4
32.5°	3572.7	3633.4	3576.0	3461.1	3463.4	3473.3	3475.5	3592.5	3707.3	3763.7	3963.5
35°	4035.2	4083.8	4007.6	3868.5	3695.2	3688.6	3706.2	3880.7	4111.4	4367.6	4601.6
37.5°	4466.9	4537.6	4469.1	4306.8	4096.0	4045.2	3953.5	4161.1	4524.3	5075.2	5366.7
40°	4984.7	5037.7	4901.9	4760.6	4549.7	4478.0	4331.1	4463.6	4961.5	5813.8	6014.8
42.5°	5400.9	5433.0	5320.3	5172.4	4989.1	4935.0	4783.8	4795.9	5428.5	6460.8	6590.0
45°	5786.2	5820.5	5727.7	5601.9	5485.9	5420.8	5310.4	5370.0	5976.1	7143.1	7064.7
47.5°	6078.8	6113.0	6039.1	5949.6	5829.3	5785.1	5787.3	6001.5	6646.3	7688.5	7490.9
50°	6558.0	6544.7	6351.5	6254.4	6160.5	6183.7	6208.0	6512.7	7322.0	8156.6	7885.0
52.5°	7393.7	7328.6	6930.0	6676.1	6560.2	6599.9	6639.7	7044.8	8089.3	8583.9	8187.5
55°	8338.8	8272.5	7933.6	7390.4	7083.5	7147.5	7113.3	7571.5	8734.0	8994.6	8437.0
57.5°	9040.9	9150.2	9021.1	8725.2	7956.8	7872.9	7796.7	8103.6	9255.1	9405.3	8676.6
60°	9651.5	9803.8	10034.6	9954.0	9627.2	9408.6	8709.7	8725.2	9756.4	9690.1	8771.6
62.5°	10247.6	10337.1	10732.3	10819.5	11224.7	11381.5	10671.6	9528.9	10241.0	9887.7	8835.6
65°	9651.5	9766.3	10454.1	11088.9	12398.3	12608.1	12358.6	10984.0	10597.6	10004.8	8761.6
67.5°	8687.6	8757.2	9500.2	10655.0	13012.1	13202.0	13007.7	12319.9	10764.3	9969.4	8532.0
70°	7427.9	7537.2	8267.0	9814.9	12990.1	13091.6	12922.7	12481.1	10701.4	9766.3	7952.4
72.5°	6142.8	6204.7	6822.9	8367.5	12355.2	12440.3	12350.8	12233.8	10489.4	9199.9	6838.4
75°	4617.1	4630.3	5264.0	6607.6	10924.4	11368.2	11477.5	11807.6	9678.0	7886.1	5057.6
77.5°	3095.7	3227.1	3835.4	5049.9	8968.1	9678.0	10195.8	10436.4	8085.9	5885.6	2689.4
80°	1661.6	1694.7	2350.5	3583.7	6815.2	7494.2	7985.5	7989.9	5654.9	2915.8	600.6
82.5°	769.5	737.5	1183.5	2267.7	4720.9	5023.4	5352.4	4483.5	2264.4	497.9	153.5
85°	341.1	359.9	535.5	1105.1	2619.9	2923.5	2881.5	1985.1	397.5	134.7	93.8
87.5°	127.0	133.6	207.6	446.0	935.1	1020.1	917.5	382.0	51.9	47.5	28.7
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°	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8	2300.8
2.5°	2305.2	2305.2	2303.0	2273.2	2266.6	2252.2	2240.1	2248.9	2239.0	2245.6	2239.0
5°	2315.2	2309.6	2296.4	2261.1	2244.5	2212.5	2188.2	2193.7	2180.5	2180.5	2179.4
7.5°	2338.3	2327.3	2304.1	2247.8	2216.9	2170.5	2133.0	2120.9	2107.6	2092.1	2089.9
10°	2375.9	2360.4	2329.5	2252.2	2192.6	2130.8	2065.6	2040.3	2007.1	1982.8	1978.4
12.5°	2427.8	2404.6	2362.6	2268.8	2190.4	2092.1	2004.9	1955.2	1915.5	1880.2	1872.4
15°	2502.8	2479.7	2430.0	2301.9	2191.5	2055.7	1940.9	1858.1	1789.6	1756.5	1757.6
17.5°	2612.1	2595.6	2519.4	2371.5	2212.5	2036.9	1887.9	1756.5	1650.5	1595.3	1587.6
20°	2752.4	2741.3	2648.6	2463.1	2261.1	2040.3	1830.5	1648.3	1492.7	1372.3	1345.8
22.5°	2915.8	2899.2	2785.5	2542.6	2298.6	2031.4	1767.6	1529.1	1295.0	1138.3	1107.3
25°	3097.9	3089.1	2911.3	2612.1	2303.0	1993.9	1677.0	1374.5	1080.8	913.0	886.5
27.5°	3330.9	3279.0	3025.1	2649.7	2293.1	1919.9	1547.9	1162.5	858.9	743.0	714.3
30°	3585.9	3481.0	3135.5	2678.4	2244.5	1801.8	1363.5	917.5	639.2	536.6	522.2
32.5°	3868.5	3711.8	3239.2	2676.2	2158.4	1619.6	1123.9	637.0	431.7	389.7	375.4
35°	4379.7	4113.6	3364.0	2639.7	2013.8	1403.2	793.8	415.1	320.2	294.8	291.5
37.5°	5089.6	4638.0	3531.8	2570.2	1827.2	1151.5	517.8	283.7	273.8	274.9	273.8
40°	5671.4	5223.2	3764.8	2465.3	1592.0	822.5	310.2	252.8	258.3	261.7	262.8
42.5°	6241.1	5700.1	4052.9	2333.9	1345.8	534.4	251.7	241.8	237.4	242.9	245.1
45°	6699.3	6116.4	4324.5	2180.5	1057.7	315.8	244.0	224.1	216.4	218.6	221.9
47.5°	7065.8	6447.6	4487.9	2001.6	772.8	238.5	237.4	208.7	197.6	195.4	194.3
50°	7411.4	6731.3	4592.8	1785.2	492.4	229.6	219.7	191.0	177.7	175.5	175.5
52.5°	7646.5	6916.8	4628.1	1529.1	293.7	224.1	207.6	176.6	159.0	162.3	164.5
55°	7876.2	7104.5	4555.2	1195.7	225.2	209.8	194.3	159.0	144.6	157.9	162.3
57.5°	7985.5	7132.1	4390.7	831.3	218.6	189.9	175.5	142.4	131.4	139.1	139.1
60°	8073.8	7113.3	4161.1	526.6	213.1	176.6	160.1	129.2	115.9	111.5	108.2
62.5°	8015.3	7038.2	3699.6	343.4	197.6	161.2	145.7	119.2	100.5	88.3	87.2
65°	7890.5	6773.3	2953.3	270.5	183.3	153.5	132.5	107.1	88.3	74.0	72.9
67.5°	7522.9	6128.5	1911.1	224.1	175.5	147.9	122.5	99.4	78.4	64.0	62.9
70°	6641.9	4950.5	586.2	200.9	182.2	142.4	120.3	90.5	69.6	56.3	54.1
72.5°	5251.9	3307.7	217.5	166.7	156.8	136.9	117.0	81.7	59.6	47.5	45.3
75°	3382.8	1080.8	184.4	129.2	133.6	130.3	108.2	75.1	50.8	38.6	37.5
77.5°	958.3	226.3	167.8	94.9	118.1	125.9	94.9	62.9	45.3	33.1	32.0
80°	200.9	161.2	153.5	67.3	88.3	81.7	64.0	48.6	43.1	28.7	28.7
82.5°	131.4	128.1	131.4	46.4	58.5	59.6	50.8	42.0	37.5	26.5	26.5
85°	92.7	117.0	62.9	33.1	27.6	25.4	29.8	36.4	33.1	22.1	22.1
87.5°	32.0	18.8	13.2	13.2	12.1	12.1	14.4	16.6	17.7	17.7	16.6
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)