

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: McGRAW-EDISON

Report Number: P591391

Luminaire Tested: **CTN-CA10-210-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-740-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24174 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

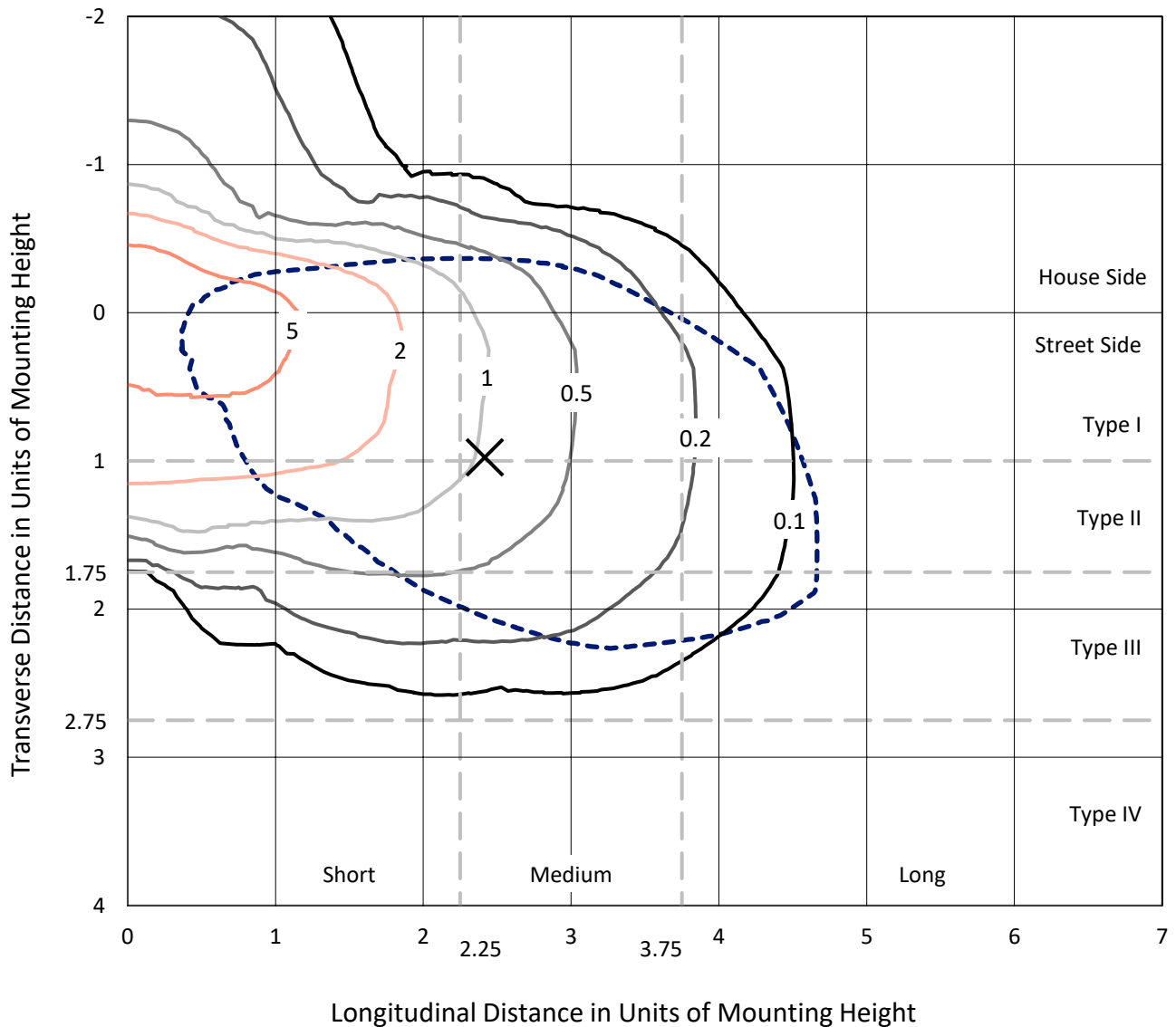
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

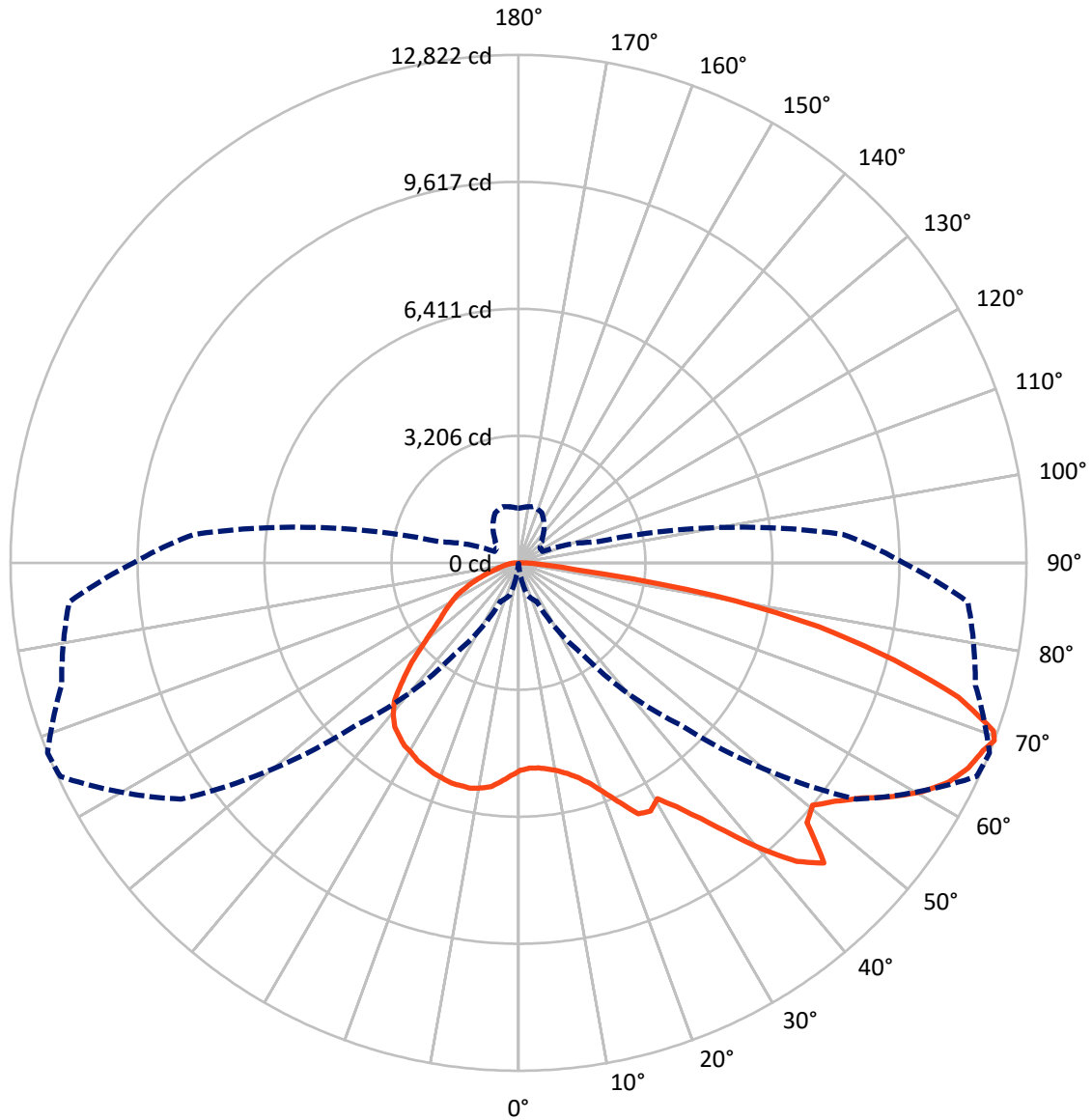
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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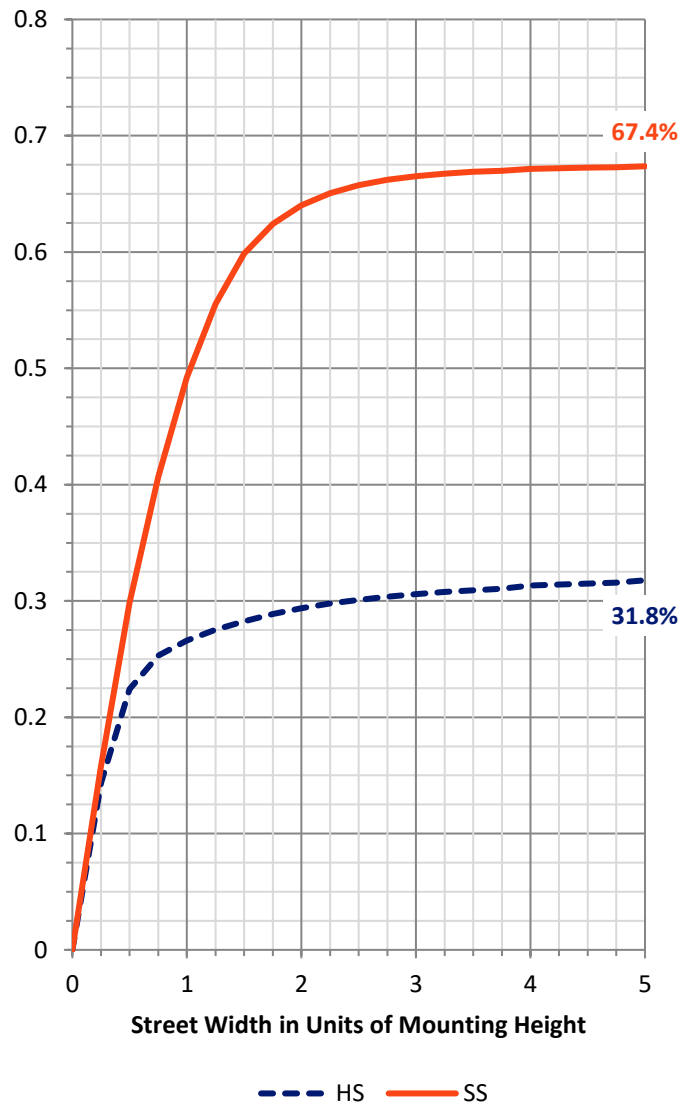
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7885.2	0.0	7885.2
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	16288.8	0.0	16288.8
	% Fixture	67.4	0.0	67.4
Total	Lumens	24174.0	0.0	24174.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	523.4	2.2
10°-20°	1619.4	6.7
20°-30°	2489.7	10.3
30°-40°	3233.7	13.4
40°-50°	3991.5	16.5
50°-60°	4482.9	18.5
60°-70°	4381.1	18.1
70°-80°	2942.0	12.2
80°-90°	510.3	2.1
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°	24174.0	100.0
0°-180°	24174.0	100.0

Coefficient of Utilization

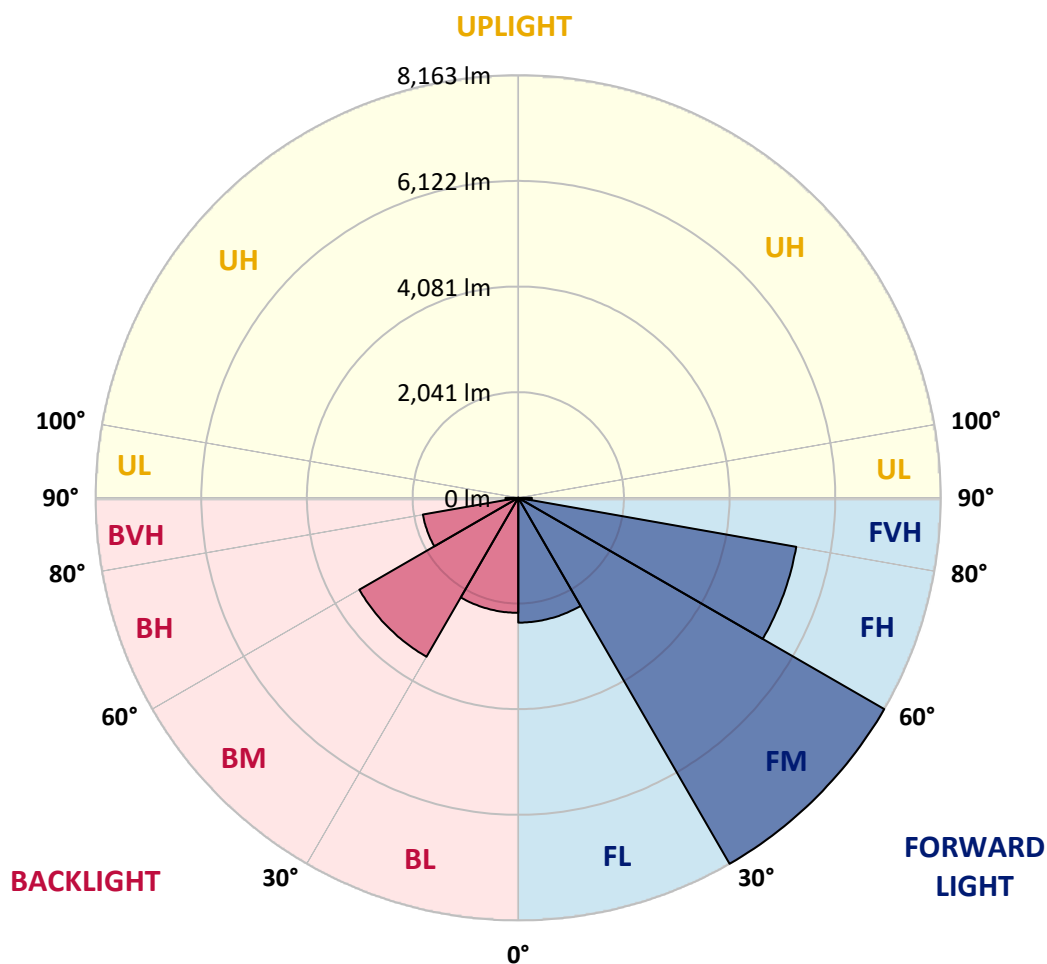


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2410.4	10.0			
FM	(30°-60°)	8162.9	33.8			
FH	(60°-80°)	5452.5	22.6			G3/7500
FVH	(80°-90°)	263.0	1.1			G3/500
BL	(0°-30°)	2222.1	9.2	B3/2500		
BM	(30°-60°)	3545.2	14.7	B3/5000		
BH	(60°-80°)	1870.7	7.7	B3/2500		G3/2500
BVH	(80°-90°)	247.3	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2
2.5°	5134.5	5103.2	5115.1	5158.2	5070.8	5128.0	5101.1	5159.3	5189.5	5176.6	5258.5
5°	5183.0	5148.5	5150.7	5180.9	5087.0	5135.6	5105.4	5167.9	5201.4	5183.0	5293.1
7.5°	5330.8	5293.1	5282.3	5280.1	5191.7	5228.3	5167.9	5218.6	5253.1	5243.4	5367.5
10°	5557.3	5512.0	5491.5	5479.7	5374.0	5363.2	5287.7	5310.3	5336.2	5347.0	5480.7
12.5°	5806.5	5745.0	5732.1	5696.5	5560.6	5536.8	5445.1	5455.9	5455.9	5480.7	5613.4
15°	6017.9	5967.2	5967.2	5930.6	5797.9	5764.4	5638.2	5625.3	5623.1	5642.5	5761.2
17.5°	5882.0	5854.0	5829.2	5810.8	5605.9	5551.9	5893.9	5871.2	5860.4	5879.9	5948.9
20°	5425.7	5501.2	5341.6	5116.2	5148.5	5797.9	6222.9	6181.9	6188.4	6207.8	6188.4
22.5°	4775.3	4588.7	4882.1	4963.0	5097.8	5577.8	6522.7	6565.9	6578.8	6579.9	6478.5
25°	4092.5	4196.0	4594.1	5211.1	5193.8	5594.0	6340.4	6954.2	7018.9	7012.5	6836.6
27.5°	4288.8	4269.4	4576.8	4982.4	5494.8	5937.0	6452.6	6725.5	7096.6	7507.6	7269.2
30°	4460.3	4444.1	4476.5	5043.9	5693.2	6280.0	6872.2	6828.0	6906.8	7651.0	7779.4
32.5°	4613.5	4601.6	4639.4	4701.9	5363.2	6650.0	7322.0	7313.4	7340.4	7398.6	8381.3
35°	4758.0	4759.1	4805.5	4908.0	5405.2	6726.6	7766.5	7858.1	7929.3	8057.7	8277.7
37.5°	4857.3	4859.4	4896.1	5020.2	5228.3	6348.0	8216.3	8543.1	8670.4	8901.2	8589.5
40°	4856.2	4872.4	4960.8	5122.6	5400.9	6097.7	8355.4	9319.7	9524.7	9693.0	9168.7
42.5°	4754.8	4763.4	4928.5	5220.8	5554.1	6287.6	7922.9	10077.0	10304.6	10258.2	9647.7
45°	4662.0	4659.9	4847.6	5207.8	5691.1	6548.6	7981.1	10055.4	10811.6	10755.5	10087.8
47.5°	4538.0	4541.2	4739.7	5151.7	5816.2	6828.0	8412.6	9143.9	9798.7	11182.6	10445.9
50°	4382.7	4402.1	4603.8	5066.5	5878.8	7089.0	8785.8	9544.1	9621.8	10043.5	10796.5
52.5°	4124.9	4090.3	4458.2	4968.4	5923.0	7278.9	9141.8	9928.1	10001.5	9848.3	11153.5
55°	2341.8	2905.9	4275.9	4854.0	5935.9	7393.2	9417.9	10365.0	10479.3	10334.8	11443.7
57.5°	1471.3	1516.6	3704.2	4550.9	5827.0	7464.4	9756.6	10964.7	11134.1	10790.0	11663.7
60°	521.0	562.0	1801.4	2089.4	4776.4	7268.1	10272.2	11671.3	11727.3	11218.2	11825.5
62.5°	55.0	72.3	1221.1	1533.9	3708.5	6707.2	10628.2	12239.7	12189.0	11535.3	11912.9
65°	19.4	27.0	1073.3	1372.1	3451.8	6532.5	10745.8	12482.4	12481.3	11738.1	11850.3
67.5°	15.1	20.5	933.1	1191.9	3080.7	6158.2	10550.5	12664.7	12647.5	11938.8	11685.3
69°	15.1	21.6	840.3	1074.4	2812.1	5800.0	10399.5	12760.7	12822.2	11942.0	11386.5
70°	15.1	21.6	781.0	992.4	2593.1	5472.1	10182.7	12687.4	12718.7	11838.5	11076.9
72.5°	15.1	21.6	605.1	768.0	1971.8	4212.2	8920.6	11561.2	11620.6	10929.1	9955.1
75°	15.1	21.6	426.1	558.8	1294.4	2826.1	7103.1	9629.3	9790.1	9236.7	8156.9
77.5°	15.1	21.6	254.6	381.9	812.2	1551.1	4887.5	7380.3	7743.8	7228.2	5830.2
80°	15.1	20.5	119.7	208.2	462.8	822.0	2239.3	4543.4	5016.9	4521.8	3049.4
82.5°	15.1	20.5	98.2	149.9	234.1	408.8	874.8	1488.6	1461.6	1312.7	982.7
85°	14.0	18.3	80.9	110.0	168.3	258.9	487.6	606.2	578.2	511.3	514.5
87.5°	9.7	10.8	28.0	49.6	68.0	128.4	236.2	256.7	262.1	219.0	229.8
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°	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2	5240.2
2.5°	5297.4	5303.8	5335.1	5391.2	5390.1	5450.5	5434.4	5574.6	5580.0	5577.8	5588.6
5°	5345.9	5382.6	5451.6	5571.4	5640.4	5731.0	5713.7	5855.0	5863.7	5851.8	5882.0
7.5°	5430.0	5475.4	5588.6	5736.4	5754.7	5869.1	5845.3	5959.7	5954.3	5932.7	5984.5
10°	5548.7	5602.6	5705.1	5789.2	5842.1	5909.0	5883.1	5980.2	5961.8	5938.1	5987.7
12.5°	5669.5	5695.4	5752.6	5847.5	5851.8	5866.9	5836.7	5915.5	5895.0	5859.4	5911.1
15°	5784.9	5788.2	5778.5	5821.6	5776.3	5786.0	5720.2	5769.8	5734.2	5718.1	5751.5
17.5°	5934.9	5896.0	5827.0	5808.7	5701.9	5656.6	5559.5	5557.3	5494.8	5472.1	5494.8
20°	6115.0	6030.9	5871.2	5719.1	5534.7	5441.9	5276.9	5232.7	5182.0	5133.4	5160.4
22.5°	6364.2	6201.3	5926.2	5642.5	5337.3	5155.0	4952.2	4827.1	4732.1	4638.3	4666.3
25°	6647.9	6420.3	6003.9	5512.0	5101.1	4778.5	4515.3	4301.8	4165.8	4028.8	4090.3
27.5°	7031.9	6718.0	6051.4	5414.9	4793.6	4361.1	3941.5	3663.2	3521.9	3423.7	3392.4
30°	7479.5	7103.1	6136.6	5224.0	4432.3	3847.6	3314.8	3004.1	2854.2	2807.8	2827.2
32.5°	8025.3	7571.2	6310.2	5064.4	4065.5	3302.9	2681.6	2438.9	2331.0	2323.5	2321.3
35°	8755.6	8168.8	6459.1	4816.3	3580.1	2667.6	2133.6	1933.0	1928.7	1925.4	1933.0
37.5°	9316.5	8777.2	6617.7	4573.6	3004.1	2082.9	1706.5	1584.6	1571.6	1609.4	1619.1
40°	9758.8	9213.0	6855.0	4163.7	2328.9	1555.4	1310.6	1265.3	1357.0	1440.0	1457.3
42.5°	10157.9	9579.7	6906.8	3726.8	1696.8	1194.1	1086.2	1161.7	1303.0	1398.0	1416.3
45°	10532.2	9964.8	6709.4	3077.5	1213.5	1011.8	1033.4	1146.6	1305.2	1406.6	1417.4
47.5°	10941.0	10222.6	6495.8	2474.5	997.8	969.7	1022.6	1152.0	1318.1	1420.6	1426.0
50°	11210.7	10407.1	5961.8	1935.1	935.2	943.8	1018.3	1163.9	1320.3	1393.6	1398.0
52.5°	11320.7	10554.8	5478.6	1549.0	903.9	924.4	1023.7	1184.4	1314.9	1355.9	1353.7
55°	11389.7	10622.8	5063.3	1289.0	875.9	909.3	1033.4	1199.5	1326.8	1368.8	1368.8
57.5°	11345.5	10470.7	4754.8	1098.1	847.8	898.5	1045.2	1222.1	1439.0	1513.4	1505.8
60°	11313.1	10185.9	4316.9	969.7	814.4	886.7	1060.3	1300.9	1678.4	1753.9	1729.1
62.5°	11145.9	9945.4	3842.2	887.7	776.6	880.2	1073.3	1406.6	1711.9	1707.5	1659.0
65°	10719.9	9455.7	3093.6	804.7	737.8	871.6	1077.6	1453.0	1574.9	1506.9	1492.9
67.5°	10115.8	8749.1	2441.0	721.6	694.7	853.2	1113.2	1398.0	1498.3	1440.0	1418.5
69°	9721.0	8226.0	2027.9	669.9	666.6	838.1	1127.2	1392.6	1470.2	1404.4	1376.4
70°	9402.8	7772.9	1750.7	636.4	645.0	826.3	1113.2	1391.5	1458.4	1376.4	1345.1
72.5°	8037.2	6297.3	1130.5	556.6	581.4	795.0	1060.3	1355.9	1433.6	1379.6	1336.5
75°	6228.3	4584.4	731.3	481.1	514.5	742.1	1007.5	1333.2	1456.2	1358.1	1265.3
77.5°	3996.5	2452.9	566.3	404.5	442.3	667.7	912.6	1241.6	1414.1	1325.7	1206.0
80°	1741.0	910.4	436.9	327.9	358.1	542.6	783.1	1103.5	1340.8	1331.1	1250.2
82.5°	738.9	586.8	336.5	251.3	284.8	401.3	613.8	946.0	1184.4	1230.8	1319.2
85°	418.5	351.6	224.4	172.6	211.4	295.6	436.9	725.9	964.3	1069.0	1143.4
87.5°	180.1	146.7	103.6	92.8	119.7	153.2	187.7	340.9	514.5	627.8	675.3
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)