

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: P591042

Luminaire Tested: **CTN-CA8-230-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591042
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-CA8-230-730-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32039 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

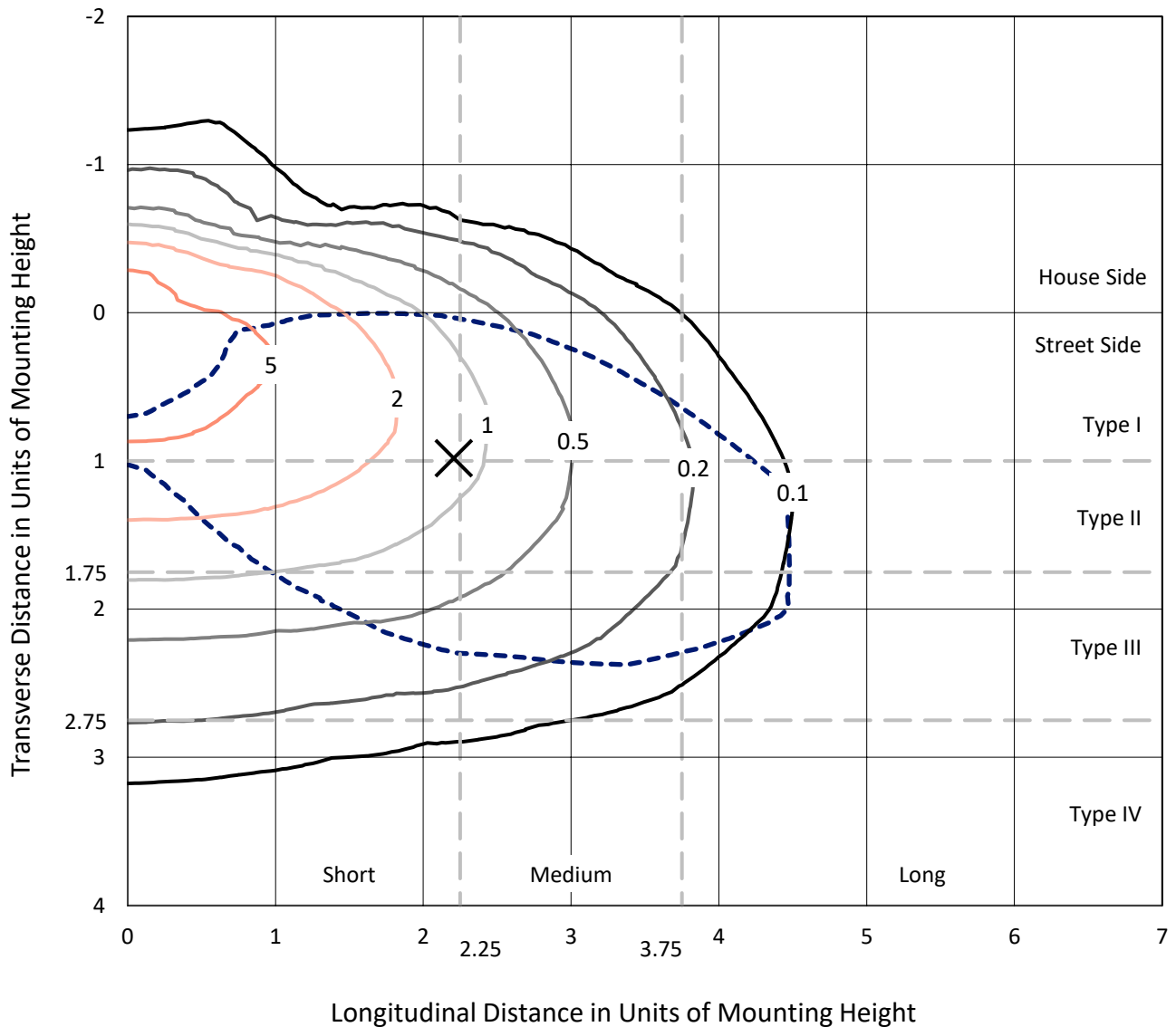
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

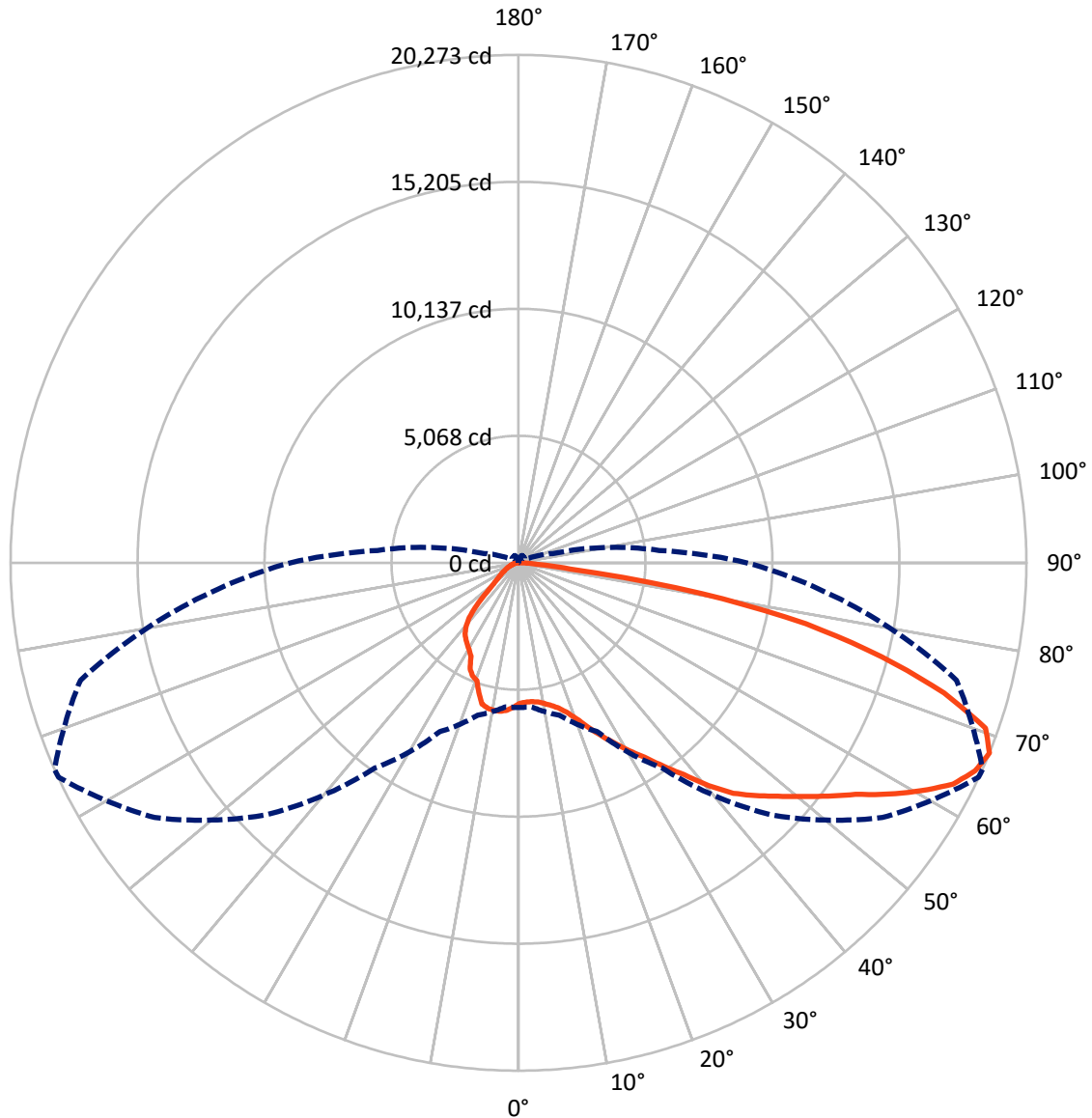
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 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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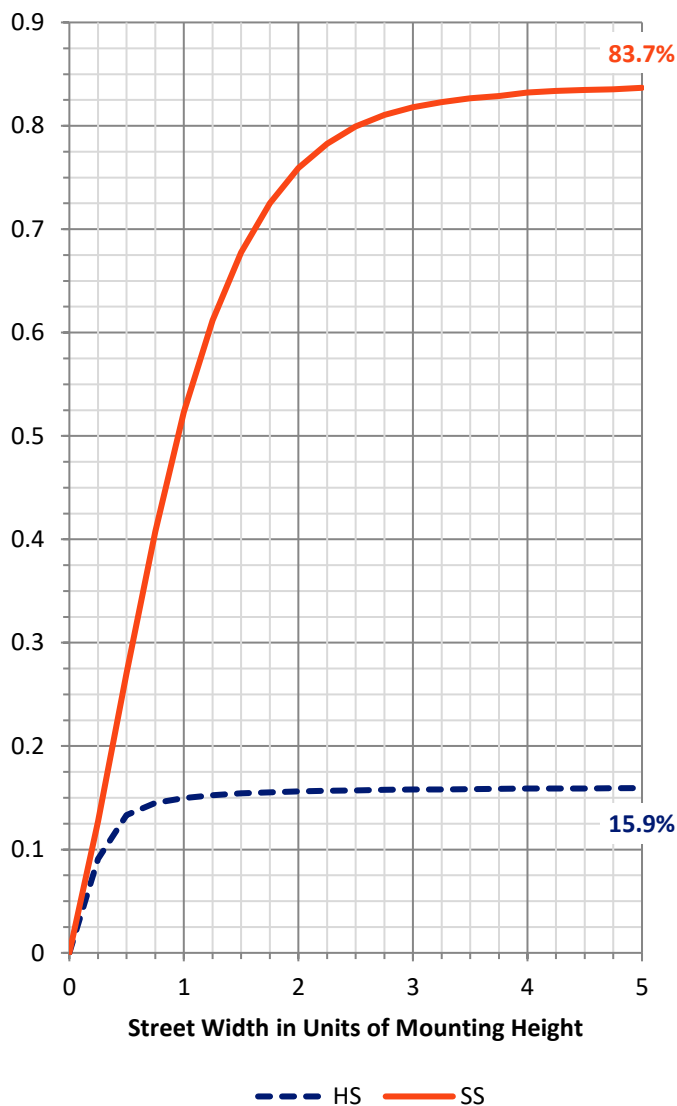
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5171.8	0.0	5171.8
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	26867.2	0.0	26867.2
	% Fixture	83.9	0.0	83.9
Total	Lumens	32039.0	0.0	32039.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	555.9	1.7
10°-20°	1676.1	5.2
20°-30°	2724.6	8.5
30°-40°	3979.9	12.4
40°-50°	5300.9	16.5
50°-60°	6412.4	20.0
60°-70°	6865.1	21.4
70°-80°	4074.2	12.7
80°-90°	449.9	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°	32039.0	100.0
0°-180°	32039.0	100.0

Coefficient of Utilization



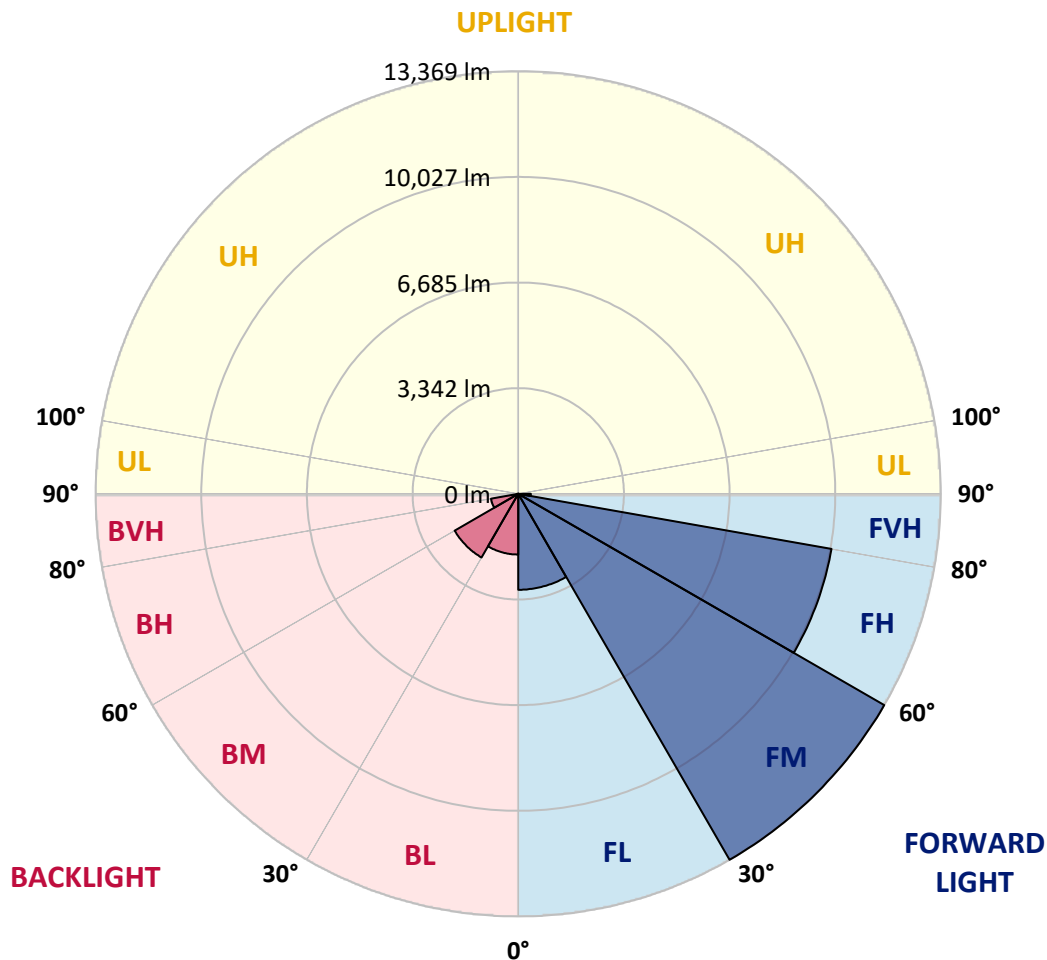
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3035.9	9.5			
FM (30°-60°)	13369.3	41.7			
FH (60°-80°)	10063.3	31.4			G4/12000
FVH (80°-90°)	398.8	1.2			G3/500
BL (0°-30°)	1920.7	6.0	B3/2500		
BM (30°-60°)	2323.9	7.3	B2/2500		
BH (60°-80°)	876.0	2.7	B2/1000		G2/1000
BVH (80°-90°)	51.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3
2.5°	5538.1	5506.9	5521.0	5557.8	5487.2	5532.1	5500.3	5555.8	5570.9	5577.0	5599.2
5°	5646.6	5605.2	5606.2	5629.5	5549.2	5568.9	5514.9	5553.8	5565.9	5582.0	5636.0
7.5°	5836.8	5790.9	5786.9	5792.9	5693.0	5670.8	5594.6	5602.7	5611.8	5621.4	5691.5
10°	6098.2	6051.2	6043.2	6027.5	5895.8	5837.8	5724.8	5707.2	5715.7	5700.1	5783.3
12.5°	6412.0	6355.5	6325.7	6280.8	6128.4	6037.6	5888.3	5839.8	5847.4	5814.6	5872.6
15°	6741.9	6681.9	6665.7	6596.6	6408.9	6284.8	6091.6	6017.9	6020.0	5982.1	5979.6
17.5°	7094.1	7040.6	7027.5	6983.6	6775.7	6627.9	6389.3	6289.4	6281.8	6244.5	6133.5
20°	7493.7	7459.9	7452.8	7427.6	7239.4	7066.3	6794.9	6660.7	6653.1	6594.1	6357.0
22.5°	7985.1	7945.2	7924.0	7902.3	7761.6	7581.4	7289.8	7100.6	7130.4	7031.0	6647.1
25°	8473.9	8442.2	8424.0	8409.9	8293.8	8123.3	7828.2	7606.2	7635.9	7529.5	6999.7
27.5°	8959.3	8889.2	8918.4	8951.7	8835.7	8700.0	8379.1	8137.4	8146.5	8031.5	7422.0
30°	9410.3	9373.5	9424.0	9455.2	9370.5	9264.5	8927.5	8693.9	8707.5	8570.8	7906.4
32.5°	9810.9	9758.0	9870.5	9931.5	9881.1	9793.8	9468.4	9246.9	9250.9	9168.2	8484.5
35°	10105.1	10108.6	10264.0	10428.0	10427.5	10304.4	10027.9	9925.0	9971.9	9935.0	9193.9
37.5°	10404.8	10378.0	10557.6	10801.3	10881.0	10771.5	10607.6	10668.6	10731.7	10844.7	9863.9
40°	10546.5	10547.5	10765.0	11046.5	11230.7	11210.0	11152.5	11560.6	11691.3	11725.1	9595.5
42.5°	10375.5	10387.6	10775.6	11273.5	11559.6	11669.1	11795.2	12490.4	12578.7	12387.5	9911.8
45°	10151.5	10168.1	10623.7	11351.7	11851.2	12159.5	12507.1	13185.2	13253.8	12999.5	10372.0
47.5°	9941.1	9971.9	10446.1	11304.8	12082.3	12711.9	13143.8	13839.5	13923.3	13587.8	10800.8
50°	9664.6	9733.2	10217.1	11180.2	12256.3	13192.7	13732.1	14627.1	14659.4	14161.9	11187.3
52.5°	9397.2	9417.4	9957.7	11020.8	12387.5	13628.6	14433.9	15436.3	15473.7	14790.6	11544.0
55°	9030.9	9061.2	9665.1	10821.0	12468.2	13993.9	15144.2	16279.9	16313.2	15545.8	11927.4
57.5°	8627.8	8650.0	9285.7	10514.2	12407.7	14318.3	15901.5	17342.4	17424.2	16322.8	12272.0
60°	8121.8	8151.1	8796.3	10088.9	12198.8	14696.7	16836.9	18478.1	18478.1	17036.2	12544.9
62.5°	7408.9	7449.8	8103.1	9476.4	11764.9	14915.7	17583.6	19467.0	19460.4	17598.2	12637.3
65°	6580.5	6587.0	7179.3	8614.7	11044.5	14799.1	17868.1	20044.7	20030.0	18004.9	12510.1
67.5°	5776.8	5769.7	6295.4	7436.1	10005.7	14225.5	17732.4	20255.5	20273.2	18102.7	12036.4
70°	4636.6	4627.5	5110.8	6043.2	8434.6	12989.9	16961.0	19720.2	19773.7	17543.7	11249.8
72.5°	3317.7	3304.1	3535.7	4152.2	6194.0	10685.8	15037.8	17662.8	17760.7	15753.2	9813.5
75°	1942.9	1957.5	2199.2	2553.9	3678.5	7029.5	12196.8	14833.4	14973.2	13401.1	7718.7
77.5°	1080.7	1077.7	1255.3	1522.1	1809.2	3520.6	8514.8	11681.7	11729.1	10501.1	5190.5
80°	521.7	519.2	567.1	715.4	1031.7	1581.7	4182.0	7258.1	7401.8	6382.2	2537.7
82.5°	375.4	377.4	404.1	392.5	385.0	697.8	1395.5	2286.0	2087.2	1610.9	784.5
85°	282.0	282.0	306.2	282.5	276.0	355.2	678.6	816.8	784.0	716.9	466.2
87.5°	132.7	126.1	134.2	127.1	118.1	157.4	297.7	345.1	319.4	278.5	203.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3	5610.3
2.5°	5637.0	5648.1	5706.1	5781.8	5788.9	5854.0	5874.1	5954.9	5951.8	5929.6	5952.9
5°	5674.9	5708.7	5808.1	5914.5	5941.8	6023.5	6041.1	6120.4	6125.4	6098.2	6120.9
7.5°	5735.4	5784.8	5878.7	5984.1	5996.2	6068.9	6065.9	6141.0	6127.9	6104.2	6134.5
10°	5809.6	5847.9	5910.5	5980.1	5974.5	6032.6	6014.4	6068.4	6041.1	6022.0	6056.8
12.5°	5884.2	5885.8	5890.8	5934.7	5900.4	5913.5	5877.7	5917.5	5875.7	5843.4	5864.6
15°	5958.9	5916.5	5845.4	5818.1	5722.8	5673.9	5622.4	5670.3	5572.4	5521.0	5534.1
17.5°	6064.4	5962.4	5723.3	5377.2	5083.6	4921.6	4800.0	4706.2	4708.2	4754.6	4782.4
20°	6148.6	5761.1	5176.9	4963.0	4743.5	4447.4	3987.7	3861.6	3778.4	3776.9	3790.5
22.5°	6118.8	5548.2	5177.4	4842.9	4365.6	3773.8	3575.0	3459.5	3265.3	2850.0	2816.2
25°	6392.8	5736.9	5207.2	4594.7	3763.7	3463.5	3190.6	2966.1	2475.7	2398.5	2395.5
27.5°	6721.2	5991.7	5247.5	4058.9	3523.1	3117.9	2770.8	2228.5	1993.4	1960.1	1948.5
30°	7101.1	6291.9	5001.3	3887.3	3266.8	2715.8	2255.7	1711.3	1520.1	1508.5	1511.5
32.5°	7577.4	6634.5	4744.5	3746.1	2956.5	2250.2	1538.3	1305.2	1195.7	1076.1	1114.5
35°	8085.0	6437.2	4897.9	3571.5	2568.0	1692.2	1168.5	1036.8	948.0	793.1	730.0
37.5°	7885.2	6572.9	5076.0	3379.8	2082.7	1147.3	904.1	790.1	706.8	577.7	575.2
40°	8131.4	6961.4	5203.1	3071.0	1506.0	813.8	658.9	611.5	573.1	501.5	491.4
42.5°	8566.3	7300.4	5289.4	2675.0	900.1	605.4	562.5	569.6	536.3	481.3	474.8
45°	8994.6	7597.1	5208.2	2071.1	640.2	545.9	548.4	545.4	505.0	484.8	477.8
47.5°	9384.6	7847.8	4979.6	1366.2	555.5	532.3	537.8	524.2	478.8	467.2	466.2
50°	9719.6	8112.7	3942.8	1046.9	534.3	514.1	526.2	504.0	425.8	413.2	400.1
52.5°	9926.0	7672.3	3502.9	804.2	512.1	485.9	489.4	507.5	401.1	319.4	299.2
55°	9894.7	6911.4	3256.7	669.5	476.8	446.5	453.6	482.8	362.8	249.7	226.0
57.5°	10043.5	6848.9	3001.4	569.6	411.2	404.6	390.5	439.9	330.0	165.5	156.9
60°	10019.3	6841.3	2678.5	448.0	363.3	340.0	322.4	358.2	236.6	61.6	56.0
62.5°	9979.9	6647.1	2311.7	401.6	334.5	325.4	310.3	350.6	201.3	42.9	31.8
65°	9782.7	6331.7	1896.0	351.7	312.3	293.6	292.6	332.0	166.0	23.7	10.6
67.5°	9109.1	5645.1	1410.6	323.9	299.2	289.6	307.3	319.9	159.4	24.2	9.6
70°	8271.6	4739.5	910.2	292.1	280.5	285.6	300.2	323.4	154.9	22.2	8.6
72.5°	6916.5	3666.4	551.9	260.8	253.8	268.9	296.2	323.4	143.3	18.7	7.1
75°	5261.7	2445.4	410.7	230.6	222.5	241.7	269.9	310.8	140.8	16.1	4.5
77.5°	3266.8	1154.9	323.9	193.7	185.2	204.8	226.5	256.3	142.8	15.6	2.5
80°	1321.3	482.3	254.3	155.9	145.3	155.9	183.6	218.5	113.5	22.2	0.0
82.5°	556.0	339.5	207.9	124.1	116.0	102.4	125.1	162.0	89.3	17.7	0.0
85°	367.8	235.6	148.8	84.3	74.2	49.9	61.0	73.2	51.0	0.0	0.0
87.5°	166.5	104.4	65.1	28.8	24.2	13.6	8.1	7.1	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)