

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: P591448

Luminaire Tested: **CTN-CA8-230-740-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591448
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
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-T2-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: 26046 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

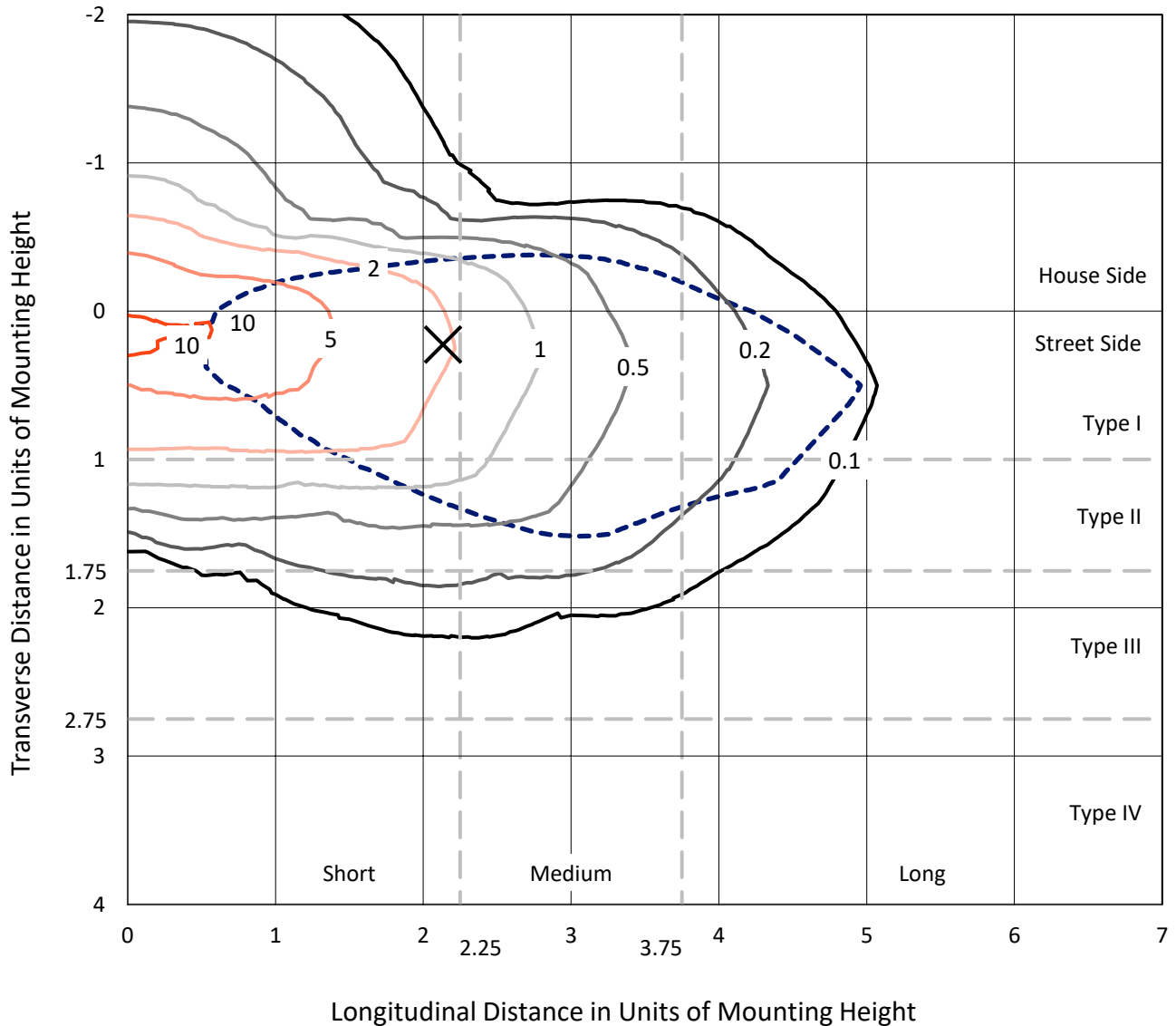
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

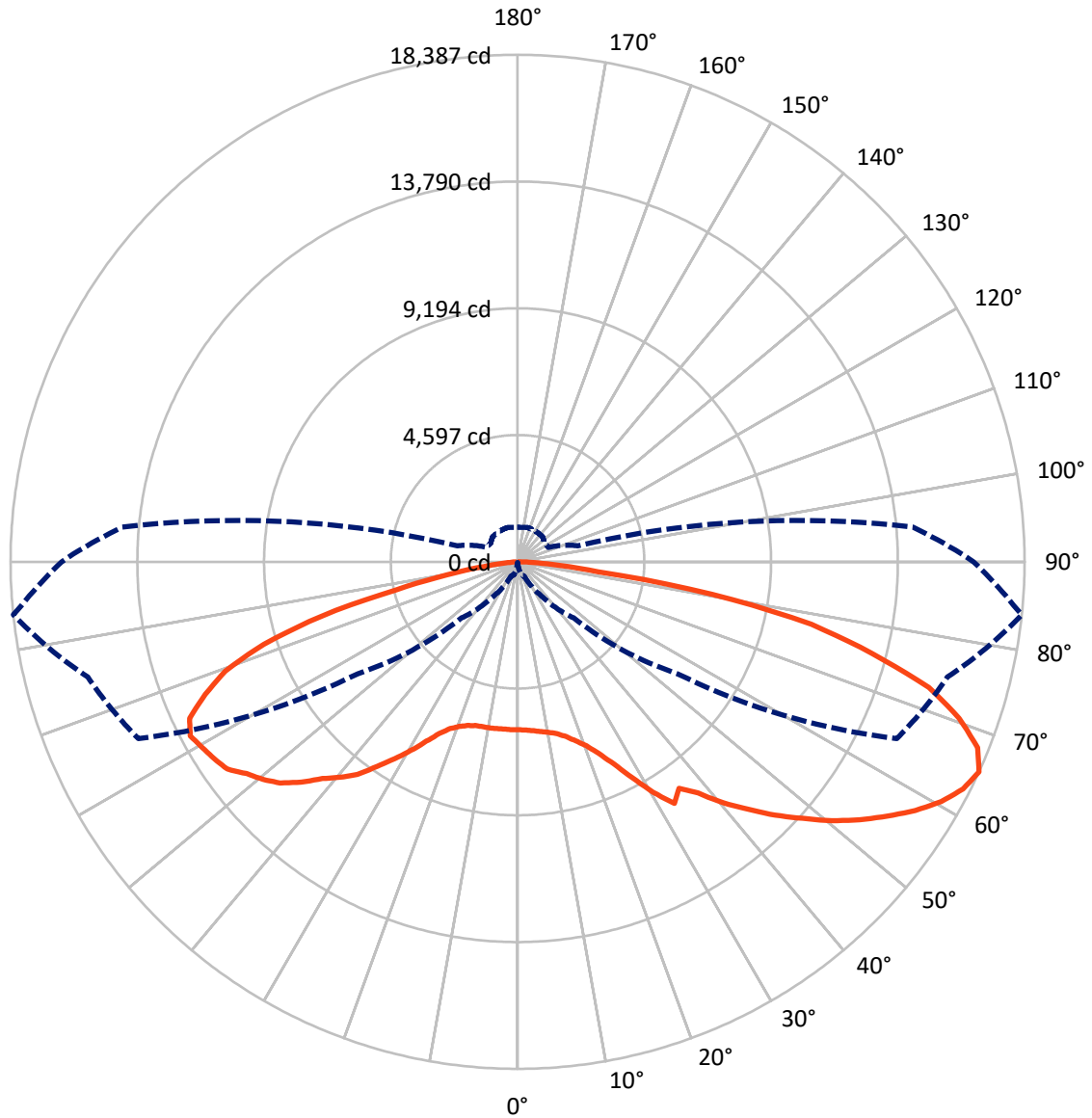
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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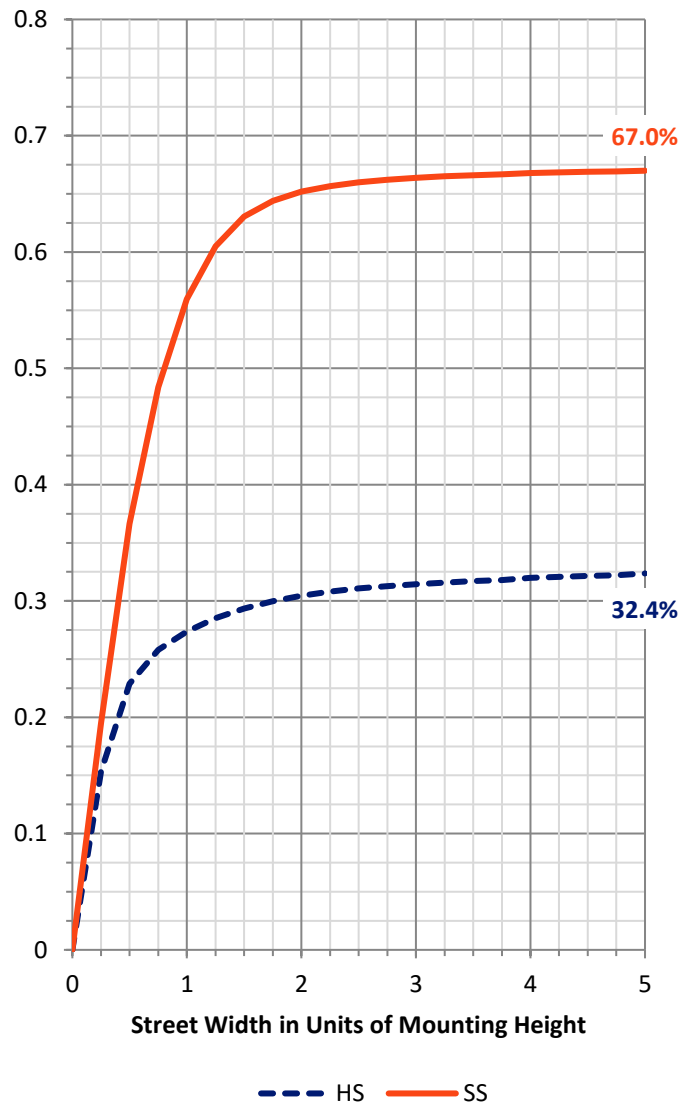
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8622.5	0.0	8622.5
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	17423.5	0.0	17423.5
	% Fixture	66.9	0.0	66.9
Total	Lumens	26046.0	0.0	26046.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	587.8	2.3
10°-20°	1749.6	6.7
20°-30°	2628.8	10.1
30°-40°	3495.7	13.4
40°-50°	4316.2	16.6
50°-60°	4850.2	18.6
60°-70°	4757.0	18.3
70°-80°	3093.1	11.9
80°-90°	567.6	2.2
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°	26046.0	100.0
0°-180°	26046.0	100.0

Coefficient of Utilization



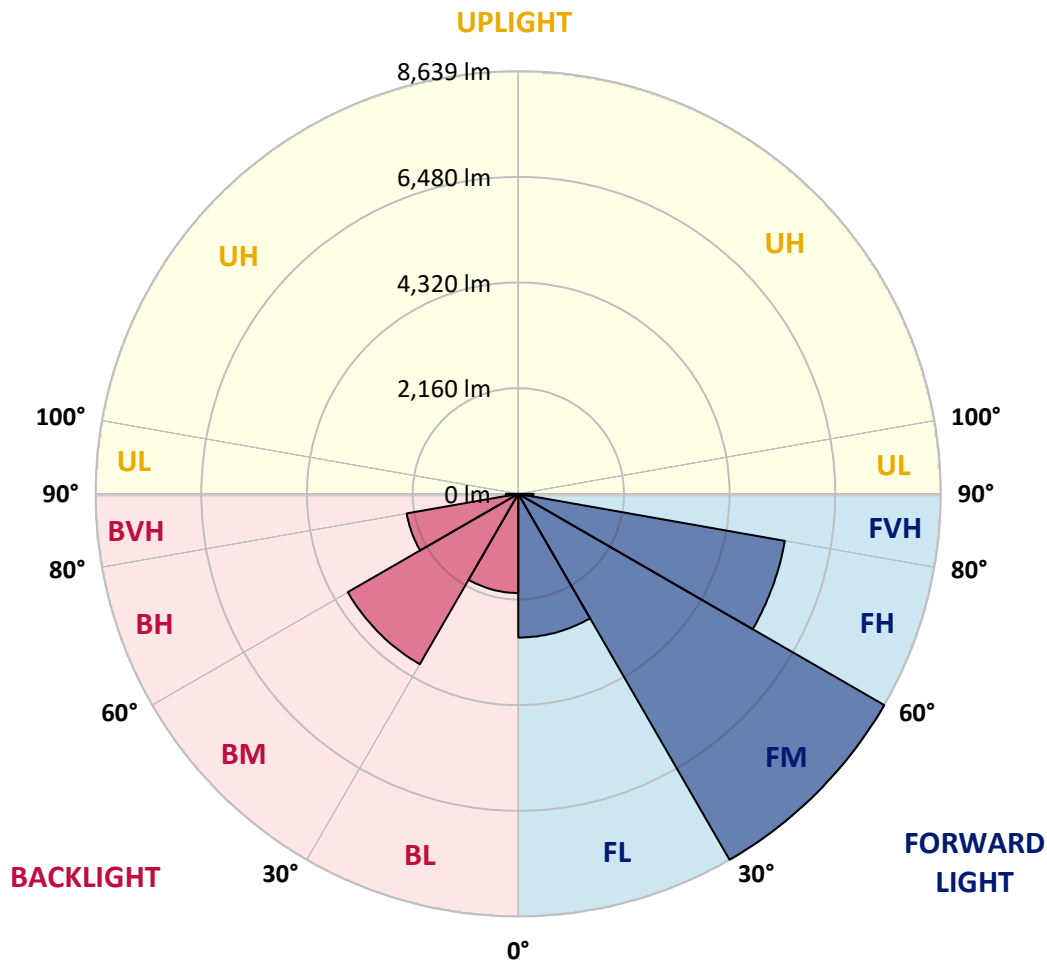
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2937.8	11.3			
FM (30°-60°)	8639.4	33.2			
FH (60°-80°)	5534.4	21.2			G3/7500
FVH (80°-90°)	311.8	1.2			G3/500
BL (0°-30°)	2028.3	7.8	B3/2500		
BM (30°-60°)	4022.7	15.4	B3/5000		
BH (60°-80°)	2315.6	8.9	B3/2500		G3/2500
BVH (80°-90°)	255.8	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8
2.5°	6350.2	6290.4	6297.1	6325.9	6215.1	6251.6	6189.6	6200.7	6126.4	6113.2	6120.9
5°	6796.7	6732.4	6732.4	6750.2	6564.0	6514.2	6341.4	6312.6	6202.9	6154.1	6156.4
7.5°	7027.1	6964.0	6951.8	6968.4	6834.4	6845.4	6668.2	6498.7	6303.7	6217.3	6212.9
10°	7366.1	7295.2	7253.1	7254.2	7073.7	7005.0	6874.2	6755.7	6457.7	6289.3	6268.3
12.5°	7639.8	7585.5	7563.3	7546.7	7347.3	7301.9	7055.9	6959.6	6641.6	6399.0	6371.3
15°	7798.2	7747.2	7715.1	7677.4	7566.7	7492.4	7386.1	7166.7	6859.8	6575.1	6540.8
17.5°	7385.0	7297.5	7145.7	7079.2	7053.7	7161.2	7618.7	7506.8	7141.2	6825.5	6788.9
20°	6294.8	6374.6	6489.8	6228.4	6309.2	7108.0	7966.6	7956.6	7534.5	7125.7	7078.1
22.5°	5355.4	5144.9	5508.3	5907.1	6161.9	6915.2	8101.8	8476.2	8067.4	7547.8	7492.4
25°	4390.4	4510.1	4999.8	5803.0	6159.7	6769.0	8027.5	8875.0	8748.7	8122.8	8057.4
27.5°	4259.7	4261.9	4732.8	5347.6	6281.5	7108.0	8108.4	8890.5	9518.7	8866.2	8739.9
30°	4232.0	4218.7	4346.1	5092.8	6066.6	7424.9	8629.1	9029.0	9705.9	9697.1	9528.7
32.5°	4102.4	4094.6	4227.6	4566.6	5606.9	7760.5	9122.1	9674.9	9638.4	10446.0	10400.6
35°	3917.4	3945.1	4110.1	4462.4	5390.8	7481.4	9628.4	10415.0	10477.0	10082.6	10263.2
37.5°	3724.6	3740.1	3899.7	4325.1	5029.7	6992.8	10013.9	11140.6	11353.3	10641.0	10496.9
40°	3462.1	3494.2	3681.4	4160.0	4956.5	6539.7	9741.4	11967.1	12298.3	11492.9	11271.3
42.5°	3184.0	3199.5	3427.7	3891.9	4834.7	6546.3	9181.9	12680.5	13169.1	12270.6	12045.7
45°	2940.3	2944.7	3158.5	3573.9	4594.3	6505.3	8828.5	12709.3	14211.6	13103.7	12821.2
47.5°	2642.2	2684.3	2895.9	3310.3	4287.4	6368.0	8993.6	11815.3	15257.4	13898.1	13639.9
50°	2026.3	2059.5	2469.4	3052.1	3951.7	6138.6	9106.6	12535.4	14091.9	14760.0	14575.0
52.5°	1742.7	1686.2	1980.8	2761.9	3644.8	5756.4	9154.2	13545.8	14089.7	15539.9	15354.9
55°	745.6	1143.3	1784.8	2267.8	3364.6	5246.8	9119.9	14534.0	14776.6	16275.5	16211.3
57.5°	589.4	617.1	1311.7	1834.6	3032.2	4644.1	8964.8	15187.6	15379.3	17012.2	16829.4
60°	108.6	123.0	644.8	775.5	2195.8	3744.6	8399.8	15280.7	15819.1	17653.7	17419.9
62.5°	49.9	58.7	518.5	645.9	1756.0	3079.8	7915.6	15250.8	16225.7	18130.1	17924.0
65°	23.3	29.9	464.2	586.1	1520.0	2873.8	7077.0	15169.9	16135.9	18387.1	18052.5
67.5°	17.7	25.5	426.5	526.2	1264.1	2668.8	6280.4	14321.3	15703.9	17989.4	17525.2
70°	17.7	25.5	390.0	478.6	1072.4	2408.5	5098.4	13258.8	14717.9	16984.5	16597.9
72.5°	18.8	25.5	346.8	433.2	929.5	2079.4	3982.7	11562.7	13535.8	15597.5	15190.9
75°	18.8	25.5	299.1	383.3	783.3	1741.6	2666.6	8264.6	11659.1	13275.4	12823.4
77.5°	18.8	25.5	248.2	320.2	638.1	1391.5	1724.9	4455.8	9173.1	10886.9	10307.5
80°	18.8	25.5	185.0	242.6	479.7	981.6	1030.3	2246.7	4935.5	7152.3	7253.1
82.5°	18.8	24.4	128.5	177.3	313.5	538.4	569.4	1084.6	1821.3	2933.6	2974.6
85°	17.7	21.0	92.0	117.4	171.7	202.7	277.0	539.5	873.0	1251.9	1241.9
87.5°	11.1	11.1	29.9	46.5	69.8	79.8	124.1	199.4	301.3	413.2	390.0
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°	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8	6088.8
2.5°	6119.8	6094.3	6062.2	6053.3	5978.0	5942.5	5870.5	5902.7	5866.1	5836.2	5870.5
5°	6128.7	6091.0	6023.4	5943.6	5783.0	5709.9	5608.0	5619.0	5565.9	5524.9	5548.1
7.5°	6150.8	6104.3	5997.9	5818.5	5626.8	5511.6	5405.2	5488.3	5451.8	5420.7	5444.0
10°	6161.9	6125.3	5937.0	5747.6	5471.7	5408.6	5275.6	5265.6	5269.0	5265.6	5302.2
12.5°	6191.8	6139.7	5866.1	5624.6	5389.7	5222.4	5140.5	5139.3	5034.1	4988.7	5008.6
15°	6280.4	6167.4	5818.5	5478.4	5219.1	5108.3	4849.1	4850.2	4805.9	4753.8	4752.7
17.5°	6457.7	6250.5	5818.5	5379.8	5061.8	4838.0	4612.0	4489.0	4459.1	4465.8	4461.3
20°	6691.5	6390.1	5816.2	5234.6	4840.2	4608.7	4283.0	4178.8	4084.7	4091.3	4091.3
22.5°	7027.1	6596.2	5820.7	5101.7	4628.6	4314.0	3947.3	3815.5	3714.6	3718.0	3718.0
25°	7509.1	6949.6	5872.7	5020.8	4345.0	3967.2	3597.2	3392.3	3289.2	3290.3	3292.5
27.5°	8122.8	7442.6	6053.3	4849.1	4109.0	3557.3	3151.9	3001.2	2898.2	2871.6	2871.6
30°	8817.4	8034.2	6287.1	4737.2	3743.4	3095.4	2758.6	2646.7	2522.6	2486.0	2486.0
32.5°	9587.4	8628.0	6528.6	4599.8	3398.9	2698.7	2418.5	2315.4	2160.3	2114.9	2099.4
35°	10388.4	9241.7	6822.2	4407.1	2965.7	2371.9	2123.8	1998.6	1886.7	1826.9	1812.5
37.5°	10820.4	9940.8	7087.0	4212.1	2631.2	2113.8	1836.8	1739.3	1665.1	1623.0	1615.3
40°	11414.2	10449.3	7224.3	3889.7	2271.1	1851.2	1572.0	1567.6	1577.6	1539.9	1537.7
42.5°	12019.1	10951.2	7186.7	3457.6	1990.8	1583.1	1439.1	1515.5	1570.9	1537.7	1539.9
45°	12775.8	11627.0	7324.0	3003.4	1713.9	1434.7	1411.4	1501.1	1577.6	1569.8	1569.8
47.5°	13541.3	12280.6	7070.3	2447.3	1527.7	1391.5	1414.7	1477.9	1573.2	1598.6	1593.1
50°	14165.1	12728.2	6914.1	1975.3	1422.5	1392.6	1425.8	1449.1	1553.2	1594.2	1593.1
52.5°	14669.1	13154.7	6331.4	1667.3	1362.7	1397.0	1461.3	1444.6	1517.8	1561.0	1586.5
55°	15382.6	13745.2	5667.8	1548.8	1331.6	1392.6	1473.4	1460.2	1490.1	1510.0	1528.8
57.5°	15934.3	14038.8	4779.3	1472.3	1303.9	1385.9	1463.5	1464.6	1479.0	1471.2	1463.5
60°	16397.4	14306.9	3909.6	1398.1	1268.5	1371.5	1421.4	1436.9	1432.5	1422.5	1402.5
62.5°	16623.4	14597.1	3036.6	1319.5	1230.8	1329.4	1352.7	1370.4	1360.4	1327.2	1325.0
65°	16538.1	14388.8	2251.2	1234.2	1185.4	1282.9	1281.8	1289.5	1294.0	1251.9	1256.3
67.5°	16059.5	13473.8	1715.0	1125.6	1133.3	1216.4	1210.9	1215.3	1203.1	1174.3	1178.8
70°	14668.0	12434.6	1216.4	942.8	1027.0	1112.3	1120.0	1138.9	1111.2	1060.2	1063.5
72.5°	12610.7	10648.7	853.0	751.1	901.8	1010.4	1005.9	1004.8	967.2	987.1	1011.5
75°	10756.2	8154.9	648.1	604.9	712.4	869.7	919.5	922.8	928.4	1127.8	1142.2
77.5°	8280.1	4933.3	551.7	477.5	552.8	721.2	814.3	851.9	1169.9	1212.0	1189.8
80°	4934.4	2849.4	426.5	372.2	446.5	550.6	695.7	899.6	1175.4	1050.2	1004.8
82.5°	2401.8	1321.7	310.2	283.6	329.0	399.9	546.2	1048.0	994.9	812.1	801.0
85°	896.3	446.5	186.1	193.9	219.4	262.6	415.4	1000.4	763.3	661.4	624.8
87.5°	223.8	82.0	75.3	77.5	98.6	131.8	212.7	481.9	370.0	306.9	300.2
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)