

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: P510044

Luminaire Tested: **VERD-M-CA4-190-750-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510044
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-CA4-190-750-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5000K, 870mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25761 lumens
Efficiency: N/A
Efficacy: 133.4 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

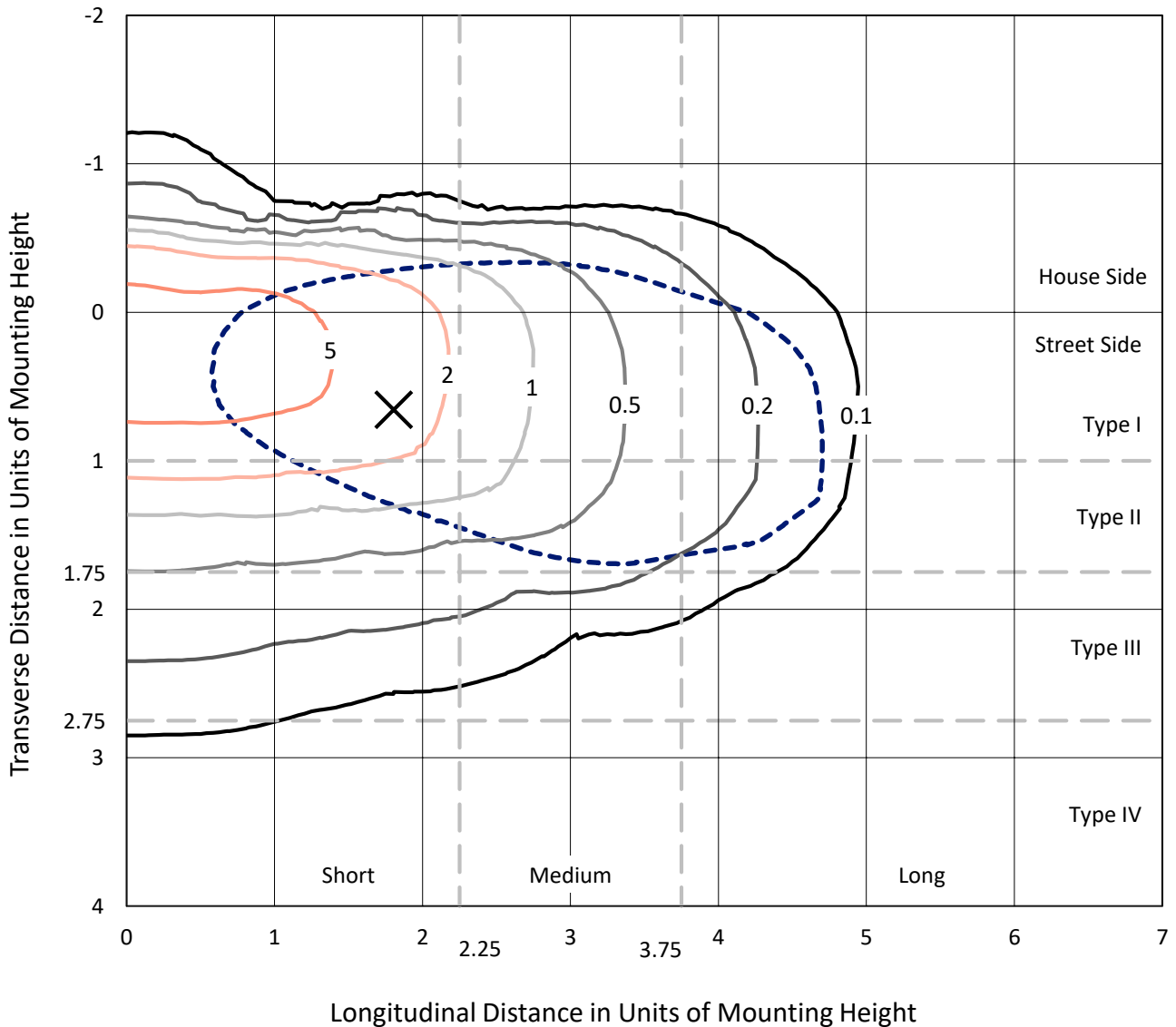
Input Watts (W): 193.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

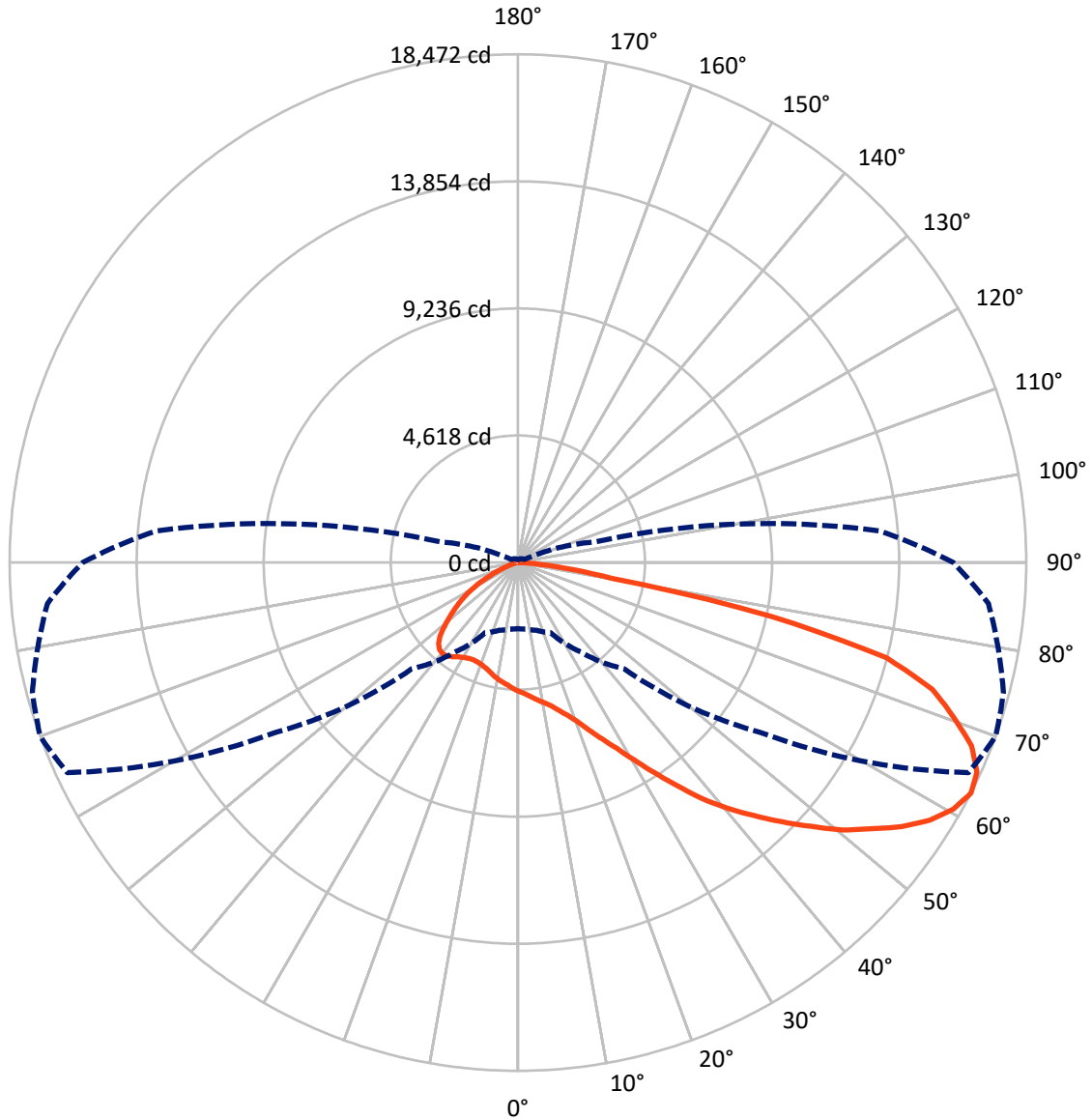
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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

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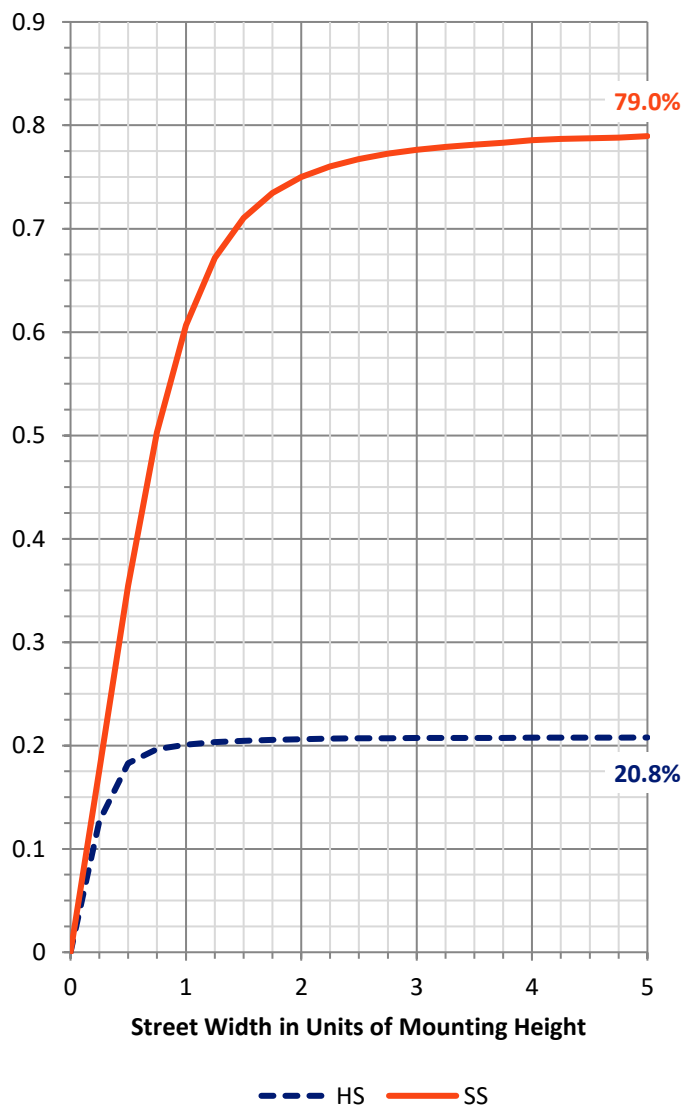
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5417.3	0.0	5417.3
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	20343.7	0.0	20343.7
	% Fixture	79.0	0.0	79.0
Total	Lumens	25761.0	0.0	25761.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	444.7	1.7
10°-20°	1327.0	5.2
20°-30°	2249.6	8.7
30°-40°	3308.1	12.8
40°-50°	4405.4	17.1
50°-60°	5153.4	20.0
60°-70°	5183.1	20.1
70°-80°	3281.0	12.7
80°-90°	408.8	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°	25761.0	100.0
0°-180°	25761.0	100.0



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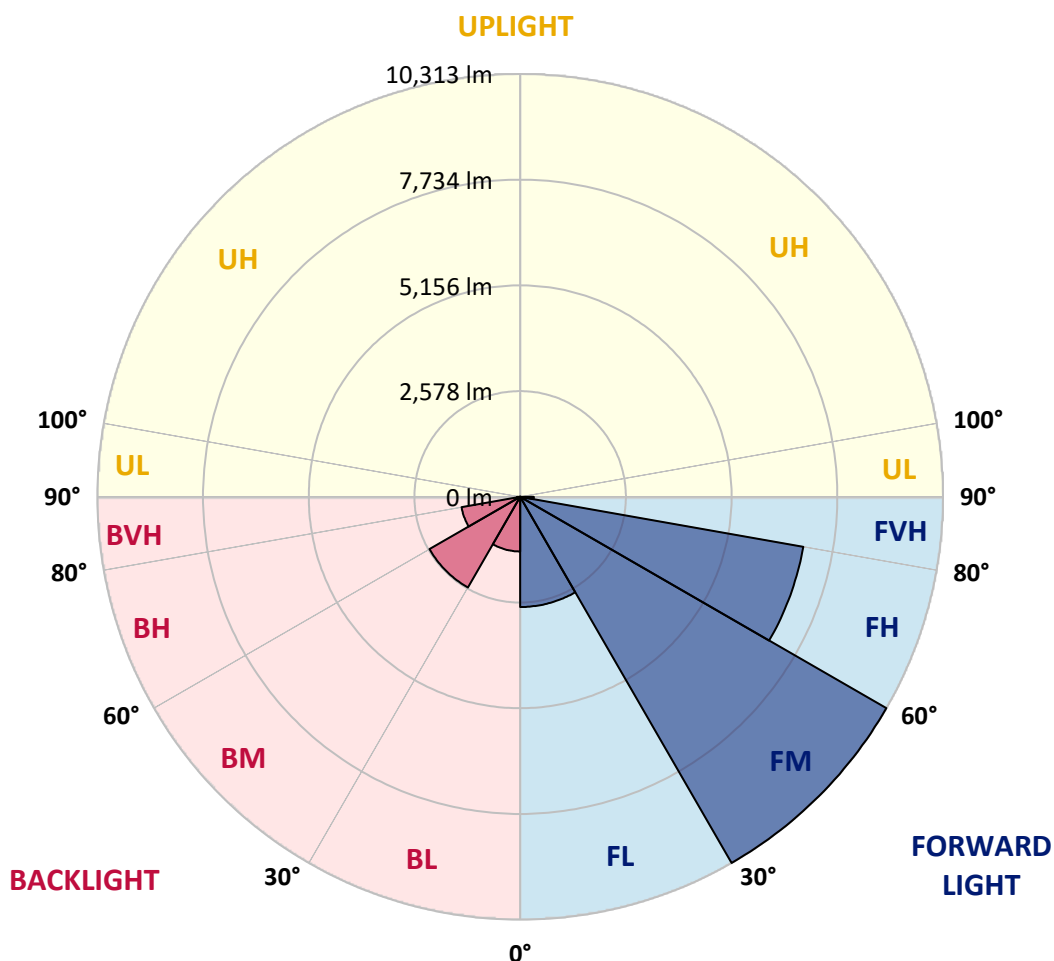
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2687.4	10.4			
FM (30°-60°)	10312.6	40.0			
FH (60°-80°)	7012.1	27.2			G3/7500
FVH (80°-90°)	331.5	1.3			G3/500
BL (0°-30°)	1333.7	5.2	B3/2500		
BM (30°-60°)	2554.3	9.9	B3/5000		
BH (60°-80°)	1451.9	5.6	B3/2500		G3/2500
BVH (80°-90°)	77.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3
2.5°	4940.3	4983.6	4950.5	4937.7	4947.9	4897.0	4856.3	4797.8	4769.8	4749.4	4716.4
5°	5190.9	5262.2	5218.9	5192.2	5188.4	5095.5	5040.8	4960.6	4898.3	4843.6	4759.6
7.5°	5455.6	5497.6	5481.0	5450.5	5430.1	5316.9	5220.2	5107.0	5038.3	4965.7	4824.5
10°	5687.1	5738.0	5721.5	5666.8	5647.7	5531.9	5421.2	5267.3	5173.1	5082.8	4888.1
12.5°	5926.3	5983.6	5949.2	5894.5	5878.0	5760.9	5646.4	5459.4	5342.3	5240.6	4970.8
15°	6146.4	6198.6	6174.4	6112.1	6095.5	5996.3	5870.3	5696.0	5568.8	5433.9	5087.9
17.5°	6322.0	6374.2	6343.6	6314.4	6309.3	6211.3	6136.2	5958.1	5837.3	5654.0	5267.3
20°	6450.5	6503.9	6488.7	6502.7	6556.1	6483.6	6437.8	6287.6	6164.2	5965.8	5525.5
22.5°	6552.3	6621.0	6682.1	6710.0	6809.3	6804.2	6794.0	6705.0	6608.3	6402.2	5833.4
25°	6562.5	6641.3	6762.2	6893.3	7073.9	7160.4	7224.0	7210.1	7096.8	6893.3	6259.7
27.5°	6577.7	6659.2	6783.8	7009.0	7332.2	7534.5	7640.1	7705.0	7638.8	7502.7	6744.4
30°	6544.6	6628.6	6785.1	7072.6	7509.0	7884.4	8072.7	8313.1	8320.8	8206.3	7476.0
32.5°	6394.5	6505.2	6694.8	7080.3	7680.8	8249.5	8539.6	9001.4	9101.9	9016.7	8230.4
35°	6143.9	6244.4	6515.4	7012.8	7785.1	8553.6	9084.1	9804.2	9953.1	9948.0	9118.5
37.5°	5866.5	5968.3	6273.7	6853.8	7852.6	8824.6	9563.8	10600.7	10897.1	10834.8	9956.9
40°	5559.9	5666.8	6019.2	6654.1	7819.5	9066.3	10071.4	11373.0	11740.7	11748.3	10758.5
42.5°	5203.7	5291.4	5645.1	6378.0	7710.1	9244.4	10543.4	12186.0	12572.7	12551.1	11514.2
45°	4862.7	4954.3	5263.5	5950.5	7456.9	9343.7	11006.6	13009.1	13432.8	13364.1	12353.9
47.5°	4450.5	4581.5	4933.9	5591.7	7066.3	9336.0	11411.1	13851.4	14327.2	14271.3	13079.1
50°	3425.0	3502.6	4300.3	5221.5	6537.0	9157.9	11806.8	14678.4	15280.2	15170.8	13852.7
52.5°	3085.3	3155.3	3412.3	4777.4	6056.1	8772.4	12136.4	15625.0	16075.4	15990.1	14642.8
55°	2916.1	2954.3	3110.7	3940.3	5586.6	8146.5	12356.5	16465.9	16934.1	16745.9	15382.0
57.5°	2703.6	2750.7	2932.6	3365.2	5009.0	7185.9	12305.6	17224.2	17656.8	17368.0	16033.4
60°	2540.8	2576.4	2746.9	3029.3	4412.3	6191.0	11785.2	17968.5	18186.1	17901.1	16682.2
62.5°	2403.4	2423.7	2543.3	2811.8	3958.1	5464.5	10769.9	18067.8	18472.3	18266.2	17165.7
65°	2232.9	2238.0	2379.2	2589.1	3538.2	5028.1	9898.4	17558.8	18329.8	18261.1	17340.0
67.5°	2033.1	2043.3	2185.8	2346.1	3033.1	4563.7	8540.9	17285.3	17776.4	17733.1	16995.2
70°	1782.5	1802.8	1933.9	2056.0	2568.7	4006.4	6797.8	16203.9	16786.6	16722.9	15859.1
72.5°	1540.7	1529.3	1651.4	1772.3	2140.0	3344.8	5152.8	14342.5	15745.8	15684.8	14383.2
75°	1265.9	1258.3	1384.2	1498.8	1754.5	2702.3	3624.7	10607.1	13834.9	14023.2	12402.3
77.5°	779.9	786.3	858.8	935.1	1188.3	2019.1	2313.0	5900.9	9398.4	11145.2	9733.0
80°	564.9	564.9	618.3	664.1	786.3	1230.3	1151.4	2460.6	3435.2	5379.2	6070.1
82.5°	366.4	351.2	384.2	423.7	437.7	533.1	526.7	1234.1	1750.7	2106.9	2528.0
85°	190.8	211.2	127.2	179.4	189.6	176.8	181.9	578.9	777.4	996.2	1096.7
87.5°	29.3	22.9	30.5	42.0	48.3	40.7	35.6	67.4	104.3	138.7	164.1
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°	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3	4683.3
2.5°	4694.7	4688.4	4629.9	4544.6	4474.6	4416.1	4377.9	4352.5	4380.5	4329.6	4323.2
5°	4707.5	4664.2	4537.0	4414.8	4320.7	4194.7	4109.5	4052.2	4075.1	4030.6	4012.8
7.5°	4741.8	4662.9	4487.4	4292.7	4114.6	3979.7	3848.7	3722.7	3703.6	3675.6	3676.9
10°	4772.4	4659.1	4430.1	4175.6	3968.3	3730.3	3572.6	3442.8	3413.5	3380.5	3363.9
12.5°	4820.7	4668.0	4358.9	4051.0	3773.6	3498.8	3328.3	3175.6	3146.4	3081.5	3067.5
15°	4917.4	4699.8	4288.9	3897.0	3554.8	3277.4	3057.3	2923.7	2870.3	2797.8	2796.5
17.5°	5043.3	4792.7	4253.3	3752.0	3369.0	3058.6	2825.8	2690.9	2600.6	2557.3	2545.8
20°	5222.7	4913.6	4252.0	3620.9	3175.6	2824.5	2557.3	2404.6	2328.3	2292.7	2271.0
22.5°	5498.8	5091.7	4274.9	3529.3	2981.0	2598.0	2332.1	2122.2	1996.2	1898.3	1912.2
25°	5842.3	5358.9	4327.1	3445.4	2811.8	2381.7	2048.4	1757.0	1531.8	1433.9	1441.5
27.5°	6278.7	5678.2	4461.9	3360.1	2619.6	2148.9	1678.1	1307.9	1137.4	1022.9	1031.8
30°	6837.3	6075.2	4638.8	3294.0	2441.5	1823.2	1263.4	964.4	814.3	720.1	711.2
32.5°	7505.2	6650.2	4832.1	3249.4	2246.9	1416.1	911.0	707.4	561.1	507.6	515.3
35°	8332.2	7296.6	5127.3	3184.5	1913.5	1007.7	650.1	478.4	403.3	393.1	394.4
37.5°	9086.7	7958.2	5419.9	3075.1	1510.2	716.3	441.5	363.9	347.3	343.5	348.6
40°	9825.9	8561.2	5684.6	2916.1	1038.2	491.1	324.4	328.3	314.3	304.1	299.0
42.5°	10518.0	9142.7	5892.0	2623.5	709.9	324.4	287.5	299.0	296.4	276.1	267.2
45°	11264.8	9757.2	6006.5	2213.8	446.6	276.1	258.3	278.6	291.4	268.5	258.3
47.5°	11902.3	10356.4	6001.4	1696.0	302.8	260.8	243.0	260.8	276.1	259.5	250.6
50°	12637.6	10852.6	5838.5	1076.4	268.5	241.7	232.8	239.2	259.5	248.1	239.2
52.5°	13454.4	11532.0	5591.7	600.5	254.5	229.0	216.3	223.9	241.7	227.7	232.8
55°	14131.3	12095.6	5011.5	409.7	248.1	213.7	206.1	211.2	218.8	204.8	212.5
57.5°	14735.6	12561.3	4425.0	335.9	239.2	203.6	202.3	192.1	190.8	181.9	174.3
60°	15347.6	12929.0	3633.7	304.1	230.3	204.8	183.2	169.2	157.8	148.9	145.0
62.5°	15817.1	13183.4	2874.1	274.8	217.6	192.1	167.9	145.0	126.0	114.5	114.5
65°	15954.5	13070.2	2022.9	249.4	203.6	180.7	150.1	118.3	95.4	87.8	84.0
67.5°	15514.3	12420.1	1408.4	230.3	189.6	167.9	132.3	96.7	76.3	66.2	63.6
70°	14393.4	11332.3	830.8	203.6	171.8	146.3	120.9	78.9	62.3	52.2	49.6
72.5°	12736.9	9701.2	517.8	173.0	147.6	119.6	90.3	64.9	49.6	40.7	39.4
75°	10520.5	7562.5	338.4	133.6	117.1	94.1	68.7	52.2	43.3	34.4	31.8
77.5°	8436.5	5350.0	302.8	101.8	86.5	67.4	52.2	43.3	35.6	30.5	30.5
80°	4855.0	3053.5	248.1	70.0	53.4	50.9	40.7	35.6	33.1	29.3	28.0
82.5°	2385.5	1466.9	160.3	43.3	30.5	33.1	34.4	31.8	28.0	25.4	25.4
85°	821.9	488.6	64.9	28.0	20.4	20.4	21.6	22.9	21.6	20.4	20.4
87.5°	127.2	92.9	17.8	16.5	12.7	11.5	12.7	14.0	14.0	12.7	12.7
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)