

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: P591451

Luminaire Tested: **CTN-CA8-230-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
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-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 24828 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

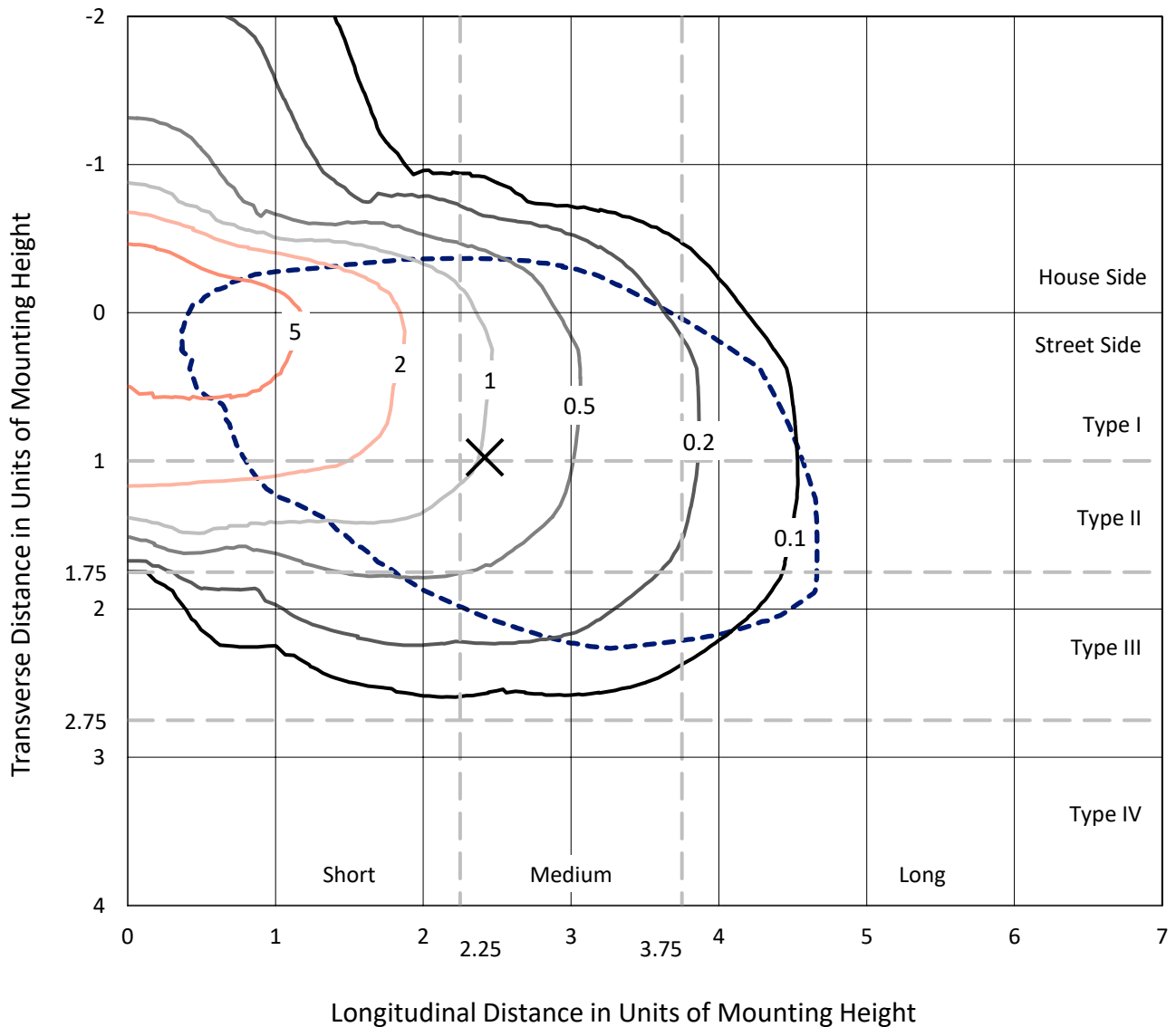
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

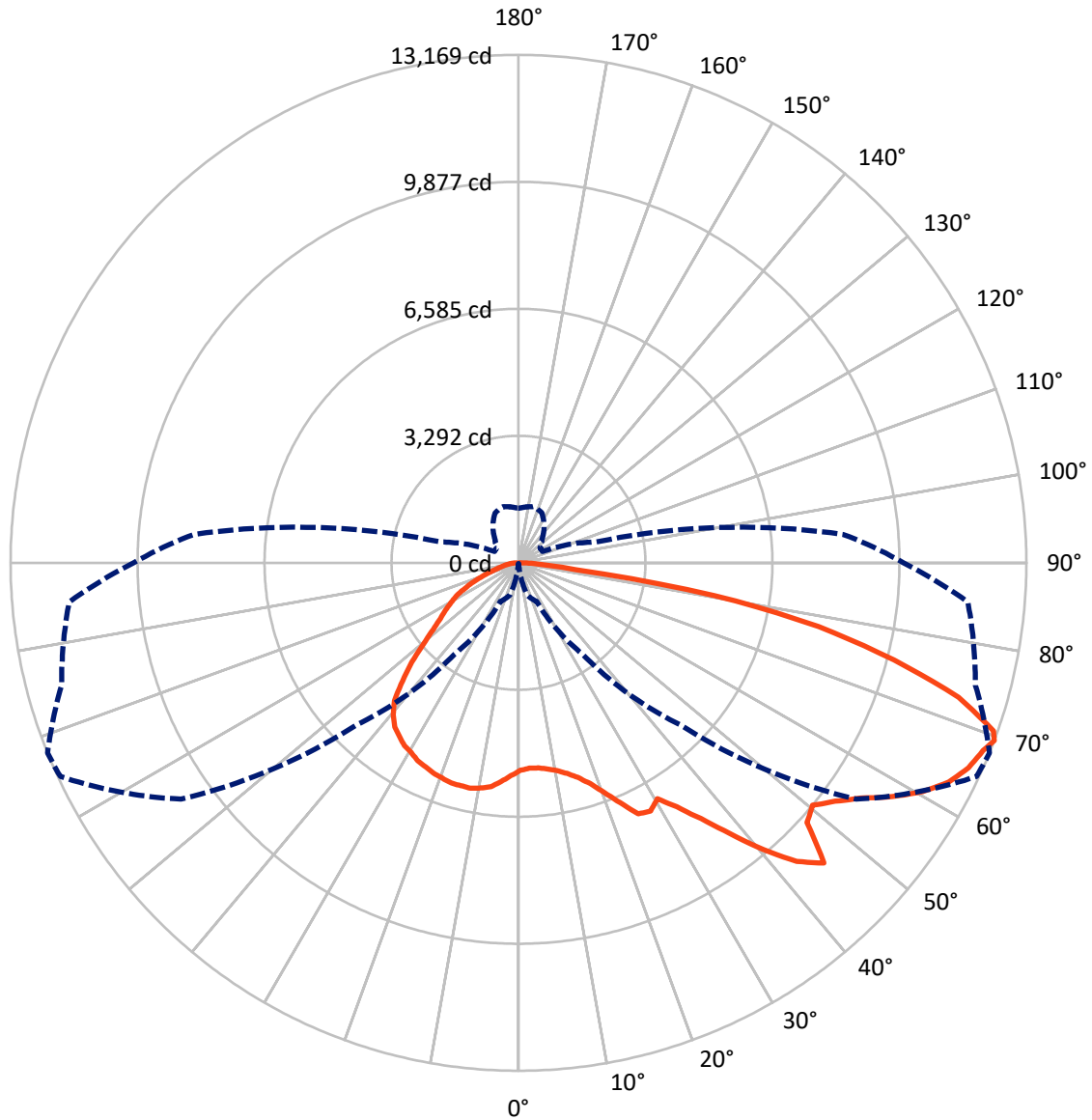
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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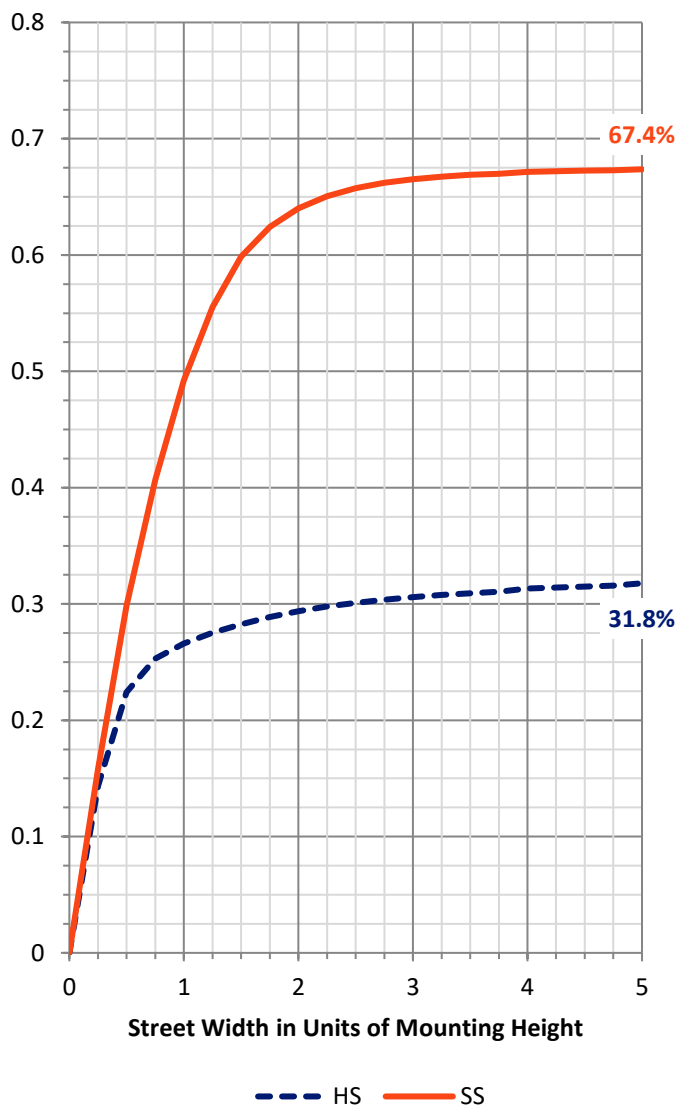
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8098.5	0.0	8098.5
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	16729.5	0.0	16729.5
	% Fixture	67.4	0.0	67.4
Total	Lumens	24828.0	0.0	24828.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.5	2.2
10°-20°	1663.2	6.7
20°-30°	2557.1	10.3
30°-40°	3321.2	13.4
40°-50°	4099.5	16.5
50°-60°	4604.1	18.5
60°-70°	4499.6	18.1
70°-80°	3021.6	12.2
80°-90°	524.1	2.1
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°	24828.0	100.0
0°-180°	24828.0	100.0

Coefficient of Utilization

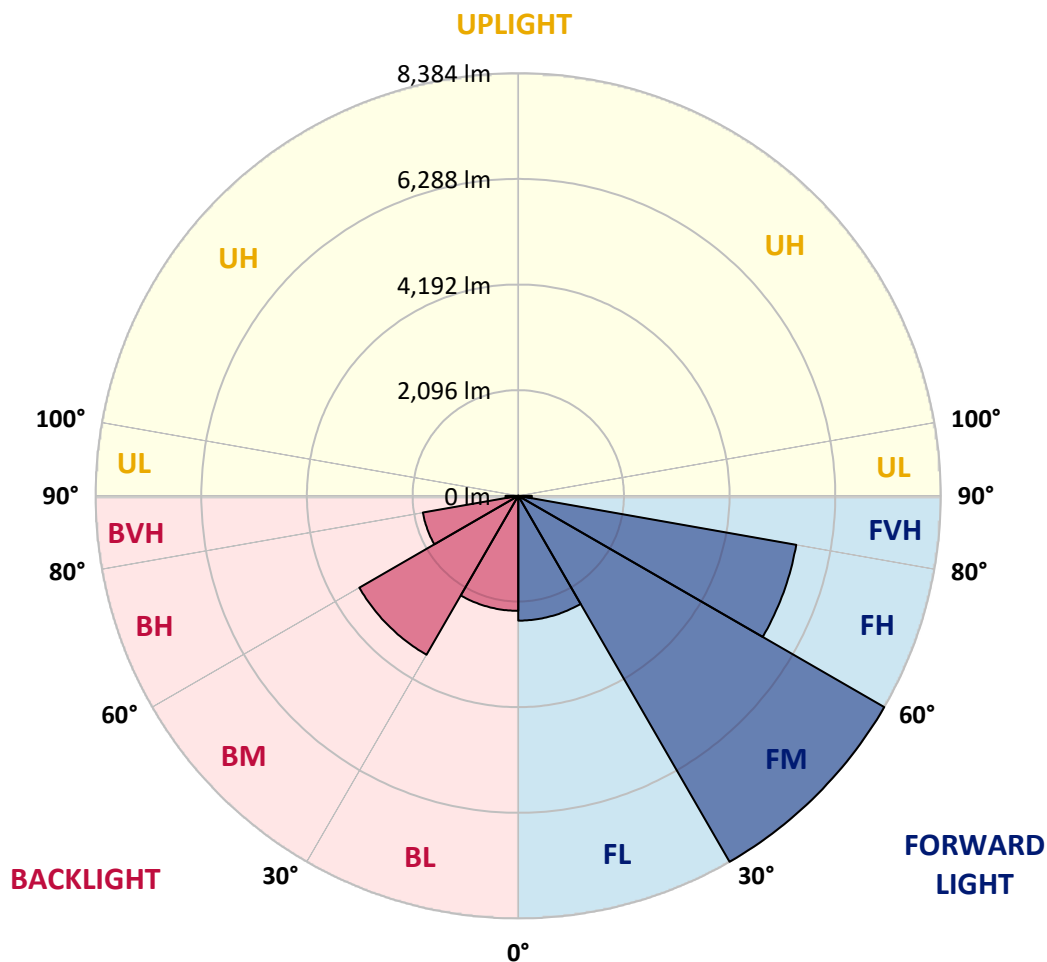


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2475.6	10.0			
FM (30°-60°)	8383.8	33.8			
FH (60°-80°)	5600.0	22.6			G3/7500
FVH (80°-90°)	270.1	1.1			G3/500
BL (0°-30°)	2282.2	9.2	B3/2500		
BM (30°-60°)	3641.1	14.7	B3/5000		
BH (60°-80°)	1921.3	7.7	B3/2500		G3/2500
BVH (80°-90°)	254.0	1.0			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0
2.5°	5273.4	5241.3	5253.5	5297.8	5208.0	5266.8	5239.1	5298.9	5329.9	5316.6	5400.8
5°	5323.3	5287.8	5290.0	5321.0	5224.7	5274.5	5243.5	5307.7	5342.1	5323.3	5436.3
7.5°	5475.0	5436.3	5425.2	5423.0	5332.1	5369.8	5307.7	5359.8	5395.3	5385.3	5512.7
10°	5707.7	5661.1	5640.1	5627.9	5519.3	5508.3	5430.7	5454.0	5480.6	5491.6	5629.0
12.5°	5963.6	5900.4	5887.2	5850.6	5711.0	5686.6	5592.5	5603.5	5603.5	5629.0	5765.3
15°	6180.7	6128.7	6128.7	6091.0	5954.7	5920.4	5790.8	5777.5	5775.3	5795.2	5917.1
17.5°	6041.1	6012.3	5986.9	5968.0	5757.5	5702.1	6053.3	6030.1	6019.0	6038.9	6109.8
20°	5572.5	5650.1	5486.1	5254.6	5287.8	5954.7	6391.2	6349.1	6355.8	6375.7	6355.8
22.5°	4904.5	4712.8	5014.2	5097.2	5235.7	5728.7	6699.2	6743.5	6756.8	6757.9	6653.8
25°	4203.2	4309.6	4718.4	5352.1	5334.3	5745.3	6512.0	7142.4	7208.8	7202.2	7021.6
27.5°	4404.8	4384.9	4700.6	5117.2	5643.4	6097.6	6627.2	6907.5	7288.6	7710.7	7465.8
30°	4581.0	4564.4	4597.6	5180.3	5847.3	6449.9	7058.2	7012.7	7093.6	7858.0	7989.9
32.5°	4738.3	4726.1	4764.9	4829.1	5508.3	6829.9	7520.1	7511.3	7539.0	7598.8	8608.0
35°	4886.8	4887.9	4935.5	5040.7	5551.5	6908.6	7976.6	8070.7	8143.9	8275.7	8501.7
37.5°	4988.7	4990.9	5028.6	5156.0	5369.8	6519.7	8438.5	8774.2	8905.0	9142.0	8821.9
40°	4987.6	5004.2	5095.0	5261.2	5547.0	6262.7	8581.5	9571.9	9782.4	9955.2	9416.8
42.5°	4883.4	4892.3	5061.8	5362.0	5704.4	6457.7	8137.2	10349.6	10583.4	10535.7	9908.7
45°	4788.2	4785.9	4978.7	5348.7	5845.1	6725.8	8197.0	10327.4	11104.0	11046.4	10360.7
47.5°	4660.8	4664.1	4867.9	5291.1	5973.6	7012.7	8640.2	9391.3	10063.8	11485.2	10728.5
50°	4501.2	4521.2	4728.3	5203.6	6037.8	7280.8	9023.5	9802.3	9882.1	10315.3	11088.5
52.5°	4236.4	4201.0	4578.8	5102.8	6083.2	7475.8	9389.1	10196.7	10272.0	10114.7	11455.2
55°	2405.2	2984.6	4391.5	4985.4	6096.5	7593.3	9672.7	10645.4	10762.8	10614.4	11753.3
57.5°	1511.1	1557.6	3804.4	4674.0	5984.6	7666.4	10020.6	11261.4	11435.3	11081.9	11979.3
60°	535.1	577.2	1850.1	2145.9	4905.6	7464.7	10550.1	11987.0	12044.6	11521.7	12145.4
62.5°	56.5	74.2	1254.1	1575.4	3808.8	6888.7	10915.7	12570.9	12518.8	11847.4	12235.2
65°	19.9	27.7	1102.3	1409.2	3545.1	6709.2	11036.5	12820.1	12819.0	12055.7	12170.9
67.5°	15.5	21.0	958.3	1224.2	3164.0	6324.8	10835.9	13007.3	12989.6	12261.8	12001.4
69°	15.5	22.2	863.0	1103.4	2888.2	5956.9	10680.8	13105.9	13169.1	12265.1	11694.5
70°	15.5	22.2	802.1	1019.2	2663.3	5620.2	10458.2	13030.6	13062.7	12158.7	11376.6
72.5°	15.5	22.2	621.5	788.8	2025.2	4326.2	9162.0	11874.0	11934.9	11224.8	10224.4
75°	15.5	22.2	437.6	573.9	1329.4	2902.6	7295.2	9889.8	10054.9	9486.6	8377.6
77.5°	15.5	22.2	261.5	392.2	834.2	1593.1	5019.7	7580.0	7953.3	7423.7	5988.0
80°	15.5	21.0	123.0	213.8	475.3	844.2	2299.9	4666.3	5152.6	4644.1	3131.9
82.5°	15.5	21.0	100.8	154.0	240.4	419.9	898.5	1528.8	1501.1	1348.3	1009.3
85°	14.4	18.8	83.1	113.0	172.8	265.9	500.8	622.6	593.8	525.1	528.4
87.5°	10.0	11.1	28.8	51.0	69.8	131.8	242.6	263.7	269.2	224.9	236.0
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°	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0	5382.0
2.5°	5440.7	5447.3	5479.5	5537.1	5536.0	5598.0	5581.4	5725.4	5730.9	5728.7	5739.8
5°	5490.5	5528.2	5599.1	5722.1	5793.0	5886.0	5868.3	6013.4	6022.3	6010.1	6041.1
7.5°	5577.0	5623.5	5739.8	5891.6	5910.4	6027.8	6003.5	6120.9	6115.4	6093.2	6146.4
10°	5698.8	5754.2	5859.5	5945.9	6000.2	6068.8	6042.3	6142.0	6123.1	6098.8	6149.7
12.5°	5822.9	5849.5	5908.2	6005.7	6010.1	6025.6	5994.6	6075.5	6054.4	6017.9	6071.1
15°	5941.4	5944.8	5934.8	5979.1	5932.6	5942.5	5875.0	5925.9	5889.4	5872.7	5907.1
17.5°	6095.4	6055.5	5984.6	5965.8	5856.1	5809.6	5709.9	5707.7	5643.4	5620.2	5643.4
20°	6280.4	6194.0	6030.1	5873.9	5684.4	5589.1	5419.6	5374.2	5322.1	5272.3	5300.0
22.5°	6536.4	6369.1	6086.6	5795.2	5481.7	5294.4	5086.2	4957.7	4860.2	4763.8	4792.6
25°	6827.7	6594.0	6166.3	5661.1	5239.1	4907.8	4637.5	4418.1	4278.5	4137.8	4201.0
27.5°	7222.1	6899.7	6215.1	5561.4	4923.3	4479.1	4048.1	3762.3	3617.2	3516.3	3484.2
30°	7681.9	7295.2	6302.6	5365.4	4552.2	3951.7	3404.4	3085.4	2931.4	2883.8	2903.7
32.5°	8242.5	7776.0	6481.0	5201.4	4175.5	3392.3	2754.1	2504.9	2394.1	2386.3	2384.1
35°	8992.5	8389.8	6633.8	4946.6	3677.0	2739.7	2191.3	1985.3	1980.8	1977.5	1985.3
37.5°	9568.6	9014.6	6796.7	4697.3	3085.4	2139.3	1752.6	1627.4	1614.1	1652.9	1662.9
40°	10022.8	9462.2	7040.4	4276.3	2391.9	1597.5	1346.0	1299.5	1393.7	1479.0	1496.7
42.5°	10432.7	9838.9	7093.6	3827.6	1742.7	1226.4	1115.6	1193.2	1338.3	1435.8	1454.6
45°	10817.1	10234.4	6890.9	3160.7	1246.3	1039.2	1061.3	1177.7	1340.5	1444.6	1455.7
47.5°	11237.0	10499.2	6671.5	2541.4	1024.8	996.0	1050.2	1183.2	1353.8	1459.0	1464.6
50°	11514.0	10688.6	6123.1	1987.5	960.5	969.4	1045.8	1195.4	1356.0	1431.4	1435.8
52.5°	11627.0	10840.4	5626.8	1590.9	928.4	949.4	1051.4	1216.4	1350.5	1392.6	1390.4
55°	11697.9	10910.2	5200.3	1323.9	899.6	933.9	1061.3	1231.9	1362.7	1405.9	1405.9
57.5°	11652.4	10754.0	4883.4	1127.8	870.8	922.8	1073.5	1255.2	1477.9	1554.3	1546.6
60°	11619.2	10461.5	4433.6	996.0	836.4	910.7	1089.0	1336.1	1723.8	1801.4	1775.9
62.5°	11447.5	10214.4	3946.2	911.8	797.7	904.0	1102.3	1444.6	1758.2	1753.7	1703.9
65°	11009.9	9711.5	3177.3	826.5	757.8	895.1	1106.7	1492.3	1617.5	1547.7	1533.3
67.5°	10389.5	8985.8	2507.1	741.2	713.5	876.3	1143.3	1435.8	1538.8	1479.0	1456.8
69°	9984.0	8448.5	2082.8	688.0	684.7	860.8	1157.7	1430.2	1510.0	1442.4	1413.6
70°	9657.2	7983.2	1798.1	653.6	662.5	848.6	1143.3	1429.1	1497.8	1413.6	1381.5
72.5°	8254.6	6467.7	1161.0	571.7	597.1	816.5	1089.0	1392.6	1472.3	1416.9	1372.6
75°	6396.8	4708.4	751.1	494.1	528.4	762.2	1034.7	1369.3	1495.6	1394.8	1299.5
77.5°	4104.6	2519.3	581.6	415.4	454.2	685.8	937.2	1275.1	1452.4	1361.6	1238.6
80°	1788.1	935.0	448.7	336.8	367.8	557.3	804.3	1133.3	1377.1	1367.1	1284.0
82.5°	758.9	602.7	345.7	258.1	292.5	412.1	630.4	971.6	1216.4	1264.1	1354.9
85°	429.8	361.2	230.4	177.3	217.1	303.6	448.7	745.6	990.4	1097.9	1174.3
87.5°	185.0	150.7	106.4	95.3	123.0	157.3	192.8	350.1	528.4	644.8	693.5
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)