

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: P591038

Luminaire Tested: **CTN-CA10-310-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA10-310-730-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43307 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

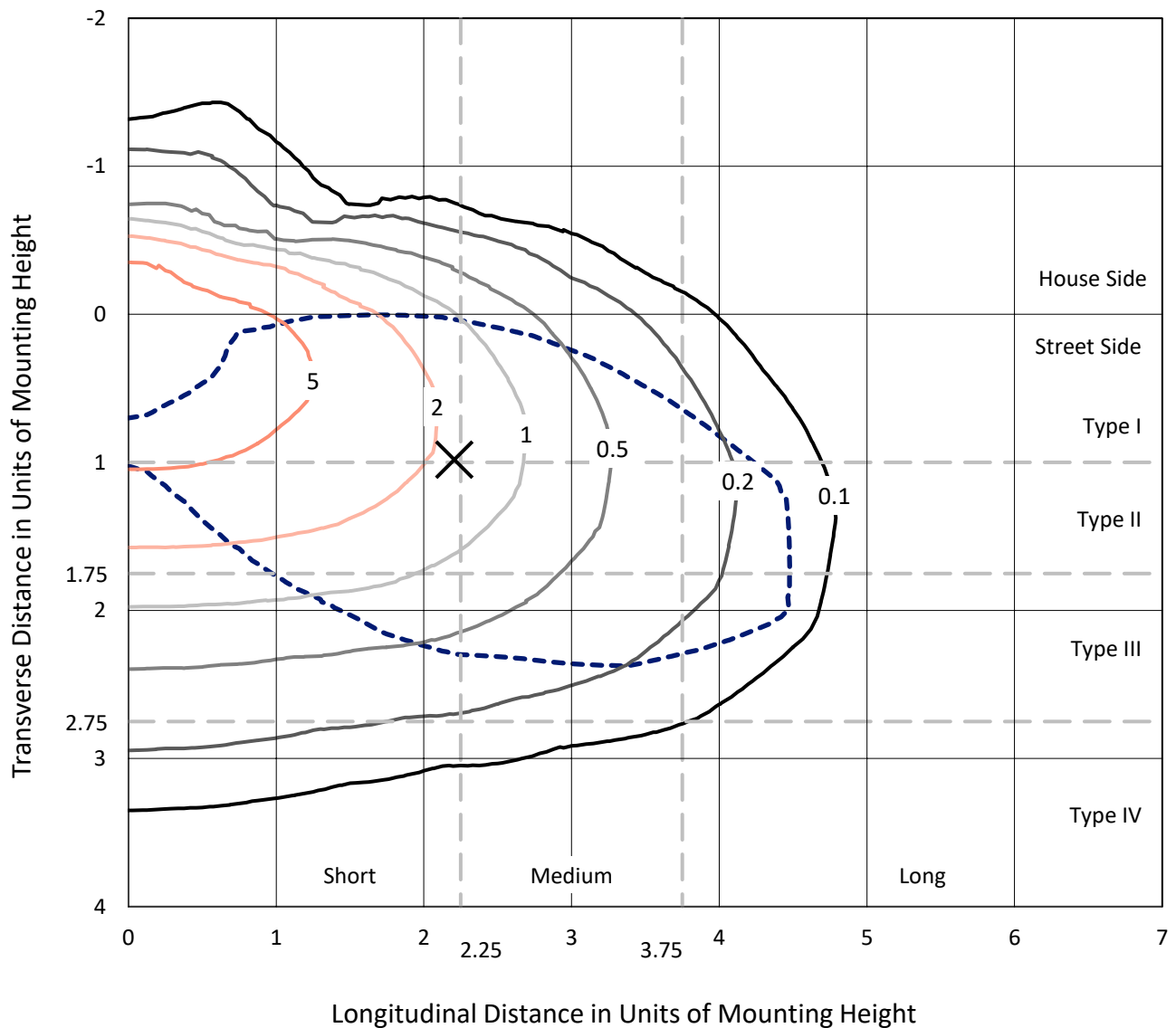
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

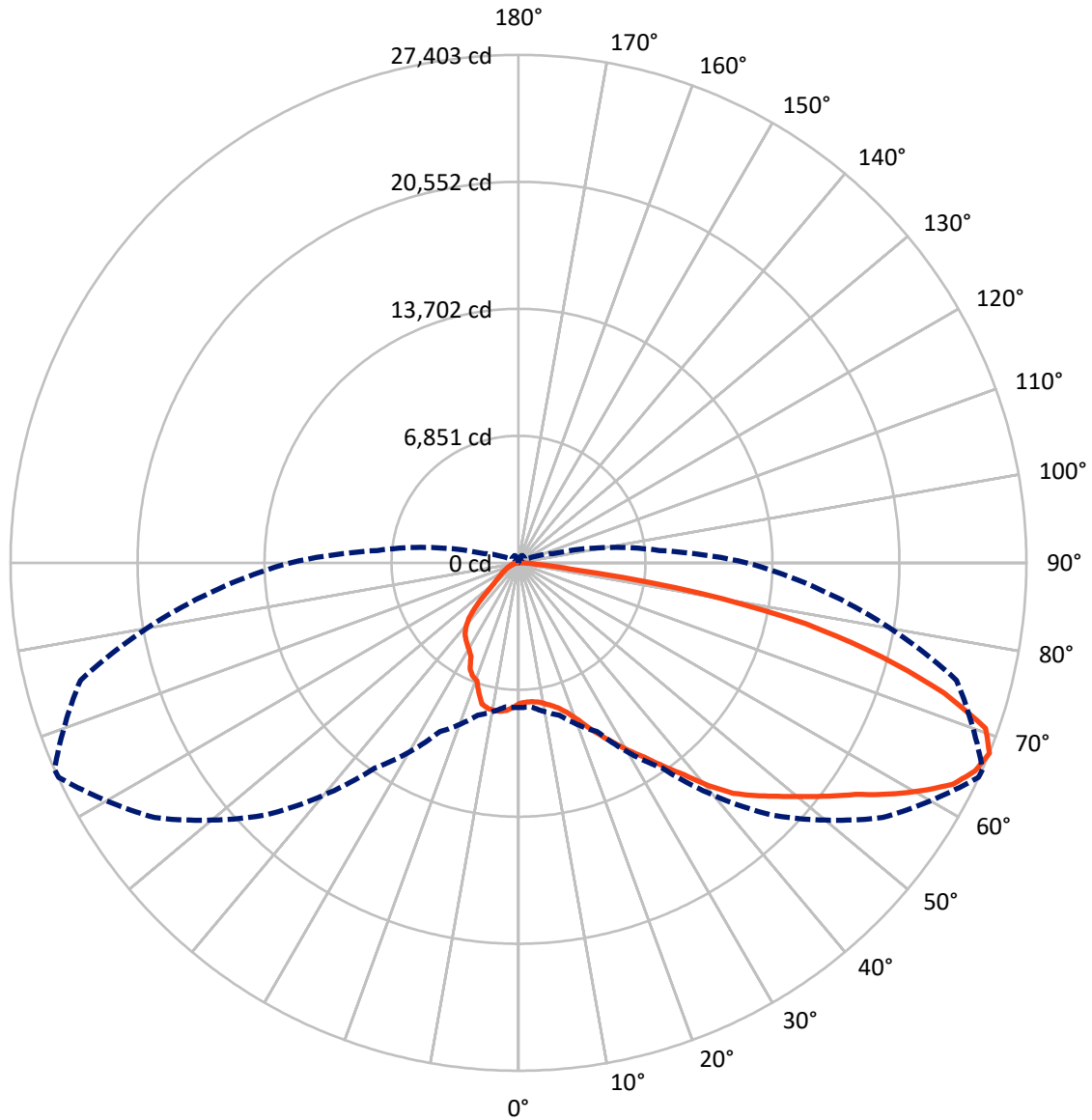
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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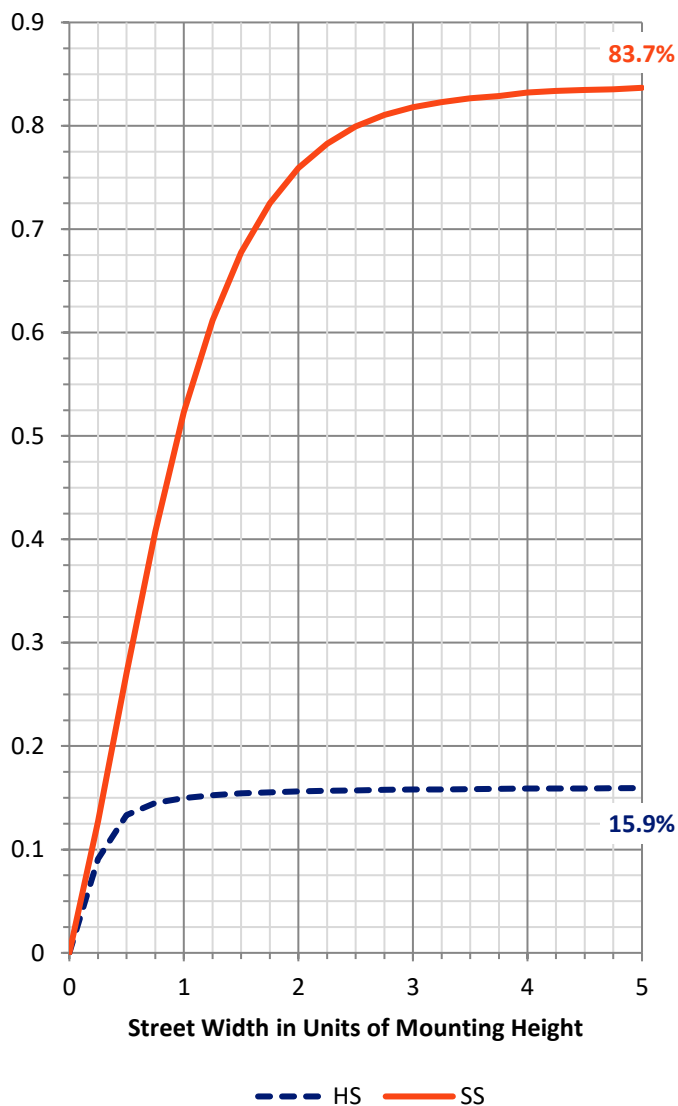
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6990.7	0.0	6990.7
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	36316.3	0.0	36316.3
	% Fixture	83.9	0.0	83.9
Total	Lumens	43307.0	0.0	43307.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	751.4	1.7
10°-20°	2265.6	5.2
20°-30°	3682.8	8.5
30°-40°	5379.7	12.4
40°-50°	7165.2	16.5
50°-60°	8667.6	20.0
60°-70°	9279.6	21.4
70°-80°	5507.1	12.7
80°-90°	608.1	1.4
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°	43307.0	100.0
0°-180°	43307.0	100.0

Coefficient of Utilization



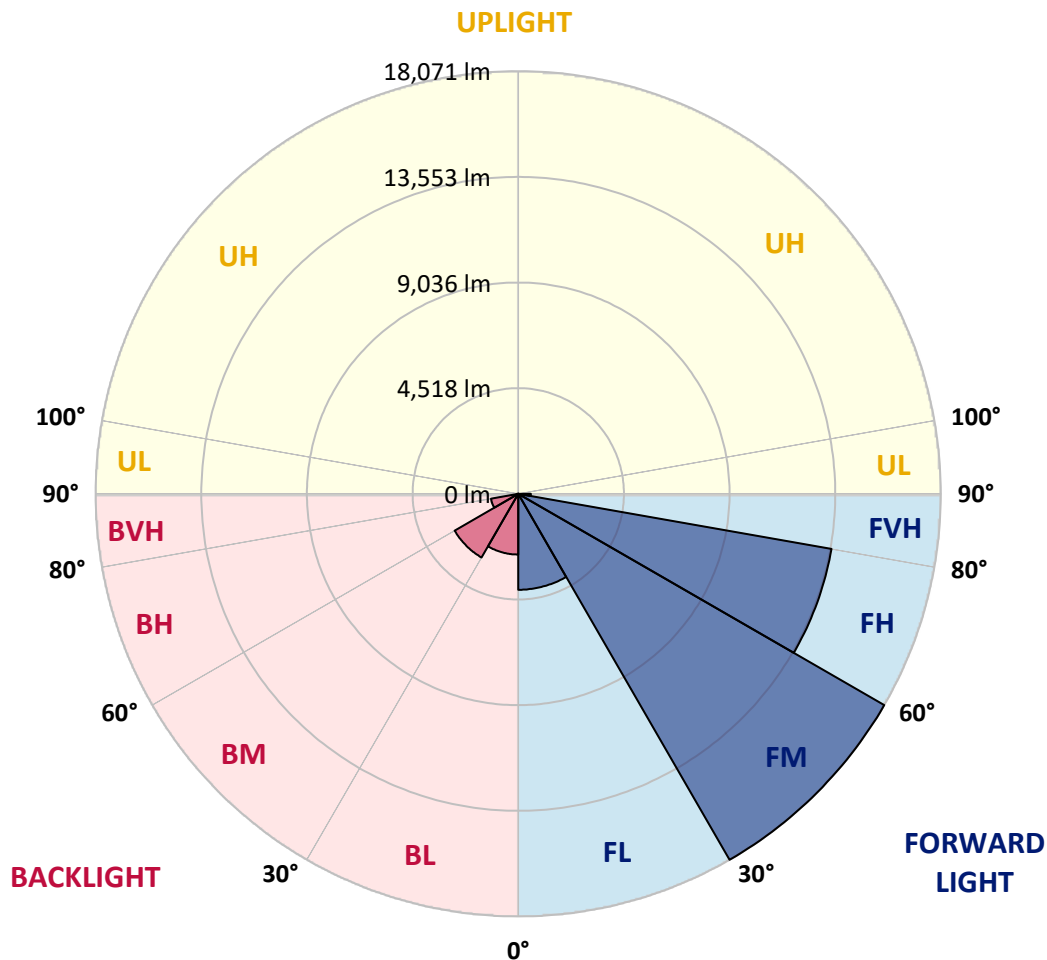
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4103.6	9.5			
FM (30°-60°)	18071.2	41.7			
FH (60°-80°)	13602.5	31.4			G5
FVH (80°-90°)	539.0	1.2			G4/750
BL (0°-30°)	2596.2	6.0	B4/5000		
BM (30°-60°)	3141.3	7.3	B3/5000		
BH (60°-80°)	1184.1	2.7	B3/2500		G3/2500
BVH (80°-90°)	69.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4
2.5°	7485.9	7443.6	7462.7	7512.5	7417.0	7477.7	7434.7	7509.7	7530.2	7538.4	7568.4
5°	7632.5	7576.6	7577.9	7609.3	7500.9	7527.5	7454.5	7507.0	7523.4	7545.2	7618.2
7.5°	7889.6	7827.5	7822.1	7830.3	7695.2	7665.2	7562.3	7573.2	7585.4	7598.4	7693.2
10°	8242.9	8179.4	8168.5	8147.4	7969.4	7891.0	7738.2	7714.3	7725.9	7704.8	7817.3
12.5°	8667.0	8590.7	8550.4	8489.7	8283.8	8161.0	7959.2	7893.7	7903.9	7859.6	7938.0
15°	9113.0	9031.9	9010.1	8916.6	8662.9	8495.2	8234.0	8134.4	8137.1	8086.0	8082.6
17.5°	9589.0	9516.8	9499.0	9439.7	9158.7	8958.9	8636.3	8501.3	8491.1	8440.6	8290.6
20°	10129.2	10083.5	10073.9	10039.8	9785.4	9551.5	9184.6	9003.2	8993.0	8913.2	8592.7
22.5°	10793.4	10739.5	10710.9	10681.5	10491.3	10247.8	9853.6	9597.9	9638.1	9503.8	8984.8
25°	11454.2	11411.2	11386.7	11367.6	11210.7	10980.2	10581.3	10281.2	10321.5	10177.6	9461.5
27.5°	12110.3	12015.5	12055.0	12100.0	11943.2	11759.7	11326.0	10999.3	11011.6	10856.1	10032.3
30°	12719.9	12670.1	12738.3	12780.6	12666.0	12522.8	12067.3	11751.5	11770.0	11585.1	10687.0
32.5°	13261.4	13189.8	13341.9	13424.4	13356.2	13238.2	12798.3	12499.0	12504.4	12392.6	11468.5
35°	13659.0	13663.8	13873.8	14095.4	14094.8	13928.4	13554.6	13415.5	13478.9	13429.2	12427.4
37.5°	14064.1	14027.9	14270.7	14600.1	14707.8	14559.9	14338.2	14420.7	14506.0	14658.7	13333.0
40°	14255.7	14257.1	14551.0	14931.5	15180.4	15152.5	15074.7	15626.4	15803.1	15848.8	12970.2
42.5°	14024.5	14040.9	14565.3	15238.4	15625.1	15773.1	15943.5	16883.3	17002.6	16744.2	13397.8
45°	13721.7	13744.2	14360.0	15344.1	16019.2	16435.9	16905.8	17822.3	17915.1	17571.4	14019.7
47.5°	13437.3	13478.9	14120.0	15280.7	16331.6	17182.7	17766.4	18706.9	18820.1	18366.6	14599.4
50°	13063.6	13156.4	13810.4	15112.2	16566.9	17832.6	18561.6	19771.4	19815.0	19142.6	15121.8
52.5°	12702.2	12729.5	13459.8	14896.7	16744.2	18421.8	19510.2	20865.3	20915.7	19992.3	15603.9
55°	12207.1	12248.0	13064.3	14626.7	16853.3	18915.5	20470.4	22005.5	22050.5	21013.2	16122.2
57.5°	11662.2	11692.2	12551.5	14212.1	16771.4	19354.0	21494.0	23441.7	23552.2	22063.5	16588.0
60°	10978.2	11017.7	11890.0	13637.2	16489.1	19865.5	22758.4	24976.8	24976.8	23027.8	16956.9
62.5°	10014.6	10069.8	10953.0	12809.3	15902.6	20161.5	23767.7	26313.4	26304.6	23787.5	17081.7
65°	8894.8	8903.7	9704.3	11644.5	14928.8	20003.9	24152.3	27094.3	27074.5	24337.1	16909.9
67.5°	7808.4	7798.9	8509.5	10051.4	13524.6	19228.6	23968.9	27379.3	27403.2	24469.4	16269.5
70°	6267.2	6254.9	6908.3	8168.5	11401.0	17558.4	22926.1	26655.8	26728.1	23713.8	15206.3
72.5°	4484.6	4466.2	4779.2	5612.5	8372.4	14443.9	20326.5	23874.7	24007.0	21293.5	13264.8
75°	2626.2	2646.0	2972.7	3452.1	4972.2	9501.8	16486.4	20050.3	20239.2	18114.2	10433.3
77.5°	1460.8	1456.7	1696.7	2057.5	2445.5	4758.7	11509.4	15790.1	15854.2	14194.3	7016.0
80°	705.1	701.7	766.5	967.0	1394.6	2137.9	5652.8	9810.7	10005.0	8626.8	3430.3
82.5°	507.4	510.1	546.3	530.6	520.3	943.2	1886.3	3090.0	2821.3	2177.5	1060.4
85°	381.2	381.2	413.9	381.9	373.0	480.1	917.2	1104.1	1059.8	969.1	630.1
87.5°	179.4	170.5	181.4	171.9	159.6	212.8	402.4	466.5	431.7	376.4	275.5
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°	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4	7583.4
2.5°	7619.5	7634.5	7713.0	7815.3	7824.8	7912.8	7940.1	8049.2	8045.1	8015.1	8046.4
5°	7670.7	7716.4	7850.7	7994.6	8031.4	8141.9	8165.8	8272.9	8279.7	8242.9	8273.5
7.5°	7752.5	7819.4	7946.2	8088.7	8105.1	8203.3	8199.2	8300.8	8283.1	8251.0	8292.0
10°	7852.8	7904.6	7989.2	8083.3	8075.8	8154.2	8129.6	8202.6	8165.8	8139.9	8186.9
12.5°	7953.7	7955.7	7962.6	8021.9	7975.5	7993.3	7944.8	7998.7	7942.1	7898.5	7927.1
15°	8054.6	7997.3	7901.2	7864.4	7735.5	7669.3	7599.8	7664.6	7532.3	7462.7	7480.4
17.5°	8197.2	8059.4	7736.2	7268.3	6871.4	6652.5	6488.2	6361.3	6364.1	6426.8	6464.3
20°	8311.0	7787.3	6997.6	6708.4	6411.8	6011.5	5390.2	5219.7	5107.2	5105.2	5123.6
22.5°	8270.8	7499.5	6998.3	6546.1	5901.0	5101.1	4832.4	4676.2	4413.6	3852.4	3806.7
25°	8641.1	7754.6	7038.5	6210.6	5087.4	4681.7	4312.7	4009.2	3346.4	3242.0	3237.9
27.5°	9085.1	8099.0	7093.1	5486.4	4762.1	4214.5	3745.3	3012.2	2694.4	2649.4	2633.7
30°	9598.6	8504.7	6760.3	5254.5	4415.7	3671.0	3049.0	2313.2	2054.7	2039.1	2043.2
32.5°	10242.4	8967.8	6413.2	5063.6	3996.3	3041.5	2079.3	1764.2	1616.2	1454.6	1506.5
35°	10928.4	8701.1	6620.5	4827.6	3471.2	2287.3	1579.4	1401.4	1281.4	1072.0	986.8
37.5°	10658.4	8884.6	6861.2	4568.5	2815.1	1550.8	1222.1	1067.9	955.4	780.8	777.4
40°	10991.2	9409.7	7033.1	4151.1	2035.7	1100.0	890.6	826.5	774.7	677.9	664.2
42.5°	11579.0	9868.0	7149.7	3615.8	1216.6	818.4	760.4	769.9	724.9	650.6	641.7
45°	12158.0	10269.0	7039.9	2799.4	865.4	737.9	741.3	737.2	682.6	655.4	645.8
47.5°	12685.1	10607.9	6730.9	1846.7	750.8	719.5	727.0	708.6	647.2	631.5	630.1
50°	13138.0	10965.9	5329.5	1415.1	722.2	694.9	711.3	681.3	575.6	558.5	540.8
52.5°	13416.9	10370.6	4734.9	1087.0	692.2	656.7	661.5	686.1	542.2	431.7	404.4
55°	13374.6	9342.2	4402.1	905.0	644.5	603.5	613.1	652.6	490.3	337.6	305.5
57.5°	13575.8	9257.6	4057.0	769.9	555.8	546.9	527.8	594.7	446.0	223.7	212.1
60°	13543.0	9247.4	3620.5	605.6	491.0	459.6	435.8	484.2	319.8	83.2	75.7
62.5°	13489.9	8984.8	3124.7	542.8	452.1	439.9	419.4	474.0	272.1	58.0	43.0
65°	13223.2	8558.6	2562.8	475.3	422.1	396.9	395.5	448.7	224.4	32.1	14.3
67.5°	12312.8	7630.5	1906.8	437.8	404.4	391.4	415.3	432.4	215.5	32.7	13.0
70°	11180.7	6406.3	1230.3	394.9	379.2	386.0	405.8	437.1	209.4	30.0	11.6
72.5°	9349.0	4955.8	746.1	352.6	343.0	363.5	400.3	437.1	193.7	25.2	9.5
75°	7112.2	3305.5	555.1	311.7	300.7	326.7	364.8	420.1	190.3	21.8	6.1
77.5°	4415.7	1561.0	437.8	261.9	250.3	276.9	306.2	346.4	193.0	21.1	3.4
80°	1786.1	652.0	343.7	210.7	196.4	210.7	248.2	295.3	153.4	30.0	0.0
82.5°	751.5	459.0	281.0	167.8	156.9	138.4	169.1	218.9	120.7	23.9	0.0
85°	497.1	318.5	201.2	113.9	100.2	67.5	82.5	98.9	68.9	0.0	0.0
87.5°	225.0	141.2	88.0	38.9	32.7	18.4	10.9	9.5	0.0	0.0	0.0
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)