

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: P510160

Luminaire Tested: **VERD-M-CA4-220-722-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510160
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-CA4-220-722-U-T4-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2200K, 1000mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22867 lumens
Efficiency: N/A
Efficacy: 102.8 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

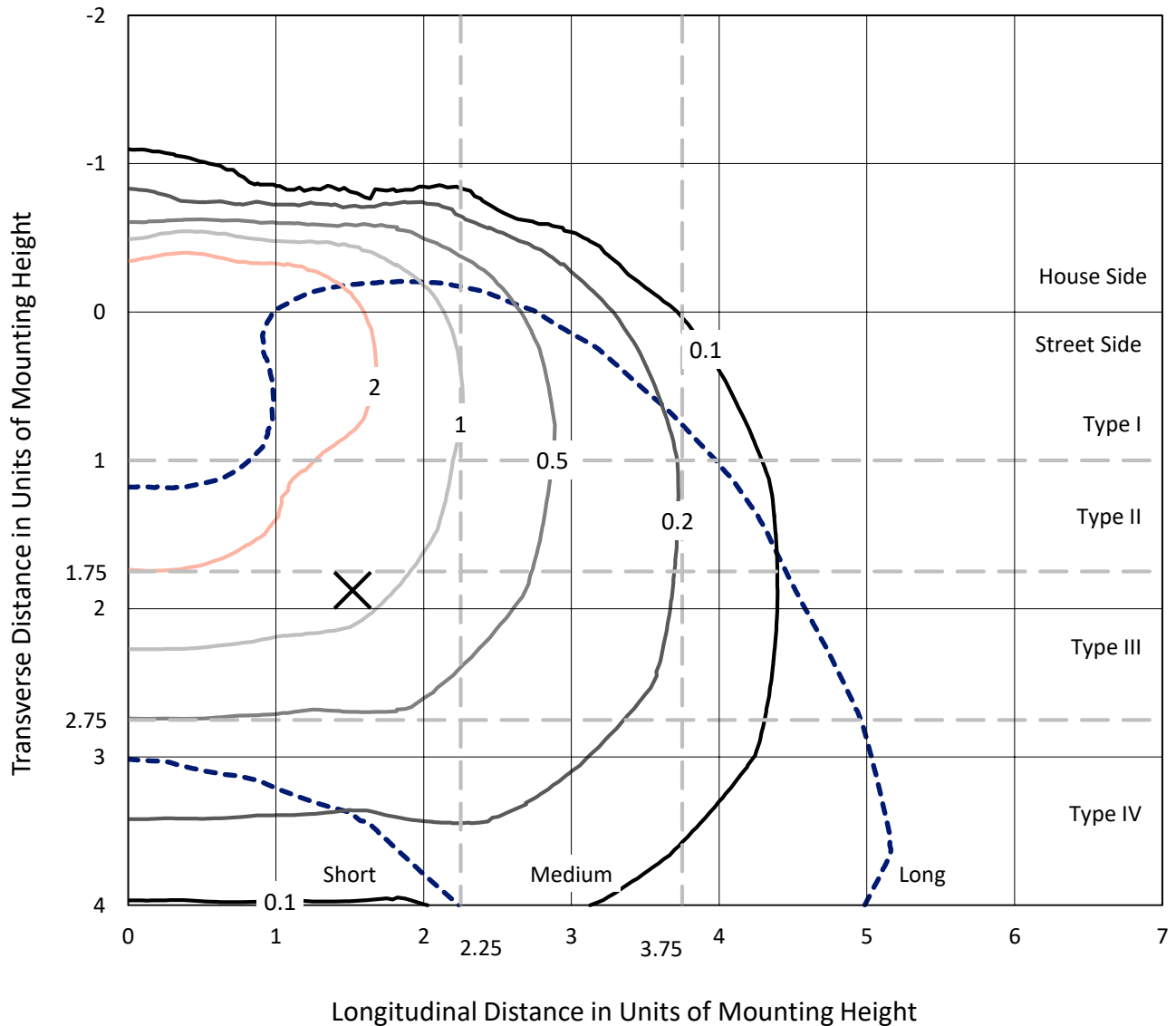
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

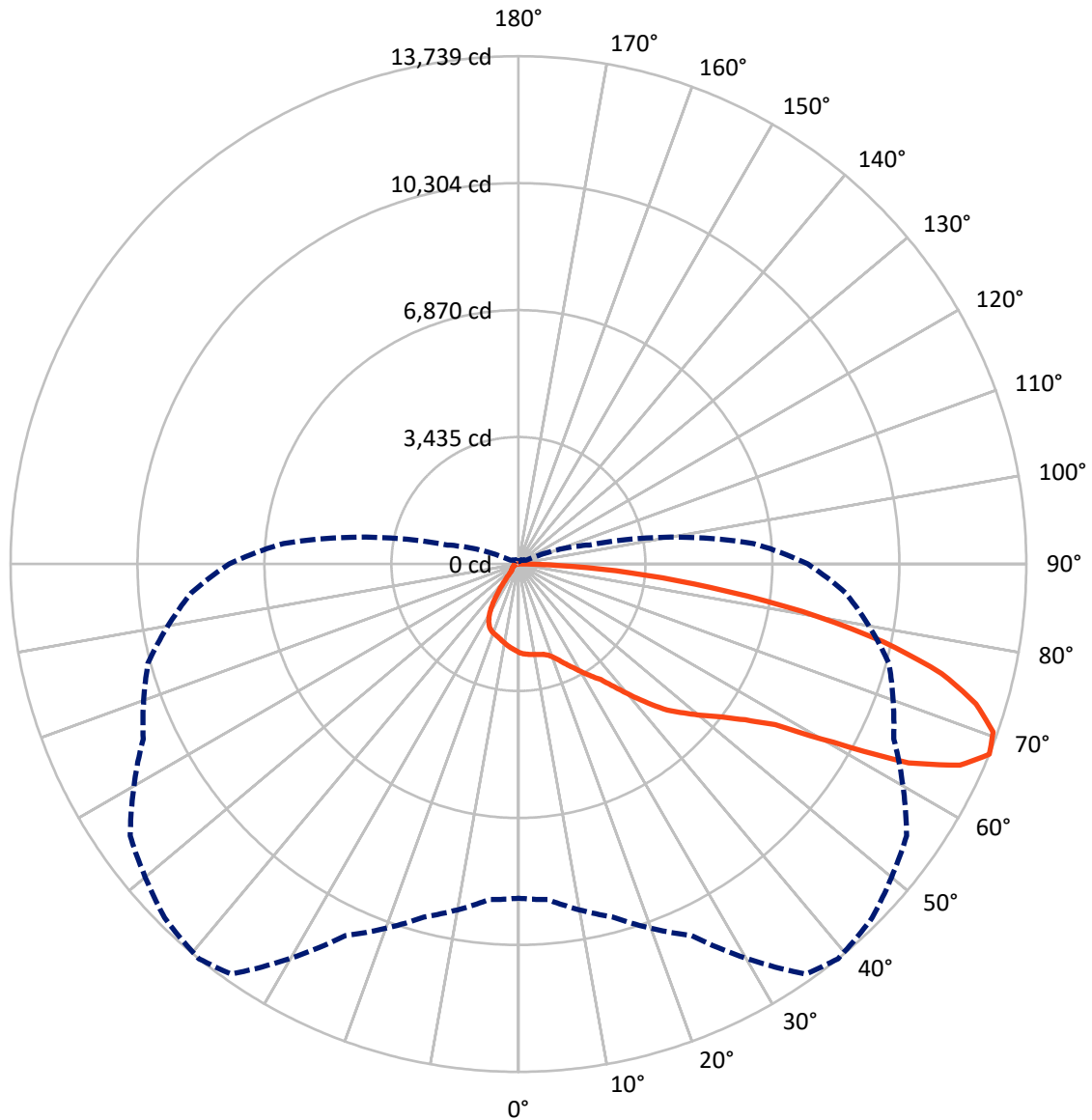
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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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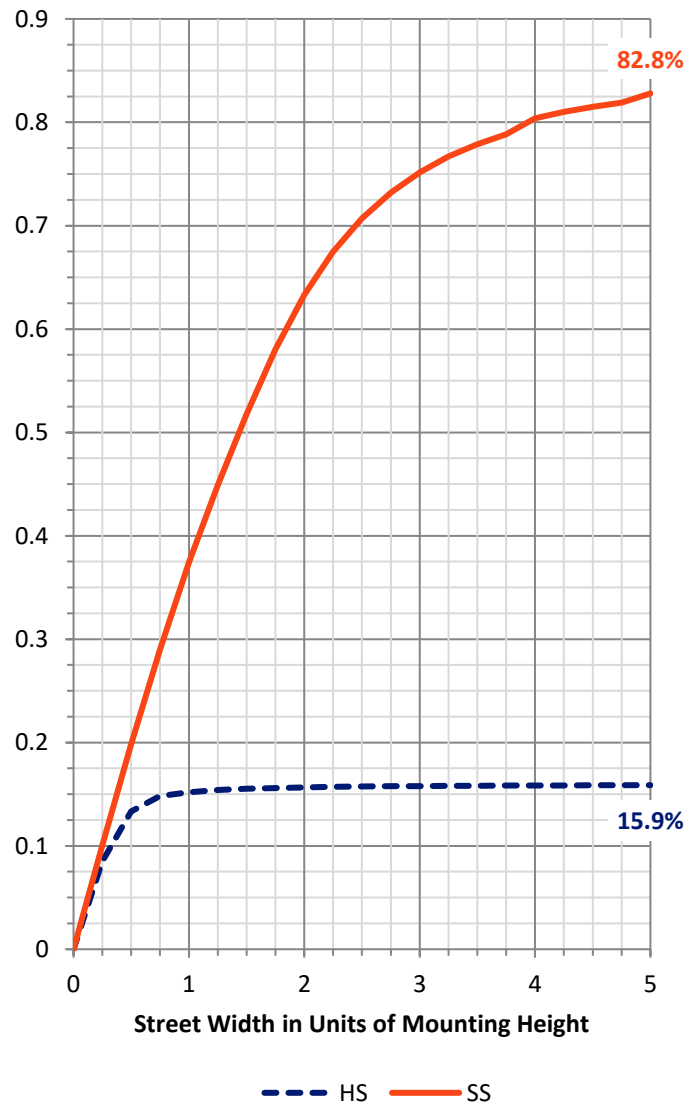
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3671.9	0.0	3671.9
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	19195.1	0.0	19195.1
	% Fixture	83.9	0.0	83.9
Total	Lumens	22867.0	0.0	22867.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.1	1.0
10°-20°	672.8	2.9
20°-30°	1192.0	5.2
30°-40°	1909.1	8.3
40°-50°	3062.6	13.4
50°-60°	4476.7	19.6
60°-70°	5965.4	26.1
70°-80°	4476.6	19.6
80°-90°	885.7	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°	22867.0	100.0
0°-180°	22867.0	100.0



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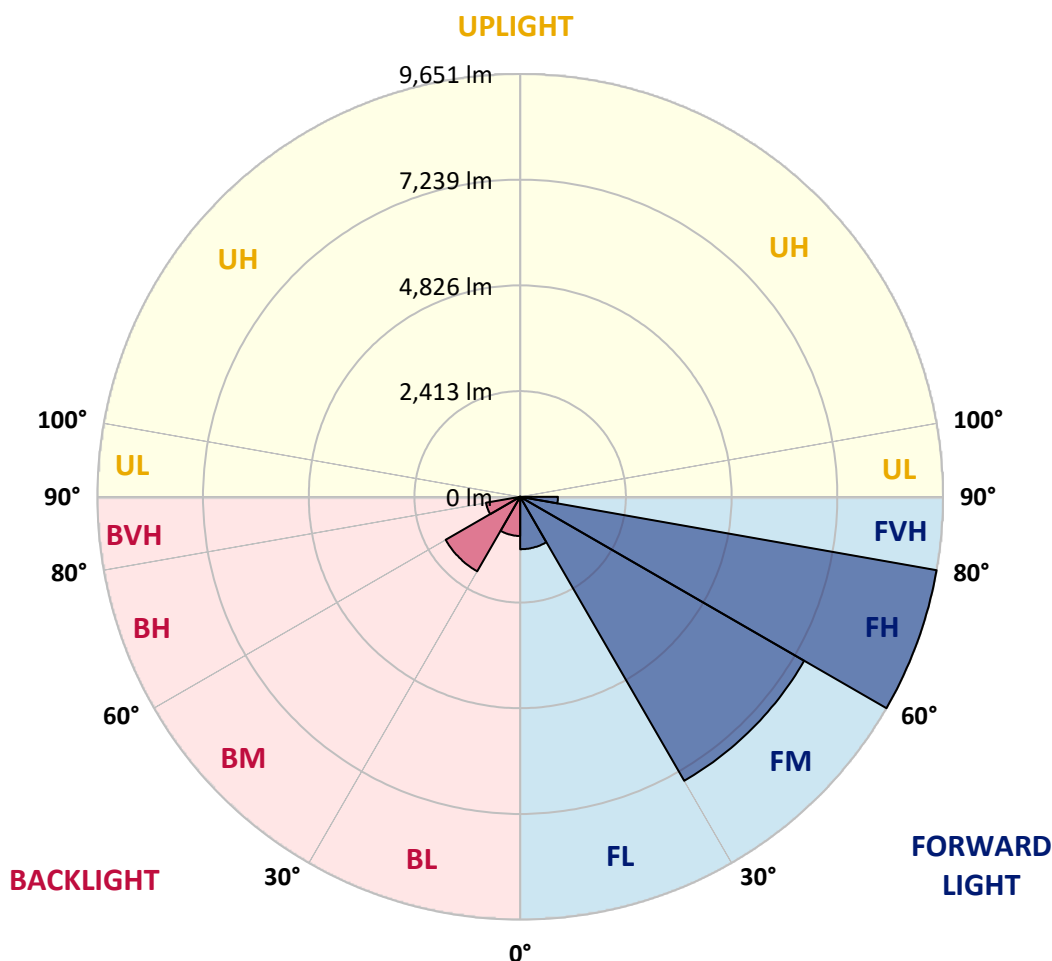
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1196.7	5.2			
FM (30°-60°)	7484.6	32.7			
FH (60°-80°)	9651.4	42.2			G4/12000
FVH (80°-90°)	862.5	3.8			G5
BL (0°-30°)	894.1	3.9	B2/1000		
BM (30°-60°)	1963.9	8.6	B2/2500		
BH (60°-80°)	790.6	3.5	B2/1000		G2/1000
BVH (80°-90°)	23.2	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°	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4
2.5°	2396.7	2428.9	2428.9	2419.7	2425.4	2430.0	2395.6	2404.8	2401.3	2400.2	2407.1
5°	2415.1	2450.7	2448.4	2436.9	2441.5	2450.7	2418.5	2432.3	2427.7	2416.2	2418.5
7.5°	2415.1	2445.0	2451.9	2439.2	2461.1	2472.5	2438.1	2450.7	2456.5	2448.4	2440.4
10°	2405.9	2432.3	2441.5	2439.2	2468.0	2486.3	2453.0	2488.6	2493.2	2493.2	2480.6
12.5°	2402.5	2432.3	2445.0	2455.3	2488.6	2508.2	2488.6	2523.1	2546.1	2544.9	2536.9
15°	2404.8	2438.1	2457.6	2474.8	2510.5	2534.6	2526.5	2579.4	2607.0	2615.0	2615.0
17.5°	2462.2	2502.4	2511.6	2530.0	2554.1	2590.9	2580.5	2648.3	2692.0	2705.8	2725.3
20°	2623.1	2654.1	2665.6	2656.4	2666.7	2689.7	2669.0	2734.5	2800.0	2836.8	2868.9
22.5°	2828.7	2851.7	2841.4	2832.2	2826.4	2832.2	2806.9	2850.6	2924.1	2976.9	3032.1
25°	2985.0	3035.5	3027.5	3002.2	2994.2	3001.1	2968.9	3022.9	3090.7	3145.8	3228.6
27.5°	3174.6	3205.6	3183.7	3174.6	3180.3	3179.2	3159.6	3211.3	3273.4	3342.3	3464.1
30°	3380.2	3406.6	3384.8	3375.6	3386.0	3392.9	3371.0	3461.8	3527.3	3602.0	3759.4
32.5°	3718.0	3781.2	3721.5	3602.0	3604.3	3614.6	3616.9	3738.7	3858.2	3916.8	4124.7
35°	4199.4	4250.0	4170.7	4025.9	3845.5	3838.7	3857.0	4038.6	4278.7	4545.3	4788.8
37.5°	4648.7	4722.2	4651.0	4482.1	4262.6	4209.8	4114.4	4330.4	4708.4	5281.7	5585.1
40°	5187.5	5242.7	5101.4	4954.3	4734.8	4660.2	4507.3	4645.2	5163.4	6050.4	6259.5
42.5°	5620.7	5654.0	5536.8	5382.8	5192.1	5135.8	4978.4	4991.1	5649.4	6723.7	6858.1
45°	6021.7	6057.3	5960.8	5829.8	5709.1	5641.4	5526.5	5588.5	6219.3	7433.7	7352.2
47.5°	6326.1	6361.8	6284.8	6191.7	6066.5	6020.5	6022.8	6245.7	6916.7	8001.3	7795.6
50°	6824.8	6811.0	6609.9	6508.8	6411.2	6435.3	6460.6	6777.7	7619.9	8488.5	8205.8
52.5°	7694.5	7626.8	7212.0	6947.7	6827.1	6868.4	6909.8	7331.5	8418.4	8933.1	8520.6
55°	8678.0	8609.1	8256.4	7691.1	7371.7	7438.3	7402.7	7879.5	9089.4	9360.5	8780.3
57.5°	9408.8	9522.5	9388.1	9080.2	8280.5	8193.2	8113.9	8433.3	9631.7	9787.9	9029.6
60°	10044.2	10202.7	10442.8	10359.0	10018.9	9791.4	9064.1	9080.2	10153.3	10084.4	9128.4
62.5°	10664.6	10757.7	11169.0	11259.7	11681.4	11844.6	11105.8	9916.6	10657.7	10290.0	9195.1
65°	10044.2	10163.6	10879.4	11540.1	12902.7	13121.0	12861.4	11430.9	11028.8	10411.8	9118.1
67.5°	9041.1	9113.5	9886.7	11088.5	13541.6	13739.2	13537.0	12821.2	11202.3	10375.0	8879.1
70°	7730.2	7843.9	8603.4	10214.2	13518.6	13624.3	13448.5	12988.9	11136.8	10163.6	8275.9
72.5°	6392.8	6457.1	7100.5	8707.9	12857.9	12946.4	12853.3	12731.6	10916.2	9574.2	7116.6
75°	4804.9	4818.7	5478.2	6876.5	11368.9	11830.8	11944.5	12288.1	10071.7	8207.0	5263.4
77.5°	3221.7	3358.4	3991.5	5255.3	9332.9	10071.7	10610.6	10861.1	8414.9	6125.1	2798.9
80°	1729.2	1763.6	2446.1	3729.5	7092.5	7799.1	8310.4	8315.0	5884.9	3034.4	625.0
82.5°	800.8	767.5	1231.7	2360.0	4912.9	5227.7	5570.1	4665.9	2356.5	518.2	159.7
85°	355.0	374.6	557.2	1150.1	2726.5	3042.4	2998.8	2065.8	413.6	140.2	97.7
87.5°	132.1	139.0	216.0	464.2	973.2	1061.6	954.8	397.5	54.0	49.4	29.9
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°	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4
2.5°	2399.0	2399.0	2396.7	2365.7	2358.8	2343.9	2331.2	2340.4	2330.1	2337.0	2330.1
5°	2409.4	2403.6	2389.8	2353.1	2335.8	2302.5	2277.2	2283.0	2269.2	2269.2	2268.0
7.5°	2433.5	2422.0	2397.9	2339.3	2307.1	2258.8	2219.8	2207.1	2193.4	2177.3	2175.0
10°	2472.5	2456.5	2424.3	2343.9	2281.8	2217.5	2149.7	2123.3	2088.8	2063.5	2058.9
12.5°	2526.5	2502.4	2458.8	2361.1	2279.5	2177.3	2086.5	2034.8	1993.4	1956.7	1948.6
15°	2604.7	2580.5	2528.8	2395.6	2280.7	2139.4	2019.9	1933.7	1862.5	1828.0	1829.1
17.5°	2718.4	2701.2	2621.9	2468.0	2302.5	2119.8	1964.7	1828.0	1717.7	1660.2	1652.2
20°	2864.3	2852.9	2756.3	2563.3	2353.1	2123.3	1905.0	1715.4	1553.4	1428.1	1400.6
22.5°	3034.4	3017.2	2898.8	2646.0	2392.1	2114.1	1839.5	1591.3	1347.7	1184.6	1152.4
25°	3224.0	3214.8	3029.8	2718.4	2396.7	2075.0	1745.3	1430.4	1124.8	950.2	922.6
27.5°	3466.4	3412.4	3148.1	2757.5	2386.4	1998.0	1610.8	1209.8	893.9	773.2	743.4
30°	3731.8	3622.7	3263.0	2787.4	2335.8	1875.1	1419.0	954.8	665.2	558.4	543.5
32.5°	4025.9	3862.8	3371.0	2785.1	2246.2	1685.5	1169.6	662.9	449.2	405.6	390.6
35°	4557.9	4281.0	3500.9	2747.1	2095.7	1460.3	826.1	432.0	333.2	306.8	303.3
37.5°	5296.7	4826.8	3675.5	2674.8	1901.5	1198.4	538.9	295.3	284.9	286.1	284.9
40°	5902.2	5435.7	3917.9	2565.6	1656.8	856.0	322.9	263.1	268.9	272.3	273.5
42.5°	6495.0	5932.0	4217.8	2428.9	1400.6	556.1	262.0	251.6	247.0	252.8	255.1
45°	6971.8	6365.2	4500.5	2269.2	1100.7	328.6	253.9	233.2	225.2	227.5	230.9
47.5°	7353.3	6709.9	4670.5	2083.1	804.3	248.2	247.0	217.2	205.7	203.4	202.2
50°	7712.9	7005.2	4779.6	1857.9	512.4	239.0	228.6	198.8	185.0	182.7	182.7
52.5°	7957.7	7198.2	4816.4	1591.3	305.6	233.2	216.0	183.8	165.4	168.9	171.2
55°	8196.6	7393.5	4740.6	1244.3	234.4	218.3	202.2	165.4	150.5	164.3	168.9
57.5°	8310.4	7422.2	4569.4	865.2	227.5	197.6	182.7	148.2	136.7	144.8	144.8
60°	8402.3	7402.7	4330.4	548.1	221.7	183.8	166.6	134.4	120.6	116.0	112.6
62.5°	8341.4	7324.6	3850.1	357.3	205.7	167.7	151.7	124.1	104.6	91.9	90.8
65°	8211.6	7048.8	3073.5	281.5	190.7	159.7	137.9	111.4	91.9	77.0	75.8
67.5°	7829.0	6377.8	1988.8	233.2	182.7	154.0	127.5	103.4	81.6	66.6	65.5
70°	6912.1	5151.9	610.1	209.1	189.6	148.2	125.2	94.2	72.4	58.6	56.3
72.5°	5465.6	3442.3	226.3	173.5	163.2	142.5	121.8	85.0	62.0	49.4	47.1
75°	3520.4	1124.8	191.9	134.4	139.0	135.6	112.6	78.1	52.9	40.2	39.1
77.5°	997.3	235.5	174.6	98.8	122.9	131.0	98.8	65.5	47.1	34.5	33.3
80°	209.1	167.7	159.7	70.1	91.9	85.0	66.6	50.6	44.8	29.9	29.9
82.5°	136.7	133.3	136.7	48.3	60.9	62.0	52.9	43.7	39.1	27.6	27.6
85°	96.5	121.8	65.5	34.5	28.7	26.4	31.0	37.9	34.5	23.0	23.0
87.5°	33.3	19.5	13.8	13.8	12.6	12.6	14.9	17.2	18.4	18.4	17.2
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)