

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: P509884

Luminaire Tested: **VERD-M-CA3-160-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509884
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA3-160-730-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20950 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

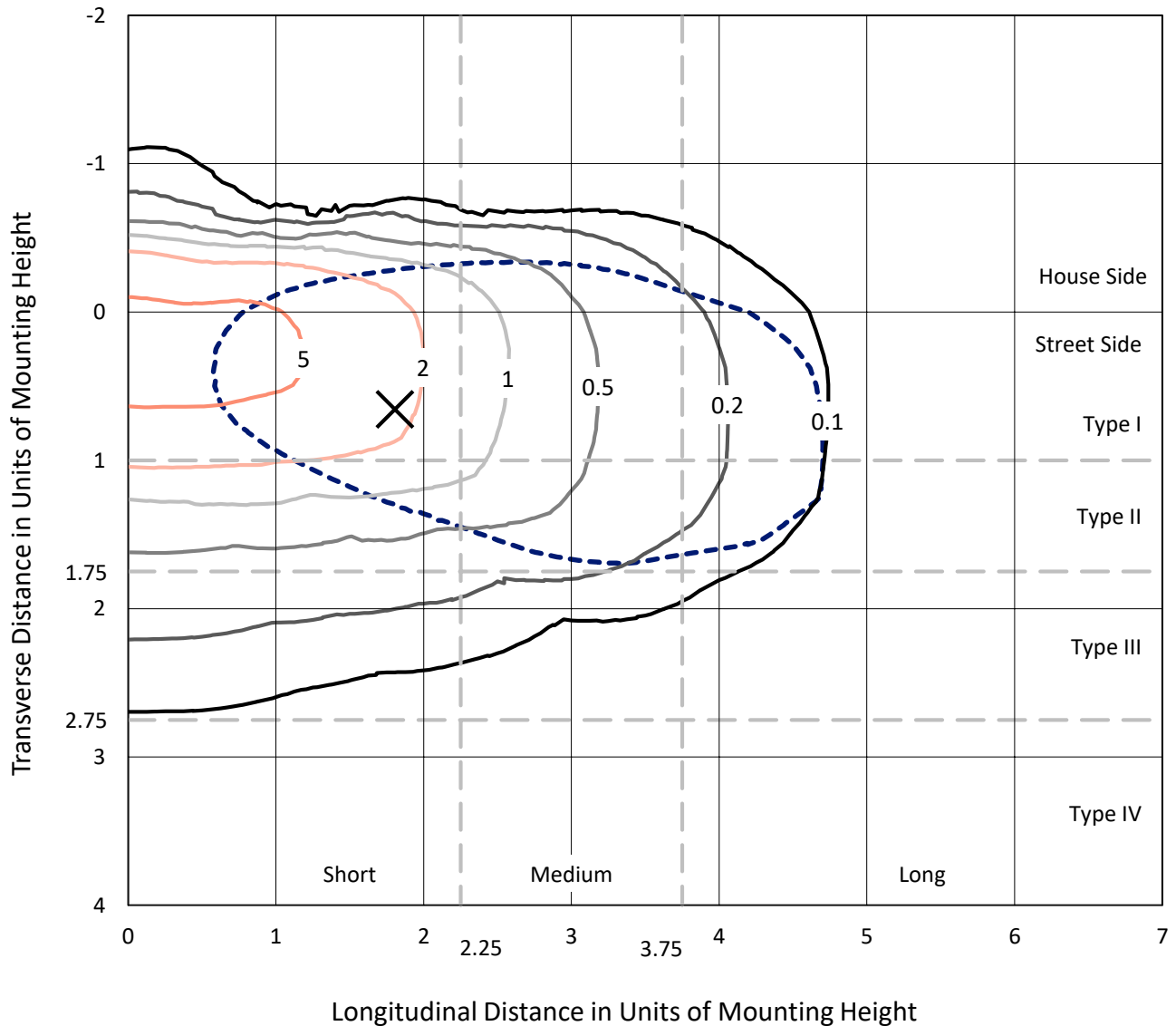
Input Watts (W): 162.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P509884
 CATALOG NUMBER: VERD-M-CA3-160-730-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

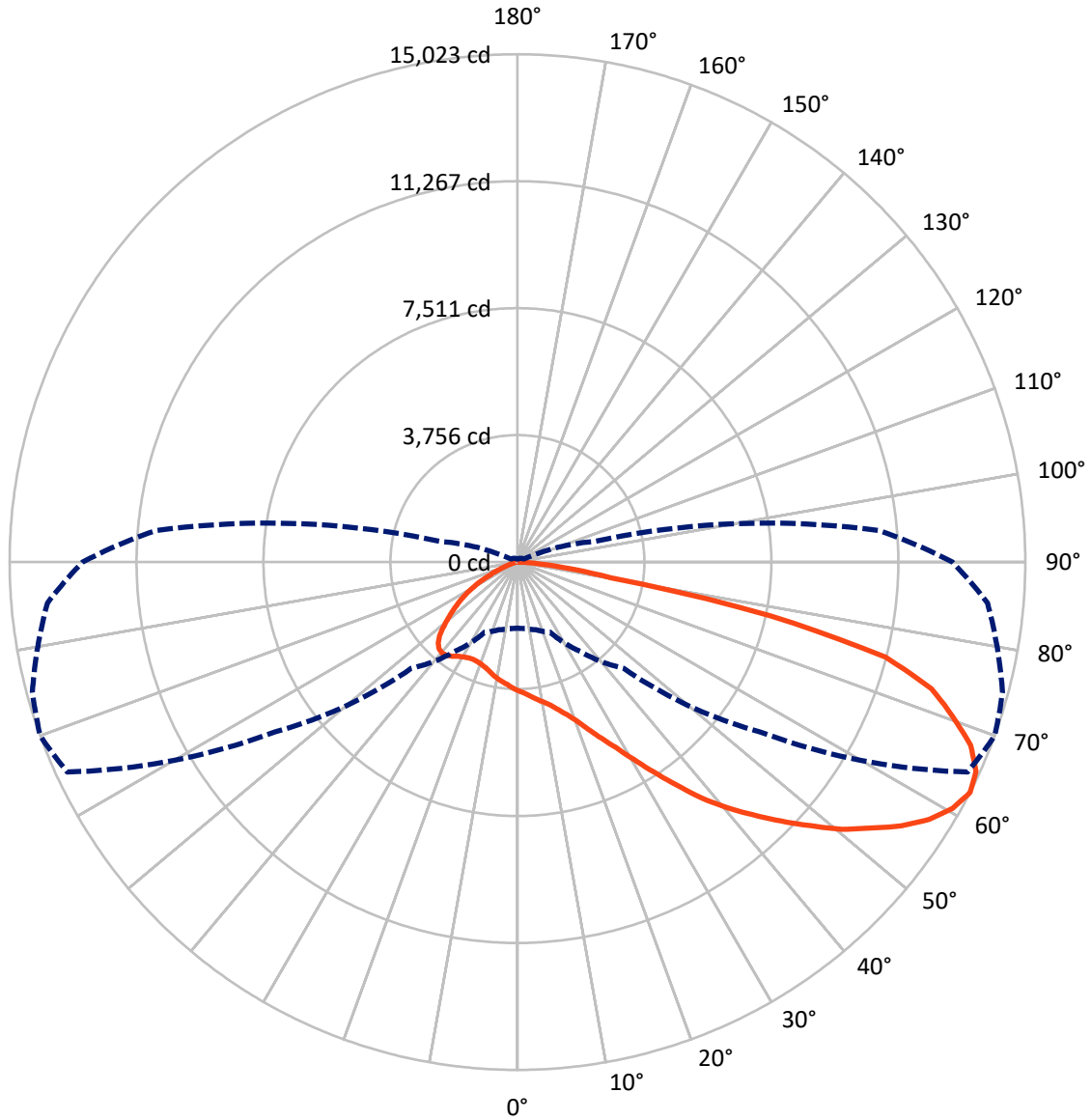
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Short - N/A

REPORT NUMBER: P509884
CATALOG NUMBER: VERD-M-CA3-160-730-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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 CATALOG NUMBER: VERD-M-CA3-160-730-U-T2-HSS

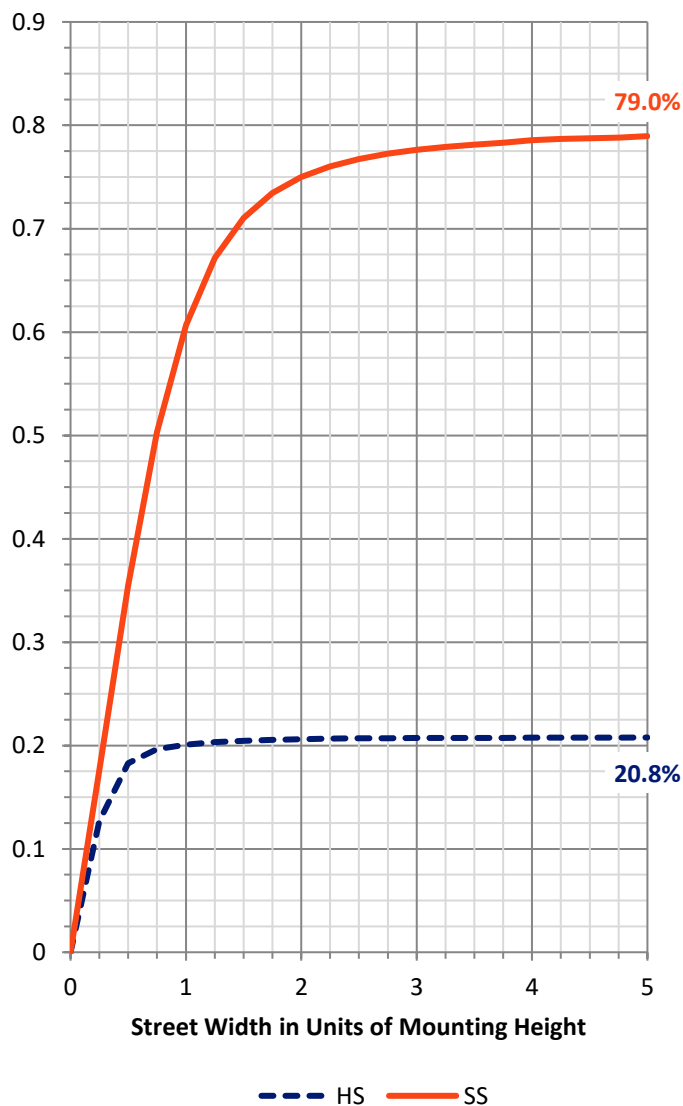
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4405.6	0.0	4405.6
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	16544.4	0.0	16544.4
	% Fixture	79.0	0.0	79.0
Total	Lumens	20950.0	0.0	20950.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.6	1.7
10°-20°	1079.1	5.2
20°-30°	1829.4	8.7
30°-40°	2690.3	12.8
40°-50°	3582.7	17.1
50°-60°	4191.0	20.0
60°-70°	4215.1	20.1
70°-80°	2668.3	12.7
80°-90°	332.5	1.6
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°	20950.0	100.0
0°-180°	20950.0	100.0



REPORT NUMBER: P509884

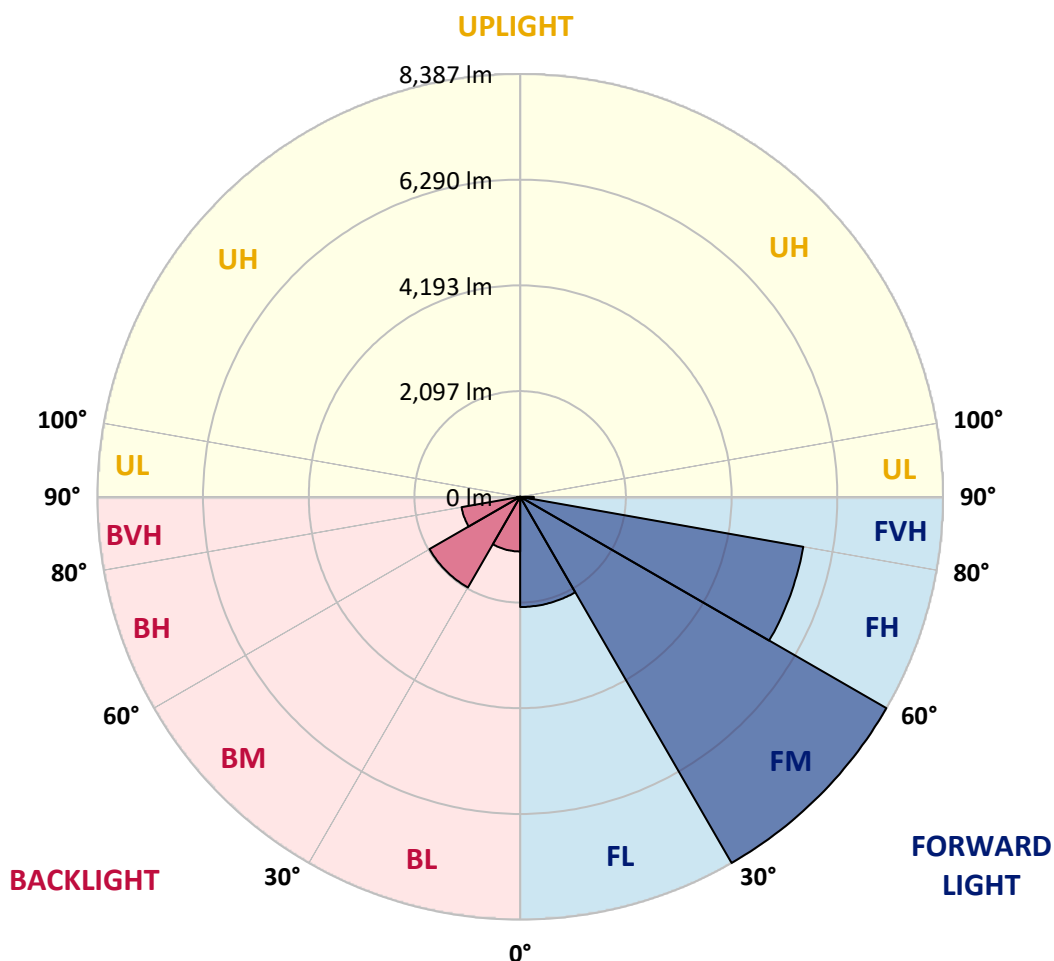
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2185.6	10.4			
FM (30°-60°)	8386.7	40.0			
FH (60°-80°)	5702.6	27.2			G3/7500
FVH (80°-90°)	269.6	1.3			G3/500
BL (0°-30°)	1084.7	5.2	B3/2500		
BM (30°-60°)	2077.3	9.9	B2/2500		
BH (60°-80°)	1180.8	5.6	B3/2500		G3/2500
BVH (80°-90°)	62.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





REPORT NUMBER: P509884

CATALOG NUMBER: VERD-M-CA3-160-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7
2.5°	4017.7	4052.8	4025.9	4015.6	4023.9	3982.5	3949.4	3901.8	3879.0	3862.5	3835.6
5°	4221.5	4279.4	4244.3	4222.5	4219.4	4143.9	4099.4	4034.2	3983.5	3939.0	3870.7
7.5°	4436.7	4470.9	4457.4	4432.6	4416.0	4323.9	4245.3	4153.2	4097.3	4038.4	3923.5
10°	4625.0	4666.4	4653.0	4608.5	4593.0	4498.8	4408.8	4283.6	4207.0	4133.6	3975.2
12.5°	4819.5	4866.1	4838.2	4793.7	4780.2	4685.0	4591.9	4439.8	4344.6	4261.9	4042.5
15°	4998.5	5041.0	5021.3	4970.6	4957.2	4876.5	4774.0	4632.3	4528.8	4419.1	4137.7
17.5°	5141.3	5183.8	5158.9	5135.1	5131.0	5051.3	4990.3	4845.4	4747.1	4598.1	4283.6
20°	5245.8	5289.3	5276.9	5288.3	5331.7	5272.7	5235.5	5113.4	5013.0	4851.6	4493.6
22.5°	5328.6	5384.5	5434.1	5456.9	5537.6	5533.5	5525.2	5452.8	5374.1	5206.5	4744.0
25°	5336.9	5401.0	5499.3	5605.9	5752.8	5823.2	5874.9	5863.5	5771.5	5605.9	5090.6
27.5°	5349.3	5415.5	5516.9	5700.1	5962.9	6127.4	6213.3	6266.0	6212.2	6101.5	5484.8
30°	5322.4	5390.7	5518.0	5751.8	6106.7	6411.9	6565.1	6760.6	6766.8	6673.7	6079.8
32.5°	5200.3	5290.3	5444.5	5758.0	6246.4	6708.9	6944.8	7320.4	7402.1	7332.8	6693.4
35°	4996.5	5078.2	5298.6	5703.2	6331.2	6956.2	7387.6	7973.3	8094.3	8090.2	7415.6
37.5°	4770.9	4853.7	5102.0	5573.8	6386.1	7176.6	7777.7	8621.0	8862.0	8811.3	8097.4
40°	4521.6	4608.5	4895.1	5411.4	6359.2	7373.1	8190.5	9249.0	9548.0	9554.2	8749.3
42.5°	4231.8	4303.2	4590.9	5186.9	6270.2	7518.0	8574.4	9910.2	10224.7	10207.1	9363.9
45°	3954.6	4029.0	4280.5	4839.2	6064.3	7598.7	8951.0	10579.6	10924.2	10868.3	10046.8
47.5°	3619.3	3725.9	4012.5	4547.4	5746.6	7592.5	9280.1	11264.6	11651.5	11606.0	10636.5
50°	2785.4	2848.5	3497.2	4246.3	5316.2	7447.6	9601.8	11937.1	12426.5	12337.5	11265.6
52.5°	2509.1	2566.0	2775.0	3885.2	4925.1	7134.1	9869.8	12706.9	13073.2	13003.9	11908.1
55°	2371.5	2402.5	2529.8	3204.4	4543.3	6625.1	10048.8	13390.8	13771.6	13618.5	12509.3
57.5°	2198.7	2237.0	2384.9	2736.7	4073.5	5843.9	10007.4	14007.5	14359.3	14124.4	13039.1
60°	2066.3	2095.2	2233.9	2463.6	3588.3	5034.8	9584.3	14612.8	14789.7	14558.0	13566.7
62.5°	1954.5	1971.1	2068.3	2286.6	3218.9	4444.0	8758.6	14693.5	15022.5	14854.9	13959.9
65°	1815.9	1820.0	1934.9	2105.6	2877.4	4089.1	8049.8	14279.6	14906.7	14850.8	14101.7
67.5°	1653.4	1661.7	1777.6	1908.0	2466.7	3711.4	6945.8	14057.2	14456.6	14421.4	13821.3
70°	1449.6	1466.1	1572.7	1672.0	2089.0	3258.2	5528.3	13177.7	13651.6	13599.9	12897.3
72.5°	1253.0	1243.7	1343.0	1441.3	1740.3	2720.2	4190.5	11664.0	12805.2	12755.6	11697.1
75°	1029.5	1023.3	1125.7	1218.9	1426.8	2197.7	2947.8	8626.1	11251.1	11404.3	10086.1
77.5°	634.3	639.4	698.4	760.5	966.4	1642.0	1881.1	4798.9	7643.2	9063.8	7915.3
80°	459.4	459.4	502.9	540.1	639.4	1000.5	936.4	2001.1	2793.6	4374.6	4936.5
82.5°	298.0	285.6	312.5	344.5	355.9	433.5	428.4	1003.6	1423.7	1713.4	2055.9
85°	155.2	171.8	103.5	145.9	154.2	143.8	148.0	470.8	632.2	810.2	891.9
87.5°	23.8	18.6	24.8	34.1	39.3	33.1	29.0	54.8	84.8	112.8	133.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P509884

CATALOG NUMBER: VERD-M-CA3-160-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7	3808.7
2.5°	3818.0	3812.8	3765.2	3695.9	3639.0	3591.4	3560.3	3539.6	3562.4	3521.0	3515.8
5°	3828.3	3793.1	3689.7	3590.3	3513.8	3411.3	3342.0	3295.5	3314.1	3277.9	3263.4
7.5°	3856.3	3792.1	3649.3	3491.0	3346.2	3236.5	3129.9	3027.5	3012.0	2989.2	2990.2
10°	3881.1	3789.0	3602.8	3395.8	3227.2	3033.7	2905.4	2799.8	2776.1	2749.1	2735.7
12.5°	3920.4	3796.2	3544.8	3294.4	3068.9	2845.4	2706.7	2582.6	2558.8	2506.0	2494.6
15°	3999.0	3822.1	3487.9	3169.2	2890.9	2665.3	2486.3	2377.7	2334.2	2275.3	2274.2
17.5°	4101.5	3897.6	3458.9	3051.3	2739.8	2487.4	2298.0	2188.4	2114.9	2079.7	2070.4
20°	4247.4	3995.9	3457.9	2944.7	2582.6	2297.0	2079.7	1955.5	1893.5	1864.5	1846.9
22.5°	4471.9	4140.8	3476.5	2870.2	2424.3	2112.8	1896.6	1725.8	1623.4	1543.7	1555.1
25°	4751.3	4358.1	3519.0	2801.9	2286.6	1936.9	1665.8	1428.9	1245.8	1166.1	1172.3
27.5°	5106.2	4617.8	3628.6	2732.6	2130.4	1747.6	1364.7	1063.7	925.0	831.9	839.1
30°	5560.4	4940.6	3772.4	2678.8	1985.6	1482.7	1027.4	784.3	662.2	585.6	578.4
32.5°	6103.6	5408.3	3929.7	2642.6	1827.2	1151.6	740.8	575.3	456.3	412.8	419.0
35°	6776.1	5933.9	4169.8	2589.8	1556.2	819.5	528.7	389.0	328.0	319.7	320.8
37.5°	7389.7	6471.9	4407.7	2500.8	1228.2	582.5	359.0	295.9	282.5	279.4	283.5
40°	7990.8	6962.4	4623.0	2371.5	844.3	399.4	263.8	266.9	255.6	247.3	243.2
42.5°	8553.7	7435.2	4791.6	2133.5	577.4	263.8	233.8	243.2	241.1	224.5	217.3
45°	9161.1	7935.0	4884.7	1800.3	363.2	224.5	210.0	226.6	236.9	218.3	210.0
47.5°	9679.4	8422.3	4880.6	1379.2	246.3	212.1	197.6	212.1	224.5	211.1	203.8
50°	10277.5	8825.8	4748.2	875.3	218.3	196.6	189.3	194.5	211.1	201.8	194.5
52.5°	10941.8	9378.4	4547.4	488.4	206.9	186.2	175.9	182.1	196.6	185.2	189.3
55°	11492.2	9836.7	4075.6	333.2	201.8	173.8	167.6	171.8	178.0	166.6	172.8
57.5°	11983.7	10215.4	3598.6	273.2	194.5	165.5	164.5	156.2	155.2	148.0	141.8
60°	12481.4	10514.4	2955.1	247.3	187.3	166.6	149.0	137.6	128.3	121.1	118.0
62.5°	12863.2	10721.4	2337.3	223.5	176.9	156.2	136.6	118.0	102.4	93.1	93.1
65°	12974.9	10629.3	1645.1	202.8	165.5	146.9	122.1	96.2	77.6	71.4	68.3
67.5°	12616.9	10100.6	1145.4	187.3	154.2	136.6	107.6	78.6	62.1	53.8	51.7
70°	11705.4	9215.9	675.6	165.5	139.7	119.0	98.3	64.2	50.7	42.4	40.4
72.5°	10358.2	7889.4	421.1	140.7	120.0	97.3	73.5	52.8	40.4	33.1	32.1
75°	8555.8	6150.1	275.2	108.6	95.2	76.6	55.9	42.4	35.2	27.9	25.9
77.5°	6861.0	4350.8	246.3	82.8	70.4	54.8	42.4	35.2	29.0	24.8	24.8
80°	3948.3	2483.2	201.8	56.9	43.5	41.4	33.1	29.0	26.9	23.8	22.8
82.5°	1940.0	1193.0	130.4	35.2	24.8	26.9	27.9	25.9	22.8	20.7	20.7
85°	668.4	397.3	52.8	22.8	16.6	16.6	17.6	18.6	17.6	16.6	16.6
87.5°	103.5	75.5	14.5	13.5	10.3	9.3	10.3	11.4	11.4	10.3	10.3
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)