

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: P591443

Luminaire Tested: **CTN-CA8-230-740-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T1-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20855 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

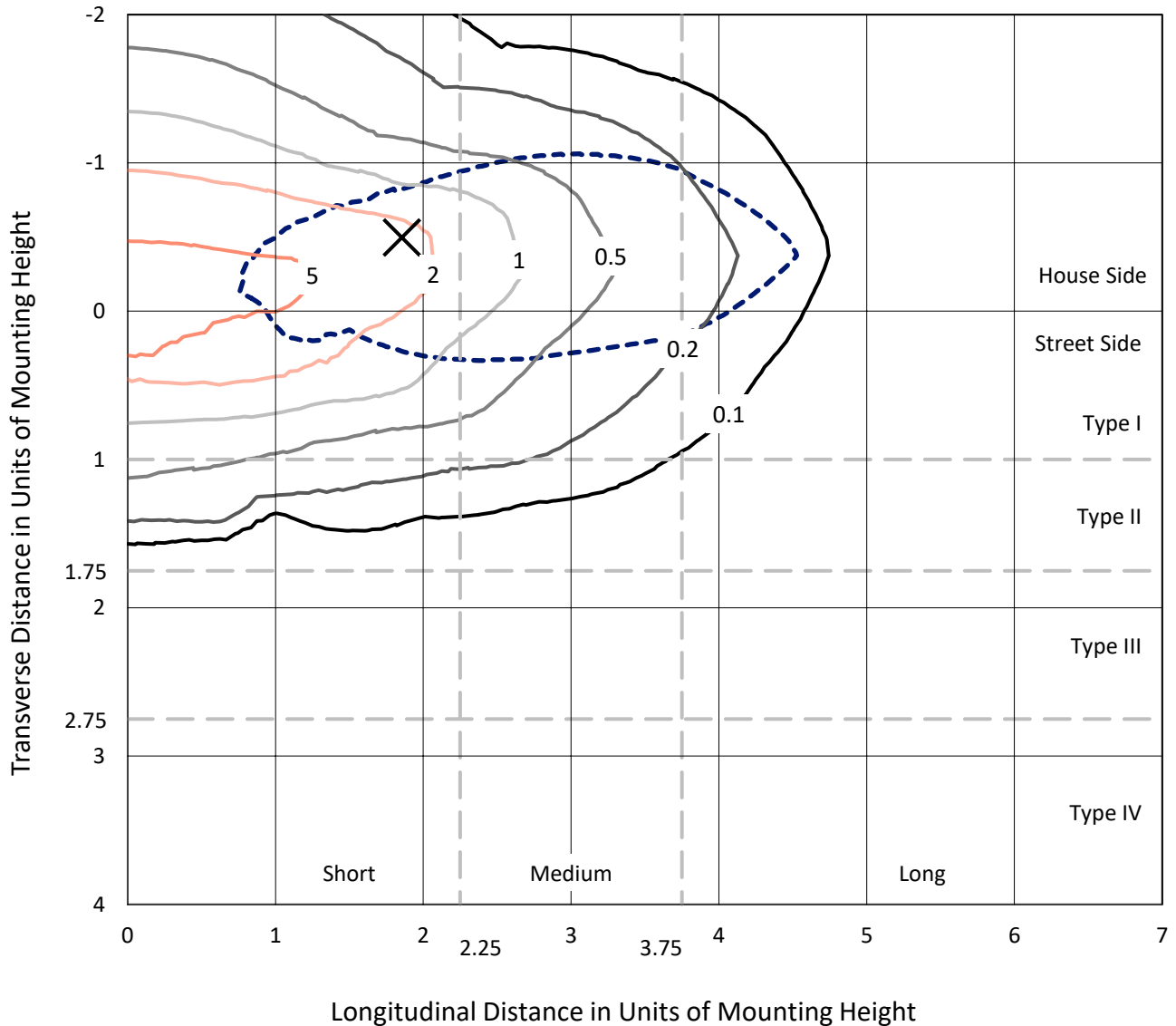
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

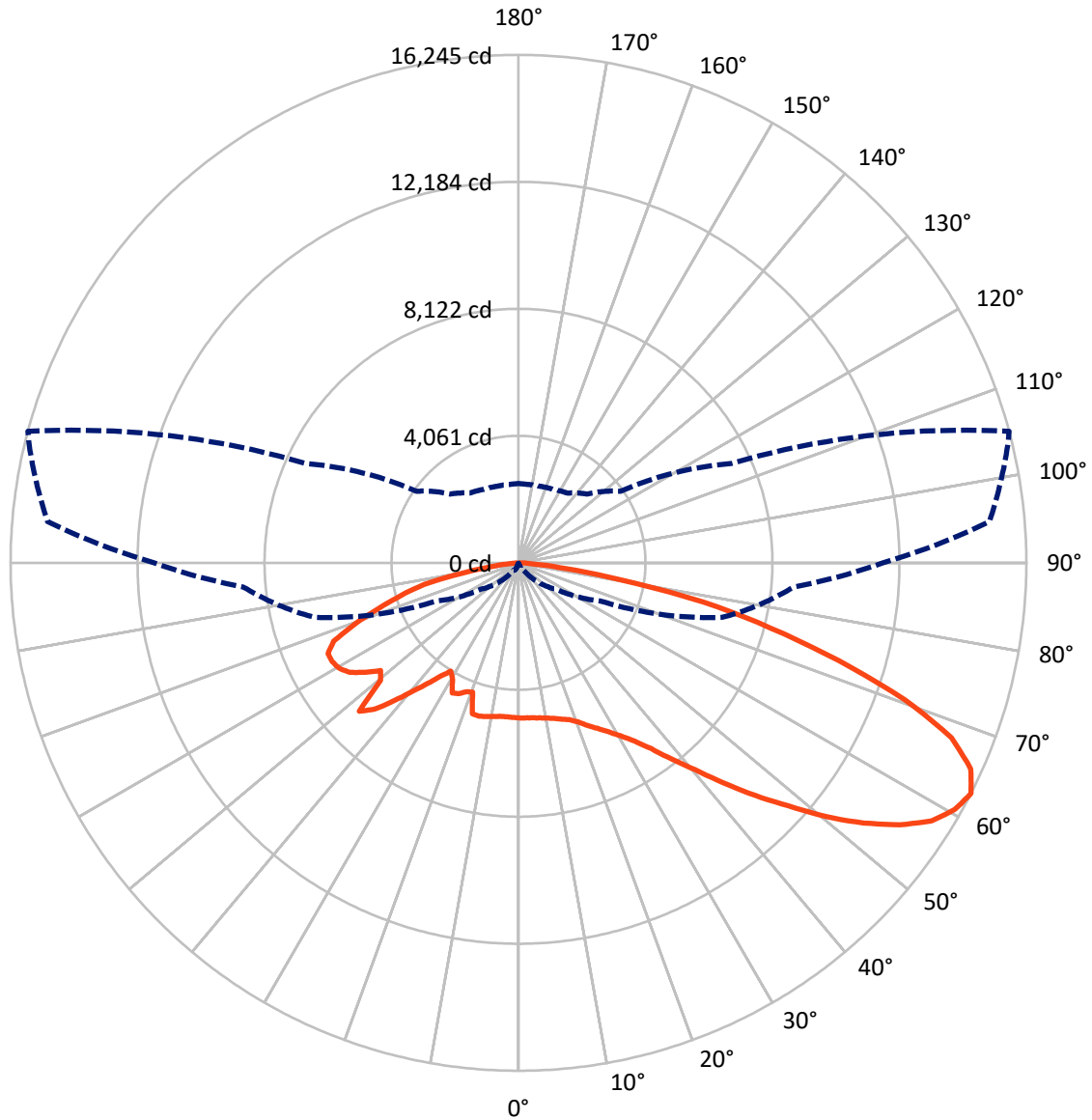
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 105-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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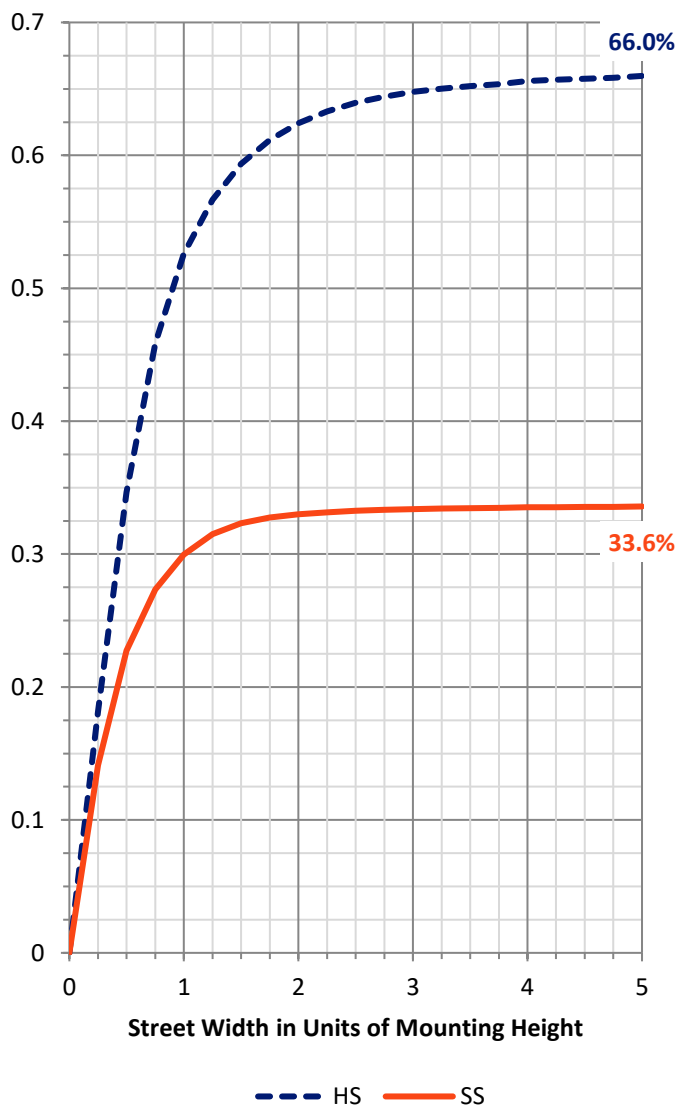
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13876.7	0.0	13876.7
	% Fixture	66.5	0.0	66.5
Street Side	Lumens	6978.3	0.0	6978.3
	% Fixture	33.5	0.0	33.5
Total	Lumens	20855.0	0.0	20855.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.4	2.3
10°-20°	1337.0	6.4
20°-30°	1884.3	9.0
30°-40°	2560.1	12.3
40°-50°	3482.7	16.7
50°-60°	4126.0	19.8
60°-70°	4046.0	19.4
70°-80°	2551.8	12.2
80°-90°	393.6	1.9
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°	20855.0	100.0
0°-180°	20855.0	100.0

Coefficient of Utilization

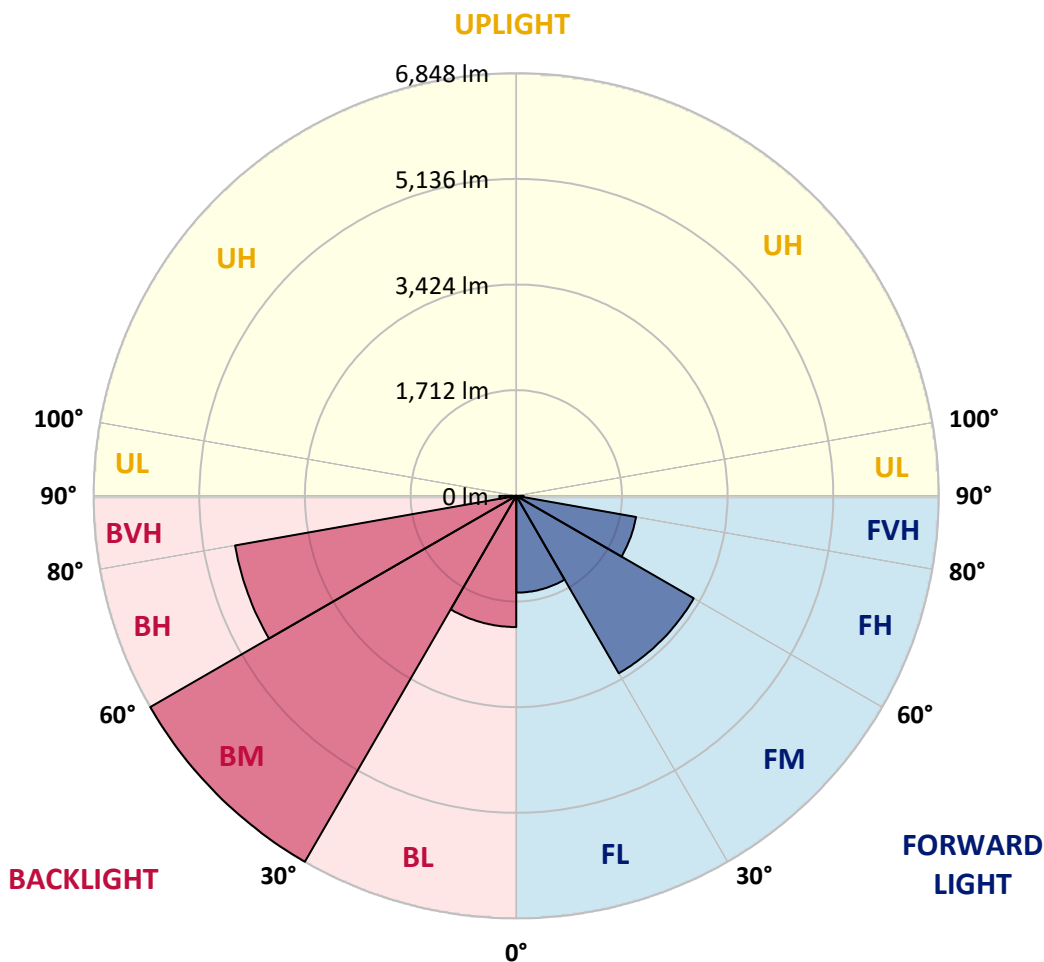


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1568.6	7.5			
FM (30°-60°)	3320.6	15.9			
FH (60°-80°)	1970.3	9.4			G2/5000
FVH (80°-90°)	118.7	0.6			G2/225
BL (0°-30°)	2126.1	10.2	B3/2500		
BM (30°-60°)	6848.2	32.8	B4/8500		
BH (60°-80°)	4627.5	22.2	B4/5000		G4/5000
BVH (80°-90°)	274.9	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1
2.5°	4964.4	4925.6	4953.3	4995.4	4932.3	4968.8	4907.9	4957.7	4945.6	4948.9	4972.1
5°	4925.6	4884.6	4917.9	4973.3	4911.2	4952.2	4902.4	4944.5	4940.0	4955.5	4974.4
7.5°	4889.1	4850.3	4884.6	4921.2	4889.1	4928.9	4891.3	4943.3	4946.7	4981.0	4996.5
10°	4850.3	4811.5	4844.7	4886.8	4860.3	4910.1	4894.6	4957.7	4982.1	5027.5	5040.8
12.5°	4765.0	4730.6	4758.3	4807.1	4811.5	4884.6	4894.6	4992.1	5022.0	5081.8	5101.8
15°	4252.0	4289.7	4437.0	4578.9	4639.8	4774.9	4849.2	5023.1	5065.2	5150.5	5181.5
17.5°	3440.0	3369.1	3139.7	3199.5	3536.3	3990.6	4162.3	4594.4	5050.8	5236.9	5276.8
20°	2033.0	2178.1	2626.8	2764.2	2888.2	3376.8	3954.0	4211.0	4386.1	5047.5	5407.5
22.5°	1676.2	1686.2	2007.5	2641.2	2780.8	2972.4	3418.9	4265.3	4445.9	4577.7	4978.8
25°	1554.4	1564.3	1619.7	2109.4	2704.3	2925.9	3122.0	3898.6	4599.9	4762.8	5076.3
27.5°	1456.9	1470.2	1521.1	1658.5	2521.5	2912.6	3160.8	3457.7	4668.6	4982.1	5275.7
30°	1383.7	1389.3	1441.3	1574.3	1906.7	2915.9	3217.3	3534.1	4276.4	5260.2	5554.9
32.5°	1317.3	1320.6	1374.9	1504.5	1705.0	2701.0	3302.6	3693.7	4083.6	5488.4	5938.2
35°	1266.3	1264.1	1312.8	1440.2	1639.7	2068.4	3397.9	3885.3	4391.6	5272.4	6509.9
37.5°	1217.6	1214.2	1256.3	1373.8	1582.0	1936.6	3287.1	4115.8	4833.7	5436.3	6463.4
40°	1179.9	1173.2	1208.7	1313.9	1522.2	1903.3	2589.1	4359.5	5318.9	6281.7	6854.4
42.5°	1146.7	1142.2	1172.1	1256.3	1461.3	1863.4	2413.0	4491.3	5922.7	7258.8	7865.9
45°	1096.8	1103.4	1136.7	1217.6	1395.9	1806.9	2430.7	3607.2	6562.0	8106.3	8874.1
47.5°	1075.7	1074.6	1095.7	1172.1	1339.4	1728.3	2418.5	3308.1	6964.1	8993.7	9861.2
50°	1042.5	1037.0	904.0	1119.0	1281.8	1630.8	2367.5	3394.5	5795.3	9864.5	10767.5
52.5°	980.5	871.9	791.0	1081.3	1223.1	1524.4	2253.4	3432.2	5595.9	9709.4	11546.3
55°	520.7	580.5	748.9	1028.1	1154.4	1429.2	2086.1	3405.6	6026.8	7764.0	10718.7
57.5°	462.0	459.8	476.4	812.1	601.6	1325.0	1884.5	3283.7	6434.5	8118.5	10919.2
60°	36.6	37.7	44.3	270.3	319.1	932.8	1667.4	3133.1	6650.6	8537.3	11405.6
62.5°	17.7	19.9	26.6	241.5	291.4	848.6	1471.3	2876.0	6741.4	8839.7	11646.0
65°	4.4	5.5	12.2	212.7	253.7	755.6	1274.1	2574.7	6749.2	8851.9	11839.9
67.5°	3.3	5.5	12.2	192.8	231.5	673.6	1101.2	2364.2	6419.0	8806.5	11742.4
70°	3.3	5.5	12.2	172.8	209.4	583.9	948.3	2158.1	5575.9	8637.0	11411.1
72.5°	3.3	6.6	12.2	151.8	183.9	495.2	805.4	1931.0	4679.7	7929.1	10673.3
75°	3.3	6.6	13.3	123.0	157.3	394.4	661.4	1654.1	3892.0	6875.5	9450.2
77.5°	3.3	6.6	13.3	95.3	127.4	294.7	500.8	1310.6	3105.4	5070.7	6639.5
80°	3.3	6.6	13.3	67.6	104.1	207.2	364.5	894.1	1852.4	2665.6	3381.2
82.5°	3.3	6.6	13.3	48.7	75.3	149.6	224.9	440.9	884.1	1279.6	1605.3
85°	2.2	5.5	12.2	32.1	39.9	90.8	134.1	196.1	264.8	350.1	473.1
87.5°	2.2	3.3	7.8	12.2	16.6	32.1	49.9	44.3	49.9	104.1	149.6
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):

	95°	104°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1	4961.1
2.5°	4968.8	4964.4	4965.5	4989.9	4968.8	4973.3	4936.7	5009.8	5003.2	4993.2	5022.0
5°	4974.4	4972.1	4981.0	5002.1	4969.9	4975.5	4941.1	5026.4	5005.4	5002.1	5036.4
7.5°	5002.1	4998.7	5007.6	5017.6	4982.1	4982.1	4952.2	5019.8	5007.6	4985.4	5024.2
10°	5051.9	5039.7	5048.6	5054.1	4999.8	4997.6	4942.2	5022.0	4991.0	4979.9	5029.8
12.5°	5121.7	5094.0	5107.3	5098.4	5026.4	5013.1	4938.9	4991.0	4952.2	4945.6	4991.0
15°	5215.9	5179.3	5189.3	5172.7	5081.8	5043.1	4923.4	4945.6	4883.5	4878.0	4911.2
17.5°	5303.4	5281.2	5275.7	5275.7	5169.4	5073.0	4909.0	4878.0	4796.0	4790.5	4807.1
20°	5461.8	5431.9	5428.6	5402.0	5244.7	5097.3	4885.7	4790.5	4668.6	4640.9	4671.9
22.5°	5512.8	5657.9	5648.0	5530.5	5307.8	5117.3	4838.1	4680.8	4513.5	4460.3	4475.8
25°	5664.6	5882.8	5865.1	5694.5	5372.1	5128.4	4780.5	4560.0	4329.6	4236.5	4239.8
27.5°	5905.0	6127.7	6115.5	5869.5	5451.9	5131.7	4716.2	4432.6	4146.8	4024.9	4034.9
30°	6210.8	6435.7	6417.9	6064.5	5572.6	5138.3	4667.5	4279.7	3979.5	3847.7	3845.4
32.5°	6636.2	6840.0	6788.0	6324.9	5717.7	5166.0	4603.2	4134.6	3826.6	3688.1	3677.0
35°	7278.7	7354.1	7289.8	6635.1	5871.7	5183.8	4500.2	3992.8	3684.8	3548.5	3538.6
37.5°	8147.3	8054.3	7967.8	6984.1	6031.3	5179.3	4369.5	3855.4	3562.9	3433.3	3433.3
40°	8232.6	8858.6	8699.0	7351.9	6175.3	5154.9	4245.4	3721.4	3464.3	3359.1	3375.7
42.5°	8632.6	9843.5	9619.7	7707.5	6279.4	5084.0	4112.4	3599.5	3372.4	3287.1	3293.7
45°	9615.3	10739.8	10609.0	8050.9	6335.9	4958.9	3958.4	3479.8	3269.3	3201.8	3215.1
47.5°	10672.2	11805.5	11613.9	8367.8	6304.9	4773.8	3794.5	3370.2	3161.9	3118.7	3143.0
50°	11671.5	12926.7	12767.2	8590.5	6167.5	4514.6	3619.4	3253.8	3077.7	3043.3	3055.5
52.5°	12651.9	13944.8	13825.2	8711.2	5892.8	4243.2	3457.7	3143.0	2999.0	2955.8	2972.4
55°	13460.7	14909.8	14793.5	8699.0	5479.6	3959.6	3297.0	3023.4	2919.3	2880.5	2893.8
57.5°	14092.2	15660.9	15577.8	8514.0	4998.7	3699.2	3115.3	2906.0	2814.0	2779.7	2790.7
60°	14657.2	16137.3	16029.9	8105.2	4489.1	3412.3	2928.1	2766.4	2689.9	2662.2	2680.0
62.5°	15120.3	16147.3	16244.8	7513.6	3989.5	3108.7	2719.8	2594.6	2539.3	2522.6	2533.7
65°	15238.8	15850.4	15898.0	6782.4	3483.2	2807.4	2469.5	2387.5	2364.2	2354.2	2376.4
67.5°	15074.9	15224.4	14940.8	6164.2	3021.2	2466.1	2199.1	2148.2	2162.6	2164.8	2193.6
70°	14651.7	13549.3	13111.7	5646.8	2590.2	2088.3	1902.2	1885.6	1924.4	1956.5	1977.6
72.5°	13572.6	11124.2	10707.6	4915.6	2041.8	1598.7	1497.8	1551.0	1537.7	1552.1	1589.8
75°	11684.8	8586.0	8327.9	4000.5	1555.5	1162.2	1027.0	1032.5	1049.2	1122.3	1162.2
77.5°	8323.5	6175.3	6060.1	3068.8	1030.3	683.6	706.8	785.5	808.7	811.0	838.7
80°	4410.5	3442.2	3286.0	1808.1	681.3	488.6	531.8	566.1	597.1	629.3	637.0
82.5°	1987.5	1556.6	1513.4	898.5	432.1	376.7	386.6	445.4	470.8	476.4	481.9
85°	772.2	537.3	511.8	373.4	283.6	254.8	282.5	342.3	366.7	355.6	352.3
87.5°	206.1	126.3	115.2	125.2	132.9	140.7	160.6	182.8	209.4	201.6	195.0
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)