

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: P591273

Luminaire Tested: **CTN-CA8-330-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 18224 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

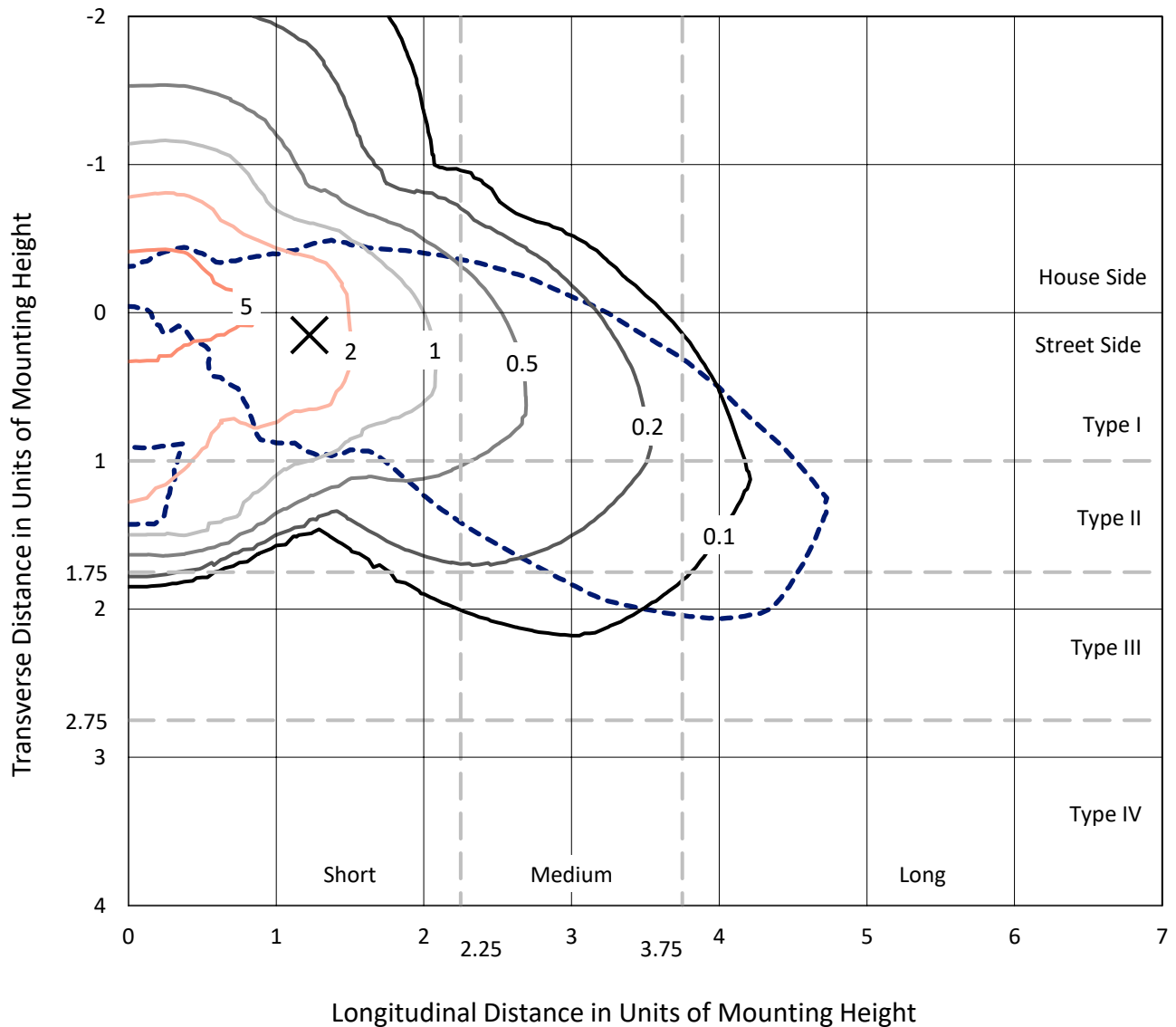
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

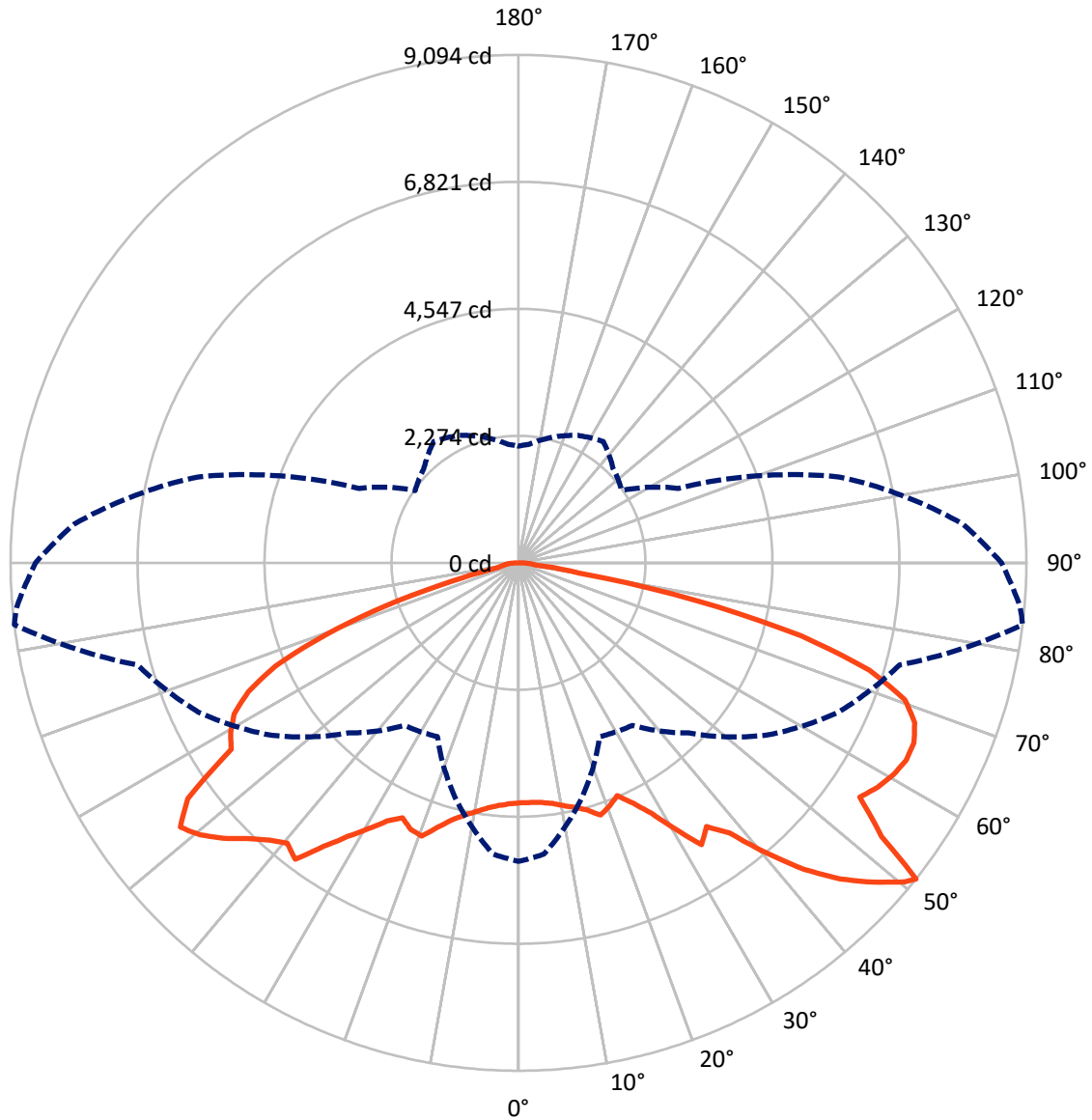
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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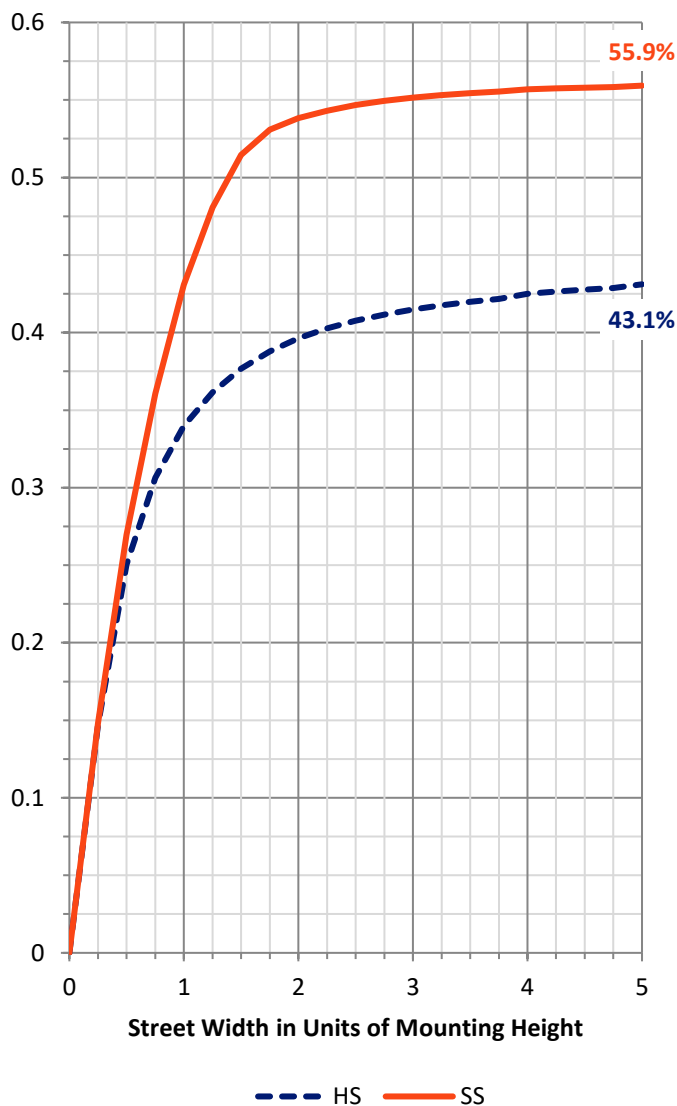
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8032.3	0.0	8032.3
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	10191.7	0.0	10191.7
	% Fixture	55.9	0.0	55.9
Total	Lumens	18224.0	0.0	18224.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.6	2.3
10°-20°	1277.0	7.0
20°-30°	1983.7	10.9
30°-40°	2654.3	14.6
40°-50°	3443.6	18.9
50°-60°	3667.5	20.1
60°-70°	2554.8	14.0
70°-80°	1782.4	9.8
80°-90°	441.0	2.4
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°	18224.0	100.0
0°-180°	18224.0	100.0



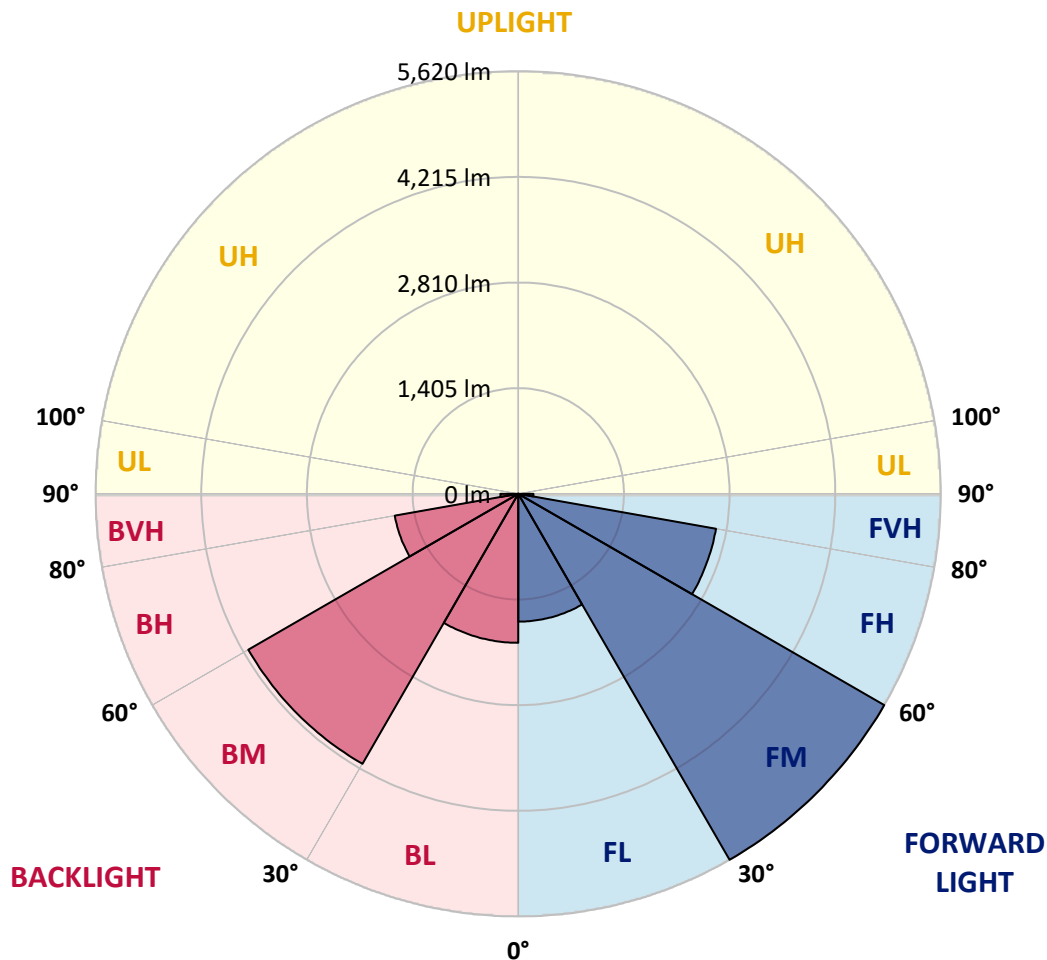
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1699.2	9.3			
FM (30°-60°)	5619.8	30.8			
FH (60°-80°)	2670.2	14.7			G2/5000
FVH (80°-90°)	202.5	1.1			G2/225
BL (0°-30°)	1981.1	10.9	B3/2500		
BM (30°-60°)	4145.7	22.7	B3/5000		
BH (60°-80°)	1667.0	9.1	B3/2500		G3/2500
BVH (80°-90°)	238.5	1.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4
2.5°	4244.2	4214.7	4217.3	4257.0	4204.5	4239.1	4234.0	4295.4	4283.9	4296.7	4305.7
5°	4207.1	4184.0	4184.0	4236.5	4199.4	4236.5	4210.9	4264.7	4282.6	4310.8	4321.1
7.5°	4214.7	4190.4	4200.6	4246.8	4205.8	4244.2	4242.9	4294.2	4300.6	4350.5	4367.2
10°	4236.5	4209.6	4214.7	4251.9	4228.8	4295.4	4283.9	4354.4	4354.4	4421.0	4446.6
12.5°	4191.7	4173.7	4184.0	4234.0	4254.5	4323.6	4339.0	4410.7	4421.0	4492.7	4524.8
15°	4143.0	4117.4	4150.7	4222.4	4257.0	4356.9	4390.2	4500.4	4515.8	4590.1	4626.0
17.5°	3907.3	3890.6	3952.1	4009.8	4029.0	4126.3	4191.7	4374.9	4595.2	4750.2	4792.5
20°	3438.4	3435.8	3321.8	3297.5	3596.0	3952.1	3997.0	4153.2	4408.2	4650.3	4736.1
22.5°	2870.9	2947.8	3318.0	3435.8	3428.2	3569.1	4143.0	4290.3	4403.1	4526.0	4577.3
25°	2870.9	2864.5	3083.6	3590.9	3592.1	3652.3	3780.5	4518.4	4626.0	4766.9	4807.9
27.5°	2961.8	2968.3	2954.2	3324.4	3768.9	3825.3	3880.4	4262.1	4921.9	5078.2	5146.1
30°	3115.6	3125.8	3069.5	3070.7	3827.9	3997.0	4102.0	4251.9	5128.1	5529.1	5559.9
32.5°	3419.2	3415.3	3344.9	3253.9	3359.0	4164.8	4318.5	4513.2	4802.8	6015.9	6087.7
35°	3661.3	3644.7	3596.0	3533.2	3394.9	4117.4	4524.8	4793.8	5162.7	5799.4	6178.6
37.5°	3930.3	3906.0	3850.9	3774.1	3648.5	2873.5	4728.5	5114.1	5686.7	6138.9	6163.3
40°	4234.0	4207.1	4131.5	4018.7	3858.6	2943.9	4819.4	5509.9	6369.5	6824.3	6820.4
42.5°	4467.1	4440.2	4400.5	4281.4	3392.3	3247.5	4203.2	6065.9	7108.7	7503.3	7470.0
45°	4664.4	4641.3	4645.2	4519.6	3182.2	3620.3	4682.3	6356.7	7805.6	8074.6	8031.1
47.5°	4818.1	4782.3	4684.9	3802.2	3264.2	3877.8	5071.8	5544.5	8393.6	8546.1	8497.4
50°	5192.2	5132.0	4552.9	3375.6	3471.7	4193.0	5442.0	6115.9	7645.5	8975.2	8889.4
51°	5344.6	5235.8	4363.3	3434.6	3553.7	4307.0	5386.9	6323.4	7062.6	9094.4	9017.5
52.5°	5504.8	5289.6	3843.2	3524.2	3653.6	4464.6	4576.0	6642.4	7225.3	8138.7	8592.2
55°	4643.9	4728.5	3968.8	3852.2	3843.2	3858.6	4673.4	7117.7	7564.8	7411.0	7321.4
57.5°	2731.3	2781.2	4031.5	4313.4	3325.7	3064.3	4930.9	7476.4	7858.1	7581.4	7481.5
60°	1373.3	1437.4	1468.1	1338.7	1793.5	2795.3	4153.2	5419.0	8037.5	7709.5	7589.1
62.5°	60.2	99.9	39.7	43.6	73.0	974.9	3051.5	5566.3	8188.6	7787.7	7628.8
65°	5.1	5.1	6.4	12.8	32.0	1023.6	3396.1	5770.0	8250.1	7780.0	7567.3
67.5°	1.3	1.3	2.6	9.0	23.1	1108.1	3801.0	5853.2	8252.7	7649.3	7389.2
70°	0.0	1.3	2.6	7.7	20.5	1159.4	3889.3	5836.6	8147.6	7341.8	6984.4
72.5°	0.0	0.0	1.3	6.4	17.9	1094.0	3786.9	5803.3	7788.9	6568.1	6060.8
75°	0.0	0.0	1.3	5.1	15.4	1113.3	3797.1	5429.2	6801.2	5229.4	4613.2
77.5°	0.0	0.0	1.3	5.1	14.1	1027.4	3476.8	4701.5	5375.4	3255.2	2581.4
80°	0.0	0.0	1.3	5.1	12.8	881.4	2859.4	3670.3	3008.0	1104.3	712.3
82.5°	0.0	0.0	1.3	5.1	10.2	597.0	1899.8	1834.5	605.9	316.4	284.4
85°	0.0	0.0	1.3	3.8	7.7	356.1	951.8	249.8	234.4	201.1	181.9
87.5°	0.0	0.0	1.3	2.6	5.1	151.2	293.4	76.9	97.4	82.0	73.0
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°	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4	4295.4
2.5°	4313.4	4313.4	4327.5	4374.9	4369.8	4408.2	4386.4	4433.8	4437.6	4428.7	4450.5
5°	4330.0	4345.4	4392.8	4442.8	4422.3	4478.6	4505.5	4568.3	4565.8	4558.1	4583.7
7.5°	4377.4	4409.5	4456.9	4517.1	4538.9	4585.0	4587.5	4673.4	4668.2	4664.4	4690.0
10°	4456.9	4499.1	4551.7	4642.6	4629.8	4696.4	4668.2	4731.0	4729.7	4727.2	4752.8
12.5°	4538.9	4600.3	4664.4	4752.8	4751.5	4754.1	4729.7	4761.8	4755.4	4737.4	4756.6
15°	4654.1	4736.1	4824.5	4888.6	4832.2	4820.7	4766.9	4747.7	4710.5	4659.3	4674.6
17.5°	4845.0	4925.7	5038.5	5073.1	4980.8	4928.3	4782.3	4675.9	4560.6	4482.5	4499.1
20°	5016.7	5166.6	5274.2	5271.6	5153.8	5015.4	4788.7	4609.3	4386.4	4235.2	4222.4
22.5°	4802.8	5055.1	5524.0	5468.9	5262.7	5066.7	4781.0	4503.0	4132.8	3898.3	3889.3
25°	4925.7	4930.9	5351.1	5579.1	5311.3	5044.9	4688.7	4317.2	3843.2	3599.8	3585.7
27.5°	5239.6	5211.4	5094.8	5461.2	5266.5	4933.4	4503.0	4000.8	3579.3	3367.9	3357.7
30°	5612.4	5525.3	5251.1	4889.9	5082.0	4716.9	4217.3	3676.7	3341.0	3148.9	3133.5
32.5°	6058.2	5875.0	5393.3	4827.1	4477.4	4390.2	3848.4	3420.5	3143.8	2943.9	2904.2
35°	6587.3	6313.1	5530.4	4720.8	4005.9	3906.0	3501.2	3189.9	2958.0	2755.6	2715.9
37.5°	6586.0	6871.7	5732.8	4574.7	3713.8	3362.8	3248.8	3036.2	2828.6	2583.9	2539.1
40°	6634.7	6643.7	5955.7	4432.5	3441.0	3083.6	3098.9	2960.6	2746.6	2477.6	2431.5
42.5°	7226.6	6791.0	6228.6	4241.6	3183.5	2877.3	3034.9	2933.7	2703.1	2427.6	2376.4
45°	7741.5	7239.4	5630.3	4032.8	2913.2	2717.2	2983.6	2870.9	2641.6	2367.4	2309.8
47.5°	8189.9	7595.5	5782.8	3667.7	2649.3	2586.5	2885.0	2750.5	2531.4	2276.5	2225.2
50°	8530.7	7890.1	5916.0	3177.1	2393.1	2455.8	2724.8	2587.8	2376.4	2170.1	2126.6
51°	8647.3	7984.9	5942.9	3155.3	2257.3	2394.3	2649.3	2516.0	2326.4	2129.1	2089.4
52.5°	8772.8	8107.9	5982.6	3204.0	2065.1	2293.1	2526.3	2409.7	2252.1	2083.0	2038.2
55°	7294.4	7618.6	5881.4	3101.5	1842.2	2092.0	2300.8	2248.3	2161.2	2011.3	1979.3
57.5°	7028.0	6446.4	4878.3	2626.2	1646.2	1852.4	2081.7	2116.3	2049.7	1897.3	1874.2
60°	7085.6	6387.4	4344.1	1958.8	1451.5	1638.5	1917.8	1948.5	1890.9	1775.6	1743.5
62.5°	7075.4	6236.3	3874.0	1379.7	1282.4	1527.0	1799.9	1812.7	1733.3	1637.2	1607.8
65°	6906.3	5889.1	3232.2	1044.1	1188.8	1465.6	1730.7	1737.1	1638.5	1515.5	1500.1
67.5°	6529.6	5339.5	2248.3	917.3	1136.3	1418.2	1684.6	1656.4	1561.6	1432.2	1409.2
70°	5808.4	4350.5	1050.5	844.2	1056.9	1331.0	1571.9	1538.6	1434.8	1314.4	1293.9
72.5°	4656.7	3023.3	498.3	772.5	973.6	1222.1	1433.5	1381.0	1295.2	1250.3	1238.8
75°	3047.7	1419.4	416.3	695.6	863.4	1090.2	1314.4	1295.2	1215.7	1126.1	1082.5
77.5°	1236.2	374.1	376.6	617.5	775.1	1004.4	1187.6	1172.2	1067.1	986.4	968.5
80°	311.3	280.6	344.6	509.9	675.1	875.0	1041.5	998.0	959.5	872.4	844.2
82.5°	237.0	225.5	270.3	394.6	554.7	721.2	889.1	907.0	842.9	776.3	762.2
85°	165.3	205.0	164.0	280.6	411.2	568.8	745.6	777.6	734.1	658.5	607.2
87.5°	91.0	107.6	67.9	147.3	217.8	311.3	427.9	431.7	357.4	328.0	308.7
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)