

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: P591367

Luminaire Tested: **CTN-CA8-330-730-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591367
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-CA8-330-730-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33290 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

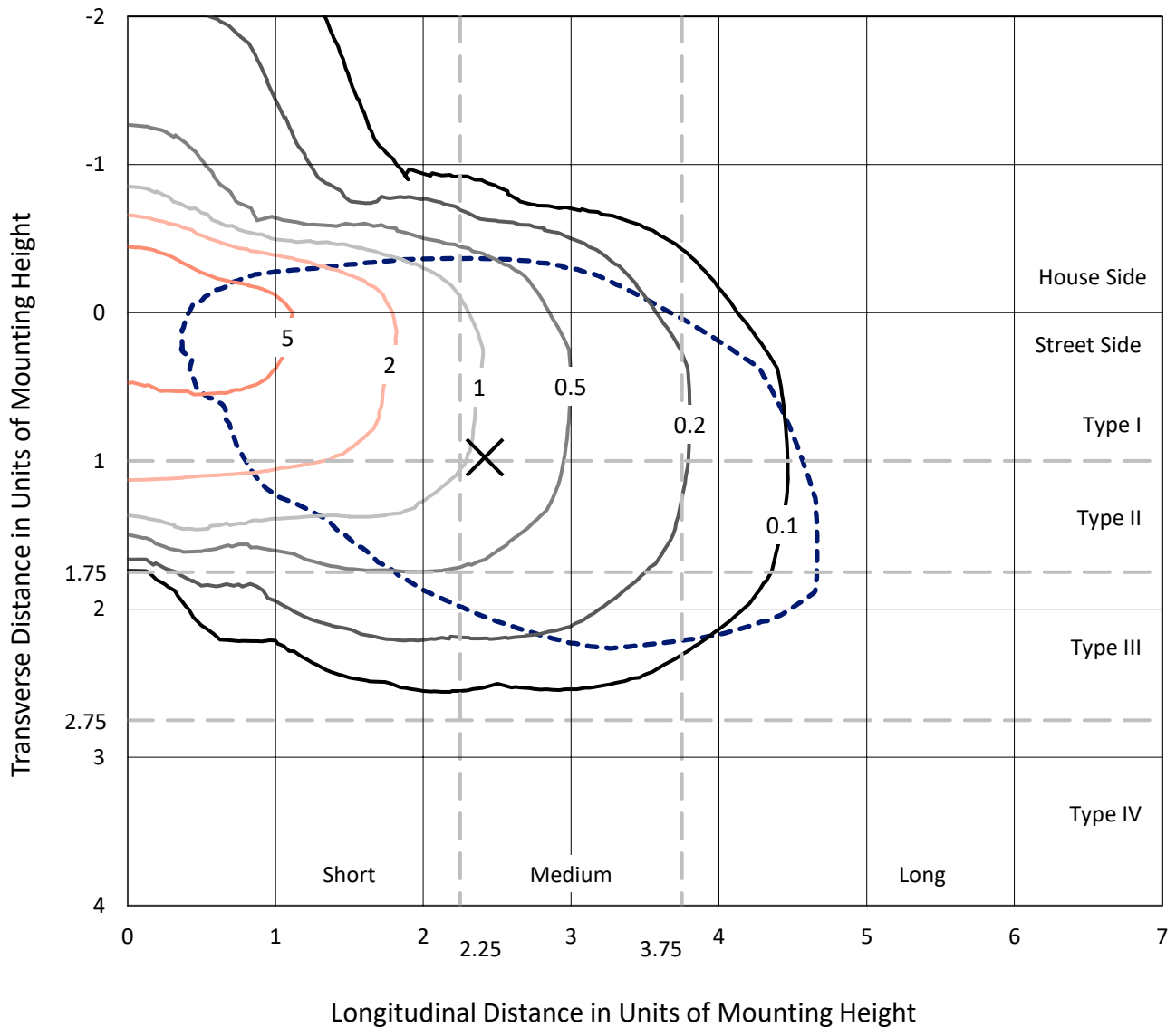
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

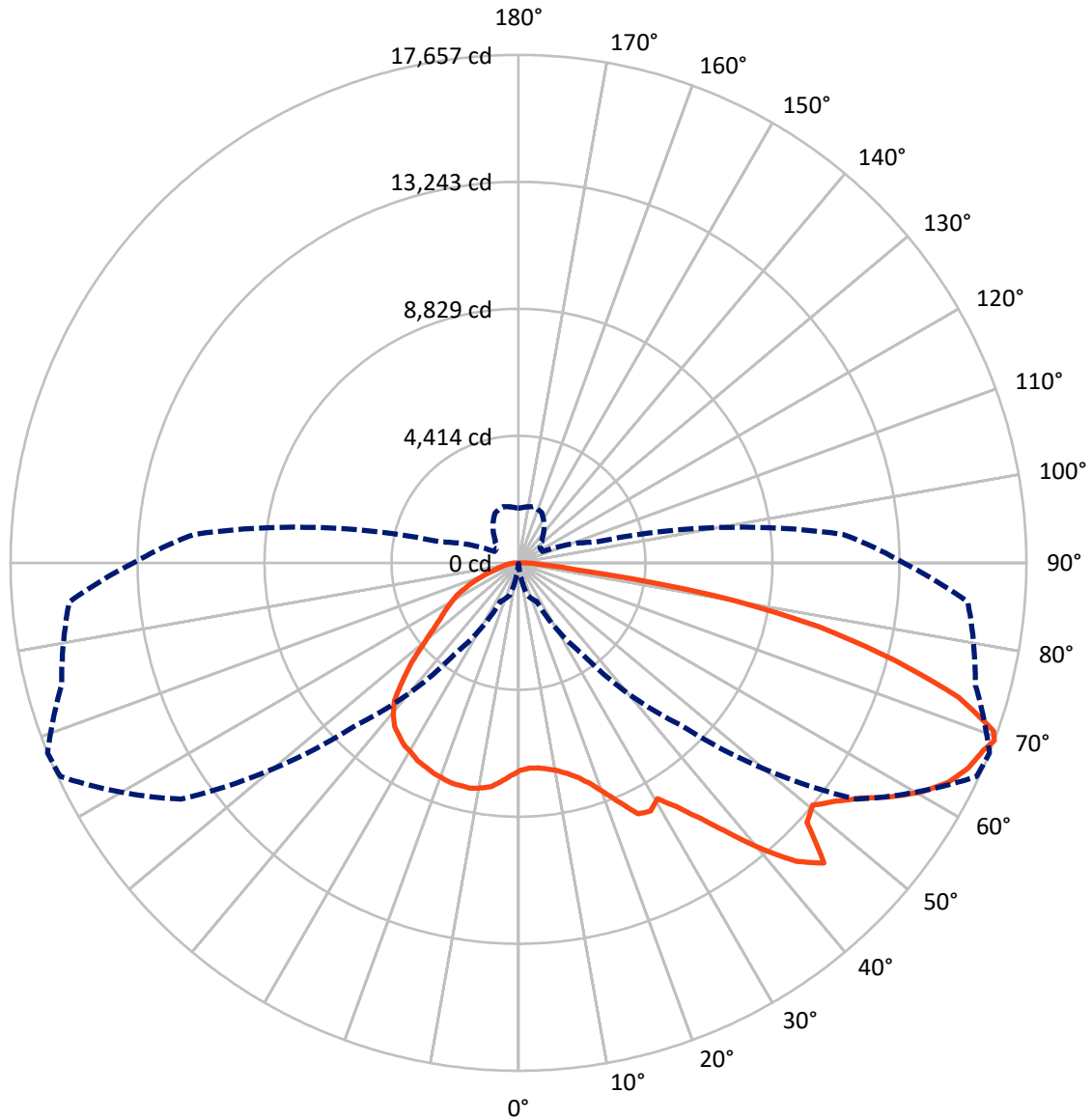
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.9 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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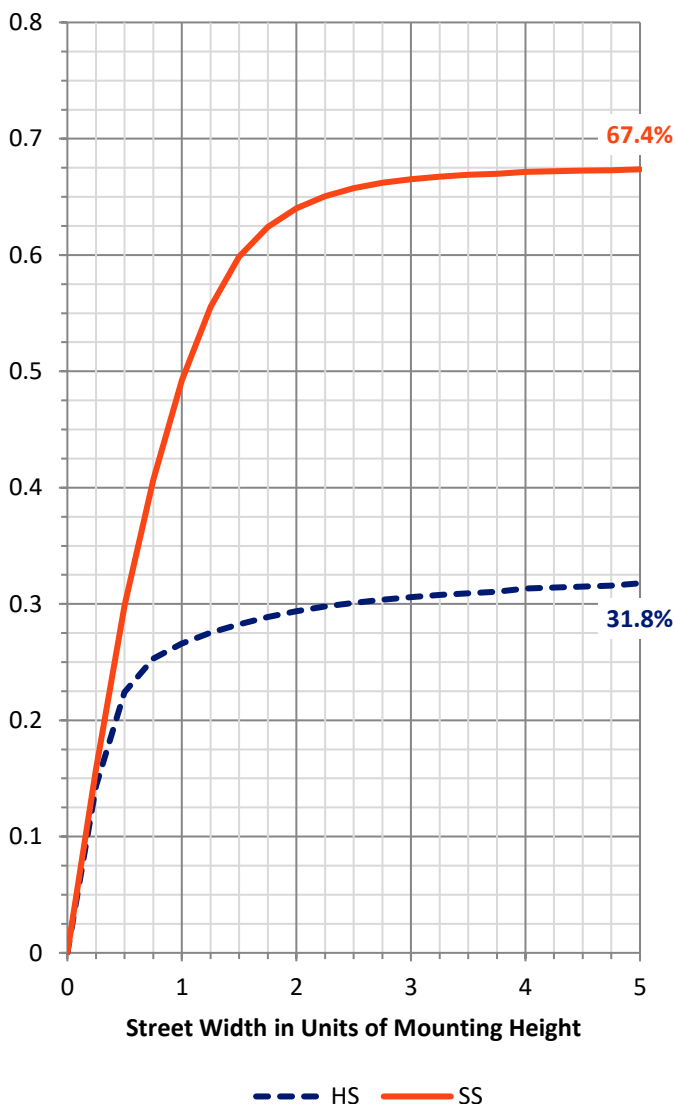
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10858.7	0.0	10858.7
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	22431.3	0.0	22431.3
	% Fixture	67.4	0.0	67.4
Total	Lumens	33290.0	0.0	33290.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	720.7	2.2
10°-20°	2230.0	6.7
20°-30°	3428.6	10.3
30°-40°	4453.1	13.4
40°-50°	5496.7	16.5
50°-60°	6173.4	18.5
60°-70°	6033.2	18.1
70°-80°	4051.5	12.2
80°-90°	702.7	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°	33290.0	100.0
0°-180°	33290.0	100.0

Coefficient of Utilization

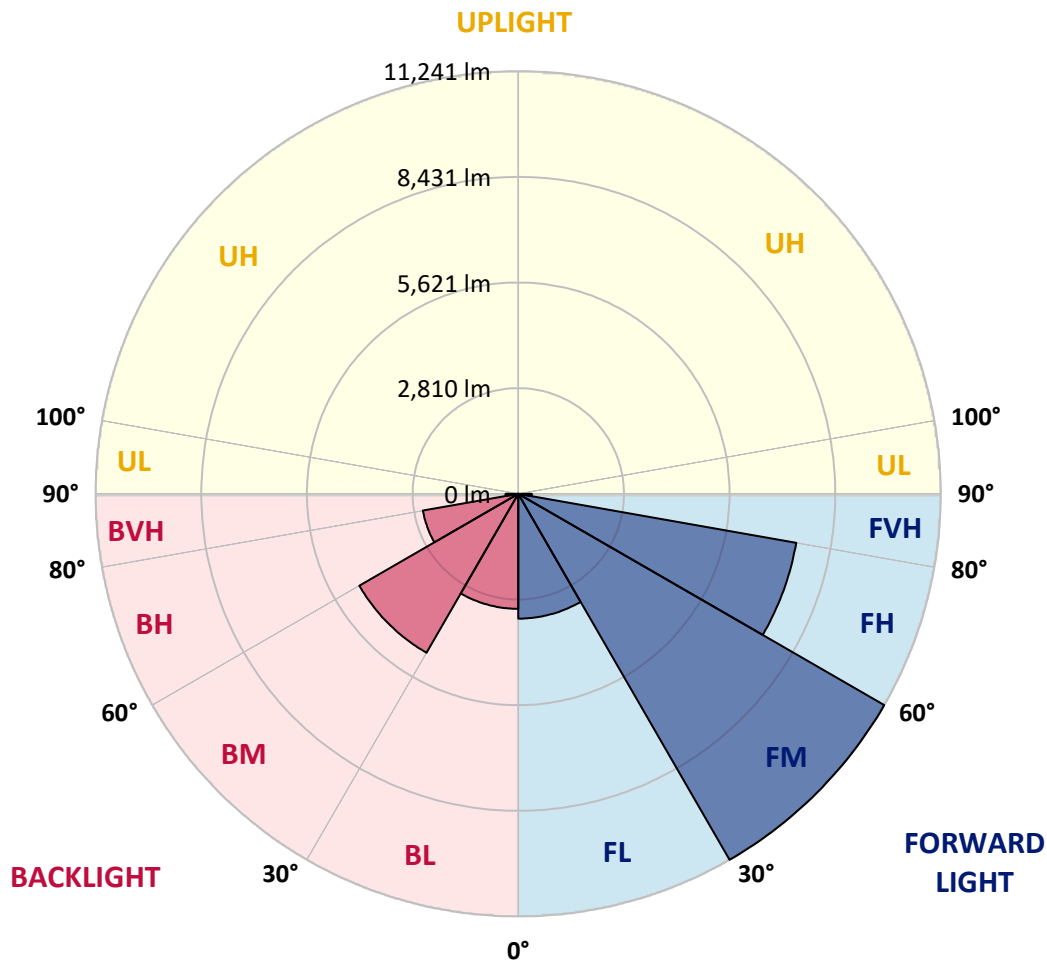


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3319.3	10.0			
FM (30°-60°)	11241.2	33.8			
FH (60°-80°)	7508.6	22.6			G4/12000
FVH (80°-90°)	362.2	1.1			G3/500
BL (0°-30°)	3060.1	9.2	B4/5000		
BM (30°-60°)	4882.0	14.7	B3/5000		
BH (60°-80°)	2576.1	7.7	B4/5000		G4/5000
BVH (80°-90°)	340.5	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°	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3
2.5°	7070.7	7027.6	7044.0	7103.4	6983.1	7061.8	7024.7	7104.9	7146.5	7128.6	7241.5
5°	7137.5	7090.0	7093.0	7134.6	7005.3	7072.2	7030.6	7116.8	7162.8	7137.5	7289.1
7.5°	7341.1	7289.1	7274.2	7271.2	7149.4	7199.9	7116.8	7186.6	7234.1	7220.7	7391.6
10°	7653.0	7590.6	7562.4	7546.0	7400.5	7385.6	7281.6	7312.8	7348.5	7363.3	7547.5
12.5°	7996.1	7911.5	7893.6	7844.6	7657.5	7624.8	7498.5	7513.4	7513.4	7547.5	7730.2
15°	8287.3	8217.5	8217.5	8167.0	7984.3	7938.2	7764.4	7746.6	7743.6	7770.3	7933.7
17.5°	8100.1	8061.5	8027.3	8002.1	7719.8	7645.6	8116.5	8085.3	8070.4	8097.1	8192.2
20°	7471.8	7575.8	7355.9	7045.5	7090.0	7984.3	8569.5	8513.1	8522.0	8548.7	8522.0
22.5°	6576.1	6319.1	6723.1	6834.5	7020.2	7681.2	8982.5	9041.9	9059.7	9061.2	8921.6
25°	5635.8	5778.4	6326.5	7176.2	7152.4	7703.5	8731.4	9576.6	9665.8	9656.9	9414.7
27.5°	5906.1	5879.4	6302.7	6861.3	7566.8	8175.9	8885.9	9261.7	9772.7	10338.7	10010.4
30°	6142.3	6120.0	6164.6	6945.9	7840.2	8648.2	9463.8	9402.8	9511.3	10536.2	10713.0
32.5°	6353.2	6336.9	6388.9	6475.0	7385.6	9157.8	10083.2	10071.3	10108.4	10188.6	11541.9
35°	6552.3	6553.8	6617.6	6758.8	7443.6	9263.2	10695.2	10821.4	10919.5	11096.3	11399.3
37.5°	6688.9	6691.9	6742.4	6913.2	7199.9	8741.8	11314.6	11764.7	11940.0	12257.9	11828.6
40°	6687.5	6709.7	6831.5	7054.4	7437.6	8397.2	11506.2	12834.2	13116.5	13348.2	12626.3
42.5°	6547.8	6559.7	6787.0	7189.5	7648.5	8658.6	10910.6	13877.0	14190.4	14126.6	13285.8
45°	6420.1	6417.1	6675.6	7171.7	7837.2	9018.1	10990.8	13847.3	14888.6	14811.3	13891.9
47.5°	6249.3	6253.7	6527.0	7094.5	8009.5	9402.8	11585.0	12592.1	13493.8	15399.6	14385.0
50°	6035.4	6062.1	6339.9	6977.1	8095.7	9762.3	12098.9	13143.2	13250.1	13831.0	14867.8
52.5°	5680.3	5632.8	6139.3	6841.9	8156.6	10023.8	12589.1	13672.0	13773.0	13562.1	15359.5
55°	3224.9	4001.8	5888.3	6684.5	8174.4	10181.2	12969.4	14273.6	14431.1	14232.0	15759.1
57.5°	2026.1	2088.5	5101.0	6267.1	8024.4	10279.3	13435.8	15099.5	15332.7	14858.9	16062.1
60°	717.5	773.9	2480.7	2877.3	6577.5	10008.9	14145.9	16072.5	16149.7	15448.6	16284.9
62.5°	75.8	99.5	1681.5	2112.3	5106.9	9236.5	14636.1	16855.3	16785.5	15885.3	16405.2
65°	26.7	37.1	1478.0	1889.5	4753.4	8995.8	14798.0	17189.5	17188.0	16164.6	16319.1
67.5°	20.8	28.2	1284.9	1641.4	4242.4	8480.4	14529.1	17440.6	17416.8	16440.9	16091.8
69°	20.8	29.7	1157.2	1479.5	3872.5	7987.2	14321.1	17572.8	17657.4	16445.3	15680.3
70°	20.8	29.7	1075.5	1366.6	3571.0	7535.6	14022.6	17471.8	17514.8	16302.7	15254.0
72.5°	20.8	29.7	833.3	1057.6	2715.4	5800.7	12284.6	15921.0	16002.7	15050.5	13709.1
75°	20.8	29.7	586.7	769.5	1782.5	3891.9	9781.6	13260.5	13481.9	12719.8	11232.9
77.5°	20.8	29.7	350.6	525.8	1118.5	2136.1	6730.5	10163.4	10664.0	9953.9	8028.8
80°	20.8	28.2	164.9	286.7	637.3	1131.9	3083.8	6256.7	6908.8	6227.0	4199.3
82.5°	20.8	28.2	135.2	206.5	322.3	563.0	1204.7	2049.9	2012.8	1807.8	1353.2
85°	19.3	25.3	111.4	151.5	231.7	356.5	671.4	834.8	796.2	704.1	708.6
87.5°	13.4	14.9	38.6	68.3	93.6	176.8	325.3	353.5	361.0	301.5	316.4
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°	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3	7216.3
2.5°	7295.0	7303.9	7347.0	7424.2	7422.8	7505.9	7483.7	7676.8	7684.2	7681.2	7696.1
5°	7361.9	7412.4	7507.4	7672.3	7767.4	7892.2	7868.4	8063.0	8074.9	8058.5	8100.1
7.5°	7477.7	7540.1	7696.1	7899.6	7924.8	8082.3	8049.6	8207.1	8199.6	8169.9	8241.2
10°	7641.1	7715.4	7856.5	7972.4	8045.2	8137.3	8101.6	8235.3	8210.0	8177.4	8245.7
12.5°	7807.5	7843.1	7921.9	8052.6	8058.5	8079.3	8037.7	8146.2	8117.9	8068.9	8140.2
15°	7966.4	7970.9	7957.5	8016.9	7954.5	7967.9	7877.3	7945.6	7896.6	7874.3	7920.4
17.5°	8172.9	8119.4	8024.4	7999.1	7852.0	7789.7	7656.0	7653.0	7566.8	7535.6	7566.8
20°	8421.0	8305.1	8085.3	7875.8	7621.8	7494.1	7266.8	7205.9	7136.1	7069.2	7106.4
22.5°	8764.1	8539.8	8161.0	7770.3	7350.0	7098.9	6819.7	6647.4	6516.6	6387.4	6426.0
25°	9154.8	8841.4	8268.0	7590.6	7024.7	6580.5	6218.1	5923.9	5736.8	5548.1	5632.8
27.5°	9683.6	9251.3	8333.3	7456.9	6601.3	6005.6	5427.8	5044.6	4850.0	4714.8	4671.7
30°	10300.1	9781.6	8450.7	7194.0	6103.7	5298.6	4564.8	4137.0	3930.5	3866.6	3893.3
32.5°	11051.7	10426.3	8689.8	6974.2	5598.6	4548.4	3692.8	3358.6	3210.0	3199.6	3196.7
35°	12057.3	11249.3	8894.8	6632.5	4930.2	3673.5	2938.2	2661.9	2656.0	2651.5	2661.9
37.5°	12829.8	12087.0	9113.2	6298.3	4137.0	2868.4	2350.0	2182.1	2164.3	2216.3	2229.6
40°	13438.8	12687.2	9440.0	5733.8	3207.1	2142.0	1804.8	1742.4	1868.7	1983.1	2006.8
42.5°	13988.4	13192.2	9511.3	5132.2	2336.6	1644.4	1495.8	1599.8	1794.4	1925.1	1950.4
45°	14503.9	13722.5	9239.4	4238.0	1671.1	1393.3	1423.1	1579.0	1797.4	1937.0	1951.9
47.5°	15066.8	14077.5	8945.3	3407.6	1374.0	1335.4	1408.2	1586.5	1815.2	1956.3	1963.8
50°	15438.2	14331.5	8210.0	2664.9	1287.9	1299.8	1402.3	1602.8	1818.2	1919.2	1925.1
52.5°	15589.7	14535.1	7544.6	2133.1	1244.8	1273.0	1409.7	1631.0	1810.8	1867.2	1864.2
55°	15684.8	14628.6	6972.7	1775.1	1206.2	1252.2	1423.1	1651.8	1827.1	1885.0	1885.0
57.5°	15623.9	14419.2	6547.8	1512.2	1167.6	1237.4	1439.4	1683.0	1981.6	2084.1	2073.7
60°	15579.3	14027.0	5944.7	1335.4	1121.5	1221.0	1460.2	1791.4	2311.3	2415.3	2381.2
62.5°	15349.1	13695.8	5291.1	1222.5	1069.5	1212.1	1478.0	1937.0	2357.4	2351.5	2284.6
65°	14762.3	13021.4	4260.2	1108.1	1016.0	1200.2	1484.0	2000.9	2168.7	2075.2	2055.9
67.5°	13930.5	12048.4	3361.6	993.8	956.6	1175.0	1533.0	1925.1	2063.3	1983.1	1953.4
69°	13386.8	11328.0	2792.6	922.5	918.0	1154.2	1552.3	1917.7	2024.7	1934.0	1895.4
70°	12948.6	10704.1	2410.9	876.4	888.3	1137.8	1533.0	1916.2	2008.3	1895.4	1852.3
72.5°	11068.0	8672.0	1556.7	766.5	800.7	1094.8	1460.2	1867.2	1974.2	1899.9	1840.5
75°	8576.9	6313.1	1007.1	662.5	708.6	1022.0	1387.4	1836.0	2005.3	1870.2	1742.4
77.5°	5503.6	3377.9	779.9	557.0	609.0	919.5	1256.7	1709.7	1947.4	1825.6	1660.7
80°	2397.5	1253.7	601.6	451.6	493.2	747.2	1078.4	1519.6	1846.4	1833.0	1721.6
82.5°	1017.5	808.1	463.5	346.1	392.2	552.6	845.2	1302.7	1631.0	1694.9	1816.7
85°	576.4	484.3	309.0	237.7	291.1	407.0	601.6	999.7	1328.0	1472.1	1574.6
87.5°	248.1	202.0	142.6	127.7	164.9	210.9	258.5	469.4	708.6	864.5	929.9
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)