

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: P591157

Luminaire Tested: **CTN-CA8-230-722-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591157
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24831 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

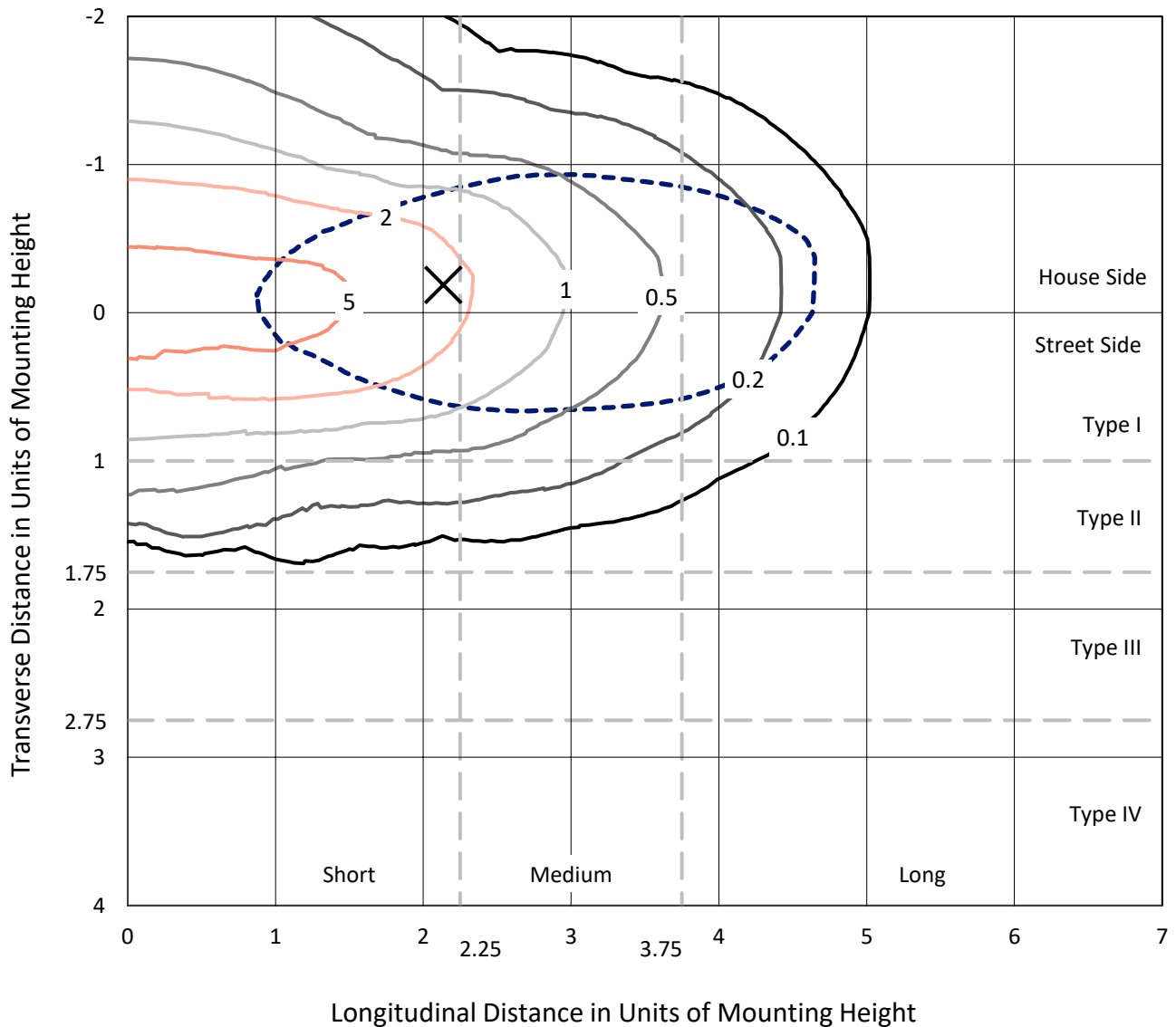
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

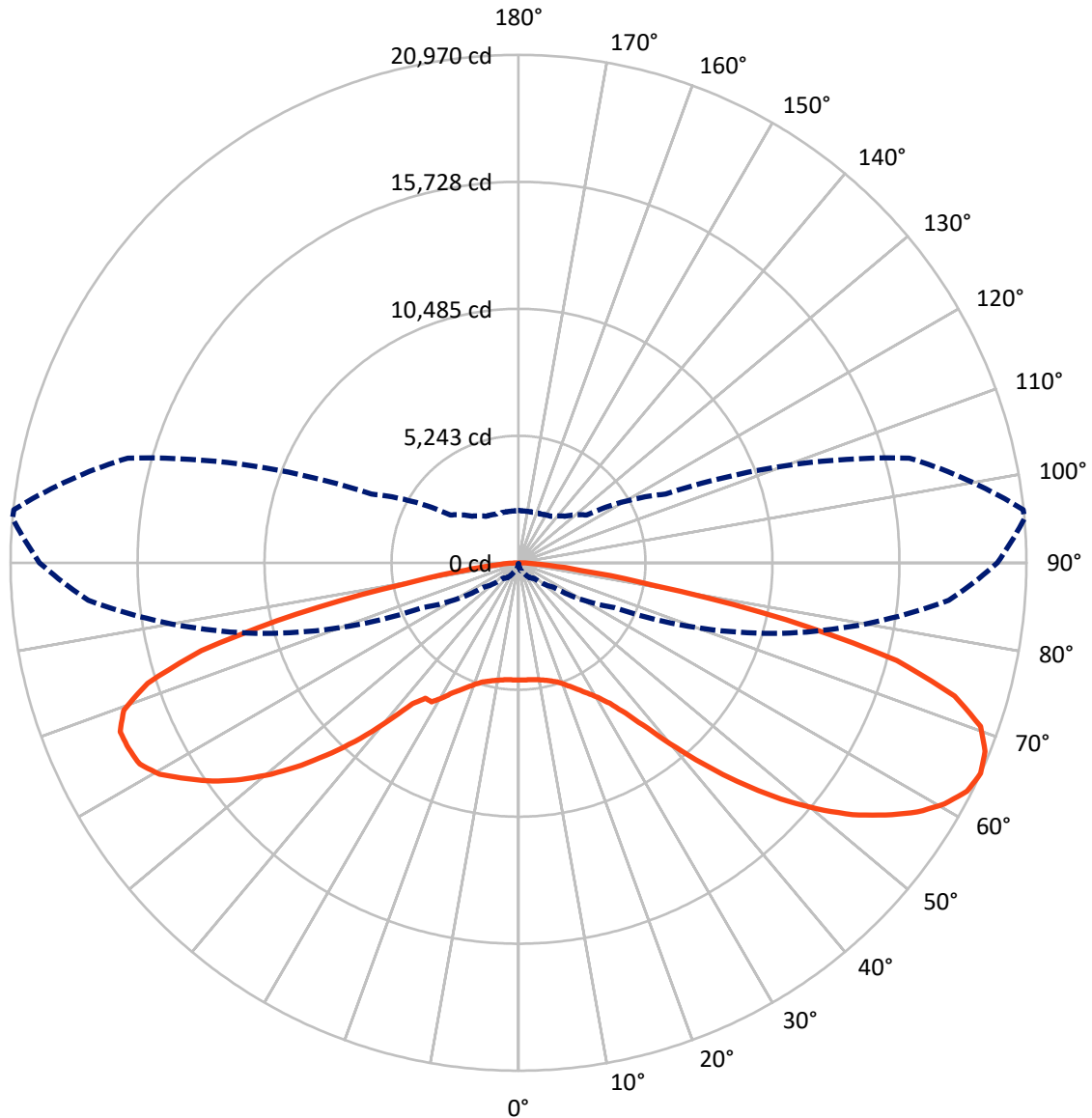
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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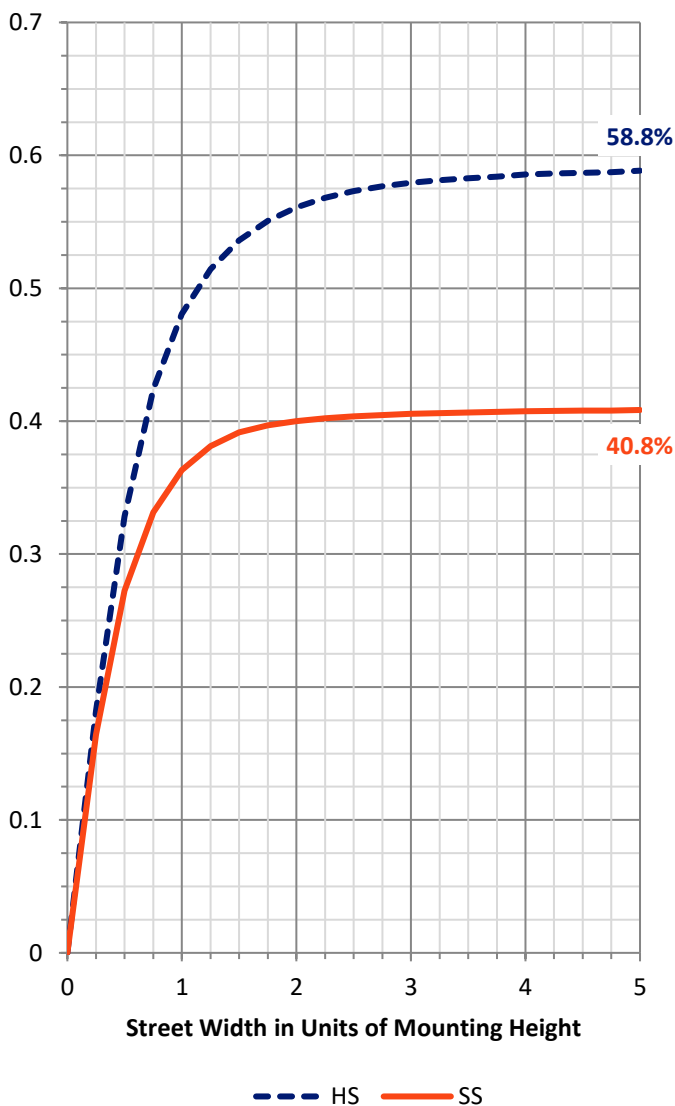
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14723.3	0.0	14723.3
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	10107.7	0.0	10107.7
	% Fixture	40.7	0.0	40.7
Total	Lumens	24831.0	0.0	24831.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.7	1.9
10°-20°	1326.7	5.3
20°-30°	1994.0	8.0
30°-40°	2780.2	11.2
40°-50°	3991.5	16.1
50°-60°	5088.1	20.5
60°-70°	5297.8	21.3
70°-80°	3411.5	13.7
80°-90°	480.5	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°	24831.0	100.0
0°-180°	24831.0	100.0

Coefficient of Utilization

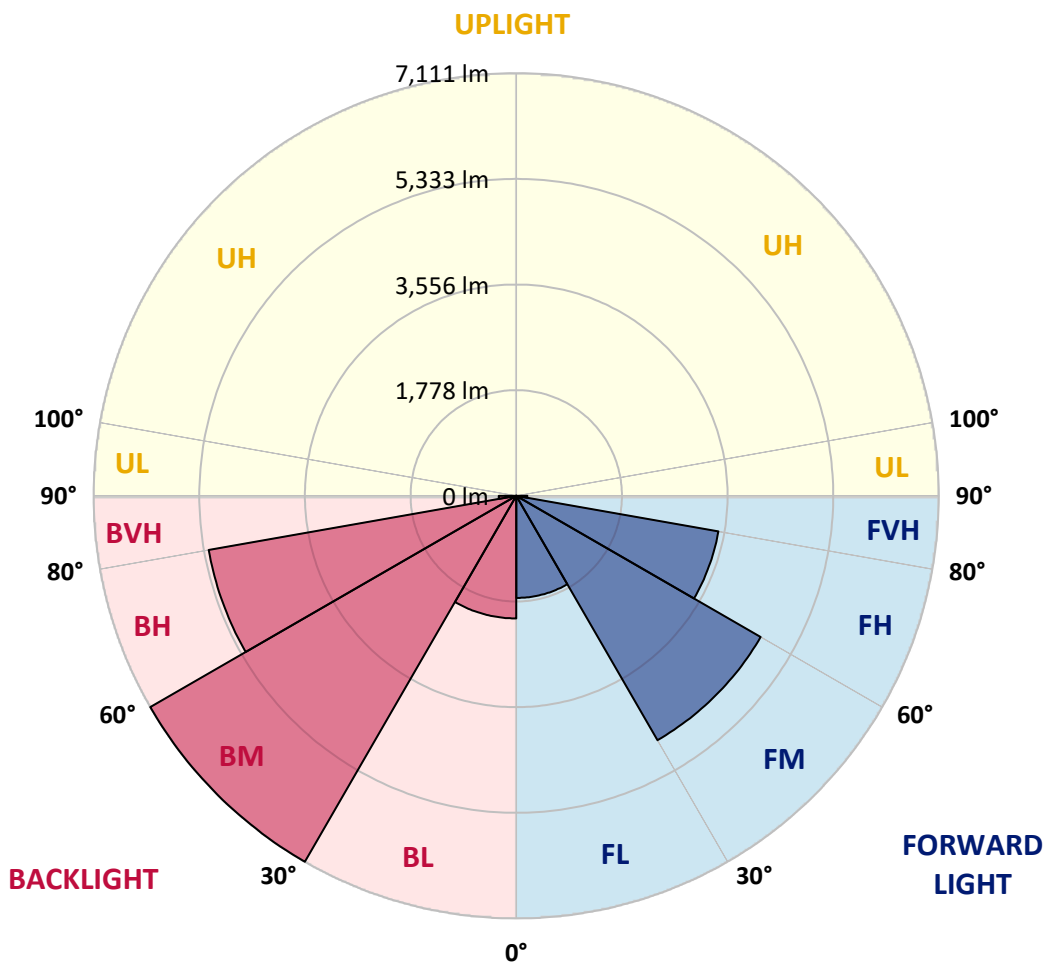


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1718.3	6.9			
FM (30°-60°)	4748.6	19.1			
FH (60°-80°)	3453.9	13.9			G2/5000
FVH (80°-90°)	186.8	0.8			G2/225
BL (0°-30°)	2063.1	8.3	B3/2500		
BM (30°-60°)	7111.2	28.6	B4/8500		
BH (60°-80°)	5255.4	21.2	B5		G5
BVH (80°-90°)	293.6	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5
2.5°	4853.9	4814.2	4822.3	4861.1	4789.8	4828.6	4799.7	4846.7	4834.9	4838.6	4861.1
5°	4813.3	4772.6	4788.0	4835.9	4769.0	4816.0	4794.3	4833.1	4829.5	4843.1	4857.5
7.5°	4776.3	4732.9	4752.8	4788.0	4751.9	4792.5	4780.8	4829.5	4827.7	4867.5	4877.4
10°	4734.7	4695.0	4712.2	4755.5	4725.7	4774.5	4784.4	4842.2	4861.1	4915.3	4919.8
12.5°	4661.6	4622.8	4630.9	4686.0	4690.5	4764.5	4798.8	4890.0	4909.9	4972.2	4974.9
15°	4399.8	4390.7	4467.5	4556.0	4592.1	4702.2	4816.9	4941.5	4971.3	5049.8	5058.0
17.5°	3663.0	3572.7	3437.3	3544.7	3781.3	4085.6	4773.6	5018.2	5073.3	5151.9	5176.2
20°	2456.7	2538.9	2845.0	2982.2	3192.6	3705.4	4762.7	5101.3	5220.5	5315.3	5361.3
22.5°	2029.7	2025.2	2391.7	2854.0	3019.2	3254.9	4378.1	5199.7	5397.4	5521.1	5578.9
25°	1885.2	1887.0	1953.8	2538.0	2947.0	3196.2	4021.4	5070.6	5591.6	5768.5	5837.2
27.5°	1770.6	1777.8	1834.7	2032.4	2885.6	3183.6	4031.4	4701.3	5796.5	6033.1	6112.5
30°	1679.4	1675.8	1744.4	1909.6	2401.7	3188.1	4078.3	4775.4	5606.0	6408.7	6452.9
32.5°	1603.5	1593.6	1663.1	1829.2	2097.4	3152.9	4148.8	4983.0	5471.5	6769.8	6942.3
35°	1530.4	1526.8	1588.2	1751.6	2025.2	2618.4	4230.9	5240.3	5908.5	6781.6	7614.0
37.5°	1473.5	1470.8	1519.6	1673.9	1960.2	2385.4	4298.6	5564.5	6477.3	7282.7	8170.2
40°	1427.5	1420.2	1459.1	1605.3	1886.1	2346.6	3744.3	5903.1	7171.6	8451.9	9517.3
42.5°	1388.6	1378.7	1416.6	1537.6	1814.8	2303.3	3477.0	6244.4	7987.8	9753.9	10827.4
45°	1335.4	1334.5	1373.3	1486.1	1739.0	2240.1	3502.3	5674.6	8905.2	10999.8	12203.4
47.5°	1308.3	1302.0	1330.9	1438.3	1667.6	2144.4	3477.9	5430.9	9607.6	12250.3	13544.2
50°	1265.8	1260.4	1288.4	1383.2	1597.2	2023.4	3389.4	5580.7	9028.8	13434.9	14804.6
52.5°	1190.0	979.6	1246.9	1337.2	1521.4	1892.4	3221.5	5663.8	9253.7	14532.8	15978.4
55°	467.7	627.5	1193.6	1279.4	1443.7	1769.7	2966.9	5640.3	9997.6	15516.1	16989.6
57.5°	407.2	409.0	792.7	1068.1	1351.6	1641.4	2656.3	5506.7	10654.0	16357.6	17974.6
60°	57.8	58.7	401.8	449.6	886.6	1166.5	2340.3	5267.4	11043.2	17199.1	18824.2
62.5°	38.8	40.6	365.7	408.1	809.0	1034.7	2046.8	4842.2	11231.0	17710.1	19436.4
65°	28.0	28.9	331.4	369.3	720.5	918.2	1774.2	4379.9	11248.1	17828.4	19772.3
67.5°	26.2	27.1	305.2	340.4	655.5	815.3	1538.5	3972.7	10774.1	17863.6	19758.7
70°	27.1	27.1	278.1	307.9	581.5	707.0	1276.7	3567.3	9578.7	17403.1	19314.5
72.5°	27.1	28.0	242.9	270.9	501.1	598.6	1046.4	2900.1	7757.6	16099.3	18241.9
75°	27.1	28.0	191.4	223.9	416.2	480.3	858.6	2338.5	5974.4	13586.6	15960.3
77.5°	28.0	28.0	140.9	171.5	321.4	361.2	651.9	1796.7	4402.5	9418.0	11111.8
80°	28.0	29.8	99.3	126.4	237.5	260.9	473.1	1146.7	2371.0	4776.3	5516.6
82.5°	28.9	29.8	74.0	94.8	164.3	187.8	288.9	564.3	1096.1	2210.3	2503.7
85°	27.1	28.0	60.5	65.9	93.9	112.9	179.7	279.9	385.5	869.5	903.8
87.5°	19.0	18.1	19.0	21.7	30.7	49.7	84.9	94.8	93.0	233.8	271.8
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5	4839.5
2.5°	4847.6	4849.4	4842.2	4870.2	4842.2	4857.5	4816.9	4880.1	4873.8	4856.6	4878.3
5°	4846.7	4851.2	4849.4	4874.7	4839.5	4852.1	4811.5	4878.3	4855.7	4840.4	4866.5
7.5°	4868.4	4874.7	4872.0	4889.1	4848.5	4847.6	4807.9	4857.5	4835.9	4803.3	4835.9
10°	4916.2	4916.2	4908.1	4918.0	4859.3	4853.0	4786.2	4843.1	4806.1	4777.2	4816.9
12.5°	4977.6	4983.0	4962.3	4960.4	4879.2	4860.2	4776.3	4804.2	4751.0	4723.9	4762.7
15°	5067.9	5071.5	5044.4	5027.3	4927.9	4886.4	4751.0	4745.6	4671.5	4645.3	4673.3
17.5°	5172.6	5171.7	5133.8	5126.6	5010.1	4913.5	4730.2	4674.2	4579.4	4549.6	4574.0
20°	5340.6	5330.6	5289.1	5247.6	5077.8	4930.7	4700.4	4583.0	4451.2	4408.8	4428.6
22.5°	5566.3	5562.7	5497.7	5377.6	5150.1	4946.9	4649.9	4472.0	4296.8	4220.1	4232.7
25°	5813.7	5811.0	5718.0	5538.3	5213.3	4958.6	4591.2	4347.4	4110.8	3994.4	3991.7
27.5°	6100.8	6093.6	5968.1	5711.6	5300.8	4962.3	4528.0	4215.6	3926.6	3781.3	3787.6
30°	6450.2	6437.6	6266.0	5904.0	5411.9	4973.1	4473.8	4067.5	3755.1	3600.7	3597.1
32.5°	6913.4	6895.3	6629.0	6156.8	5555.5	5000.2	4408.8	3921.2	3595.3	3440.0	3426.4
35°	7618.5	7581.5	7140.9	6480.0	5715.3	5018.2	4305.0	3782.2	3440.9	3294.6	3283.8
37.5°	8662.3	8600.0	7785.6	6819.5	5874.2	5014.6	4186.7	3632.3	3315.4	3173.6	3170.9
40°	10038.3	9940.8	8559.3	7183.4	6026.8	4994.8	4059.4	3498.7	3210.7	3088.8	3097.8
42.5°	11543.4	11440.5	9476.7	7553.5	6141.4	4933.4	3923.0	3372.3	3114.0	3016.5	3017.4
45°	13060.2	12964.5	10532.2	7902.0	6198.3	4817.8	3781.3	3252.2	3012.0	2927.2	2937.1
47.5°	14570.8	14500.3	11577.7	8196.4	6170.3	4636.3	3610.6	3138.4	2910.9	2841.4	2864.0
50°	15975.6	15900.7	12691.9	8440.2	6029.5	4383.5	3435.5	3026.5	2828.7	2768.2	2787.2
52.5°	17277.6	17177.4	13885.5	8581.0	5775.8	4117.2	3281.1	2928.1	2749.3	2688.8	2708.7
55°	18383.6	18379.1	14978.0	8592.8	5379.4	3844.5	3132.1	2814.3	2671.6	2622.0	2626.5
57.5°	19419.2	19459.9	15917.9	8450.1	4909.9	3591.7	2961.5	2696.9	2582.3	2530.8	2535.3
60°	20210.2	20260.7	16555.3	8034.8	4409.7	3312.7	2778.2	2572.3	2471.2	2422.4	2436.9
62.5°	20778.1	20713.1	16893.0	7438.9	3908.6	3012.9	2579.5	2413.4	2333.1	2303.3	2304.2
65°	20970.4	20949.6	16695.2	6704.8	3435.5	2717.7	2344.8	2215.7	2166.0	2145.3	2160.6
67.5°	20773.6	20786.2	15925.1	6080.9	2985.8	2384.5	2081.1	1998.1	1972.8	1971.9	1988.2
70°	20234.6	20135.2	14327.9	5582.5	2564.2	2014.3	1797.6	1757.9	1749.8	1769.7	1783.2
72.5°	18826.1	18681.6	11882.0	4788.9	1968.3	1481.6	1361.6	1415.7	1413.9	1424.8	1437.4
75°	16128.2	15748.1	9306.9	3812.9	1458.2	1048.2	908.3	906.5	903.8	995.9	1029.3
77.5°	11304.1	11050.4	6871.0	2903.7	969.7	627.5	623.0	671.7	679.9	619.4	631.1
80°	5671.0	5782.1	3965.5	1794.0	644.7	442.4	464.1	456.9	463.2	470.4	474.9
82.5°	2613.9	2669.8	1897.9	874.0	415.3	335.9	317.8	345.8	358.4	357.5	354.8
85°	927.3	932.7	600.4	374.7	254.6	218.5	222.1	258.2	272.7	260.0	253.7
87.5°	269.1	255.5	122.8	111.1	117.4	116.5	120.1	127.3	137.2	135.4	125.5
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)