

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: P591286

Luminaire Tested: **CTN-CA8-480-727-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591286
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38173 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

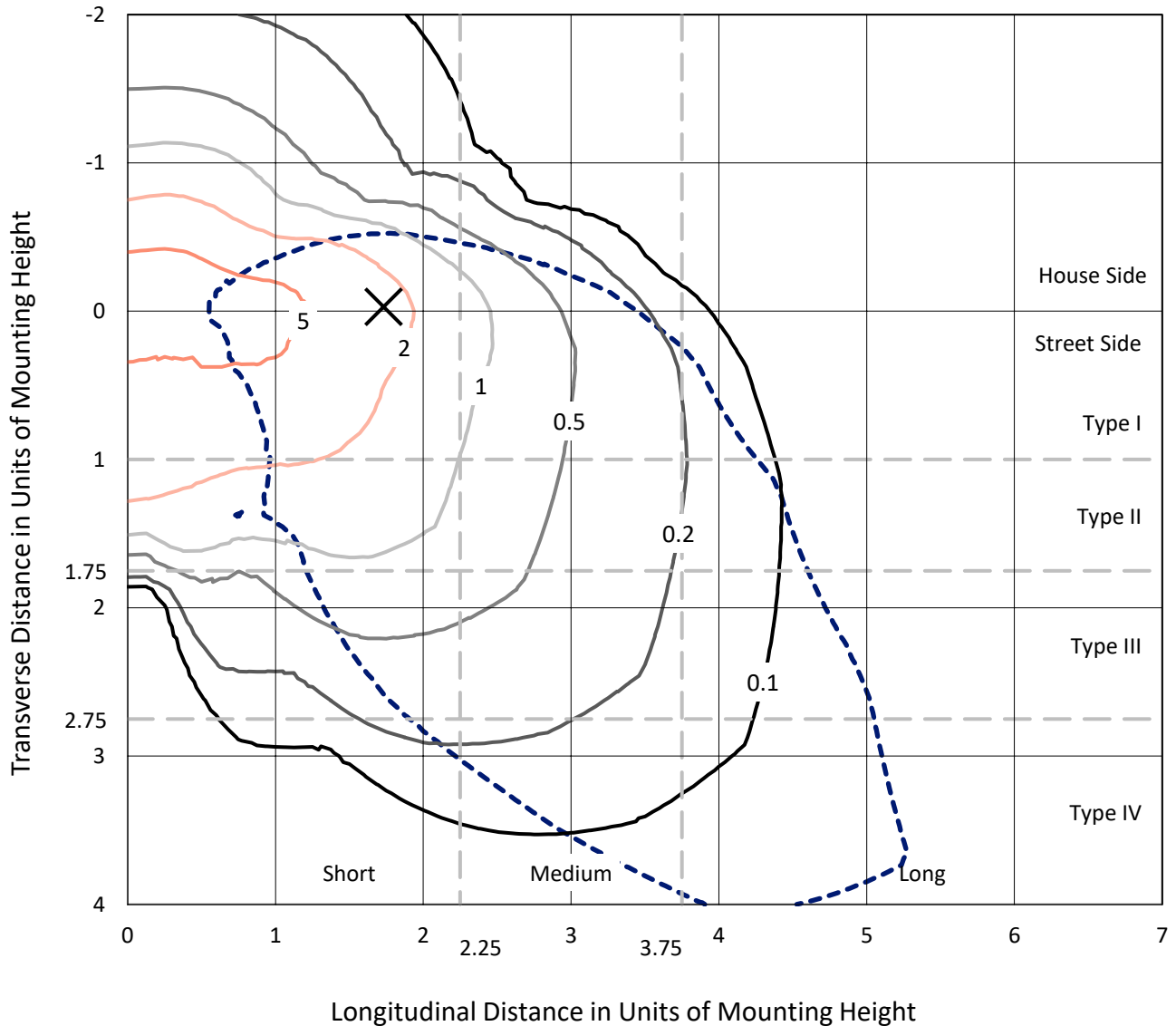
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

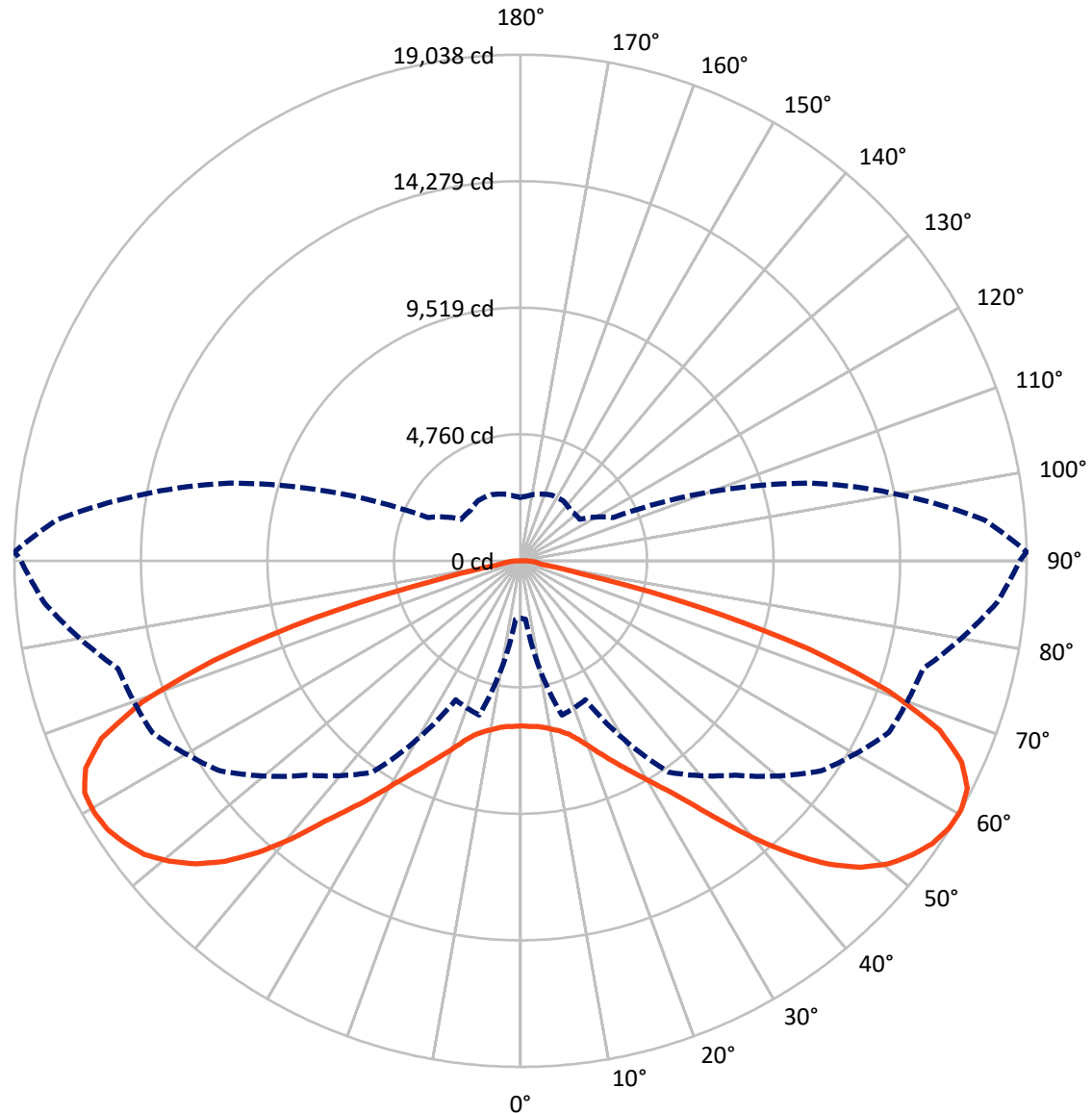
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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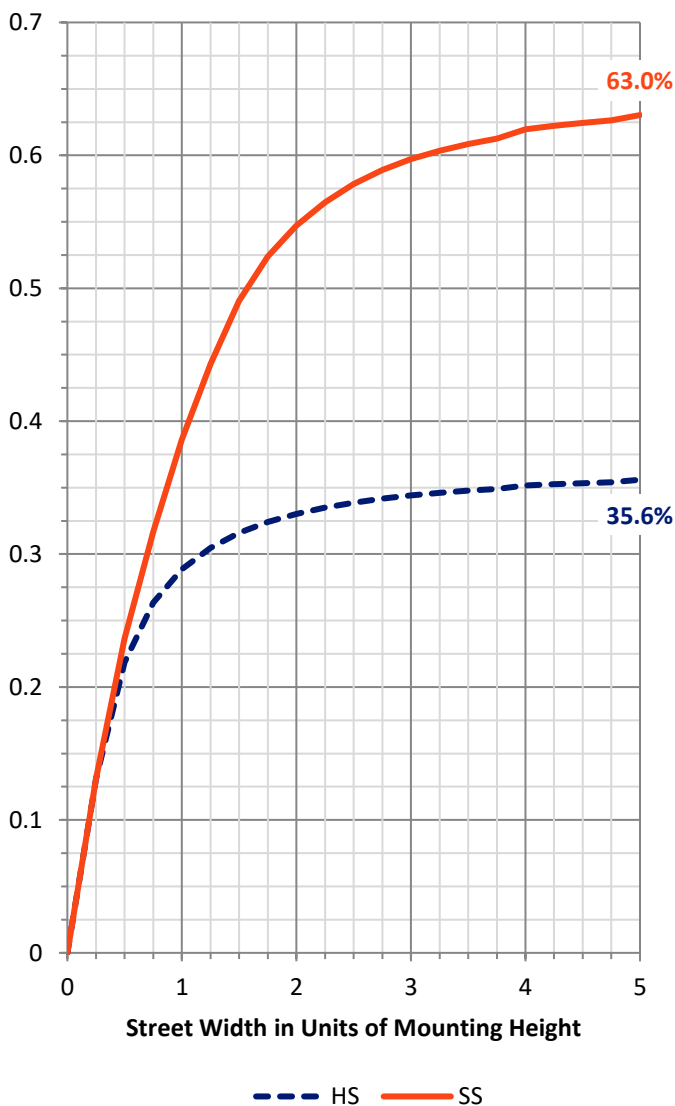
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13863.0	0.0	13863.0
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	24310.0	0.0	24310.0
	% Fixture	63.7	0.0	63.7
Total	Lumens	38173.0	0.0	38173.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	605.3	1.6
10°-20°	1856.4	4.9
20°-30°	3043.1	8.0
30°-40°	4297.8	11.3
40°-50°	6050.1	15.8
50°-60°	7612.8	19.9
60°-70°	7662.8	20.1
70°-80°	5637.4	14.8
80°-90°	1407.3	3.7
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°	38173.0	100.0
0°-180°	38173.0	100.0

Coefficient of Utilization

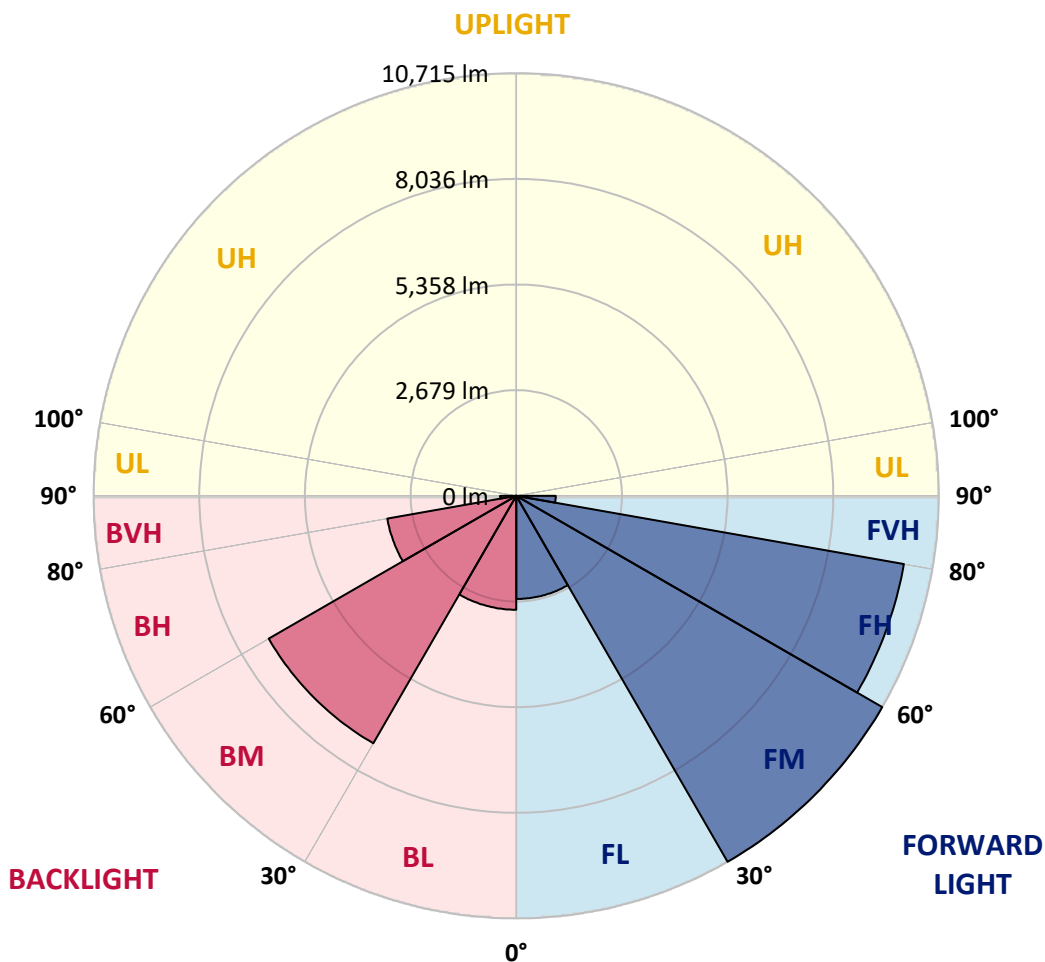


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2615.3	6.9			
FM	(30°-60°)	10715.1	28.1			
FH	(60°-80°)	9980.0	26.1			G4/12000
FVH	(80°-90°)	999.6	2.6			G5
BL	(0°-30°)	2889.5	7.6	B4/5000		
BM	(30°-60°)	7245.6	19.0	B4/8500		
BH	(60°-80°)	3320.2	8.7	B4/5000		G4/5000
BVH	(80°-90°)	407.7	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4
2.5°	6147.0	6107.9	6109.8	6167.4	6080.0	6135.8	6122.8	6212.1	6195.3	6227.0	6234.4
5°	6104.2	6072.6	6072.6	6141.4	6081.9	6130.2	6089.3	6167.4	6195.3	6241.8	6251.1
7.5°	6120.9	6087.5	6100.5	6160.0	6093.0	6143.3	6139.5	6208.4	6225.1	6303.2	6314.4
10°	6150.7	6120.9	6124.7	6174.9	6130.2	6223.2	6206.5	6305.1	6303.2	6426.0	6435.3
12.5°	6098.6	6076.3	6076.3	6143.3	6169.3	6267.9	6301.4	6403.6	6414.8	6552.4	6563.6
15°	6016.8	5979.6	6035.4	6135.8	6189.8	6344.1	6401.8	6563.6	6593.4	6723.6	6751.4
17.5°	5845.7	5862.4	6018.6	5948.0	5702.5	5931.2	6565.5	6771.9	6837.0	6991.4	7058.3
20°	5315.6	5109.2	4700.0	4811.6	5317.5	5970.3	6794.2	7036.0	7179.2	7361.5	7475.0
22.5°	4015.5	4145.7	4910.1	4990.1	5012.4	5447.7	7114.1	7359.6	7549.3	7780.0	7930.6
25°	4164.3	4151.3	4413.6	5233.8	5256.1	5505.3	6697.5	7781.8	7952.9	8272.9	8423.5
27.5°	4302.0	4302.0	4287.1	4941.8	5509.0	5754.5	6915.1	7471.2	8483.0	8830.8	9007.5
30°	4530.7	4538.2	4454.5	4452.6	5717.3	5983.3	7335.5	7610.7	8951.7	9610.1	9651.0
32.5°	4984.5	4958.5	4854.3	4694.4	4945.5	6249.3	7746.5	8114.8	8499.8	10486.1	10448.9
35°	5311.9	5291.4	5217.0	5105.4	4990.1	6370.2	8131.5	8643.0	9273.5	10744.7	11458.9
37.5°	5708.0	5674.6	5590.9	5458.8	5384.4	5499.7	8527.7	9240.0	10240.6	11051.5	12599.0
40°	6141.4	6132.1	6003.8	5832.7	5730.4	5815.9	8830.8	9984.0	11440.3	12355.3	13856.3
42.5°	6474.3	6466.9	6360.9	6262.3	6213.9	6386.9	8077.6	10969.7	12812.9	13540.1	15067.1
45°	6773.8	6762.6	6758.9	6725.4	6764.5	7184.8	8903.4	11577.9	14161.3	14559.3	16168.1
47.5°	7000.7	6967.2	6872.3	6881.6	6991.4	7700.0	9762.6	10661.0	15254.9	15457.7	17027.4
50°	7540.0	7506.6	7179.2	7190.4	7402.4	8339.8	10502.9	11723.0	14237.6	16235.1	17685.8
52.5°	8021.8	7744.6	7566.1	7573.5	7863.7	9020.5	11343.6	12822.2	13995.8	16850.7	18217.8
55°	6928.1	6749.6	8486.7	8245.0	8404.9	9762.6	12160.0	13774.4	14659.8	17321.3	18522.8
57.5°	4065.7	4043.4	9340.4	9550.6	9364.6	10564.3	12985.8	14566.8	15241.9	17760.2	18727.4
60°	2157.5	2209.6	6007.5	5773.1	9706.8	11401.2	13785.6	15286.5	15673.4	17987.1	18783.2
62.5°	199.0	176.7	3948.6	4486.1	8700.6	12494.8	14734.2	16019.3	15965.4	18108.0	18684.6
65°	39.1	52.1	3874.2	4432.1	9667.8	14308.2	16283.5	16582.9	16123.5	17962.9	18167.5
67.5°	29.8	44.6	3660.3	4383.8	10261.1	15005.7	18067.1	16781.9	16132.8	17499.8	17029.3
70°	29.8	46.5	3230.7	4097.4	10541.9	15035.5	18489.3	16703.8	15924.5	16450.8	14884.8
72.5°	29.8	46.5	2713.6	3550.6	10063.9	14390.1	17749.1	16270.4	15148.9	14165.0	11609.5
75°	29.8	42.8	2129.6	2884.7	8698.8	13395.0	16478.7	14384.5	12751.5	10365.2	7448.9
77.5°	29.8	40.9	1569.8	2257.9	7259.2	11814.1	14330.6	11823.4	9612.0	5427.2	2741.5
80°	27.9	40.9	956.0	1592.1	5592.7	9530.1	11261.7	8736.0	5051.5	1365.2	792.3
82.5°	27.9	39.1	455.7	1019.2	3930.0	6809.1	7348.5	3742.1	1075.0	630.5	630.5
85°	24.2	35.3	243.6	554.3	2568.5	4463.8	3545.0	634.2	420.3	425.9	485.4
87.5°	14.9	18.6	115.3	249.2	1480.5	2386.3	1365.2	232.5	174.8	184.1	275.3
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4	6208.4
2.5°	6240.0	6230.7	6251.1	6316.2	6305.1	6351.6	6314.4	6379.5	6392.5	6373.9	6403.6
5°	6260.4	6273.5	6342.3	6403.6	6370.2	6444.6	6465.0	6556.2	6554.3	6537.6	6574.8
7.5°	6327.4	6362.7	6431.5	6507.8	6524.5	6584.1	6576.6	6691.9	6678.9	6671.5	6708.7
10°	6442.7	6496.6	6561.7	6688.2	6647.3	6747.7	6678.9	6757.0	6749.6	6731.0	6764.5
12.5°	6571.0	6645.4	6723.6	6838.9	6822.1	6820.3	6758.9	6783.1	6762.6	6718.0	6745.9
15°	6764.5	6855.6	6963.5	7037.9	6939.3	6902.1	6805.4	6753.3	6682.6	6578.5	6595.2
17.5°	7065.8	7173.6	7289.0	7302.0	7149.5	7052.8	6818.4	6632.4	6448.3	6308.8	6321.8
20°	7471.2	7569.8	7655.4	7594.0	7387.5	7171.8	6818.4	6524.5	6180.5	5923.8	5905.2
22.5°	7945.5	7975.3	8057.1	7906.4	7551.2	7249.9	6799.8	6362.7	5802.9	5460.7	5419.8
25°	8457.0	8453.3	8417.9	8105.5	7653.5	7207.1	6658.5	6085.6	5371.4	5014.3	4984.5
27.5°	9013.1	8966.6	8724.8	8272.9	7610.7	7052.8	6390.6	5618.8	4979.0	4672.1	4662.8
30°	9639.9	9517.1	9028.0	8289.6	7450.8	6747.7	5955.4	5148.2	4629.3	4355.9	4329.9
32.5°	10370.8	10130.9	9269.8	8235.7	7162.5	6282.8	5425.3	4778.1	4342.9	4043.4	3985.8
35°	11325.0	10904.6	9492.9	8059.0	6734.7	5730.4	4936.2	4448.9	4076.9	3770.0	3708.6
37.5°	12524.6	11907.1	9829.6	7800.4	6245.6	5237.5	4597.7	4231.3	3892.8	3530.1	3455.7
40°	13856.3	13086.3	10223.9	7549.3	5780.6	4871.1	4376.4	4129.0	3773.7	3375.7	3305.0
42.5°	15117.3	14272.9	10815.3	7223.9	5337.9	4577.2	4296.4	4099.2	3717.9	3308.8	3232.5
45°	16281.6	15316.3	11425.4	6896.5	4887.8	4337.3	4229.4	4011.8	3632.4	3230.7	3143.2
47.5°	17232.0	16138.4	11964.8	6558.0	4491.7	4149.4	4101.1	3844.4	3481.7	3104.2	3022.3
50°	17922.0	16768.9	12280.9	6243.7	4110.4	3961.6	3876.0	3606.4	3269.7	2955.4	2895.9
52.5°	18411.2	17313.8	12439.0	6208.4	3764.4	3708.6	3613.8	3360.8	3091.2	2847.5	2776.8
55°	18788.7	17611.4	12303.3	6001.9	3437.1	3390.6	3292.0	3135.8	2974.0	2747.1	2700.6
57.5°	18993.3	17747.2	11992.7	5062.7	3089.3	3009.3	2996.3	2962.8	2821.5	2596.4	2561.1
60°	19038.0	17531.4	11289.6	3850.0	2724.8	2672.7	2771.3	2728.5	2602.0	2434.6	2384.4
62.5°	18863.1	17070.2	9956.1	2879.1	2421.6	2507.1	2607.6	2542.5	2395.6	2231.9	2200.3
65°	18232.6	16011.9	8023.6	2241.2	2282.1	2429.0	2518.3	2440.2	2261.6	2075.7	2055.2
67.5°	16999.5	14364.0	5282.1	2016.1	2217.0	2363.9	2464.4	2339.8	2159.3	1958.5	1934.3
70°	14687.7	11354.7	2516.4	1880.4	2092.4	2237.5	2317.4	2176.1	2001.3	1804.1	1778.1
72.5°	11343.6	7716.7	1389.3	1731.6	1938.0	2071.9	2129.6	1962.2	1800.4	1718.6	1711.1
75°	6827.7	3316.2	1255.4	1584.6	1739.0	1863.6	1965.9	1839.4	1698.1	1538.1	1497.2
77.5°	2254.2	963.4	1181.0	1409.8	1584.6	1735.3	1783.6	1660.9	1484.2	1348.4	1337.3
80°	790.5	807.2	1101.1	1173.6	1380.0	1506.5	1560.5	1419.1	1335.4	1194.1	1166.2
82.5°	643.5	723.5	889.0	885.3	1089.9	1238.7	1320.5	1285.2	1175.5	1062.0	1050.8
85°	526.4	662.1	563.6	619.3	781.2	943.0	1099.2	1102.9	1019.2	903.9	827.7
87.5°	312.5	338.5	280.8	316.2	412.9	530.1	613.8	585.9	479.9	405.5	396.2
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)