

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: P591403

Luminaire Tested: **CTN-CA10-310-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591403
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-CA10-310-740-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33560 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

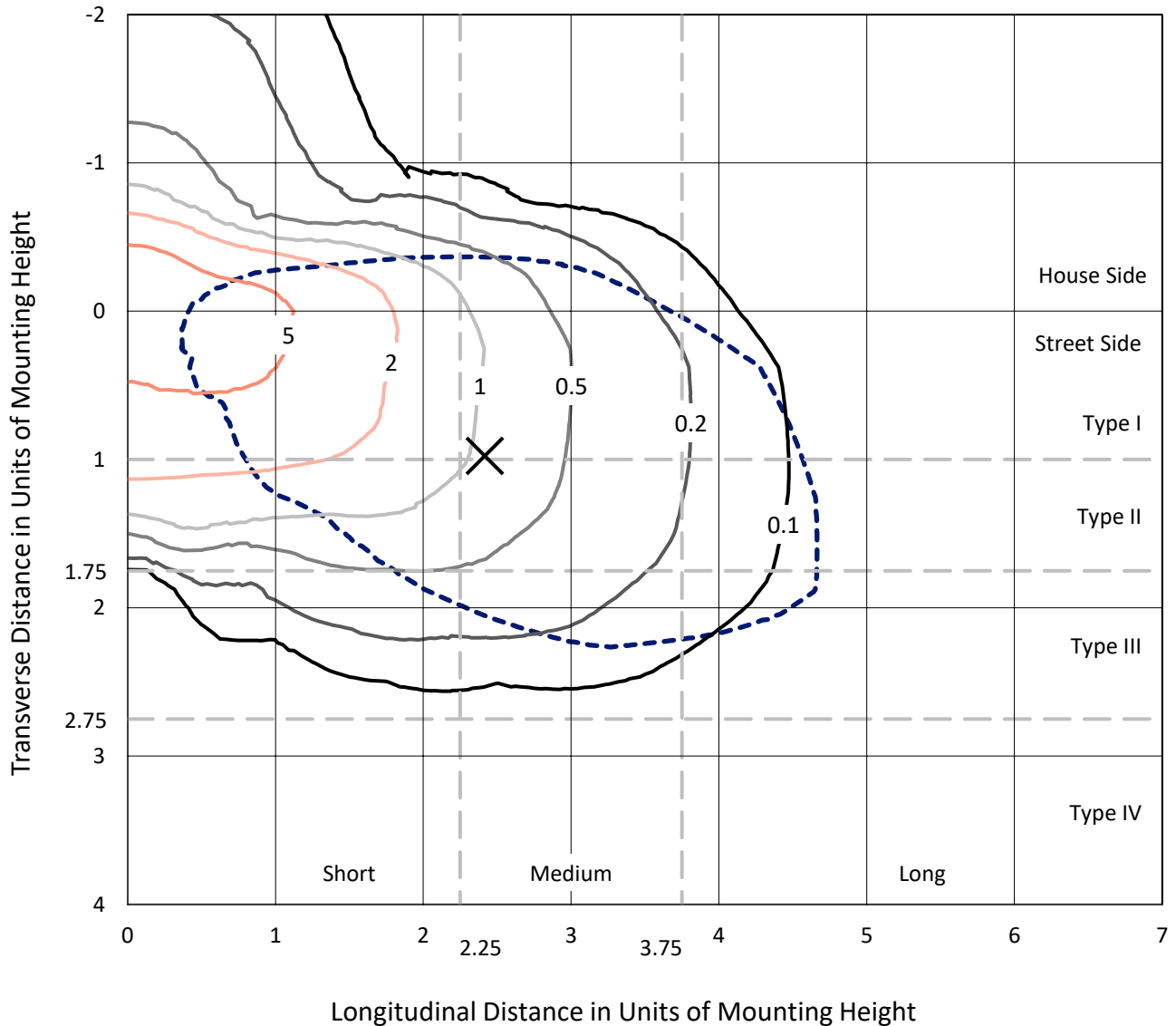
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

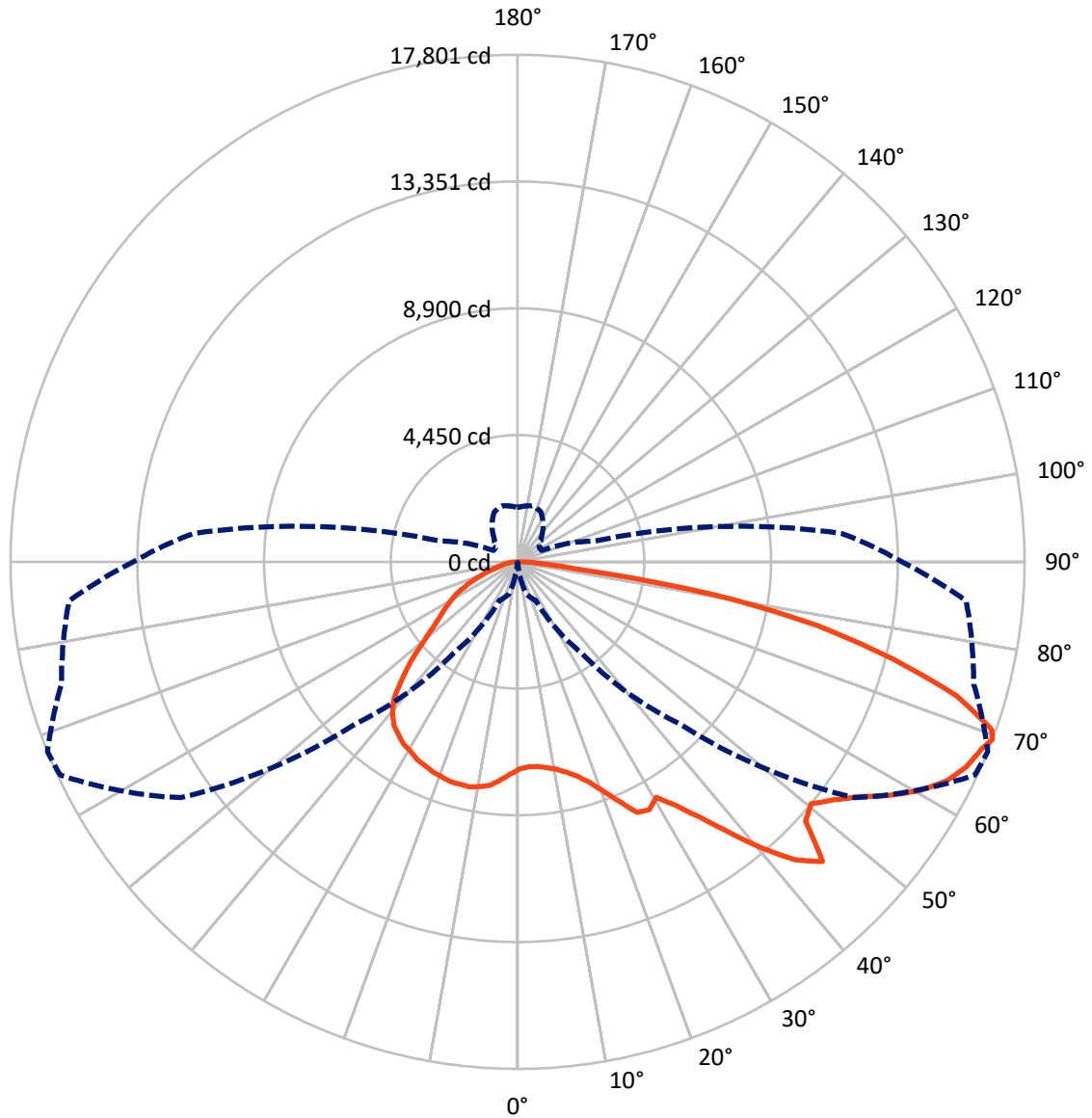
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9 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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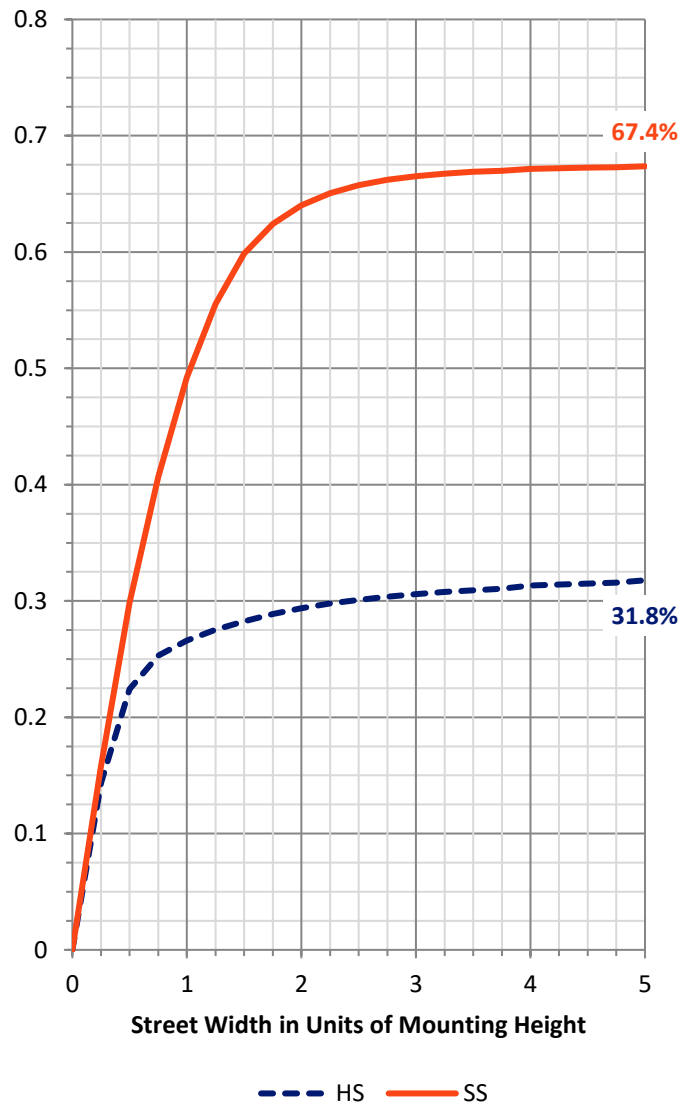
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10946.8	0.0	10946.8
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	22613.2	0.0	22613.2
	% Fixture	67.4	0.0	67.4
Total	Lumens	33560.0	0.0	33560.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	726.6	2.2
10°-20°	2248.1	6.7
20°-30°	3456.4	10.3
30°-40°	4489.2	13.4
40°-50°	5541.3	16.5
50°-60°	6223.4	18.5
60°-70°	6082.2	18.1
70°-80°	4084.3	12.2
80°-90°	708.4	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°	33560.0	100.0
0°-180°	33560.0	100.0

Coefficient of Utilization

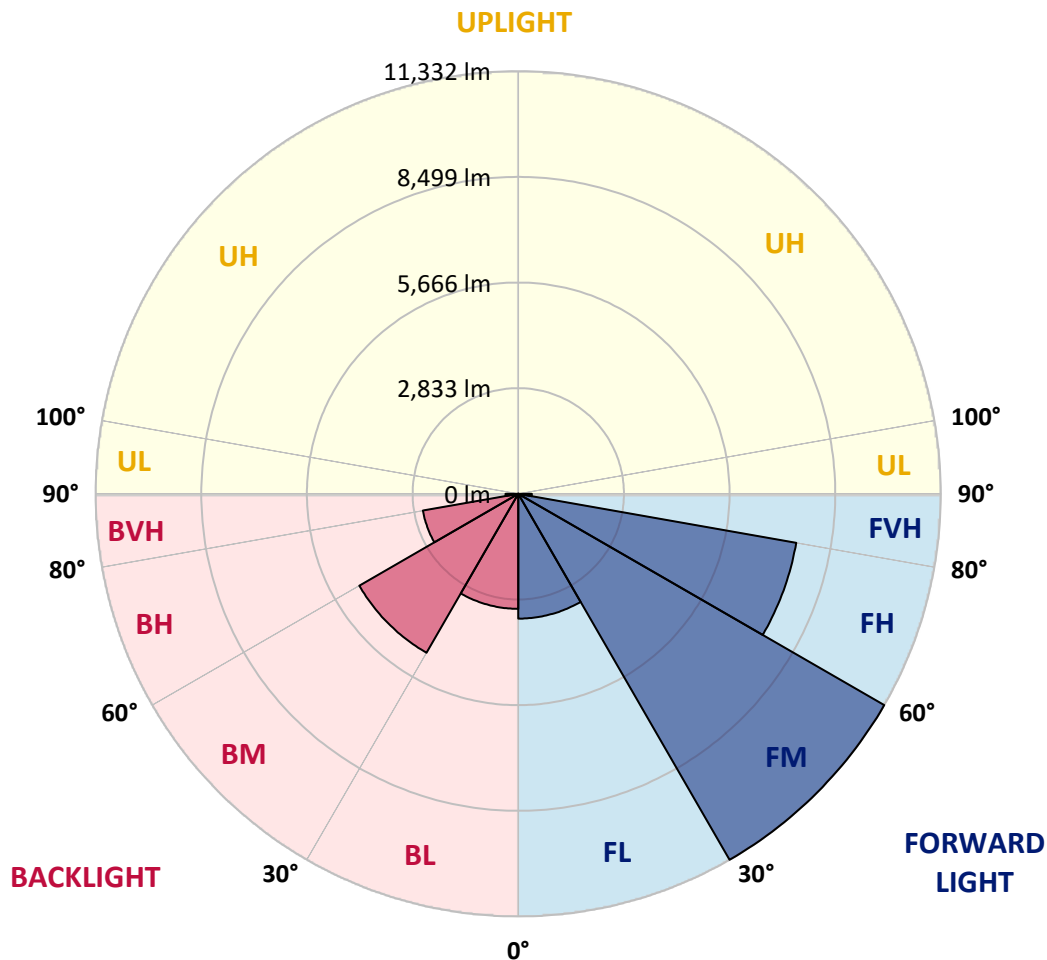


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3346.3	10.0			
FM	(30°-60°)	11332.4	33.8			
FH	(60°-80°)	7569.5	22.6			G4/12000
FVH	(80°-90°)	365.1	1.1			G3/500
BL	(0°-30°)	3084.9	9.2	B4/5000		
BM	(30°-60°)	4921.6	14.7	B3/5000		
BH	(60°-80°)	2597.0	7.7	B4/5000		G4/5000
BVH	(80°-90°)	343.3	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8
2.5°	7128.1	7084.6	7101.1	7161.0	7039.7	7119.1	7081.6	7162.5	7204.4	7186.5	7300.3
5°	7195.4	7147.5	7150.5	7192.4	7062.2	7129.5	7087.6	7174.5	7220.9	7195.4	7348.2
7.5°	7400.6	7348.2	7333.2	7330.2	7207.4	7258.3	7174.5	7244.9	7292.8	7279.3	7451.5
10°	7715.1	7652.2	7623.7	7607.2	7460.5	7445.5	7340.7	7372.1	7408.1	7423.1	7608.7
12.5°	8061.0	7975.6	7957.7	7908.2	7719.6	7686.6	7559.3	7574.3	7574.3	7608.7	7792.9
15°	8354.5	8284.1	8284.1	8233.2	8049.0	8002.6	7827.4	7809.4	7806.4	7833.4	7998.1
17.5°	8165.8	8126.9	8092.4	8067.0	7782.5	7707.6	8182.3	8150.8	8135.9	8162.8	8258.7
20°	7532.4	7637.2	7415.6	7102.6	7147.5	8049.0	8639.0	8582.1	8591.1	8618.1	8591.1
22.5°	6629.4	6370.3	6777.6	6890.0	7077.1	7743.5	9055.3	9115.2	9133.2	9134.7	8993.9
25°	5681.5	5825.2	6377.8	7234.4	7210.4	7766.0	8802.2	9654.3	9744.2	9735.2	9491.1
27.5°	5954.0	5927.1	6353.8	6916.9	7628.2	8242.2	8958.0	9336.8	9852.0	10422.5	10091.6
30°	6192.1	6169.7	6214.6	7002.3	7903.8	8718.4	9540.5	9479.1	9588.4	10621.7	10799.9
32.5°	6404.8	6388.3	6440.7	6527.6	7445.5	9232.0	10165.0	10153.0	10190.4	10271.3	11635.5
35°	6605.4	6606.9	6671.3	6813.6	7503.9	9338.3	10781.9	10909.2	11008.0	11186.2	11491.7
37.5°	6743.2	6746.2	6797.1	6969.3	7258.3	8812.7	11406.4	11860.1	12036.8	12357.3	11924.5
40°	6741.7	6764.2	6887.0	7111.6	7497.9	8465.3	11599.6	12938.3	13222.8	13456.4	12728.7
42.5°	6600.9	6612.9	6842.0	7247.9	7710.6	8728.9	10999.1	13989.5	14305.5	14241.1	13393.5
45°	6472.2	6469.2	6729.7	7229.9	7900.8	9091.3	11079.9	13959.6	15009.3	14931.5	14004.5
47.5°	6299.9	6304.4	6580.0	7152.0	8074.5	9479.1	11678.9	12694.2	13603.2	15524.5	14501.7
50°	6084.3	6111.3	6391.3	7033.7	8161.3	9841.5	12197.1	13249.8	13357.6	13943.1	14988.4
52.5°	5726.4	5678.5	6189.1	6897.4	8222.7	10105.1	12691.2	13782.9	13884.7	13672.1	15484.0
55°	3251.1	4034.2	5936.0	6738.7	8240.7	10263.8	13074.6	14389.4	14548.1	14347.4	15886.9
57.5°	2042.6	2105.5	5142.4	6317.9	8089.4	10362.6	13544.8	15222.0	15457.1	14979.4	16192.4
60°	723.3	780.2	2500.8	2900.6	6630.9	10090.1	14260.6	16202.8	16280.7	15573.9	16417.0
62.5°	76.4	100.3	1695.2	2129.4	5148.4	9311.4	14754.8	16992.0	16921.6	16014.2	16538.3
65°	27.0	37.4	1490.0	1904.8	4792.0	9068.8	14918.0	17329.0	17327.5	16295.7	16451.4
67.5°	21.0	28.5	1295.3	1654.7	4276.8	8549.2	14646.9	17582.0	17558.1	16574.2	16222.3
69°	21.0	29.9	1166.5	1491.5	3904.0	8052.0	14437.3	17715.3	17800.7	16578.7	15807.5
70°	21.0	29.9	1084.2	1377.7	3600.0	7596.8	14136.3	17613.5	17656.9	16435.0	15377.7
72.5°	21.0	29.9	840.1	1066.2	2737.4	5847.7	12384.2	16050.1	16132.5	15172.6	13820.3
75°	21.0	29.9	591.5	775.7	1797.0	3923.4	9861.0	13368.1	13591.2	12823.0	11324.0
77.5°	21.0	29.9	353.4	530.1	1127.6	2153.4	6785.1	10245.8	10750.5	10034.7	8093.9
80°	21.0	28.5	166.2	289.0	642.4	1141.1	3108.8	6307.4	6964.8	6277.5	4233.4
82.5°	21.0	28.5	136.3	208.2	325.0	567.5	1214.5	2066.5	2029.1	1822.4	1364.2
85°	19.5	25.5	112.3	152.7	233.6	359.4	676.9	841.6	802.7	709.8	714.3
87.5°	13.5	15.0	38.9	68.9	94.3	178.2	328.0	356.4	363.9	304.0	319.0
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°	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8	7274.8
2.5°	7354.2	7363.2	7406.6	7484.5	7483.0	7566.8	7544.4	7739.0	7746.5	7743.5	7758.5
5°	7421.6	7472.5	7568.3	7734.5	7830.4	7956.2	7932.2	8128.4	8140.4	8123.9	8165.8
7.5°	7538.4	7601.3	7758.5	7963.7	7989.1	8147.8	8114.9	8273.6	8266.1	8236.2	8308.1
10°	7703.1	7778.0	7920.2	8037.0	8110.4	8203.2	8167.3	8302.1	8276.6	8243.7	8312.6
12.5°	7870.8	7906.7	7986.1	8117.9	8123.9	8144.8	8102.9	8212.2	8183.8	8134.4	8206.2
15°	8031.0	8035.5	8022.1	8082.0	8019.1	8032.5	7941.2	8010.1	7960.7	7938.2	7984.6
17.5°	8239.2	8185.3	8089.4	8064.0	7915.7	7852.8	7718.1	7715.1	7628.2	7596.8	7628.2
20°	8489.3	8372.5	8150.8	7939.7	7683.6	7554.8	7325.7	7264.3	7193.9	7126.6	7164.0
22.5°	8835.2	8609.1	8227.2	7833.4	7409.6	7156.5	6875.0	6701.3	6569.5	6439.2	6478.1
25°	9229.0	8913.1	8335.0	7652.2	7081.6	6633.9	6268.5	5972.0	5783.3	5593.1	5678.5
27.5°	9762.1	9326.4	8400.9	7517.4	6654.8	6054.4	5471.8	5085.5	4889.3	4753.0	4709.6
30°	10383.6	9861.0	8519.2	7252.3	6153.2	5341.5	4601.8	4170.5	3962.4	3898.0	3924.9
32.5°	11141.3	10510.9	8760.3	7030.7	5644.0	4585.3	3722.8	3385.8	3236.1	3225.6	3222.6
35°	12155.1	11340.5	8967.0	6686.3	4970.2	3703.3	2962.0	2683.5	2677.5	2673.0	2683.5
37.5°	12933.8	12185.1	9187.1	6349.4	4170.5	2891.7	2369.0	2199.8	2181.8	2234.3	2247.7
40°	13547.8	12790.1	9516.5	5780.3	3233.1	2159.4	1819.5	1756.6	1883.8	1999.1	2023.1
42.5°	14101.9	13299.2	9588.4	5173.8	2355.6	1657.7	1508.0	1612.8	1809.0	1940.7	1966.2
45°	14621.5	13833.8	9314.4	4272.3	1684.7	1404.6	1434.6	1591.8	1812.0	1952.7	1967.7
47.5°	15189.0	14191.7	9017.9	3435.2	1385.2	1346.2	1419.6	1599.3	1829.9	1972.2	1979.7
50°	15563.4	14447.8	8276.6	2686.5	1298.3	1310.3	1413.6	1615.8	1832.9	1934.8	1940.7
52.5°	15716.2	14652.9	7605.8	2150.4	1254.9	1283.3	1421.1	1644.2	1825.4	1882.3	1879.3
55°	15812.0	14747.3	7029.2	1789.5	1216.0	1262.4	1434.6	1665.2	1841.9	1900.3	1900.3
57.5°	15750.6	14536.1	6600.9	1524.4	1177.0	1247.4	1451.1	1696.7	1997.7	2101.0	2090.5
60°	15705.7	14140.8	5993.0	1346.2	1130.6	1230.9	1472.0	1806.0	2330.1	2434.9	2400.5
62.5°	15473.6	13806.9	5334.1	1232.4	1078.2	1222.0	1490.0	1952.7	2376.5	2370.5	2303.1
65°	14882.1	13127.0	4294.8	1117.1	1024.3	1210.0	1496.0	2017.1	2186.3	2092.0	2072.5
67.5°	14043.5	12146.1	3388.8	1001.8	964.4	1184.5	1545.4	1940.7	2080.0	1999.1	1969.2
69°	13495.4	11419.9	2815.3	929.9	925.4	1163.5	1564.9	1933.3	2041.1	1949.7	1910.8
70°	13053.6	10790.9	2430.4	883.5	895.5	1147.1	1545.4	1931.8	2024.6	1910.8	1867.4
72.5°	11157.8	8742.3	1569.4	772.7	807.1	1103.6	1472.0	1882.3	1990.2	1915.3	1855.4
75°	8646.5	6364.3	1015.3	667.9	714.3	1030.3	1398.7	1850.9	2021.6	1885.3	1756.6
77.5°	5548.2	3405.3	786.2	561.6	614.0	926.9	1266.9	1723.6	1963.2	1840.4	1674.2
80°	2416.9	1263.9	606.5	455.2	497.2	753.2	1087.2	1531.9	1861.4	1847.9	1735.6
82.5°	1025.8	814.6	467.2	348.9	395.3	557.1	852.1	1313.3	1644.2	1708.6	1831.4
85°	581.0	488.2	311.5	239.6	293.5	410.3	606.5	1007.8	1338.8	1484.0	1587.3
87.5°	250.1	203.7	143.8	128.8	166.2	212.6	260.6	473.2	714.3	871.5	937.4
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)